

Promote Infrastructure Development in Thailand by Utilizing Japanese Technology

Thailand



The Project for Capacity Development and Promotion of Utilization of National CORS^{*1} Data Center Technical Cooperation Project (September 2020 – February 2024)

In Thailand, work efficiency and productivity enhancement are a challenge in various industries due to a shortage of human resources and a decrease in veteran engineers associated with declining birthrates and aging populations in society. In particular, there is significant demand for infrastructure development and business promotion with ICT construction machinery^{*2} that uses high-precision positioning^{*3} to enable autonomous operations of construction and agricultural machinery. It is important to appropriately operate a network of CORS. However, as multiple government agencies independently set and measure CORS according to their respective purposes of use, errors occurred in positioning data and those agencies were unable to share and mutually use the obtained information. Thus, the Government of Thailand established the National CORS Data Center (NCDC) as a reference station to observe and correct errors that occur in CORS.



Road construction using high-precision positioning data and ICT construction machinery (Photo: JICA)

Under this project, Japan provides technical assistance to allow NCDC to centrally and accurately analyze and distribute positioning data from CORS, by means of networking 240 CORS across Thailand and by building a network that enables advanced surveying, so that relevant agencies can utilize disseminated information.

In order to promote the utilization of high-precision positioning, Japan publicly invited Japanese and Thai companies to undertake projects. Japan, together with agencies of the Government of Thailand, selected a total of eight projects in the sectors of agriculture, surveying, construction, and automated vehicle operation, and launched pilot projects. In the agricultural sector,

a project is underway to develop a method to precisely spray agricultural chemicals using self-driving agricultural helicopters by leveraging high-precision positioning. In the construction sector, a road construction project is underway applying autonomous driving construction machinery, in addition to high-precision surveying and construction by making use of three-dimensional (3D) data, and there are growing expectations for higher quality and efficient construction work with the use of high-precision positioning.

Through these pilot projects, Japan will continue to provide support for industrial promotion and infrastructure development using high-precision positioning, and will contribute to the further stable management of high-precision positioning data.



An on-site tour of road construction using high-precision positioning data and ICT construction machinery (Photo: JICA)

^{*1} Continuously Operating Reference Stations (facilities that take an accurate measurement of a position and altitude on Earth by continuously receiving radio waves from a positioning satellite).

^{*2} Heavy machinery in the construction sector that incorporates information and communication technology (ICT).

^{*3} Real-time and accurate measurement of positions and altitudes of data operation anywhere on Earth. It is expected that autonomous construction and agricultural machinery operation, as well as industrial development through the use of autonomous driving technology, can be realized by leveraging high-precision positioning.

Dominican Republic



Project for Enhancing the Mechanism for Sustainable Community Based Tourism Development in the North Region

Technical Cooperation Project (April 2016 – March 2022)

In the Dominican Republic, one of the most popular tourist destinations in the Caribbean, large-scale development projects with foreign capital have been actively implemented to date. Such large-scale development, however, did not properly utilize the natural and cultural resources of the surrounding area, and opportunities for local residents to benefit were also limited.

Japan, therefore, provides assistance for Community-Based Tourism (CBT) promoted and led by local communities, which the Government of the Dominican Republic advocates, and supports sustainable tourism development that leads to regional development.

This project aimed to create employment and revitalize the regions through the promotion of local specialty products, targeting the 14 northern prefectures. To achieve this, Japan helped develop new tourism products such as experience-based tourism that emphasizes the experience of enjoying the culture and nature unique to the region. Japan further supported planning

tourism routes to attract tourists to rural areas and developing human resources related to marketing.

As a result, the project succeeded in creating new tourism demand that utilized local resources, such as adventure experiences including kayaking and rock climbing, and workshops for making folk crafts. Community-led tourism activities bring benefits to areas that were previously left out of tourism development.



A Japan Overseas Cooperation Volunteer (JOCV) giving instructions during a folk craft workshop at a regional exposition (Photo: JICA)



A JICA expert introducing experience-based programs and local products that utilize local resources at a regional exposition (Photo: JICA)

In addition, as COVID-19 countermeasures, Japan provided assistance for formulating infection prevention guidelines and protective equipment against infectious diseases so that CBT could continue amid the pandemic. Furthermore, in cooperation with the World Tourism Organization (UNWTO), Japan also supported the formulation of a post-COVID-19 recovery plan, whose results were reflected in the Government of the Dominican Republic's Strategic Vision 2030 for CBT Promotion.

