

Part III

Responses to Priority Challenges



A JICA expert providing guidance to a local farmer to strengthen the agricultural value chain in Paraguay (Photo: JICA)

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“Quality Growth” in the New Era and Poverty Eradication through such Growth

(1) Strengthening Socio-economic Autonomy and Resilience

Japan has long sought to eradicate poverty, the most fundamental development challenge, by achieving economic growth and ensuring that such growth is “quality growth.”¹ Essential to “quality growth” is improving the socio-economic infrastructure that underpins development. Moreover, it is crucial for the private sector to play a central role, vigorously promoting its activities in industrial development as well as in the expansion of trade and investment. However, the global economy faces challenges, including surging energy and food prices and supply chain¹ disruptions, exacerbated by Russia’s aggression against Ukraine and instability in the Middle East. In particular, developing countries often face difficulties in building institutional capacity and an enabling environment needed to promote trade and attract private investment. To support developing countries in building socio-economic autonomy and resilience, engagement from the international community remains vital.

Japan’s Efforts

■ Enhancing Resilience and Diversifying Supply Chains as well as Promoting Economic Diversification

Japan supports the development of trade and investment environments, as well as the broader economic foundations of developing countries, through both structural (infrastructure) and non-structural (institutional and capacity building) assistance, with the aim of enhancing their export capabilities and competitiveness. Structural assistance includes the development of transportation networks—such as ports, roads, and bridges—that are essential for trade, along with industrial infrastructure like power plants and transmission grids. On the non-structural side, support is provided through technical cooperation in trade-related fields, such as capacity building for customs officials and experts in intellectual property rights, to facilitate trade management as well as import and export procedures.

Strengthening the economic resilience and economic security of developing countries through

such cooperation is an urgent priority. Doing so helps ensure quality growth in developing countries while also contributing to a virtuous cycle of mutual growth that benefits the Japanese economy.

With this perspective in mind, at the Ministerial Council Meeting of the Organisation for Economic Co-operation and Development (OECD) held in June 2025, member countries affirmed the importance of reducing risks through diversification and the reduction of critical dependencies, as part of efforts to build economic resilience. They also emphasized the need to engage actively with partners and the private sector and to pursue coordinated efforts to strengthen supply chains and improve global value chains, in accordance with the “principles on resilient and reliable supply chains”² established at the G7 Summit.

At the G7 Kananaskis Summit held in the same month, “Economic Growth, Economic Security, and Resilience” was featured as one of the major session topics. Then Prime Minister Ishiba stated that strengthening and diversifying supply chain resilience for critical minerals is an urgent issue and stressed the need for close coordination with the G7 and its partner countries to address this issue. He also pointed out that the resource-rich countries play a significant role in this process, and emphasized the importance of collaboration in launching new mineral resource projects for diversification of supply chains as well as cooperation for initiatives such as the “Resilient and Inclusive Supply Chain Enhancement (RISE) Partnership” to promote local value addition in developing countries. In the “G7 Critical Minerals Action Plan” issued at the Summit, the G7 leaders committed to deepening cooperation with mineral-rich emerging market and developing country partners, including through capacity-building support.

Furthermore, at the Japan-UK Economic 2+2 Ministers’ Meeting (“Economic 2+2”) in March 2025, the four ministers expressed their joint ambition to strengthen cooperation on economic resilience and economic security, including enhancing supply chain resilience and cooperation on critical and emerging technology issues. At the Japan-U.S.-ROK Foreign Ministers’ Meeting in September, the three ministers also confirmed their commitment to working closely together in the field of economic security, including enhancing supply chain resilience for critical minerals.

One example of infrastructure development

¹ This refers to the entire process, from procuring raw materials to production, processing, distribution, and sales to providing the product to consumers.

² At the G7 Hiroshima Summit, it was confirmed that transparency, diversification, security, sustainability, trustworthiness and reliability are essential principles on which to build and strengthen resilient supply-chain networks among trusted partner countries both within and outside the G7.

contributing to supply chain resilience is the development of the Nacala Corridor, which connects the landlocked countries of Zambia and Malawi to the Indian Ocean via the Port of Nacala in Mozambique. In August 2025, then Prime Minister Ishiba announced the launch of a region-wide co-creation for common agenda initiative for Mozambique, Malawi, and Zambia titled “Strengthening the Global Supply Chain through Nacala Corridor Development,” on the occasion of the 9th Tokyo International Conference on African Development (TICAD 9) (see the “ODA Topics” on page 127 for TICAD 9, and Part V, Section 2 (2) on page 160 for the co-creation for common agenda initiative). Japan has been advancing the development of the Nacala Port through yen loans, along with the construction of power plants and roads. To further maximize utilization of the corridor, Japan will strengthen transportation infrastructure and promote industrial development in the region through the co-creation for common agenda initiative, drawing on the ideas of various stakeholders, including private companies, international organizations, and civil society. This is expected to strengthen connectivity within the region and enhance the value of the corridor as a transportation route to strengthen Japan’s global supply chains related to various resources.



The Nacala Port in Mozambique, where Japan is advancing port development and functional enhancement (Photo: Penta-Ocean Construction Co., Ltd. & Toa Cooperation Joint Venture)

In the field of critical minerals, Japan has been implementing the “Kizuna Program” for more than a decade to develop human resources responsible for sustainable resource development and to strengthen human networks. To date, Japan has provided long-term training programs for a cumulative total of 246 government officials and others from 32 countries, covering a wide range of capacities, including legal and institutional development, resource exploration and development, mine safety, environmental protection against mining damage, and mine closure, thereby supporting sustainable mining development in

developing countries.

Japan also offers training programs worldwide on strengthening supply chain resilience, building sustainable and reliable logistics systems, and enhancing food value chains.³ In FY2024, a total of 147 government officials and others participated in these programs. In Indonesia, since 2018, Japan has been providing technical cooperation on six remote islands near the national border. In addition to supporting the development of fisheries facilities, this cooperation has focused on revitalizing local economies through the promotion of high-value-added marine products and the establishment of distribution systems to markets outside the islands.

To promote trade with developing countries, Japan has introduced the Generalized System of Preferences (GSP), which applies lower tariff rates than those under the Most-Favored Nation regime to encourage imports from developing countries into the Japanese market. In particular, Japan offers a Special Preferential Tariff Scheme for Least Developed Countries (LDCs),* providing duty-free, quota-free access.* In March 2025, Japan revised the scheme so that the application period in which LDCs can benefit from the Special Preferential Tariff Scheme was extended from within one year to up to three years after graduation from LDC status, and implemented this measure from FY2025.

Japan also actively promotes Economic Partnership Agreements (EPAs)* and investment agreements with developing countries. These agreements are designed to liberalize trade and investment, such as through the reduction or elimination of tariffs on goods and barriers to trade in services, as well as the simplification of customs procedures. They also aim to protect Japanese companies investing abroad and their assets, thereby improving the overall business environment. Such efforts are expected to support Japanese companies in expanding their activities in developing country markets, ultimately contributing to the economic growth of those countries. To ensure the smooth implementation of EPAs, Japan also provides technical assistance to customs authorities in developing countries to support the proper application of customs procedures.

Discussions regarding “Aid for Trade (AfT)”* have intensified in various international fora such as the World Trade Organization (WTO) and the OECD, as a means of further promoting support from developed countries, including Japan. Japan has contributed to organizations such as the International Trade Centre (ITC), which implements AfT, with the aim of strengthening the capacity of developing countries to engage in trade negotiations and participate in the global market, and raising their ability to implement the WTO agreements.

³ Systems that link added value across all stages of the food production process, from farming to processing, distribution, and consumption, through the coordinated involvement of multiple stakeholders, including farmers; suppliers of inputs such as seeds, fertilizers, and machinery; agri-food processors; transport and logistics providers; and retailers.

In 2025, through the ITC, Japan provided support for women entrepreneurs in Africa to leverage e-commerce, assisted local government officials and others in promoting trade and investment under the African Continental Free Trade Area (AfCFTA), and supported employment and entrepreneurship for displaced persons in Ukraine.

With regard to customs-related cooperation, Japan supports developing countries, particularly among ASEAN member states, through organizing training programs for customs officials and dispatching Japanese customs personnel to local sites, with the aim of strengthening the institutional capacity of customs authorities in developing countries. In particular, Japan has dispatched its customs officials as long-term JICA experts to six ASEAN member states,⁴ where they provide on-site support tailored to the specific needs of each country. Since July 2024, a regional initiative involving Cambodia, Thailand, and Laos has also been launched to enhance connectivity in the Mekong region. At the multilateral level, Japan contributes to the World Customs Organization (WCO), helping to promote the adoption of international standards and to share best practices, thereby facilitating global trade while ensuring border security. In addition, the Master Trainer Programme, a joint JICA/WCO initiative, has been expanded beyond Africa to also cover Pacific Island countries as well as Central Asia and the Caucasus region, and to date has supported the training of instructors and development of training materials in a cumulative total of 37 countries, contributing to the enhancement of sustainable customs training capabilities. On the occasion of TICAD 9 in August 2025, Japan co-hosted an official thematic event on AfCFTA with the WCO and the AfCFTA Secretariat. The event brought together diverse perspectives from international organizations, regional economic communities, African countries, private sector operators, and donor countries



A Working Group Activity of the Master Trainer Programme held in Fiji in September 2025 as part of the technical cooperation project “WCO/JICA Joint Project: Master Trainer Programme on Risk Management and Post Clearance Audit” for the Pacific Island countries (Photo: JICA)

to discuss the progress and current challenges of AfCFTA and the importance of cooperation among domestic and international stakeholders toward utilizing AfCFTA. The event also introduced Japan’s efforts to improve the business environment for Japanese companies in Africa.

■ Providing Technical Assistance for the Development of Financial and Capital Market Systems and Related Areas

A sound and stable financial system, along with a well-functioning financial and capital market, is essential to the sustainable economic development of developing countries. As financial globalization progresses, it is increasingly important to support the development of robust financial markets by fostering financial systems in emerging markets in an appropriate manner. With this in mind, Japan has provided training through the JICA Knowledge Co-Creation Program (Group & Region Focus), covering topics such as financial regulations and supervision. Additionally, the Financial Services Agency of Japan operates the Global Financial Partnership Center (GLOPAC), established in 2014 with the aim of supporting the development of financial infrastructure and strengthening cooperation with overseas financial authorities. Since its establishment, GLOPAC has hosted 243 financial regulatory officials from 38 countries and territories, conducting 26 training programs covering banking, securities, and insurance.

