

## Chapter 9

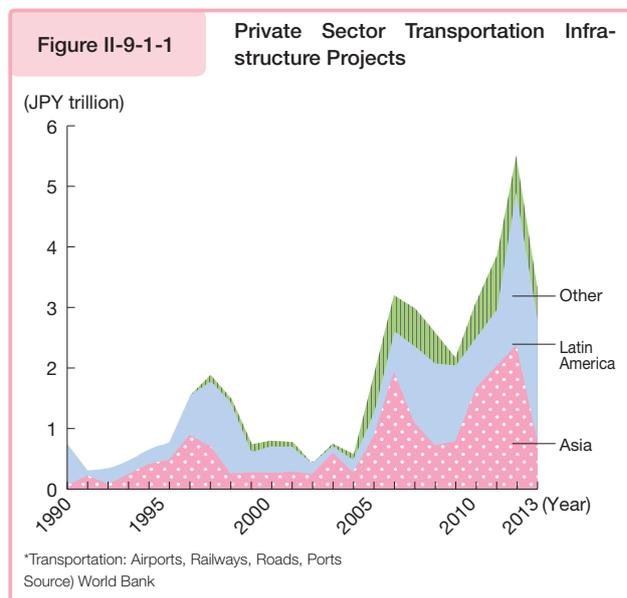
## Strengthening International Expansion and Contributions

## Section 1 Promoting the Export of Infrastructure Systems

## 1 Trends of the World Infrastructure Market

The global infrastructure market is expected to continue growth due to rapid urbanization and economic growth. For example, according to the report of the Organization for Economic Cooperation and Development (OECD), system demand for transportation infrastructure averages JPY 38 trillion a year at the present, but is expected to increase more than 50% from 2015 through 2030 and rise to JPY 59 trillion. An increasing amount of infrastructure projects in emerging countries are utilizing the private sector to take advantage of private sector project participation schemes and funding under strict budget restrictions. In light of Japan's economic and social situation, the overseas expansion of infrastructure systems has become an important pillar of our policy, as we believe that utilization of Japanese technology and know-how can meet the infrastructure needs of the world, while strengthening our contribution to the growth of emerging countries.

On the other hand, international competition for project commission is fierce; therefore, the public and private sectors need to work closely to create an environment that enables Japanese companies to be competitive in project commissions.



## 2 General Direction of Government Policy

The government established the “Infrastructure Strategy Economic Cooperation Meeting” in March 2013, and compiled the “Infrastructure System Export Strategy” based on the deliberations regarding government policies, which were discussed by relevant ministers, including the Minister of Land, Infrastructure, Transport and Tourism. A revised edition of this strategy was developed in June 2014, and this 2014 revision of the “Japan Revitalization Strategy” and its active implementation was approved in a Cabinet meeting in the same month.

The “Infrastructure System Export Strategy” aims to secure approximately JPY 30 trillion worth of infrastructure system project commissions in 2020 (approx. JPY 10 trillion in 2010) for Japanese companies. The main pillars of these measures are: (1) Promote public and private sector cooperation to strengthen the global competitiveness of companies, (2) Support the discovery and training of companies, local governments, and human resources that will lead overseas expansion of infrastructure, (3) Acquire international standards utilizing advanced technology, knowledge, etc., (4) Support entry into new frontiers, (5) Promote the securing of stable and inexpensive overseas energy and mineral resources.

### 3 Initiatives of the Ministry of Land, Infrastructure, Transport and Tourism

The Ministry of Land, Infrastructure, Transport and Tourism has decided to strongly promote the overseas expansion of infrastructure systems in the land, infrastructure, transport and tourism sectors based on the above strategy. In order to successfully overcome competition from foreign countries and win bids for Japanese companies, we must play to Japan's strengths, such as building safe and reliable systems that combine structural and non-structural aspects, while addressing the needs of the recipient country with flexibility. Therefore, we are planning to promote three pillars of the measures as follows: a. "Upstream" planning and information sharing, b. Support companies engaged in overseas development of infrastructure systems, c. Overseas development of soft infrastructure.

#### a. 'Upstream' Planning and Information Sharing

Japan will take advantage of opportunities for information sharing in the joint public-private sector's top sales and international conferences to promote participation in the concept stage of the project ("Upstream") with the cost-effectiveness, safety and reliability provided by Japanese technology.

#### b. Support Companies Engaged in Overseas Development of Infrastructure Systems

We established the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN) to reduce business risks incurred—such as the huge amount of initial investment, long-term maintenance, and demand risk—for companies expanding into downstream (management and operation) in transportation and urban infrastructure fields. In addition to opening the "Overseas Construction Hot Line" consultation office in order to help solve problems encountered by companies that are expanding businesses abroad, efforts are underway to provide multifaceted support to Japanese companies involved in overseas infrastructure systems, such as improving the overseas construction and real estate market database, collecting pertinent information through diplomatic missions, and introducing overseas construction and real estate market information from private human resources (known as "private attaché"), like seasoned Japanese general contractors who are experts concerning local conditions.

#### c. Overseas Development of Soft Infrastructure

Various efforts are underway to create an environment ideal for Japanese companies to participate in projects, including international standardization of Japanese technologies and systems and/or become the "de facto standard" of partner countries, support for institutional development of partner countries to improve the business environment for Japanese companies, and support for training engineers and skilled workers that contribute to sustaining administration and maintenance of infrastructure in partner countries.

##### (1) Promotion of Top Sales

In FY2014, the Minister of Land, Infrastructure, Transport and Tourism visited countries like Mongolia, Malaysia, Cambodia, India, Vietnam for discussions and exchange of opinions with the heads of state as well as ministers of land, infrastructure, transport and tourism to conduct top sales for Japanese infrastructure systems. In addition, the Vice Minister and Secretary visited a total of 12 countries including stops in Africa and Latin America to promote Japan's infrastructure systems to meet the infrastructure needs of those countries. Additionally, opportunities such as the visits of foreign ministers and dignitaries to Japan, hosted seminars, and invitation of dignitaries were actively used to spread the superiority of Japanese infrastructure systems.

## (2) Promotion of Talks with Partner Countries

In addition to top sales, there have also been vice-ministerial level bilateral meetings and signings of memorandums of cooperation. Also, to spreading information about Japan's infrastructure, international public and private sector councils were established for the infrastructure fields of water, roads, railways, ports, and "Eco-cities" as a forum for the private and public sectors to coordinate on the promotion of infrastructure exports. The "Japan Disaster Prevention Platform" was established in 2014 by industry-academia-government collaboration in the disaster prevention sector.

