

### (1) Health and Medical Care

Sustainable Development Goal (SDG) 3 aims to “Ensure healthy lives and promote well-being for all at all ages.” In addition, achieving “universal health coverage (UHC)”<sup>51</sup> is positioned as an important global target in order to respond to various health issues, diversified across countries and regions. On the other hand, at present, it is estimated that at least half of the world’s population has no access to basic medical care, and that approximately 5 million<sup>52</sup> children under the age of five die annually due to preventable diseases. Over 295,000 women<sup>53</sup> 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. Moreover, COVID-19 continues to have a wide range of effects on everyone on earth. COVID-19 has not only cast an unprecedented negative impact on the entire international community, but has also exposed the vulnerabilities of the current global health architecture, including the aspects of governance and finance.

At the G7 Elmau Summit in June 2022, Prime Minister Kishida introduced Japan’s COVID-19 vaccine-related support and pointed out that this pandemic highlighted the importance of UHC. At the G20 Bali Summit in November of the same year, Prime Minister Kishida stated the need to strengthen the global health architecture and the importance of achieving more resilient, equitable, and sustainable UHC. At the same time, he expressed his intention to position global health



Japan’s provision of personal protective equipment (PPE) to healthcare workers engaged in COVID-19 response as part of the “Project for the Strengthening of Health Service Delivery of Integrated Health Service Network (RISS)” currently being implemented in Honduras

as one of the important issues to be addressed at the G7 Hiroshima Summit under the Japanese Presidency in 2023.

### Japan’s Efforts

#### ■ Support in Response to COVID-19

In response to COVID-19, since its outbreak, Japan has provided a total of approximately \$5 billion in assistance to developing countries through bilateral channels and through international organizations. In addition, in order to underpin economic and social activities in developing countries, as well as to address their financial needs, including in the health and medical sectors, Japan has established the COVID-19 Crisis Response Emergency Support Loan and has provided loans totaling over ¥500 billion to 18 countries from July 2020 to the end of December 2022.

Japan believes it is necessary not only to overcome the current pandemic, but also to strengthen health systems to prepare for future health crises, as well as to maintain an enabling international environment for health security across broader sectors. It is under these three pillars that Japan provides assistance.

In order to contain COVID-19 worldwide, it is important to ensure equitable access to safe, effective, and quality-assured vaccines, as well as to therapeutics and diagnostics in all countries and regions. Based on this idea, Japan has provided vaccine-related assistance to various countries and regions, in line with international frameworks such as the COVAX Facility (COVID-19 Vaccine Global Access Facility).\*

From June 2021 to December 2022, Japan provided approximately 44 million doses of vaccines to 32 countries and regions (in 2022, approximately 4.45 million doses were provided to 2 countries as bilateral donations, and approximately 4.63 million doses to 11 countries through the COVAX Facility). In the recipient countries and regions of vaccines from Japan, the major local media widely covered Japan’s assistance on television and in newspapers, and gratitude for the vaccines was expressed on social media. As part of the “Last One Mile Support” for delivering vaccines to vaccination sites, Japan provides support for improving a cold chain<sup>54</sup> system and strengthening the vaccine administration capacity of medical personnel.

In February 2022, Prime Minister Kishida announced

<sup>51</sup> The concept that all people have access to effective and quality-assured health services at affordable costs without financial hardship.

<sup>52</sup> According to the United Nations Children’s Fund (UNICEF) survey (as of 2020). The previous total was over 5.2 million children.

<sup>53</sup> According to the World Health Organization (WHO) survey (as of 2017). The previous total was over 303,000 women.

<sup>54</sup> A mechanism to deliver products to their destination while maintaining low temperatures. This allows the quality of medical goods such as vaccines to be preserved.

# Support for COVID-19 Response

In 2022, Japan continued to provide support for COVID-19 response to developing countries. Japan announced financial support totaling up to \$1.5 billion for the COVAX Facility, and implemented efforts such as vaccine donations, “Last One Mile”<sup>\*1</sup> Support,<sup>\*</sup> and developing and strengthening medical systems for infectious disease control.

Through the global spread of COVID-19, we were reminded that “no one is safe until everyone is safe.” ODA is essential to protect the health and economic activities of Japanese citizens too. This section introduces some of Japan’s efforts.

## Cambodia Last One Mile Support

Japan provided equipment related to prevention, diagnosis, and monitoring, including the maintenance of cold chains<sup>\*2</sup> (200 vaccine coolers, 400 motorcycles for vaccine transportation, etc.). Motorcycles contribute to vaccinations in hard-to-reach remote areas (Last One Mile Support).



## Timor-Leste Vaccine Donations, Last One Mile Support, and Developing and Strengthening the Medical Systems

Japan provided approximately 170,000 doses of AstraZeneca vaccine that were manufactured in Japan in 2021. In addition, in cooperation with Australia, UNICEF, and other partners, Japan provided ambulances and vaccine transport boxes that use technologies from Japanese companies, and strengthened the capacity of health bureau personnel, to facilitate the transportation of vaccines to rural areas.

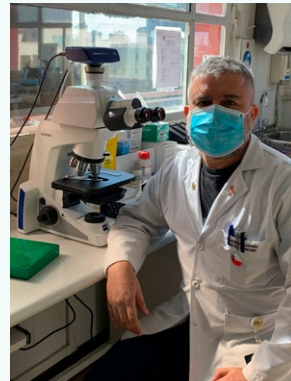


## Tajikistan Provision of Ambulances and Strengthening the Health System

Japan provided 67 municipal and district-level hospitals across Tajikistan with 94 ambulances equipped with basic medical equipment or ones capable of providing specialized medical services. The Government of Tajikistan expressed its gratitude for Japan’s contribution to improving the ability to transport emergency cases of COVID-19 and the access to health services for people living in remote areas.



## Chile Strengthening Testing Capacity by Providing Equipment



Japan provided equipment related to COVID-19 testing to a hospital in Chile where an ex-training participant of the FY2019 JICA Knowledge Co-Creation Program<sup>\*3</sup> works as a doctor, aiming at supporting the ex-trainee’s activities. As a result, the hospital increased its capability to handle 20% of the total PCR tests in Chile, contributing to the enhancement of the country’s testing capabilities.

## Peru Prevention and Awareness Raising of COVID-19

In collaboration with the Asociación Peruano Japonesa (Japanese Peruvian Association), Japan implemented a COVID-19 prevention and treatment campaign. By disseminating Japan’s know-how, such as avoiding the “Three Cs” (closed spaces, crowded places, and close-contact settings) in Peru, Japan extended visible cooperation throughout the country.



## African Countries Support for Vaccine Manufacturing and Healthcare System Development

Private-Sector Investment Finance of up to \$400 million was provided for the African Export-Import Bank (Afrexim).<sup>\*4</sup> Through Afrexim, Japan supports the smooth recovery of socio-economic activities from COVID-19 by developing regional manufacturing and supply bases for medical products and pharmaceuticals, including vaccine production lines in Africa, as well as developing healthcare-related facilities such as hospitals.



<sup>\*1</sup> In fields such as logistics and communication services, this means the last segment of delivery of goods or services between the final provision site and the users or consumers.

<sup>\*2</sup> See 54 on page 56.

<sup>\*3</sup> Knowledge co-creation program titled “Strengthening Laboratory Techniques and Surveillance System for Global Control of HIV and Related Infectious Diseases.”

<sup>\*4</sup> A regional development financial institution with members from 52 African governments.

that the Government of Japan would support one of the constituent organizations of COVAX, the Coalition for Epidemic Preparedness Innovations (CEPI), in its vaccine development and production, through a contribution of \$300 million over the next five years. In April of the same year, Prime Minister Kishida attended the Gavi COVAX Advanced Market Commitment Summit 2022 in the form of a video message. He stated that the key was to ensure equitable access to vaccines in every country and region of the world and called on the international community to demonstrate its solidarity to overcome the crisis. He also announced a further contribution of up to \$500 million to COVAX, in addition to the contribution of \$1 billion that had already been disbursed.

In May 2022, then State Minister for Foreign Affairs Suzuki and then State Minister of Health, Labor and Welfare Sato attended the Joint Working Session of the G7 Development and Health Ministers. At the Session, State Minister Suzuki stated that, while upholding the concept of “leaving no one’s health behind,” it is necessary to revitalize the economies and societies of developing countries and to resume cross-border travel to build back better from the COVID-19 pandemic. She then announced that Japan would provide up to \$100 million in assistance to this end, primarily to the Indo-Pacific region, focusing on three pillars: national vaccination data systems in developing countries, border control management with measures against infectious diseases applied, and infectious waste disposal.

“Building back better” from COVID-19 was one of the main themes at TICAD 8<sup>55</sup> held in August as well. The “Tunis Declaration,” which was adopted as its outcome document, confirms the commitment to uphold the concept of human security, the need to build a resilient and sustainable society to achieve the SDGs, and the importance of intensifying efforts in the health sector to achieve UHC. Japan supports the implementation of a comprehensive COVID-19 response in Africa. Japan’s support includes the contribution of up to \$1.5 billion in vaccine support via the COVAX Facility, the development of cold chains to safely deliver vaccines to various vaccination sites in each country, the efforts to improve aversive feelings toward vaccination, and assistance for the production, supply, and procurement of vaccines within the region.

Furthermore, Japan responds to the acute phase of COVID-19 through financial contributions to the World Health Organization (WHO) for its Health Emergencies Programme,<sup>\*</sup> the Contingency Fund for Emergencies (CFE),<sup>\*</sup> and other relevant programs.

Japan has supported building health and medical systems in developing countries for many years from various perspectives such as supporting the capacity building of healthcare workers, networking regional hospitals, and strengthening regional health systems.

During the recent COVID-19 crisis, the medical facilities that Japan has supported evidently play central roles for infection control measures.

#### ■ Formulation of Japan’s Global Health Strategy

Global health is an important issue for the international community, as it not only directly affects people’s health, but also encompasses major economic, social, and security risks. In light of various changes in the world situation, such as the spread of COVID-19, the Government of Japan formulated the “Global Health Strategy” in May 2022. The goal of the Strategy is to contribute to developing global health architecture for international health security and strengthening Prevention, Preparedness, and Response (PPR) for public health emergencies including pandemics, and to achieve more resilient, equitable, and sustainable UHC required for the post-COVID-19 era in order to embody human security. Under this Strategy, Japan promotes efforts to strengthen PPR and achieve UHC through consolidating collaboration with various stakeholders, including international organizations, public-private partnership funds, and private companies.

#### ■ Building a Global Health Architecture that Contributes to Health Security

Based on the experience and lessons learned from the response to COVID-19, the international community takes a growing interest in strengthening PPR for future public health crises. In 2022, Japan announced a contribution of \$50 million to a new fund (the Pandemic Fund) hosted by the World Bank. Furthermore, Japan provides assistance for strengthening capacities in preparedness and responses against infectious diseases in developing countries, through an additional contribution to the Health Emergency Preparedness and Response Multi-Donor Trust Fund (HEPRTF), which Japan launched in cooperation with the World Bank Group.

In addition to developing financial mechanisms, Japan actively contributes to rulemaking in the international arena. In February 2022, under WHO, the first meeting of the Intergovernmental Negotiation Body (INB) on a WHO convention, agreement or other international instrument on pandemic PPR (WHO CA+) (so-called “Pandemic Treaty”) was held, followed by three more INB meetings until the end of 2022. Japan contributes to the meetings as a member state and a Japanese delegate serves as one of the vice-chairs of INB. Japan also actively leads the discussions on the amendments to International Health Regulations (IHR), which are taking place concurrently.

#### ■ Promotion of UHC

Japan promotes international cooperation based on the recognition that it is necessary not only to address existing health issues that suffered a setback during the

<sup>55</sup> See “ODA Topics” on page 127.



spread of COVID-19 but also to achieve more resilient, equitable, and sustainable UHC.

Japan has heretofore provided support for the health and medical care 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. In addition, based on various lessons learned from global pandemics such as COVID-19, Japan works to strengthen health systems including the development and networking of core medical facilities and support for human resources development in the medical field. These efforts contribute to the promotion of UHC, as well as to the PPR for public health emergencies. Japan also provides assistance in a wider range of areas to create a more resilient environment against infectious diseases, including the development of water and sanitation infrastructure such as water supply and sewage systems, and the improvement of food security.

Japan contributes to the prevention of infectious diseases in over 15 countries by providing water purification chemicals, fuel for water trucks, personal protective equipment (PPE) for water utility personnel, and plumbing materials, as well as encouraging handwashing and conducting awareness-raising activities. JICA takes the lead in providing support for environmental improvements through supplying safe and secure water, handwashing facilities, and soaps, and also in implementing initiatives such as the “Handwashing for Health and Life Campaign” to promote proper handwashing in developing countries.

Primary healthcare services under UHC include all services ranging from nutritional improvement, vaccination, maternal and child health, sexual and reproductive health, infectious disease control, noncommunicable disease (NCD) control, and comprehensive community care and long-term care for older persons (see “Food Security and Nutrition” on page 83 regarding nutritional improvement).

Especially with regard to maternal and child health in developing countries, there are major issues still unsolved. In response to this situation, in 2022 Japan provided support in many countries including Cambodia, Laos, Bangladesh, Pakistan, Angola, Burundi, Côte d’Ivoire, Ghana, Mozambique, and Senegal to improve maternal and child health.

