

SUMMARY OF THE WHITE PAPER ON LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM IN JAPAN, 2020

Policy Bureau, Ministry of Land, Infrastructure,
Transport and Tourism (MLIT)

Special Feature: Response to COVID-19

1. Emergence and Spread of COVID-19
2. Measures to Prevent the Spread of Infection
3. Impact on and Responses in the Fields of Land, Infrastructure, Transport and Tourism
4. Future Measures

Part I Design Reform of Society and Livelihood ~ The Challenge Toward the MLIT's 20th Anniversary ~

Chapter 1 Environmental Changes Surrounding Japan and the MLIT's Efforts to Address Them

1. Environmental Changes Surrounding Japan
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Chapter 2 Various Environmental Changes Expected in the Future

1. Forecasts Concerning Social Structure
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Chapter 3 Issues to be Addressed by and the Future Direction of Land, Infrastructure, Transport and Tourism Administration

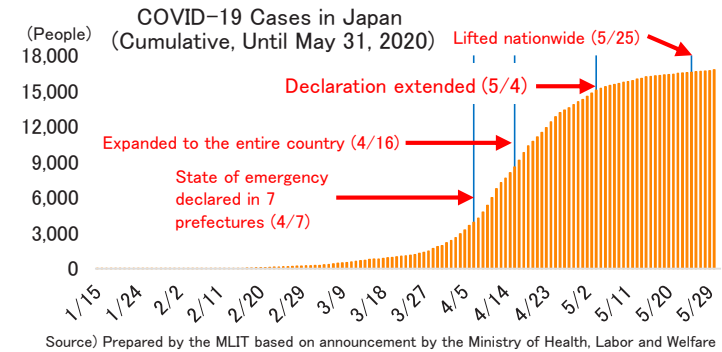
1. To Keep Safety from Disasters
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Part II Trends in MLIT Policies

~ Report on Trends in Each Field of Land, Infrastructure, Transport and Tourism Policies by Policy Issue ~

1. Emergence and Spread of COVID-19

- SARS-CoV-2, which causes the disease COVID-19, is one type of coronavirus. Coronaviruses include the viruses that cause the common cold as well as SARS and MERS.
- Infection may cause fever and respiratory symptoms lasting about a week. About 80% of affected individuals experience a mild course, however the risk of death is higher than for seasonal flu, and the elderly and those with underlying conditions have a higher risk of severe disease.
- The routes of infection are mainly droplet transmission and contact transmission, with a high risk of infection spread in the “Three Cs” (closed spaces, crowded places, and close-contact settings).
- The disease emerged in Wuhan, China in late December 2019, and spread around the world, including Japan.
- As of May 31, the total number of people infected (cumulative) was approximately 6 million worldwide and 16,884 in Japan.



2. Measures to Prevent the Spread of Infection

(1) Establishment of a Response Headquarters

- Jan. 30 In view of the spread of COVID-19 worldwide, the Novel Coronavirus Response Headquarters was established. The MLIT also established a response headquarters. (Reference)
 - Late December 2019 First outbreak in Wuhan City, Hubei Province, China
 - Jan. 15, 2020 First infection in Japan
 - Jan. 30, 2020 WHO declared a state of emergency

(2) Evacuation of Japanese Nationals from Wuhan City, Hubei Province, China

- In response to a lockdown in Wuhan, China, the government returned 828 Japanese nationals staying in the city on five chartered flights to Japan.

(3) Response to the Outbreak on the *Diamond Princess*

- Feb. 3 The large cruise ship *Diamond Princess* arrived at the port of Yokohama and began quarantine.
- Mar. 1 The disembarkation of about 3,700 crew and passengers was completed.



Diamond Princess

(4) Strengthening of Border Enforcement Measures

- Feb. 1 In response to a decision of the Government Response Headquarters, an entry ban was placed on foreign nationals who had stayed in Hubei Province, China. Since then, the ban was gradually expanded to other countries and regions (111 countries as of May 31).

- The MLIT mainly implemented the following measures:

- From February 1, requested airlines and international passenger ship operators to inform passengers about the entry ban, check passports, and cooperate with CIQ authorities.
- Mar. 6 Requested that arrival airports for air passenger flights from China and South Korea be limited to Narita International Airport and Kansai International Airport.
- Apr. 1 Requested a reduction in the number of passengers arriving on air passenger flights from foreign countries by reducing the number of flights.

(5) Measures to Prevent the Spread of Infection in Japan

- Feb. 26 The Government Response Headquarters requested the cancellation, postponement, or reduction of the scale of events.
- Feb. 27 It was requested that all schools in Japan be temporarily closed.
- The MLIT mainly implemented the following measures:
 - Requested thorough measures to prevent infection and prompt reporting in the case of infection by railway, bus, and aviation operators, Michi-no-Eki, expressway SAs and PAs, and national parks.
 - Implemented announcements on public transportation such as railways and buses calling for staggered work hours, telework, and thorough infection prevention measures.
 - For the Golden Week holidays, made calls at major airports, railway stations, road traffic information centers, Michi-no-Eki, and expressway SAs and PAs. Provided road information boards for people to refrain from crossing prefectural borders, and requested the exclusion of holiday discounts for express way tolls during the period.
 - Implemented temperature inspection by thermography at Haneda Airport, etc. and assisted with temperature inspection conducted by local governments at railway stations.