### a. Indonesia

The "5th Japan-Indonesia Vice-Ministerial Level Meeting on Transport" was held in Indonesia in May 2014 to share the latest status about cooperative projects that are underway between the two countries in the transport sectors of logistics, railway, automobiles, ports, maritime traffic and aviation. New topics were also taken up, including the sharing of views about the possibility of new cooperative projects, and further close cooperation and extension of bilateral talks including private citizens in future was confirmed.

The progress of each project in railway, ports, aviation, etc. was reviewed and information was exchanged regarding bilateral efforts to solve problems at the "Jakarta Metropolitan Priority Area (MPA) 9th Technical Committee <sup>Note</sup>" held in Indonesia in June 2014.

The "2nd Japan-Indonesia Vice-Ministerial Level Meeting on Construction" was held in Indonesia in November, focusing on the two themes of "Promotion of PPP Projects" and "Strengthening Infrastructure for Climate Change." In addition, information was exchanged in a separate bilateral working group concerning efforts and challenges in technology for roads, disaster prevention, sewers, construction and underground construction sectors.

### b. Thailand

The "3rd Japan-Thailand Vice-Ministerial Level Working Group on Railways" was held in Bangkok on January 14, 2015. In addition to discussion on bilateral cooperation on Thailand's railway projects, Thailand sounded a Memorandum of Intention (MOI) on railway cooperation. Following this, at the Japan-Thailand talks held in Tokyo on February 9, 2015, Minister Ohta of the MLIT and Minister Pulajin of the Thai Ministry of Transport signed the MOI in agreement on future cooperation on Thai railway projects.

### c. Vietnam

In January 2015, the Vietnam Ministry of Construction decided to strengthen bilateral cooperation in the construction and urban development sectors, and entered into a comprehensive cooperation memorandum. In addition, the "4th Japan-Vietnam Vice-Ministerial Level Meeting on Transport" and the "8th Vietnam Highway Seminar" was held in Japan to discuss transportation infrastructure projects including railway, ports, airports and roads in Vietnam; progress updates were shared, issues were reorganized and the direction of future cooperation was confirmed.

### d. Myanmar

The "2nd Japan-Myanmar Vice-Ministerial Level Meeting on Transport" and the "2nd Japan-Myanmar Senior Officials Meeting on Land Transport" were held in Myanmar in June 2014. Discussions included an update on the current status, such as the progress of each transport infrastructure project including railway, automotive, maritime, port, aviation and meteorology sectors, and confirmation of future close bilateral cooperation and coordination.

In addition, the "2nd Japan-Myanmar Vice-Ministerial Level Meeting on Construction" was held in January 2014 in Myanmar to exchange information regarding the initiatives, challenges, and technology of both nations for road, city, and housing building and construction industry sectors.

**Note** A framework based on the "Memorandum of Cooperation on the Collaboration for Establishing Metropolitan Priority Areas" (Signed in October 2010 by the Ministry of Foreign Affairs; Ministry of Economy, Trade and Industry; and MLIT) to discuss Indonesian infrastructure projects and investment policies at the ministerial level with relevant Indonesian ministers in order to accelerate infrastructure development and other aspects of the Jakarta metropolitan area under the coordination of Japan and Indonesia.

## e. Laos

Minister Ohta held talks with Laos' Public Works Minister of Transport in October 2014 in Japan, and concluded a memorandum of cooperation about the collaborative relationship in the transport sector. During the talks, opinions about maintenance of Laos' transportation infrastructure were exchanged, and the content of memorandum agreed to further strengthen the cooperative relationship.

## f. India

The "8th Japan-India Joint Working Group on Urban Development" was held in Tokyo in November 2014 for the purpose of greatly contributing to the further growth and development of economic and social aspects of the cities of Japan and India. Information and opinions were exchanged on urban transportation, urban development, and the water environment sector.

## g. Kuwait

Minister Ohta exchanged opinions with the Minister of State for Planning and Development of Kuwait during an October 2014 visit to Japan about future development programs, and signed a memorandum of understanding concerning cooperation in the transport sector (technical cooperation, etc.) and public works sector (infrastructure sector information exchange, etc.).

## h. Russia

Based on the Memorandum of Cooperation in the transport sector which was signed between the MLIT and the Russian Ministry of Transportation, an exchange of opinions was conducted regarding navigation safety measures of the Arctic passage in the "Japan-Russia Transportation Taskforce." The "Japan-Russia Urban Environmental Issues Taskforce" was founded in December 2014 to extend cooperation on Russia's urban environmental issues; a summary meeting of this task force and the subcommittee was held to ensure the participation of private enterprises. In addition, the "Japan-Russia Urban Environment Council,"—the Russian branch of the same Japanese council—has steadily increased the number of participating companies, and has resulted in the participation of a large number of Japanese companies at the seminar co-hosted by the MLIT and JETRO in Moscow in March 2015.

## i. Mexico

A memorandum of understanding was signed in July 2014 between Japan and Mexico in order to promote cooperation in the transport sector, which included provisions to share bilateral experience and to utilize Japanese technology.

## j. South Korea

The "10th Japan-South Korea High-Level Talks on Transport" was held in South Korea in March 2015 to exchange information on case studies of logistics policies, safety measures for the transport sector, and automated driving systems for automobiles. An agreement was reached to continue bilateral cooperation in the transport sector.

## k. Mongolia

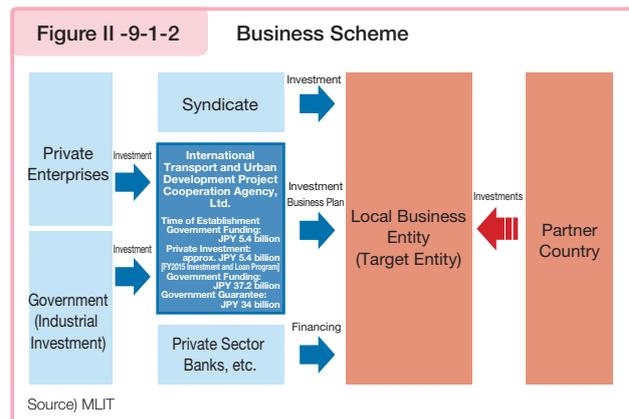
Minister Ohta held a meeting in Mongolia with the Minister of Roads and Transport and Minister of Construction and Urban Planning of Mongolia in April 2014. A memorandum of cooperation was signed to promote and strengthen bilateral cooperation in the support needed for developing infrastructure systems in both countries.