Furthermore, Japan carries out activities utilizing the Maternal and Child Health (MCH) Handbook as a means of improving maternal and child health, drawing on its experience and expertise. The MCH Handbook can contribute to the Continuum of Care (CoC) from pregnancy, childbirth, the post-partum period,<sup>56</sup> the neonatal period, infancy, to early childhood. It also enables mothers to acquire knowledge about health,



A woman in Nepal, who received training through Japanese assistance, sharing information on maternal and child health and nutritional improvement as a community health volunteer (Photo: WFP/ Srawan Shrestha)

helping them raise awareness and modify behavior. As a concrete example of this assistance, in Indonesia the MCH Handbook is widely used throughout the country as a result of Japan’s cooperation. Moreover, among the countries promoting the use of the MCH Handbook, including Cambodia, Indonesia, Laos, Timor-Leste, Papua New Guinea, Tajikistan, Kenya, and Madagascar, there are sessions organized to share their experiences and learn from each other.

Japanese NGOs also work in the area of health and medical care using the Grant Assistance for Japanese NGO Projects scheme. For example, in 2022, the NPO Rocinantes introduced compact ultrasound diagnostic equipment, helped improve water and electricity supplies for mother’s shelters,<sup>57</sup> and provided training for medical workers and community volunteers in order to improve maternal and child healthcare in Chisamba District, Zambia (see “Project Introduction Column” on page 107 regarding efforts of a Japanese NGO in Honduras).

Japan works in cooperation with international organizations, 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, aiming to thereby improve the health of a greater number of women and children. Japan also contributes to raising vaccination rates in developing countries through Gavi, the Vaccine Alliance,<sup>\*</sup> and bilateral cooperation (see also “Stories from the Field” on page 152 for the active role played by Japanese UNFPA personnel).

The Asian Development Bank (ADB) positions health as one of the key priority sectors in its “Strategy 2030” and sets the following three pillars to achieve UHC in the Asia-Pacific region in cooperation with Japan: (i) building institutional framework, (ii) accelerating human resources development, and (iii) investing in infrastructures. In April 2021, Japan began contributing to the ADB’s Japan Trust Fund for the purpose of

<sup>56</sup> The period after childbirth in which women recover to a similar condition before pregnancy, usually around one to two months after birth.

<sup>57</sup> A facility that accommodates expectant mothers who are about to give birth until the delivery date or time.

providing technical assistance and small grants to accelerate supports based on these three pillars.

In May 2022, Prime Minister Kishida held a telephone talk with WHO Director-General Tedros. They concurred on setting up a task force to materialize the establishment of a WHO UHC center in Japan. In September of the same year, Prime Minister Kishida delivered his statement at the General Debate of the 77th session of the UN General Assembly, stating that Japan would continue to take a leading role in strengthening the global health architecture and achieving UHC in the post-COVID-19 era, toward the G7 Summit under the Japanese Presidency in 2023. In the same month, Foreign Minister Hayashi co-hosted the Ministerial Meeting of the Group of Friends of UHC in New York. At the meeting, he stated that through the COVID-19 crisis, the world realized the importance of investing in health systems to enhance the foundations of resilient economies and societies. Foreign Minister Hayashi also pointed out the need to maintain and strengthen efforts to achieve UHC by making use of this momentum.

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

SDG target 3.3 sets out to end epidemics of the three major infectious diseases by 2030. Japan makes strong efforts to support measures against them and strengthen health systems through the “Global Fund.”<sup>58</sup> From its establishment to 2022, Japan has contributed approximately \$4.3 billion to the Global Fund. Furthermore, at TICAD 8 held in August 2022 and the Global Fund’s Seventh Replenishment Conference in the following month, Prime Minister Kishida announced

that Japan would additionally contribute up to \$1.08 billion over the next three years. In order to ensure that measures against the three major infectious diseases are carried out more effectively, Japan also implements bilateral cooperation such as enhancing health systems, community empowerment, and improving maternal and child health as a complementary support to the efforts made through the Global Fund.

As for bilateral cooperation in HIV/AIDS countermeasures, Japan provides assistance to raise awareness for preventing new infections as well as to promote testing and counseling. Primarily in Africa, in 2022, Japan Overseas Cooperation Volunteers (JOCVs) continued to engage vigorously in deepening people’s knowledge and understanding of HIV/AIDS prevention and providing care and support to people living with HIV/AIDS.

With regard to tuberculosis, Japan engages in reducing the annual number of deaths from tuberculosis in developing countries, particularly in Asia and Africa, in accordance with the “Stop TB Japan Action Plan,” revised in 2021. As an interim goal by 2025, Japan aims to achieve a 75% reduction in deaths from tuberculosis (compared to 2015) and a 50% reduction in tuberculosis incidence (compared to 2015; less than 55 cases per 100,000 people) through a public-private partnership, drawing on Japan’s own experience and technology cultivated through its struggle against tuberculosis.

In respect of malaria, one of the major causes of infant mortality, Japan supports the effort to strengthen local communities in Myanmar and Solomon Islands as anti-malaria countermeasures. Through contributions to the Global Fund, Japan also takes measures against malaria on a worldwide level.



A JICA expert instructing influenza and Hand-Foot-Mouth disease (HFMD) testing techniques at the Bac Giang Centers for Disease Control in Viet Nam (Photo: JICA)



A JOCV working as a pharmacist at a private hospital in a rural area of Malawi to inspect prescriptions and manage drug inventories and orders with colleagues

<sup>58</sup> Public-Private Partnership established in 2002, led by the discussion held at the G8 Kyushu-Okinawa Summit in 2000 when infectious diseases control was set as a major discussion topic for the first time. It contributes to efforts to achieve the SDGs by providing financial cooperation for measures against the three major infectious diseases (AIDS, tuberculosis, and malaria) and strengthening health systems in developing countries.

## Infectious Disease Control Measures through Partnership between an International Organization and Japanese Companies

### Six African Countries<sup>\*1</sup> and Four Asian Countries<sup>\*2</sup>



#### Sustainable Technology Promotion Platform (STePP) Demonstration Project to Transfer Japanese Technologies and Products to Developing Countries to Limit the Impact of COVID-19<sup>\*3</sup>

Contributions and Subscriptions to International Organizations (Supplementary Budget) (November 2020 – December 2022)

In 2020, with the widespread threat of COVID-19, secondary infections spread at medical care institutions in developing countries in Africa and Asia because of outdated healthcare and medical technologies as well as insufficient hygiene awareness.

The United Nations Industrial Development Organization Investment and Technology Promotion Office in Tokyo (UNIDO ITPO Tokyo), with the financial contribution of the Ministry of Foreign Affairs of Japan, launched a project to transfer Japanese technologies that would contribute to infectious disease mitigation in developing countries. 12 Japanese companies were selected for the project from among those registered with the Sustainable Technology Promotion Platform (STePP) operated by UNIDO ITPO Tokyo.<sup>\*4</sup>

The project was implemented in 10 countries in Africa and Asia, and the selected companies transferred their technologies for the needs of each country such as disinfectant fabrication, antibacterial coating, and medical testing equipment. Initially, the companies planned to send Japanese engineers to the countries, but the spread of COVID-19 infections in each country made travel difficult. Therefore, the Japanese companies sought alternative ways to carry out their efforts by sending the relevant equipment to the cooperation sites and providing technical training online.

In Kenya, medical waste had become a source of infection as it was not properly handled and disposed of. In response to this situation, technical assistance guided the installation and trial operation of a medical waste incinerator at a medical facility via online technical training and workshops. As a result, it became



Members of AGC Inc. holding an online meeting with staff members of a medical facility in Viet Nam for the installation of water-purifying equipment (Photo: UNIDO ITPO Tokyo)

possible to properly incinerate all of the medical waste generated at the medical facility, which is around one ton every week. In Viet Nam, a total of eight sets of water-purifying equipment were installed at a medical facility and a food-processing factory that had hygiene management problems. Technical guidance was provided remotely concerning the maintenance, management, and operation of the equipment. It led to the improvement of hygiene conditions for 220,000 employees and hospital patients, and 100,000 consumers.

This project led to the new discovery that Japanese technologies could contribute to mitigating the impact of infectious diseases in developing countries and that they could be transferred remotely. Based on this experience, UNIDO promotes its partnership with Japanese companies and supports their overseas expansion.



The hospital in Nairobi, Kenya that introduced a medical waste incinerator from KINSEI SANGYO CO., Ltd., of Japan. The incinerator made it possible to dispose of all the medical waste generated at the facility. (Photo: UNIDO ITPO Tokyo)

<sup>\*1</sup> Kenya, Madagascar, Morocco, Nigeria, Senegal, and Uganda

<sup>\*2</sup> India, Indonesia, Mongolia, and Viet Nam

<sup>\*3</sup> See below for the details of this project.

[http://www.unido.or.jp/en/activities/technology\\_transfer/stepp-demo-results/](http://www.unido.or.jp/en/activities/technology_transfer/stepp-demo-results/)

<sup>\*4</sup> A platform designed to introduce excellent Japanese technologies to developing and emerging countries. The platform broadly showcases Japanese technologies and knowhow that contribute to inclusive and sustainable industrial development through its website, exhibitions, and programs for inviting officials from developing countries who specialize in investment promotion. As of December 2022, 135 technologies from 117 companies are registered on the platform.

### ■ Responding to Anti-Microbial Resistance (AMR)

Anti-microbial Resistance (AMR)<sup>59</sup> is a serious threat to public health, and in recent years, countermeasures against AMR have gained momentum. In order to advance measures against AMR, Japan promotes the “One Health Approach,” which aims to link, across sectors, those engaged in the field of sanitation concerning humans, animals, and the environment. Based on the agreement at the G20 Osaka Summit in 2019 on promoting

the “One Health Approach,” 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 takes the lead in tackling AMR, including through participation in the Global Leaders Group on Antimicrobial Resistance. In 2022, Japan contributed approximately ¥200 million to GARDP.

<sup>59</sup> Pathogenic microorganisms, including bacteria and viruses, gaining resistance to antimicrobials such as antibiotics and antiviral drugs, which causes the drugs to lose sufficient efficacy.



## ■ Neglected Tropical Diseases (NTDs)

Parasitic and bacterial infections, such as Chagas disease, Filariasis, and Schistosomiasis, are known as “neglected tropical diseases (NTDs).” More than 1 billion people worldwide are infected with NTDs, causing major socio-economic losses to developing countries. Japan contributed a total of ¥14.3 billion to the Global Health Innovative Technology (GHIT) Fund by 2022 and provided support for countermeasures against NTDs through GHIT. In addition, Japan signed “the Kigali Declaration on neglected tropical diseases (NTDs)” in June 2022, and cooperates closely with the relevant countries and international organizations on countermeasures against NTDs.

Furthermore, Japan has provided support against Lymphatic Filariasis for Pacific Island countries through technical cooperation since the 1970s. The “Project for Elimination of Lymphatic Filariasis in the Pacific Region” supports mass drug administration of anthelmintics to stop transmissions in infected areas via public-private partnership, dispatching Japanese experts to provide technical instructions, and utilizing drugs provided to WHO free of charge by the Japanese pharmaceutical company Eisai Co., Ltd. This long-term support from Japan has proved successful, with 9 of 14 Pacific Island countries (Cook Islands, Kiribati, Marshall Islands, Nauru, Niue, Palau, Solomon Islands, Tonga, and Vanuatu) having eliminated Lymphatic Filariasis. Through the dispatch of experts and other means, Japan



Medical workers publicizing mass drug administration to control Filariasis in East New Britain Province, Papua New Guinea (Photo: JICA)

will continue to support the elimination of Lymphatic Filariasis in Pacific Island countries.

## ■ Polio

Polio is on the brink of eradication. Japan, mainly in cooperation with UNICEF and Gavi, provides support toward its eradication with a focus on countries where cases of infection are still being identified (polio-endemic countries: Afghanistan and Pakistan). During 2022, in Afghanistan, Japan provided support for routine immunization activities and the procurement of vaccines necessary for polio vaccination campaigns in cooperation with UNICEF.



## Glossary

### COVAX Facility (COVID-19 Vaccine Global Access Facility)

A comprehensive mechanism for resource mobilization and supply coordination led by Gavi to secure equitable access to vaccines. COVAX enables the supply of COVID-19 vaccines swiftly at an affordable price, leveraging economies of scale through guaranteeing purchase and market demand for vaccines. The COVAX Facility has provided vaccines to 146 countries and regions as of December 2022.

### WHO Health Emergencies Programme

A part of 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 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.

### Gavi, the Vaccine Alliance

A public-private partnership established in 2000 with the aim of saving children's lives and protecting people's health by improving immunization coverage in developing countries. Governments of both donor countries and developing countries, relevant international organizations, the pharmaceutical industry, private foundations, and civil society participate in this partnership. Since its establishment, it is said to have vaccinated 888 million children and saved over 15 million lives. Japan has provided a cumulative total of approximately \$1.23 billion in aid by 2022 since the initial contribution in 2011.

ODA  
Topics

3

Promoting Efforts toward  
the Realization of Human Security

In his address delivered at the General Debate of the 77th session of the UN General Assembly in September 2022, Prime Minister Kishida spoke about the promotion of efforts based on the concept of human security in the new era, as one of the three pillars for realizing the vision of the UN.

