

Chapter 9

Strengthening International Expansion and International Contributions

Section 1 Promoting the Export of Infrastructure Systems

1 General Direction of Government Policy

The international demand for infrastructure, particularly for emerging countries, is enormous and due to rapid urbanization and economic growth, this market is expected to grow even more. For this reason, as part of Japan's growth strategy and international expansion, Japan's strengths regarding infrastructure systems will be utilized to meet the vast infrastructure demands of the world.

On the other hand, international competition for project orders is fierce and for Japanese companies to get orders, the public and private sectors need to work closely to create an environment that enables Japanese companies to receive orders.

Therefore, the government established the "Infrastructure Strategy Economic Cooperation Meeting" in March 2013 and compiled the "Infrastructure System Export Strategy" based on the discussions of policies that the government should undertake by relevant ministers including the Minister of Land, Infrastructure, Transport and Tourism. This strategy was incorporated into the "Japan Revitalization Strategy" in June 14 of the same year to ensure it was implemented without delay.

The Infrastructure System Export Strategy aims to achieve 30 trillion yen (currently 10 trillion yen) in infrastructure-related orders to Japanese companies by 2020. The pillars of this policy in the context of this strategy are: 1) promote public and private sector cooperation to strengthen the global competitiveness of companies, 2) support the discovery and incubation of companies, local governments, and human resources that will lead the overseas expansion of infrastructure, 3) acquire international standards utilizing advanced technology, knowledge, etc., 4) support entry into new frontier fields, 5) promote the securing of stable and inexpensive resources.

2 The Concept of Infrastructure System Exports in the Field of Land, Infrastructure, Transport and Tourism

In accordance with the "Infrastructure System Export Strategy", MLIT will promote infrastructure system exports in the field of land, infrastructure, transport, and tourism but in order for Japanese companies to successfully compete with rival countries and win bids, it is necessary to capitalize on Japan's strengths to create safe and highly reliable systems that integrate hardware and software as well as flexibly accommodate the needs of the target country.

For this, we aim to participate in the upstream stage (conceptual stage) of the project such as through top sales or broadcasting information at international conferences as well as pushing for Japanese technology and standards to be adopted as international standards or local standards in the target country to foster an environment that facilitates participation from Japanese companies. Also, in addition to responding to issues in the field of transport and urban infrastructure such as large initial financial investments and long development periods as well as demand risks, we will also broadly support Japanese company bids and business development by assisting companies encountering difficulties in international expansion and other matters for successful resolutions.

3 Upstream Involvement and Information Dissemination

It is necessary to begin upstream in order to obtain infrastructure projects, by researching the needs of partner countries and making proposals that address them as well as utilize opportunities such as top sales and seminars regarding the safety and reliability of Japanese technology and the total cost-effectiveness when including the operational stages and deepen our understanding with partner countries.

For example, in fiscal 2013, the Minister of Land, Infrastructure, Transport and Tourism visited Myanmar, Singapore, Thailand, Vietnam, and Indonesia for discussions and to exchange opinions with the heads of state as well as minister in charge of land, infrastructure, transport and tourism to conduct top sales for Japanese infrastructure. Also, Deputy Ministers and Parliamentary Secretaries visited a total of 13 countries and for countries with infrastructure needs, talks and other activities were held to promote Japanese infrastructure to prospective countries.

Additionally, opportunities such as foreign ministers and dignitaries visit Japan, hosted seminars, and invitation of dignitaries were actively used to spread the superiority of Japanese infrastructure. In particular, at the “8th APEC Transportation Ministerial Meeting” held in September of 2013 which brings together the transport ministers and officials from 21 APEC member countries and regions (economies), this opportunity was used to introduce land, sea and air infrastructure as part of a “Technical Tour” with five different courses. Around 70 members, including the representative, from the 20 economies represented in the Ministerial Meeting participated to experience Japan’s superior infrastructure firsthand.

On the other hand, in addition 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-city as a forum for the private and public sectors to coordinate the promotion of infrastructure exports. In fiscal 2013, the “Aviation Infrastructure International Development Council” was newly established and the first meeting was held in April of the same year. In addition to this, the “Japan Disaster Prevention Platform” will be established in early fiscal 2014 for the field of disaster prevention.

4 Development of Soft Infrastructure

Japan will actively participate in discussions in the establishment of international standards so that Japanese standards are reflected and promote Japanese standards to become de facto standards^{Note} in prospective countries. This will help foster an environment that is advantageous to Japanese companies to enter markets and receive orders and also lobby to reflect the national land and urban structure of Asia-Pacific countries, including Japan, in international standards.

5 Supporting Businesses for Overseas Infrastructure

For overseas infrastructure projects, there is a growing trend for cases where orders include downstream (operations and management stages) aspects. On the other hand, there are differences in regulations and business practices of partner countries, and as a result, there are companies that struggle with issues arising from overseas projects making so that it is necessary to support private sector activities from a diversified perspective.

Specifically,

1) An increasing amount of infrastructure projects in emerging countries are utilizing the private sector to take advantage of private sector project participation and funding under strict budget restrictions. Especially, project in the sectors of transport and urban development come with expectations of long-term returns, but on the other hand it has characteristics such as long development terms, demand risks during the operations phase, and the influence of local government, requiring appropriate measures which are issues for the participation of Japanese companies.

Note A standard in fact. Although the standard is nonofficial, it is seen as a standard due to accounting for a large portion of the market.

For this reason, as part of the Japan Revitalization Strategy, to promote the entry of Japanese project stakeholders into international markets for transport and urban development projects, 58.5 billion Japanese yen will be earmarked for industrial investment within budgetary financing, addressing demand risk, and establish the “Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development. (hereafter JOIN)” to integrate “investment” and “project participation” as per requisite laws establishing the framework passed in April 2014.