### (3) Establishment of the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN) <sup>Note</sup>

The sectors of transport and urban development come with expectations of long-term returns but there are also characteristics which are significant issues for the participation of Japanese companies, such as long development periods, demand risks during the operations phase, and the influence of local governments, all of which require appropriate solutions.

For this reason, JOIN was established as part of the “Japan Revitalization Strategy” in October 2014 to address the demand risks of both “investment” and “participation at project planning stage” as one, to better promote the entry of Japanese companies into overseas transportation and urban development business markets. An industry investment of JPY 37.2 billion was allocated in FY2015 through treasury investments and loans (see chart below).

JOIN will provide funding and other investments to local project owners in cooperation with Japanese companies, dispatch skilled personnel including executives and engineers, and conduct negotiations with the partner country. Furthermore, because the international promotion of infrastructure systems is an important national policy, the Minister of Land, Infrastructure, Transport and Tourism, along with other relevant ministers, will coordinate to manage this agency appropriately.



### (4) Development of Soft Infrastructure

Japan aims to establish Japanese specifications and standards as international standards through active participation in the discussions, while also promoting the progress of Japanese standards becoming the “de facto standard”. In addition, through the deployment of experts, cooperation in JICA training, and seminars, Japan is supporting the training of technicians responsible for maintenance, operation and management of infrastructure in partner countries.

## Column

### The Establishment of the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN)

#### 1.The Foundation of JOIN

The Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN) was established on October 20, 2014. JOIN provides investment and business participation for overseas transportation and urban development business. It is expected that JOIN projects will strengthen the competitiveness of Japan by encouraging Japanese businesses to participate in the overseas infrastructure market.

Approximately JPY 5.4 billion yen from the private sector (infrastructure related industries, etc.) and JPY 5.4 billion from the government were contributed when JOIN was established. An additional JPY 58.5 billion was allocated in FY2014 as part of the government financial investment plan budget, and a JPY 37.2 billion budget was reported for 2015. In the future, depending on the progress of the projects, JOIN will receive additional government investment.

#### 2.About the Inauguration Ceremony

The inauguration ceremony was held at JOIN's Marunouchi office on October 20, 2014 and included the

**Note** The English name of the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development is abbreviated as JOIN.

unveiling of its sign.

The MLIT Minister Ohta expressed expectations for overseas expansion by infrastructure-related companies through this venture. Along with expressing his gratitude to the agency's partners, he also stated, "Overseas development of infrastructure is a challenge that this country is working towards by collective effort; I am acutely aware of the importance of this support. Under these circumstances, I believe that the establishment of this organization will be a great strength."

President Hatano of JOIN stated, "We are keenly aware that the system has a role to play, the responsibility is very serious, and we are faced with a very challenging task. I will work my hardest to take the words of encouragement I received from the Minister to heart and contribute to the future growth and development of Japan. Following the Minister's example of leading the overseas development of infrastructure, we as a company promise to work together and do our best."



Source) MLIT



Source) MLIT

### 3.About Early Project Support

JOIN was founded with only 18 employees. Since its establishment, JOIN has received a lot of information regarding overseas infrastructure projects. Currently, all employees are engaged in a unified project review to work towards the realization of supporting its first project. Every employee is involved in careful investigation of each project's business characteristics and effects of policy, in order to support as many projects as possible, as soon as possible.

## Section 2

## Promotion of International Cooperation and Negotiations

### 1 Initiatives in the Field of Economic Partnerships

#### (1) Entering into Economic Partnership Agreements/Free Trade Agreements (EPA/FTA)

Japan has been strategically promoting the economic partnership between the Asia-Pacific region, Southeast Asia, Europe etc., and have entered into EPA with 15 countries and regions as of March 2015. These arrangements will serve to strengthen international competitiveness of Japan's transport, construction, and other industries, as well as promote international development and opening of the service sector in partner countries including the abolition or deregulation of foreign capital restrictions, and promote the expansion of participation opportunities related to government procurement.

#### (2) World Trade Organization (WTO)

In the WTO Doha Round Negotiations which was started in 2001, Japan aims to promote the opening of markets, and chaired multilateral meetings in the maritime transport and construction sectors in addition to other efforts, to actively participate in negotiations regarding land, infrastructure, transport and tourism. Furthermore, discussions have been

underway for the purpose of creating a Trade in Services Agreement (TiSA) by countries and regions—including Japan—eager to further open trade in the service sector, with negotiations having started in June 2013. In addition, the Government Procurement Agreement aimed to promote the extension of ensuring transparency and market access in the procurement process came into effect on April 16, 2014 in Japan.

## 2 Contributions to and Strategic Utilization of International Organizations

### (1) Asia-Pacific Economic Cooperation (APEC)

MLIT is actively involved with APEC Ministerial Meetings and Working Groups in transport and tourism sectors.

At the “8th APEC Transportation Ministerial Meeting” which took place in Tokyo during September 2013, discussions took place based on the theme of “Enhancing Connectivity Through High-Quality Transportation in the APEC Region.” Results that were adopted as part of the “Ministerial Joint Statement” included the following initiatives: 1) Develop a transportation “Connectivity Map” to visualize the ideal transport network within the APEC region to be completed by the year 2020, 2) Promote cooperation and sharing of sound practices regarding transportation infrastructure investment, financing and operations in each economy, and 3) Develop a “Quality Transport” vision encompassing convenience, efficiency, safety, security, and sustainability as priorities. A report of progress will be made regarding the three initiatives listed above in the Ministerial Joint Statement at the “9th APEC Transportation Ministerial Meeting” to be held in the Philippines in 2015.

In the tourism sector, the “8th APEC Tourism Ministerial Meeting” held in Macau, China in September 2014 included presentations on tourism strategy in each economy, as well as collaboration and “smart tourism” in the Asia-Pacific market, and discussions on promoting low-carbon tourism.