■ Supporting Domestic Resource Mobilization

In order for developing countries to achieve quality growth by addressing various development challenges under their own ownership, it is important that they secure necessary development funds through their own efforts, such as from tax revenue. This approach is known as “domestic resource mobilization.” Amid concerns over the shortfall in development financing required to achieve the Sustainable Development Goals (SDGs),^{*} Japan, in collaboration with international organizations and other partners, contributes to discussions on domestic resource mobilization and provides related support to developing countries. For example, Japan actively engages in technical cooperation aiming at improving tax administration of developing countries. In 2025, officials from the National Tax Agency (NTA) served as JICA experts in the Philippines and Viet Nam, providing expertise in areas such as taxpayer management, international taxation, and tax collection. Additionally, the NTA organizes the International Seminar on Taxation (ISTAX) and training on international

⁴ The six countries are: Cambodia, Laos, Malaysia, Myanmar, the Philippines, and Thailand.

taxation for tax officials from developing countries. Moreover, the “Project for Enhancement of Property Valuation Capacity” has been underway in Thailand since November 2022. Japan also supports the technical assistance programs on domestic resource mobilization, including in the area of taxation, implemented by the International Monetary Fund (IMF), the World Bank, the OECD, and the Asian Development Bank (ADB), by providing human resources, expertise, and financial assistance.

To support the sustainable development of developing countries, the implementation of the OECD/G20 Base Erosion and Profit Shifting (BEPS) Project,^{*} which aims to prevent tax avoidance by multinational enterprises, is also important. Coordinated implementation of this project by participating countries enables developing countries to effectively tackle tax avoidance and to impose and collect taxes appropriately within their jurisdictions. It also helps align their tax systems and administration with international standards, contributing to the establishment of a stable, predictable, and attractive investment environment for companies and investors. Currently, 147 jurisdictions, including many developing countries, participate in the OECD/G20 “Inclusive Framework on BEPS,” which was established to implement the measures agreed under the BEPS Project. To address the tax challenges arising from globalization and digitalization of the economy, work is underway on implementing the Two-Pillar Solution agreed upon in 2021 under this framework, including the enactment of legislation for the Pillar Two global minimum tax in individual jurisdictions. Japan supports these efforts through contributions to relevant international organizations.

■ Supporting the Labor Sector, including through Industrial Human Resources Development and Job Creation

Developing a skilled industrial workforce is crucial for achieving quality growth. In developing countries, where opportunities for education and training are often limited, Japan supports core institutions such as technical colleges and vocational training centers in cultivating personnel with a wide range of technical skills and expertise. In addition, Japan conducts training programs by inviting local industrial human resources to Japan and dispatching experts, in cooperation with Japanese companies. In doing so, Japan leverages its knowledge and experience to strengthen the capacity of teachers and instructors, improve the organizational management of training facilities, and assist in the development and revision of curricula and teaching



A JICA expert conducting training on agricultural branding techniques for staff of the Kalajdar Regional Development Agency as part of the technical cooperation project “Project on Enhancement of Competitiveness in Agro-industry” in Türkiye (Photo: JICA)

materials, all of which are efforts that aim to better link education with employment.

From 2016 to 2024, Japan provided multifaceted support, including the development of facilities and provision of equipment, to 19 Technical and Vocational Education and Training (TVET) institutions and others through 21 projects in 15 countries, in collaboration with the industrial sector and other partners. In 2025, Japan also supported skills development aimed at improving women’s livelihoods through 14 projects across 15 countries and regions via UN Women.

For Asia, the “Japan-ASEAN Comprehensive Connectivity Initiative,” announced in September 2023, set out Japan’s plan to provide training opportunities for 5,000 individuals in the following three years. Through various programs, such as training courses of the JICA Knowledge Co-Creation Program (Group & Region Focus), Japan supports the development of human resources, which is key to nation-building of ASEAN member states.

The Ministry of Health, Labour and Welfare (MHLW) has been conducting training programs both in Japan and in four targeted countries, Cambodia, Indonesia, Laos, and Viet Nam, to help develop and secure a skilled workforce. These programs⁵ aim to transfer the know-how of Japan’s Skills Evaluation System, which has been developed over time in both the public and the private sectors, including the National Skill Test System and Skills Competitions. In FY2024, a total of 98 individuals from four countries participated in the training. These efforts are expected to support the development and improvement of local skills evaluation systems, foster the growth of skilled workers, expand employment opportunities, and elevate the social standing of skilled labor in the target countries.

For Africa, Japan supports workforce development in the industrial sector to promote sustainable growth at the individual level. Key initiatives include the ABE

⁵ Training programs include “Training for personnel responsible for developing test standards and questions,” and “Training for personnel involved in administering and grading tests.” The number of participants mentioned above reflects the total across all such training programs.

Initiative (African Business Education Initiative for Youth) ⁶ and the Africa Kaizen Initiative, ⁷ both of which foster collaboration among industry, academia, and government. Japan also provides technical assistance in partnership with international organizations (For details on the ABE Initiative, see Part IV, Section 8 on page 129 and Part V, Section 1 (6) on page 153).

Japan contributes to the realization of decent work ⁸ in various regions around the world, such as Africa, the Middle East, and Asia, through cooperation in promoting respect for workers' human rights in global supply chains by funding the projects of the International Labour Organization (ILO). This cooperation includes job creation for youth and women, measures against child labor, and the improvement of working conditions.

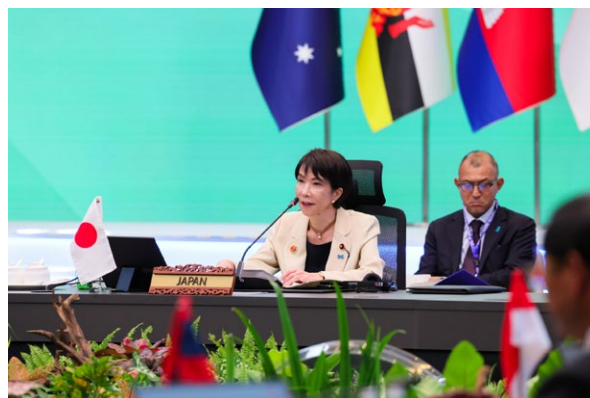


Staff from relevant ministries learning about Kaizen methodology through a company visit as part of the technical cooperation “Project on Strengthening Corporate Competitiveness through the Deployment of Comprehensive BDS Delivery System” in Cameroon (Photo: JICA)

■ Securing Access to Resources and Energy

As of 2023, 666 million people worldwide are estimated to lack access to electricity. ⁹ The absence of reliable energy sources, such as electricity and gas, hampers industrial development, reduces employment opportunities, and exacerbates poverty. Global energy demand is expected to grow further, particularly in emerging and developing countries, including those in Asia. At the same time, addressing climate change is an urgent challenge. In this context, it is essential to ensure energy security, while advancing decarbonization efforts to achieve net zero emissions by 2050. This requires diversifying both energy sources and suppliers. Japan remains committed to supporting energy transitions in ways that are tailored to the specific conditions and

development needs of each region. At the 3rd Asia Zero Emission Community (AZEC) Leaders Meeting, Prime Minister Takaichi reaffirmed the importance of the AZEC principles, together with a review of the progress made over the past year. The AZEC principles aim to realize decarbonization, economic growth, and energy security simultaneously, and achieve net-zero emissions under various pathways, taking into account each country's national circumstances, such as industrial structure and energy composition.



Prime Minister Takaichi speaking at the 3rd Asia Zero Emission Community (AZEC) Leaders Meeting (Photo: Cabinet Public Affairs Office)

To promote sustainable development in developing countries, Japan offers cooperation to enable the provision of modern energy and works to ensure a stable electricity supply for industrial growth. This includes assistance for the development of environmentally friendly infrastructure, such as energy-efficient equipment and power generation facilities that utilize renewable energy sources, including hydropower, solar photovoltaics, solar thermal, wind, and geothermal energy (for more on Japan's climate change efforts, see Part III, Section 3 (1) on page 65).

In the Pacific Islands region, characterized by its extensive maritime territories and high vulnerability to the impacts of climate change, Japan supports the mainstreaming of grid-connected renewable energy, with a focus on energy security and the transition to a low- and zero-carbon society. For example, Japan provides capacity building support to five Pacific Island countries ¹⁰ related to the formulation of power development plans, to prevent power systems from becoming unstable when introducing renewable energy, whose output is heavily influenced by natural conditions such as weather, thereby supporting the energy transition in the region.

⁶ See the glossary on page 132.

⁷ An approach that encourages each worker on the production floor to take initiative in identifying and implementing ways to reduce inefficiency and improve quality and productivity. This method was developed in Japan's manufacturing sector during the post-World War II period of rapid economic growth in order to improve the quality and productivity of manufacturing, rooted in the principles of 5S: Sort, Set, Shine, Standardize, and Sustain.

⁸ Decent and humane work as defined under SDG Goal 8.

⁹ International Energy Agency (IEA), “Tracking SDG7: The Energy Progress Report, 2025,” <https://www.iea.org/reports/tracking-sdg7-the-energy-progress-report-2025#overview>

¹⁰ The five countries are: the Federated States of Micronesia, Fiji, Palau, Samoa, and Tuvalu.



Harnessing Geothermal Energy in Arid Regions to Address Energy Access and Global Warming!

Science and Technology Research Partnership for Sustainable Development (SATREPS)
(May 2022 – April 2027)

Project for the Development of Decarbonized Heat
Energy Supply System using Ground Heat Source

Tajikistan



Tajikistan, a Central Asian country with limited hydrocarbon resources such as oil, relies on hydropower for 96% of its electricity generation, making stable access to energy a major challenge. Particularly during the winter months, when heating demand rises, water discharge rates decline due to reduced snowmelt and the freezing of rivers in watersheds, causing a drop in power generation. This leads to severe electricity supply shortages, with some rural areas experiencing restrictions limiting electricity use to just two hours per day. Although coal-fired thermal power generation has been in use since the Soviet era, the facilities have aged significantly, and their continued use is undesirable from the perspective of global warming.

To address these challenges, research institutions in Tajikistan and Japan joined forces, focusing on Tajikistan's abundant groundwater resources. In 2022, they began developing an “Advanced Ground Source Heat Pump (GSHP) System for Arid Regions (Tajikistan Model)” through the “Science and Technology Research Partnership



GSHP system installed at the first demonstration site (Dushanbe) (Photo: Akita University)



Well drilling work at the second demonstration site (Machiton) (Photo: Japan Groundwater Development Co., Ltd.)

for Sustainable Development (SATREPS) program,” also utilizing information and communications technology (ICT). The model aims to improve energy access by introducing energy-saving technology that uses the ground and groundwater, which maintain relatively stable temperatures throughout the year, as heat sources.