Temperature inspection at Haneda Airport

(6) Measures for Affected Industries

- Feb. 13 The Government Response Headquarters decided the Novel Coronavirus Disease (COVID-19) Emergency Response Package.
- Mar. 10 The Government Response Headquarters decided the Second Novel Coronavirus Disease (COVID-19) Emergency Response Package.
- Apr. 20 The Cabinet approved Emergency Economic Measures to Cope with COVID-19 worth 117 trillion yen (20% of Japan's GDP), the country's largest-ever supplementary budget.
- May 27 The Cabinet approved a second supplementary budget (approx. 32 trillion yen), which combined with the first supplementary budget brought the scale of the project to over 230 trillion yen.

(7) Declaration of a State of Emergency

- Mar. 13 An amendment to the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response was enacted and promulgated, and, COVID-19 was included in the act.

- Apr. 7 A state of emergency was declared, until May 6, in the prefectures of Saitama, Chiba, Tokyo, Kanagawa, Osaka, Hyogo, and Fukuoka.
- Apr. 16 Thirteen prefectures—Hokkaido, Ibaraki, Ishikawa, Gifu, Aichi, Kyoto plus those mentioned above—were designated for stepped-up measures, and the state of emergency was expanded nationwide.
- May 4 It was decided to extend the duration of emergency situation measure implementation until May 31.
- May 14 The state of emergency was lifted in 39 prefectures, excluding Tokyo, Saitama, Chiba, Kanagawa, Osaka, Kyoto, Hyogo, and Hokkaido.
- May 21 The state of emergency was lifted in Osaka, Kyoto, and Hyogo prefectures, and continued in five prefectures.
- May 25 The state of emergency was lifted nationwide.

* Essential workers in many fields, such as public transportation, logistics, and public works, engaged in their duties to maintain the functions of those fields even during the state of emergency.

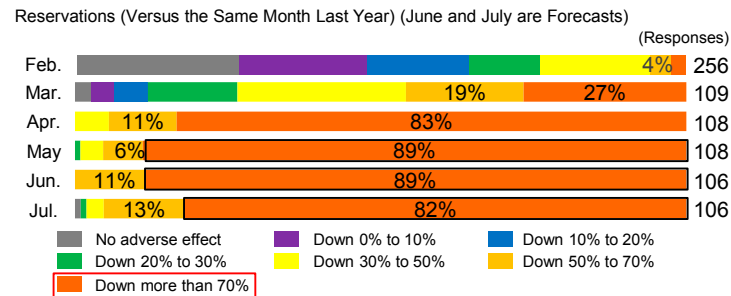
3. Impact on and Responses in the Fields of Land, Infrastructure, Transport, and Tourism

(1) Impact of COVID-19 in Various Fields

With the spread of COVID-19, the number of users and reservations decreased significantly in tourism- and transportation-related industries due to people staying home to prevent the spread of infection, resulting in an extremely significant impact on business. For this reason, the MLIT conducted a survey to understand the actual situation in these industries. (As of May 31)

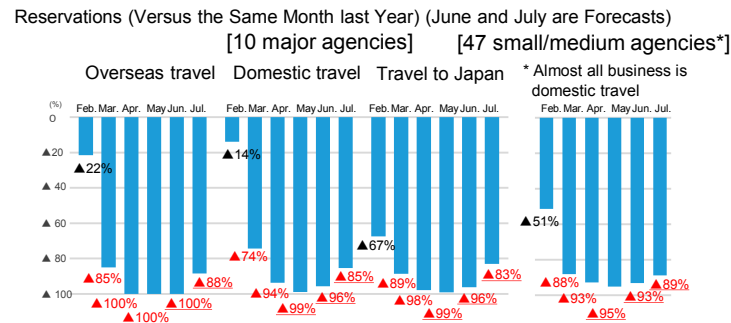
(i) Lodging

- Regarding lodging reservations, approximately 90% of facilities declined more than 70% in May and, again, about 90% of facilities were expecting declines of more than 70% in June, with the situation expected to remain extremely severe.