JOIN will provide funding and other investments to local project owners in cooperation with Japanese companies as well as dispatch personnel such as executives and engineers in addition to conducting negotiations with the partner country. Also, since the international promotion of infrastructure systems is an important national policy, the Minister of Land, Infrastructure, Transport and Tourism and other ministers involved will coordinate to manage JOIN appropriately.

2) Additionally, an “Overseas Construction Hotline” was established within MLIT to respond to inquiries from Japanese companies for issues faced regarding construction technology and construction management in the context of international construction projects. Also, the inquiries made are used as feedback for things such as discussions with partner country governments so that Japanese construction companies can expand overseas reliably.

3) Furthermore, along with the expansion of the overseas construction market database, the collection of construction industry information from Overseas Establishments, and implementation of strategy formulation for construction and real estate companies to participate in international PPP projects, laws and regulations that foster a business environment conducive to Japanese construction and real estate companies are being developed to support these efforts.

Column

Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development.

Japan is facing a declining birthrate and aging society ahead of the world and in order to continue medium to long term economic growth, it is becoming increasingly important to be competitive in the ever growing and expanding international market. In particular, the global infrastructure market is expected to grow further due to rapid urbanization and economic growth. Since it is difficult to satisfy such a large demand with public investments alone, in recent years, operational projects utilizing PPP that take advantage of private sector finances and expertise and this is becoming a major business opportunity for private sector companies around the world.

Under the “Japan Revitalization Strategy (Cabinet decision June 14, 2013)”, a target of achieving 30 trillion yen in infrastructure system orders by 2020 was set and the promotion will be undertaken through the joint efforts of the public and private sector. Operation type projects in the sectors of transport and urban development come with expectations of long-term returns, but on the other hand it has characteristics such as long development terms, demand risks during the operations phase, and the influence of local government, requiring appropriate measures which are obstacles for the

participation of Japanese companies.

Within the private sector there is increased interest in expanding into international infrastructure systems. At the “Advisory Panel of Experts Meeting for the Promotion of International Expansion for Infrastructure (Chaired by Professor Hitoshi Ieda)” hosted by MLIT, the discussions compiled February 2013 reflected opinions from private sector experts that policies to reduce project risk were needed.

Based on these government policies and private sector needs, MLIT is moving forward with the initiative of establishing the “Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development. (hereafter JOIN)” to integrate “investment” and “project participation” for international transport and urban development projects. The national budget for JOIN includes provisions of 109.5 billion yen (58.5 billion yen in industrial investment ^{Note 1}, 51 billion yen government guarantee ^{Note 2}) in the 2014 Fiscal Investment and Loan Program. Also a law for the founding of JOIN was established in April 2014.

JOIN aims to promote the expansion of Japanese companies into international markets for transport and urban development through assistance listed below for the purpose of contributing to the

sustained growth of Japan's economy. Also, it is anticipated that Japanese technology and expertise will benefit the countries and regions where the projects take place.

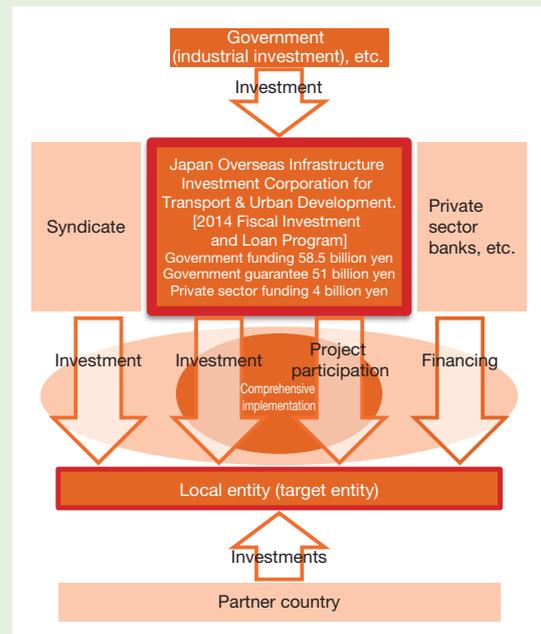
1) Investment

When Japanese companies participate in infrastructure projects abroad, the companies concerned will establish a local business entity to conduct business operations. JOIN will jointly invest in the local business entity with the businesses involved.

2) Project participation

JOIN will participate in the following projects for the invested local business entities:

- Dispatch executives and engineers to take advantage of Japanese technology and experience.
- Negotiate with partner countries as the investing authority of Japanese government.



Note 1 Fiscal Investment and Loan Program (Industrial investment) :

Investments to strengthen the development of enterprise, strategic international expansion of trade, and the promotion as well as strengthening of international contributions using funds from Japanese government such as the dividends from NTT and JT stocks as capital. Its characteristic is that it provides capital for projects that are highly desirable for policy that can expect a return but the risk is too high to procure required funding from the private sector alone.

Note 2 Fiscal Investment and Loan Program (government guarantee):

When organizations such as policy finance institutions and independent administrative agencies procure funding in the financial market, the government provides a guarantee to help ensure that the funds necessary for the project are procured smoothly and favorably.

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 intends to strategically promote economic partnerships with the Asia-Pacific region, East Asia region, Europe and others. As of March 2014, there are 13 EPAs/FTAs in effect between various countries and regions. These arrangements will be utilized to strengthen the competitiveness of transport, construction, and other industries as well as promote international expansion; liberalization of the service sector in partner countries such as the abolition or deregulation of foreign capital restrictions; and promote the expansion of participation opportunities related to government procurement.

(2) World Trade Organization (WTO) Endeavors

In the WTO Doha Round negotiations, Japan aimed to further liberalization and chaired multilateral meetings in the fields of maritime transport and the construction services sector among other efforts to actively participate in negotiations regarding land, infrastructure, transport and tourism. From 2012, while Doha Round negotiations are experiencing a general lull, discussions are underway for the purpose of creating a Trade in Services Agreement (TiSA) between Japan and eager countries and regions to further liberalize trade in the service sector with negotiations starting in June 2013.

