

Chapter 6

Building a Competitive Economic Society

Section 1 Constructing Traffic Networks

1 Constructing Highways

Since the First Five-Year Road Construction Plan formulated in 1950, Japanese highways have been continually constructed. For example, the construction of national highway networks, including expressways, has provided a major impetus in the rejuvenation of regional economies by encouraging plant locations near expressway interchanges. Additionally, it has helped enhance the quality and safety of national life by making broad-area medical services accessible to rural areas and allowing broad rerouting to avoid highway disruption by natural disasters.

In the meantime, the speed of interurban transportation, an indicator of the speediness of interurban travel, tends to lag in the areas in which trunk road networks are underdeveloped. While European and U.S. freeways each have at least four lanes on average, freeways that have only one lane in either direction account for 30% or more of all freeways in Japan.

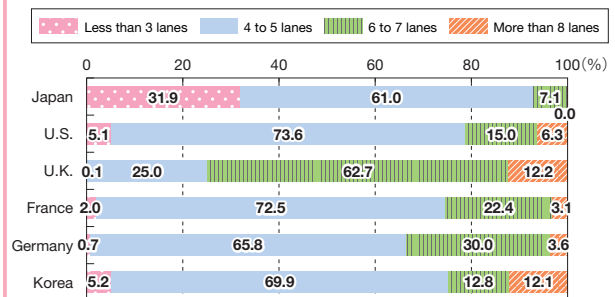
Freeways are less vulnerable to accidents involving human casualties than general highways with a probability of about 1 in 10. In addition, they have about two-thirds of the carbon dioxide emissions and about seven times more cars running per lane. Freeways are not only “safe and clean” but serve as a “path to life” in times of disaster. The MLIT is committed to firmly linking freeway networks together and promoting a framework to use them wisely.

Figure II-6-1-1 Speeds of Interurban Transportation



Source) MLIT

Figure II-6-1-2 Composition Ratio of Expressway Extensions by the number of lanes



Sources:
 Japan : Road Traffic Census (Year 2010)
 U.S : National Transportation Atlas Database
 U.K., France, Germany: TOMTOM MultiNet
 Korea: Statistical Yearbook of MLTM (End of 2012)

Definition of expressway:
 Japan: National High-Grade Trunk Highways Urban Expressways Regional High-Standard Highways
 U.S.: Interstate
 U.K.: Motorway
 France: Autoroute
 Germany: Autobahn
 Korea: Expressway

Source) MLIT

2 Constructing Arterial Railway Networks

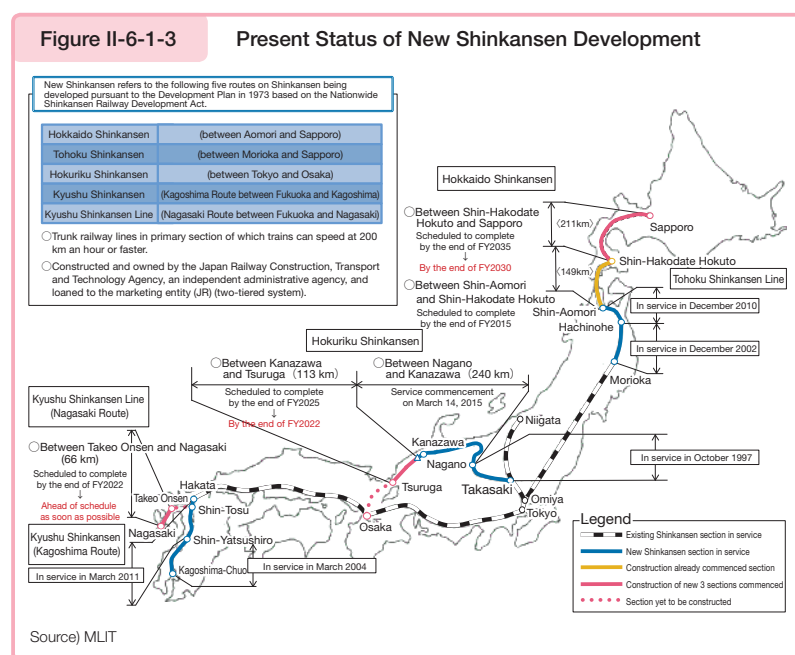
(1) Development of Shinkansen railways

A rapid transit system of vital value to Japan, Shinkansen [bullet train] Lines significantly cut the time spent moving from region to region and help greatly boost regional activities and rejuvenate local economies. Shinkansen Lines feature safety (no record of passenger death accidents since opening of the Tokaido Shinkansen Line in 1964) and eco-friendliness (the railway CO₂ emissions per unit of energy (g-CO₂/passenger-kilometer) being one fifth of aircraft and one eighth of automobiles). As New Shinkansen ^{Note}, Tohoku Shinkansen (between Hachinohe and Shin-Aomori) opened in December 2010 and the Kagoshima Route (between Hakata and Shin-Yatsushiro) of Kyushu Shinkansen opened in March 2011, and Hokuriku Shinkansen (between Nagano and Kanazawa) opened in March 2015. Furthermore, the development of the Hokkaido Shinkansen line (between Shin-Aomori and Shin-Hakodate Hokuto) is in steady progress for completion and opening scheduled for the end of FY2015.

For those sections of Shinkansen whose construction started in June 2012 (between Shin-Hakodate Hokuto and Sapporo on the Hokkaido Shinkansen line, between Kanazawa and Tsuruga on the Hokuriku Shinkansen line and between Takeo Onsen and Nagasaki on the Kyushu Shinkansen line), their opening schedules have been accelerated in accordance with “Handling of New Shinkansen Lines” (agreed upon between the government and the ruling party on January 14, 2015). More specifically, the Hokkaido Shinkansen line (between Shin-Hakodate Hokuto and Sapporo) is scheduled to complete and open at the end of FY2030 five years ahead of the end of FY2025 as originally scheduled, the Hokuriku Shinkansen line (between Kanazawa and Tsuruga) at the end of FY2022 three years ahead of the end of FY2035 as originally scheduled. In the meantime, the completion and opening schedules of the Kyushu Shinkansen line (between Takeo Spa and Nagasaki) will be moved up from FY2022 to the extent possible as works are underway at a steady pace.

The Transport Policy Council, which had debated Chuo Shinkansen since March 2010, came up with recommendations in May 2011 to affirm the appropriateness of Central Japan Railway Company as an entity of its operation and construction, the superconducting maglev method of train operation and the Southern Alps of Japan route. The MLIT responded to name Central Japan Railway Company as an entity of operation and construction for Chuo Shinkansen in accordance with the Nationwide Shinkansen Railway Development Act, and decided on the Development Plan and directed Central Japan Railway Company to embark on construction. Central Japan Railway Company, which expects to open its Shinkansen routes between Tokyo and Nagoya in 2027 and between Nagoya and Osaka in 2045, sent an environmental effect assessment report to the MLIT pursuant to the Environmental Effect Assessment Act with regard to the railway between Tokyo and Nagoya. In July 2014, the Minister of Land, Infrastructure, Transport and Tourism released his views to Central Japan Railway Company (“JR Tokai”) with the Environment Minister’s view expressed in June 2014 taken into consideration. JR Tokai responded by publicizing and making available for public inspection an environmental assessment report edited to reflect the views of the Minister of Land, Infrastructure, Transport and Tourism in August of the same year and, at the same time, file and application for “Plan for Constructing the Chuo Shinkansen Line Section between Shinagawa and Nagoya Stations (No. 1) to the MLIT, which was approved by the Minister of Land, Infrastructure, Transport and Tourism in October of the same year. Preparations are underway to get construction works started on a full scale.

Note Five routes that are stipulated in the Development Plan approved in 1973 pursuant to the Nationwide Shinkansen Railway Development Act.



Column 50th Anniversary of Tokaido Shinkansen

In October 2014, the Tokaido Shinkansen line had its 50th anniversary of founding since it opened in 1964 between Tokyo and Shin-Osaka as a “dream superexpress train.”

Linking Japan’s three largest metropolitan zones of Tokyo, Nagoya and Osaka with one another, Tokaido Shinkansen has carried as many as 56 billion passengers during the following 50 years, escalating people’s opportunities for exchanges to make for further national economic advances and broader spheres of national livelihood as a lifeblood system of rapid transport.

Tokaido Shinkansen started out with two services an hour or 60 services a day but grew to offer a maximum of 15 services a day or 324 a day. Its maximum speed also advanced from 200 km/hour in its initial days of opening to 285 km/hour, trimming the time to travel between Tokyo and Shin-Osaka from 4 hours to 2 hours 22 minutes at the shortest for faster transit and better convenience (train schedules revised in March 2015).

Furthermore, Tokaido Shinkansen has not only suffered a single instance of passenger death accidents but also boasts of excellent records of safety and punctuality, with its average delays held to less than 1 minute, despite its extremely tight train service schedules of 15 services an hour). It is also characterized by extremely low carbon dioxide emissions when compared with other means of transport.

The growth of Tokaido Shinkansen has influenced the subsequent development of other New Shinkansen lines. In the wake of Tokaido Shinkansen, the Sanyo, Tohoku, Joetsu, Hokuriku (Nagano) and Kyushu Shinkansen lines have been developed in sequence. Among them, Hokuriku Shinkansen line (between Nagano and Kanazawa) came into service on March 14, 2015. Hokkaido Shinkansen (between Shin-Aomori and Shin-Hakodate Hokuto) is scheduled to follow suit at the end of FY2015, when the nation will be united as one by Shinkansen lines, from Hokkaido down to Kyushu.

The Hokkaido Shinkansen line (between Shin-Hakodate Hokuto and Sapporo) is scheduled to complete and open five years ahead of the end of FY2035 as originally scheduled, the Hokuriku Shinkansen line (between Kanazawa and Tsuruga) three years ahead of the end of FY2025 as originally scheduled. In the meantime, the completion and opening schedules of the Kyushu Shinkansen line (between Takeo Spa and Nagasaki) will be moved up from FY2022 to the extent possible.

The nation’s network of Shinkansen lines promises a further leap as the construction of the Chuo Shinkansen line (between Tokyo and Nagoya) running on a superconducting maglev method of train operation started in December 2014.

Coin made in commemoration of the 50th anniversary of the opening of Shinkansen



Source) Ministry of Finance

(2) Driving technical development

a. Superconducting maglev trains

Running tests for superconducting maglev trains had been carried out on the Yamanashi Test Line since 1997. The Superconducting Magnetic Levitation Technological Practicality Evaluation Committee that met in July 2009 concluded

that the “development of the technologies prerequisite to driving superconducting maglev trains to the stage of practical usefulness, including their operation as super-fast mass transit system, are in sight.” Since August 2013, a running test has been in progress on the entire Yamanashi Maglev Test Line to make a final verification of the practical specifications of the cars, propulsion coils and more.

b. Free Gauge trains

Technological development of free gauge trains capable of through operation from Shinkansen railway line to conventional railway line and vice versa is underway for completion scheduled for service on Kyushu Shinkansen and Hokuriku Shinkansen. Efforts started in FY2014 will be carried forward to drive technological development for verifying the durability of free gauge trains on the Kyushu Shinkansen (Nagasaki route). In addition, technological development activity meant to address snow hazards (snow and cold resistance) will get into full swing for running on the Hokuriku Shinkansen.

3 Constructing Aviation Networks

The Basic Policy Committee, Aviation Group, Transport Policy Council had explored the future directions of Japan’s aviation in recurring sessions of discussions since October 2012 and finally came up with a report in June 2014. The report sets forth mid- and long-term directions in the three areas of aviation: laying a firm ground for building an aviation network, building an enhanced aviation network and developing aviation demand, and providing quality aviation and airport services.

(1) Expanding aviation networks

a. Enhancing metropolitan airports functionalities

To beef up Japan’s competitiveness in the global arenas of business and tourism, enhancements to the functions of the metropolitan airports, a prime impetus to propel Japan’s growth, are contemplated. Annual total number of arrival and departure slots at Tokyo International Airport and Narita International Airport to 750,000 has been achieved in March 2015.

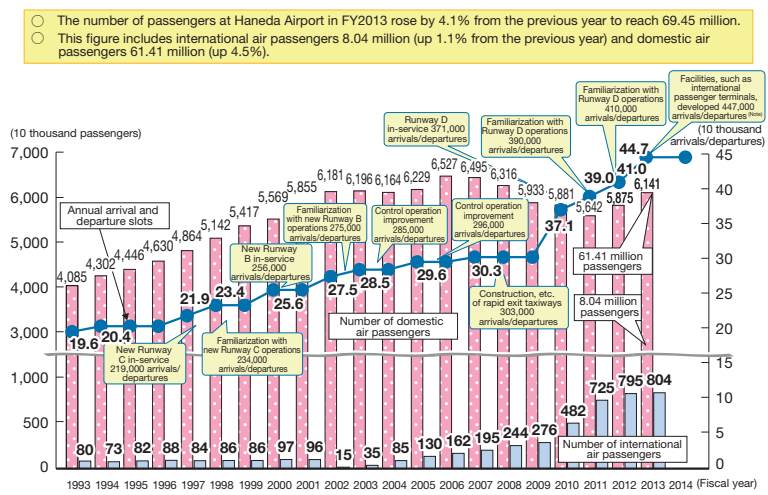
Additions to the international passenger terminal building at Tokyo International Airport (Haneda) elevated the number of boarding/alighting slots on the international lines by 30,000 to 450,000 a year from March 2014, allowing around-the-clock deployment of long-haul Asian routes and high-demand business routes bound for the U.S. and Europe. In December of the same year, an extension to Runway C was commissioned into service. Efforts will continue to develop an international and domestic line connecting tunnel to augment the international and domestic line transit functionality.

Figure II-6-1-4 Overview of Tokyo International Airport



Source) MLIT

Figure II-6-1-5 Trend in Number of Passengers and Number of Arrivals and Departures at Tokyo International Airport



Narita international Airport realized 300 thousand arrival and departure slots a year in March 2015 thanks to the development, etc. of an LCC terminal. Efforts will continue to consolidate its position as a hub airport in Asia by making further enhancements to the network of international and domestic airlines, including LCCs.