(ii) Travel

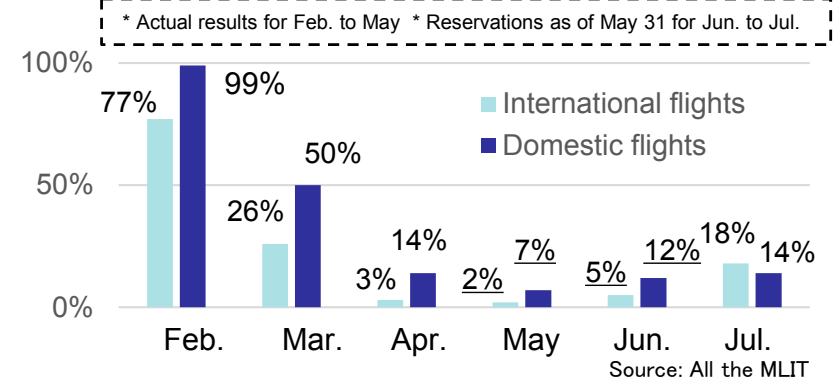
- Reservations with major travel agencies for overseas travel, domestic travel, and travel to Japan were all close to zero in May, as they had been in April, due to the extension of the state of emergency.
- Reservations with small and medium-sized travel agencies had declined by over 90% in May, as they had done in April. From June onward, the same extremely severe situation was expected to continue.



(iii) Aviation

- The number of passengers carried by Japanese air carries was, for international flights, down 98% in May and expected to decline by 95% in June and, for domestic flights, down 93% in May and expected to decline by 88% in June.

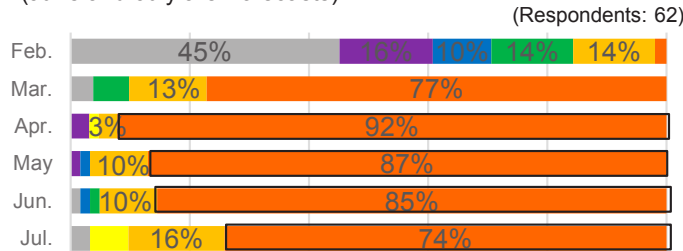
Passengers Carried (Number of Reservations Versus the Same Month Last Year) (Respondents: 17)



(iv) Chartered Buses

- Operators with a decline of 70% or more in transportation revenue surged to about 90% in April and May after the declaration of a state of emergency. The situation was expected to remain severe from June onward.

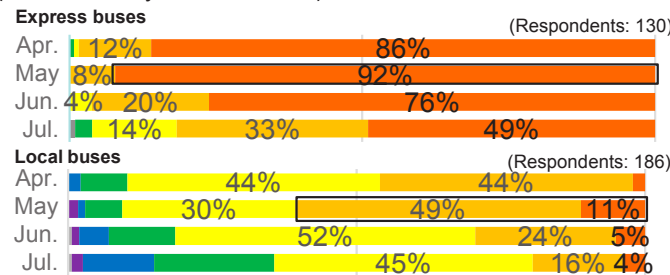
Transportation Revenue (Versus the Same Month Last Year) (June and July are Forecasts)*



(v) Passenger Buses

- For expressway buses, operators with a decline of 70% or more in transportation revenue in May reached about 90%.
- For local route buses, operators with a decline of 50% or more in transportation revenue in May reached 60%.

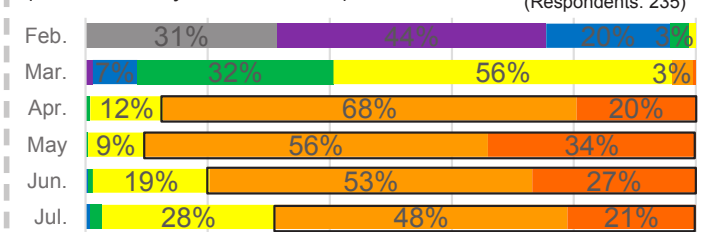
Transportation Revenue (Versus the Same Month Last Year) (June and July are Forecasts)*



(vi) Taxis

- Operators with a decline of 50% or more in transportation revenue in May, as in April, reached about 90%. From June onward, operators expecting a decline of 50% or more in transportation revenue were about 80% for June and about 70% for July.

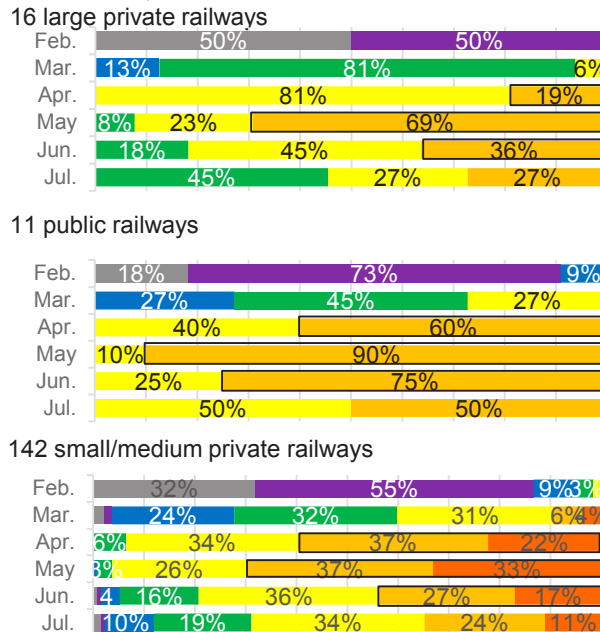
Transportation Revenue (Versus the Same Month Last Year) (June and July are Forecasts)*



(vii) Railways

- Operators with a decline of 50% or more in passengers carried increased from about 20% in April to about 70% in May for large private railways, from 60% in April to 90% in May for public railways, and from about 60% in April to 70% in May for small and medium-sized private railways, having a significant impact on the railway industry as a whole.
- From June onward, demand for commuting to and from work and school is expected to recover to some extent due to the lifting of the nationwide state of emergency, but the situation will remain severe.