### (2) Association of Southeast Asian Nations (ASEAN)

The MLIT is involved in various cooperative projects under the “ASEAN-Japan Transport Partnership,” a cooperation framework in the transport sector founded between Japan and ASEAN in 2003. The “ASEAN-Japan Transport Partnership” is held every year under the “ASEAN-Japan Ministerial Conference on Transport” to monitor the progress of current projects and to discuss new projects and future direction.

The “12th ASEAN-Japan Ministerial Conference on Transport” was held in Myanmar in November 2014. In addition to project implementation planning for the “ASEAN-Japan Transport Partnership Work Plan 2014-2015,” four other new collaborative projects were approved: 1) The development of a new environmental action plan, 2) The ASEAN-Japan cruise promotion strategy, 3) Investigation for the realization of a land bridge, and 4) Maritime safety. Also, the results of the “ASEAN-Japan Transport Partnership” included the approval of four documents: 1) Port EDI introduction guidelines, 2) The ASEAN-Japan cruise promotion strategy, 3) “Eco Airport” investigation reports in ASEAN countries, and 4) The land bridge preliminary investigation report.

### (3) Organization for Economic Co-operation and Development (OECD)

The MLIT participates in activities of multiple OECD organizations, including the International Transport Forum (ITF), the Council Working Party on Shipbuilding, the Territorial Development Policy Committee (TDPC), the Tourism Committee, as well as the Joint Transport Research Centre (JTRC), which was jointly established by OECD and ITF.

The ITF is an international framework in which transport ministers from 54 countries play a central role in annual meetings to facilitate high-level and open discussions with world-renowned experts and business persons regarding transport policy. Previous topics discussed include climate change in the transport sector and globalization. The May 2014 ministerial meeting on the theme of “Transportation in a Changing World” resulted in discussions on how transportation is affected by demographic changes, urban concentration of economic activity, changes in the supply chain, climate change, the emergence of new technology, and digitalization.

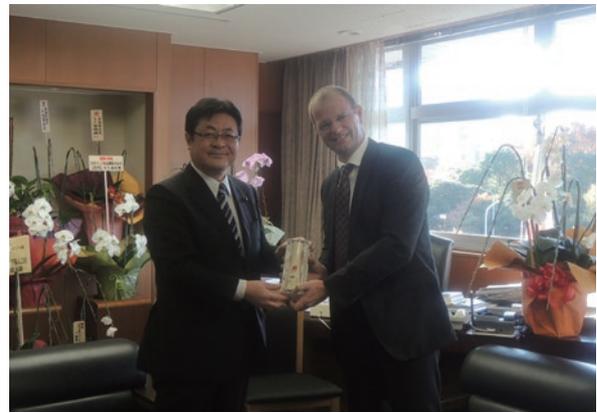
The “OECD Council Working Party on Shipbuilding” implements policy review to evaluate the soundness of shipbuilding policies to ensure fair competitive conditions in the shipbuilding market, as well as the creation of policy assistance lists that compile the status of financial assistance in partner countries to carry out policy coordination and mutual monitoring among major shipbuilding nations. Research and other efforts are actively underway at the TDPC, including policy review of member countries concerning national land and regional policies, evaluation of urban policies

concerning “green growth” strategies, research of compact city policies, and sustainable urban policies in an aging society. In addition, we are in the process of preparing for the second review by each country to be conducted on Japan’s land and regional policies over FY2014-2015.

The Tourism Committee conducted maintenance and analysis of tourism data for the purpose of cooperation to promote and support international tourism, including review and recommendations of tourism-related policies in each country. The “13th Global Forum on Tourism Statistics,” held by the Tourism Committee in Japan in November 2014—the first time this forum was hosted in Asia—included the utilization regional tourism statistics and “big data,” as well as discussion on the challenges and prospects in the field. In addition, OECD Deputy Secretary-General Stefan Kapferer, who was in Japan for the Global Forum, made a courtesy call to MLIT’s Vice-Minister Nishimura to exchange ideas regarding the strengthening of the cooperative relationship between OECD and Japan.

At the JTRC, research studies on common political issues among member countries are underway concerning road operations, such as maintenance and management, optimization of financial resources for development, and infrastructure that can be adapted for climate change and extreme weather events, etc. Japan is participating in working groups on infrastructure adaptation to extreme weather and climate change, etc.

Vice-Minister of MLIT Nishimura and OECD Deputy Secretary-General Stefan Kapferer Exchanging Views



Source) MLIT

## Column

### Bridging Southeast Asia and the OECD - Contributions of the Ministry of Land, Infrastructure, Transport and Tourism

2014 marks the 50th year milestone of Japan's membership in OECD. Japan displayed leadership as the chair country of the Council of Ministers, and pushed an agenda to strengthen its relationships with Southeast Asia. As the 50th anniversary is celebrated through a variety of events, here are two events that the MLIT sponsored to bridge itself with fast-growing Southeast Asia:

#### (1) ASEAN-Japan-ITF Urban Transport Seminar

This ASEAN-Japan-ITF Urban Transport Seminar was a joint venture of the MLIT, the International Transport Forum (ITF) and ASEAN, held in concurrence with the Japan-ASEAN Vice Ministerial Transport Policy Meeting. This seminar was attended by Deputy Masuno of MLIT, Secretary-General Viegas of ITF, and transport secretaries from 10 ASEAN countries.

Under the theme of “Urbanization and Transportation that Support Developing Asia,” three sessions that included speakers from private industry took place, resulting in active debate on the following topics: 1)

ASEAN-Japan-ITF Urban Transport Seminar



Source) MLIT

Addressing Increasing Demand for Urban Transport, 2) Improving the Quality of Urban Transport, and 3) Important Traffic Problems in Asian Cities.

These debates resulted in linking the experience of developing countries of ITF and the future growth expected in ASEAN policy needs, and demonstrated the value of Japan's contributions.

## (2) Japan-OECD Policy Forum on Urban Development and Green Growth

This forum was held together with OECD to discuss sustainable development in rapidly developing ASEAN urban centers. This forum was attended by Vice Minister Kitagawa of MLIT, Public Governance & Territorial Development Director Alter of OECD, the Vice Minister of Construction of Vietnam, the Mayor of Yangon, Myanmar, and representatives from central and regional government authorities of ASEAN countries.

This meeting included a presentation of efforts and examples of the realization of OECD's "Urban Green Growth" proposal. In particular, development examples of Japan's Transit-Oriented Development (TOD) were presented by participating industry representatives. The following day included a guided tour of urban development locations, and served as an opportunity to demonstrate OECD's urban development aims and Japan's role as an example of sustainable urban development for ASEAN countries.