Also, amendment negotiations for the Agreement on Government Procurement (GPA), which aim to ensure the transparency of government procurement and expand market entry was practically agreed upon and the revised protocol was officially adopted in March of 2012 at the WTO Government Procurement Ministerial Meeting. Through the domestic efforts of countries and regions participating in the GPA pushing for the ratification, on March 7, 2014, the 2/3 majority required of participating countries and regions reached an agreement and the revised GPA entered into force April 6, 2014.

2 Contributions and Strategic Utilization of International Organizations

(1) Asia Pacific Ocean Economic Cooperation (APEC) Endeavors

MLIT is actively involved with APEC Ministerial Meetings and Working Groups in the fields of transport and tourism.

In September 2013, the 8th APEC Transportation Ministerial Meeting was held in Tokyo and the Minister of Land, Infrastructure, Transport and Tourism served as the chair along with the Minister of Transport of Indonesia, the chair of the APEC Economic Leaders' Meeting. At this meeting, discussions revolved around the basic theme of "Enhancing Connectivity through 'High-Quality Transportation' in the APEC Region" and as a result of this meeting, initiatives 1) to develop a transportation "Connectivity Map" that will visualize the ideal transportation network within the APEC region to be reached by the year 2020; 2) to further cooperation and sharing of best practices regarding transportation infrastructure investment, financing and operations in each economy; and 3) to develop a "Quality Transport" vision, encompassing convenience, efficiency, safety, security, and sustainability as priorities were adopted as part of the "Ministerial Joint Statement".

The gist of this statement, was also incorporated into the Leaders' Declaration of the APEC Economic Leaders' Meeting held in October of the same year. Also, 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, a report of progress will be made.

Also, in the field of tourism, high-level policy discussions were held in Bali, Indonesia in October 2013 regarding the facilitation of travel including discussions about visa facilitation.

(2) Association of Southeast Asian Nations (ASEAN)

MLIT has implemented a variety of cooperation projects under the "ASEAN-Japan Transport Partnership", a framework for cooperation in the transport sector between ASEAN and Japan established in 2003. Various meetings such as the "ASEAN and Japan Transport Ministers Meeting" are held annually to confirm the state of progress for projects under the "ASEAN-Japan Transport Partnership" as well as discuss future directions and new projects.

At “the 11th ASEAN and Japan Transport Ministers Meeting” held in December 2013 in Lao PDR, a new action plan (Pakse Action Plan) was agreed upon. This action plan includes the four policy pillars of 1) transport facilitation, 2) transport infrastructure, 3) quality and sustainable transport, and 4) human resource development to implement cooperation projects. Additionally, at this meeting three new projects: 1) new ASEAN-Japan aviation security project, 2) promotion of ASEAN-Japan road technology exchange, 3) cooperation for promotion of public-private partnership (PPP) as well as to start the discussion for the conclusion of a regional air services agreement between ASEAN and Japan were endorsed.

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

Of the organizations under the OECD, MLIT participates in the International Transport Forum (ITF), Council Working Party on Shipbuilding, Territorial Development Policy Committee (TDPC), as well as the Joint Transport Research Centre (JTRC) established jointly by OECD and ITF.

The ITF is an international framework of which transport ministers from 54 countries play a central role that meets annually to facilitate discussions with world renowned experts and business people for high-level and free discussions regarding transport policy that previously included discussions on the topics of climate change in the field of transport as well as globalization. At the ministerial meeting in May 2013 on the theme of “transport and funding” including discussions on the utilization of private sector funding as well as the need for procuring budgets. Also, the New Kansai International Airport Company, Ltd., was given the ITF2013 Transport Achievement Award (the highest award) for their undertakings following the theme.

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 of various countries to carry out policy coordination and mutual monitoring among major shipbuilding nations.

At the TDPC, research and other efforts are actively being carried out such as the policy review of member countries concerning national land and regional policies, evaluation of urban policies concerning green growth strategies, research of compact city policies, sustainable urban policies under an aging society. Japan served as the vice chair of the TDPC Ministerial held in December 2013 in France and contributed to compilation of the chair’s statement including the intent to pursue resilient^{Note} urban development in the future.

At the JTRC, research studies are being carried out on topics such as road operations, maintenance and management, optimization of financial resources for development, infrastructure adapted to climate change and extreme weather events; Japan also participates in working groups such as those on the adaption of infrastructure to climate change and extreme weather events.

(4) United Nations (UN)

a. International Maritime Organization (IMO) and International Labour Organization (ILO) Endeavors

As one of the leading shipping and shipbuilding countries in the world, Japan actively participates in IMO activities and plays a leading role. In January 2012, a Japanese national became the Secretary-General for the first time and specifically, actively contributes to initiatives involving important issues such as anti-pirate measures, reduction of greenhouse gasses from ships, as well as the organizational and budgetary reform of the IMO.

Also, regarding the “Maritime Labour Convention, 2006” adopted by the ILO was ratified by Japan in August 2013 and will go into effect in Japan in August 2014. Efforts are being promoted to ensure that appropriate labor and living conditions in ships can be provided as required by this convention.

b. Responses to varied requests from International Civil Aviation Organization (ICAO)

ICAO is an international specialized agency of the United Nations, which establishes specific rules in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be operated soundly and economically. Japan makes the second largest financial contribution to ICAO among its Contracting States and has been actively participating in its various activities in order to contribute to the development of

Note Ability, flexibility, and toughness to withstand changes or recover quickly.

the international civil aviation, as one of the 11 Council Members, Part I - States of chief importance in air transport.

In June 2013, the ICAO has launched the APAC Sub-Office in Beijing which belongs to the Asia Pacific Regional Office in Bangkok, with the objective of enhancing ATM capabilities within the APAC region. Japan has been making contributions to ICAO APAC Regional Sub-Office's activities, for instance, by dispatching experts with the perspective of making contribution to ICAO, as well as making strategic use of such opportunities.