Passengers Carried (Versus the Same Month Last Year) (June and July are Forecasts)*



(viii) Coastal and Oceangoing Passenger Ships

(Coastal passenger ships)

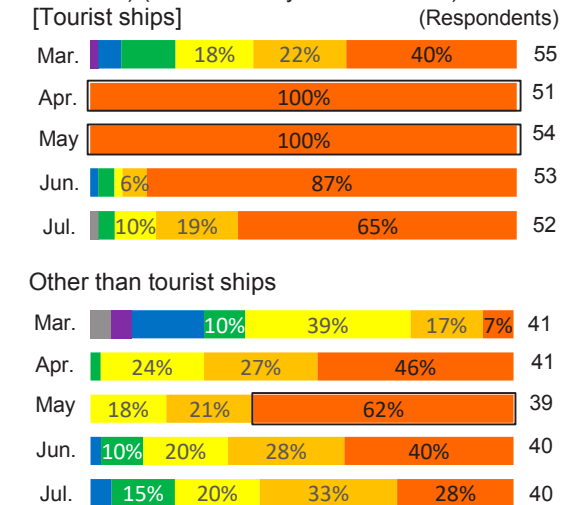
- Regarding tourist ships (ships mainly servicing sightseeing areas), the situation was extremely severe, with transportation revenue down by 70% or more for all operators in April as well as May.

- Regarding ships other than tourist ships, there were more operators with a decline of 70% or more in transportation revenue in May than in April, reaching more than 60%.

(Oceangoing passenger ships)

- Regarding businesses with regular routes, passenger transport was suspended from 1/26 for Japan-China routes (one operator) and from 3/9 for Japan-South Korea routes (three operators). Only transportation of cargo will continue, except for one operator specializing in passenger transport.
- All cruise ship businesses (Japanese operators) are scheduled to be suspended from March to July.

Transportation Revenue (versus the Same Month Last Year) (June and July are Forecasts)*



(2) Measures for Affected Industries

(i) Maintaining Employment and Sustaining Business

In order to support maintaining employment and sustaining business in fields affected by COVID-19, the following measures were implemented.

- Relaxation of the requirements for employment adjustment subsidies, raising of the subsidy rate, expansion of subsidy targets for the non-regular workers, and raising of the maximum amount of subsidies
- Expansion of credit lines for real interest-free and collateral-free loans by the Japan Finance Corporation, etc. and refinancing of existing debts into real interest-free and collateral-free debt
- Establishment of a new subsidy (“Subsidy Program for Sustaining Businesses”) for small and medium-sized enterprises
- Payment deferral of tax (no collateral and no late payment penalty for 1 year)
- Reduction / exemption of property tax, etc. for small and medium-sized enterprises
- Establishment of a grant for rent payment
- Establishment of subsidies for preventing the spread of infection in local public transport

(ii) Recovery of Economic Activity by the Public and Private Sectors

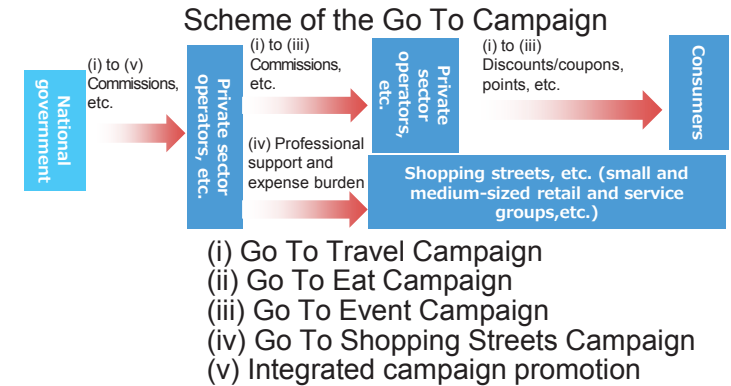
- Implementation of the Go To Campaign
(Discounts on lodging and day trips, issuance of coupons that can be widely used in regional areas, etc.)
- Establishment and expansion of Special Allocation for Revitalization to Cope with COVID-19
- Support for the development of attractive accommodation content, the development of an environment for welcoming international visitors to Japan, and the diversification of attractions in tourist sites

(iii) Creating a Robust Economic Structure

- Major productivity improvements through digital transformation in the infrastructure and logistics fields
- Smooth execution of public investment, etc.