Human security is a concept that focuses on each and every human being, and advances nation and community building through the empowerment and protection of individuals to live happily, in dignity, and free from fear and want. Japan has long promoted the concept of human security in the international community. Japan's Development Cooperation Charter also positions it as the guiding principle that lies at the foundation of Japan's development cooperation. Human security, which puts the spotlight on individuals, is also aligned with the principles of the Sustainable Development Goals (SDGs), which aim to realize a society that "leaves no one behind."

The Government of Japan has made various efforts to promote human security so far, both in terms of the dissemination of the concept and its practical application on the ground. Under Japan's leadership, the UN General Assembly unanimously adopted a resolution on a shared understanding on human security in 2012. Since 2000, Japan has proactively promoted the concept of human security in the international community on numerous occasions, such as by holding symposiums on human security. The COVID-19 pandemic put the lives, livelihoods, and dignity of people around the world at risk. In response to the situation, then Prime Minister Suga proposed, in his address at the General Debate of the UN General Assembly in September 2020, deepening discussions on a new approach to human security, and the High-level Advisory Panel was later established under the auspices of the UN. Based on the discussions held in this Panel, the United Nations Development Programme (UNDP) published the Special Report on Human Security in February 2022, and Foreign Minister Hayashi delivered a video message at its global launch held online. This Special



Foreign Minister Hayashi delivering a video message at the global launch held online



United Nations Development Programme (UNDP) published a Special Report on Human Security in February 2022 (Photo: UNDP)

Report advocates the need for "human security in the new era" that incorporates the concept of "solidarity," in addition to the two conventional pillars of human security that are "protection" and "empowerment." Global issues such as climate change and infectious diseases cannot be resolved by any one country alone, so it is vital for each country and every individual to address them in a coordinated manner and with the spirit of solidarity. The Government of Japan supports the approach of "human security in the new era," and strives to promote and practice this concept.

Furthermore, through Japan's leadership, the UN Trust Fund for Human Security was established in 1999 to promote the implementation of human security in the field. By FY2021, Japan had contributed a total of approximately ¥49 billion to this fund. The trust fund has supported 282 projects implemented by UN agencies to ensure human security in over 100 countries and regions by the end of 2021.

Japan will continue to play a leading role in the international community toward the realization of human security.



## (2) Water and Sanitation

Water and sanitation are vital issues linked to human life. Throughout the world, approximately 2 billion people do not receive a supply of safely-managed drinking water, and 3.6 billion people cannot use safely-managed sanitary facilities such as toilets.<sup>60</sup> In developing countries where piped water is not widely available, women and children are often compelled to spend hours fetching water, being deprived of opportunities for participation in society and for education. An unstable supply of water has a negative impact on healthcare and agriculture. SDG 6 sets forth the objective to “Ensure availability and sustainable management of water and sanitation for all.”



A JICA expert working with Cambodian counterparts at a sewage pipe construction site to improve the sewage management capacity of Phnom Penh to treat its increased volumes of sewage due to rapid urbanization and population growth (Photo: JICA)

### Japan's Efforts

Japan has the best track record in the world for cumulative total assistance since the 1990s in the fields of water and sanitation. In 2022, Japan provided assistance for the development and expansion of water supply and sewerage systems in Cambodia, Indonesia, Laos, and Viet Nam. In Cambodia, for instance, Japan supports Phnom Penh Capital Administration and the Ministry of Public Works and Transport in their efforts to build a sewerage management system through the development of legal and institutional systems concerning sewerage management. As for Tajikistan, Japan implements a technical cooperation project to strengthen the water service management capacities of Pyanj and Khamadoni Vodokanals in order to improve water supply services (see “Project Introduction Column” on page 115 for details).

At the 4th Asia-Pacific Water Summit, which was held in Kumamoto City, Japan in April 2022, Prime Minister Kishida announced the “Kumamoto Initiative for

Water,” Japan’s measures to contribute toward resolving water issues. The Summit was attended by leaders and ministers from approximately 30 countries in the Asia-Pacific region (see “ODA Topics” on page 65).

Japan also makes efforts to improve water environments in developing countries around the world in cooperation with Japanese and local private companies and organizations. For example, in Indonesia, the “Verification Survey with the Private Sector for Disseminating Japanese Technologies for Automatic Regenerating Activated Carbon Wastewater Purification Systems with a View to Promoting the Use of Regenerated Water and Industrial Wastewater Treatment” was implemented utilizing JICA’s SDGs Business Supporting Surveys. There was a need to solve environmental issues such as river pollution caused by insufficient treatment of dye effluent and ground subsidence following excessive ground water intake, as the textile industry thrives in the country. Through this project, so far, two large-scale purification systems have been installed, which made it possible for factory wastewater to be treated and reused. They contribute to the effective use of water as a resource, the rationalization of water usage, and the reduction of the amount of wastewater, thereby reducing the environmental impact on nearby rivers (see “Project Introduction Column” on page 124 for support to Uganda through Japan Platform (JPF)).

In order to address 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) of Japan implements the Water Environment Partnership in Asia (WEPA). Through cooperation among 13 participating countries<sup>61</sup> from Asia, WEPA aims to enhance water environment governance in Asia through building human networks, gathering and sharing information, and strengthening capacity. In April 2022, the 17th WEPA Annual Meeting was held in a hybrid format, both online and in-person. It focused on the “Current Status and Challenges of Domestic Wastewater Governance” and “Current Status and Issues of Introduction of Decentralized Wastewater Treatment Systems.” The participants shared information on progress made on water environment governance in each country and lively exchanged views. Moreover, to contribute to achieving “halving the proportion of untreated wastewater” set in Target 6.3 of the SDGs, MOE introduces Japan’s advanced decentralized wastewater treatment facility “Johkasou” technology, legislative systems, etc., mainly for Asian regions. The 10th workshop was held online in November 2022 with a focus on grey water treatment, which is one of the major issues in decentralized wastewater treatment. During the workshops, presentations were

<sup>60</sup> According to the data of UNICEF (2020). <https://data.unicef.org/resources/progress-on-household-drinking-water-sanitation-and-hygiene-2000-2020/>

<sup>61</sup> The 13 countries are Cambodia, China, Indonesia, Republic of Korea, Laos, Malaysia, Myanmar, Nepal, the Philippines, Sri Lanka, Thailand, Viet Nam, and Japan.

ODA  
Topics

4

## The 4th Asia-Pacific Water Summit

Water is a blessed resource that underpins our society. In the form of natural disasters, however, it can pose a threat to human life and prosperity. For example, in recent years, the frequency of water-related disasters has been increasing across the world. In Japan, the frequency of torrential rains has increased by approximately 40% compared with 30 years ago, and in the Asia-Pacific region, the number of water-related disasters impacting large populations\*<sup>1</sup> has nearly tripled over the past 30 years. Besides water-related disasters, water is deeply related to a range of challenges in society such as poverty, public health, food, the environment, energy, and peace and security.

The Asia-Pacific Water Summit is a high-level international conference for top government leaders from the Asia-Pacific region, with the aim of deepening awareness of water issues and encouraging concrete resource mobilization and initiatives. The 4th\*<sup>2</sup> Asia-Pacific Water Summit was held in Kumamoto City, Japan, on April 23 and 24, 2022. It was the first time in 15 years that the Summit was held in Japan. Approximately 5,500 participants attended the Summit both in-person and online, with participation by leaders and ministers from 31 countries in the Asia-Pacific region, including Japan. Prime Minister Kishida participated in the Summit from Japan, and held luncheons and bilateral meetings with the leaders of the countries in attendance. The theme of the Summit was “Water for Sustainable Development: Best Practices and the Next Generation,” and discussions were held to reaffirm the importance of water in the process of recovery from COVID-19 and to continue sustainable development for future generations.

The opening ceremony featured online remarks and a commemorative speech by His Majesty the Emperor of Japan. Prime Minister Kishida delivered the keynote speech at the Heads of State and Government (HSG) Meeting held in the afternoon, stating that Japan would make proactive efforts, including the development of “quality infrastructure,” toward



Water treatment facility constructed under the “Rajasthan Rural Water Supply and Fluorosis Mitigation Project” in the Nagaur district of Rajasthan in northwest India. This ensured safe and stable drinking water supply services. (Photo: Public Health Engineering Department, Government of Rajasthan)



Beginning of the HSG Meeting (Photo: Japan Water Forum)

resolving social issues related to water, while coordinating and cooperating with various countries and international organizations. He also announced the “Kumamoto Initiative for Water,” Japan’s measures to contribute toward resolving water issues. Moreover, during the HSG Meeting, the leaders of the participating countries announced the “Kumamoto Declaration.”\*<sup>3</sup> The Chair’s Summary was announced on the second day, April 24, compiled based on the active discussions among the participants from various countries and organizations over the two days.

At the closing ceremony, a representative of youth from the Asia-Pacific region (India) together with a high school student from Fukuoka Prefecture delivered the “Message from Youth” in which they conveyed the importance of cooperation between youth and adults and reaffirmed the importance of strengthening youth participation in regional sustainable development.

As an old saying goes, “the one who governs water governs the country.” Nowadays, governing water greatly contributes to the resolution of social issues on a global scale. The outcomes of the Summit, which was attended by the leaders of many countries, are not limited to the Asia-Pacific region. They are expected to provide significant strength and wisdom for future discussions on global water issues as well as disaster risk reduction and climate change. The outcomes are also expected to be an important input to the UN Water Conference, which is scheduled to take place in March 2023 for the first time in 46 years.

\*1 Refers to a flood that affects 1,000 or more people.

\*2 The first Summit was held in Beppu City, Oita Prefecture, Japan in 2007, the second was held in Thailand in 2013, and the third was held in Myanmar in 2017.

\*3 In order to accelerate efforts in water-related fields, the Declaration calls for substantial actions for change and improvement in three fields: governance, finance, and science and technology.





Children washing their hands at a water supply facility constructed at an elementary school in Tajikistan (see also “Project Introduction Column” on page 115)

made about the importance and benefits of properly treating grey water, measures related to legal systems for expanding the spread of treatment facilities, and examples of efforts by local public entities, followed by active discussions on these topics. This helped the participants gain a common understanding of the future direction and improvement measures to resolve the issues. Through the workshop, information on decentralized wastewater treatment systems, including the “Johkasou” facility, was disseminated, and cooperation with people involved in decentralized wastewater treatment in each country was strengthened.

### (3) Quality Education for All

There are as many as 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).<sup>62</sup> In particular, the percentage of children who cannot go to school has increased since 2000 in Sub-Saharan Africa. Above all, children with disabilities, children of minority ethnic groups or those in disadvantaged communities, children of refugee and displaced people, and those living in remote areas are at the greatest risk of being left behind. The impact of the spread of COVID-19 has also been significant. In addition to the loss of learning opportunities due to school closures, it is pointed out that some children do not return to school even after reopening. These situations raise further concerns about malnutrition, early marriage, and gender inequality of those children.

SDG 4 aims 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.”\*

### Japan's Efforts

Japan provides developing countries with a broad range of support, including the enhancement of basic education,<sup>63</sup> higher education, and vocational training.

Japan promoted its “Education x Innovation” initiative,<sup>64</sup> which was announced in 2019, and met its commitment by supporting approximately 9.47 million children and youths over the three-year period. 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 the “G20 Initiative on Human Capital Investment for Sustainable Development” (G20 Osaka Summit 2019), Japan further strengthens support for education that improves basic academic skills, STEM education,<sup>65</sup> and development of e-learning, among others (see “Project Introduction Column” on page 99 for Japan’s efforts in Nepal).

Also, Japan contributed a total of approximately \$46.62 million from 2008 to 2022 to the “Global Partnership for Education (GPE).”\* Since 2015, the number of children supported by partner countries of GPE has reached 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 education sector, including continued support for GPE, as well as the support for the education and human resources development of 7.5 million girls in developing countries.



Children studying with a math textbook created with Japanese assistance in the technical cooperation “Project for Improving Teaching and Learning Mathematics for Primary Education,” in Laos (Photo: JICA)

<sup>62</sup> Pages 209, 413, and 427 of the “Global Education Monitoring Report 2021/2.” <https://unesdoc.unesco.org/ark:/48223/pf0000379875>

<sup>63</sup> The educational activities designed to enable individuals to acquire 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.

<sup>64</sup> Based on the “G20 Initiative on Human Capital Investment for Sustainable Development” announced at the G20 Osaka Summit in 2019, this unique initiative of Japan was announced to provide education for innovation and education through innovation to at least approximately 9 million children and young people over the three years from 2019 to 2021.

<sup>65</sup> STEM is an acronym for Science, Technology, Engineering, and Mathematics, and refers collectively to these four educational fields.



At TICAD 8<sup>66</sup> held in August 2022, as an initiative in the field of education (human resources development including youth and women) for Africa, Japan expressed that it would help improve children's learning by promoting school enrollment, improving inclusiveness, and providing school meals through initiatives such as the "School for All" project. Japan also announced that, through these efforts, it aims to eventually provide quality education, including STEM education, to 9 million children and improve access to quality education for 4 million girls. In addition, through human resources development and acceptance of international students under the Japan-Africa university network, Japan works to develop highly-skilled human resources, including those in the fields of science and technology (see "Stories from the Field" on page 68 for Japan's support in Egypt).

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 to improve the education environment for children. In cooperation with the World Bank, GPE, and others, Japan works to expand the project throughout each targeted country. 70,754 elementary schools in nine countries have introduced the program as of October 2022.