Under this project, groundwater distribution data was compiled into a database, primarily covering the capital city of Dushanbe, confirming that the country is highly suitable for GSHP deployment. A one-month trial operation conducted in September 2025 of a cooling system at the first demonstration site (in Dushanbe) showed a 47% reduction in electricity consumption.

Stable access to energy is the foundation that supports people's daily lives. The GSHP system, which simultaneously strengthens energy access and addresses global warming, has attracted strong interest from neighboring countries and international organizations. Going forward, the dissemination of this technology to arid regions around the world, including across Central Asia, is expected to make further contributions to the spread of decarbonized energy technologies, starting with the utilization of geothermal energy.



A Japanese company engineer instructing staff of the Palau Public Utilities Corporation (PPUC) on terminal processing for underground cables, as part of the grant project “The Project for the Development of Power Transmission Network” for Palau (Photo: TOENEC Corporation International Division)

■ Promoting Initiatives to Enhance Food Security and Nutrition

According to the report “The State of Food Security and Nutrition in the World 2025,”¹¹ it is estimated that 638 to 720 million people faced hunger in 2024. The report also projects that approximately 512 million people may be chronically undernourished in 2030. In addition, the prolongation of Russia’s aggression against Ukraine has left an estimated 5 million people (about 15% of the population) in need of food assistance.¹² Following the terrorist attacks by Hamas and others in October 2023, the food security situation has continued to deteriorate, with famine, the most severe level of food insecurity, occurring in Gaza City and surrounding areas¹³ (see “Featured Projects” on page 53 for emergency food assistance to the Gaza Strip).

Amid the urgent need to accelerate international efforts to combat hunger and poverty, Japan has been actively demonstrating its commitment to addressing these challenges in coordination with the international community through various bilateral meetings and multilateral conferences. Japan actively contributed to discussions in the G7 Food Systems Working Group (FSWG), and as a member of the G20, Japan participates in the “Global Alliance against Hunger and Poverty,” which aims to accelerate efforts to combat hunger and poverty, actively promoting agricultural development and rice production initiatives in Africa. Japan also supports the utilization of the “Agricultural Market Information System (AMIS)” through data provision and financial contributions, with the aim of contributing to

improved food security through enhanced transparency in international agricultural markets.

Japan provides food aid¹⁴ in response to requests from developing countries facing food shortages. In FY2024, grants totaling ¥8 billion were extended to 27 countries and regions, mainly through the procurement of food including rice, pulses, and canned fish.



A Bolivian consultant conducting agricultural market research under the guidance of a JICA expert

In addition, Japan works with international organizations to provide food to developing countries. Through the World Food Programme (WFP), for instance, Japan supports school meal programs that promote nutrition improvement and access to education, as well as initiatives that encourage community participation in agricultural and social infrastructure development through food distribution. In September 2025, Japan decided to provide ¥400 million in grants for Sudan through WFP, where serious food insecurity has been caused by armed conflict and other challenges. In 2024, WFP reached around 124 million people in over 120 countries and regions, providing food assistance including through the distribution of approximately 2.5 million tons of food and voucher- and cash-based interventions. Japan’s total disbursement to WFP in 2024 amounted to approximately \$155.48 million.

Furthermore, Japan advances efforts to build resilient and sustainable food systems, including by strengthening the food production base in developing countries.

For instance, Japan places strong emphasis on agriculture, which plays a key role in Africa’s economic growth, and actively contributes to its development. Based on Phase 2 of the Coalition for African Rice Development (CARD)^{*} and through the RICE approach,^{*} Japan supports a range of efforts to improve both the quantity and quality of rice production. These efforts cover the development of irrigation facilities, the

¹¹ A report jointly prepared and published by FAO, IFAD, UNICEF, WFP, and WHO. <https://www.who.int/publications/m/item/the-state-of-food-security-and-nutrition-in-the-world-2025>

¹² WFP website: <https://www.wfp.org/news/three-years-war-ukraine-one-third-population-frontlines-regions-struggle-find-enough-eat>

¹³ Integrated Food Security Phase Classification (IPC) website: <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1159696?iso3=PSE>

¹⁴ Grants that provide funding for the procurement of necessary goods and services to implement food aid in accordance with the Food Assistance Convention, targeting developing countries undertaking socio-economic development efforts, including poverty reduction.

breeding of high-yield rice varieties such as the New Rice for Africa (NERICA),* which is a hybrid of Asian and African rice, along with the increased production and distribution of their seeds, the promotion of improved cultivation techniques, and advanced agricultural mechanization. The number of countries covered by CARD has so far expanded to 32. At TICAD 8 held in August 2022, Japan announced its commitment to training 150,000 people through CARD and set a goal to double rice production across the continent to 56 million tons by 2030, an effort already underway in countries including Uganda. Progress on this commitment was also reported at TICAD 9, held in August 2025.



A Nepali farmer to whom new agricultural equipment was introduced through UNDP-supported assistance, enabling harvests even during the off-season (Photo: UNDP Nepal Office)

To support the transition from subsistence farming by smallholders to agriculture as a source of income, Japan promotes initiatives based on the Smallholder Horticulture Empowerment & Promotion (SHEP) approach.* SHEP encourages smallholder farmers engaged in the production of fruits and vegetables to adopt a market-oriented mindset, “grow to sell,” and seeks to improve their farm management and cultivation techniques in order to increase their income. Originating from technical cooperation with Kenya, the SHEP approach has spread to around 60 countries worldwide, promoting this transformation through training programs and the dispatch of experts. At TICAD 9, under the theme of “Co-create innovative solutions with Africa,” Japan announced its commitment to training 300,000 people over the next three years in a wide range of fields, including agriculture.

Japan also actively collaborates with international organizations to strengthen resilience in the agriculture and food sector (see “Stories from the Field” on page 36 for the collaboration with WFP in Zimbabwe). For example, through its partnership with the Food and Agriculture Organization of the United Nations (FAO), Japan engages in technical cooperation for agricultural and rural development in developing countries, helps support farmers and fishers affected by natural disasters and conflicts, assists in establishing international standards and norms in the food and agriculture sectors,

and provides cooperation in developing statistical systems. Japan supports research and development aimed at achieving both productivity and sustainability, including the development of improved crop varieties and the demonstration of cultivation techniques that contribute to reduced environmental burden, in collaboration with the Consultative Group on International Agricultural Research (CGIAR), which consists of 15 international agricultural research institutions. At the G7 Agriculture Ministers’ Meeting in Miyazaki in April 2023, Japan launched the “Enhanced Linkages between the Private Sector and Small-scale Producers (ELPS)” initiative in collaboration with the International Fund for Agricultural Development (IFAD). This initiative connects Japanese companies with smallholder farmers and other stakeholders in developing countries to help build and strengthen stable and sustainable supply chains for imported agricultural products. Following the first ELPS project, the “Sustainable Coffee Production Project” in Tanzania, Japan launched the second ELPS project, the “Macadamia Nut Value Chain Strengthening Project” in Rwanda, in August 2025. Through capacity-building support in 23 regions of Rwanda and other activities, the project aims not only to improve the skills and productivity of farmers and to enhance added value and quality through organic certification, but also to enable private companies to procure macadamia nuts from Rwanda in a stable and sustainable manner. Furthermore, in November 2025, Japan launched the third ELPS project, the “Strengthening Sesame Value Chain for Export Project” in Bangladesh. The project aims to enable stable procurement of high-quality sesame and improve farmers’ livelihoods through quality improvement and capacity building, thereby strengthening a stable export value chain.

In addition to such cooperation related to agricultural production, Japan also contributes to improving animal health through collaboration with the World Organisation for Animal Health (WOAH) and FAO. For instance, under the “Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs),” a joint initiative by WOAH and FAO to address transboundary animal diseases such as Avian Influenza, Foot-and-Mouth Disease (FMD), and African Swine Fever (ASF), Japan supports efforts by international organizations in the field of animal health, with a particular focus on the Asia-Pacific region.

Japan supports nutrition improvement in developing countries through contributions to multilateral development banks (MDBs)* and other mechanisms. For example, it helps effective finance mobilization for maternal and child health as well as the nutrition sector through the World Bank’s Global Financing Facility (GFF),* and supports policy development to improve nutrition through the Trust Fund for Scaling Up Nutrition (SUN).* Japan hosted the “Tokyo Nutrition for Growth Summit 2021” in December 2021, where then Prime



Stories from the Field

Toward Drought-Resilient Agriculture in Zimbabwe: Empowering Smallholder Farmers in Zimbabwe Unlocking Opportunities through High-Quality Sesame Production for the Japanese Market



Once known as the “breadbasket of southern Africa,” Zimbabwe has experienced repeated poor harvests of staple grain crops in recent years due to frequent El Niño-induced droughts. These shocks have led to widespread food insecurity among smallholder farmers. In response, there is an urgent need to strengthen climate resilience and improve the livelihoods of smallholder farmers through the introduction of sustainable agricultural practices.

In addition to providing food assistance to Zimbabwe, including rice, millet, and cooking oil, Japan has also recognized the high potential for sesame production in the country, a drought-resistant crop for which Japan is a major export destination. In partnership with the World Food Programme (WFP), a co-created project was launched in November 2024 to promote sesame production for export and strengthen the value chain. The initiative aims to enable smallholder farmers to adopt market-oriented agriculture.

Ms. OHASHI Chika from the WFP Zimbabwe Country Office plays a central role in this project. With over ten years of experience in United Nations agencies, she has worked across the fields of environmental management, natural resources management, disaster risk reduction, and humanitarian assistance. Her work is grounded in extensive field and operational experience, working closely with communities and people in need, with an approach shaped by her service as a Japan Overseas Cooperation Volunteer (now JICA Overseas Cooperation Volunteer). Speaking on the project’s objectives, she explains: “Rather than focusing solely on crop production and equipment maintenance, we aim to adopt a ‘food systems’ approach, considering the entire process through which agricultural products reach consumers. This includes storage, shipment, sales, and import/export. By strengthening the resilience of the system as a whole, we seek to stabilize and diversify farmers’ sources of income.” In building the value chain under this project, the expertise of Japanese trading companies has been effectively leveraged. In addition, through the Grant Assistance for Grass-roots Human Security Projects, Japan has supported the provision of sesame storage warehouses and temporary storage containers to a local NGO partnered with WFP. This has enabled a comprehensive and collaborative public-private partnership approach, thereby realizing cooperation with Zimbabwe through broad partnerships with international organizations, private sector actors, the Government of Zimbabwe, and local NGOs.