(iv) Other Measures

- Special permission for taxi operators to carry cargo for a fee during the certain period besides the duration of the state of emergency (until September 30, 2020)
- Implementation of temporary cancellation in response to contractors’ wishes with costs to be borne by orderers in construction and operations under the direct control of the national government



Source: Ministry of Economy, Trade and Industry

4. Future Measures

(1) Balance between Prevention of the Spread of Infection and Maintenance of Socio-Economic Activities

The state of emergency was lifted nationwide on May 25, and a new phase began, aiming to balance prevention of the spread of infection and maintenance of socio-economic activities. Going forward, the level of socio-economic activity will be raised gradually based on the establishment of a “new lifestyle” and the practice of guidelines for preventing the spread of infection in each industry.

(2) Practice of Guidelines and a “New Lifestyle”

As it will be important for business operators to reliably implement infection prevention measures in line with guidelines, the MLIT will provide support for the creation of guidelines for relevant industries, support for measures taken by business operators to prevent infections, and will call for the cooperation of economic organization.

(3) Responding to Social Changes After COVID-19 is Brought Under Control

In the wake of the spread of COVID-19, it is thought that social changes such as the following will occur, progress, and take root in the future. The MLIT will respond appropriately to these changes in the field of land, infrastructure, transport and tourism.

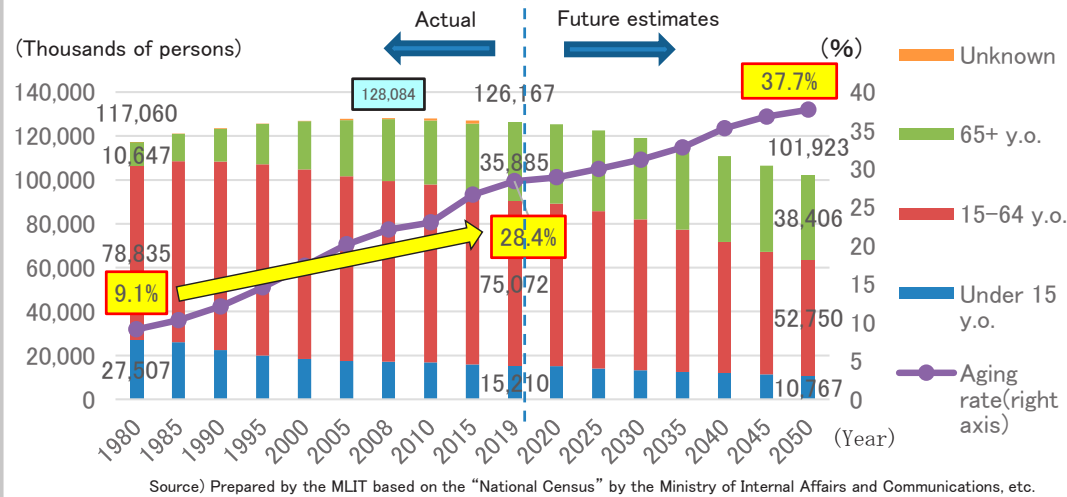
- Changes in the way of working due to the promotion of telework, rotation work, and staggered work hours in companies
- Acceleration of DX (digital transformation) spurred by the shift to remote provision of various services, in response to the clear high demand for remote services utilizing ICT
- Establishment of a robust supply chain through reshoring and diversification in light of the exposure of supply chain vulnerabilities



Section 1 Environmental Changes Surrounding Japan, Part (1)

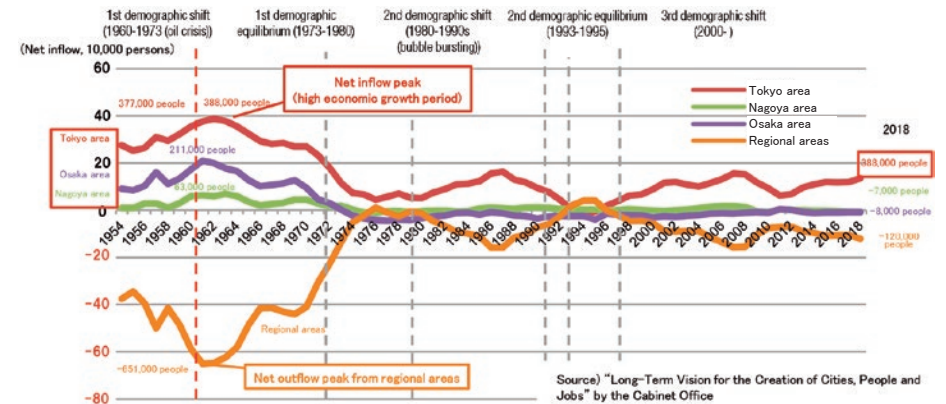
1. Declining/Aging Population

- Japan's total population peaked at 128.08 million in 2008.
- The population aging rate rose from 9.1% in 1980 to 28.4% in 2019.