Also, during the 38th Session of ICAO Assembly held from 24 September to 4 October 2013, the decision was made to establish a global framework for reducing CO2 emissions against climate change in the area of international civil aviation. Japan contributed towards concluding the agreement by actively participating in discussions to harmonize the various conflicting interests.

c. United Nations World Conference on Disaster Risk Reduction

The United Nations World Conference on Disaster Risk Reduction is an international conference organized by the United Nations to discuss international disaster reduction strategy and the first (Yokohama, 1994) and second (Kobe, 2005) were held in Japan. At the second conference, the "Hyogo Framework for Action", a plan of action for international disaster prevention from 2005 to 2015, was adopted. At the 3rd World Conference on Disaster Risk Reduction held in Sendai in March 2015, the creation of a successor framework to the Hyogo Framework for Action is planned and Japan considers this an important opportunity to make an international contribution to show the world the reconstruction of disaster-stricken areas affected by the Great East Japan Earthquake and share Japan's experience and knowledge regarding disaster reduction with international society.

Also, at international conferences such as the Second Asia-Pacific Water Summit (Thailand, May 2013), High-level Experts and Leaders Panel on Water and Disaster (June 2013, Japan), and Budapest Water Summit (October 2013, Hungary), MLIT emphasized the importance of prevention as well as calling on relevant countries and organizations for high-level participation in the 3rd World Conference on Disaster Risk Reduction. In addition, on occasions such as the bilateral meetings held with the U.S., South Korea, and EU in fiscal 2013, participants discussed the points to be emphasized for the successor framework to the Hyogo Framework for Action based on the lessons learned from many disasters such as the Great East Japan Earthquake.

3 Cross-Sectoral Endeavors

(1) Bilateral Vice-ministerial Level Meetings

a. Myanmar

In March 2013 the "1st Vice-Ministerial Level Meeting between MOT of Myanmar and MLIT of Japan" was held in Myanmar with their Ministry of Transport, Union of Myanmar to confirm the current status and challenges concerning Myanmar's projects in the fields of maritime, ports, aviation, and meteorology and agreed upon strengthening cooperation towards planned infrastructure development including master plan formulation.

Also in December 2013, the "1st Vice-Ministerial Level Meeting between MORT of Myanmar and MLIT of Japan" was held in Myanmar with their Ministry of Rail Transportation and agreed to conduct studies on the current situation of rail infrastructure and automobile transport policy and future challenges as well as evaluate the implementation of cooperation.

In addition, the "1st Japan-Myanmar Construction Vice-Ministerial Level Meeting" was held in 2014 January in Myanmar and information was exchanged on the road, architecture, and housing sector, the legislative system regarding the construction industry, as well as the initiatives, challenges, and technology of both nations.

b. Indonesia

The "1st Japan-Indonesia Construction Vice-Ministerial Level Meeting" was held in Indonesia in September 2013 and at the plenary session, information was exchanged on the life cycle cost/maintenance and management of infrastructure and at the individual working sessions, information was exchanged on efforts, challenges, technology, and other topics in the two countries regarding the fields of roads, erosion control, water resources, sewerage, and architecture.

Additionally, in October 2013, the “4th Vice-Ministerial Level Meeting in the Transport Sector between Indonesia and Japan” was held and progress was confirmed for cooperation projects being promoted by both countries in the fields of logistics, railways, automobiles, ports, maritime traffic, and aviation and exchanged opinions on solutions to issues encountered. In response, Indonesia expressed strong interest in a high-quality logistics system to handle increased trade and the improvement of user convenience (IC cards), safety, and environment in the field of railway services and it was confirmed that both countries would continue to strive for close cooperation and coordination.

c. South Korea

In March 2014 the “9th Japan-South Korea High-Level Transport Meeting” was held in Okinawa and in addition to exchanging information on case studies of logistics policies, safety measures for the transport sector, and substitute driving systems for automobiles, an agreement was reached to continue bilateral cooperation in the transport sector.

d. India

In October 2013, the “7th Meeting of Japan-India Joint Working Group on Urban Development” was held in Tokyo for the purpose of greatly contributing to the further growth and development of economic and social aspects of the cities of Japan and India where information and opinions were exchanged on the urban transportation, urban development, and water environment sector.

(2) Jakarta Metropolitan Priority Area for Investment and Industry (MPA)^{Note}

At the “4th Metropolitan Priority Area for Investment and Industry Steering Committee” held in Tokyo in December 2013, the Minister of Land, Infrastructure, Transport and Tourism of Japan and the Coordinating Minister for Economic Affairs of the Republic of Indonesia among other parties agreed to further cooperation to smoothly and swiftly realize projects being promoted through the cooperation of both countries including rail, road, ports, aviation, sewerage, and others.

(3) Initiatives in Other Emerging Countries

In order to establish seamless and highly reliable logistics infrastructure in India, the Director-General level “Japan-India Policy Dialog” was held in October 2012 (1st: Delhi) and July 2013 (2nd: Chennai) and exchanged opinions on the improvement of the logistics environment including the development of southern ports and finished automobile transport schemes.

Regarding Russia, with regard to the “Memorandum of Cooperation in the Transport Sector” concluded between the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Transport of Russia, opinions were exchanged using occasions such as the “Japan-Russia Transport Working Group” on topics such as increasing the competitiveness and efficiency of the Siberian railway and the utilization of far east ports. Regarding Russia’s urban environmental problems, the “Japan-Russia Urban Environment Problem Working Group” was established as a bilateral cooperation framework and the first meeting was held in April 2013 in Moscow. Also, at the Japan-Russia Forum held in April 2013 when the Prime Minister visited Russia, the urban environment sector was one of the specific sectors mentioned in a speech as one of the sectors where bilateral economic cooperation would be promoted and emphasized that Japan was ready to contribute. Additionally, in September 2013 a meeting for working group chairs was held and in addition to reaching an agreement on specific areas for cooperation among others and in October of the same year, the “Japan-Russia Urban Environment Problem Council” was established as Japan’s parent organization of the working group with broad support including that from relevant companies and organizations.