Japan-OECD Policy Forum Leaders Vice Minister Kitagawa of MLIT and Public Governance & Territorial Development Director Alter of OECD



Source) MLIT

## (4) United Nations (UN)

### a. International Maritime Organization (IMO) and International Labor Organization (ILO)

The IMO is a specialized UN agency that establishes international rules on boat safety and the environment. Japan, in addition to producing the Secretary General of this agency, is an active participant in major shipping and shipbuilding work worldwide. In 2014, Japan actively contributed to the discussions on reduction of greenhouse gasses from ships, steps towards ballast water management regulation enforcement, and to the development of international rules on vessels passing through high-profile new routes in the Arctic Ocean and polar regions, as well as recent progress in low environmental load through efficient gas-fueled ships.

In addition, a briefing conference was held for relevant officials to ensure effectiveness of the "2006 Conventions on Maritime Labor," adopted by the ILO, which had gone into effect in August of the same year.

### b. International Civil Aviation Organization (ICAO)

The ICAO is an international organization run by the United Nations to define rules to facilitate the safe and orderly development of international civil aviation as well as the healthy and financially sound operation of international aviation transport activities. Japan's financial contributions are second among member countries, and as a Governing Council country under PART I (states of chief importance in air transport), actively participates in various ICAO activities and contributes to the development of civil aviation.

Japan also actively contributed to the construction of the International Aviation Field Greenhouse Gas Emission Reduction System that was established in March 2014, including chairing a task force for discussion of recommended proposals.

### c. United Nations Human Settlements Programme (UN-HABITAT)

UN-HABITAT is a UN funding and planning agency specializing in human settlement issues. Japan has been an active council participant since the foundation of UN-HABITAT, and has taken advantage of its knowledge and land, regional, and residential environment improvement experience to contribute to improving human settlement issues worldwide, with particular focus on the Asian population explosion.

In October 2016, the 20th annual UN conference “HABITAT III”—a UN conference held to discuss international efforts related to human settlements and to summarize the international agenda—is scheduled to be held in Ecuador. A domestic committee (co-chaired by the Ministry of Foreign Affairs and the MLIT) was established in April 2014 to create and release news reports on other countries (mid-term reports) to be submitted to UN-HABITAT Office.

### d. United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB)

UNSGAB is the Secretary-General's advisory board for policy and technical advice to address water issues. At the 23rd conference held in October 2014 in Tokyo, special sessions concerning water recycling and water disasters were held. The Minister of Land, Infrastructure, Transport and Tourism highlighted the necessity for international cooperation to ensure clean water supply and contributed to the debate regarding water problems, including ongoing discussion concerning water and natural disasters. In addition, Japan also attended the 3rd session (May 2014) and 4th session (October 2014) of the Water Disaster High Level Panel for strengthening water disaster efforts across countries, and shared information about adaptation to climate change and lessons learned from the Great East Japan Earthquake.

### e. World Conference on Disaster Risk Reduction (WCDRR)

The United Nations World Conference on Disaster Risk Reduction is an international conference hosted by the United Nations to discuss international disaster prevention strategy; the conference has been hosted twice by Japan (1st Yokohama, 1994 and 2nd Kobe, 2005). At the third conference held in Sendai in March 2015, the “Sendai Disaster Prevention Framework” was presented as a follow-up to the “Hyogo Action Framework,” the international disaster prevention effort guidelines from the second conference, and the Sendai document was adopted as a political declaration.

At this conference, the Minister of Land, Infrastructure, Transport and Tourism Ohta attended the Ministerial Round Table Meeting “Recovering Well from Disaster (Build Back Better),” and presented Japan's lessons learned from the Great Hanshin Earthquake, the Great East Japan Earthquake, and water disasters, sharing his experience and knowledge concerning disaster prevention, mitigation, and reconstruction, and emphasizing the importance of “Taking prevention, mitigation, and reconstruction measures that combine structural and non-structural aspects to prepare for worst-case scenarios,” and “Using the lessons learned from the past to further develop safer communities by making preventative investments.” The “Sendai Disaster Prevention Framework” was adopted on the final day of the conference, and established the following four items as matters to be prioritized worldwide going forward: 1) “Understanding Risk of Disaster”, 2) “Strengthening Disaster Risk Management Governance”, 3) “Creating a Strong Society by Investing in Disaster Risk Reduction,” and 4) “Strengthening Pre-occurrence Preparation for Effective Emergency Response, and ‘Build Back Better’ for Disaster Recovery/Restoration”.

MLIT itself also plans to work on necessary measures based on the “Sendai Disaster-Prevention Framework” going forward.

### 3 Multilateral and Bilateral Initiatives in Individual Sectors

#### (1) National Land Policy Sector

At the regular director-level bilateral meeting held with South Korea, information is exchanged concerning similar issues between the two countries, such as national land policy, regional redevelopment policy, and the promotion of appropriate land use. With France, we exchange opinions and ideas regarding national land policy and regional redevelopment policy with The Inter Ministerial Delegation for Regional Development and Attractiveness, French Republic (DATAR, CGET, General Commission for Territorial Equality). In addition, as of 2013, policy dialogue began for national development planning support in Kuwait, and August 2013 brought a new signed memorandum of policy dialogue for national development planning, and in October 2014 a policy dialogue was held with the Minister of State for Planning and Development during his visit to Japan.

#### (2) Land and Construction Industry Sectors

A construction conference was held in Vietnam with the aim of supporting the overseas expansion of land and construction industry sectors. Construction conferences were also held in Singapore and Turkey to promote government and industry cooperation for the third country expansion in the field of infrastructure.

Furthermore, seminars were held in Vietnam and Myanmar with the goal of introducing related Japanese systems to establish construction and real estate business environments in ASEAN countries.

#### (3) Urban Sector

In order to promote overseas expansion of environmentally-friendly urban development, urban transportation systems and multi-story parking garages, there are initiatives underway for public-private partnerships like “Japan Conference for Overseas Development of Eco-Cities (J-CODE)” and “Study Group for Overseas Development of Urban Transport Systems,” and Urban Transport Seminars being held in the Philippines and Indonesia, emerging Asian countries with top sales.