Ms. Ohashi emphasizes the importance of close engagement with people and communities: “It is vital to meet with local people, understand the realities and needs on the ground, and to think together to identify effective, and often creative, ways of providing support. “With the goal of exporting to Japan under the project,



Staff of a Japanese trading company visiting sesame cultivation sites and discussing with smallholder farmers (Photo: WFP)

where quality standards and regulations on chemical residues are stringent, she has worked closely with private sector partners to conduct repeated field visits to rural communities. Through these efforts, approximately 3,000 farming households have been engaged and trained in chemical-free production practices, optimal harvesting times, and processing techniques. Improved sesame seed varieties, more suited to local conditions, were subsequently distributed. In the first year alone, 261.5 metric tons of high-quality sesame were successfully exported to a Japanese company producing edible sesame oil, generating approximately US\$210,000 for the local economy. Smallholder farmers expressed their appreciation: “Due to the severe drought, other crops like maize were completely wiped out, but sesame remained. We were able to harvest it and earn income, and we are proud that it meets Japanese quality standards and can be sold at a higher price.” Warehouses and storage facilities constructed through a local NGO, designed to create synergies with the project, have enhanced quality control while serving as aggregation and processing hubs. These facilities help reduce unfair pricing practices through intermediaries and protect smallholder farmers from exploitation. WFP is expanding its geographic coverage and aims to support over 14,500 households by the project’s conclusion in 2027, and is also exploring opportunities to scale up the model to other regions.

Ms. Ohashi also notes, “In building self-reliant communities locally, it is critical to promote a shift in mindset among smallholder farmers—from ‘grow and sell’ to ‘grow to sell’—through Japan’s Smallholder Horticulture Empowerment and Promotion (SHEP) approach^{*1}, with which I hope to further strengthen collaboration.” Highlighting that Zimbabwe has a relatively high literacy rate and that the government places strong emphasis on nurturing its youth, she expresses optimism for the future: “The potential of Zimbabwe’s youth is significant, and there is strong trust in Japan. As we advance collaboration with Japanese companies, I place great hope in the strength of the younger generation.”

Despite challenges such as recurrent droughts and price fluctuations, Zimbabwe’s smallholder farmers are taking pride in their work, driven by the aspiration to “grow high-quality crops that can be exported to Japan. This emerging sesame industry, built through the collaboration of diverse actors, is not only creating new livelihood opportunities, but represents a significant step forward in restoring hope for the future. Japan will continue its efforts to strengthen food security and resilience in an increasingly changing climate through ongoing support for smallholder farmers.



A project-supported smallholder farmer cleaning harvested sesame by removing impurities (Photo: WFP)

^{*1} See the glossary on page 38.

Minister Kishida announced over ¥300 billion in nutrition-related assistance over three years. Japan provided

approximately ¥359.3 billion in support over the three-year period from 2022 to 2024.



Glossary

Quality growth

The Development Cooperation Charter describes this as “growth that is ‘inclusive’ in that the fruits of growth are shared within society as a whole, leaving no one behind, ‘sustainable’ in that the economy, society, and environment are in harmony across generations, and ‘resilient’ in that it can withstand and recover from various shocks, including natural disasters and economic crises.”

Least Developed Countries (LDCs)

According to the United Nations classification based on income levels, LDCs are those that are significantly behind other developing countries in terms of development, with the criteria reviewed every three years based on indicators including gross national income (GNI) per capita. As of 2025, 44 countries meet these criteria: 8 in Asia and the Middle East, 3 in Oceania, 1 in Latin America and the Caribbean, and 32 in Africa.

Duty-free, quota-free access

A measure that allows products imported from LDCs to be brought into Japan duty-free and without quantitative restrictions. Japan has expanded the scope of this measure, and currently allows approximately 98% of all tariff lines to be imported under duty-free, quota-free conditions.

Economic Partnership Agreement (EPA)

Agreements between specific countries or regions with the objective of strengthening broad economic relations, which incorporates elements of Free Trade Agreements (FTAs), aiming to reduce or eliminate tariffs on goods, barriers to trade in services, etc., as well as rule-making in fields of investment, movement of natural persons, intellectual property protection and competition policy, and elements of cooperation in various fields. These agreements are expected to stimulate trade and investment, contributing to further economic growth.

Aid for Trade (AFT)

Assistance provided to developing countries in order to enhance their trade-related capabilities and develop infrastructure, with the aim of achieving economic growth and poverty reduction through trade under the multilateral trading system of the World Trade Organization (WTO). The WTO places particular emphasis on promoting development in developing countries by facilitating their integration into the multilateral free trading system.

2030 Agenda for Sustainable Development/Sustainable Development Goals (SDGs)

International goals aimed at realizing a sustainable and better world by 2030, as outlined in “the 2030 Agenda for Sustainable Development,” adopted unanimously by UN member states at the UN Summit in September 2015, as the successor to the Millennium Development Goals (MDGs, 2001). The SDGs consist of 17 goals and 169 targets.

OECD/G20 Base Erosion and Profit Shifting (BEPS) Project

Launched in June 2012 by the OECD Committee on Fiscal Affairs, the OECD/G20 Base Erosion and Profit Shifting (BEPS) Project aims to revise the entire framework of international taxation rules to better reflect the realities of the global economy and corporate behavior, so as to prevent multinational enterprises from artificially shifting profits and eroding tax bases to avoid taxation, based on the notion of ensuring a level playing field. It also aims to enhance the transparency of both governments and multinational enterprises.

Coalition for African Rice Development (CARD)

An initiative to support self-help efforts to boost rice production in Africa, simultaneously functioning as a donor consultation group that works in partnership with interested rice-producing countries. Japan, in partnership with the international NGO Alliance for a Green Revolution in Africa (AGRA), launched CARD at TICAD IV in 2008. The second phase of CARD was initiated at TICAD 7 in 2019.

Resilience, Industrialization, Competitiveness, Empowerment (RICE) Approach

An approach adopted under CARD Phase 2 to help achieve the goal of doubling rice production in Sub-Saharan Africa. It focuses on stabilizing production in response to climate change and population growth, fostering local industries in collaboration with the private sector, improving the quality of domestically produced rice to enhance competitiveness with imports, and strengthening agricultural management systems to enhance farmers’ incomes and livelihoods.

New Rice for Africa (NERICA)

A collective term for rice varieties developed by the Africa Rice Center, part of the Consultative Group on International Agricultural Research (CGIAR), through crossbreeding high-yield Asian rice with African rice varieties, known for their resistance to weeds, diseases, and pests. Compared to conventional rice, NERICA varieties offer (1) higher yields, (2) shorter growing period, allowing cultivation during short rainy seasons and reducing risk of drought, and (3) greater resilience against drought and disease, making them well-suited to Africa’s hot, dry climate. Since 1996, Japan has supported the development and dissemination of NERICA by dispatching researchers and experts from the Japan International Research Center for Agricultural Sciences (JIRCAS) and JICA.

Smallholder Horticulture Empowerment & Promotion (SHEP) approach

Launched by Japan in Kenya in 2006, the SHEP approach supports smallholder farmers who produce vegetables, fruits, and other horticultural crops. It aims to boost farmers' incomes by encouraging a shift in mindset from "grow and sell" to "grow to sell," while enhancing their farm management and cultivation skills. The SHEP approach has since been adopted in approximately 60 countries worldwide, particularly across Africa.

Multilateral Development Banks (MDBs)

A general term for international institutions that provide comprehensive support for poverty reduction and sustainable economic and social development in developing countries through financial assistance, technical assistance, and knowledge sharing. Typically, the term "MDBs" refers to the World Bank Group, which operates globally, and four regional development finance institutions that focus on specific regions: the Asian Development Bank (ADB), the Inter-American Development Bank (IDB), the African Development Bank (AfDB), and the European Bank for Reconstruction and Development (EBRD).

Global Financing Facility (GFF)

An initiative launched in 2015 by the World Bank, the UN, and others, seeking to expand financial resources for maternal and child health. It provides technical assistance for formulating relevant policies, including those aimed at improving the nutritional status of women and children, as well as for strengthening implementation capacity. To mobilize additional funding, GFF support is conditioned on the use of concessional financing, such as low-interest loans from the World Bank, for implementing the formulated plans.

Trust Fund for Scaling Up Nutrition (SUN)

Established in 2009, this trust fund aims to expand investments in nutrition measures in countries facing a high burden of undernutrition and to strengthen local capacities for implementing effective nutrition programs. It provides technical assistance for the development of nutrition-related policies and enhancement of implementation capabilities, thereby encouraging increased investment in nutrition by both the government and institutions such as the World Bank.

(2) Digital, Information and Communications Technology, and Science and Technology

The growth of developing countries and the development of the international community can no longer progress properly without responding to the digitalization of economic and social activities. Digital technology has become well integrated in people's lives and industrial activities, and the benefits of cyberspace, which is an important foundation for daily lives and socio-economic activities, are expanding. On the other hand, the threat of cyber-attacks is becoming more serious, including damage caused by leaks of personal and corporate information and risks to national security from attacks on critical infrastructure. Therefore, it is becoming increasingly important to help developing countries reap the benefits of digitalization while mitigating its risks. Furthermore, since the impact of events in cyberspace can easily cross borders and cyber incidents occurring in other countries can also affect Japan, it is important to implement multi-layered cooperation and collaboration at various levels, including among governments and the private sector.

Japan's Efforts

■ Promotion of Digital Transformation (DX)

The spread of COVID-19 has led to a period of disruption in the movement of people and goods, resulting in further advancement of the digitalization of socio-economic activities. Digital transformation (DX) ¹⁵ is directly linked to all development challenges and is the key to achieving "quality growth."

In order to realize an inclusive and prosperous society in which developing countries and their people can benefit from digitalization in a safe, equitable, and stable manner, Japan has designated the promotion of digitalization and DX as one of the areas in which Japan will strategically implement ODA through the Co-creation for common agenda initiative (see Part V, Section 2 (2) on page 160 for details on the co-creation for common agenda initiative). Through collaboration with various entities including international organizations and private companies, Japan supports the development of legal systems, human resources, and information and communication infrastructure, as part of establishing foundations for promoting digitalization based on the concept of "Data Free Flow with Trust (DFFT)," ¹⁶ which Japan advocates. By doing so, Japan is promoting cooperation aimed at solving issues and enhancing development outcomes through the promotion of digitalization.