Japan will continue to support sustainable tourism development in which local communities play an active role.

Philippines



Maritime Safety Capability Improvement Project for the Philippine Coast Guard (Phase 2)

Loan Aid (October 2016 onwards)

The Philippines is a maritime nation consisting of more than 7,000 islands with a coastline of approximately 36,000 km, and maritime transport plays a major role in the country's economic and social development. However, the number of maritime accidents doubled in 2015 over the past five years, due to an increase in passenger and cargo transport, as well as aging vessels and improper operations such as overloading. In addition, the risk of maritime crime is also increasing, and strengthening measures to deal with smuggling, poaching, terrorism, and other problems has become one of the important issues.



PCG's Patrol Vessel BRP Teresa Magbanua, commissioned in May 2022 (Photo: JICA)

The Philippine Coast Guard (PCG), responsible for maritime safety and maritime law enforcement, had an absolute shortage of vessels and could not adequately take emergency response in the event of maritime accidents or appropriate actions against crimes such as smuggling. Against this backdrop, Japan decided to provide two 97-meter class patrol vessels,^{*1} the largest in the country, through loan aid with the aim of improving PCG's capabilities for maritime rescue and maritime law enforcement operations offshore and in coastal areas.

These patrol vessels were built in Japan amid the COVID-19 crisis owing to the efforts of the parties concerned from both

countries. Despite a challenging situation where people could not easily visit each other to discuss the details of the vessels' design and manufacturing, the two patrol vessels were successfully commissioned in the Philippines in May and June 2022 respectively, after a period of preparation including training for ship operators. The patrol vessels, built with Japan's cutting-edge technology, are expected to ensure the maritime security surrounding the Philippines, contributing to the realization of a "Free and Open Indo-Pacific (FOIP)," which upholds the commitment for peace and stability based on the rule of law.



Then President of the Republic of the Philippines Duterte delivering a speech at the commissioning ceremony of BRP Melchora Aquino

^{*1} The vessels have a length of approximately 96.6 m, a maximum speed of 24 knots, and a cruising range of more than 4,000 nautical miles. In addition, they are also equipped with devices and equipment necessary for maritime situational awareness and maritime law enforcement activities including telecommunications equipment capable of monitoring the Exclusive Economic Zone (EEZ), facility for helicopters, remotely operated unmanned underwater vehicles, and high-speed work boats. They play a particularly important role in rescue operations in stormy weather and patrols in offshore and coastal areas.

Six African Countries^{*1} and Four Asian Countries^{*2}Sustainable Technology Promotion Platform (STePP) Demonstration Project to Transfer Japanese Technologies and Products to Developing Countries to Limit the Impact of COVID-19^{*3}

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.^{*4}

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)

^{*1} Kenya, Madagascar, Morocco, Nigeria, Senegal, and Uganda

^{*2} India, Indonesia, Mongolia, and Viet Nam

^{*3} See below for the details of this project.

http://www.unido.or.jp/en/activities/technology_transfer/stepp-demo-results/

^{*4} 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.

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.

Environmental Conservation in Pacific Island Countries through Continuous Cooperation

Nine Pacific Island Countries^{*1}



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).^{*2}

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.

^{*1} Fiji, Marshall Islands, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu.

^{*2} 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.

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.

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.

Promotion of KAIZEN in Cooperation with the Government of Malaysia

Malaysia



Enhancing Productivity and Competitiveness through KAIZEN for African Countries

Technical Cooperation (Third Country Training) (2011 – 2022)

Since the 1980s, JICA has been carrying out projects to promote the KAIZEN^{*1} method to contribute to the advancement of industrial development in Southeast Asia. Within the region, KAIZEN has spread widely in Malaysia in particular, contributing to the country's current economic development.

Malaysia established the Malaysia Productivity Corporation (MPC) in 2008 to strengthen the international competitiveness of Malaysian companies through training and consulting based on the KAIZEN method. Furthermore, the MPC makes use of this experience to promote KAIZEN to other developing countries and carries out activities to support their industrial development.

Meanwhile, in African countries, there was a growing awareness that improving the quality and productivity of the products they produce would be essential for the development of their own industries, and interest in the Japanese style KAIZEN increased. In response to this situation, since 2005, JICA has been providing cooperation to African countries for the improvement of productivity, mainly through the KAIZEN method.