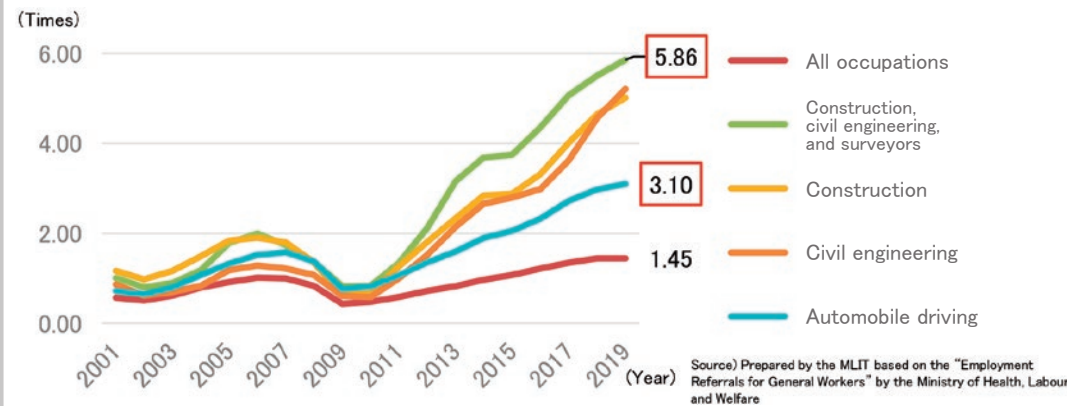
2. Overconcentration of Population in Tokyo

- In the Nagoya and Osaka areas, population inflow and outflow have been balanced since the 1970s.
- In the Tokyo area, a net inflow has continued except for one time after the economic bubble burst.
- In 2018, Tokyo's birth rate was the lowest in Japan at 1.20, which could lead to a further population decline as a result of the overconcentration in Tokyo.



3. Increase in the Active Job Openings-to-Applicants Ratio

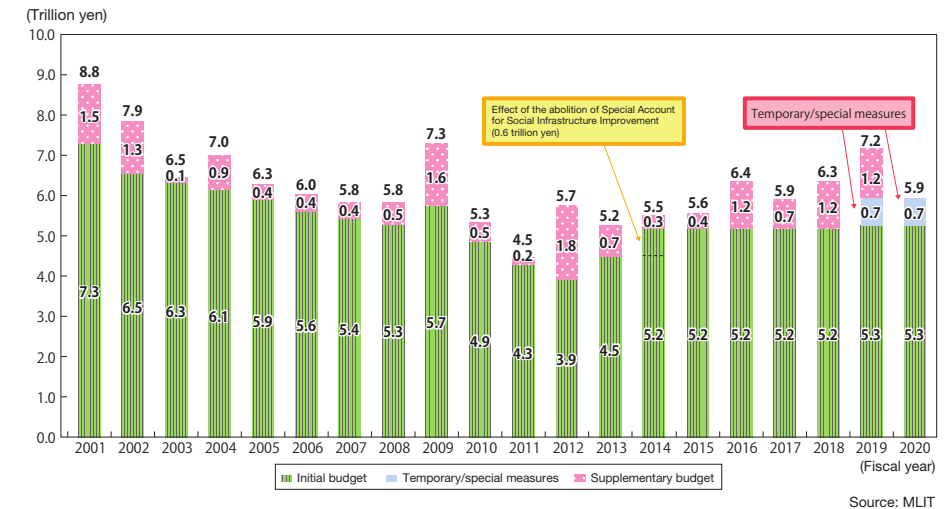
- The active job openings-to-applicants ratio was 5.86 for construction, civil engineering, and surveyors, and 3.10 for the occupation of automobile driving.
- The working-age population decreased from a peak of 87.16 million in 1995 to 75.07 million in 2019 (down 14%), and the shortage of workers is progressing.



4. Progress in National Infrastructure Development

- The MLIT's public works-related expenditures (initial budget) were on a downward trend from FY2001 to FY2012, but have remained almost flat since FY2014.

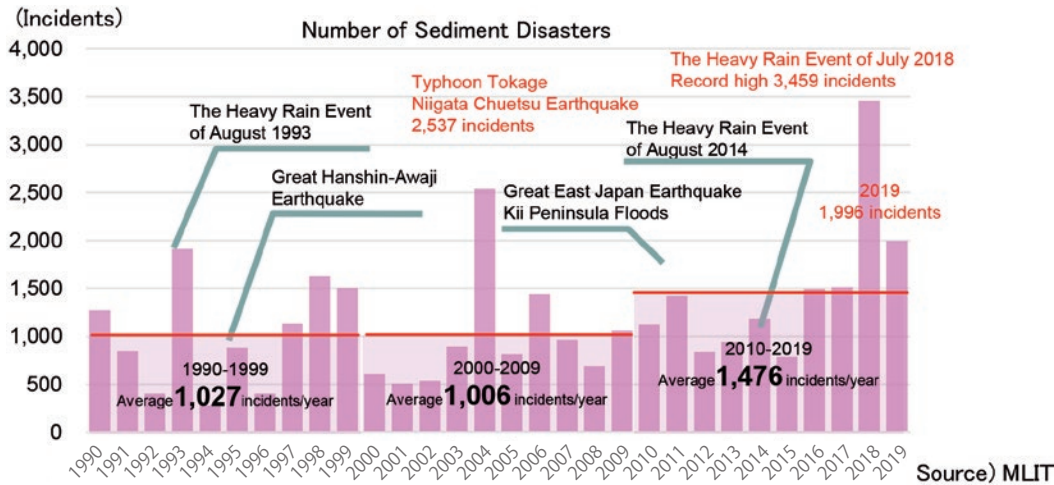
The MLIT's Public Works-Related Expenditures



Section 1 Environmental Changes Surrounding Japan, Part (2)

5. Frequency and Severity of Natural Disasters

- The number of sediment disasters occurred at an average annual rate of about 1,000 in 1990-2009, but increased about 1.5 times from 2010 to around 1,500. In 2018, there was a record high of 3,459.