¹⁵ Making people's lives more convenient and enriching them through the introduction of new information technologies, and generating new value by recreating existing business structures with the introduction of new digital technologies, etc.

¹⁶ DFFT is an abbreviation of Data Free Flow with Trust. The concept of DFFT aims to promote the free international flow of data, where data that is useful for business and solving social issues can flow freely without regard for borders, while ensuring trust in terms of privacy, security, and intellectual property. DFFT was proposed by then Prime Minister Abe at the World Economic Forum Annual Meeting (Davos Conference) held in Geneva, Switzerland, in January 2019 and was included in the Leaders' Declaration at the G20 Osaka Summit in June 2019 with the support of the leaders of participating countries.



Training on lightning detection toward the social implementation of real-time 3D imaging, conducted in Kanazawa City, Japan for researchers from Malaysian research institutions (Photo: Mohd Zafri bin Baharuddin)

Areas where development benefits are expected to increase through DX include smart agriculture, remote medical care, smart cities, mobile banking, and the digitalization of government administration. As an example of Japan’s new cooperation initiative, Japan has been working with the Government Technology Agency and the Ministry of Health of Bhutan since 2023 to expand and improve the quality of healthcare services in the country, by formulating strategies and plans for utilizing the health and medical data of Bhutanese citizens, developing data linkage infrastructure, and promoting data utilization. Additionally, Japan collaborates with the Malaysian government and research institutions to develop a real-time lightning detection and warning system using 3D imaging technology, with the aim of reducing lightning damage and power system failures in the Strait of Malacca (see also “Master Techniques from Japan to the World” on page 73 for support for the digitalization of antenatal care in the Democratic Republic of the Congo, page 78 for a case involving the use of drone and AI technology for malaria control in Ghana, and page 111 for technical cooperation toward the development of small satellites in Paraguay).

In order to advance DX in ODA projects in more concrete terms, the JICA DX Lab was launched in 2022 as an initiative to enable rapid and timely demonstration experiments with digital partners possessing excellent technology. JICA opens up its assets, such as the sites of its ODA projects in 150 countries and the networks it has cultivated, as a place for co-creation to support the resolution of challenges in developing countries through digital technology and data utilization together with its digital partners. By November 2025, a total of 18 projects

had been implemented in Bangladesh, Cambodia, Ethiopia, India, Viet Nam, and other countries.



Then Parliamentary Vice-Minister for Foreign Affairs Matsumoto and Tunisian Minister of Health Ferjani inspecting the Japanese-made endoscopes provided to Rabta Hospital in Tunis through the grant “Economic and Social Development Programme” for Tunisia

Information and Communications Technology (ICT)

The dissemination of Information and Communications Technology (ICT) ¹⁷ contributes to the upgrading of industry and improvement of productivity as the establishment of a foundation for DX. It also contributes to solving social issues of medical care, education, energy, environment, disaster risk reduction and other areas, and helps promote democratization by encouraging information disclosure and establishing broadcasting media.

Japan promotes “quality infrastructure investment” in the ICT sector in developing countries. ¹⁸ It actively supports the establishment of telecommunications and broadcasting equipment and facilities, the introduction of the technology and systems they require, and relevant human resources development. Specifically, Japan actively works to support the overseas promotion and the introduction of the Integrated Services Digital Broadcasting-Terrestrial (ISDB-T), ¹⁹ which has been adopted in a total of 20 countries ²⁰ in Latin America and the Caribbean, Asia, Africa, and other regions as of April 2025. The Ministry of Internal Affairs and Communications (MIC) also promotes assistance that includes, alongside support for the introduction of ISDB-T, support for ICT infrastructure and the resolution of social issues using ICT through dialogue and joint projects with the governments of the respective countries.

Japan works with the International Telecommunication

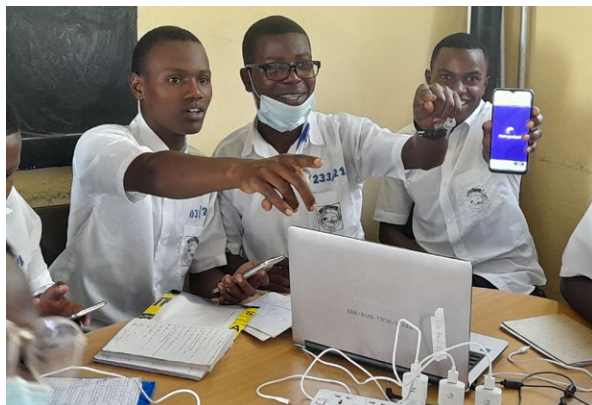
¹⁷ ICT is a technology that integrates computers and other information technology with digital communication technology, as represented by the Internet and mobile phones.

¹⁸ In 2017, Japan formulated the Playbook for Investment in “Quality ICT Infrastructure” for ICT policymakers and procurement managers of the respective countries and regions.

¹⁹ A terrestrial digital broadcasting system that was developed in Japan. Its functions, such as an emergency alert broadcast system, TV broadcasting reception on mobile terminals, and data broadcasting, etc., give the system advantages in disaster response and the provision of diverse services.

²⁰ The 20 countries are Japan, Angola, Argentina, Bolivia, Botswana, Brazil, Chile, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Maldives, Nicaragua, Paraguay, Peru, the Philippines, Sri Lanka, Uruguay, and Venezuela.

Union (ITU) ²¹ to provide a variety of development assistance in the fields of telecommunications and ICT for developing countries. The internet usage rate in Least Developed Countries (LDCs) ²² is estimated to be at 35%. Japan has cooperated with the ITU since 2020 on the Connect2Recover (C2R) Initiative, which supports developing countries, mainly in Africa, to draft national strategies for strengthening digital infrastructure and improving their usage environments. Japan has provided support for the pilot projects of the “Giga” initiative ²³ jointly implemented by the ITU and the United Nations Children’s Fund (UNICEF). Starting in 2022, Japan has supported Zimbabwe and Mauritania in evaluating the resilience of their network infrastructure, developing maps that show the connection status of telecommunications networks before and after natural disasters, and formulating national strategies for the dissemination of ICT. Additionally, as a result of reaching out to various countries to expand the C2R projects, the Governments of Australia, the Czech Republic, and Lithuania have decided to provide funding, and the area of activities expanded to countries in Asia, the Caribbean, and the Commonwealth of Independent States (CIS). Since 2023, Japan has also extended its support to a total of 11 countries in Africa, with a focus on initiatives related to early warning systems and national emergency telecommunication plans.



Trainee teachers at a teacher training college learning about teaching content and methods using smartphones and computers as part of the technical cooperation project “Project to Strengthen Primary School Mathematics and Science with the Use of ICT” in Rwanda (Photo: JICA)

In the Asia-Pacific region, the Asia-Pacific Telecommunity (APT) ²⁴ contributes to the balanced development of the telecommunication services and information infrastructure in the region. In order to promote human resources development related to

telecommunications, Japan finances a number of training programs conducted by the APT every year. In FY2023, 10 training programs including on broadband networks and cybersecurity were implemented and attended by approximately 125 people from the APT member states. The trainees utilize Japanese technology for the development of their own countries’ ICT, and Japanese companies’ expansion into the Asia-Pacific region is also expected through introducing Japanese technology systems.

In the Asia-Pacific region, approximately one-third of the population do not have internet access due to factors including fragile infrastructure and unaffordable usage costs. In the ASEAN region and Pacific Island countries, Japan is developing an environment to make low-cost, high-speed internet available even in remote islands and areas.



Trainees from six countries (Algeria, Côte d’Ivoire, Sri Lanka, Tanzania, Pakistan, and Palau) who participated in the JICA Knowledge Co-Creation Program (Group & Region Focus) aimed at strengthening practical skills in the ICT sector (Photo: JICA)

■ Cybersecurity

In recent years, it has become a pressing task to take measures against threats to a free, fair, and secure cyberspace. It is thus necessary for diverse entities in each country to work together in order to respond to this issue. The lack of security-related awareness and response capacity in some countries, including developing countries, poses a significant risk to the entire world, including Japan. Therefore, strengthening cooperation for ensuring the security in cyberspace of countries around the world and providing capacity building support to developing countries not only

²¹ A UN specialized agency that covers the fields of telecommunications and broadcasting. To ensure that people around the world are able to make use of telecommunications technologies, ITU organizes the following: (i) international allocation of radio frequencies used in mobile phones, satellite broadcasting, and other technologies, (ii) international standardization of telecommunications technologies, and (iii) support for development in the field of telecommunications in developing countries.

²² See the glossary on page 37.

²³ An initiative launched by UNICEF and ITU in 2019 with the aim of enabling internet access in schools around the world, focusing on developing countries.

²⁴ An international telecommunication organization established in the Asia-Pacific region. Aiming for a balanced development of telecommunication services and information infrastructure in the Asia-Pacific region, it implements human resources development through training courses and seminars, and coordinates regional policies on standardization, radio communications, and other telecommunication issues.



Supporting the Development of Cambodia's Digital Economy and Society Strengthening Cybersecurity in Cooperation with ASEAN

Technical Cooperation Project (May 2023 – October 2026 (planned)) /
 Grant (November 2022 – November 2025)

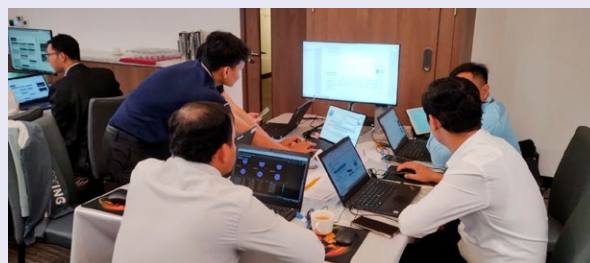


Project for Improvement of Cyber Resilience

Cambodia

Cambodia has been actively promoting the advancement of its digital economy and society, including cybersecurity, to drive new economic growth and improve social welfare. However, the country lacks sufficient skills and expertise in the latest technologies to respond to increasingly sophisticated cyberattacks, and faces growing national security risks from these attacks, including the leakage of confidential information from government agencies and businesses and the disruption or destruction of critical infrastructure. Furthermore, unauthorized access and fraudulent activities targeting financial institutions and online transactions have been on the rise, leading to economic losses. Since these cybersecurity vulnerabilities also affect economic growth, including foreign investment, the development of digital professionals and the implementation of cybersecurity measures have become urgent priorities.