Under such circumstances, since 2011, Malaysia has continued to provide this training to African countries as part of their cooperation for the Tokyo International Conference on African Development (TICAD)^{*2} led by Japan. Specifically, Malaysia invites government officials from African countries and provides training on the theory and practice of "Seiri (Sort), Seiton (Set), Seiso (Shine), Seiketsu (Standardize), and Shitsuke (Sustain)" (5-S Principles), with JICA providing financial and technical cooperation. To date, more than

100 participants from 19 African countries have participated in the training. The training, which makes use of Malaysia's experience and knowledge, has been highly valued.

This training not only contributes to the development of African countries, but also strengthens the partnership between Japan and Malaysia. It is a meaningful triangular cooperation^{*3} that also contributes to the promotion of Japan's KAIZEN brand, and Japan will continue these efforts.



An instructor from Malaysia running a workshop
(Photo: JICA)

^{*1} See 32 on page 41.

^{*2} See "ODA Topics" on page 127.

^{*3} See the glossary on page 109.

Ensuring the Continuation of Children's Learning

Nepal



Project for Improving the Quality of School Education in Nepal

Technical Cooperation Project (January 2019 – January 2024)

While Nepal has reached 96.6% in its primary school education enrollment rate, it faces the challenge of low academic achievement in mathematics among lower elementary students. Therefore, Japan decided to provide support for improving the basic academic performance in mathematics of students, including the development of mathematics learning materials that are easy for children to understand and handbooks for teachers, and training for teachers.

After the project started, elementary schools were closed for a long period of time due to the spread of COVID-19 since 2020, which posed a challenge to create an environment for children to continue learning.

In response to this situation, the project developed self-learning materials in cooperation with the Ministry of Education, Science

and Technology of Nepal. The materials were distributed to all students in the first to third grades of elementary schools in pilot districts, a total of approximately 7,600 students, to enable them to continue high-quality mathematics learning at home. Special efforts were made to ensure that children could make progress in their studies even without face-to-face classes, such as indicating the corresponding page of the textbook in the learning materials as well as providing sufficient examples, illustrations, and exercises. These learning materials also include feedback sheets for parents and teachers

to use with a view to stimulating communication between parents and teachers, which has been difficult in Nepal.

Thus, Japan provides assistance tailored to local needs and supports securing learning opportunities even under the difficult situation caused by COVID-19. Japan's assistance aims to help children develop their academic ability without being left behind, toward the promotion of "Quality Education for All," which is one of the SDGs.



Students receiving explanations about how to use self-learning materials at an elementary school in Pipra Village, Mahottari District (Photo: JICA)



Elementary school students receiving self-learning materials at their school in Tatopani Village, Jumla District (Photo: JICA)

Protecting Lives through Disaster Communication

Tonga



Project for Nationwide Early Warning System and Strengthening Disaster Communications

Grant Aid (June 2018 - April 2023)

Tonga, an island country in the South Pacific, consists of four archipelagos of over 170 large and small islands. The country is prone to natural disasters such as cyclones, earthquakes, and tsunamis, and it is ranked as the third most vulnerable country in the world to natural disasters.*¹ Despite this situation, the necessary equipment for communicating disaster information to residents was not in place, causing delays in evacuating residents.



Construction of an antenna for an AM radio broadcasting system that enables information communication to the Niua Islands, approximately 600 km from the capital (Photo: JICA)

Against this backdrop, Japan started to develop an early warning system connecting the Tonga mainland and remote islands, as well as facilities and equipment for the Tonga Broadcasting Commission. However, the project was delayed due to the impact of COVID-19, and furthermore, a volcanic eruption and tsunami occurred in January 2022 before the system and equipment were fully installed with Japan's assistance. Domestic and international telephone and internet communications were cut off, which made it difficult to assess the situation on remote islands, confirm safety, and communicate disaster information. If the early warning system that was planned to be developed under this project had been completed, it would have been possible to quickly communicate disaster warning and safety information nationwide. It was regrettable that the system was incomplete at the time of the eruption and tsunami, and the Government of Tonga and the

citizens expressed their earnest desire for its early completion.

Approximately two months after, Japanese engineers returned to the project site to restore damaged facilities and equipment and installed the remaining equipment. At the opening ceremony in September 2022, His Royal Highness Crown Prince Tupouto'a 'Ulukalala said, "Our calling is preparing ourselves to prevent casualties of natural disasters. We can save those who might be affected in the future by using this early warning system," indicating his strong recognition of the importance of this system in Tonga.