In addition, in order to promote city sales in Japan’s urban areas, MIPIM JAPAN (a domestic version of the MIPIM International Real Estate Trade Fair) was given support for its May 2015 event. There were also bilateral urban policy talks held with both China and South Korea.

#### (4) Water Sector

Under the common understanding that water issues are a global problem, discussions for finding a solution are taking place at international conferences and other occasions. Japan actively participated in the discussions held at various international conferences, including the special session on water recycling and water disasters at the October 2014 “23rd United Nations Advisory Board on Water and Sanitation” in Japan, the November 2014 “OECD Meeting of the Water Governance Initiative” in France, and the March 2015 “3rd UN World Conference on Disasters” in Japan, to call for improvements in efforts related to water, sanitation and disaster prevention.

Furthermore, Japan is coordinating efforts with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and Network of Asian River Basin Organizations (NARBO) to support the creation of Integrated Water Resources Management (IWRM) plans—considered an effective means to solve water issues—by creating materials such as the “IWRM Guidelines at River Basin Level”, training, and other efforts to contribute to the dissemination and promotion of IWRMs.

With South Korea and the United States, bilateral meetings were also held regarding issues such as rivers, erosion control, and water resource management to promote information exchange, technical cooperation, etc.

With Vietnam, a workshop on promotion of cooperation in the water sector was held in December 2014, based on the memorandum of understanding on cooperation in water resource facilities management signed with Vietnam’s Ministry of Agriculture and Rural Development in June 2012. The Ministry of Construction updated the 2010 cooperation memorandum on sewage in March 2014, and in addition to the January 2015 7th Government Conference, support was given for developing standards in sewer development construction methods, establishment of sewer-related legislation, and propagation of pipe rehabilitation methods.

With Indonesia, the cooperative relationship was deepened through various activities, including an exchange of

opinions on the water resources and sewerage sector at the Japan-Indonesia Vice-Minister Level Meeting on Construction held in November 2014.

In addition, the “Water and Environment Solution Hub,” a federation which includes Kitakyushu City, Osaka City, the Tokyo Metropolitan Area, Yokohama City, Kobe City, Fukuoka City, Kawasaki City, Saitama Prefecture, Shiga Prefecture, the Japan Sewage Works Agency and MLIT, is providing experience and expertise on sewerage projects through seminars, field studies, and training.

#### (5) Disaster Prevention Sector

Efforts are underway to improve the disaster prevention functions of partner countries and contribute to the international development of infrastructure, utilizing Japan’s advanced technology and knowledge on disaster prevention, gained from past experiences with disasters.

In particular, emerging countries facing issues in disaster prevention are targeted for joint efforts through the working cooperation of the private sector, academia, and the public sector of both countries to pursue technology and solutions that satisfies both parties’ needs through “Talks for Cooperation in Disaster Prevention.” The coordination of relevant organizations will capture a variety of opportunities in expanding to each individual country in relation to the “Infrastructure System Export Strategy”. As part of the “Talks for Cooperation in Disaster Prevention,” public and private sectors held workshops in Turkey in April and July 2014, in Indonesia in November 2014, in Vietnam in December 2014, and in Myanmar in February 2015.

In addition, the private sector, academia, and public sector worked together to establish the “Japan Disaster Prevention Platform” in June 2014 for the purpose of promoting the development and overseas sales of internationally competitive products and services in the disaster prevention sector. This organization serves as a receptacle for “Talks for Cooperation in Disaster Prevention” in cooperation with private sectors and works to make introductions and proposals of Japan’s technology to partner countries.

On the other hand, to reduce the occurrences of water disasters in the world, in addition to disseminating Japan’s experiences and technology, efforts are being made to establish international solidarity regarding the strengthening of water disaster prevention in order to build an international consensus that disaster prevention is the key to sustainable development. Meanwhile, the Public Works Research Institute’s (Independent Administrative Institution) International Center for Water Hazard and Risk Management (ICHARM), which is recognized as a UNESCO cooperative organization, is developing projects such as the Integrated Flood Analysis System (IFAS), which uses satellite information and analysis technology like the Rainfall-Runoff-Inundation Model, and researching risk management in developing countries. The fruits of these efforts are used for human resource development efforts, including the awarding of doctorate and master’s degrees in water-related disaster risk management, as well as accepting trainees for short-term training in water-related disaster risk management. Furthermore, technical cooperation and international assistance is being implemented jointly with UNESCO and the Asian Development Bank, including the construction of a flood forecast and warning system and hosting workshops for Asian countries and regions vulnerable to water disasters.

In addition, the European Commission’s Humanitarian Aid and Civil Protection department and MLIT exchanged letters in March 2013 regarding disaster prevention cooperation, and based on these letters, held both ministerial-level and expert-level meetings in February 2015. The “3rd Japan-Switzerland Science & Technology Joint Committee” held in December 2014 included discussions on landslide disaster risk management, and confirmed the importance of bilateral cooperation in developing technology in this field. That same month, Japan also attended the “OECD High Level Risk Forum” and contributed to the discussions by introducing case examples of calculation of disaster prevention investment and disaster damage assessment. In addition, experts dispatched by the MLIT is providing technical advice on understanding disaster circumstances and future countermeasures.

### (6) Road Sector

In order to create an environment that makes it easier for Japanese companies to enter ASEAN regions, the use of the Japan-ASEAN Transportation Alliance framework, pavement technology for international road networks, and ITS' joint research on large vehicle management were proposed. This allowed for them to partner with other countries in August, 2014 and additional studies were started concerning the development of technical standard. ITS technology, traffic safety measures, and pavement management systems. Model projects were conducted in Malaysia, Myanmar, and Vietnam with the aim of improving the trust and understanding of Japanese road technologies in these partner countries. Additionally, surveys were conducted in Myanmar and the Philippines, in order to find new projects that may utilize Japan's specialized road technology. Furthermore, in various countries in Asia—including India, Indonesia, Myanmar, and Vietnam—seminars were held on policies and technology in the road sector, with the cooperation of expressway companies and road-related private companies, to promote Japanese road technology that meets the needs of each of these countries. Finally, Japan actively participated in the World Road Association (WRA) general assembly and technical committees, while also leading future policy development, which promotes technology and information exchange within both the policy and technology sectors.

### (7) Housing and Building Sector

Japan attended the world conference of the Inter-Jurisdictional Regulatory Collaboration Committee (IRCC) and exchanged information with partner countries concerning trend in building standards.