In the Asia-Pacific region, Japan provides assistance for initiatives toward the achievement of SDG 4. It includes 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), as well as support for improvement of education quality, enhancement of early childhood education, spread of non-formal education, and improvement of teachers' teaching skills. Moreover, Japan supports human resources development in developing countries by engaging in a wide range of efforts such as strengthening networking among higher



A JOCV teaching the four basic arithmetic operations at an elementary school in Dikhil Region, Djibouti (Photo: JICA)

education institutions between Japan and ASEAN, collaborating with the industrial sector, participating in joint research projects with neighboring countries, and accepting international students to Japanese higher education institutions and other institutions.

### ■ 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 can contribute to the realization of all SDGs by fostering the builders of a sustainable society, and Japan, as the country that proposed ESD, continues not only to engage in the promotion of ESD but also to play a significant role in its global advocacy and enhancement through the funds-in-trust to UNESCO. In addition, through the aforementioned funds-in-trust, Japan actively promotes ESD by implementing the "UNESCO-Japan Prize on Education for Sustainable Development" together with UNESCO, honoring organizations and institutions that conduct excellent initiatives toward putting ESD into practice. 18 organizations have been awarded to date.

<sup>66</sup> See "ODA Topics" on page 127.



## Stories from the Field

### Establishing a University of Science and Technology in Egypt that Implements the Japanese Education System

—A Contribution toward the Development of the Middle East and Africa by Fostering and Producing Excellent Researchers—



In Egypt, the lack of experimental and practical equipment at universities due to the increase in the number of university students had an impact on the teaching methods employed. In particular, in the Faculty of Engineering, lecture-style education through classroom learning has been the norm, with only a limited number of universities offering practical education. In response to a request for support from the Government of Egypt to establish a new university based on the concept of “offering small class sizes, postgraduate and research-oriented, practical, and international standard of education,” which are the characteristics of Japanese-style engineering education, Japan launched the technical cooperation project “Egypt-Japan University of Science and Technology (E-JUST)” in 2008.

During Phase 1 of the project, from October 2008 to January 2014, assistance was provided mainly in the areas of developing curriculum and dispatching experts and professors, in cooperation with 12 Japanese universities including Kyushu University, Kyoto University, Tokyo Institute of Technology, and Waseda University. It led to the establishment of E-JUST in 2009 as a graduate university specializing in engineering-related fields. In Phase 2 of the project implemented from February 2014 to January 2019, the Faculty of Engineering as well as the Faculty of International Business and Humanities were established and began accepting undergraduate students. This made a solid foundation for E-JUST to become a top-class research university in Egypt that promotes human development and contributes to the development of Egyptian industry and society. In the earlier stages of the project, there was confusion among the Egyptian faculty members about the concept of the university. However, once the Japanese-style laboratory-based education began to show positive

results, the Egyptian faculty members’ commitment to implementing the new style and the learning attitude of the students showed positive changes.

Dr. OOKAWARA Shinichi, Specially Appointed Professor of the Tokyo Institute of Technology, talks about the achievement of the E-JUST project as follows: “As a result of continuous and consistent research supervision provided through the project, the Japanese-style educational method was highly evaluated, and the number of students has grown from 30 to 3,000 today. When I participated in a forum of Egyptian universities, the E-JUST booth was given a prominent location at the venue and the Egyptian Minister of Higher Education and Scientific Research visited our booth, which made me realize that our efforts were highly appreciated.”

Dr. Ookawara has accepted doctoral students from E-JUST at his lab at the Tokyo Institute of Technology every year, and provides beneficial opportunities for E-JUST students to experience research life through cutting-edge research in Japan, as well as for Japanese students to acquire international perspectives.

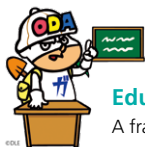
Thereafter, several Egyptian universities were established modelled on E-JUST. This situation proves that the concept of E-JUST has been widely accepted in Egypt. Professor Emeritus SUZUKI Masaaki of the Tokyo Institute of Technology, who serves as the first vice president of E-JUST, talks about his prospects in the future as follows: “E-JUST has now developed into one of the top research universities in Egypt. In Phase 3 of the project (February 2019 – January 2025), we would like to contribute to the development of African countries by accepting more international students from Africa while taking advantage of the existing and newly created scholarship programs.”



Dr. Ookawara teaching an Egyptian student in his class



The entrance ceremony of E-JUST in October 2022 (Photo: E-JUST)



## Glossary

### Education 2030 Framework for Action (FFA)

A framework for action that succeeds “The Dakar Framework for Action: Education for All,” aimed at achieving education for all and adopted at the “World Education Forum” in Dakar, Senegal in 2000. The FFA 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)

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 societies, and private-sector corporations and foundations. It was renamed GPE from Fast Track Initiative (FTI) in 2011.

### Education for Sustainable Development (ESD)

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 reaffirmed in the “ESD for 2030,” adopted by a resolution of the 74th Session of the UN General Assembly in 2019. “ESD for 2030” is a succeeding program of 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 framework for the implementation from 2020 to 2030.

## (4) Gender and Inclusive Society

### A. Promotion of Women’s Empowerment and Participation

The social norms and systems in developing countries are generally shaped by men’s perspectives, which leave women in vulnerable positions in many aspects. On the other hand, women are critical actors in each country’s development, and their participation leads not only to the improvement of their own lives but also to increasing the impact of the development. 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, and on appropriate family planning, leading to women’s social advancement and economic empowerment. Moreover, it contributes to the sustainable and inclusive economic growth of developing countries.

The “2030 Agenda for Sustainable Development (2030 Agenda)” strongly and clearly addresses that “Realizing gender equality and the empowerment of women and girls will make a crucial contribution to progress across all the Goals and targets.” In concrete terms, 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 that men and women participate equally in all phases of development cooperation and reap the benefits equitably.

## Japan’s Efforts

In the “Development Strategy for Gender Equality and Women’s Empowerment,”<sup>67</sup> Japan set the following three basic principles: (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. Based on this strategy, Japan advances its efforts in the international community to promote gender mainstreaming,<sup>68</sup> gender equality, and women’s and girls’ empowerment.

In 2018, Japan contributed \$50 million to the Women Entrepreneurs Finance Initiative (We-Fi).<sup>69</sup> As of June 2022, Japan has supported 50,068 women-owned/led small and medium enterprises (WSMEs) in 59 countries.



Female students of a children’s club exchanging opinions on the prevention of human trafficking under the project on “Human Trafficking Prevention for Women and Girls in Dien Bien Province” in mountainous areas of Viet Nam (Photo: World Vision Japan)

<sup>67</sup> Thematic policies formulated in 2016 to promote the active participation of women in development cooperation.

<sup>68</sup> Integrating a gender perspective into all policies, measures, and projects in order to achieve gender equality in every field. In the field of development, it refers to the process of clarifying development challenges, needs, and impacts on both men and women, at every stage of planning, implementation, monitoring, and evaluation, of all development policies, measures, and projects, based on the premise that they have different impacts on men and women.

<sup>69</sup> The launch of We-Fi was announced at the G20 Hamburg Summit in 2017. 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.



Specifically, 40,378 WSMEs have received financial assistance while 13,885 received training to acquire the skills and knowledge necessary for management. According to the World Bank, 70% of WSMEs in developing countries are unable to receive financing from financial institutions or are faced with poor borrowing terms. In response to such a situation, through We-Fi, Japan promotes the development of legal systems free from gender discrimination and supports women entrepreneurs in having equal access to financing and markets.

At the G7 Elmau Summit held in June 2022, the G7 Leaders' Communiqué affirmed their commitment to make every effort to collectively increase the share of G7's bilaterally allocable ODA advancing gender equality and women's and girls' empowerment over the coming years.

In December 2022, Japan held the World Assembly for Women: WAW! 2022, with the main theme "Mainstreaming Gender into a New Form of Capitalism." Looking ahead to discussions under the G7 Presidency of Japan in 2023, the following five sub-themes were set: (i) New Form of Capitalism and Women, (ii) Realizing a Society Protecting Women's Dignity and Pride, (iii) Enhancing Awareness and Engagement of Men; (iv) Women's Participation in Decision-Making Processes, and (v) Women's Participation in Peace and Security. Along with the themes, leaders and experts active in various fields in Japan and overseas exchanged opinions on how to create a better society. In addition, Japan designated the period before and after WAW! 2022 as "WAW! Weeks," and registered 107 side events in promotion of gender equality and women's empowerment, which are the aims of WAW!.

Japan also provides support through UN Women and contributed approximately \$21 million in 2021 and \$14 million in 2022 for promoting political participation and economic empowerment of women, eliminating sexual and gender-based violence against women and girls, improving women's role in the peace and security fields, and strengthening gender-responsive policies and budgets. Furthermore, in 2022, Japan continued to contribute to the prevention of COVID-19 with gender perspectives in Africa and Asia. For example, in Somalia, Japan supported 2,234 women with regard to COVID-19 prevention measures. In South Sudan, Japan supported 13,189 internally displaced persons and host community residents in improving their knowledge of COVID-19, including the importance of vaccinations, and of gender-based violence that was on the rise as COVID-19 spread.

Japan considers sexual violence in conflict cannot be tolerated. Therefore, Japan places importance on collaboration with the UN Office of the Special



A woman with baskets produced through the "Project for Enhancing Women's Resilience in Refugee Camps and Host Communities" in Kenya, with the aim of increasing women's cash income and achieving economic independence (Photo: UN Women)

Representative of the Secretary-General on Sexual Violence in Conflict (OSRSG-SVC).<sup>70</sup> Amid the spread of COVID-19 in 2022, Japan contributed approximately \$517,000 to the OSRSG-SVC to provide legal assistance to victims of sexual violence in the Democratic Republic of the Congo while taking measures against COVID-19 infections.

Japan also contributed an additional €2 million in 2022 to the Global Survivors Fund (GSF),<sup>\*</sup> making it a total of €6 million in contributions so far. Japan, as its board member, actively contributes to supporting survivors of conflict-related sexual violence in conflict-affected areas, including the Democratic Republic of Congo and Iraq. In July 2022, on the occasion of the 50th regular session of the UN Human Rights Council, Japan co-hosted a side event on reparations for survivors of conflict-related sexual violence in Ukraine with GSF and its board members (France, the United Kingdom, and the Republic of Korea), the United States, Ukraine, and others. In September of the same year, on the occasion of the UN General Assembly, Japan once again co-hosted a side event on supporting survivors with GSF, its board members, the United States, Canada, and Ukraine. At the WAW! 2022 held in December, Dr. Mukwege, one of the founders of GSF, participated online.

Japan formulated its National Action Plan in 2015 for the implementation of UN Security Council resolution 1325 on Women, Peace and Security (WPS) adopted in 2000 and other relevant resolutions, in order to support women in conflict-affected and fragile countries through international organizations and bilateral assistance. In terms of the G7 framework, under the G7 WPS<sup>71</sup> Partnership Initiative (2018), Japan has assisted its partner country of Sri Lanka since 2019. Japan provides assistance for the formulation of its WPS

<sup>70</sup> See also MOFA's website ([https://www.mofa.go.jp/fp/hr\\_ha/page23e\\_000466.html](https://www.mofa.go.jp/fp/hr_ha/page23e_000466.html)) for Japan's efforts regarding the prevention of sexual violence in conflict.

<sup>71</sup> G7 WPS is an abbreviation for G7 Women, Peace and Security.



The “Women Entrepreneurship Development Project” providing training to women who aim to start a business in Ethiopia (Photo: JICA)



A JICA expert practicing tango therapy for persons with disabilities as part of technical cooperation in Paraguay (Photo: JICA)

Action Plan and for women’s financial empowerment, including for the households of widows who are left behind after the 26-year internal conflict, as a project for the implementation of the country’s Action Plan. The livelihood support provided by this partnership is appreciated 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.

## B. Assistance for People who Tend to be in Vulnerable Situations

Challenges such as poverty, conflicts, infectious diseases, terrorism, and natural disasters have varying impacts 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 thus 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 their situations, including persons with disabilities. Article 32 of the Convention on the Rights of Persons with Disabilities <sup>72</sup> stipulates that States Parties would undertake measures for international cooperation and its promotion.

Policies for persons with disabilities cover a number of different areas, such as welfare, health and medical care, education, and employment. Japan applies its accumulated expertise and experiences in these areas to

support developing countries in implementing measures and policies on disability through ODA and NGO activities (see also “Project Introduction Column” on page 72).

For example, Japan takes a thorough hands-on approach to suit various local needs, such as by incorporating accessible design in the planning of railroad and airport construction, developing vocational training centers and rehabilitation facilities (for people with disabilities), and providing minibuses as transportation for persons with disabilities. Additionally, Japan provides a wide range of technical cooperation through JICA to enhance the capacity of organizations and personnel engaged in assisting persons with disabilities. These efforts include acceptance of trainees from developing countries and dispatch of JOCVs and experts such as physical and occupational therapists as well as social workers.

#### ■ Assistance for Children

Generally, children tend to be in vulnerable situations. Today, there are many children around the world placed in harsh environments due to the impact of COVID-19 in addition to conflicts, natural disasters, etc., and the number of child refugees and internally displaced children is rapidly increasing. In response to this situation, Japan provides a variety of humanitarian and development assistance for children bilaterally and through international organizations. In 2022, through the United Nations Children’s Fund (UNICEF), Japan provided assistance for children being affected by poverty, conflict, natural disasters, COVID-19, and other factors in 59 countries mainly in Asia, the Middle East, and Africa.