Note A framework based on the “Memorandum of Cooperation on the Cooperation 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.

4 Multilateral and Bilateral Initiatives in Individual Sectors

(1) Land and Construction Industry Sectors

In conjunction with the Bosphorus Rail Tube Crossing opening ceremony in October 2013, for the purpose of establishing a cooperative relationship in the construction industry sector the Senior Vice-Minister of Land, Infrastructure, Transport and Tourism attended the Japan-Turkey Conference on Construction in Istanbul.

Also, seminars were held with relevant government ministries and agencies concerning the improvement of legislative frameworks in the land and construction industry fields in Myanmar (January 2014) and Vietnam (February 2014).

Column

Japanese Construction Technology Contributes to Fulfilling “Turkish Peoples’ 150-Year Dream” - Opening of Bosphorus Cross-Strait Railway -

On October 29, 2013, the 90th anniversary the Republic of Turkey’s founding, an opening ceremony for the Bosphorus cross-strait railway was held. Istanbul, Turkey’s largest city, is a city that spans from the Anatolian peninsula on the Asia side and the Balkan peninsula on the European side across the Bosphorus strait. Until recently, the only transport means to cross the strait were maritime transport such as ferries or the two bridges, causing chronic traffic congestion. For the purpose of relieving traffic congestion and other issues with the development of an advanced transportation system, the “Marmaray Project” was implemented, involving a construction plan for the cross-strait railway and an improvement plan for existing rail lines. Of this, a consortium led by Japanese construction companies was commissioned with the construction of the cross-strait railway and saw it through completion.

The concept of a cross-strait tunnel dates back to a blueprint drawn 150 years ago. However, the strait’s tidal current is not only known as one of the fastest in the world but the upper and lower layers flow in different directions and construction would

have to take place in areas with 60 meters of water depth at the deepest points, making implementation impossible until now. For this project, the Japanese construction company used the “sunken tube method” where eleven reinforced concrete blocks were submerged in the seabed and then each connected on the seabed to form a tunnel to complete a cross-strait tunnel known as the “Turkish Peoples’ 150-Year Dream”.

Also, on 30th the following day, to promote Japanese construction technology, MLIT and Ministry of Transport, Maritime and Communication of Turkey hosted the Second Japan-Turkey Conference on Construction with approximately 150 participants including government officials and people from the private sector of both countries. As an earthquake-prone country like Japan, Turkey is increasingly interested in disaster prevention technology so at the conference, Japanese technology for earthquake resistant, seismic isolation, and vibration control was promoted.

In addition to the Marmaray project, there are a variety of infrastructure development projects planned or in progress such as the long-span bridge

Marmaray Project Opening Ceremony



Source) Cabinet Public Relations Office

Statement presented by the Prime Minister Abe at the opening ceremony



construction project across the Izmit Bay, located 60km southeast of Istanbul, in which Japanese construction companies are involved. Also, from fiscal 2012 to 2013 there were three summit meetings strengthening the cooperative relationship

between Japan and Turkey. MLIT will continue supporting Turkey's continuing economic growth so that we can contribute with Japan's superior construction technology.

(2) Urban Sector

In October 2013, a memorandum of cooperation was signed with Vietnam for the promotion of environmental symbiosis type urban development and in March 2014, a seminar on public transport integrated urban development was held.

In addition to this, in fiscal 2013, seminars were held on urban transport systems in India and the Philippines and opinions were exchanged on parking area policies in Myanmar and Vietnam.

Also, bilateral meetings were held with South Korea, EU, and France to build relationships and exchange information on urban policy and other matters.

Additionally, the public and private sectors of Japan worked together to hold the Urban Transportation System International Expansion Research Group in February 2014 to share information, exchange opinions, and disseminate information internationally regarding the international expansion of urban transportation system.

(3) Water Sector

Under the common awareness that water issues are a global scale issue, water issues are discussed to solve it at various international conferences and other occasions. In 2013, various initiatives were carried out under the United Nations "International Year of Water Cooperation" and MLIT actively participated in discussions at international conferences such as The 2nd Asia-Pacific Water Summit (May 2013, Thailand), High-level International Conference on Water Cooperation (August 2013, Tajikistan), and Budapest Water Summit (October 2013, Hungary), The 2014 World Water Day (March 2013, Tokyo) to send a message to strengthen efforts regarding water and sanitation as well as disaster reduction.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) and Network of Asian River Basin Organizations (NARBO) coordinate and in order to support the formulation of Integrated Water Resources Management (IWRM) plans, recognized as an effective method for solving water issues, MLIT contributes to its wide dissemination and promotion through the creation of materials such as the "IWRM Guidelines at River Basin Level", training, and other efforts.

Also, bilateral meetings were held on issues such as rivers, sabo, and water resources management with South Korea and the United States to promote information exchange, technical cooperation, and others.

In Vietnam, the memorandum of understanding on cooperation for water resources facilities management was signed with the Ministry of Agriculture and Rural Development in June 2012 and a workshop was hosted there in March 2014, promoting cooperation in the water resources sector. The memorandum of cooperation in the field of sewerage/drainage and wastewater treatment signed with the Ministry of Construction in 2010 was renewed in March 2014 and support for the formulation of standards for the sewerage pipe jacking method was carried out.

In Indonesia, the cooperative relationship is being deepened through activities such as exchanging opinions in the water resources and sewerage sector at the Japan-Indonesia Construction Vice-Minister Level Meeting held in September 2013.