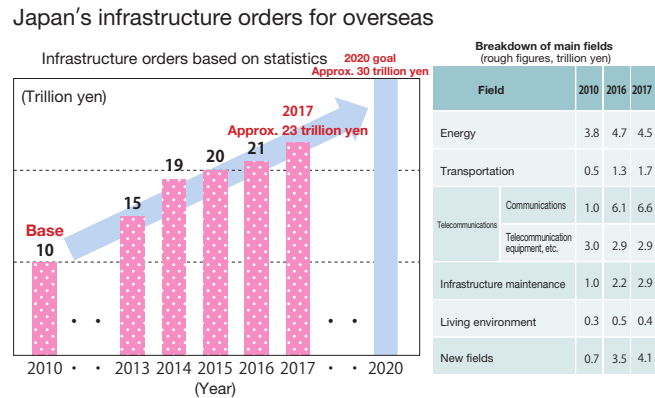
6. Development of the Tourism Industry

- The number of international tourists increased by about 400 million from 1980 to 2000 and by about 700 million in the 20 years since 2000, reaching 1.4 billion in 2018.
- International tourism revenue grew by about USD 0.4 trillion from 1980 to 2000 and by about USD 1.0 trillion in the 20 years since 2000, reaching USD 1.45 trillion in 2018. Thus, the tourism industry has developed as a growth industry.



7. Advancement of Globalization

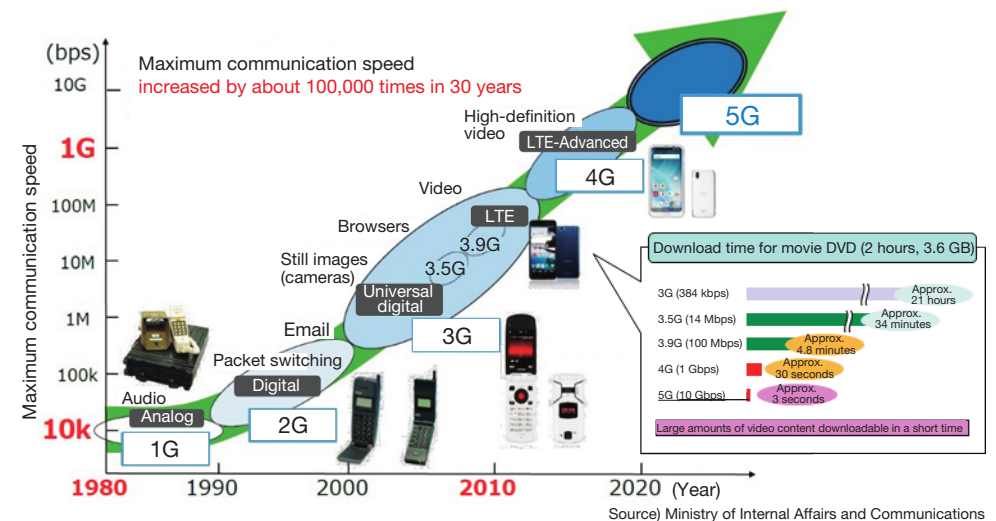
- Japan's infrastructure orders for overseas more than doubled from about 10 trillion yen in 2010 to about 23 trillion yen in 2017.
- Transportation and infrastructure development respectively increased from 0.5 trillion yen and 1.0 trillion yen in 2010 to 1.7 trillion yen (3.4 times) and 2.9 trillion yen (2.9 times) in 2017, which are higher growth rates than the overall growth (10 trillion yen → 23 trillion yen (2.3 times)).



Source: From the 43rd meeting of the Management Council for Infrastructure Strategy

8. Development of Information Technology

- With the practical application of 5G in 2020, the communication speed will have increased by about 100,000 times over the past 30 years.