As for the Grant Assistance for Grass-Roots Human Security Projects, <sup>73</sup> Japan provides cooperation that directly benefits residents at the grassroots level. Under this scheme, Japan implements projects that contribute to improving the living conditions of children, such as the construction and refurbishment

<sup>72</sup> Japan ratified the Convention in 2014.

<sup>73</sup> 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>).

## Developing “Job Coaches” who Connect Persons with Disabilities and Companies

### Mongolia



#### Project for Promoting Employment of Persons with Disabilities (DPUB2)

Technical Cooperation Project (February 2021 – January 2025)

The Government of Mongolia, which ratified the Convention on the Rights of Persons with Disabilities in 2009, promotes measures to ensure the rights of persons with disabilities and their participation in society, including enacting the Rights of Persons with Disabilities Act in 2016. As one of the measures to support the economic and social independence of persons with disabilities, the government obliges companies to employ persons with disabilities under the labor law, and makes efforts to implement the Employment Promotion Program for Persons with Disabilities. On the other hand, companies' level of understanding regarding the employment of persons with disabilities remains low, and a working environment that responds to their characteristics and needs has not been developed, which poses a challenge.

In light of this, JICA, in cooperation with the Ministry of Labor and Social Protection of Mongolia, makes initiatives to develop specialized human resources called “job coaches.” Job coaches provide services such as matching companies with persons with disabilities and supporting their adaptation to the workplace, toward the realization of their entering the workforce. In this



Corporate awareness raising seminar for enhancing the understanding of disabilities (Photo: JICA)



Staff of an employment support organization and an instructor engaging in group work at a job coach introduction seminar (Photo: JICA)

project, so far, four introductory seminars have been held for officials of government agencies, employment support organizations, and private companies, to develop job coaches. For nurturing job coaches, in addition to delivering lectures on the basic concepts and services of job coaches, the project is making efforts such as group work in which seminar participants act as job coaches and learn skills for negotiating with companies regarding the employment of persons with disabilities and teaching work to persons with intellectual disabilities. Participants commented, “I am satisfied to learn detailed and useful knowledge regarding the employment of persons with disabilities.” In July 2022, the project started providing employment support services by job coaches, and so far, 48 people with disabilities have actually used them.

Through this project, guidelines for the subsidy system and a human resources development system were established. In the future, it is expected that the employment of persons with disabilities will be further promoted by creating a system for continuously providing employment support services by job coaches and promoting corporate awareness.

of elementary and junior high schools, provision of medical equipment to hospitals, and development of wells and water supply facilities.



Children in Guinea expressing their gratitude with hand-made plates and pictures for school meal support from Japan (Photo: WFP)

For example, in the Philippines, Japan currently provides cooperation for the construction of a school building for junior secondary education at Datu Igwas Indigenous People Integrated School. The school is located in Kidapawan City in North Cotabato Province, and the students have no other choice but to take classes in simple temporary classrooms, as the school building collapsed due to a strong earthquake. It is expected that this assistance will provide a safe and appropriate learning environment and improve the quality of basic education. In Armenia, Japan provided cooperation for the construction of a playground and exercise area at a village school for children at compulsory education stage in the village of Margahovit in Lori Province. The project is expected to contribute 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 strengthen their athletic abilities and health maintenance.





Handover ceremony for the expanded and renovated basic education school and kindergarten through the “Project for Improvement of Two Educational Facilities in Tegucigalpa City” in Honduras



Members of the Japanese Bolivian Nikkei Association's National Volunteer Group promoting Japanese culture at “Anime Concert 2.0” through demonstrations of origami and “shodo,” Japanese calligraphy (Photo: JICA)

### (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 hence assistance to protect such cultural heritage sites is required. The preservation and promotion of culture, including the invaluable cultural heritage in developing countries, should be addressed not only by the countries with cultural heritage in danger, but also by the entire international community.

With regard to sports, they 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 normative consciousness. The influence and positive power of sports play a role as a “catalyst” for the development and growth of developing countries.

#### Japan's Efforts

Japan has provided assistance for the promotion of culture, including sports, higher education, and 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 for cultural exchanges with Japan, contributing to a deeper understanding of Japan and fostering a sense of affinity toward Japan. In 2022, Japan implemented 28 projects that support 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 ¥300 million in FY2022 and has implemented multiple projects in the field of cultural heritage through the fund. In Japan's assistance, a particular emphasis is put on human resources development in developing countries so that they themselves can preserve their own cultural heritage in the future. To this end, Japan 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 the support for tangible cultural heritage, Japan also supports the safeguarding of intangible cultural heritage such as traditional dances, music, handcraft techniques, and oral lore (oral traditions) through successor training, records conservation, and creation of safeguard mechanisms under the Japanese Funds-in-Trust.

Japan also conducts training programs with the aim of improving the capacities to protect cultural heritage by inviting young experts engaged in 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, Japan conducts biennial training on maintenance and repair methods for wooden buildings and on survey records of archeological remains. In 2022, Japan conducted training on 3D documentation methods for archaeological remains for experts of Viet Nam via videoconference.

Furthermore, Japan supports the field of sports using various programs including ODA and “Projects for Sports Diplomacy Enhancement,” in order to pass on the legacy of the Olympic and Paralympic Games Tokyo 2020 and to continuously promote “Sport for Tomorrow,”<sup>74</sup> Japan's international contribution through sports that aims to share the value of sports and promote the Olympic and Paralympic Movement.<sup>75</sup> In addition, 50 Japan Overseas Cooperation Volunteers

<sup>74</sup> Sport for Tomorrow website: <https://www.sport4tomorrow.jpnsport.go.jp/>

<sup>75</sup> MOFA's sports diplomacy initiatives: <https://www.mofa.go.jp/policy/culture/people/sports/index.html>

(JOCVs) were dispatched to developing countries in the field of sports in 2022.



## Glossary

### Global Survivors Fund (GSF)

Fund launched by Dr. Denis Mukwege and Ms. Nadia Murad, Nobel Peace Prize laureates 2018. It aims to facilitate access to reparations and support for survivors of conflict-related sexual violence against the backdrop that many of them do not receive public reparations. GSF conducts awareness-raising activities regarding the development of the judicial system to support and give relief to survivors.

### 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 for the preservation of cultural heritage in developing countries. It aims to promote friendly relationships and mutual understanding by encouraging cultural and educational advancements in developing countries as well as cultural exchanges between Japan and the recipient countries through such assistance. There are two modalities; "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

The environment and climate change issues, addressed in the SDGs, are critical time-sensitive challenges that the international community must work together on, with the occurrence of extreme weather events and devastating natural disasters in recent years. Japan has vigorously worked on addressing these issues and provided 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 the 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. It has become important to take measures to address this issue in recent years. As of December 2022, 87 countries and regions have shared the "Osaka Blue Ocean Vision," an initiative led by Japan at the G20 Osaka Summit in 2019 that aims to reduce additional pollution by marine plastic litter to zero by 2050. 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 promote effective measures against marine plastic litter worldwide.

Japan supports marine plastic countermeasures through the UN Environment Programme (UNEP). In the "CounterMEASURE II" project, to which Japan

contributed ¥627 million, UNEP has established an expert group in Southeast Asia and India, supported the group in building scientific knowledge, and conducted training for more than 2,000 people since March 2020. In response to the worsening marine pollution caused by plastic waste, UNEP also developed a method for monitoring the flow of plastic waste into the ocean. In addition, to enable science-based policymaking, UNEP conducts sampling surveys of plastic litter and scientific analysis on its pathways and formulates 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 (hotspots), and released on a dedicated website <sup>76</sup> available to the general public.

Moreover, as part of expanded assistance for ASEAN to address marine plastic litter issues, which was announced at the ASEAN-Japan Summit in 2018, Japan provides capacity building support and conducts



A researcher and a local counterpart sampling seawater in red tide areas in Chile (Photo: JICA)

<sup>76</sup> "Mobile Application for Macro Plastic Survey" (<https://arcg.is/1DOOWW>)

awareness-raising and PR activities for environmental conservation, primarily on reducing marine plastic litter in ASEAN countries since 2019.

For example, in 2022, through the Japan-ASEAN Integration Fund (JAIF),<sup>77</sup> Japan provided assistance to strengthen capacity for marine litter reduction through the formulation of national action plans in ASEAN countries, to strengthen capacity development of local governments in ASEAN to tackle microplastics and water pollution, and to build capacity for monitoring and reduction of marine litter from fisheries. Regarding ODA projects, from October to December 2022, both online and in-person training in Japan were held, with 13 participants from Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam. The participants learned about the global trends in discussions and Japan's efforts regarding measures against marine litter. In February 2022, collaborating with the United Nations Industrial Development Organization (UNIDO), Japan decided to provide support to Nigeria, which works to formulate measures for plastic waste management. Japan's support includes assistance in the formulation of guidelines for managing plastic waste, the provision of equipment to promote recycling, and the training to improve capacity, focusing on the Federal Capital Territory (especially Abuja) and Lagos State in the country.

### ■ Conservation of Marine Resources

In the ASEAN region, Japan conducts training and workshops on countermeasures against illegal, unreported, and unregulated (IUU) fishing through JICA in cooperation with the Southeast Asian Fisheries Development Center (SEAFDEC). Curbing the impact on fish ecosystems affected by IUU fishing that exceeds regulatory thresholds leads 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

The issue of climate change is a global challenge that should be addressed beyond national borders, and requires concerted efforts by the international community, including not only developed countries but also developing countries, to strengthen their efforts. "The Paris Agreement" was adopted at the 21st Session of the Conference of the Parties to the UNFCCC (COP21) held in 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, Japan declared that it would achieve net-zero GHG emissions by 2050. In April 2021, Japan also declared 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)"<sup>78</sup> reflecting these goals, together with "The Long-term Strategy under the Paris Agreement" to the UN (see "Master Techniques from Japan to the World" on page 76 for Japan's efforts in relation to net-zero GHG emissions).

Japan expressed at COP26 held in 2021 that it would further provide up to \$10 billion in both public and private finance over a five-year period, in addition to the assistance totaling ¥6.5 trillion in both public and private finance over five years from 2021 to 2025, already announced at the G7 Cornwall Summit in June 2021. Japan also announced the doubling of the amount of assistance for adaptation to climate change to ¥1.6 trillion over five years.

From November 6 to 20, 2022, COP27 was held in Sharm el-Sheikh, Egypt. COP27 focused on strengthening the implementation of climate actions as the session was called the "Implementation COP" built on the outcome of COP26 in November 2021. The cover decision of COP27, the "Sharm el-Sheikh Implementation Plan," calling on Parties to strengthen their actions in each area of climate change, and the "Mitigation Work Programme" to urgently scale up mitigation ambition and implementation toward 2030, were adopted. Moreover, a decision was adopted to establish new funding arrangements, including a fund to assist particularly vulnerable developing countries in responding to loss and damage associated with the adverse effects of climate change.

The "Just Energy Transition Partnership (JETP)," which was launched at COP26 by France, Germany, the United Kingdom, the United States, and the EU to support South Africa, expanded its target countries to India, Indonesia, Viet Nam, and Senegal at the G7 Elmau Summit in June 2022. Japan, together with the United



Members of the communities' Resources Management Committees working to protect marine resources in Vanuatu. Japan has been implementing the "Project for Promotion of the Grace of the Sea in Coastal Village in Vanuatu" for over 10 years. (Photo: JICA)

<sup>77</sup> See <sup>4</sup> on page 93.

<sup>78</sup> Parties set their GHG emission reduction targets and formulate measures to achieve them as NDC. It will then be submitted to the UNFCCC secretariat.



## Japan's Leading-Edge Research Promotes Geothermal Power Development in El Salvador



In El Salvador in Central America, where volcanoes are distributed across the country, geothermal power generation is an important energy source that accounts for approximately 27% of the domestic power supply and demand. Currently, El Salvador promotes the further development and use of geothermal power generation, a renewable energy source, in order to reduce thermal power generation, which accounts for approximately 25% of total power generated. However, due to the difficulty in proceeding with geothermal power development on its own, the Government of El Salvador requested Japan to provide technical cooperation through JICA. Based on the request, Japan has implemented the "Project for Thermoluminescence Techniques in Geothermal Exploration and Integrated Evaluation System of Geothermal Reservoir" in El Salvador since 2018 under the Science and Technology Research Partnership for Sustainable Development (SATREPS) program.\*1

Thermoluminescence Techniques\*2 are Japan's unique techniques that Dr. TSUCHIYA Noriyoshi, Professor of the Graduate School of Environmental Studies, Tohoku University, and principal investigator of this project, has advanced the research and development on for over 20 years. These techniques can be applied to narrow down promising areas for geothermal development inexpensively and efficiently. The project is working on the technical transfer by inviting faculty members from the University of El Salvador and engineers from geothermal power company to Japan to learn relevant leading-edge technologies that are under research in Japan, or by holding workshops in El Salvador with lecturers from Japan. "It is crucial to have people understand the importance of principles as well as the know-how of the technology. The speed of development in El Salvador is much faster than in Japan, so it is interesting to see how our research and new technologies are being rapidly put to practical use," said Dr. Tsuchiya. Through this project, geothermal power



A field survey to collect rock samples for exploration using thermoluminescence near the Ahuachapán Geothermal Power Plant (Photo: JICA)

development has already commenced at four sites, while geothermal exploration is ongoing at another four sites.