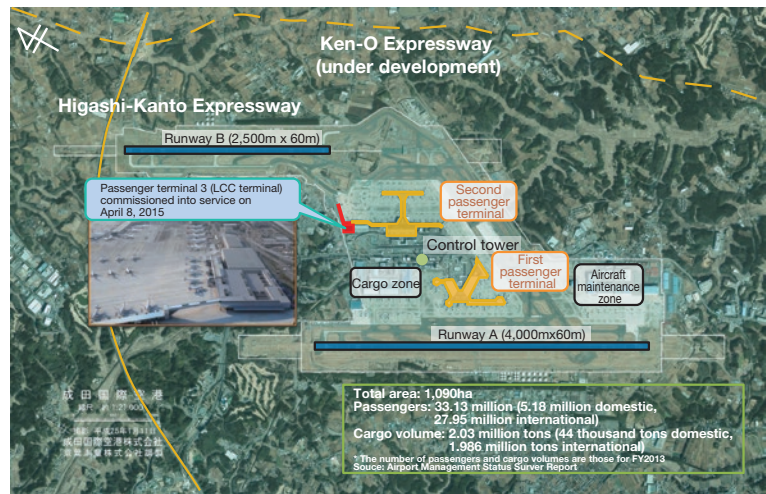
Even after the attainment of 750,000 arrival and departure slots, approaches will still be underway to build up the functionalities of the metropolitan airports, including their competitiveness, deliver the potentials of global growth to Local Areas, realize the governmental goal of 20 million foreign visitors to Japan and stay best prepared for the 2020 Olympic and Paralympic Games.

Technical discussions had been held at a committee composed of scholars and experts to explore ways to enhance the functionalities of the metropolitan airports. The committee came up with an interim report in July 2014, stating, above anything, that the number of arrival and departure slots could be increased by as many as 79 thousand by 2020 by reviewing runway operations and flight routes at Haneda International Airport, boosting the control functionalities of Narita International Airport and so on. Subsequently, a council composed of representatives of the local public entities concerned, airlines and the like was set up in August of the same year to embark on continuing consultation with the parties concerned.

b. Driving the Open Skies strategically

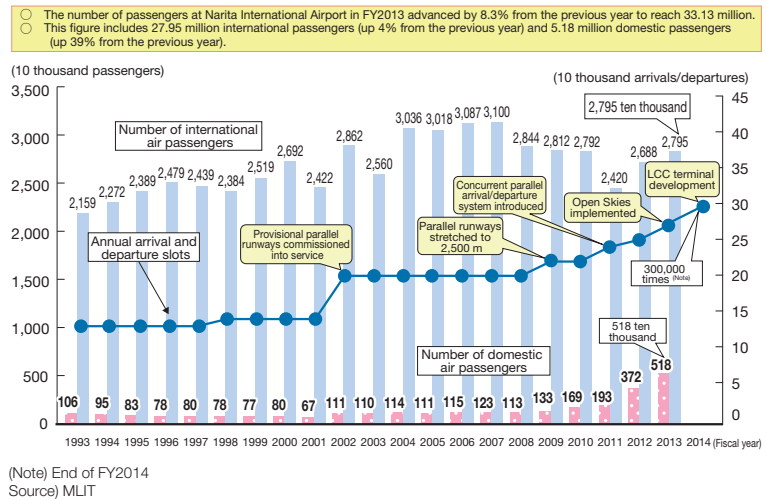
The Ministry has strategically pursued the Open Skies ^{Note 1}, including metropolitan airports, to respond to changes in the competitive climate resulting from global trends towards air services liberalization while accommodating vigorous economic leaps in Asian and other overseas nations. Open Skies with a total of 27 nations and regions ^{Note 2} were realized by March 2015. Discussions with ASEAN started in October 2014 with a view to concluding an air service agreement between Japan and ASEAN.

Figure II-6-1-6 Overview of Narita International Airport



(Source) MLIT

Figure II-6-1-7 Trend in Number of Passengers and Number of Arrivals and Departures at Narita International Airport



Note 1 An agreement on mutually removing bilateral constraints on the number of operators, that of routes and that of flights in international air transportation to enhance the quality of services, such as cutting airfares by encouraging the entry of new airlines, increasing the number of flights and stimulating competition between airlines. In recent years, many countries in the world pursue its implementation.

Note 2 The number of passengers flying to and from the 27 nations and regions accounts for about 94%.

c. Realizing concessions related to Kansai International Airport and Osaka International Airport

On July, 2012, Kansai International Airport and Osaka International Airport merged into a New Kansai International Airport Co., Ltd. with a view to rejuvenating and reinforcing Kansai International Airport as an international core airport and expanding the demand for air transportation in the Kansai district through appropriate and effective utilization of the two airports. The New Kansai International Airport Co., Ltd. is now operating in an integrated manner.

The newborn company has moved ahead with positive measures, such as expanding passenger networks, including LCCs, and turning into a cargo hub airport, in its bid to augment the corporate value of these two airports. It developed and announced the Implementation Policy based on the “PFI Act” on July 25, 2014 and developed and started distributing the Application Guidelines on November 12 of the same year. On December 26, 2014, the company proceeded with procedures for bidding and selecting the Operating Right Holder, such as disclosing the Participation Requirements Screening Results, expecting to commission port administration as a concession by the end of FY2015.

d. Present status of airport development

For the development of general airports (other than metropolitan airports), MLIT has shifted its emphasis from quantitative to qualitative enhancement, mainly implementing appropriate mix of measures on facilities, equipment, laws and regulations and promoting effective use of existing airports. New projects including the construction of new runways and extension of existing runways will be conducted only when absolutely necessary.

The construction of the new runway at Naha Airport, which started in January 2014, were carried forward into FY2014. On the other hand, the environmental assessment procedures on the construction of the new runway at Fukuoka Airport have been implemented to mitigate the chronic airport congestion at peak times. Also, MLIT has been renewing or renovating aging airport facilities to ensure airport operation safety, while pushing forward with quake-resistant technologies and structures so that airports can maintain their operations at the time of natural disasters, including earthquakes. Furthermore, it has been promoting relocate or change the internal layout of airport terminal area in order to enhance Japan’s international competitiveness and regional competitiveness in the hinterlands of the airports.

e. Fostering and securing aircraft pilots, etc.

Rapidly expanding LCCs and those regional airlines that have structural difficulties securing pilots in Japan’s aviation industry are faced with a short-term undersupply of pilots. In 2014, Peach Aviation and Vanilla Air had to trim their flights due to pilot shortages.

While drastic leaps in the demand for aviation focusing on international lines and massive retirement of pilots in their 40s, who form a primary workforce at present, are predicted in the future, it would be difficult to fully fill the future demand for pilots with the present yearly supply of new pilots. Hence, a solution to middle- and long-term shortages of pilots is sought.

In the circumstances, the Joint Subcommittee for Studying Crew Policies, etc. was formed under the Basic Policy Taskforce and Technology and Safety Taskforce, Aviation Group, Transport Policy Council in December 2013 to explore directions in the specific measures to address shortages of pilots, etc. The

Figure II-6-1-8 Age Compositions of Japan's Major Airlines

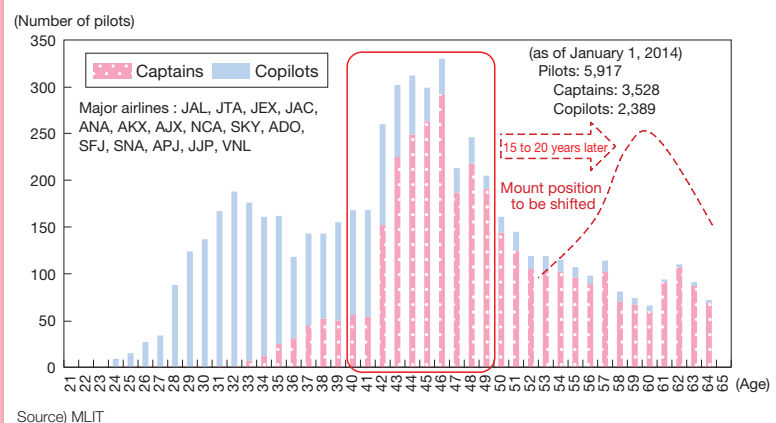
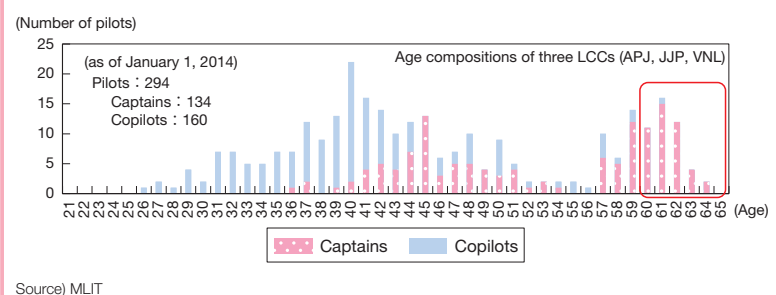


Figure II-6-1-9 Age Compositions of Japan's LCCs



subcommittee came up with a report in July 2014, which pledges to take these approaches.

Approaches to resolving a short-term undersupply of pilots will include using Self-Defense Force pilots or foreign pilots or hiring active pilots under enhanced health management, etc. to secure pilots ready for work.

Solutions to address a middle- or long-term under supply of pilots will include fostering pilots efficiently at airlines, expanding the supply capacities of private training institutes, such as private colleges and making more resort to the Civil Aviation College to expand the supply of young pilots.

Furthermore, the Aircraft Pilot Training Liaison Conference launched in August 2014 to promote collaboration among stakeholders concerned, including airlines and training institutes, and probe and resolve the various challenges of training and securing pilots, etc.

(2) Enhancement and optimization of airport operations

a. Driving airport management reforms

Using the “Act on Operation of National Airports Utilizing Skills of the Private Sector (Private Utilizing Airport Operation Act), the MLIT is committed to driving airport management reforms at national airports and the like to suit specific local conditions through utilization of private-sector capabilities, integrated management of airline and non-airline businesses and so on in order to expand the amount of population who are engaging in domestic and international interactions, etc. on the support of the airports and thus to encourage regional revitalization. In the meantime, procedures are underway at Sendai Airport for publicly seeking and selecting the Operating Right Holder with a view to commencing the Airport Operating Business by the holder within FY2015.

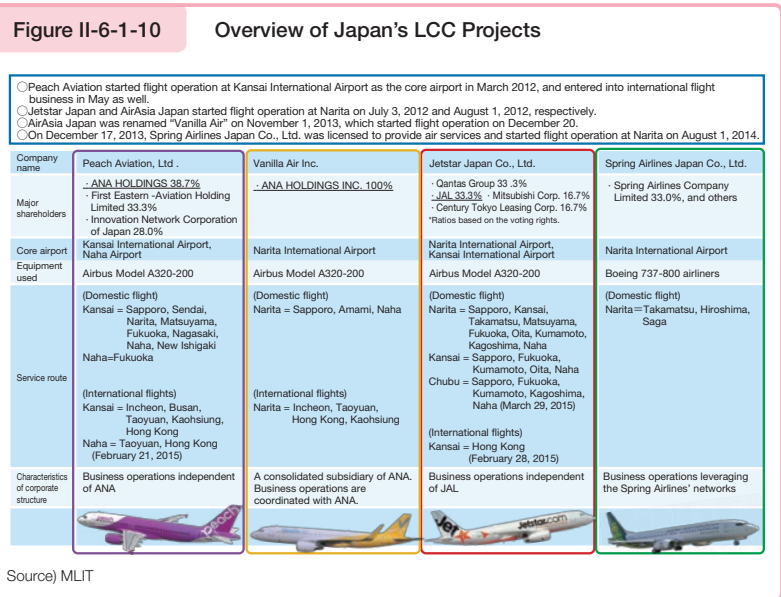
b. Encouraging LCC entry

An LCC originating from Japan went into service in March 2012. As of March 2015, Peach Aviation operated 12 domestic routes and seven international routes, JetStar, 19 domestic routes and one international route, Vanilla Air, three domestic routes and four international routes and Spring Airlines, three domestic routes as of March 2015.

The accelerating entry of LCCs could create new demand for aviation by attracting more tourists visiting Japan, expanding domestic tourism and so on. Government-set goals dictate that “domestic LCC passengers account for 14% of the total number of airline passengers in 2020, with international LCC passengers accounting for 17%.” Various measures have been taken by Japan and at the individual airports to encourage the entry of LCCs.

Two principal governmental measures being implemented or explored are summarized below. The first measure is the lowering of the landing fees during FY2013 with regard to mainly used equipment (up to 100 tons) aimed at revitalizing local communities by maintaining local routes and supporting LCCs, and FY2014 as well.

The second is the promotion of airport management reforms. Many of Japan’s airports are managed by the central and local governments, contemplating the keep their runways and airport buildings under integrated management and launching strategic airfare plans and sales campaigns in conjunction with private businesses in a bid to attract LCCs. In addition to these measures, each individual airport has also taken two key steps to create an environment for hosting LCCs. One is the construction of LCC terminals. FY2012 witnessed the launch of an interim LCC receiving facility at Narita International Airport, Japan’s first LCC terminal (T2) at Kansai International Airport and an interim LCC terminal leveraging existing facilities at Naha Airport. Terminal 3 (LCC terminal) at Narita International Airport is scheduled to



come into service on April 8, 2015. In addition, the construction of LCC terminals (T3) is being contemplated for Kansai International Airport for completion by the end of FY2016. The feasibility of constructing new LCC terminal is being explored at Chubu International Airport as well. The second is the reduction of the airport facility fees, including landing fees. Efforts that began in FY2013 continued into FY2014 to mark down or review the airport facility fees, including landing fees at Narita International Airport and Kansai International Airport.

c. Accelerating the reception of business jets

A business jet is a small aircraft with the capacity to hold a few to more than a dozen passengers at the most. Business jets are typically used by businesspersons valuing time because they are able to adjust times according to their schedules or utilize the plane as a secure space to carry on business meetings and such on board.

Business jets have become a means of global corporate activity in the U.S. and Europe. As Japan's economy goes on global, the need to attract investment from overseas is beginning to win wider recognition than before, instead of conducting a one-sided exchanges, such as building a plant overseas. Hence, the importance and potentials of business jets in Japan will grow from a viewpoint of consolidating economic growths in the Asian regions from now on.

Comparisons of the status of business jet ownership by country, however, show that only 54 business jets are registered in Japan (in 2014), against the largest owner U.S. with about 19,000 business jets registered in the same year. Business jets are, thus, yet to be popular in Japan.