As part of the Co-creation for common agenda initiative*1 in Cambodia focused on Digital Transformation (DX), Japan launched training programs in May 2023 to improve cybersecurity capabilities, targeting officials and related personnel of relevant central government ministries responsible for ICT policy and critical infrastructure in the country. In addition to training based on international frameworks, JICA experts provided training on international cybersecurity standards. Lecturers from institutions such as the National Institute of Information and Communications



Practical cybersecurity training for government agencies and critical infrastructure operators in Cambodia (Photo: JICA)

Technology (NICT) were also invited to deliver presentations for university students on the latest developments in AI and cybersecurity. Furthermore, as part of third-country training programs conducted in cooperation with ASEAN countries, practical exercises such as “CYDER (Cyber Defense Exercise with Recurrence),” a role-playing exercise simulating responses to cyberattacks, were conducted at the ASEAN-Japan Cybersecurity Capacity Building Centre in Thailand, which was established in 2018 with Japan's support. The Project for Human Resource Development in Cyber Security Professionals was also conducted in Indonesia.

Since the start of cooperation, more than 1,500 participants have taken part in cybersecurity training and awareness-raising seminars. The capacity of cybersecurity response teams to handle cyber incidents has been strengthened, and cybersecurity measures at individual agencies and companies have steadily improved. In addition, a Security Operations Center (SOC) equipped with cybersecurity system equipment provided through Japanese grants began operations in FY2025.

Through these efforts, confidence in Cambodia's government agencies and businesses has increased, contributing to the promotion of foreign investment and the creation of new business opportunities. Japan will continue to support the advancement of technical capabilities in the digital field and the establishment of a sustainable cybersecurity ecosystem across the ASEAN region, including Cambodia.



A JICA expert delivering a presentation on project progress (Photo: Ministry of Post and Telecommunications of Cambodia (MPTC))

*1 See Part V, Section 2 (2) on page 160.

contributes to the recipient countries, but also benefits the entire world including Japan.

Japan has strengthened its cooperation with ASEAN in the field of cybersecurity through the ASEAN-Japan Cybercrime Dialogue and the ASEAN-Japan Cybersecurity Policy Meeting. At the ASEAN-Japan Cybersecurity Policy Meeting in 2025, participating countries shared their policy approaches related to cybersecurity, exchanged the results of cooperative activities including the development of a cybersecurity policy handbook, critical infrastructure protection workshops, capacity building support, and awareness-raising activities, and discussed

further strengthening Japan-ASEAN cooperation across both the public and private sectors. In addition, through the International Criminal Police Organization (INTERPOL), Japan also supports the strengthening of the investigative capacity of officials at law enforcement-related agencies to deal with crimes committed in cyberspace.

As a specific measure to strengthen Japan-ASEAN cooperation on cybersecurity, the training program to enhance capabilities to address cybercrime, launched in 2014, provides training aimed at equipping officials engaged in cybercrime countermeasures in numerous

ASEAN member states with knowledge and skills for dealing with cybercrimes. Japan also conducts cybersecurity exercises and other programs at the “ASEAN-Japan Cybersecurity Capacity Building Centre (AJCCBC),” which was established in Bangkok, Thailand, through the Japan-ASEAN Integration Fund (JAIF).²⁵ In March 2023, support for the operation of the AJCCBC began as technical cooperation through JICA under the “Project for Enhancing ASEAN-Japan Capacity Building Program for Cybersecurity and Trusted Digital Services.” Since its opening, approximately 4,400 people have completed training as of September 2025, and in August 2025, a new center was established within the Thailand National Cyber Security Agency (NCSA) and a reopening ceremony was held for the upgraded AJCCBC with enhanced facilities.

At the AJCCBC, Japan provides the Cyber Defense Exercise with Recurrence (CYDER), a practical exercise targeting cybersecurity personnel of government agencies and critical infrastructure operators in ASEAN countries, and promotes cooperation in capacity building in the area of cybersecurity in ASEAN. Since August 2025, the exercise scenarios for CYDER were revised and exercises simulating responses to ransomware, the latest threat, were introduced, further enhancing the content. In October 2025, the Cyber SEA Game 2025 was held and young engineers and students selected from ASEAN countries competed using their cybersecurity skills, and training sessions including malware analysis were also conducted (see also the “Featured Projects” on page 41 for the Co-creation for common agenda initiative on cybersecurity capacity building in Cambodia).

Japan also contributed to the World Bank’s Cybersecurity Multi-Donor Trust Fund and works on capacity building assistance in the field of cybersecurity for low and middle-income countries.

■ Promoting Science, Technology and Innovation, and Research and Development

In the world today, social changes are occurring, with information and communication technology (ICT), artificial intelligence (AI), and robotics being utilized in diverse industries, including not only the manufacturing industry and the service industry but also in agriculture and construction.

Based on the “2030 Agenda for Sustainable Development (2030 Agenda)”²⁶ (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 other countries. The UN Multi-Stakeholder Forum on Science, Technology, and Innovation for the Sustainable Development Goals (STI Forum) was held again in May 2025. Expectations for STI are internationally increasing as a key to achieving the SDGs while optimizing limited resources.

To promote the development of roadmaps for STI for SDGs in countries around the world, Japan has been supporting Japanese companies and local organizations in developing countries as they consider commercializing solutions to social challenges through STI, under the “Japan SDGs Innovation Challenge (J-SIC)” initiative, and has been advancing efforts to share the knowledge gained through this support among developing countries through contributions to the United Nations Development Programme (UNDP) since FY2020. Among the results of these initiatives, efforts including drone-based measures against crop-damaging birds in Zimbabwe and the utilization of previously unexploited seaweed in South Africa were featured at the UN Pavilion at Expo 2025 Osaka, Kansai.

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, as part of science and technology diplomacy, Japan is engaged in science and technology cooperation through the “Science and Technology Research Partnership for Sustainable Development (SATREPS) program”^{*} and others in order to resolve challenges faced by developing countries. SATREPS, which links Japan’s science and technology with ODA, was launched in FY2008 to support joint research between research institutions and researchers in science and technology fields in Japan and in developing countries. A total of 214 research projects in 62 countries around the world have been adopted as of FY2025. In FY2025, 12 new projects were selected in fields such as environment, disaster prevention and mitigation, and infectious diseases control (see the “Featured Projects” on page 33 for a SATREPS project in Tajikistan, and “Master Techniques from Japan to the World” on page 44 for a SATREPS project in Kazakhstan).

In terms of support for research and development, Japan is building a next-generation network based on cooperation in human resources development, by strengthening assistance for overseas engineering universities.

In Asia, Japan supports the Malaysia-Japan

²⁵ See ⁵ on page 97.

²⁶ See the glossary on page 37.



Students conducting experiments at the Institute of Technology of Cambodia through the technical cooperation “Project for Enhancing Industry-Academia-Community Networks for Strengthening Capacity of Engineering Research and Development” in Cambodia (Photo: JICA)

International Institute of Technology (MJIIT), which was founded with the aim of establishing Japanese-style engineering education. The support includes procuring educational and research equipment and supplies, and developing curriculum designs. In partnership with Japanese universities, Japan also helps MJIIT embed the characteristics of Japanese-style engineering education in its teaching and research activities. Since 2023, Japan has been implementing cooperation to establish and expand the Malaysia-Japan Linkage Office within MJIIT as a liaison office to further strengthen collaboration between MJIIT and Japanese universities and industries. As of 2025, a consortium of 29 universities and 2

research institutes, among others, has been organized to promote people-to-people exchanges between Japan and Malaysia through joint research, joint degrees, and student exchanges.

Since 2012, Japan has provided scholarships to students studying remote sensing (satellite image analysis) in courses taught by Japanese instructors at the Asian Institute of Technology (AIT) located in Thailand, contributing to the development of the human resources constituting the crux of the space industry development in the Asian region.

In Africa, Japan has been cooperating under the Egypt-Japan University of Science and Technology (E-JUST) project since 2008. Established based on the principles of Japanese-style engineering education, E-JUST has received support from Japanese universities through curriculum development and the dispatch of faculty. E-JUST has been highly praised for its achievements, including joint research and joint supervision with Japanese researchers, exchange student programs and internationalization undertaken by both Japanese and Egyptian governments, and collaboration with Japanese companies. E-JUST was ranked as the top university in Egypt in 2024 and eighth on the African continent in 2025 in the World University Rankings published by the UK’s Times Higher Education (THE). Japan is currently implementing the “Project for E-JUST, Japan and Africa in Science, Technology and Innovation Network,” and E-JUST is expected to continue to play a key role in promoting international joint research and education by university researchers from Japan and within Africa.



Glossary

Science and Technology Research Partnership for Sustainable Development (SATREPS) program

Through the collaboration of Japan’s advanced science and technology with ODA, SATREPS aims to resolve global issues in the fields of environment and energy, bioresources, disaster prevention and mitigation, and infectious disease control. Under this program, as one of Japan’s science and technology diplomacy initiatives, research institutes both in developing countries and Japan work together to conduct international joint research with the following objectives: (1) enhancing international cooperation in science and technology, (2) acquiring new knowledge and technologies that lead to the resolution of global issues, and through this process, creating innovations, (3) promoting capacity development. The Ministry of Foreign Affairs (MOFA) and JICA, in collaboration with the Ministry of Education, Culture, Sports, Science and Technology (MEXT), the Japan Science and Technology Agency (JST), and the Japan Agency for Medical Research and Development (AMED), provide support to research institutes and researchers in Japan and the developing countries.