The project has also achieved significant results in terms of human resources development and research and development. Researchers at the University of El Salvador developed a world-first geothermal technology after deepening their knowledge and conducting multiple experiments in Japan, and their paper was published in a prestigious international journal. It is expected that learning from Japan will foster researchers in El Salvador and promote geothermal research in their country.

Dr. Tsuchiya also hopes that young researchers, who will lead the future of Japan, will "understand firsthand" the significance of international cooperation and the importance of international exchange. Therefore, he takes Japanese students with him to project sites and focuses on human resources development through fieldwork. Seeing the students throw themselves into the local community without hesitation, he said, "As we proceed with geothermal research while overcoming cultural barriers, I feel we are advancing international exchange at the grass-roots level. I renewed my conviction that it is important for researchers in both countries to continue exchanging and inspiring each other even after the completion of the project."

This project contributes to expanding the use of renewable energy in El Salvador through the development of geothermal power generation, as well as to fostering researchers in both countries.



Thermoluminescence measurement equipment provided to the University of El Salvador. This equipment, originally developed by Tohoku University, enables exploration for prospective geothermal sites. In addition, an X-ray Fluorescence (XRF) analyzer and an Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) have also been provided. (Third from the left (back row): Dr. Tsuchiya) (Photo: JICA)

\*1 See the glossary on page 41.

\*2 A resource exploration method for revealing wide-area geothermal activities as well as local heat sources and hydrothermal activities.

## Environmental Conservation in Pacific Island Countries through Continuous Cooperation

### Nine Pacific Island Countries<sup>\*1</sup>



#### Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries Phase 2 (J-PRISM 2)

Technical Cooperation Project (February 2017 – March 2023)

In the Pacific Island countries, the amount of waste is increasing due to lifestyle changes. There exist many challenges, however, in conducting appropriate waste management, owing to a lack of treatment facilities and human resources. In response to this situation, Japan provides various types of assistance related to waste management to the region, making the most of its accumulated knowledge and experience. In Phase 1 of this project, implemented from 2011 to 2016 targeting 11 Pacific Island countries, Japan supported the training of human resources engaged in waste management as well as the improvement of disposal sites in each country. Furthermore, Japan conducted Phase 2 from 2017 to further strengthen each country's waste management systems, focusing on their strategy formulation and institutional capacity building.



A city official from Port Vila and a JICA expert installing wooden composting frames at an elementary school and providing environmental education to children (Photo: JICA)

waste management around Port Vila, and reduce illegal dumping and littering. To this end, Japan supported measures such as the implementation of the National Waste Management and Pollution Control Strategy (NWPCS), reinforcement of the monitoring capacity, formulation of the Port Vila Municipal Council Annual Solid Waste Management Plan (ASWMP), as well as the introduction of the Container Deposit Scheme (CDS).<sup>\*2</sup>

In Vanuatu, one of the target countries, Japan had been supporting the development of the Bouffa Landfill on the outskirts of its capital city Port Vila, including the expansion of the landfill site, for more than 15 years since 2006. Building on the foundation laid by its continuous support, in Phase 2 of the project, Japan aimed to conserve the country's environment, optimize



A JICA expert handing over the completed Solid Waste Management Plan (2021-2030) to the Mayor of Port Vila (Photo: JICA)

As a result, core staff for waste management were appropriately assigned at both national and local levels, leading to resolving the human resources shortage. At the Bouffa Landfill, the waste management infrastructure has been strengthened by enabling municipal officers to maintain and manage the disposal site themselves through transferring Japan's surveying techniques for calculating the disposal site capacity. In 2019, the Cabinet decision was made to accelerate the introduction of CDS, and necessary adjustments, including finalizing the bills for its introduction, are currently being made. With the introduction of CDS, which will enable resource recycling in Vanuatu, the amount of waste is expected to be reduced.

These efforts also help prevent the outflow of plastic waste into the ocean. Japan will continue to support sustainable and self-reliant waste management in the Pacific Island countries and contribute to environmental conservation.

<sup>\*1</sup> Fiji, Marshall Islands, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu.

<sup>\*2</sup> CDS is a system in which a deposit is paid by the consumer when they buy canned or plastic-bottled drinks. The deposit is refunded when the cans or bottles are returned to a designated collection point for recycling.

States, has proceeded discussions as a co-lead country of the Indonesia JETP. On November 15, 2022, partner countries, including Japan and the United States, and Indonesia concurred and issued the Joint Statement on the Indonesia JETP, which supports Indonesia's efforts in the transition from coal to renewable energy. In addition, on December 14, 2022, the International Partners Group including Japan, and Viet Nam agreed on the "Political Declaration on establishing the JETP with Viet Nam."

Regarding multilateral support, Japan supports developing countries through its contribution to the "Green Climate Fund (GCF),"<sup>\*</sup> the world's largest multilateral climate fund. Japan has pledged a total of 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 209 projects have been approved and implemented by December 2022, which in total are expected to reduce GHG emissions by 2.4 billion tons and increase the resilience of 680 million people through support for adaptation. Additionally, from Japan, JICA, MUFG Bank, and Sumitomo Mitsui Banking Corporation are approved as "Accredited Entities" that are entitled to propose GCF projects. To date, two projects by MUFG Bank have been approved; sustainable forestry project in seven countries in Sub-Saharan Africa and Latin America (March 2020) and assistance on climate bond issuance in developing countries (October 2022), along with two projects by JICA; Community-based Landscape Management for Enhanced Climate Resilience and

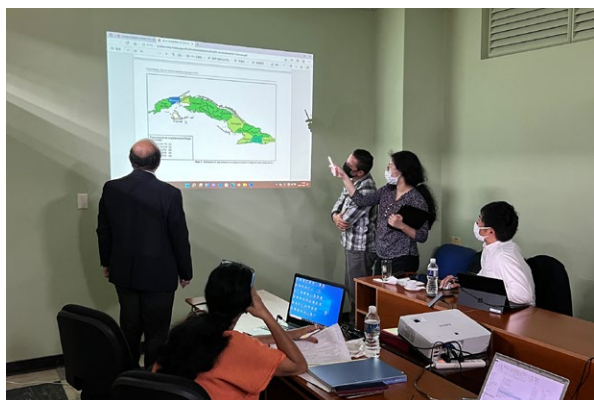
Reduction of Deforestation in Critical Watersheds in Timor-Leste (March 2021) and Building Climate Resilient and Safer Islands in the Maldives (July 2021).

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

In line with the above proposal, Japan contributes to 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. The launch of both mechanisms was announced at COP26, and efforts for implementation are currently underway at each institution.

As a specific example of bilateral assistance, Japan supports 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 “Project Introduction Column” on page 77 regarding support for waste management in Pacific Island countries).

In relation to the African region, at TICAD 8 held in August 2022, Japan launched the Green Growth Initiative with Africa (GGA) with the goal of addressing climate change and transforming the energy structure toward decarbonization. Under this initiative, Japan aims to maximize its cooperation through three approaches; (i) ownership and co-creation, (ii) flexible finance mobilization, and (iii) collaboration with diverse partners, and promotes various efforts to contribute to the sustainable growth in Africa.



A meeting on the formulation of an electricity sector master plan for the development of renewable energy in Cuba (Photo: JICA)

In regard to the support for the ASEAN region, Japan implements comprehensive cooperation for decarbonization transitions based on the “ASEAN-Japan Climate Change Action Agenda 2.0” announced by Prime Minister Kishida at the ASEAN-Japan Summit in 2021. As part of its assistance for climate change actions in developing countries, Japan promotes the “Joint Crediting Mechanism (JCM),”<sup>79</sup> which facilitates the diffusion of advanced decarbonizing technologies to partner countries around the world including developing countries. This contributes to GHG emission reductions in partner countries, and helps Japan to achieve its own reduction targets as the emission reductions in developing countries can be credited as Japan’s reduction efforts. In 2013, Japan signed the first Memorandum of Cooperation (MOC) pertaining to the JCM implementation with Mongolia. Since then, Japan has established the JCM with 17 countries, and in 2022, it signed new MOCs with eight countries. As of the end of 2022, the JCM credits have been issued from 40 energy-saving and renewable energy projects in Cambodia, Indonesia, Laos, Mongolia, Thailand, Viet Nam, Bangladesh, Maldives, Palau, Saudi Arabia, and Kenya. These JCM projects contribute to GHG emission reductions worldwide.

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

## ■ Biodiversity

In recent years, expansion of human activities in scope, scale, and types has given rise to serious concerns about further degradation of habitats and the destruction of the ecosystem. Japan values biodiversity efforts, as seen in its initiative to hold the 10th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD)<sup>\*</sup> (COP10) in Nagoya City, Aichi Prefecture in 2010. In addition, Japan makes contributions to the Japan Biodiversity Fund<sup>79</sup> to support the capacity building of developing countries. In December 2022, the second part of the 15th Meeting of the Conference of the Parties (COP15) was held in Montreal, Canada, and the “Kunming-Montreal Global Biodiversity Framework” was adopted as the new global goals and targets, replacing the Aichi Biodiversity Targets. Japan will continue to contribute in this field, aiming to realize the 2030 mission that is “to take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery” and the 2050 Vision of “living in harmony with nature,” described in the framework.

Illegal trade of wildlife has also become an increasingly serious issue. The international community pays attention to this issue, as it has been one of the funding sources of international terrorist organizations. Japan actively contributes to the discussions at the Convention on

<sup>79</sup> Established in the Secretariat of the CBD by Japan during its COP10 Presidency with the aim of building capacities in developing countries.



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

### ■ 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. Through voluntary contributions to ITTO, Japan supported projects such as managing forest fires in the tropics, which have become more frequent and serious recently, in Indonesia and Peru between January 2021 and June 2022, building capacity for sustainable forest management in tropical timber producing countries, and developing a timber-tracking system to combat illegal logging. Through these projects, in Indonesia, training on fires for firefighting authorities was implemented and a new monitoring and reporting system was developed for fire prevention patrols, in addition to the enhancement of local stakeholders' capacity. As for Peru, more than 200 volunteer firefighters were trained, and tools and platforms were established for training and capacity building in relation to forest fire prevention and response at the Peru's National Forest and Wildlife Service (SERFOR).



A JICA expert conducting a field survey with counterparts on a sustainable forest management plan in Son La Province, Viet Nam, in the "Project on Enhancing Sustainable Natural Resources Management Phase 2" (Photo: JICA)

### ■ Environmental Pollution Control Measures

In developing countries, regulatory controls on hazardous chemical materials are often not in place, which sometimes lead to environmental pollution and health damage. Japan possesses accumulated knowledge, experience, and technology related to environmental pollution control measures and utilizes them to solve environmental pollution problems in developing countries. Japan also conducts technical cooperation, such as dispatching experts to and accepting trainees from developing countries, in the areas of environmental management techniques in the chemical industry, 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 the Minamata disease. In addition to conducting training to support Nepal and other countries in ratifying the convention, Japan conducted surveys in Indonesia and other countries to promote the international expansion of Japan's excellent mercury management technology. Furthermore, from 2019, the UNEP Regional Office for Asia and the Pacific (UNEP/ROAP) as an implementing agency has been conducting the "Project for Promoting Minamata Convention on Mercury by making the most of Japan's knowledge and experiences," with Japan's contribution. Through this project, Japan supports member states in improving the quantity and quality of domestic mercury-related information and developing a platform to implement mercury management in line with the Convention. The project utilizes the resources in and around Minamata City and technology possessed by Japanese institutions to design a comprehensive program to strengthen implementation capacity.

In the field of waste management, based on the "MARINE Initiative," Japan announced to develop 10,000 officials engaging in waste management around the world by 2025 and trained approximately 17,000 officials by FY2022 through various means such as training programs.

Moreover, as a model project for waste management support in Africa under the "African Clean Cities Platform (ACCP),"\* Japan provides support for the Hulene final landfill site in Mozambique. At TICAD 8 held in August 2022, Japan announced that, under the ACCP, it would promote decarbonization and recycling in the waste sector, and improve public health including through waste management that benefits 30 million people in Africa, as well as to implement human resources development for 1,000 people. In Antananarivo, the

capital city of Madagascar, a project is underway to improve equipment related to the collection, transportation, and final disposal of waste, with the aim of enhancing the city's waste management capacity.



Guidance being given on the semi-aerobic landfill method (Fukuoka method) to staff of Peruvian Ministry of Environment and local public entities at the sanitary landfill site in Huaura Province, Peru. The Fukuoka method, a landfill disposal technology, was developed by Japan and is being introduced in Asia and Africa. (Photo: JICA)



## 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. Having been established in 1991, 184 countries including Japan participate (as of January 2023). The World Bank manages the contributions from member countries. Through 18 implementing agencies including MDBs (World Bank, ADB, etc.) and UN organizations (UNDP, UNEP, etc.), it assists developing countries under five focal areas, namely biodiversity loss, climate change, international waters, land degradation, and chemicals and waste. It is designated as the financing mechanism to five international conventions: UNFCCC, CBD, UN Convention to Combat Desertification (UNCCD), 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 their GHGs (mitigation) and in their responses to the effects of climate change (adaptation).

### Joint Crediting Mechanism (JCM)

A mechanism to evaluate contributions from Japan to GHG emission reductions or removals realized through the diffusion or implementation of leading decarbonizing technologies, products, systems, services, and infrastructure, etc., mainly in developing countries in a quantitative manner, and to use the contributions to achieve Japan's NDC.