Structural measures have been implemented and regulations eased to get better prepared for hosting business jets flying into metropolitan airports.

The Ministry will consider phasing in measures designed to accelerate the reception of business jets at the airports nationwide, as they are practicable, with reference to the measures taken in overseas while exploring measures to consolidate the usage of business jets, such as disseminating information proactively and easing regulations relevant to business jets.

Column

Business Jets Made More Convenient to Use at the Tokyo International Airport

The MLIT has taken the approaches outlined below for this fiscal year to make business jets more convenient at the Tokyo International Airport.

A traffic line furnished with dedicated CIQ facilities opened in the premises of the international passenger terminal on September 30, 2014. Operations have also been revised to assign one spot before the international passenger terminal to business jets using the dedicated traffic line on a priority basis. Consequently, the time spent by business jet users can traveling within the airport has been cut by about 30 minutes.

Further, spots were added for six large business jets to park on March 5, 2015, in addition to existing spots for three jets, thereby allowing a total of nine jets to be parked. At the Narita international Airport as well, spots were added for large business jets to park on June 26, 2014.

On September 18 of the same year, a new access road was commissioned into service to allow vehicles to travel more efficiently within the airport. The access road has trimmed the time needed to travel between the dedicated business jet terminal and one of the business jet parking spots from about 16 minutes to about 8 minutes. In addition, two parking spots were added for use in getting on and off a business jet. Using these spots will cut the time needed to travel to the dedicated business jet terminal to about 5 minutes.

These approaches are expected to spur more inbound tourists to visit Japan aboard business jets.

Approaches to enhancing the convenience of business jet passengers at Narita Airport

(1) A new access route constructed between the business jet parking spot and the dedicated business jet terminal has trimmed the time needed to travel between the spot and terminal (from about 16 minutes to about 8 minutes).

(2) An additional spot accessible to business jets constructed in an area near the dedicated business jet terminal could offer a further cut in the travel time (from about 8 minutes to about 5 minutes).

(1) Construction of a new route from the dedicated business jet terminal to the business jet parking spot (commissioned into service on September 18, 2014). The development of a second access route has trimmed the time needed to travel between the dedicated business jet terminal and the business jet parking spot from about 16 minutes to about 8 minutes.

(2) Addition of a parking spot accessible to business jets (commissioned into service on September 18, 2014). While regular flights are not in service, passengers can get on and off at a spot that allows them to reach the dedicated business jet terminal in a matter of five minutes while it is not used by regular flights. (The additional spot supports one large or two small aircraft.)

Development of a large business jet spot (commissioned into service on June 26, 2014)

(Times)	23	24	25 (Fiscal year)
Number of arrivals and departures of large aircraft	51	95	124

An about 2.4-fold increase in the number of arrivals and departures of large business jets

Number of arrivals and departures of large aircraft: Of the total number of arrivals and departures of business jets at Narita Airport, that of arrivals and departures of aircraft such as A320XLR and B737 that cannot park at a small aircraft spot. Source: Narita International Airport Corporation

Until June 25, 2014: The existing large aircraft parking spots support B747s or equivalent-size aircraft.

From June 26, 2014: Enclosed in red: New spot

- Large aircraft parking spots added (number increased from one to 3)
- Also available as small aircraft parking spots as in the past.

Efforts to enhance business jet passenger convenience at Haneda Airport

(1) Effective September 30, 2014, a dedicated business jet traffic line has been commissioned into service, with one spot before the international passenger terminal allotted to business jets on a priority basis, to cut the time spent by business jet users traveling within the airport by about 30 minutes.

(2) Additional spots will be constructed in the business jet parking zone to support business jets that continue to grow in size.

Now (the same traffic line as for general passengers)

- Waiting time for entry and departure procedures
- Travel distance: 350 m for departure, 250 m for entry
- Immigration time: About 10 to 30 minutes

(Reference) Immigration procedures

International passenger terminal

Immigration examination → Baggage collection → Animal and plant quarantine → Customs inspection

CIQ inspection yard, baggage claim

Dedicated business jet traffic line

- Complete with dedicated CIQ facilities, etc. to get procedures completed without waiting
- Travel distance: 25 m for both entry and departure
- Immigration time: About 3 minutes

[Effect of traffic line improvement]

- Separation from the traffic line of general passengers adds to the convenience of business jet passengers.
- (1) Cuts in the travel distance within the terminal and in the entry/departure procedure time
- (2) Fully integrated security and privacy assurance from the terminal car approach to the aircraft side

Spot before the international passenger terminal allotted to business jets on a priority basis

- One spot that has been prioritized for regular flights will be changed to allow business jets using a dedicated traffic line to be parked on a priority basis (to be commissioned into service on September 30, 2014).

Using a dedicated traffic line and priority spot jointly, traveling time within the airport is shortened about 30 minutes.

Route between business jet spots and the terminal

Time to travel from the prioritized spot to the terminal: About 2 minutes (0.4 km)

Time to travel from the business jet parking area to the terminal: About 12 minutes (4.2 km)

Business jet parking area

International passenger terminal

Small aircraft use

Business jet parking zone

Large aircraft use

Number of large business jet parking spots increased from three to nine

Source) MLT

(3) Constructing air traffic system

a. Building a new air traffic systems

In FY2010, air traffic experts from the industrial, academic and governmental sectors formulated a long-term vision for future air traffic systems as CARATS (Collaborative Actions for Renovative Air Traffic Systems) with a view to realizing a globally interoperable air traffic systems and addressing increases in long-term demand for air traffic capacity and diversified needs for. Studies are underway to make this vision come true in conjunction with the ICAO's Global Air Navigation Plan (GANP).

Specifically, the possible installation and deployment of high-standard area navigation (RNAV) and RNAV for small aircraft have been debated in order to cut flight duration and fuel consumption by shortening flight path and to achieve further improvement of the flying rate through relaxing the landing limit imposed due to the land features and weather conditions. In addition, plans on how to optimize the order and time of aircraft arrivals and departures and how to mitigate delay on the ground have been explored in an integrated manner to make effective use of limited resources, such as airport runways and arrival and departure slots, and provided added punctuality. New networks for sharing air traffic information around the world are also being probed.

b. Pursuing enhancing metropolitan airport capacities

As continual effort directed at expanding the capacities of the metropolitan airports and airspaces, a yearly arrival/departure capacity of 447 thousand times was achieved at Tokyo International Airport (Haneda) in March 2014. At Narita International Airport as well, simultaneous parallel departure procedure has been introduced since October 2011 to enhance annual capacity without expanding noise-impacted zone and achieved a yearly capacity of 300,000 arrivals/departures in March, 2015 with the two runways currently in service by the familiarization with this method of aircraft operation and deployment of equipment which can monitor aircrafts with high precision.

Specific studies will proceed towards to pursue further functional enhancements to the metropolitan airports.

(4) Strategic promotion of international aviation measures

The Asia-Pacific region is considered to grow into the world's largest aviation market before not too long. In the circumstances, what is of strategic importance to Japan is not only to contribute to strengthening of the aviation networks in this region but also to actively capture the impetus of the emerging countries in which numerous aviation projects are in progress.

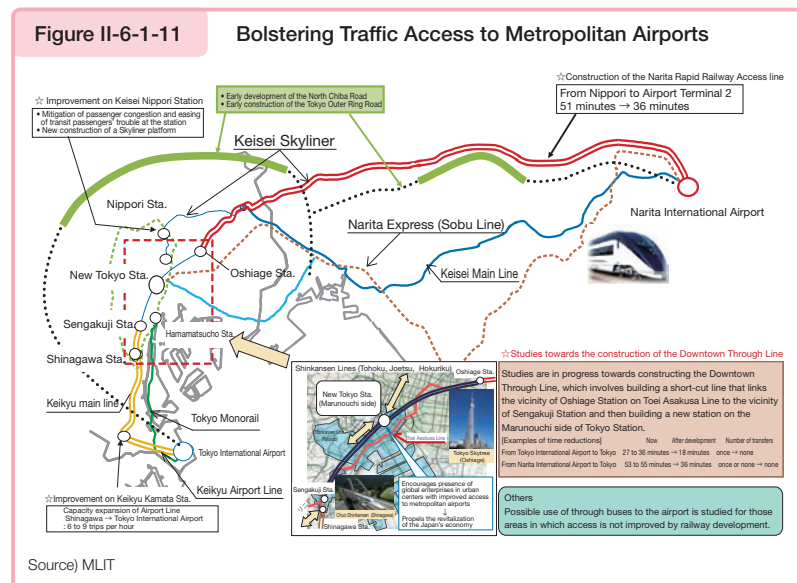
Because unified public and private approaches are essential to winning orders, efforts have been made to collect information and consolidate bilateral ties at the primary initiative of the Council for the International Deployment of Aviation Infrastructures.

Activities in FY2014 include conducting a top sales campaign in Mongol (April 2014) and holding a business seminar in the Philippines (February 2015).

4 Facilitating Traffic Access to Airports

Plans are presently being pursued to construct the Downtown Through Line to directly connect the center of Tokyo to the metropolitan airports to allow transfer-free swift travel, which will make Tokyo International Airport (Haneda) and Narita International Airport more readily accessible to downtown Tokyo and consolidate the location competitiveness of the center of Tokyo, thereby facilitating the attraction of global businesses into Tokyo and revitalizing the Japan's economy.

In addition, ways to improve access to Kansai International Airport have been surveyed and explored.



Section 2 Implementing Comprehensive and Integrated Logistics Policies

In June 2013, the Framework for General Measures for Logistics (2013-2017) was approved at a Cabinet meeting to offer a quick, precise solution to the prevailing conditions of logistics, such as deepening global supply chains, growing urges to combat global warming and assuring safety and security. Pursuant to this framework, the implementation of logistics Measures has been driven in a comprehensive, integrated manner in a public-private partnership.

1 Implementing Logistic Policies to Correspond with Deepening Global Supply Chains

To keep up with deepening global supply chains, efforts directed at reinforcing Japan's international logistic facilities are under way, including driving overseas deployment of the nation's logistic systems.

(1) Promoting overseas deployment of Japan's logistics systems

As supply chains continue to get globalized at a deeper level than ever, grabbing the evolving Asian markets would be essential to sustaining and enhancing the international competitiveness of Japan's industries. The formation of a sophisticated international logistics system should be of prerequisite importance to meet this urge. Capturing the Asian markets has become an urgent task for Japanese logistics companies that support the business expansion of the nation's industries in Asia.

While the urge for Japanese logistics companies to expand into global markets mounts, certain problems need to be resolved, including institutional constraints placed in the partner countries, before high-quality logistics systems can be deployed in the Asian nations. The MLIT seeks to refurbish the environment to encourage overseas deployment, etc. of Japan's logistics systems in a government-private partnership, through the implementation of Asian logistic pilot businesses, policy dialogs at a governmental level, logistics personnel fostering businesses and so on.

(2) Strengthening the functioning of the international marine transportation network

As the globalization of economy progresses, the volume of international marine transportation continues to grow year to year. From the perspective of optimizing marine transportation through large bundle shipments, container carriers and bulkers continue to grow in size. In the meantime, key Asian ports have successfully increased their volumes of freight handling, resulting in concentrated ports of call, international key sea routes making fewer calls at Japan. Further, slow responses to larger vessels to carry bulk cargo ^{Note} raise concerns over diminishing competitiveness in domestic industries forced into a mutually disadvantageous business environment.

In light of such conditions, Japan carries on its effort to streamline the flow of logistics that supports economic activity in Japan and life of citizens, improving the shipping entities at their location at home, which would in turn augment Japan's industrial competitiveness and realize economic reconstruction by maintaining and expanding the calls of international key routes at Japanese ports and simplifying and stabilizing imports of lifeblood materials, such as resources and energies.

In parallel with these approaches, efforts to shape an efficient network of marine transportation in which international and domestic transport services are integrated will be carried on, and relevant measures will be enhanced and developed at a deeper level of refinement.

a. Enhancing the facilities of strategic international container ports

To strengthen Japanese industrial competitiveness and to maintain and create citizens' employment, the key international routes of marine container transportation that link Japan to North America, Europe and else need to be consistently maintained and even expanded.

To address this need, Hanshin Port and Keihin Port were selected to be an international container strategic port each in August 2010 to implement a fully package of structural and non-structural measures, including the construction of deepwater quays and efficient port management. Under the circumstances where ports of call for international backbone

Note A generic term covering cargoes that ship in bulk, such as grains, iron ores, coal, oils and timber.

routes had been narrowing down because ships were becoming larger and collaboration between shipping companies progressing, the International Container Strategy Port and Harbor Policy Promotion Committee released its final conclusions in January 2014 focusing on the three key principles of “concentration,” as by picking up cargoes at strategic ports from sources over a broad area, “creation,” as by integrating industries in the hinterlands of strategic ports, and “increased competitiveness,” as by reinforcing the functionalities of deepwater container terminals or creating a government system of investment into port management companies.

Reflecting the committee’s discussions, the Law for Making Partial Amendments to the Port and Harbor Law was enforced in July 2014, allowing national governmental investment into the port management companies at international container strategic ports, adding warehouses that involve distribution and processing in the vicinity of piers at international container strategic ports to a list of facilities eligible for the interest-free loan program and so on.

In October 2014, special port operating companies at Hanshin Port merged with one another to incorporate Kobe-Osaka International Port Corporation, which works to book cargoes at Hanshin Port by leveraging the International Strategic Port Competitiveness Enhancement Project ^{Note}. In December 2014, the government made an investment in Kobe-Osaka International Port Corporation to craft a scheme of collaboration among the government, port management body and the private sector.

From now on, the international container strategic port and harbor policies will be deepened and also initiatives will be accelerated.

b. Forming a marine transportation network for moving resources, energy sources and so on with stability and efficiency

In a globally tight supply and demand climate for resources, energies and so on, importing these materials with stability and at low cost has become an pressing issue for Japan, because the nation depends on imports for virtually all of her requirements for these materials.