Through this project, the arrival time of tsunami warning to residents was reduced from a maximum of 90 minutes to less than 8 minutes, and the siren sounds can now reach all residents in tsunami hazard areas.

The Ninth Pacific Islands Leaders Meeting (PALM9), one purpose of which is to strengthen the partnership between Japan and Pacific Island countries, lists "climate change and disaster resilience" as one of the priority areas for Japan to cope with Pacific Island countries over the next three years. Japan will continue to cooperate with Pacific Island countries, which are vulnerable to natural disasters, by utilizing Japan's knowledge of disaster prevention.



Remote Activated Receiver (RAR). An "indoor siren terminal" installed to expand and complement the range of siren alarms at approximately 500 locations nationwide. (Photo: The Consortium of Yachiyo Engineering Co., Ltd., Japan Telecommunications Engineering and Consulting Service, and Kokusai Kogyo Co., Ltd.)

*¹ Based on the Global Risks Report 2021.

Honduras



Project to Improve Maternal Health Care Services in Teupasenti Municipality

Grant Assistance for Japanese NGO Projects (March 2019 – February 2022)

The Municipality of Teupasenti, located in the mountainous area of El Paraiso Department in eastern Honduras, had no facility for childbirth, and thus pregnant women had no choice but to travel outside the city in order to give birth at any facility. There was also an issue of not being able to receive appropriate prenatal care at existing healthcare centers, causing a higher maternal mortality rate than in any other city.

In this project, AMDA Multisectoral and Integrated Development Services (AMDA-MINDS), a Japanese NGO, implemented a wide range of support activities to ensure safe childbirth. It includes the improvement of the existing health centers and their systems, which would serve as the first contact point for community healthcare, as well as awareness-raising activities for pregnant women.

To begin with, AMDA-MINDS provided eight health centers with medical equipment and consumables, including ultrasound diagnostic equipment, with necessary technical training, in order to strengthen the system for health and medical care provision. As a result, prenatal care is now available five days a week at the principal health center with ultrasound equipment installed.



Doctors and nurses participating in a technical training session on how to use ultrasound diagnostic equipment, and examining an image of a pregnant woman's abdomen on the screen (Photo: AMDA-MINDS)

AMDA-MINDS also

conducted training for 90 health volunteers and 40 traditional midwives (birth attendants) on emergency medical care, first aid, and perinatal health with the aim of increasing the response capabilities of the community as a whole. The participants recognized their role and acquired knowledge and skills on safe childbirth through the training. This knowledge and information were passed on to a total of 7,750 local residents.

As a result of these activities, the number of pregnant women who received prenatal care four or more times increased from 33% to 74% throughout the city. Furthermore, the number of pregnant women who received ultrasound testing at least once increased from 45% to 80%, while the postnatal checkup rate increased from 65% to 77%. The rate of facility deliveries outside the city also increased from 70% to 80% as residents now have access to accurate health-related information and can spend their perinatal period in a safe environment. These figures indicate that caring systems for expectant and nursing mothers have been established throughout the area. This is indeed a unique NGO project that encourages communities to take voluntary problem-solving efforts while mediating the efficient delivery of government services to local communities.



Health volunteers eagerly participating in a training session (Photo: AMDA-MINDS)

Ukraine



The Project for Capacity Development of Public Service Broadcaster of Ukraine

(1) Grant Aid (April 2019), (2) Technical Cooperation Project (January 2017 – March 2022)

In order for the mass media to fulfill its role of monitoring power and guaranteeing the public's right to know, it is necessary to develop a public broadcasting station that is independent of the government and the market. In Ukraine, the Public Broadcasting Company of Ukraine (PBC) was established in January 2017 through the merger of 32 companies, including the National Television Company of Ukraine (NTU), 22 regional state broadcasting companies, National Radio Company of Ukraine, and film production companies. However, with a strong image as a government billboard and average viewer ratings of less than 1%, there was an urgent need to enhance the staff capacity and improve the content.



A workshop conducted by Japanese experts (Photo: JICA)

Therefore, Japan provided support for strengthening PBC's staff capacity to create educational and cultural programs, and for building a broadcasting structure in the event of disasters and emergencies. Japan also provided broadcasting materials and equipment.