Bilateral talks were held with South Korea, China, France, Myanmar and Indonesia concerning housing policy, low-energy buildings, and housing for the elderly.

The talks with Myanmar had a wide field of technical cooperation, including domestic building standards seminars and invitations to government officials.

Building standards seminars were held with both Mongolia and Laos by request from government ministers.

### (8) Railway Sector

In the high-speed railway sector, MLIT initiative are underway to introduce the Shinkansen (high-speed) technology in India, Malaysia-Singapore and other countries. The export of urban railways overseas is also being promoted. In 2014, Minister Ohta of MLIT visited Malaysia, India and other countries to conduct a “top sales” drive to promote the introduction of Japanese railway systems abroad. In addition to sales meetings with foreign dignitaries in Japan, actual site visits were also conducted. Furthermore, the State Minister and Parliamentary Vice-Minister of MLIT has been appealing to the respective representatives of various Asian countries in this regard. In FY2014, public-private railway seminars were also held in various countries, including Malaysia, Singapore, and India.

### (9) Automotive Sector

An automobile safety standards cooperative agreement was reached with Australia in January 2014. Accordingly, the first bilateral meetings were held in September 2014 to exchange information concerning automobile certification systems, import car processing systems, and recall systems. A similar agreement was reached with Malaysia in January 2015 for a deepened bilateral cooperation in automobile standards certification in the future. In addition, the 5th Japan-China Automobile & Traffic Exchange Promotion Meeting was held in August 2014, with an exchange of opinions concerning legal framework and safety standards for work vehicles and vehicles that transport dangerous materials, as well as status updates and introduction of measures concerning the Bus Rapid Transit System (BRT).

### (10) Maritime Sector

In the maritime sector, in addition to responding to the IMO global agenda, bilateral talks were held at the Director level. FY2014 brought director-level talks between the USA, Panama and South Korea, including an exchange of information and opinions concerning new energy marine transportation routes, extension of the Panama Canal, and safety measures for coastal and passenger ships. Additionally, at the November 2014 Japan-ASEAN transportation minister's meeting, Japan enriched cooperative efforts for waterway re-surveying and chart maintenance projects in the Malacca-Singapore Strait, and approved of cruise promotion programs.

### (11) Ports Sector

Promotion of worker training practices enhancement and exchange of information and opinions as part of the "Overseas Port Logistics Projects Council" is underway to support projects like port development and management in Myanmar, Kenya and Mozambique, the introduction of an international port EDI system in Myanmar, and introduction of port technology standards in Vietnam. The "15th Northeast Asia Port Director-General Meeting" involving Japan, China, and South Korea was held in November 2014 to exchange information on promoting cruises and other issues regarding recent port policies, etc. International conferences including the World Association for Waterborne Transport Infrastructure (PIANC) and the International Association of Ports and Harbors (IAPH) were also used as opportunities to promote the international expansion of Japanese technology standards and to exchange information.

### (12) Aviation Sector

In May 2014, Japan co-signed a "Memorandum on Technical Cooperation in Civil Aviation Sectors" with France to continue future cooperation and hold regular meetings. At the "51st Asia Pacific General Meeting on Aviation" held in November 2014 with the theme of "Addressing future issues in civil aviation through close cooperation and coordination," and covered an exchange of opinions on Asia Pacific region aviation projects like expansion of air traffic safety and environmental measures in the aviation sector.

### (13) Logistics Sector

The "5th Japan-China-South Korea Logistics Ministers Meeting" was held in Yokohama in August 2014. The framework of these talks allowed for progressive cooperation between the three nations in the field of logistics, addressing issues like the expansion of the multi-direction chassis and the start services of the Northeast Asia Logistics Information Service Network (NEAL-NET).

In addition, under the framework of the Japan-ASEAN Transportation Alliance, bilateral policy talks were held with Vietnam in December 2014 and with Myanmar in January 2015 to consult on how to improve the logistics environment. In March 2015, worker development training of students was held in Vietnam to secure superior human resources in the ASEAN region. Furthermore, three demonstration projects were implemented towards the overseas development of high-quality Japanese logistics systems, including the start of surveys to prepare for railroad cargo containers in Myanmar as the pilot business of an Asian cargo project.

### (14) Geospatial Information Sector

The MLIT participated actively in the United Nations Committee of Experts on Global Geospatial Information Management (UNCE-GGIM) and International Federation of Surveyors (FIG) to contribute to the creation of a global geodetic reference system, as well as serving as Secretary of the Regional Committee of United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP), and promoted international cooperation in tectonic activity monitoring. In addition, as the Global Mapping Project <sup>Note</sup> continues, the work expands to include technical support to developing countries through international conferences. In addition, government representatives participated in the United Nations Conference on the Standardization of Geographical Names (UNGEGN) and International Hydrographic Conference (IHC) to discuss proper geographical names. South Korea and others have insisted on "either renaming the Sea of Japan as the East Sea or listing both names". MLIT along with the Ministry of Foreign Affairs and other relevant

**Note** A fundamental geographical information database (Global Map Data) project needed to analyze global environmental problems, to be developed under the voluntary cooperation of the geospatial information authorities of various countries.

ministries are working together to promote the correct understanding and support of the name “Sea of Japan” within the international community.

#### (15) Meteorological and Earthquake/Tsunami Sector

Under the framework of the World Meteorological Organization (WMO), Japanese technology has provided tropical cyclone tracking information as well as meteorological data and exchange of technical information. Also, under the framework of the United Nations Educational, Scientific and Cultural Organization/Intergovernmental Oceanographic Commission (IOC), tsunami information from the Northwest Pacific Ocean is provided to various countries to contribute to tsunami disaster prevention.

#### (16) Research Sector

Anticipating the spread of the utilization of Japan’s superior infrastructure-related technology, joint research based on road maps to increase locally adaptive traffic safety and create environmentally appropriate paving standards are being conducted in cooperation with regional government institutes in Vietnam and Indonesia. Joint workshops were hosted with Vietnam and Indonesia in 2014 for technical discussions regarding coordinated research projects and exchanges of opinion regarding research cooperation. Other initiatives include the promotion of coordinating with local JICA experts and inviting mid-level and young researchers.