For South Africa, sewerage engineers from the country's local government were invited jointly with JICA in July 2013 to implement training on maintenance and management. In September 2013, the 3rd Japan-South Africa Water Resources Management Workshop was held and a joint resolution was renewed with South Africa's Department of Water Affairs, strengthening the cooperative relationship.

In Saudi Arabia, inter-governmental consultations for the sewerage sector were held in November 2013 as well as training in Japan, to support technology for the reuse of treated wastewater and privatization, was implemented in January 2014.

In addition, Water Environment Solution Hub, a alliance including Kitakyushu City, Osaka City, Tokyo Metropolis, Yokohama City, Kobe City, Fukuoka City, Kawasaki City, Saitama Prefecture, the Japan Sewage Works Agency, Shiga Prefecture, and MLIT, is providing experience and expertise on sewerage projects through seminars, field studies, and training.

(4) Disaster Management Sector

Efforts are being made to improve the disaster reduction functions of partner countries and contribute to the international expansion of infrastructure, utilizing Japan's superior technology and knowledge on disaster reduction gained from past experiences with disasters.

In particular, developing countries facing issues in disaster reduction 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 each others needs through "Disaster Management Collaboration Dialog (DMCD)" with the coordination of relevant organizations, that capture a variety of opportunities in expanding to each individual country in relation to the "infrastructure system export strategy". Currently, documents on the implementation of DMCD have been signed with Myanmar, Thailand, Vietnam, South Africa, Turkey, and Indonesia which provided the basis for hosting a workshop with the private and public sector as part of the DMCD in February 2014 in Myanmar and in March 2014 in Vietnam.

Also, the private sector, academia, and public sector is coordinating to establish the "Japan Bosai Prevention Platform" in early fiscal 2014 for the purpose of promoting the development of internationally competitive products and services in the disaster management sector. In addition, this organization is also expected to function as the domestic portal for DMCD.

On the other hand, to build an international consensus that disaster prevention is the key to sustainable development for the reduction 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 management. Also, at the Public Works Research Institute's (Independent Administrative Institution) International Centre for Water Hazard and Risk Management (ICHARM) which is recognized as a UNESCO cooperative organization, research and development is being conducted on projects such as the Integrated Flood Analysis System (IFAS) which uses satellite information and analysis technology such as the Rainfall-Runoff-Inundation Model where the fruits of these efforts are used for human resource development efforts such as the master's degree in water-related disaster risk management as well as accepting trainees for short-term training in water-related disaster risk management. Also, technical cooperation and international assistance is being implemented jointly with UNESCO and the Asian Development Bank such as building a flood forecast and warning system and hosting workshops targeted toward Asian countries and regions vulnerable to water disasters.

In addition, in March 2013, for the purpose of mutually enhancing the disaster prevention management, the European Commission's Humanitarian Aid and Civil Protection department and MLIT exchanged letters regarding disaster management cooperation and held both ministerial-level and expert-level meetings. With Brazil, to reduce the potential increased risk of disaster because of the rapid progress of urbanization in recent years, the exchange of information and technical cooperation was promoted to enhance risk assessment capabilities for sediment disaster measures through the Rio Bosai 2013 seminar held in August 2013.

Additionally, when large-scale water and sediment related disasters occur, MLIT dispatches experts to implement assessments of the disaster situation and advise practical measures. For example, when a large-scale landslide dam broke in Indonesia in July 2013, sabo experts were dispatched immediately and make some expertise to the government on residual risks and measures to avoid secondary disaster and other matters. Also, in November 2013, when the Haiyan typhoon (Number 30) struck central Philippines, experts were dispatched as a specialist team for international disaster relief to advise and lead the assessment of the disaster situation, the basic policy of the reconstruction plan, and other matters in addition to experts to evaluate the disaster.

(5) Road Sector

For the purpose of improving international understanding and reliability toward Japanese road technology, model projects were implemented in Myanmar and Turkey on pavement recycling technology and ITS technology. Also, to discover new projects that may utilize Japan's specialty of tunneling technology, surveys were conducted in Laos and Morocco.

In addition, in 10 countries mostly in Asia, seminars were held on policies and technology in the road sector with the cooperation of expressway companies and road-related private companies, to push Japanese road technology that meets the needs of each of these countries.

Also, regarding the World Road Association (WRA), there is active participation in the various technical committees and the Winter Road Congress held in Andorra to promote technical exchanges and sharing of information with various countries in the various fields including aging structure measures and traffic safety.

Additionally, at the ITS World Congress (October 2013, Tokyo) held in Japan for the first time in nine years, approximately 20,000 people from 65 countries participated in activities such as exhibitions, sessions, and demonstrations where the latest ITS technology could be experienced to promote the latest ITS technology. Also, in conjunction with the congress, ministerial conferences were held and the Senior Vice-Minister of Land, Infrastructure, Transport and Tourism and others met with ministerial delegates of participating countries to exchange information on ITS policies.

(6) Housing and Architecture Sector

Bilateral director-general meetings are regularly held with South Korea, China, France, Canada, and Germany to exchange information on topics such as housing policy, architectural standards, and architectural technology. Opinions were exchanged on the theme of furthering the housing industry with China in October 2013 and on architecture and environmental measures with Germany in March 2014.

Also, with Myanmar, in August 2013 the Japan-Myanmar Architecture and Housing Conference was held as a first for both country governments to discuss architectural standards and other issues in addition to implementing a seminar including the private sector in October to exchange opinions between the companies of both countries.

(7) Railway Sector

In the field of high-speed rail, efforts are being made to push the adoption of bullet train technology in India, Thailand, and other countries. Also, efforts are being made to promote the international expansion of urban rail.