Following the start of Russia's aggression against Ukraine in February 2022, PBC has continued to broadcast mainly news reports while moving its physical bases to escape from the war. Through Japan's assistance, an information network between



Filming a puppet show program (Photo: JICA)

PBC's Kyiv headquarters and nationwide local branches was developed, and a "Manual for Reporting Natural Disasters and Emergencies" that summarizes how to report in an emergency was compiled. Such assistance is now contributing to PBC's continuous broadcasting during wartime.

In addition, changing the mindset of reporters supports PBC's emergency coverage during wartime. Through the project, Japan provided training to build information channels with government agencies. As a result of the training, the mindset of many PBC reporters changed from "information is something that the government unilaterally chooses to provide at their convenience," which the reporters had believed since the era of the former Soviet Union, to "information is something that reporters go out and obtain themselves." This is another example of Japan's contribution to Ukraine.

Tajikistan



Project for Strengthening the Water Service Management of Pyanj and Khamadoni Vodokanals Technical Cooperation Project (April 2017 – June 2021)

In Khatlon Province, located in the southern part of Tajikistan, only approximately 47% of residents had access to safe water due to the aging water supply facilities built during the former Soviet Union era. Especially in Pyanj and Khamadoni Districts, many residents used poor quality water such as water from irrigation and shallow wells for drinking and living.



A JICA expert conducting operation and management training for well pumps for engineers of the local VKs (Photo: JICA)

To overcome this situation, from 2008 to 2016, Japan renovated and expanded water supply facilities in both districts through grant aid. In addition, Japan had implemented this technical cooperation project since 2017 to ensure that these facilities would be properly operated and maintained. Aiming to strengthen organizational capacity and improve the management of both water and sewerage public utilities (Vodokanals/VKs) in Pyanj and Khamadoni, the project provided guidance on how to organize data required for operating water supply systems as well as operate and maintain water supply facilities.

In particular, the project succeeded in converting the fee collection system from the previous fixed-rate system to the meter-rate system advocated by the government. As a result of these efforts, a safe and stable water supply was made possible 24 hours a day. In addition, by increasing the water supplied population, the revenue of VKs increased (1.65 time increase in Pyanj), which contributed to improving their management significantly. This was

the first time that a meter-rate system was introduced in Khatlon Province, and the fee collection system that applies Japanese knowledge and systems was established as the “Pyanj/Khamadoni Districts model.” The model is expected to be further promoted and expanded.

Tajikistan is actively involved in the water sector in the international community. In June 2022, Tajikistan and the UN jointly held an international conference^{*1} in the capital Dushanbe, while Tajikistan, together with the Netherlands, will co-chair a UN conference^{*2} in New York in March 2023. At the June 2022 meeting, the achievements of this project were shared, and then Parliamentary Vice-Minister for Foreign Affairs Honda reported on the “Kumamoto Initiative for Water” at the Fourth Asia-Pacific Water Summit^{*3} held in Japan. Through this project, Japan and Tajikistan deepen mutual cooperation in the water sector and demonstrate their presence in international initiatives.



A meter reader reading a water meter newly installed through the introduction of the meter-rate system (Photo: JICA)

^{*1} Second High-Level International Conference on the International Decade for Action, “Water for Sustainable Development.”

^{*2} 2023 Conference for the Midterm Comprehensive Review of Implementation of the UN Decade for Action on Water and Sanitation (2018-2028).

^{*3} See “ODA Topics” on page 65.

Triangular Cooperation for Africa with Tunisia as a Gateway

Tunisia



(1) Project on Quality/Productivity Improvement

(1) Technical Cooperation (Phase 1: September 2009 – March 2013, Phase 2: January 2016 – December 2021)

(2) Human Security as a Factor in Socio-Economic Development

(2) Contributions and Subscriptions to International Organizations (March 2021 – September 2022)

In Tunisia, where the Eighth Tokyo International Conference on African Development (TICAD 8)^{*1} was held, triangular cooperation for African countries is promoted by taking advantage of abundant human resources in various specialized fields.



In training in Japan, Tunisian trainees visiting a cleaning company that actually employs the KAIZEN methods (Photo: JICA)

Through JICA's technical cooperation, Tunisia has been working on KAIZEN^{*2} in the industrial sector since 2006. So far, nearly 100 companies have implemented the KAIZEN methods such as organizing and revising flow lines to improve work efficiency, which has led to improved productivity. With this knowledge, Tunisia conducted KAIZEN training for Libya in December 2021. Approximately 30 people, including representatives of the Libyan Ministry of Economy and entrepreneurs, participated in this training, which served as a foothold for the introduction of KAIZEN in Libya. The Ministry of Industry, Mines and Energy of Tunisia aims to establish a Productivity and Quality Improvement Center (KAIZEN Center) to accept training participants from both inside and outside the country, in order to promote KAIZEN in Africa with Tunisia as a hub.