### Convention on Biological Diversity (CBD)

A convention adopted in 1992 to advance global efforts to address biodiversity issues. 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, Japan, together with JICA, the City of Yokohama, UNEP, and the UN Human Settlements Programme (UN-Habitat) aiming to share knowledge on waste management and promote the achievement of the SDGs in Africa. 160 cities in 43 countries in Africa have joined the Platform, 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

Disasters have serious consequences on the entire society and economy in developing countries that are vulnerable to this issue. Therefore, it is necessary to build a disaster-resilient and flexible society to protect human lives from disasters, while making efforts toward sustainable development. 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.

In recent years, various issues related to the management of cities have received increased attention. They include such issues as handling the disposal of the substantial amount of waste produced in urban areas and suburbs, pollution of air, water, etc., development of infrastructure facilities including sewage and waste treatment systems, and rapid population increases and the consequent rapid 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.” As shown by this fact, 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 “Master Techniques from Japan to the World” on page 82). 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. These include 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 in post-disaster recovery, 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



Drinking water produced by JS Osumi, a transport ship of the Japan Maritime Self-Defense Force, being replenished in a household water tank in tsunami-stricken Kanokupolu Village in the main island of Tonga, Tongatapu

disaster risk reduction. Specifically, Japan promotes human resources development in developing countries for a total of 48,000 officials and local leaders in charge of disaster risk reduction tasks as well as disaster risk reduction education for a total of 37,000 children who are responsible for the next generation, in addition to the support benefiting at least 5 million people over the four-year period from 2019 to 2022 through flood countermeasures, such as developing dikes and flood-control channels. Such efforts contribute to promoting not only the enhancement of disaster-resilient building structures and developing disaster monitoring facilities in each recipient country, but also the development of human resources in fields such as establishing laws and plans related to disaster risk reduction, formulation of disaster risk reduction policies, and disaster monitoring. Consequently, the mainstreaming of disaster risk reduction progresses in developing countries.

In addition, a resolution was adopted to designate November 5 as “World Tsunami Awareness Day” responding to Japan’s call at the UN General Assembly in 2015. Accordingly, the High School Students Summit on “World Tsunami Awareness Day” has been held in various parts of Japan annually since 2016. In 2022, it was held in Niigata Prefecture on October 19 and 20. Furthermore, on November 4, 2022, Japan co-organized an event to raise awareness of the necessity to reduce the risk of tsunamis at the UN Headquarters with the UN Office for Disaster Risk Reduction (UNDRR).

Moreover, in close cooperation with the United Nations Development Programme (UNDP), Japan implements projects to support the formulation of tsunami evacuation plans and tsunami evacuation drills for countries at high tsunami risk in the Asia-Pacific region. Since the start of the projects in 2017, the institutionalization of disaster risk reduction has been promoted in Palau, as seen in a Presidential Proclamation declaring September of every year as National Preparedness Month. Also, by the end of 2022, the formulation and revision of tsunami disaster management plans, as well as programs for tsunami education, have been implemented at 441 schools across



## Sharing Lessons from the Great East Japan Earthquake and Japan's Technologies

—Joint Research with Mexico to Create Readiness against Megathrust Earthquakes—



Mexico, like Japan, is a country prone to natural disasters. The country is located where earthquakes tend to be triggered by friction instabilities between plates, and is said to be one of the areas with the highest risk of ocean trench megathrust earthquakes and subsequent tsunamis in the world.

The “Project for Hazard Assessment of Large Earthquakes and Tsunamis in the Mexican Pacific Coast for Disaster Mitigation” (SATREPS)<sup>\*1</sup> began in 2016 when Associate Professor ITO Yoshihiro of the Disaster Prevention Research Institute, Kyoto University, proposed cooperating with the National Autonomous University of Mexico (UNAM), with the idea of helping Mexico based on lessons learned from the Great East Japan Earthquake in 2011. Dr. Cruz Atienza, the principal investigator on the Mexican side who has contributed to the development of seismology in Mexico, recalled the situation at that time and said, “Mexico was hit by a magnitude 8.0 earthquake in 1985 and suffered a large amount of damage in and around the capital city. One of the factors was our weakness in assessing risk and preparing countermeasures. Faced with a lack of expertise on undersea earthquakes and tsunamis as well as financial resources, I welcomed this cooperation proposal as the head of the Department of Seismology in UNAM.”

In the State of Guerrero, located on the southern Pacific coast and the subject of this joint research, indications have been identified that megathrust earthquakes and earthquake-triggered tsunamis may occur in the near future. Therefore, it was necessary to carry out more precise observations and to establish highly reliable earthquake/tsunami models based on the observed data. It was also imperative to raise awareness of threats posed by tsunamis among Mexican people with no experience of major tsunami-based damage. To resolve these issues, stakeholders of both countries worked together to promote research and the implementation of research results into society. Dr. Cruz Atienza said, “This project has delivered three major results for Mexico.”

First, this project has established seismic and geodetic



The research team preparing to install seismometers and pressure recorders (Dr. Cruz Atienza, the main researcher on the Mexican side (third from the left), and Associate Professor Ito of the Disaster Prevention Research Institute, Kyoto University, serving as a representative from Japan (center)) (Photo: Kyoto University)



An event held on the Second World Tsunami Day in the city of Zihuatanejo de Azueta, a targeted city of this project, to commemorate disaster prevention education and bury a time capsule. Capsule to be opened 50 years later in 2067. (Photo: Kyoto University)

networks operating onshore and on the ocean floor. Based on the lessons from the 1985 major earthquake and Japan's cooperation, Mexico installed seismometers, pressure recorders, and other devices on the ground and on the seafloor for the first time. Japan also shared a variety of know-how such as operation and maintenance of these devices and analysis methods of data obtained from them. Mexican researchers successfully developed new theories and methodologies in geodetic observation, and established powerful data analysis methods.

Second, the project developed and verified hazard maps by simulating earthquakes and earthquake-triggered tsunamis. The tsunami inundation simulation, which was developed based on Japan's insights, illustrated how far inland a tsunami can reach and how people should evacuate. The Mexican side conducted seismic hazard simulations to quantify the risk in coastal areas. These efforts help inform people of the threat posed by earthquakes and tsunamis and the appropriate actions to take.

Third, the project has also worked with Mexico's National Center for Disaster Prevention, which was established by Japanese grant aid after the 1985 major earthquake, to develop disaster education programs based on scientific evidence and Mexico's needs, as well as to introduce these programs to many schools. In developing these education programs, Japan's expertise in disasters from a psychological aspect was also of great help.

Dr. Cruz Atienza appreciates these significant achievements and says, “We are thankful for the collaboration with great Japanese researchers and funding from Japan. We are now engaged in the next proposal to leverage collaboration results in wider areas.” It is expected that both countries will further enhance collaboration in this area in the future.

<sup>\*1</sup> See the glossary on page 41.

23 countries, with over 190,000 students, teachers, and other school personnel participating in tsunami evacuation drills. With regard to support for Arab countries, from 2021 to 2022, Japan provided technical assistance through UNDRR to 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 from 2016, Japan and the United Nations Institute for Training and Research (UNITAR) Hiroshima Office have worked together to provide support for human resources development targeting female government officials in developing countries vulnerable to natural disasters, particularly focusing on women’s roles and leadership in the event of tsunamis. Under this project, 356 people from 31 countries participated by the end of 2022.

Japan also contributes in the field of overseas deployment of ICT systems for disaster risk reduction. Japan’s ICT systems for disaster risk reduction make it possible to collect, analyze, and disseminate disaster related 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 (see “Project Introduction Column” on page 104).

### ■ Realizing Sustainable Cities

Japan takes initiatives to resolve global issues directly related to human settlements, including efforts for disaster risk reduction, recovery from natural disasters, and promoting a sound water cycle. Specifically, 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.” Japan also works together with the United Nations Human Settlements Programme (UN-Habitat) 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

Amid the lingering effects of COVID-19, Russia’s aggression against Ukraine has severely affected the global food security,<sup>80</sup> causing soaring food prices and supply chain disruptions. According to the report of “the State of Food Security and Nutrition in the World 2022,”<sup>81</sup> between 702 and 828 million people were estimated to be in hunger in 2021. This number increased

by approximately 150 million since the global spread of COVID-19, showing an increase of 46 million in 2021 alone. The report also predicts that 670 million people, which accounts for 8% of the world’s population, will still be affected by hunger in 2030. As this ratio is the same level as the proportion of undernourished people in 2015 when SDG 2 “Zero Hunger” was launched, the report notes that immense efforts are required to achieve the SDGs. In September 2021, the “UN Food Systems Summit” was held for the first time at the call of UN Secretary-General Guterres, for the purpose of realizing recovery from the effects of the COVID-19 pandemic, as well as achieving the SDGs by 2030. This Summit advocated that all people take action toward the transformation of “food systems,” which consist of food production, distribution, and consumption, in order to ensure global food security.

### 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. 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 “Stories from the Field” on page 84, and “Project Introduction Columns” on pages 85 and 139 for assistance regarding enhancement of rice and agricultural production).

### ■ Efforts to Provide Food Assistance and Improve Nutrition

Japan provides food assistance based on requests from developing countries facing food shortages. In FY2022,



Japanese staff members of WFP (dispatched under the JPO Programme) who support smallholder farmers to improve agricultural productivity, ship produce, and gain access to markets in the “Connecting Smallholder Farmers to Markets” program in Kenya pictured with the farmers receiving support (Photo: WFP)

<sup>80</sup> A state where all people, at all times, can access sufficient, safe, and nutritious food.

<sup>81</sup> A report jointly prepared and published by FAO, IFAD, WFP, UNICEF, and WHO.





## Stories from the Field

### A Platform for Increasing Rice Production in Africa

—CARD Activities that Connect African Countries with International Organizations—



Since the 1990s, in Africa, where the economic growth has been remarkable, there has been a greater demand for rice production as rice consumption has increased along with Africa's rapid population growth and urbanization. In addition, agriculture is an important industry for Africa, accounting for more than 20% of GDP in as many as 30 African countries. Therefore, it is essential to support farmers and raise the level of food self-sufficiency for continued sustainable growth. In particular, under the current situation where food prices are rising due to global circumstances, leading to the food crisis in the continent, it is becoming increasingly important to improve food self-sufficiency in African countries.

At the Fourth Tokyo International Conference on African Development (TICAD IV) in 2008, JICA, in partnership with an international NGO, Alliance for a Green Revolution in Africa (AGRA), launched an initiative called the "Coalition for African Rice Development (CARD)," aiming at doubling Africa's rice production. Currently, CARD involves 32 African member countries, with 14 international organizations and 5 African Regional Economic Communities (RECs) as supporting partners.

Dr. HANEISHI Yusuke, General Coordinator of the CARD Secretariat, explains CARD as follows: "Development partners, including JICA, support the formulation of the National Rice Development Strategy (NRDS) in each member country and provide assistance for increasing their rice production in line with the strategies. The CARD Secretariat monitors the implementation of the NRDS in each country."

The CARD initiative achieved the goal of doubling rice production in Africa (from 14 million tons to 28 million tons) and completed its first phase in 2018. In the second phase, which commenced in 2019, CARD aims at further increasing production toward 2030 as well as promoting a strategy



A consultative meeting for the formulation of the "Rice Offensive," a regional rice strategy for the Economic Community of West African States (ECOWAS), in Abuja, Nigeria. Director-general level officials from the agricultural ministries of 14 countries participated alongside representatives from various international organizations to finalize the formulation process of the ECOWAS version of rice development strategy. (Seventh from the right: Dr. Haneishi) (Photo: CARD Secretariat)

based on four perspectives called "RICE," which stands for "Resilience," "Industrialization," "Competitiveness," and "Empowerment." In order to improve rice "productivity" and "quality," which were revealed as challenges in the first phase, CARD has begun efforts to increase the yield per unit area<sup>\*1</sup> by focusing on new research and development of seeds and farming methods, as well as strengthening the capacity of rice millers to raise the competitiveness of domestic rice.

"The CARD initiative, led by Japan for more than 10 years, is now recognized by international organizations and donor countries as an established platform for rice. Even without support from the CARD Secretariat and JICA, African countries themselves reach out to CARD member donors for assistance in implementing their NRDS. In addition, the number of offers of assistance from non-member donors has also increased, and each member country obtains assistance based on their NRDS and puts it into practice for promoting the rice sector development. This is a great achievement for CARD, as it has supported the ownership of African countries," says Dr. Haneishi.

In this way, CARD has not only achieved increased rice production successfully in African countries, but also demonstrated a strong presence as a platform that connects member countries with development partners. Through the CARD initiative, JICA will continue to provide assistance for food security in Africa with various partners.



Rice fields in Fogera Plain in Amhara Region, Ethiopia. Farmers start cattle plowing for the next crop immediately after harvesting. (Photo: CARD Secretariat)

<sup>\*1</sup> Numerical value that indicates how much of a crop is harvested per unit area. It is calculated by dividing the total amount of crops harvested by the unit area.



## Regional Agricultural Revitalization through Cooperation between the Provincial Government and Farmers

### Laos



#### The Project for Participatory Agriculture Development in Savannakhet Province

Technical Cooperation Project (June 2017 – June 2022)

Savannakhet Province, located in the southern part of Laos, is a region with thriving agriculture centered on rice cultivation. However, the cultivation techniques that the provincial government strives to spread had not fully spread among farmers, and this had been a factor in the low yield. In response to the situation, this project aimed to increase farmers' productivity and income by supporting them to proactively improve their cultivation techniques, in partnership with officers and extension workers from the Provincial Agriculture and Forestry Office (PAFO) in Savannakhet.