MASTER TECHNIQUES 1

from
Japan to
the World

“Smart Mining+”: Japanese-Developed Technology Set to Transform the Future of Mining Worldwide – Implementing a New Approach to Mine Development That Integrates Digital Technology and Environmental Considerations in Kazakhstan –

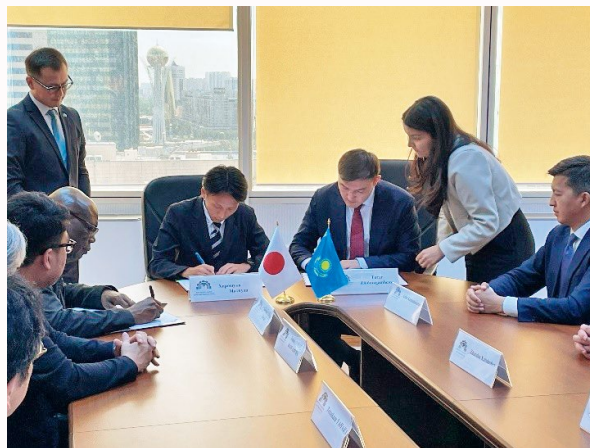


In recent years, as global demand for rare metals such as cobalt and lithium continues to expand, the stable supply of mineral resources that underpin our daily lives has gained increasing importance from the perspective of economic security for nations around the world. However, mine development inherently involves risks of environmental pollution. Groundwater that wells up inside the mine becomes contaminated with minerals and hazardous substances, polluting rivers and soil and adversely affecting agriculture and people's livelihoods in downstream areas. How can environmental pollution be prevented while maintaining the safety and profitability of operations? A Japanese-developed technology that aims to leverage digital innovation to address this challenge is attracting global attention.

At the heart of this effort is “Smart Mining+” (Smart Mining Plus), a concept advocated by Professor KAWAMURA Youhei of Hokkaido University. Building on the concept of “smart mining,” which combines Information and Communication Technology (ICT) with conventional mining engineering to ensure productivity and safety, “Smart Mining+” advances this by incorporating the perspective of “responsible mining,” an approach emphasizing harmony with the environment.

In conventional mines, planning and safety were typically analyzed on paper drawings as excavation proceeded underground. Under the “Smart Mining+” approach, however, the entire mine, hidden underground and invisible to the surface, is digitized and visualized in digital space. By integrating real-time sensor data from within the mine, it becomes possible to reproduce conditions underground in real time from the surface. Monitoring temperature, humidity, and other conditions inside the mine can also be applied to monitoring workers' environments for safety. For environmental protection, AI is expected to significantly contribute to preventing environmental pollution and accidents by simulating risks such as groundwater ingress and structural collapse.

This new initiative has been adopted under the Science and Technology Research Partnership for Sustainable Development (SATREPS)*1 program, implemented jointly by the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). During the five-year research period, the technology will be implemented at a gold mine in Kazakhstan, a Central Asian country that is among the world's leading mineral-supplying nations. With Hokkaido University and the local Nazarbayev



Memorandum of Understanding signing ceremony among JICA, the Government of Kazakhstan, Hokkaido University, and Nazarbayev University (Photo: Hokkaido University)

University at the core, research institutions and private companies from both countries have been collaborating to establish network infrastructure and conduct geological surveys for approximately six months. Digitization work for the mine commenced in April 2025. In Kazakhstan, discussions toward establishing a certification system that would certify resources mined using this technology began as part of efforts to promote environmentally sound mine development.

At the heart of “Smart Mining+” lies the philosophy of eliminating sources of pollution rather than responding post-contamination. Professor Kawamura observes, “Much like the concept of ‘mibyo’ (preventing disease before it manifests) in Eastern medicine, the approach of treating the root cause rather than responding after the fact may be something we as Easterners are particularly well-suited to.” Japan has a history of more than 100 years since the Meiji era of addressing mining-related environmental pollution through neutralization treatment. Professor Kawamura highlights Japan's unique role: “Japan's neutralization treatment technology is at a world-leading level. By providing this technology and expertise to mines currently in operation around the world and neutralizing contaminated water before it flows out of the mine, we can prevent environmental destruction and the occurrence of pollution.”

Japan is one of the world's leading consumers of mineral resources. Professor Kawamura speaks with conviction: “Rather than simply seeking resources, Japan can become a trusted partner by providing technology that reduces the environmental burden on partner countries and enables sustainable operations. The spread of technology based on ‘Smart Mining+’ could make a major contribution to Japan's ‘resource diplomacy’ over the medium and long term.” Regarding prospects, he adds with enthusiasm, “After the SATREPS research period ends, I want to commercialize this technology and deploy it around the world.” “Smart Mining+,” a fusion of digital technology and environmental consideration, leverages Japan's wisdom and experience to hold tremendous potential for transforming global resource development.



Survey inside the Sekisovskoye gold mine (Photo: Hokkaido University)

*1 See the glossary on page 43.

(3) Quality Infrastructure

For the autonomous development of developing countries, infrastructure that supports people’s lives and economic activities serving as the foundation for their national development is essential. However, developing countries still have enormous demand for infrastructure and the investment gap between infrastructure demand and supply is estimated to be approximately \$15 trillion by 2040.²⁷ In order to achieve “quality growth”²⁸ in developing countries, it is necessary to meet this enormous demand for infrastructure. It is very important not only to develop a large amount of infrastructure but also to consider openness, transparency, economic efficiency in view of life-cycle costs, and debt sustainability, etc.

Japan has strengths in maritime and aviation safety management, disaster risk reduction and resilience technologies, urban development that contributes to addressing climate change and environmental issues, safe and secure transportation systems, electricity and energy infrastructure, and water supply, among others. In order to leverage these strengths to solve social issues in partner countries, Japan promotes the development of “Quality Infrastructure”^{*} by combining structural support (infrastructure development) and non-structural cooperation (institutional development, operation and maintenance, and human resources development) in line with the economic and development strategies of respective developing countries. “The Infrastructure System Overseas Promotion Strategy 2030”²⁹ of the Japanese Government also aims to promote the overseas expansion of sustainable infrastructure systems through the development of “Quality Infrastructure” by Japanese companies.

Japan’s Efforts

Japan has been working with the international community to disseminate the importance of “Quality Infrastructure,” aiming to standardize it internationally to ensure broader access to quality infrastructure. The “G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment,” endorsed at the G7 Ise-Shima Summit in May 2016, was the initial step for sharing the fundamental elements of “Quality Infrastructure Investment.” At the G20 Osaka Summit in June 2019, the “G20 Principles for Quality Infrastructure Investment,”³⁰ which indicate a strategic direction



The “Japan Freeway,” a highway in Liberia that Japan has been engaged in constructing and rehabilitating since 2013 (Photo: JICA)

for promoting Quality Infrastructure Investment, were endorsed. Japan cooperates with various countries and international organizations to promote and implement these Principles, and the importance of “Quality Infrastructure Investment” has been confirmed at various bilateral and multilateral meetings. At the G7 Kananaskis Summit in June 2025, then Prime Minister Ishiba also underscored the importance of Quality Infrastructure Investment, an initiative that Japan has taken the lead in championing.

At the G7 Elmau Summit in June 2022, the Partnership for Global Infrastructure and Investment (PGII),³¹ an initiative for the G7 to work together to promote Quality Infrastructure Investment to narrow the global infrastructure investment gap, was launched. Under the PGII, the G7 leaders announced their aim to collectively mobilize up to \$600 billion in public and private investment over five years, with a particular focus on Quality Infrastructure. The Chair’s Summary of the G7 Development Ministers’ Meeting in October 2025 noted that the G7 had mobilized over \$410 billion to date towards the PGII, and at that meeting, then Vice-Minister for Foreign Affairs Miyaji emphasized that PGII is a new catalyst for growth that will realize the prosperity of developing countries and promote investment to mobilize private capital.

The Blue Dot Network (BDN),³² a framework for internationally certifying Quality Infrastructure projects, is also an important initiative in promoting “Quality Infrastructure Investment.” In April 2024, the BDN Secretariat was established in the Organisation for Economic Co-operation and Development (OECD).

²⁷ Forecasts by the G20 Global Infrastructure Hub (GIH).

²⁸ See the glossary on page 37.

²⁹ At the 58th Ministerial Meeting on Strategy relating to Infrastructure Export and Economic Cooperation (chaired by the Chief Cabinet Secretary) held on December 24, 2024, the “Infrastructure System Overseas Promotion Strategy 2030” was decided, outlining the direction for future efforts in light of structural changes in the global infrastructure market in recent years. It sets a goal of achieving ¥45 trillion in overseas infrastructure orders in 2030 and describes priority areas for Japan’s efforts going forward. <https://www.cas.go.jp/jp/seisakukaigi/keikyou/dai58/siryou6.pdf> (in Japanese only)

³⁰ See glossary on page 47.

³¹ PGII is the G7’s commitment to promoting public and private investment in sustainable, inclusive, resilient and quality infrastructure.

³² Proposed by Japan, the United States, and Australia in November 2019. Since 2023, the United Kingdom, Spain, Switzerland, and Turkey have joined and are discussing the specific institutional design.

Following this, seven infrastructure projects were approved by the end of January 2026. These include the “Palau Submarine Cable Project,” a public-private partnership project co-financed by the Japan Bank for International Cooperation (JBIC) and Sumitomo Mitsui Banking Corporation (SMBC), underwritten by Nippon Export and Investment Insurance (NEXI), and with NEC Corporation participating in the laying of the undersea cable. Japan will continue to leverage frameworks such as the BDN to disseminate “Quality Infrastructure Investment” throughout the international community, thereby supporting the overseas expansion of Japanese companies.



Strengthening the capacity of engineers in the construction sector as part of the technical cooperation, “Project for the Establishment of Human Resources Development System in Construction Sector” in Bhutan (Photo: Oriental Consultants Global Co., Ltd.)

In ASEAN, under the “Japan-ASEAN Comprehensive Connectivity Initiative” announced in 2023, various projects are underway in a wide range of areas including both structural and non-structural aspects, such as digital technology, transport infrastructure development, and electricity connectivity, covering projects such as the Sihanoukville Port in Cambodia, the Patimban Port and Jakarta Mass Rapid Transit in Indonesia, the Metro Manila Subway in the Philippines, and the Ho Chi Minh City Urban Railway in Viet Nam.

Furthermore, at the 28th ASEAN-Japan Summit in October 2025, Prime Minister Takaichi announced that Japan will strengthen cooperation in many areas such as digitalization including AI, green initiatives including decarbonization, sustainable agriculture, forestry, and fisheries, supply chain resilience including the automotive sector, connectivity, and regional financial cooperation. Japan will promote Quality Infrastructure cooperation that contributes to the further integration of the ASEAN Community and the stability of the region, based on the



A tunnel boring machine used for excavation under the yen loan “Metro Manila Subway Project” (Photo: Sumitomo Mitsui Construction Co., Ltd.)

“ASEAN Community Vision 2045” announced by ASEAN in 2025 as a blueprint for ASEAN Community integration over the next 20 years.