Japan's community police activities are also expanding from Tunisia to other African countries. In Tunisia and through the United Nations Development Programme (UNDP), Japan makes efforts to establish "accessible police," similar to Japanese police boxes, small police stations that serve local neighborhoods, to improve



Security agencies officials from Sub-Saharan Africa attending the African conference on "accessible police"

citizen's accessibility to police stations. In July 2022, an African conference on "accessible police" was held in Tunis, with a total of 320 participants from 17 African countries and 11 international organizations.

In addition, third country training is conducted in Tunisia to share the knowledge of Japan and Tunisia with African countries,^{*3} in fields such as health and medical care.

The Government of Tunisia puts a lot of effort into education and has abundant professional human resources such as engineers and doctors. In addition to Arabic, many of these professionals are fluent in French and English. Making good use of this wealth of human resources, Japan's technology and knowledge are expected to be transferred to African countries with Tunisia as a gateway.

^{*1} See "ODA Topics" on page 127.

^{*2} See 32 on page 41.

^{*3} In the technical cooperation projects, "Medical Equipment Management for African Countries" and "Waste Management and Urban Sanitation in African Cities," third country training on proper use of medical equipment and on hygiene were conducted respectively.

Uganda



Improvement of Water, Sanitation and Hygiene Environment for Refugees from the Democratic Republic of Congo and Host Communities^{*1} in Western Uganda

Japan Platform (JPF)^{*2} (February 2021 – October 2021)

In Uganda, Africa's largest refugee-hosting country, there is a need for assistance in refugee settlements, where an increasing number of refugees coexist with local residents. In Kyaka II Refugee Settlement, which mainly hosts refugees from the Democratic Republic of the Congo, it is a priority to secure access to safe water, as the actual water supply does not meet the demand of its growing population, and so refugees and local residents have no other choice than to fetch water from rivers or puddles. At schools, the existing facilities of latrines and hand-washing stations are not sufficient for the increased number of students, and the issue of "period poverty," where female students miss school because they cannot afford to buy sanitary products, is conspicuous.

Under such circumstances, Peace Winds Japan (PWJ), a Japanese NGO, provided assistance for improving the water supply and sanitary conditions with grant assistance from Japan Platform (JPF). PWJ extended the water distribution network/pipelines and installed additional water tap stands so that approximately 3,000 people could obtain water from taps. In addition, PWJ provided training to the Water Management Committees, composed of beneficiaries, to ensure appropriate operation and maintenance of the water facilities.

At schools, in addition to the construction of latrines, hand-washing facilities, and changing rooms,^{*3} the PWJ staff made household visits^{*4} to 400 female students to distribute Menstrual Hygiene Management kits.^{*5} PWJ also conducted training for both male and female students of the School Health Club on menstrual



School Health Club students making reusable sanitary pads (Photo: Peace Winds Japan)

hygiene and how to make reusable sanitary pads. Students provided their feedback, saying, "I'm glad, because I can't ask my family to buy sanitary pads especially when life gets tougher due to COVID-19," and "I want to teach how to make reusable sanitary pads to other students and my family members."

This project utilized JPF funds to quickly respond to humanitarian crises and leveraged the strengths of NGOs in providing finely-tuned assistance for people who have not yet received aid and for pressing issues. It supported the coexistence of refugees and local residents, which also leads to the realization of one of the three pillars of TICAD,^{*6} "Peace and Stability." PWJ will continue its activities across the world.



Female students receiving Menstrual Hygiene Management kits (Photo: Peace Winds Japan)

^{*1} This refers to those who originally live in the refugee-hosting areas.

^{*2} See the glossary on page 145 regarding JPF.

^{*3} A place where female students can wash their bodies and clothes or change clothes during menstruation. It is also used as an office for female staff so that female students can use the space easily without worrying about being noticed. The place is also tailored to serve as a consulting space for menstrual hygiene.

^{*4} Due to the lockdown under the spread of COVID-19, the distribution was done through household visits.

^{*5} Reusable sanitary pads, underwear, laundry soap, and a bucket for school girls.