Japan is, therefore, committed to forging a marine transportation network to move resources, energy sources, etc. with stability and efficiency by building large vessel-ready port and harbor facilities of core importance, by encouraging inter-business collaboration and so on. On December 1, 2013, the amended Port and Harbor Act came into effect to this end, along with associated cabinet orders and ministerial ordinances. The Act authorizes the Minister of Land, Infrastructure, Transport and Tourism to name designated cargo import ports as import sites for bulk cargoes, such as coals, and also stipulates measures, etc. in support of such ports. On December 19 of the same year, Onahama Port, which had been selected to be one of the international bulk strategic ports, was named the nation’s first designated bulk import port (coal). On December 4, 2014, Fukushima Prefecture, the port manager, created and publicized a joint shipping plan utilizing large vessels in an inter-business partnership. As for port development, the construction of two international physical distribution terminals was commenced, one was 18 meters deep at Onahama Port for handling coal starting from FY2013 and the other is a 14 meter deep at Kushiro Port for handling grains starting from FY2014. The goal is to realize a stable, low-cost supply of imports and thus build up Japan’s industrial competitiveness, create more employment and prevent outflow of earnings abroad.

c. Building functionally core ports on the Japan Sea

Among the ports located on the coastal line of the Japan Sea geographically close to the fast economically growing nations across the sea, core ports were selected in November 2011 in an effort to capture the economic booms in these nations into Japan’s growth through selection of functions and concentration of measures and through port-to-port linkage and to build a disaster-resistant logistics network following the Great East Japan Earthquake. The progress and other aspects of the plans formulated by port managers will be followed up from now on.

Note Government subsidization of the cargo collection businesses conducted by port operating companies.

d. Building an integrated logistics information platform

An integrated logistics information platform that combines Nippon Automated Cargo Consolidated System (NACCS), with Container Logistics Information Service (Colins) is being built in order to improve the efficiency of system administration and user convenience.

e. Enhancing functionalities of international ports

The MLIT not only develops international physical distribution terminals, etc. in the international maritime transport network or at regional hub ports for consolidated competitiveness, etc. of local key industries but also pushes efforts directed at enhancing the functionalities of these ports, as by pushing their migration to ICT. To address increasingly sophisticated and diversified needs for East Asian logistics, which is not much different from domestic logistics in both terms of time and distance and build a low-cost logistics system, the Ministry pushes ahead with functional enhancements to unit loading terminals ^{Note} and with the construction of facilities designed to smooth the flow of cargo transshipment.

f. Developing a marine transportation environment

Among all international backbone routes, those that could interfere with bay navigation because of shallow waters, etc. have been improved and Aids to Navigation have been established to develop a marine transportation environment that combines the safety of navigation with the efficiency of marine transportation.

(3) Developing advanced aviation logistics facilities to pursue increased international competitiveness

The MLIT pushes efforts to consolidate the functionalities of the metropolitan airports, drive an airfreight hub implementation of Japan's hub airports, such as Kansai International Airport and Chubu International Airport, and simplify the transportation process flow in its bid to positively capture airfreight originating from and arriving in Asia as it promises further leaps.

(4) Strategic development and utilization of a logistically important road network

Building an efficient logistics network is of crucial importance to motor-truck transportation, which accounts for about 80% of domestic transportation. Because of this, the construction of ring roads in the three major metropolitan areas, access roads to airports and ports, etc. is underway. In October 2014, "road network for vehicles exceeding the weight and size limits" were separately designated among these roads to simplify the procedural routine for issuing passage permits for those large-sized vehicles using roads in these sections. Such sections are to be expanded and traffic-impeded sections will be resolved on a planned basis from now on. Efforts are also underway to utilize and upgrade existing road networks, including the construction of smart ICs.

(5) Measures that help consolidate international logistics facilities

The urgent formation of logistical plans, in which international logistics is efficiently combined with domestic transport modes of land, sea and air, is being pursued. This includes propelling the development of the mutual passage of chasses (trailing trucks without a power drive) to and from Korea and China and the use of a sea and rail scheme under which marine transportation is coupled with railway transportation.

The MLIT will push the development and redevelopment of physical distribution sites and facilities around international ports, etc., which are nodal areas for international physical distribution in metropolitan zones. They will also undertake this at the ports that are the strongpoints of physical distribution and industry. This will be done to build up international competitiveness and form an efficient network of physical distribution as an integral part of urban environment improvement activity, while also seeking better disaster preparedness to deal with massive disasters as they occur.

Note A unit loading terminal is a terminal ready for the scheme of transportation in which freights are loaded and unloaded, unitized, in chasses, containers or the like, to make their physical distribution faster and more efficient.

2 Measures Aimed at Building an Efficient and Sustainable Logistics System in Japan

Additional approaches are underway to build an efficient logistics system in Japan to enhance Japan's industrial competitiveness while decreasing environmental loads.

(1) Flow of interregional logistics

The MLIT proceeds to develop nodal points of logistics, such as ports and freight stations, to drive combined multimodal transportation. Cargo transportation by rail can be used more efficiently by utilizing the facilities that have been developed to increase capacities of cargo transportation by rail. The construction of combined multimodal transport terminals is also being proceeded at Tokyo Port and elsewhere to consolidate coordination between marine transportation and other modes of transport. In addition, the MLIT works to drive modal shifts, as by approaching various issues relevant to alternative transportation in case of rail transportation accidents.

Key road networks will also be constructed to streamline the flow of truck transportation.

(2) Streamlining the inner-region logistics including inner-city logistics

Urban distribution centers ^{Note 1} have been developed in 22 cities and 29 locations (27 of which were already in service by the end of March 2015), in accordance with the Act on the Improvement of Urban Distribution Centers, to enhance the urban functions of logistics and streamline road traffic through the intensive location of distribution facilities.

To prevent roadside parking for cargo handling purposes, the Ministry has encouraged local governments to include the mandatory installation of parking spaces for cargo handling in their municipal parking ordinances. As of the end of March 2014, municipal ordinances had been amended in 89 cities to dictate the installation of parking spaces for cargo handling at commercial installations within a certain scale or larger.

Measures taken to optimize traffic flow include making focused attempts at eliminating congestion bottleneck points, constructing graded intersections, and resolving railway crossings that are closed at nearly all times. In parallel, non-structural measures, such as those aimed at encouraging joint transportation and delivery pursuant to the Low Carbon City Promotion Act to boost loading efficiency, have been promoted.

In depopulated areas or the like., local residents find it increasingly difficult to make day-to-day shopping, etc. while the efficiency of physical distribution continues to decline. Starting from October 2014, the "Review Panel on Sustainable Logistics Networks in Support of Communities" has been organized to maintain and upgrade home delivery services through collaborations between operators and NPOs and other entities and to explore new transportation systems instrumental in support, etc. of shopping-handicapped residents.

At the same time, case studies of excellent endeavors have been publicized to encourage local public entities and operators at work.

(3) Further efforts to implement logistic services that are more sophisticated and that deliver better total efficiency

To accelerate the implementation of the 3PL business ^{Note 2} further, the Ministry not only arranges for the environment in which logistic companies find it easier to make inroads into the 3PL business easier, by hosting human resources development and training sessions, creating guidelines for small and medium business companies to enter the EC market and so on, but also seeks to generalize and simplify the logistic flow through a system of accreditation for total efficiency plans ^{Note 3} in accordance with the Act on the Improvement of Urban Distribution Centers. As of the end of February 2015, 249 total efficiency plans were accredited in accordance with the Act.

Note 1 A facility built at an appropriate site, for instance one near a freeway interchange, as a large-scale physical distribution center in which logistic facilities, such as truck terminals and warehouses, are concentrated.

Note 2 Third-party logistics: An outsourcing service that undertakes a fully integrated flow of physical distribution of cargoes from the cargo owners.

Note 3 A plan that is committed to integrating and expediting physical distribution mainly at a physical facility located in the vicinity of a social infrastructure, such as an expressway interchange or port, as by installing information systems, disaster prevention facilities and the like while seeking concentrate transportation networks and share shipping and delivery operations.

Studies are underway to explore how to introduce the concept of KPIs into the physical distribution industry so allow physical distributors and cargo owners to work in accord to simplify their flow of physical distribution activity.

(4) Measures for Labor Shortage in Logistics Sector

Under the influence of falling birthrates with aging populations, concerns over shrinking workforces are looming mainly in the trucking and domestic shipping sectors. The MLIT addresses these situations by developing effective public relations campaigns that emphasize the social significance of logistics, by simplifying and automating the workflow of logistics by promoting modal shifts and joint transportation with several shipping companies, and by reducing redelivery and so on. Further, MLIT has compiled a specific package of government-private measures to be taken in the future at its Logistics Problem Survey Workshop and published it as “Action Plan to Counter Labor Shortages in the Logistics Sector.”

Section 3 Reactivating Industries

1 Trends in Railway Industries and Measures

(1) Railway business

a. Trends and measures in the railway business

The number of railway passengers carried in FY2013 increased from its year earlier level. At Japan Railway, transportation on Shinkansen increased while transportation on conventional railway lines increased slightly, with transportation on private railways on the increase.

The volume of railway freight transportation during FY2013 rose from its year earlier level in both the number of tons and that of kilograms carried a year for reasons, such as last-minute demand before the consumption tax increase, truck driver shortage and so on.

The railway operators are working to present guidance information in multiple languages, show route and station names along with their alphanumeric notation, offer free public wireless LAN services and more in their bid to achieve further leaps through enhanced railway competitiveness, collaboration with livelihood services and so on and to better receive inbound foreign tourists. Traffic IC cards continue to gain growing popularity across the nation since their pioneer “Suica” was launched by JR East in 2001. Since March 2013, 10 kinds of traffic IC cards used by JR and major private railways and the like have been made interoperable. As IC cards penetrate more railway operators and areas, they could help improve passenger convenience and reactivate regional economies.

b. Initiatives towards the complete privatization of Japan Railways

The individual companies of Japan Railways incorporated upon breakup and privatization of Japan National Railways in April 1987 have carried on their respective management efforts to meet their own regional conditions and management climates over the following more than 25 years. In the meantime, East Japan Railway Company, Central Japan Railway Company and West Japan Railway Company were completely privatized when the sale of the capital holdings of Japan Railway Construction, Transport and Technology Agency (JRJT) completed, but measures have been taken for the time being to keep the Japan Railways companies in mutual partnership and collaboration, assure user convenience, care for smaller enterprises and so on in consideration of the background of the Japan Railways reform.

Hokkaido Railway Company, Shikoku Railway Company, Kyushu Railway Company and Japan Freight Railway Company, on the other hand, carry on their respective efforts to increase revenues and cut costs. In the light of the social significance of the roles these companies play, such as securing means of local transportation and driving railway freight transportation having low environmental loads, necessary aids have been extended to them to reinforce their management structure and thus make them economically viable by leveraging funds from the JRJT Special Services Account since FY2011 in accordance with the Act on Treatment of Debt, etc. of JNR Settlement Corporation, in addition to the fixed property tax breaks already in effect.

(2) Railway vehicle industry

The volume of newly built railway vehicles by value moved flatwise for domestic shipment and varied depending on the status of orders for overseas shipment. Production by value in FY2013 stood at 192.6 billion yen (1,692 vehicles), 80% (154.2 billion yen) of which was domestic-bound and 20.0% (38.4 billion yen) was export-bound, former rising 2.9% over FY2012 and the latter 10.7% over FY2012.

Production of railway vehicle parts (such as power generators and bogies) was 252.4 billion yen by value, that of signal protection devices (such as automatic train control devices and electrical interlocking devices) was 132.5 billion yen.

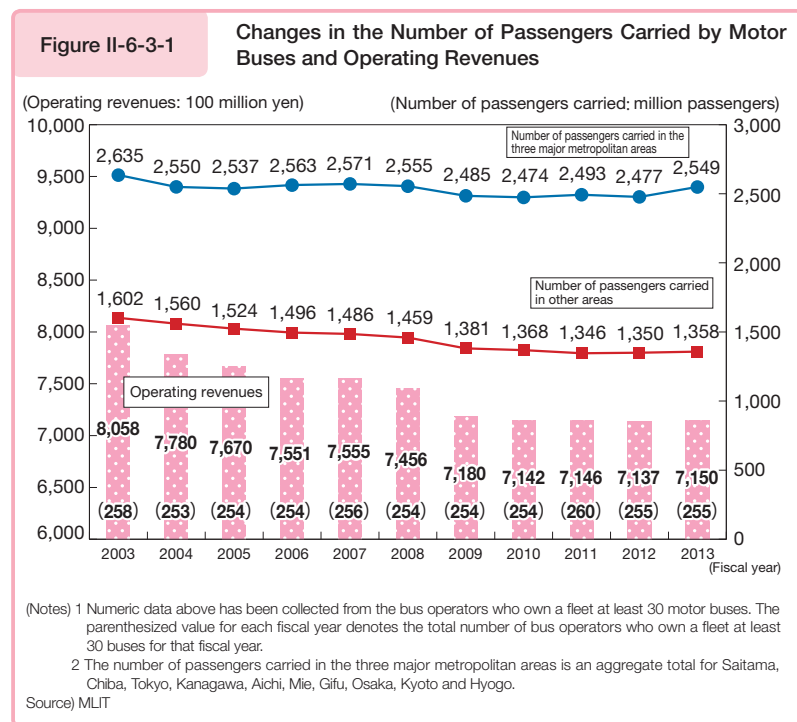
Rolling stock builders and others are working to develop rolling stocks that fill diverse social needs, such as speed, safety, passenger comfort, low noise and being barrier-free, by partnering with railway operators and also to set up and even expand local production and service sites in the U.S., U.K. and elsewhere with the recent order taking for overseas projects as an impetus.