In August and September of 2013, the Minister of Land, Infrastructure, Transport and Tourism visited countries including Thailand, Vietnam, and Singapore to conduct top sales for the adoption of Japan's high-speed rail and urban rail systems. Also, for dignitaries visiting Japan, inspection tours are organized according to individual interests and pitches are made regarding the adoption of Japan's rail system. Also, the Senior Vice-Minister of Land, Infrastructure, Transport and Tourism and Parliamentary Vice-Minister of Land, Infrastructure, Transport and Tourism made overtures to various dignitaries including those from various Asian countries, the United Kingdom, and the United States. In 2013, rail seminars involving the coordination of the public and private sectors were held in countries including India and Myanmar.

(8) Maritime Sector

Regarding the International Maritime Organization (IMO), international initiatives are being carried out on a variety of areas in the maritime sector such as the safety of vessels and marine environment protection. Also, initiatives are being implemented such as bilateral meetings with countries traditionally close to Japan along with international cooperation. Regarding bilateral meetings, in fiscal 2013, director-general level meetings were held with South Korea and the EU to share information and exchange opinions on important topics such as promoting the cruise industry, reduction measures for greenhouse gas emissions, and the safety regulations of passenger ships.

In addition, in fiscal 2013, experts were dispatched to the Philippines on ship safety policy. Also, training for the educators of seafarers were held in Southeast Asian countries such as Myanmar.

(9) Ports and Harbours Sector

The overseas expansion of Japanese port-related industries (port logistics and infrastructure-related companies) is being supported by efforts such as initiatives to introduce Port EDI systems to Myanmar, carrying out surveys for integrated development of coastal industrial area and infrastructure in Mozambique and other areas, and “Conference of Oversea Port Logistics Projects” activities (the 4th held in July 2013 and the 5th in March 2014).

Also, in November 2013, the 14th Northeast Asia Port Director-General Meeting by Japan, China, and Korea was held to exchange information on promoting cruises and other issues regarding recent port policies among others. Also, international conferences including those by the World Association for Waterborne Transport Infrastructure (PIANC) and the International Association of Ports and Harbors (IAPH) are used as opportunities to promote the overseas expansion of Japanese technology standards and exchange information.

(10) Aviation Sector

At the 50th Conference of Directors General of Civil Aviation Asia and Pacific Regions held in July 2013 to exchange information on aviation safety and security in the Asia-Pacific region including countries and regions adjacent to Japan’s air space and achieving sustainable growth for international civil aviation. Also, in November 2013, aviation policy talks were held with South Korea and the continuation of broad cooperation in the general aviation field was affirmed.

(11) Logistics Sector

Based on agreements reached at the 4th China-Japan-Korea Ministerial Conference on Transport and Logistics held in July 2012, trilateral cooperation between Japan, China, and South Korea is being promoted to advance mutual transit of chassis, strengthen the Northeast Asia Logistics Information Service Network (NEAL-NET), standardization of pallet quality and cargo handling machinery dimensions, etc.

Also, bilateral talks between Japan and ASEAN countries under the framework of ASEAN-Japan transport coordination, are being conducted to discuss the improvement of the logistics environment in each country among other issues and bilateral logistics policy dialogues were with Thailand in October 2013 and Indonesia in January 2014. Additionally, to improve the quality of logistics in the entire Asian logistics area, in December 2013 Japanese experts knowledgeable about logistics business were dispatched to the Mekong Region Logistics Training Center to implement training for the center’s lecturing staff. Also, to improve connectivity within the ASEAN region, substantive studies were carried out regarding the establishment of an intermodal land-sea transport network utilizing international high speed RORO (Roll-On/Roll-Off) ships.

(12) Survey and Mapping Sector

In addition to actively participating in UNCE-GGIM^{Note 1} and contributing to the establishment of a global geodetic reference system, for the promotion of Global Mapping Project^{Note 2}, technical assistance to developing nation to develop Global Map V.2 and promotion activities through international conferences are being implemented. In addition to serving as the Secretary of the UN-GGIM-AP^{Note 3}, monitoring crustal movements with the cooperation of relevant nations is being promoted.

Aside from this, government representatives are sent to the 10th UNCSGN^{Note 4} and the 18th IHC^{Note 5} to participate in the debate of proper geographical names. Since the 6th UNCSGN in 1992, South Korea and others have repeatedly 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 ministries are working together to promote the correct understanding and support of the name “Sea of Japan” as the exclusive name within the international community.

Note 1 United Nations Committee of Experts on Global Geospatial Information Management

Note 2 A project in which a fundamental geospatial information database (Global Map data), needed for analyzing global environmental issues and others, is developed under the voluntary cooperation of the National Geospatial Information Authorities of various countries around the world.

Note 3 Regional Committee of United Nations Global Geospatial Information Management for Asia and the Pacific

Note 4 United Nations Conferences on the Standardization of Geographical Names

Note 5 International Hydrographic Conference

(13) Meteorological and Earthquake/Tsunami Sector

Under the framework of the World Meteorological Organization (WMO), in addition to the mutual exchange of meteorological observation data and technological information, information on typhoons and climate utilizing our nation's technology is provided to various countries to cooperate with the implementation and promotion of meteorological efforts of the world. Also, under the framework of United Nations Educational, Scientific and Cultural Organization/Intergovernmental Oceanographic Commission (UNESCO/IOC), the Northwest Pacific Tsunami Advisory has been provided to various countries in the region to contribute to the tsunami disaster mitigation.

(14) Research Sector

In anticipation of spreading our nation's superior infrastructure-related technology to Asian nations, based on the research coordination roadmap with Vietnam, Indonesia, India, and others, specifications for construction technology such as environmental pavements modified to better suit local conditions are being jointly developed under the coordination of MLIT and local governmental research organizations among other joint research. Also, in fiscal 2013, joint workshops were hosted with Vietnam and Indonesia for technical discussions regarding coordinated research projects and exchanges of opinion regarding research cooperation. Also, coordination with locally dispatched JICA experts and the invitation of mid-level and young researchers are being promoted among other initiatives.