#### (17) Coast Guard Sector

Coordination and cooperation between coast guard organizations in various fields—including search and rescue as well as maritime security measures—are being actively promoted through partnership of the North Pacific Coast Guard Forum (formed by the six countries of Japan, Canada, China, South Korea, Russia, and the United States), the Heads of Asian Coast Guard Agencies Meeting (18 Asian countries and one region), and bilateral top-level meetings with South Korea and India, as well as coordinated training exercises.

Active participation in international organizations is also being carried out through activities like formulation of the guidelines related in the Automatic Identification System (AIS) Aids to Navigation at International Maritime Organization (IMO), the establishment of standards regarding the creation of hydrographic charts in the various committees of the International Hydrographic Organization (IHO), leading the Northwest Pacific Ocean region for the International Cospas-Sarsat Programme, participating in the development of next generation AIS at the various committees of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), and dispatching coast guard staff to the Information Sharing Centre under the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP). In addition, international contributions are being made through initiatives such as improving the capability of the coast guard sector in developing countries.

## Section 3

## Efforts for International Standardization

### (1) Internationalization of Automobile Standards and Certification Systems

To promote the early and cost-efficient adoption of safe automobiles with high environmental performance, Japan is actively participating in activities such as the World Forum for Harmonization of Vehicle Regulations (WP29), and while promoting international harmonization of safety and environmental standards, is also promoting the international spread of Japanese automobiles with superior safety, environmental features and new technology through participation in these activities. In order to promote such activities, the “Action Plan for the Internationalization of the Regulation and Certification System” with its four pillars of: 1) Strategic international standardization of Japanese technology and standards, 2) Realization of international vehicle certification system (IWVTA), 3) Promoting participation of Asian countries in international harmonization of regulations, and 4) Establishing a framework to handle globalization of standards certification, is being steadily realized to promote the internationalization of automobile regulation and certification systems.

## (2) Internationalization and Other Initiatives in the Railway Sector

As Europe actively promotes international standardization of European standards, if Japan's superior technology is excluded from the international standards, the possibility of significant obstacles in overseas expansion of railway technology is increased. Because this will affect global competitiveness in the railway sector, it is important to actively promote international standards in railway technology. For this reason, under the Railway Technical Research Institute, the Railway International Standards Center was founded in April 2010 to be the centralized organization that handles railway related international standards for further advancing domestic railway safety and expansion of the railway industry, and is working proactively.

As a result, Japan has had a central role in contributing to the proposal of individual standards and committee activities in the Technical Committee for Railway applications (TC269) of the ISO founded in 2012, and are seeing successful results. Furthermore, efforts to promote international standardization of railway technology are underway to increase presence in international conferences like ISO/TC269 and the Technical Committee for Electrical equipment and systems for railways of the IEC. The National Traffic Safety and Environment Laboratory (Independent Administrative Institution), Japan's first certification body of international standards in the railway sector, has acquired solid certification experience following the establishment of the Certification Office, and contributed to the international expansion of Japan's railway systems.

## (3) International Standards Regarding Ships and Mariners

While aiming to improve safety and reduce environmental impact of marine cargo, in order to also spread Japan's superior low-energy technologies worldwide, Japan has led discussions on the creation of international standards in the International Maritime Organization (IMO). In addition, Japan is cooperating in the development of coastal vessel safety standards in ASEAN countries with the aim to promote the export of Japanese ships and marine equipment, and in January 2015, gathered ASEAN countries to hold an officials meeting which included the participated of IMO members.

## (4) International Harmonization of Standards and Certification Systems in the Civil Engineering and Construction Sectors

In recent years, in the civil engineering, architecture, and housing where internationalization of the market is evolving, by enforcing legislative operations like imported building materials performance certifications and approval rating agencies, enlisting technical cooperation with organizations like JICA, and participating in establishing the ISO for design and construction technology, we are working to promote international harmonization of standards and certification systems in the civil engineering and architecture sectors. Likewise, as part of the efforts to reflect Japan's accumulated technology in international standards, discussions are in progress to develop and revise domestic technical standards with consideration to trends in the creation of international standards.

## (5) International Standardization of Intelligent Transport Systems (ITS)

In order to promote the development of efficient applications, international contributions, and the development of the related industries in Japan, the international standardization of ITS technology is progressing within international standardization bodies, including the ISO and the International Telecommunication Union (ITU).

In particular, standardization activities, related to the utilization of routing information from ITS probe data via ETC2.0, are being conducted through participation in the Technical committee (ISO/TC204) for the international standardization of ITS. In addition, lead by Japan's initiative, an automotive subcommittee was formed under the UN World Forum for Harmonization of Vehicle Regulations (WP29), and co-chaired by Japan and the UK. Furthermore, Japan is leading international standardization initiatives related to advanced technology, such as proposing standards for lane-keeping assistance devices, an automated driving technology.

#### (6) Standardization of Geographic Information

For the purpose of ensuring compatibility for the interoperability between Geographic Information System (GIS) with differing geospatial information, Japan is actively participating in the formulation of international standards by the ISO technical committee for Geographic information/Geomatics (ISO/TC 211). Likewise, initiatives are taking place to standardize domestic geographic information.

#### (7) Mutual Recognition of International Technical Qualifications

The APEC Engineer mutual recognition project aims to provide mobility to qualified technical personnel based on the mutual recognition of technical qualifications between participating countries and regions. Through the APEC Architect Project (architect registration system), the “APEC Architect Bilateral Agreement on Reciprocal Recognition of Registered/Licensed Architects in Japan and Australia to Facilitate Mobility of Architects in the Provision of Architectural Services” with Australia was signed in July 2008, and the “APEC Architect Memorandum of Cooperation on Registered/Licensed Architects in Japan and New Zealand to Facilitate Mobility of Architects in the Provision of Architectural Services” with New Zealand was signed in July 2009, to promote the mobility of qualified architects.

#### (8) Sewerage Sector

Based on the “2010 Intellectual Property Strategic Program (established on May 21, 2010),” strategic international standardization is being promoted for the purpose of creating an international market where Japanese companies looking to expand internationally in the sewerage sector can be highly competitive. Currently, participation in the technical committee on “Water reuse” (ISO/TC282) and the technical committee on “Recovery, recycling, processing and disposal of sludge” (ISO/TC275) is underway to ensure that Japanese sewerage technology has an advantage. In terms of securing international competitiveness, the ISO550001 “Infrastructure Asset Management System,” adopted in 2013, supports certification of domestic businesses.