2 Trends in Motor Truck Transport Business and Measures

(1) Passenger vehicle transport business

a. Motor bus business

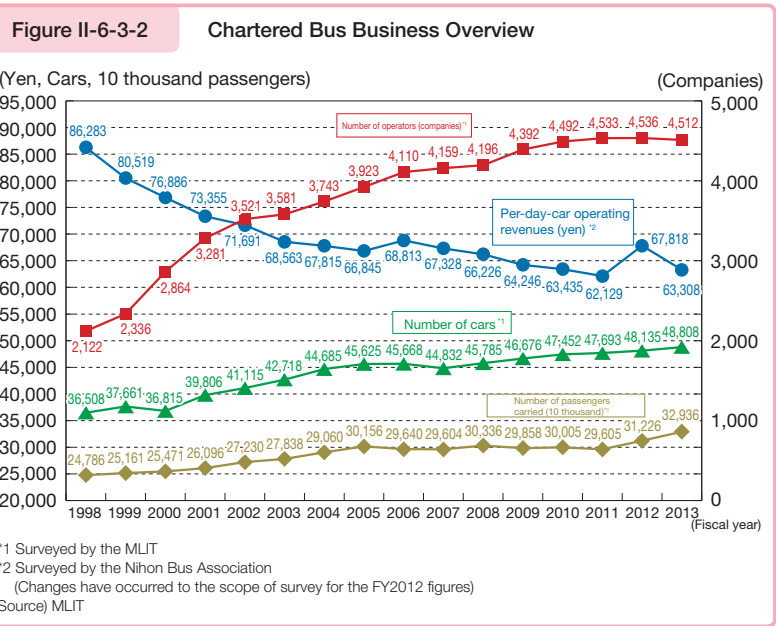
Demand for motor bus transportation, which is represented by the number of passengers carried and operating revenues, remained on the decline in pace with changes in the urban structure, such as a hollowing of the central area of a city, and increased ownership of private cars with the progress of motorization. While business activity remains sluggish, the climate surrounding the motor bus business remains extremely harsh.



b. Chartered bus business

Since deregulations in February 2000, the chartered bus business has sponsored low-cost, diversified bus tours in its effort to deliver better user services, but competition is stiffening with increase in the population of operators in play. Further, as group tours continue to get downsized and travel goods are lower-priced, transportation revenues have been declining. In addition, upsurges in the fuel charges continue to toughen the business climate surrounding the chartered bus business.

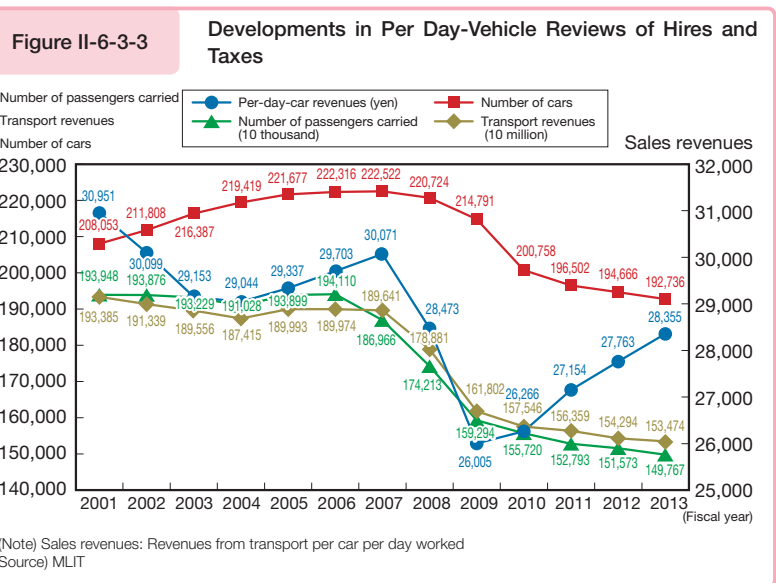
On the basis of the discussions at the Review Panel on the Future of the Bus Service that met in the wake of the April 2012 Kanetsu Expressway rapid tour bus accident, the Rapid and Chartered Bus Safety and Confidence Recovery Plan was worked out to carry on two-year efforts intended to add to the safety of rapid and chartered buses in FY2013 and FY2014.



c. Taxi business

As for the taxi business, amendments to the “Act on Special Measures Concerning Rationalization and Revitalization of General Passenger Vehicle Transportation Businesses in Designated Districts” enforced in October 2009 were passed as a lawmaker-initiated legislation at the 185th extraordinary session of the Diet in 2013 to upgrade the drivers’ working conditions, enhance the level of taxi services and so on, and came into effect in January 2014.

The MLIT seeks to resolve the problems of the oversupply of taxis and upgrade services and safety on the basis of statutory regulations and collateral resolutions made at both Houses of the Diet.



(2) Replacement driver service

The replacement driver service is used as an alternate means of transport for drunken drivers. As of the end of December 2014, 8,890 replacement driver service providers are in operation. Keen to add to further soundness of the replacement driver service, the MLIT has formulated “Measures for Making the Replacement Driver Service More Sound for Added Safety and Security” in collaboration with the National Police Agency in March 2012 as part of its continuing effort to drive various relevant measures.

(3) Truck transport business

The number of motor truck carriers had been on the rise for long, but the number of newcomers and that of retirees have equaled since 2008, with the number of carriers moving crabwise at about 63,000.

While carriers are kept in an increasingly harsh management climate under the influence of light oil price hikes, etc., various countermeasures have been taken, including encouraging the introduction of fuel surcharges to pass on light oil price hikes to the freight charges and saving energy requirements in motor truck transportation to back up the carriers in their effort to improve fuel efficiency.

The MLIT will seek to rationalize the market, as by promoting and diffusing the practice of exchanging documents in writing and toughening checks made at the

launch of a business on the basis of discussions made at the Expert Council for Rationalization and Reactivation of the Trucking Industry and also upgrade the working environment and educate motor truck carriers more intensively to secure and foster truck drivers feared to run short in the future.

(4) Securing and fostering bearers of motor carrier businesses, etc.

Motor carrier businesses that undertake the movement of people and goods (trucking, bus and taxi businesses, and automotive maintenance business that contributes to safety assurance in these businesses) are a social infrastructural industry of vital importance to sustaining Japan's economy and means of regional transportation.

A look into the employment structure of the motor carrier businesses, however, suggests that the workforce more or less depends on middle-aged and elderly workers, with female workers accounting only for about 2%. If this condition lasts, a serious shortage of bearers of these business is feared to occur in the future.

In the light of these circumstances, the MLIT has defined the year 2014 as the "first year of human resources securing fostering" and worked out its future approaches to analyzing current status across these businesses, identifying problems, encouraging the work of younger and female workers and so on.

The MLIT has also opened a website, called "Female Truck Driver Promotion Project Site," that tells female job applicants how to become truck drivers and also introduces how active female truck drivers are at work. Preparing pamphlets that help business operators to improve their workplace environment is another measure taken by the MLIT to secure bearers of the trucking business. Campaigns made in respective automotive maintenance include visiting high-school principals and other key persons in a public-private collaboration to promote the work of the automotive maintenance business using explanatory pamphlets and preparing automotive maintenance publicity posters appealing to females and asking them to be posted at sites of local public entities, in public transportation facilities and elsewhere.

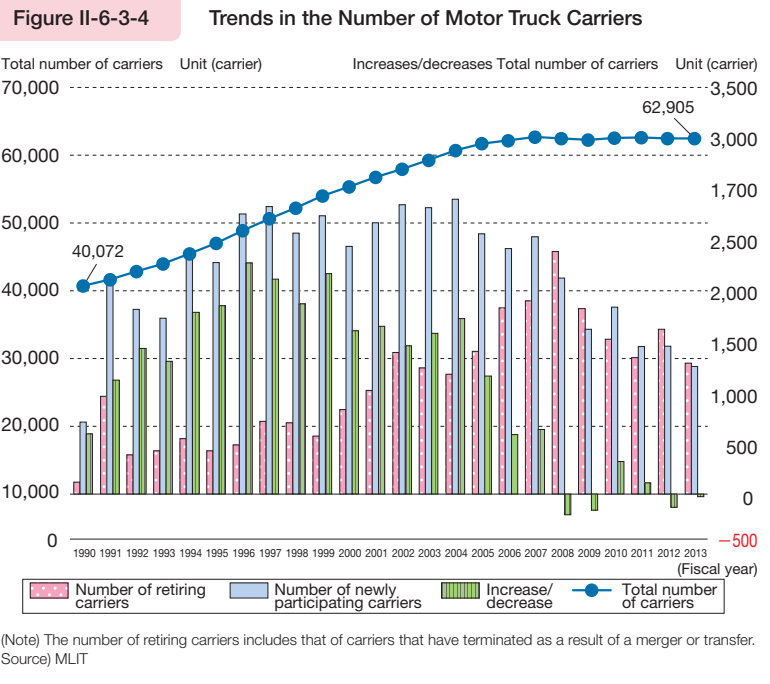


Figure II-6-3-5 Employment Structure of the Motor Carrier Businesses, etc.

	Trucks	Buses	Taxis	Auto maintenance	Total industry average
Number of drivers and maintenance technicians	84 ten thousand	13 ten thousand	34 ten thousand	40 ten thousand	-
(Female ratio)	2.4%	1.4%	2.3%	2.1%	42.8%
Average age	Age 46.2	Age 48.3	Age 58.3	Age 43.5	Age 42.0
Working hours	220 hours	209 hours	196 hours	192 hours	177 hours
Annual income	JPY4.18 million	JPY4.4 million	JPY2.97 million	JPY4.19 million	JPY4.69 million

Source) MLIT

3 Trends in Maritime Industries and Measures

(1) Achieving stable marine transportation

a. Achieving Japanese-flagged vessels and Japanese seafarers

As Japan is a nation with limited resources surrounded by the sea in all its sides, international shipping, which depends on 99.7% of the Japan's trade, plays a significant role to its industrial infrastructure, lifeline for Japanese economy and national life. Japanese-flagged vessels and seafarers over which Japan has regal jurisdiction are necessary to maintain at a certain level at all time because of requiring economic security assurance, but rooting cost competitions of international trade, those have been decreased to the amount gradually.

Dealing with the situation, the MLIT has set forward intentional increasing in Japanese-flagged vessels and Japanese seafarers through the tonnage tax system ^{Note} to those operators who are allowed under the Japanese-flagged vessels and Japanese Seafarers Securing Plan based on the Marine Transportation Law since 2008.

Consequently, Japanese vessels and Japanese seafarers has been turned into increasing. On the other hand, causing the terrible Great East Japan Earthquake and the nuclear power plant accident, the significance of economic security assurance through Japanese merchant fleets have been rising more than before.

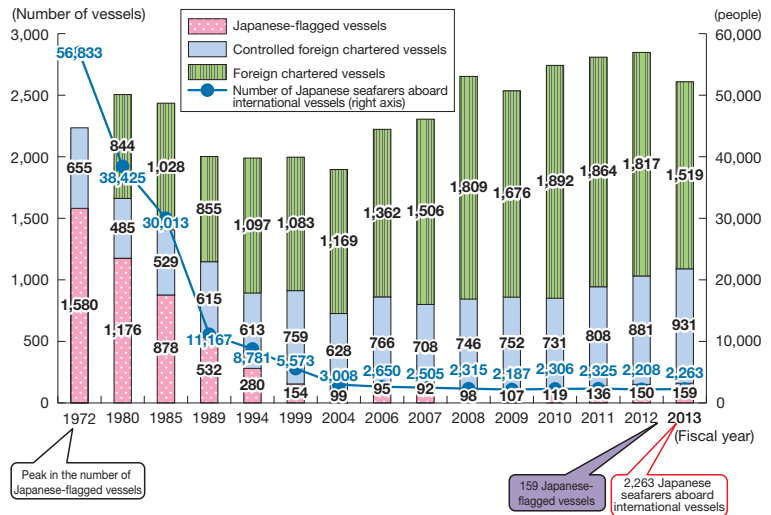
Among of the situation, the amended Marine Transportation Law came into force in September 2012, establishing a "deemed-Japanese-flagged vessel" system. The deemed-Japanese-flagged vessel means a foreign-flagged vessel operated by Japanese shipping firm and owned by their overseas subsidiaries which can change its flag to Japan immediately in case of issuing the "Order to Engage in Voyage" based on Marine Transportation Law. "Deemed-Japanese-flagged vessel" has been added to the objective of vessels which applied the tonnage tax system since April 2013.

Japan will promote to support the increased Japanese-flagged vessels and secure the deemed-Japanese-flagged vessels to perform a complementary role of Japanese-flagged vessels.

b. Acquiring and fostering seafarers (Seamen)

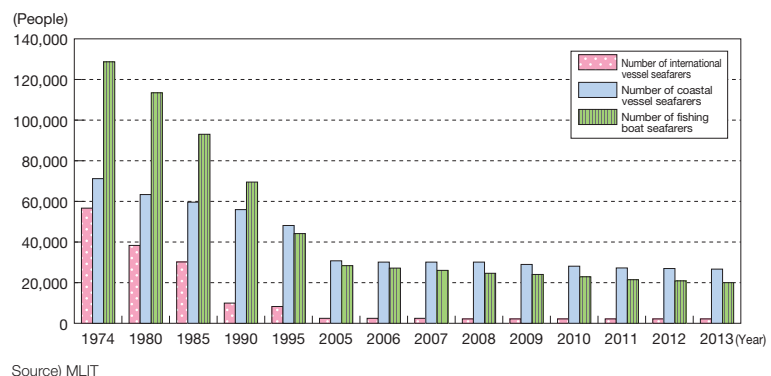
Acquiring and fostering Japanese ship's seafarers, human resources of marine transportation, is of essential importance to boosting Japan's economy and maintaining and upgrading national life. Yet, the number of Japanese overseas ship

Figure II-6-3-6 Number of Japanese Seafarers Aboard International Vessels, Japanese Merchant Fleet



Source) MLIT

Figure II-6-3-7 Changes in the Number of Japanese Seafarers



Source) MLIT

Note A tax system that calculates the amount of tax payment on the basis of predetermined deemed profit according to vessel tonnage, rather than yearly profits. Similar tax systems are already introduced in the world's major nautical nations.

seafarers has fallen to about 2,300 after peaking at about 57,000. In the concerns over stable marine transportation loom as coastal ship seafarers continues to get aged at a rapid pace (about 50% of the entire seafarers are 50 years old or more), with the result of a resultant dominant shortage of successors to them.

For this reason, the MLIT works to secure Japanese seafarers to get aboard oceangoing vessels through steady implementation, etc. of the Japanese-flagged vessels and Japanese Seafarers Securing Plan.

As Asian seafarers account for a greater proportion of the total seafarers aboard Japanese merchant fleet, training aimed at improving the skills of mariner's instructors in the developing nations has been conducted to help secure and foster more capable Asian seafarers.

As for domestic ship seafarers, the MLIT is committed to extending support to those operators who employ seafarers on a planned basis, holding job fairs for new graduates and so on. It will also work to secure and foster young seafarers, as by making upgrades, etc. to the new Sixth Class Marine Technician training course to encourage those who have not graduated a professional educational institution to find employment as domestic ship seafarers. In addition to these efforts to secure and foster seafarers, continued efforts will be directed at promoting On-board Occupational Health and Safety Management System and Work Improvement on Board (WIB), a continual approach to reducing seafarers accidents to add to the vocational charms of the job of being a seafarer.