Prime Minister Takaichi speaking at the 28th ASEAN-Japan Summit (Photo: Cabinet Public Affairs Office)

As for efforts in Pacific Island countries, Japan, the United States, Australia, Kiribati, Nauru, and the Federated States of Micronesia jointly announced Japan-U.S.-Australia joint support for the East Micronesia Cable (EMC) in December 2021. In June 2025, the sixth meeting of the Project Executive Board was held in Japan, where the six countries confirmed the progress of the project. As a new undersea cable project undertaken in cooperation between Japan and the United States, Japan and the Federated States of Micronesia signed and exchanged notes in March 2025 concerning a grant project under the “Economic and Social Development Programme.” This plan will provide the Federated States of Micronesia with a cable landing station connecting the cable system to the country’s domestic telecommunications network. With the Leaders’ Declaration and “Joint Plan of Action”³³ announced at

³³ At PALM10, Japan and the leaders of Pacific Island countries and territories endorsed seven priority areas of cooperation in line with the Pacific Islands Forum (PIF)’s “2050 Strategy for the Blue Pacific Continent (2050 Strategy),” and adopted a “Joint Plan of Action” that outlines specific actions to be jointly implemented over the next three years: (1) Political Leadership and Regionalism, (2) People-Centered Development, (3) Peace and Security, (4) Resources and Economic Development, (5) Climate Change and Disasters, (6) Oceans and Environment, and (7) Technology and Connectivity. Quality Infrastructure projects, including the East Micronesia Cable project, contribute to the realization of area (7).

the 10th Pacific Islands Leaders Meeting (PALM10)³⁴ in July 2024 in mind, Japan will continue to cooperate in developing “Quality Infrastructure” to strengthen connectivity in the Indo-Pacific region, including in the Information and Communications Technology (ICT) field, in cooperation with the United States, Australia, and other like-minded countries.

As for the African region, based on the recognition that achieving balanced and stable “quality growth” is necessary to address Africa’s development challenges, and that it is important to advance the development of “Quality Infrastructure” toward that end, the “TICAD 9 Yokohama Declaration,” adopted at TICAD 9 in August 2025, expressed a commitment to accelerating investment in sustainable and resilient infrastructure networks across road, rail, maritime, and aviation modes of transport. In March 2025, Japan signed and exchanged notes concerning a grant project aimed at

strengthening the “Japan Freeway,” a highway in Liberia named as a symbol of friendship with Japan. This project involves rehabilitating a section of the north-south longitudinal road to ensure smooth and safe road traffic along that section, and aims to invigorate the movement of people and logistics within Liberia, including the capital area, as well as with neighboring countries. It is expected to contribute to the development of “Quality Infrastructure” in Liberia.

The Government of Japan will continue to disseminate the “G20 Principles for Quality Infrastructure Investment” throughout the international community for quality growth around the world, and will further promote efforts to implement “Quality Infrastructure Investment” together with countries around the world including Asian countries as well as international organizations such as the World Bank, the Asian Development Bank (ADB), and the OECD.



Glossary

Quality Infrastructure

Infrastructure that genuinely contributes to “quality growth” that is “resilient” against natural disasters and other risks, “inclusive” so that no one is left behind, and “sustainable” taking into account its impact on society and the environment. The “G20 Principles for Quality Infrastructure Investment,” which incorporate key elements for investing in “Quality Infrastructure” such as (i) openness, (ii) transparency, (iii) economic efficiency in view of life-cycle costs, and (iv) debt sustainability, were endorsed at the G20 Osaka Summit in June 2019.

(4) Efforts on Debt Issues

Official loan assistance is intended to be used to promote economic growth in developing countries. However, when developing countries face difficulties in repaying their debts due to failures in economic and fiscal policies or changes in the international economic environment, their debts put a strain on essential fiscal spending in areas such as health, education, and the environment, thus hindering sustainable growth. While debtor countries should resolve these issues themselves, the international community needs to respond when excessive debt impedes the development of debtor countries.

As part of international efforts to address debt issues, debt relief measures have been implemented, including through the Enhanced HIPC Initiative³⁵ for Heavily Indebted Poor Countries (HIPC) and the Evian Approach³⁶ of the Paris Club.* However, in recent years, concerns have resurfaced regarding the deterioration of debt sustainability in some low-income countries, where private debt has accumulated in addition

to public debt, despite having received debt relief. This situation can be attributed to a lack of capacity on the part of the debtor countries to manage debt appropriately. On the creditors’ side, it has been pointed out that funding sources have diversified, with an increasing proportion of loans coming from emerging creditor countries and private creditors, while the proportion from Paris Club creditors is decreasing. Furthermore, in recent years, developing countries have faced liquidity issues as their financing costs have risen due to policy interest rate hikes in Western countries. Since the debt problems of developing countries can affect the economies of not only the borrowing countries themselves, but also those of lenders, the international community needs to work together to address these issues.

In April 2020, the G20 and Paris Club launched the “Debt Service Suspension Initiative (DSSI)”* implementing a temporary suspension of public debt payments for low-income countries affected by the COVID-19 pandemic. Subsequently, G20 and Paris Club

³⁴ See Part IV, Section 3 on page 105.

³⁵ A framework for providing debt relief to the poorest countries with heavy debt burdens. Agreed at the Cologne Summit (Germany) in 1999, debt reduction is implemented when progress in economic and social reforms, among other measures, reaches a certain level. It is applicable to 39 countries, most of which are in Africa.

³⁶ “A new Paris Club approach to debt restructuring (the Evian Approach).” Debt relief measures focus more on the debt sustainability of recipient countries, especially low-income and middle-income debtor countries other than HIPC, and take case-by-case measures corresponding with the circumstances of each debtor country.

creditor countries have been working together to provide debt treatments under the “Common Framework for Debt Treatments beyond the DSSI,”³⁷ which was agreed upon in November 2020 as the successor to the DSSI. In addition to Chad (November 2022), Zambia (October 2023), and Ghana (June 2024), which had already reached debt restructuring agreements with their G20 and Paris Club creditors, an agreement was also reached with Ethiopia in July 2025. South Africa, the G20 chair in 2025, identified securing of debt sustainability for low-income countries as one of its priority areas. At the G20 Development Ministerial Meeting held in July of that year, participants confirmed the importance of promoting transparent and fair development finance in compliance with international standards. Furthermore, at the G20 Johannesburg Summit in November of that year, there was agreement on the importance of supporting efforts to address the debt vulnerabilities of low- and middle-income countries and further strengthening the implementation of the G20 “Common Framework.”

One of the factors that can significantly affect the debt sustainability of borrowing countries, including low-income countries, is infrastructure investment. Infrastructure projects require large investments, and debt repayments can become a significant burden for the borrowing countries. When financing infrastructure projects, it is necessary for both the debtors and creditors to fully take into account debt sustainability. Loans without consideration of debt sustainability are criticized by the international community as a “debt trap.” The “G20 Principles for Quality Infrastructure Investment”³⁷ incorporate the importance of considering debt sustainability at the country level, in addition to financial sustainability at the individual project level. Each G20 country is required to implement these principles as an international standard in their infrastructure investments and to work to ensure that these principles are implemented in the countries receiving loans.

Japan's Efforts

When providing yen loans, Japan makes its decisions after thoroughly considering the recipient country's cooperation structure, its debt repayment capacity and debt management capability, as well as its credit protection measures. Most of the recipient countries

make repayments as scheduled. However, in exceptional cases, repayment may become extremely difficult due to circumstances that could not have been foreseen at the time Japan provided yen loans. In such cases, Japan implements debt relief measures in a limited form through debt suspension, rescheduling,³⁸ cancellation, and reduction based on international agreements such as the aforementioned Enhanced HIPC Initiative and agreements within the Paris Club. With regard to debt relief for Sri Lanka, Japan has led the debt restructuring process as co-chair of the Official Creditor Committee (OCC), and in March 2025, ahead of other OCC members, Japan concluded a bilateral agreement with Sri Lanka on debt rescheduling.

At TICAD 9 held in August 2025, Japan announced its intention to strengthen support, among other measures, for countries addressing debt issues under the G20 “Common Framework” or IMF programs through the sixth phase of the “Enhanced Private Sector Assistance for Africa”³⁸ (EPSA6), covering the period from 2026 to 2028. In addition, JICA and the International Monetary Fund (IMF) co-hosted a thematic event titled “Manage Debt and Accelerate Development! – Toward sustainable and resilient growth in Africa,” which brought together international stakeholders including African debtor country governments, creditor countries, the private sector, and multilateral institutions to discuss Africa's economic challenges, including debt vulnerabilities, and the framework for international cooperation to address them.

From the perspective of ensuring debt sustainability, an important element of the “G20 Principles for Quality Infrastructure Investment,” Japan is working on the improvement of the capabilities related to public debt and risk management among management personnel at the finance ministries of developing countries through contributions to international organizations, as well as through training and the dispatch of experts by JICA. For example, in FY2024, Japan provided support for capacity building in debtor countries, including through training in collaboration with the World Bank for 34 administrative officers from 30 countries, including Kenya and Ethiopia, on contingent liabilities risk management, as well as through new financial contributions to the respective trust funds of the IMF and the World Bank.

³⁷ See the glossary on page 47.

³⁸ Debt rescheduling is one form of debt relief, wherein payment is postponed for a certain period of time in order to reduce the burden of debt payment on the debtor country.



Glossary

Paris Club

An informal group convened to discuss relief measures for developing countries facing debt crises. It consists of 22 major creditor countries, with France serving as chair, and holds its meetings in Paris.

Debt Service Suspension Initiative (DSSI)

A framework to temporarily suspend debt payments for low-income countries facing a liquidity crisis due to COVID-19's impact. The G20 and the Paris Club agreed in April 2020 to temporarily suspend debt payments that would be due between May 2020 and the end of December 2020, and subsequently extended the suspension period twice (agreed in October 2020 on an extension to June 2021, and in April 2021 on an extension to the end of December 2021).

Common Framework for Debt Treatments beyond the DSSI

A mechanism through which G20 and Paris Club creditor countries cooperate to provide debt relief for low-income countries. This is the first time that non-Paris Club countries, including China, have committed to implementing debt treatments jointly with the Paris Club.

Enhanced Private Sector Assistance for Africa (EPSA) Initiative

A cooperative framework established by Japan in 2005 in partnership with the African Development Bank (AfDB) to promote private sector-led economic growth. As one of the initiatives at TICAD 9 held in August 2025, Japan and AfDB decided to provide financial cooperation of up to \$5.5 billion under its sixth phase (EPSA6), covering the period from 2026 to 2028.