The project started with understanding the needs of farmers by setting up meetings in which the provincial officers and extension workers held direct discussions with farmers. As the farmers faced serious challenges in securing funds and rice seeds

the cultivation techniques attained through the training. As a result, the unit yield of rice increased by 31% compared to the level before the start of the project. In addition, 74% of the farmers participating in the training (2,803 people in total) continued to use the cultivation techniques.



Implementation of training on rice farming techniques (Photo: JICA)

for the next crop in the aftermath of the torrential rains in 2018, "Strengthen Cultivation Techniques by Rice Seed and Fertilizer Lending Program" was launched to provide support to them. This loan program required farmers to attend training in order for rice cultivation techniques to be shared with them. The farmers used loaned quality seeds and fertilizers while utilizing and practicing



Extension workers, farmers, JICA officials, and project staff conducting a yield survey to confirm the results of the training on rice farming techniques (Photo: JICA)

Furthermore, the project helped the province cooperate with private institutions to enable the province to operate its own loan program, and obtained the cooperation of a Lao bank. In Savannakhet Province, the loan program continues even after the completion of this project and the farmers purchase quality seeds and fertilizers with their increased income, which shows sustainability.

It is expected that farmers, provincial officers, and extension workers will continue to work together to further revitalize local agriculture.

Japan contributed a total of ¥7.8 billion to 27 countries and one region as a grant mainly with the provision of Japan's Government-Owned Rice.

In addition to bilateral support, Japan is engaged in efforts to provide food assistance in cooperation with international organizations. For example, through the World Food Programme (WFP), Japan supports school meal programs to improve access to education, as well as initiatives to encourage people to participate in the development of agricultural land and social infrastructure through the distribution of food. In 2022, Japan contributed grant aid of ¥200 million each in February and August through WFP to Sierra Leone, which chronically faces food shortages, with the provision of Japan's Government-Owned Rice, as well as beans and vegetable oils. In 2021, WFP conducted activities including the distribution of approximately 4.4 million tons of food and food assistance based on cash transfers to approximately 128 million people in 80 countries around the world. Japan contributed a total of approximately \$226.19 million to the WFP projects in 2021.

Furthermore, Japan supports the improvement of nutrition in developing countries through contributions to the multilateral development banks (MDBs). In 2021, 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 addition, from the perspective of mainstreaming nutrition in development policy, Japan hosted the 20th replenishment final meeting of the International Development Association (IDA) of the World Bank Group in December 2021, and included in its agenda the strengthening of human capital, including improving nutrition status, as a priority area.

In addition, Japan hosted the "Tokyo Nutrition for Growth Summit 2021" in December 2021 and issued the "Tokyo Compact on Global Nutrition for Growth" as the outcome document of the Summit. More than \$27 billion in nutrition-related financial contributions was announced by governments and other stakeholders at this Summit, including Japan's contribution of more than ¥300 billion in nutrition-related assistance announced by Prime Minister Kishida. Japan promotes

cooperation for improving nutrition in the international community based on the outcomes. Specifically, Japan works with WFP to provide grant aid for food and nutrition assistance to displaced persons from Myanmar in Bangladesh. Japan also works with the United Nations International Children's Emergency Fund (UNICEF) to provide specialized nutritional foods to children, pregnant women, and nursing mothers in Timor-Leste.

#### ■ 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 promotes the establishment of food value chains for developing countries in cooperation with private companies. In FY2022, based on the "Plan to Promote the Establishment of Global Food Value Chain," which defines priority initiatives to establish a food value chain in each country and region, Japan organized bilateral policy dialogues with Thailand and Palau.

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. Specifically, under the Coalition for African Rice Development (CARD)\* Phase 2, Japan proceeds with efforts 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. CARD targets have expanded to 32 countries (see also "Stories from the Field" on page 84 for the efforts by CARD).

In TICAD 8 held in August 2022, Japan set the goal to provide human resources development for 150,000



Harvesting rice in a domestic rice harvesting festival held under the "Project for Increasing Farmers' Households' Income through Strengthening Domestic Rice Production in Timor-Leste" (Photo: JICA)

people and to realize a doubling of rice production (56 million tons) by 2030 through CARD.

Moreover, in order to transform agriculture from self-sufficient to "income generating" activities, Japan provides assistance through the Smallholder Horticulture Empowerment & Promotion (SHEP) approach.\* The SHEP approach refers to an effort to assist smallholder farmers producing fruits and vegetables, aimed at increasing their income by causing a mindset shift to "growing to sell" and through improvements to farm management and cultivation skills. Japan has so far provided training and dispatched experts to 29 countries in Africa to support the transformation from the existing subsistence agricultural model. Japan expressed at TICAD 8 that it would support 66,000 people's shift to agriculture for "earning" through the SHEP approach. Japan also stated that it would provide \$300 million through co-financing to support the strengthening of food production in coordination with the African Development Bank's African Emergency Food Production Facility.

#### ■ Food Security through International Organizations

Japan has been involved in the development of the "Agricultural Market Information System (AMIS)"<sup>82</sup> in order to contribute to the improvement of food security through the enhancement of transparency in international agricultural markets. Japan contributes to project costs of AMIS while sharing information on Japan's experiences.

Japan also provides assistance in the agricultural sector through international organizations such as the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (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, provides 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. In April 2022, Japan provided seeds, fertilizers, etc., to smallholder farmers in Ukraine. In July, Japan also provided food-related assistance in response to the impact on the global food security caused by the situation in Ukraine. As part of this effort, Japan decided to provide food-related assistance mainly to the Middle East and Africa and support the expansion of Ukraine's supplemental grain storage capacity to facilitate its grain exports. Japan also supports research and development aimed at both increasing productivity and sustainability, including variety development, the introduction of digital agricultural technologies, and other efforts conducted by CGIAR, which is comprised of

<sup>82</sup> 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.

15 international agricultural research institutions.

In addition to the above-mentioned assistance in the agricultural sector, Japan contributes to the enhancement of animal hygiene through the World Organisation for Animal Health (WOAH) and FAO. For example, Japan participates in the “Global Framework for the Progressive Control of Transboundary Animal

Diseases (GF-TADs),” established by WOAH and FAO in response to transboundary animal diseases such as Avian Influenza, Foot-and-Mouth Disease (FMD), and African Swine Fever (ASF), supporting the initiatives of international organizations in the field of animal hygiene mainly for the Asia-Pacific region.



## Glossary

### Food Value Chain

An activity in which various stakeholders cooperate, including the farmers, suppliers of farming materials and implements, such as seeds, fertilizers, and farming machinery, processing companies of agricultural produce, transportation and distribution companies, and retailers, aiming at creating 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 agricultural produce, developing attractive new products, reducing transportation costs, increasing sales opportunities by expanding the sales network, and other activities.

### Global Financing Facility (GFF)

An initiative launched in 2015 by the World Bank, the UN, 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 mobilize funds effectively 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

A trust fund 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.

### Coalition for African Rice Development (CARD)

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 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 TICAD 7 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 establishing agricultural management systems to improve the household incomes and livelihoods of farmers.

### New Rice for Africa (NERICA)

A general term for rice developed in 1994 by the CGIAR Africa Rice Center through the hybridization of high-yield Asian rice with weed, disease, and insect pest resistant African rice. 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 has provided 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

An approach started by Japan in Kenya in 2006 to assist smallholder farmers producing fruits, vegetables, and other produce. It aims to increase their income through converting farmers' mindset from “grow and sell” to “grow to sell” and by improving farm management and cultivation skills. Japan promotes the activities integrating the SHEP approach around the world with a focus on Africa.

## (9) Securing Access to Resources and Energy

The number of people without access to electricity is estimated at approximately 733 million in the world and more than 48% of the population in Sub-Saharan Africa as of 2020.<sup>83</sup> The lack of electricity, gas, and other energy supplies also leads to many issues, such as delays in industrial development, loss of employment opportunities, and a further increase in the poverty rate.

The global energy demand is expected to increase further in Asia and other parts of emerging and developing countries. Meanwhile, energy prices have soared due to factors such as Russia's aggression against Ukraine, and unseasonable weather worldwide. Under such circumstances, it is important to ensure energy security through diversification of energy suppliers and energy sources.

<sup>83</sup> IEA “Tracking SDG7: The Energy Progress Report,” p. 25. (<https://iea.blob.core.windows.net/assets/8b276fc2-c1ae-4a54-9681-eea1eb143d7f/TrackingSDG7TheEnergyProgressReport2022.pdf>)



Japan works on the provision of support that enables modern energy supply and 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.) (see also “Master Techniques from Japan to the World” on page 76 and “Project Introduction Column” on page 89).

For example, in the Pacific Island countries located across expansive ocean areas with vulnerability to the influence of climate change, Japan assists in mainstreaming grid-connected type renewable energy from the perspective of energy security and the realization of low-carbon or decarbonized societies. In the Dominican Republic, which highly relies on imported fossil fuels for its electricity supply, Japan supports LED light use for streetlights on public roads across the country through yen loans in order to help improve the energy efficiency of the country. These efforts are expected to contribute to promoting energy conservation and reducing greenhouse gas emissions in the public sector of the country.

At TICAD 8,<sup>84</sup> held in August 2022, the Green Growth Initiative with Africa (GGA) was launched with the aim of maximizing Japan's cooperation through three concepts, namely ownership and co-creation, flexible finance mobilization, and collaboration with diverse partners. As part of the contribution based on GGA, Japan announced its support for private investment in renewable energy projects, expansion of geothermal power generation, and cooperation in the field of mineral resources such as copper and rare metals that were indispensable for achieving a decarbonized society. As support for African countries to appropriately preserve and utilize natural resources and ecosystems, and to realize sustainable growth (green growth), Japan helps in the operation and maintenance of the Africa Power Pool (interconnected power grid among several countries), power distribution networks, and grid stabilization, among other efforts.

In Kenya, through the support to develop the Olkaria Geothermal Power Plants, Japan contributes to increasing and stabilizing power supply, and Japanese companies are responsible for part of the project implementation. In 2022, the ceremony for the official commissioning of the Olkaria I Additional Unit 6 and V Geothermal Power Plant was held. With the inauguration of the plants, Kenya has become sixth in the world in terms of installed capacity of geothermal power.



A wind power plant built in India under the “New and Renewable Energy Development Project”

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 55 resource-producing countries and many supporting countries including Japan, civil society including extracting companies and NGOs participate in the EITI. They work 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 and information and communication technology (ICT), artificial intelligence (AI), and robotics are utilized in diverse industries, including not only the manufacturing industry and the service industry but also agriculture and construction.

Based on the 2030 Agenda for Sustainable Development (Paragraph 70), the UN has established the UN Inter-agency Task Team on STI for the SDGs (UN-IATT) and promotes Science, Technology, and Innovation for SDGs (STI for SDGs) on a global scale, in cooperation with countries. The UN Multi-Stakeholder Forum on Science, Technology, and Innovation for the Sustainable Development Goals (STI Forum) was held again in 2022. Expectations for STI are internationally increasing as a key to achieve the SDGs while optimizing limited resources.

<sup>84</sup> See “ODA Topics” on page 127.

## 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 Partnership for Sustainable Development (SATREPS) program"<sup>85</sup> and others in order to resolve challenges faced by developing countries. The development of a sustainable land management framework to combat desertification in Ethiopia is a good example from SATREPS that contributes to resolving challenges in developing countries.

The UN-IATT conducts the "Global Pilot Programme" in six pilot countries, India, Ukraine (since 2021), Serbia, Ethiopia, Ghana, and Kenya, in order to promote the formulation of 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 addition, through contributions to the United Nations Development Programme (UNDP), Japan has continued to support Japanese companies that consider launching projects to resolve social challenges in developing countries through STI since FY2020.



7th STI Forum held at the UN Headquarters (May 2022)

## Contributing to Stable Supply of Energy through Long-Term Support

### Rwanda



#### The Project for Improvement of Substations and Distribution Network Phase 3

Grant Aid (September 2018 - August 2023)

In Kigali, the capital of Rwanda, demand for electricity has increased due to rapid urbanization and population growth in recent years. However, the shortage of power supply facilities caused the overloading of the main substations in the city. Therefore, the power supply of the city has been unstable, and has affected the economic activities of Kigali and the living condition of citizens.

In response to the situation, since 2011, Japan has been providing assistance for ensuring the stable and efficient supply of electricity. The assistance includes maintenance of facilities such as substations and power distribution networks through grant aid, as well as technical cooperation, such as improving the capacity of the public electric power corporation to develop efficient power systems and facility maintenance and management.



New Gasogi substation and distribution line



Mr. Uruno, a consultant, explaining how substations and distribution lines work  
(Photo: Yachiyo Engineering Co., Ltd.)

Under the grant aid project titled the "Project for Improvement of Substations and Distribution Network Phase 3," as a response to the growing demand, a new substation was built and approximately 20 km of distribution lines were installed in Kigali to ameliorate the overloaded state of major substations in the city. The new distribution lines, which are laid in parallel with the existing ones, enable the prevention of power outages even if one of the distribution lines breaks or if there is a sudden increase in power demand in one area.

In this way, Japan's long-term assistance has greatly contributed to the stable supply of electricity to 1.2 million residents in the city, and thus the development of Kigali's economic infrastructure and the improvement of the living environment for its citizens.

<sup>85</sup> See the glossary on page 41.