The I.A.I. Marine Technical Education Agency (MTEA) and the National Institute for Sea Training (NIST) are the seafarers training institutions over which the MLIT hold jurisdiction. The MTEA not only provides the basic knowledge and skill required for a ship operating officer but also implements reeducation to meet shipping industry's requests or to catch up with technological innovations. The NIST provides unified on-board practical training on students at the MTEA and mercantile marine colleges and technical colleges using five training vessels. The NIST conducts on-board training that is based on coastal shipping operations using the "Taisei-maru", a coastal training ship commissioned into service in April 2014. With the implementation of such measures, the institutions enhance the development of younger seafarers who are capable of service off hand both effectively and efficiently.

c. Disseminating Maritime Thought ^{Note}

For the growth of maritime industry, it is essential for people to understand and be interested in maritime industry.

The MLIT is making efforts of maritime publicity activities, such as sponsoring Sea-Festa (held in Kyoto in 2014) and commending those who have been instrumental in helping Japan to grow into a maritime nation (Prime Minister's Commendation).

(2) Marine transportation industry

a. International shipping

The volume of cargo movement on ocean in the world for 2013 stood at 9.91 billion tons (up 3.7% from its year earlier level) with Japan's volume of seaborne trade for the same year at 0.97 billion tons (up 1.4% from its year earlier level).

International shipping in FY2013 showed signs of general recovery in the business environment on the support of business pickups mainly in the U.S., despite continuing harsh conditions, such as decelerating economic booms in the emerging nations, sluggish European economies and continually high bunker oil prices.

b. Domestic passenger shipping business

The domestic passenger shipping business plays a significant role as a means of regional transportation. Ferryboat transportation, in particular, has become an integral part of the nationwide network of physical distribution as a recipient of modal shifts. In the meantime, the domestic passenger shipping business needs to boost its competitiveness or toughen its structure, as by pushing further automation to cut costs, to break through a variety of confronting challenges, such as declining demand for transportation with changes in the demographic structure and soaring fuel prices.

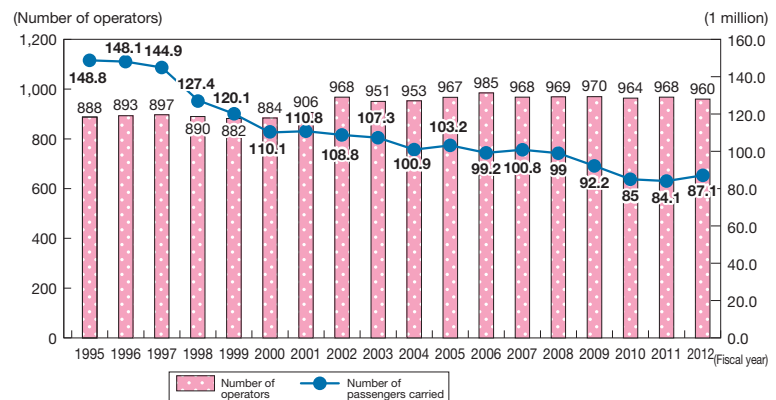
Accordingly, a variety of support measures have been advanced in collaboration with local governments or operators, including making ships more energy-efficient through the utilization of co-owner ship construction institution of the

Note General knowledge of seas, including marine usage, maritime transportation and marine environments and maritime safety.

Japan Railway Construction, Transport and Technology Agency, adding to the charms of voyage by sea and augmenting user convenience in conjunction with the tourism industry.

Figure II-6-3-8

Trends in the Number of Domestic Passenger Ship Operators and Number of Passengers Carried



(Notes) 1 Sum total for general passenger liner routes, specified passenger liner routes and passenger non-liner routes.
2 Number of operators as of April 1 of each year.

(Source) MLIT

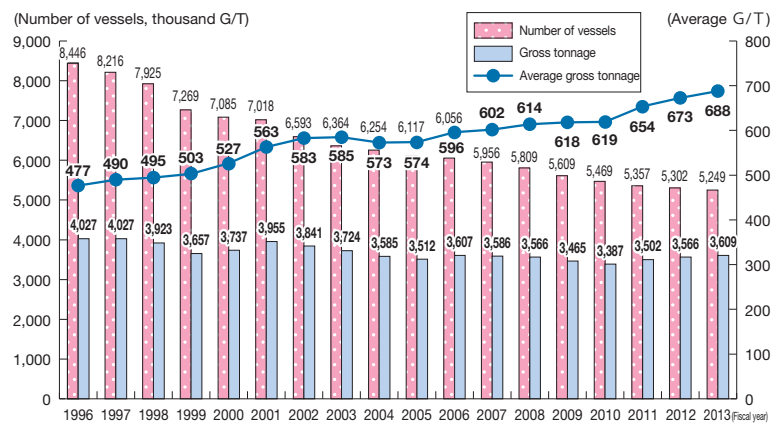
c. Coastal shipping

Coastal shipping offers high economic efficiency and excellent shipping characteristics in terms of environmental protection. Coastal shipping is a key means of conveyance supporting Japan's economic activity and national life, as it commands about 40% of domestic distribution and about 80% of industrial basic material transport. Traffic volume increases are noticed in some product sectors, such as cement and iron and steel in recent years, as the business follows an undertone of recovery, but general cargo movements remain at about the same level as in FY2013. In the meantime, the building of new ships continues strong but average ships still account for a bulk of the total ship population. Promoting shipbuilding to replace at a steady pace, coupled with efforts to simplify the flow of shipping, should be the key to assuring stable shipping while responding precisely to demand changes.

To address such circumstances, the MLIT has reduced charterages by taking advantage of joint ownership shipbuilding scheme of Japan Railway Construction, Transport and Technology Agency, an independent administrative agency, and offered exceptional tax measures to encourage migration to building ships that offer superior environmental performance, thereby pushing the implementation of measures aimed at building competitiveness, as by saving ship energy requirements. The MLIT formulated and publicized "Guidelines for Ship Management Activities in Coastal Shipping" to help reactivate coastal shipping that leverages ship management firms in July 2012 and also introduced techniques for assessing compliance with the Guidelines in April 2013 to "visualize" the management services provided by the ship management firms. Further, the smooth and steady implementation of provisional measures for coastal shipping ^{Note} is also supported.

Figure II-6-3-9

Trends in Coastal shipping



(Note) As of the end of each fiscal year
(Source) MLIT

Note A system that resolves the owned tonnage adjustment program based on a scrap and build principle and that grants a certain amount of subsidy to those who have dismantled and removed their ships and that demands the shipbuilders to pay fees.

d. Port and harbor transportation business

The port and harbor transportation business plays a significant role as an interconnecting node between marine sea and land transportation in support of Japan's economy and national life. As of the end of March 2014, there are 879 transporters (0.5% down from the previous year) in the general port and harbor transportation business, etc. at the 93 ports nationwide that are governed by the Port and Harbor Transportation Business Act. Vessel loading and unloading volumes for FY2013 were approximately 1,443 million tons nationwide (up 2.5% from the previous year).

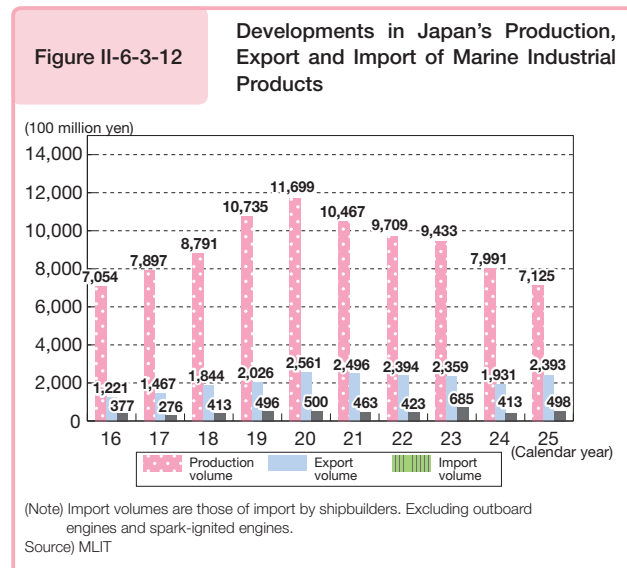
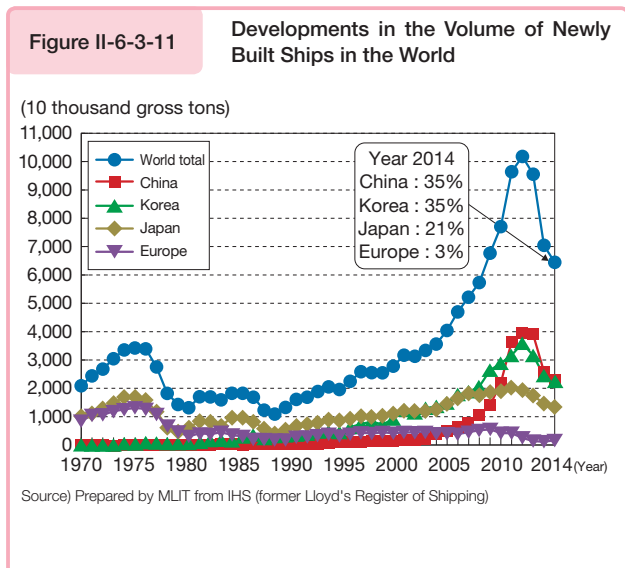
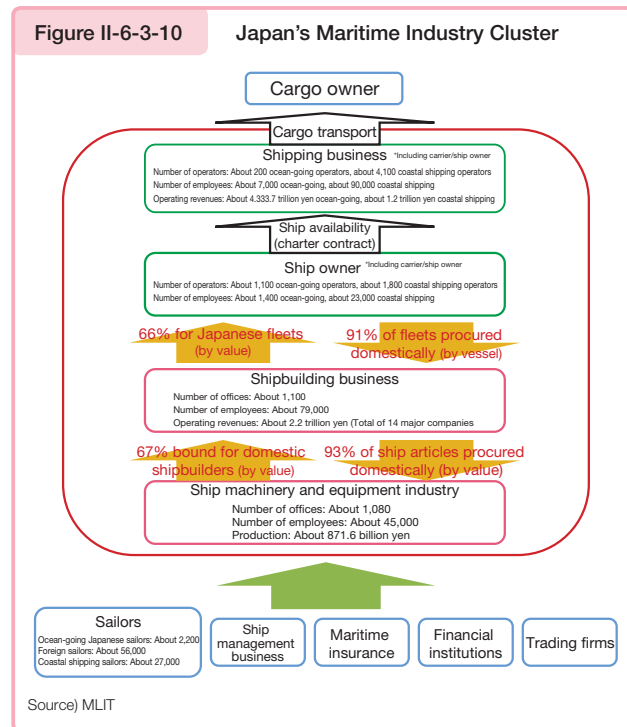
(3) Shipbuilding industry

a. Present status of the shipbuilding industry

Japan's shipbuilding industry is an extremely important industry that contributes to regional economy and employment by providing a stable supply of quality vessels tailored to ship owner's varied needs. Japan possesses a clustered integration of maritime industries in which the marine transport business, shipbuilding business and ship machinery business are closely linked to one another.

Following the increases in the volume of marine transportation reflecting a buoyant global market, China and Korea stepped up their shipbuilding capacities rapidly, pushing the world's amount of new shipbuilding for 2014 to 65,670,000 gross tons (against 13,420,000 gross tons for Japan, commanding 20.4% of the global market). Japan's order volume has turned upward on the support of corrections of the yen appreciation since the end of 2012, but stiff global competition still continues, keeping tonnage values low.

The production of ship machinery products (except for outboard motors) for 2013 was valued at 712.5 billion yen (down about 10.8% from its year earlier level), with an export amount of 239.3 billion yen (up about 23.9% from its year earlier level). The climate surrounding the ship machinery business is predicted to become harsher than ever, with stiffening global competition and increasingly aged employees.



b. Approaches to consolidating the international competitiveness of the shipbuilding industry

To consolidate the international competitiveness of Japan's shipbuilding industry and allow Japan to stay a first-class shipbuilding nation, the implementation of a policy package focusing on boosting Japan's order-taking capacities and deployment into new markets and new segments of business, and assurance and cultivation of human resources, need to be propelled.

Starting from FY2013, support has been extended to shipbuilders, shipping operators and the like in their efforts to develop next-generation marine environment technologies that help enhance fuel efficiencies for their vessels with a view to reinforce Japan's order-taking capacities. The Ministry is committed to realizing a desirable framework of international collaboration under cooperation between the public and private sectors and exploring, and promoting the diffusion of, energy-saving technologies for ships, natural gas-fueled ships and so on.

Approaches to the promising growth fields of marine resources development, renewable marine energy sources deployment and so on and to establishing a system of marine transportation on new routes of energy transportation will also be impelled. Specifically, the MLIT will seek to expand the horizons of business chances in the marine development field, as by supporting involvement in marine resources development projects taking advantage of Japan's strengths, supporting the development of marine resources-related technologies and promoting the training marine development engineers and, at the same time, consolidate the international competitiveness of the marine industries. In addition, the MLIT works on the formulation of safety and environmental guidelines for promoting the diffusion of floating marine energy power generation facilities. As for the availability of human resources in the shipbuilding industry, the utilization of foreign human resources ready for work will be pursued as an emergency and temporary response (scheduled for expiry in FY2020) while adhering to the key principle of seeking human resources from within Japan. Furthermore, specific measures have been explored in an integrated industry-academic-government effort to develop domestic human resources to back up management.

The Ministry has also embarked on deals to combat fake ship machinery products and works to consolidate the engineering capabilities of smaller shipbuilders through the promotion of energy saving ships by Japan Railway Construction, Transport and Technology Agency (JRRTT), the commercialization support of evolving technologies and so on.