^{*6} See "ODA Topics" on page 127 for TICAD.

Poverty Reduction by Converting Waste into Products

Zambia



(1) Project for Expansion of Banana Paper Making Factory in Mfuwe in the Eastern Province

(1) Grant Assistance for Grass-Roots Human Security Project (December 2015 – April 2018)

(2) Small and Medium-Size Enterprise (SME) Partnership Promotion Survey for Sustainable Pulp Production Made of Banana Stems

(2) JICA's SDGs Business Supporting Survey (November 2021 – January 2023)

Aiming to reduce poverty in Zambia's rural areas, One Planet Café Ltd. started a banana paper business in 2011, focusing on discarded banana stems. One Planet Café purchases discarded banana stems from local farms and extracts fibers from the stems. The fibers become a raw material for paper. Adding value to "waste" results in an income increase for banana farmers.



Local staff of the company operating a machine that extracts fibers from banana stems (Photo: JICA)

Japan supports the company's efforts through ODA. In the Grant Assistance for Grass-Roots Human Security Project, Japan supported expanding a factory and setting up a training room for making hand-made banana paper in Zambia. Meanwhile, the SDGs Business Supporting Survey provides assistance for research into processing banana stem fibers into pulp. This pulp will become a raw material for paper.

The banana fiber produced in Zambia is sent to Japan and made into banana paper at the Echizen

Washi factory, which has a long history of making traditional Japanese paper called "washi" for over 1,500 years. Through collaboration with Japanese printing firms and paper product manufacturers, the use of banana paper is expanding around the world. The manufactured "One Planet Paper®" is the first paper in Japan to receive fair trade certification, and is widely used for such things as business cards, wrapping paper for cosmetic brands, and graduation certificates.

One Planet Café also conducts training to improve the income of people in rural Zambia, as well as wildlife conservation training. Poverty alleviation is expected to curb illegal deforestation, poaching, and the illegal trade of wild animals.

In this way, the public and private sectors collaborate to reduce poverty through creating new jobs and increasing income in Zambia.



Postcards made with banana paper being sold at a local store (Photo: JICA)

Tanzania, Kenya, Côte d'Ivoire, Ghana, and Nigeria



Data Collection Survey on Promotion of Agricultural Mechanization through Introduction of Modernized Agricultural Technologies in Sub-Saharan Africa

JICA Data Collection Survey (February 2022 – February 2024)

With a large share of the workforce engaged in it, agriculture in African countries is one of the most important sectors for economic growth and poverty reduction. Many farmers in African countries, however, still use traditional methods in agriculture, so it is a huge challenge to improve their agricultural productivity, including mechanization, as well as the quality of their agricultural products.

"Promoting installation of Advanced Agricultural Technologies" was listed as one of the priority actions under the Agriculture Innovation Platform in Africa (AIPA)*¹ proposed at the Seventh Tokyo International Conference on African Development (TICAD 7)*² in August 2019.

As a response, it was agreed to set up the Africa Field Innovation Center for Agricultural Technology (AFICAT)*³ with the aim of contributing to improving agricultural productivity and the quality of agricultural products. For the launch of a full-scale AFICAT in the future, this JICA data collection survey is run as a pilot activity in the five countries where Japanese companies are interested in expanding their businesses; Tanzania, Kenya, Côte d'Ivoire, Ghana, and Nigeria, focusing on mainly the utilization of rice-related agricultural machinery.

In Nigeria, Honda Motor Co., Ltd. held a seminar for government officials and smallholder farmers in Lafia, Nasarawa State, and demonstrated how to use and maintain a small power tiller with an

actual machine. Participating farmers commented, "This will help reduce working hours," and expectations for the advancement of agricultural mechanization increased.

The necessary implementation structure for the full-scale operation of AFICAT will be proposed based on the knowledge obtained through this survey. AFICAT is expected to continue serving as a foothold for Japanese agriculture-related companies to expand their businesses into Africa. At the same time, it is also counted on to promote agricultural mechanization, enhance agricultural productivity, and improve the quality of agricultural products in African countries, utilizing Japanese products and technologies.



An online seminar in Tanzania for officials from the Tanzanian Ministry of Agriculture held by Kett Electric Laboratory Co., Ltd. Participants lively exchanged questions and opinions about the company's agricultural machinery and products. (Photo: Kaihatsu Management Consulting, Inc.)