(15) Coast Guard Sector

Coordination and cooperation between coast guard organizations in the fields such as search and rescue as well as maritime security measures are being promoted through activities such as the North Pacific Coast Guard Forum (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 head-level meetings with Russia, South Korea and India, as well as joint exercises.

Also, active participation in international organizations is being carried out through activities such as serving as the chair of the working group within the Sub-Committee on Safety of Navigation of the 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, studies concerning the development of next generation Automatic Identification System (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 ability 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 automobiles that are safe with high environmental performance, Japan is participating in activities such as United Nations Economic Commission for Europe's World Forum for Harmonization of Vehicle Regulations (UNECE/WP29) to promote international harmonization of safety and environmental standards and promoting the international spread of Japanese automobiles with superior safety and environmental features as well as new technology. In order to promote such activities, the four pillars of 1) strategic international standardization of Japanese technology and standards, 2) coordination with Asian countries, 3) realization of mutual recognition of vehicle units worldwide, and 4) establishment of a framework to handle the globalization of standards certification as included in the "Action Plan for the Internationalization of the Regulation and Certification System" is being realized to promote the internationalization of regulation and certification systems.

(2) Internationalization and Other Efforts for railways

Just as Europe is actively promoting the international standardization of European standards, for the international expansion of Japanese railway systems, undertaking international standardization is an important issue. If Japan's superior technology is omitted from international standards, there is a possibility that existing domestic standards will be abandoned, adversely affecting the railway industry, therefore requiring a strategic response. For this reason, at the "Railway Technology Standardization Committee", active initiatives are being promoted, under the cooperation of academic rail technology experts and the railway industry, such as deliberations on the international standardization strategy for railway and coordination of domestic standards with regard to international standards.

The second Plenary Meeting of the International Organization for Standardization's (ISO) Technical Committee for Railway applications (TC269) and contributed to outcomes such as the proposal of individual standards and the operation of committees.

At 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 since the establishment of the Certification Office and contributed to the international expansion of Japan's railway system.

(3) Efforts for International Standards Regarding Ships and Mariners

International maritime transport businesses operate through ships and mariners of various nationalities, and regarding the safety of ships and protection of the marine environment, global rules including conventions such as SOLAS, MARPOL, and STCP must be adhered to by these operations. Japan continues to actively participate in the drafting process of these conventions with significant contributions. As one outcome, in fiscal 2013, the International Maritime Organization in (IMO) generally agreed to the new standard proposed by Japan for stability (index for the stability of the ship and difficulty of capsizing).

(4) International Harmonization of Standards and Certification Systems in the Civil Engineering and Architecture Sector

In recent years, in the sectors of civil engineering, architecture, and housing where the internationalization of the market is evolving, legislative operations such as certifying the performance of imported building materials as well as approval of rating agencies and implementation of measures such as technical cooperation and other activities by organizations including JICA are being carried out as well as participation in the drafting of standardization for design and construction technology by ISO for initiatives to promote international harmonization of standards and certification systems for the civil engineering and architecture sector. Also, as part of the efforts to reflect Japan's accumulated technology in international standards, deliberations are being carried forward to develop, revise, etc., 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 the country among others, the international standardization of ITS technology among international standardization bodies such as ISO and the International Telecommunication Union (ITU) is being promoted.

Especially for ITS, standardization activities for the gathering and utilization of probe information via ITS spots are being conducted through participation in the Technical Committee (ISO/TC204) on the international standardization of ITS. Also, at the Europe World Forum for Harmonization of Vehicle Regulations (UN/ECE/WP29), activities are underway toward the international standardization of Advanced Safety Vehicles (ASV). In June 2013, a guideline was formulated for the utilization of ITS.

(6) Standardization of Geographical Information

For the purpose of ensuring compatibility for the interoperability between Geographic Information System (GIS) with differing geospatial information, international standards are being formulated through participation in the ISO technical committee for Geographic information/Geomatics (ISO/TC211). Also, initiatives are taking place to standardize domestic geographic information.

(7) Mutual Recognition of International Technical Qualifications

The APEC Engineer mutual recognition project is for the promotion of the mobility of qualified technical personnel based on the mutual recognition of technical qualifications between participating countries and regions. For the APEC Architect project (architect registration system), in July 2008, 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” was concluded with Australia and in July 2009, 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” was signed to promote the mobility of qualified architects.

(8) Sewerage Sector

Based on the “Intellectual Property Strategic Program 2010 (established 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 re-use” (ISO/TC282) and the technical committee on “Sludge recovery, recycling, treatment and disposal” (ISO/TC275) is underway to ensure that Japanese sewerage technology has an advantage. Regarding the ISO55000 series on “Asset management” that went into effect in fiscal 2013, the certification of domestic entities is being supported.

Column

Efforts Toward International Standardization of “Water Re-use”

ISO, which creates many of the international standards, established a technical committee (TC282) to evaluate the international standardization of “Water re-use” in general in June 2013. Japan will lead the discussion as the secretariat nation and this represents the first time becoming a secretariat nation.

For the international standardization of “water reuse”, in light of the expanding global water market against the background of developments such as increasing global drought risks due to climate change and global population growth, taking an active lead in the international standardization of Japan’s leading water reuse technology such as

membrane treatment technology, is expected to contribute to the international expansion of this technology as well as increased international competitiveness.

In January 2014, the first TC282 was held in Tokyo where 41 members from 10 countries (Japan, Israel, China, Canada, Ethiopia, France, South Korea, Singapore, the United States, and Australia) participated and the basic policy of the meeting was confirmed. Following the first meeting, Israel will host the second meeting in November 2014 and efforts will be made to realize efforts for international standardization and accelerate discussions.

Membrane Treatment Technology Seeking International Standardization by TC282



Source) Left: Kubota Corporation, Right: METAWATER Co., Ltd.

The TC282 Meeting (Tokyo)



Source) MLIT