4 Trends in Air Transport Business and Measures

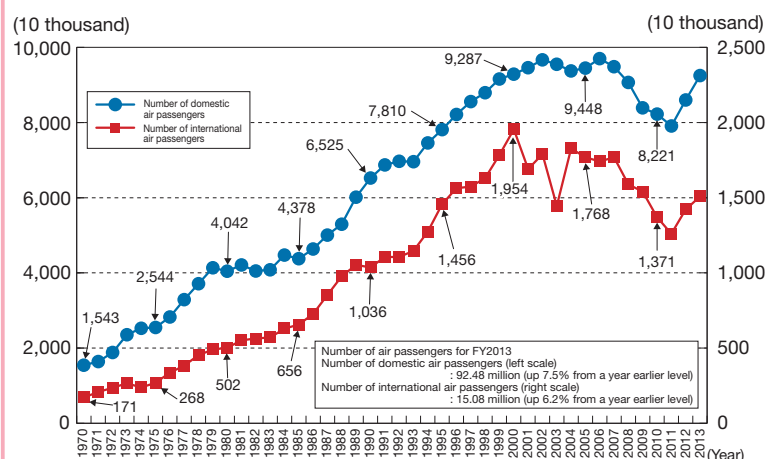
Despite sharply declining crude prices since late 2014, increases in fuel spending caused by their secular upsurges and other conditions have left airlines stuck in a harsh climate. According to Japan's air transport results, the number of domestic air passengers, which had move downward after peaking in FY2006, turned for an increase from FY2012 on, with impetus from demand for restoration from the Great East Japan Earthquake, increased demand encouraged by the entry of LCCs and so on, reaching 92.48 million in FY2013 (up 7.5% from a year earlier level).

The number of international passengers also turned for the increase, reaching 15.08 million (up 6.2% from a year earlier level), same as the domestic passengers.

Since Peach Aviation, Japan's first full-scale LCC, came into service in March 2012, Jetstar Japan and AirAsia Japan (Vanilla Air at present) followed suit in July and August, respectively, and Spring Airlines Japan in August 2014.

LCCs have been expanding their business activities, with Peach Aviation operating 12 domestic routes and seven

Figure II-6-3-13 Developments in the Number of Air Passengers (Japan-Based Airlines)



Source) Prepared by MLIT from the "Air Transportation Statistical Year Book"

international routes, JetStar, 19 domestic routes and one international route, Vanilla Air, three domestic routes and four international routes and Spring Airlines, three domestic routes as of March 2015.

In the meantime, SkyMark Airlines filed for the commencement rehabilitation proceedings under the Civil Rehabilitation Law on January 28, 2015. Court-led proceedings are now underway.

5 Trends in the Consigned Freight Forwarding Business and Measures

The consigned freight forwarding business ^{Note} is combined with multiple means of transport to provide services specific to varied user needs. Recent years have witnessed growing entry into the aircraft- and ship-based segments of international shipment to reflect the cargo owners' needs for globalization.

Further, as internal trade takes on an increasingly important tone, global shipment gets more streamlined than before, urging safety assurance during transportation. The MLIT works to ensure the availability of safe and secure logistics services, as by conducting audits, etc. to consolidate thorough operator code compliance.

6 Trends in the Warehousing Business and Measures

Commercial warehouses play a significant role as nodal points of physical distribution. There are 5,975 warehouse operators (4,798 ordinary warehouse operators, 1,177 refrigerated warehouse operators) as of the end of FY2013.

In recent years, the construction of large, intelligent physical distribution facilities by foreign or domestic real estate entities or funds has been activated, giving birth to warehouse operators who rent such facilities to develop their businesses. To fulfill sophisticated and diversified needs for physical distribution, warehouse operators tend to combine other multiple physical distribution businesses, such as a consigned freight forwarding business.

The introduction of equipment that makes for a lower-carbon implementation is underway, as well as the introduction of emergency power supplies and telecommunications equipment that help build a disaster-tolerant warehouse.

7 Trends in the Truck Terminal Business and Measures

The truck terminal business plays a significant role in streamlining the flow of transport, mitigating congestion and so on as a nodal point of trucking between a trunk line and a terminal. In recent years, the construction of facilities that provide the functionality of a distribution center (sorting, processing for distribution and so on), as well as loading and unloading, is in progress to meet the sophisticated and diversified needs for logistics.

The introduction of equipment that makes for a lower-carbon implementation is underway, as well as the introduction of emergency power supplies and telecommunications equipment that help build a disaster-tolerant truck terminal.

8 Trends in the Real Estate Business and Measures

(1) Real estate business trends

The real estate business is one of the key industries that command 2.7% of the total sales of all industries and 11.2% of the total number of corporations (FY2013).

Land prices had followed a downward trend nationwide till now. According to the 2015 official land prices (as of January 2015), residential land prices fell but their rate of drop, while the rate of drop in commercial land prices moved sideways (0.0%) from a declining state. The average land prices in Japan's three largest metropolitan zones, which had turned for a rise last year, continued to rise for both residential and commercial land. In the regional zones, on the other hand, land prices continued falling down, but the rate of drop narrowed. The number of new housing starts, after exceeding 890 thousand in FY2012, topped 980 thousand in FY2013 but sagged to 880 in FY2014 upon loss from rebounding from the last-minute demand stirred by a hike in the consumption tax rate.

Note A business that transports cargoes by the means of transport (motor trucks, railways, aircrafts, ships) owned by real carriers (who undertake transportation by themselves) in a fully integrated, complex flow of door-to-door transportation, from picking up cargoes to delivering them.

In the existing housing circulation market, the number of successful deals has followed a steady trend with 158,000 (down 3.1% compared to the previous year) in FY2014 according to the Real Estate Information Network System (REINS) ^{Note 1}.

(2) Real estate market status quo

The Ministry endeavors to ensure precise administration of the Building Lots and Buildings Transaction Business Act to protect consumer interest involved in housing land and building deals and to expedite distribution. There were 122,127 building lots and buildings business operators (as of the end of March 2014). This number is on a slight decline in recent years.

The MLIT, along with prefectural and municipal governments, endeavor to prevent complaints and disputes by working in conjunction with the bodies concerned while imposing severe supervisory dispositions on those entities that have breached the law. In FY2013, 314 supervisory dispositions were imposed (including 184 revocations of licenses, 65 suspensions of business and 65 orders).

To combat the problems of malicious soliciting at the time of condominium sale, the Act was amended in August 2011 to define the acts that are prohibited in soliciting in connection with building lots and buildings transactions. The Ministry will continue to alert consumers through its Website or other means and work together with the agencies concerned to provide relevant supervision and guidance.

To ensure proper management of growing stocks of condominium, a system of registration for condominium management services entities and service regulations have been enforced to ensure their proper management in accordance with the Act on Advancement of Proper Condominium Management. As of the end of FY2013, 2,230 condominium management services entities were registered, with no significant changes in their number of the last couple of years.

From a viewpoint of promoting the code compliance of condominium management services entities, on-the-spot inspections have been conducted.

Since December 2011, a “system of rental housing management entity registration” that places a certain set of rules on the fulfillment of rental housing management services has been put into effect since December 2011 to foster and develop a good-quality rental housing business. As of the end of March 2014, 3,267 rental housing management entities were registered.

(3) Conditioning the environment for market reactivation

a. Status quo of the real estate market

Japan’s real estate had a total asset value of about 2,400 trillion yen ^{Note 2} as of the end of 2013.

The book value of the real estate or the beneficial interest in trust on the real estate that were acquired by J-REIT (real estate investment entity), real estate specified joint enterprises, special-purpose companies and so on as objects of securitization during FY2014 stood at about 5.5 trillion yen.

J-REITs play a central role in the real-estate investment market. As many as seven brands were newly listed in just one year in FY2014, and as of the end of March 2015, 51 brands were listed on the Tokyo Stock Exchange. Total book value of assets under management of J-REITs amounts to 13 trillion yen and the market value of the real-estate investment securities adds up to about 10.7 trillion yen.

The Tokyo Stock Exchange REIT index (TSEREIT), which provides a measure of price movements across the J-REIT market, generally moved consistently in the range of 1,450 to 1,500 points in the January-March period of 2014. Subsequently, the TSEREIT followed a firm undertone to rise for the nine consecutive months thanks to further drops in the long-term interest rate in addition to the expectation for the recovery of the real estate market, a weakening yen exchange rate and rising stock prices. These trends were pronounced at once when the Bank of Japan decided an additional monetary easing measure at the end of October, with the TSEREIT reaching the 1,900-point mark for the first time in seven years at a time.

The amount of yearly property acquisition in J-REITs stood at about 1.6 trillion yen.

Note 1 Building lots and buildings business operators have property information loaded on REINS for them to exchange. As property deals are concluded successfully, the relevant information, including the transaction prices, is stacked on REINS.

Note 2 A sum total of the values of the buildings, structures and land calculated on the basis of National Accounts.

b. Conditioning the environment for real-estate information

The MLIT surveys real estate transaction prices, etc. nationwide in a bid to make the real estate market more transparent, streamline, and reactivate deals. Information thus collected from such surveys, including locations, areas and prices of real properties traded, is uploaded at a Website on the Internet (Land General Information System ^{Note}) with due care taken to prevent identification of the individual properties (as of March 2015, information on 2,321,324 properties was posted, attracting a total of about 540 million Web accesses).

International agencies worked together and edited Handbook on Residential Property Price Indices (RPPI Handbook) in 2011 to build an Early Warning Signal System by taking lessons from the subprime and other crises. The MLIT created Japan Residential Property Price Index (JRPPPI) based on RPPI Handbook, started pilot operation in August 2012, and then started full operation in March 2015. The MLIT also develops prototype of commercial property price index.

c. Conditioning the existing home circulation market

The MLIT is working to condition the existing home trading environment to promote the circulation of existing homes, which have only a low share of the total volume of housing in circulation when compared with the U.S. and Europe. In FY2014, the MLIT embarked on deliberations on how to develop a system of efficiently concentrating information relevant to real-estate transactions, such as information about transaction histories, case studies of transactions in the surrounding districts and potential disaster risks and statutory regulations, to promote advanced approaches taken by building lots and buildings transaction agent to provide relevant information to consumers by partnering with remodeling and other professionals in real-estate transactions, to get the concept of the “Guidelines for Improving Building Assessments Relevant to Existing Homes” formulated in FY2013 come to stay on the minds of building lots and buildings transaction agent and to have the present conditions of existing homes properly reflected in real-estate appraisals.

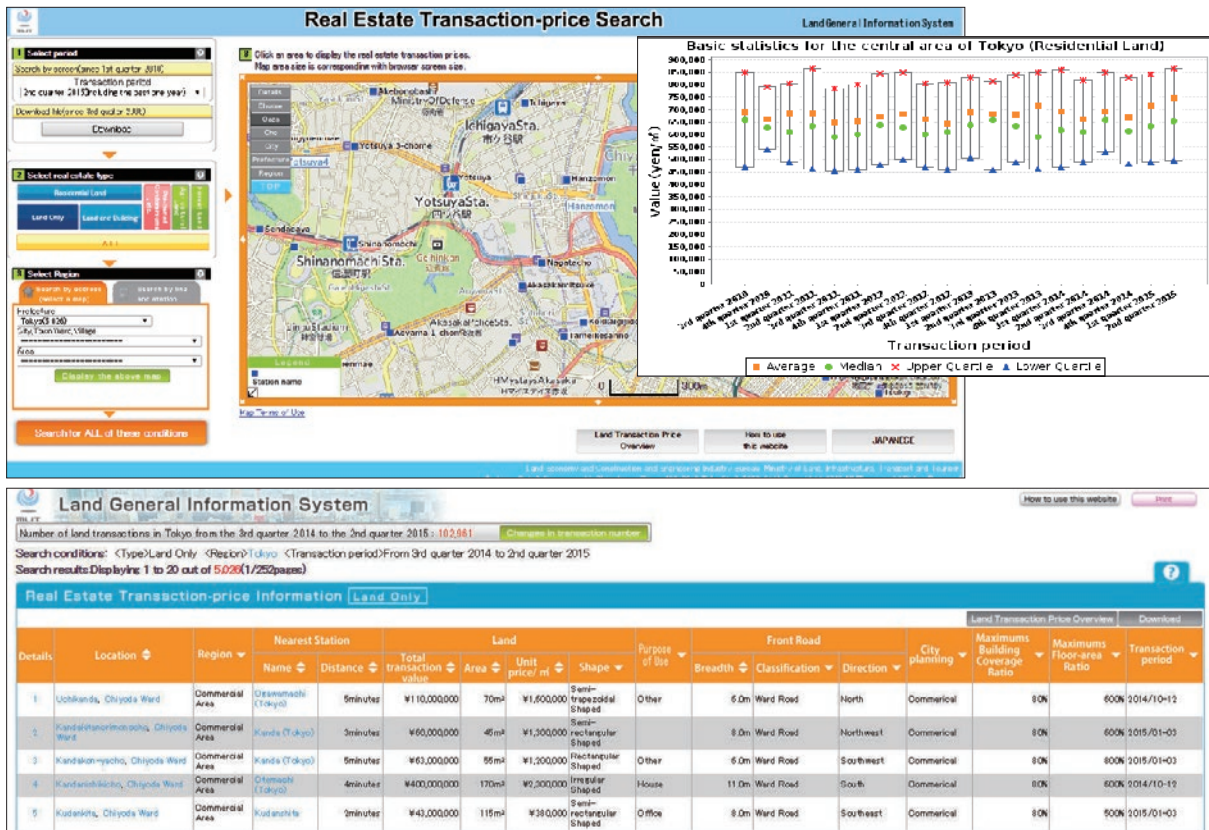
d. Tax incentives

In the FY2015 tax reform, the MLIT revised some of the requirements for the special measures for replacement purchasing of business properties relating to long-held land, etc. and extended the application deadlines for them. In addition, it extended the application deadlines for the burden adjustment measure, etc. for fixed property taxes relating to land and also for special measures for circulation taxes relating to land, etc., expanded special measures relating to the real estate owned by J-REITs and special enterprise operators of the Real Estate Syndicate Enterprise Act, etc. (by adding logistics facilities), etc., as well as extended applicable time limits for these measures, and also resolved the “problems of mismatches between tax and accounting profits” at investment corporations (J-REITs) and so on.

Note <http://www.land.mlit.go.jp/webland/>

Figure II-6-3-14 Land General Information System

- Since April 2006, transaction price information based on questionnaires conducted among parties to real-estate deals has been posted every quarter at a MLIT website with care to protect the properties in question from being identified easily.
- As of March 2015, information on 2,321,324 properties was posted, attracting a total of about 540 million Web accesses.



Source) MLIT

(4) Building a real-estate market tailored to new ages

The MLIT revised real-estate appraisal standards, etc. (effective November 1, 2014) to reflect the diversified needs for real estate appraisals, such as those emerging from a globalized real-estate market, a progressing stock society and a growing real-estate securitization market and is now trying to make the revised version of the standards, etc. widely known.