A demonstration of a power tiller conducted by Honda Motor Co., Ltd. for local farmers and officials from the Federal Ministry of Agriculture and Rural Development of Nigeria (Photo: Kaihatsu Management Consulting, Inc.)

*¹ A concept that aims to strengthen and promote linkage among the three pillars of the agricultural sector, namely, productivity improvement, farmer empowerment, and high-value addition.

*² See "ODA Topics" on page 127 regarding TICAD.

*³ A framework established to introduce advanced agricultural technology and promote agricultural mechanization in African countries through public-private partnerships between Japan and Africa. It is expected to serve as a base for exhibitions and demonstrations of agricultural materials and equipment, as well as human resources development and innovation.

Working to Build a Bridge of Happiness!

Belize



Japan Overseas Cooperation Volunteers (Participation with Incumbent Occupation) Category: Music (June 2015 – March 2017) Ms. MORI Mio (Kyoto Prefectural Board of Education)

The Toledo District, located in southern Belize, lacked teachers with specialized music education. I was assigned to Toledo Community College where I conducted music classes and provided technical guidance to fellow teachers. During my assignment, a colleague of mine who understood the importance of emotional education suggested, "Let's form a chorus club and participate in competitions! I want to build confidence in our students!" Approximately 15 students who expressed an interest in joining the club competed in a regional qualifier, and the club made it to the national competition. In addition, I organized workshops at five schools and events in three regions in order to spread Japanese culture, and more than 1,500 people in total enjoyed activities such as traditional Yosakoi dance and wearing casual-style kimono called yukata. Through the activities I engaged in as a Japan Overseas Cooperation Volunteer (JOCV), I learned that "the happiness of children and the community is something that transcends the boundaries of various positions and is created through everyone's cooperation."



The established chorus club competing in a regional qualifier (Photo: MORI Mio)

Currently, I am back working as a music teacher at a high school in Kameoka City, Japan. In addition to music classes, I work to connect high school students with Kameoka City Hall, universities, and private companies, and actively engage in planning and managing collaborative classes^{*1} on the SDGs.

While the world and society are changing rapidly, the environment surrounding Japanese students and the problems they face are also diverse. Under such circumstances, I believe that we can create new forms of happiness by collaborating not only with schools and teachers but also with



Japanese cultural event held in Punta Gorda, the place of assignment (Photo: MORI Mio)

people in various positions. I would like to work as a person who can create various connections by removing the "wall" between the school and the community, making use of my experiences from JOCV activities.

^{*1} Business entities, NPOs, and other organizations that are working to solve social issues conduct classes together with schools, utilizing their specialized knowledge and skills, in order to realize practical and real learning that cannot be offered by schools alone.

Niger



Greening Activities with Organic Garbage in the Metropolitan Area of Niamey, Republic of Niger

JICA Partnership Program (Support Type) (September 2021 – September 2024)

In Niger, which is located on the southern edge of the Sahara Desert, desertification that devastates the land is severe, causing a decline in the production of agricultural and livestock products. It is a serious problem that leads directly to hunger and poverty for many citizens in Niger because more than 80% of the population is engaged in agriculture and livestock farming.

For the past 20 years, Professor OYAMA Shuichi of Kyoto University has been working with the Ministry of Environment and Anti-desertification of Niger and the local people to combat desertification and solve the problems of hunger and poverty. Based on a greening model backed by Dr. Oyama's many years of research, this project carries out activities for greening degraded land using sorted and collected urban household waste. By dumping urban organic waste into degraded land, the sand that is blown in by monsoons accumulates and termite activity increases,



Dr. Oyama explaining the greening mechanism using urban waste to officials of the Ministry of Environment and Anti-desertification of Niger (Photo: JICA)



A boy on summer vacation taking care of livestock on a new pasture that was once degraded land (Photo: OYAMA Shuichi)

both of which improve the soil. Plastic bags mixed into waste act as plastic sheets for agriculture, preventing the evaporation of precious moisture in arid regions and helping plants grow.

So far, 36 blocks (21 hectares) of degraded land have been developed into grazing land, fields, and forests according to the wishes of the citizens. The increase in livestock grazing land and crop arable land has created jobs and led to cash income for citizens, and the expansion of green spaces has reduced conflicts between farmers and herders.

This project contributes to resolving various issues such as preventing desertification by greening degraded land, resolving urban waste problems, reducing poverty among local people, and bringing regional peace and stability.