On-site inspections of real-estate appraisers and appraisal monitoring surveys concerned mainly with facts about securitized real-estate appraisals have been conducted to enhance appraisal reliability.

Properties acquired by J-REIT tended to focus on offices and housing, but have diversified to include commercial facilities, logistics facilities and so on in recent years. Demands for health-care facilities, such as senior housings, are mounting now. The MLIT unveiled “The Guideline for Utilizing Health Care REIT for Senior Housings, etc.” in June 2014 in response to “Japan Revitalization Strategy (Cabinet Decision, June 14, 2013), Working Plan for Strengthening international Competitiveness” (January 24, 2014) and so on, in its effort to laying the ground for utilizing J-REIT in developing health-care facilities.

In addition, the MLIT held workshops and council sessions at 13 locations nationwide to encourage the implementation of real-estate revitalization projects using the framework of the amended “Real Estate Syndicate Enterprise Act” (enacted on December 20, 2013) and thus to accelerate the inflow of private funds for renewing urban facilities, as for quake-proofing building structures, and at the same time, implemented model projects and decided to finance environmental remodeling activities for four buildings and new development activities as earthquake-proofing and environmental real-estate formation promotion projects.

Moreover, the MLIT held a meeting of the “Committee for the utilization of Public Real Estate (PRE) Using Real Estate Securitization and Other Techniques” to promote the utilization of PRE owned local public entities and thus to achieve a further expansion in the real estate investment market.

In response to Overcoming Population Decline and Vitalizing Local Economies: Comprehensive Strategy (Cabinet Decision, December 27, 2014), the MLIT is determined to prepare and disseminate guidelines for local public entities on using securitization techniques, etc. relevant to public real estate and implement associated model projects.

9 Building a Sustainable Construction Industry

(1) Conditions surrounding the real estate business

The construction industry not only takes charge of the development, maintenance, management, etc. of local infrastructures but underpins local economies and employment, keeping local communities safe and secure on the front line in support of the national life and social economy.

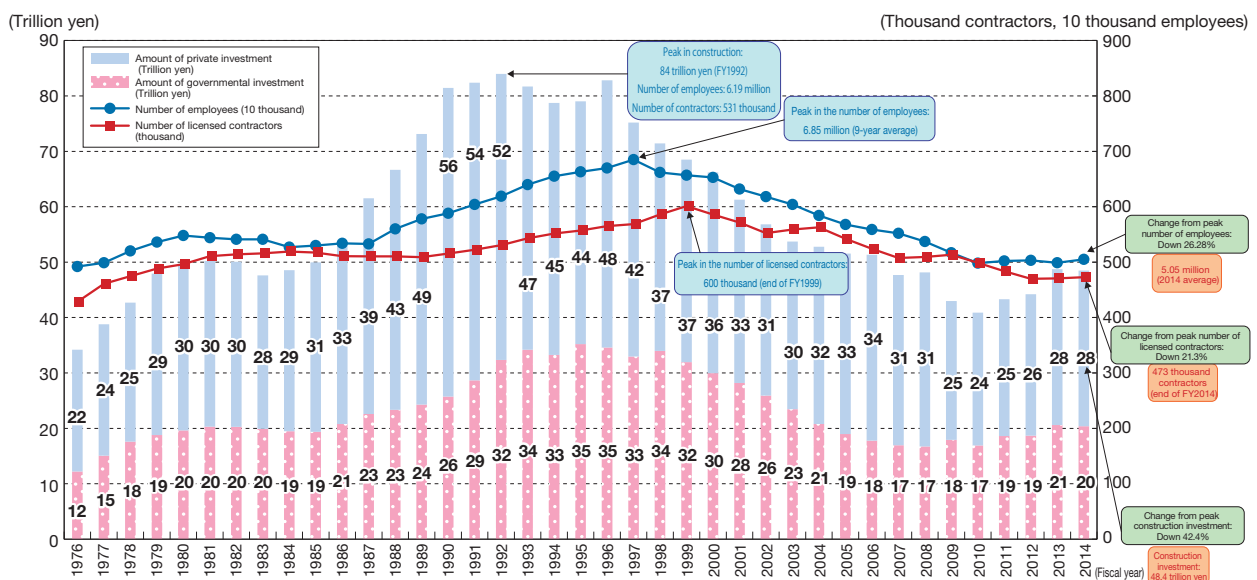
In the meantime, the construction industry has been confronted with a chain of problems, such as diminishing skilled workforces in the field, reductions in the number of new workers joining the industry and progressively aging workforces, caused mainly by rapidly declining construction investment and dumped order taking amid stiffening competition with resultant strains on the subcontractors.

In the circumstances, it would be essential to build a construction industry that is sustainable from mid- to long-term standpoints to address these problems while taking full responses to the tasks of disaster preparedness and reduction, aging infrastructures and maintenance and quake-proofing of infrastructures.

Figure II-6-3-15 shows the trends in construction investment and the number of licensed contractors and employees.

Figure II-6-3-15 Trends in Construction Investment (Nominal), Number of Licensed Contractors and Number of Employees

- The amount of construction investment, after peaking at about 84 trillion yen in FY1992, dipped to about 41 trillion yen in FY2010, but is now forecast to get back to about 48 trillion yen in FY2014 (about 42% down from its peak).
- The number of contractors was about 470,000 as of the end of FY2014, down about 21% from its peak (at the end of FY1999).
- The number of construction employees (2014 average) was 5.05 million, down about 26% from its peak (1997 average).



(Notes) 1 The amount of investment is the actual results up to FY2011, estimates for FY2012 and FY2013 and a forecast for FY2014.

2 Number of licensed contractors at the end of each fiscal year (end of March of the next year)

3 The number of employees is a yearly average. Supplementary estimates for the three quake-stricken prefectures (Iwate, Miyagi, Fukushima) in 2011 have been calculated by retrospectively correcting the estimated population based on the findings of the 2010 National Census.

Source) "Construction Investment Forecasts" and "Licensed Constructor Count Survey" by the MLIT and "Labor Force Survey" by the Ministry of Internal Affairs and Communications

(2) Securing and fostering human resources to work for the construction industry

The construction industry builds on a large number of human resources, such as technicians and craftspersons. While the number of employees in the construction industry shows signs of pickup in recent years, it would be important for the

MLIT to direct its continued efforts at securing and fostering industry leaders, including young workers, to enable the construction industry to continue playing its role as a community supporter in the background of falling birthrates with aging populations.

To this end, the MLIT is working to refurbish the environment that makes construction builder confident about their future prospects, including a continued, stable supply of public works funding, as well as to promote the creation of an attractive working environment by improving the labor conditions for craftspersons drastically, such as maintaining appropriate wage levels and encouraging their subscription to social insurance and other security programs. The MLIT is also keen to enhance and reinforce education and training in the industry, as by improving the functionalities of Fuji Education Training Center to facilitate a smooth transfer of skills from generation to generation, as well as review qualifications for taking technical certification tests to help get excellent young workers to work in the early periods of their career. Moreover, the MLIT contemplates to formulate a public-private action plan to double the number of female technicians and craftsmen in five years in order to open up wider fields of activity for female workers in the construction industry.

Moreover, the MLIT will be working to help boost productivity in the construction industry, as by automating field operations and heavily tiered subcontracting structures, as it braces for diminishing workforces in the future.

United public-private approaches will be driven to encourage more people to join in the construction industry and let them concentrate on their jobs with pride while acquiring expertise and skills.

Furthermore, the utilization of foreign human resources ready for work will be pursued as an emergency and temporary response (scheduled for expiry in FY2020) to possible transient booms in the construction demand spurred by the implementation of future restoration projects and hosting of the Tokyo Olympic and Paralympic Games while adhering to the key principle of seeking human resources from within Japan.

(3) Establishing a framework of fair competition

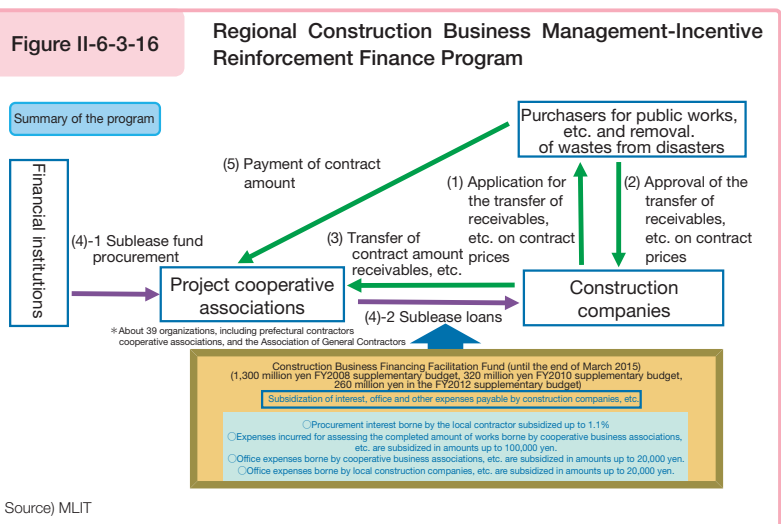
As the construction industry takes charge of the jobs of keeping local communities safe and secure, as through the development, maintenance, management, etc. of local infrastructures, it needs to establish a framework of fair competition among contractors, including thorough legal compliance, to enable those of them who are superior in their technical strength, construction capability and management power to keep up with their growth. To this end, the Ministry has been working to normalize the practice of deals between prime contractors and subcontractors in the construction business by conducting subcontracting transaction status surveys, on-the-spot surveys, etc., opening a desk for consultation services on troubles, complaints and other problems encountered in concluding construction work contracts as “Construction Business Transaction Normalization Center” and collaborating with prefectural and municipal governments during the Construction Business Normalization Promotion Month (November).

(4) Measures aimed at supporting construction companies

a. Regional construction business management-incentive finance program

The regional construction business management-incentive finance program allows prime contractors to acquire loans from a cooperative association or a certain private entity on security of the public works contract price credit obligations, according to the completed amount of works. Its purpose is to smooth their cash flow and ease their burden of interest payment.

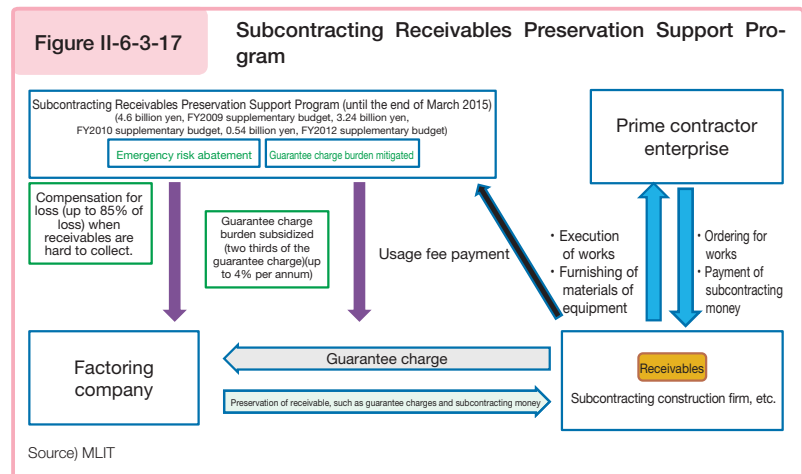
Effective since November 2008, this program will be carried forward through FY2015.



b. Subcontracting receivables preservation support program

The subcontracting receivables preservation project proactively promotes the guaranteed payment of the account-receivables for contract prices subcontractors, etc. have for their primary contractors when the payment of such receivables is guaranteed by a factoring company ^{Note} by easing the guarantee charge burden of the subcontractors, etc. and indemnifying the factoring company for the loss it may suffer upon fulfillment of the guaranteed obligations.

This program has been implemented since March 2010 and will be carried on through FY2015.



c. Disaster-responsive construction business financial support program

The Disaster-Responsive Construction Business Financial Support Program extends financial support to smaller and medium-size construction companies for purchasing typical construction machinery to use to respond to disasters as they occur or to smaller and medium-size construction companies that have been struck by the Great East Japan Earthquake for bearing a part of interests accrued on their loans relating to the purchasing of construction machinery.

This program was implemented from March 2013 to FY2014.

d. Construction company management strategy advisory program

The construction company management strategy advisory program is committed to providing expert advices to help resolve management tasks, such as developing new businesses, or technical tasks, such as execution management tasks, to build up the corporate structures of smaller or middle-ranking construction companies and construction-related businesses (such as surveying, construction consulting and geological surveying) as they work to develop, and maintain and manage social infrastructures and to get prepared for, and reduce the impact of, disasters in support of communities. For projects with high model property such as initiatives taken for new business development and enterprise reform for the entry into infrastructure maintenance field, as priority supports, the program provides continual support (team advice support) until the attainment of defined goals, such as formulation of a management improvement plan by a support expert team or subsidizes in part the expenditures incurred to implement those projects that could help resolve local problems by leveraging construction companies' know-how (step-up support). During FY2014, 29 instances of team advice support and 19 instances of step-up support were selected.

This program was implemented from FY2011 to FY2014.

(5) Promoting construction-related businesses

Information about the total number of operators registered in the construction-related businesses (such as surveying, construction consulting and geological surveying) for each month is published at the end of the next month and analyses of the financial conditions by sector based on that information are released at the end of the next fiscal year. In addition, the MLIT works to encourage sound growth of the construction-related industries and make effective use of the registration system, as by holding explanatory sessions for students before attending school in collaboration with the associated bodies.

Note A financial enterprise that collects receivables owned by others by guaranteeing or purchasing them. At present, 10 factoring companies, including bank subsidiaries, prepayment guarantee companies and leasing companies, run this service.

(6) Present status of construction machinery and growth of construction production technologies

Pursuant to the second-phase “Computer-Aided Construction Promotion Strategies” (formulated in March 2013), to encourage and diffuse the practice of computer-aided construction, the MLIT seeks to promote proactive use of total station making for simplifying the work flow of piecework management by converting survey results to data automatically for example, and machine control/machine guidance technologies realizing high-precision and efficient construction under automated control.

(7) Settling disputes arising from the execution of construction works

To promptly resolve disputes arising from the execution of construction work contracts, the Construction Works Dispute Review Panel implements dispute settlement procedures. In FY2013, the Panel received 53 applications (six of arbitration, 43 for conciliation and four for mediation) at the central level and 92 applications (15 for arbitration, 64 for conciliation and 13 for mediation) at the prefectural level.