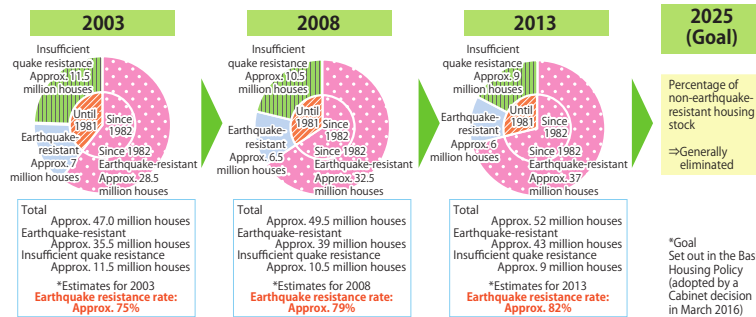


Section 2 The MLIT's Efforts to Address Environmental Changes, Part (1)

1. Examples of Measures for Safe, Secure, and Good Lives (Response to Items 4 and 5 in Section 1)

(Promoting earthquake-proofing)

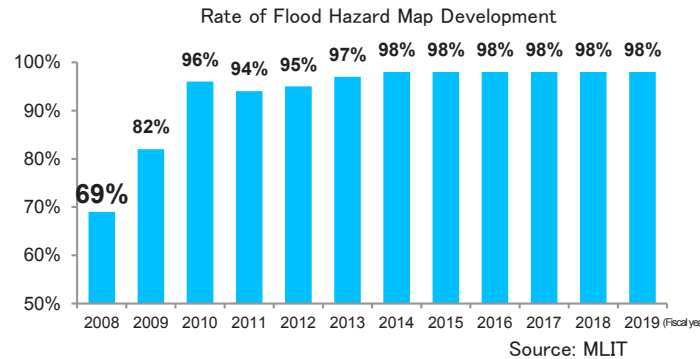
- Since the Great Hanshin-Awaji Earthquake, promoting earthquake-proofing of houses, etc.
- In 2013, earthquake-proofing was completed for 82% of houses, with the target of completion for all houses by 2025.



*Goal Set out in the Basic Housing Policy (adopted by a Cabinet decision in March 2016)
Source: MLIT

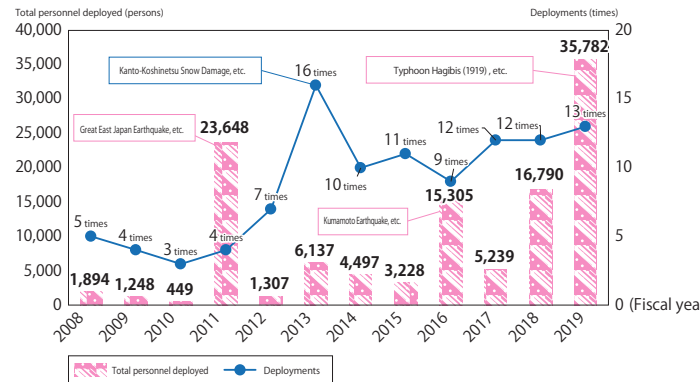
(Strengthening non-structural measures)

- The Flood Control Act, revised in 2005, requires municipalities to produce hazard maps.
- The rate of hazard map development increased from 69% in FY2008 to 98% in FY2019.



(Strengthening personnel support)

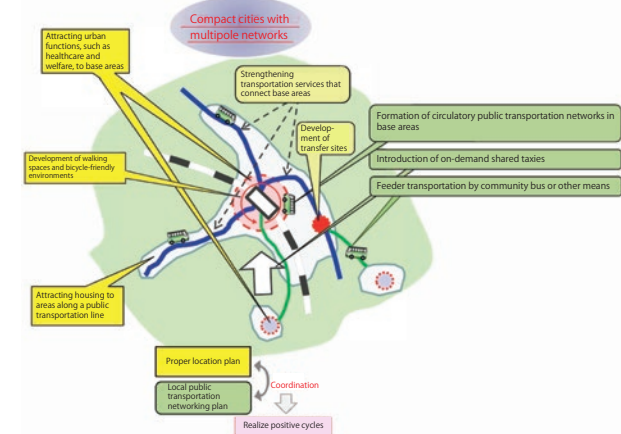
- Deployments of TEC-FORCE, which operates in large-scale natural disasters, increased by about three times, going from around four times a year when it was established in 2008 to around 12 times a year in recent years.
- In FY2019, personnel were deployed for around 36,000 person-days, about 13 times higher than at the time of establishment.



2. Examples of Measures for Regional and Economic Revitalization (Response to Items 1, 2, and 3 in Section 1)

(Developing vibrant communities)

- Promoting the Compact Plus Network, which attracts urban functions such as healthcare, welfare, and commerce as well as housing to certain areas and connects them with public transportation networks.

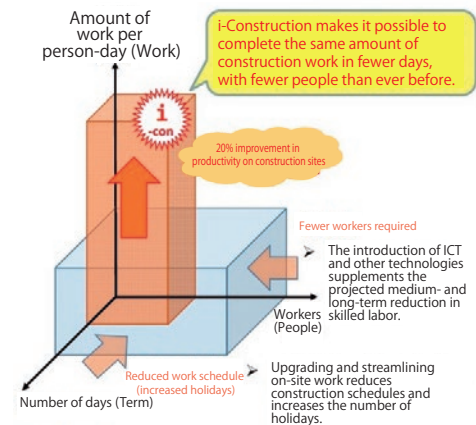


Source: MLIT

(Promoting i-Construction)

- Improving construction site productivity by fully utilizing ICT.
- Aiming to improve construction site productivity by 20% by FY2025.

[Vision of Productivity Improvement]



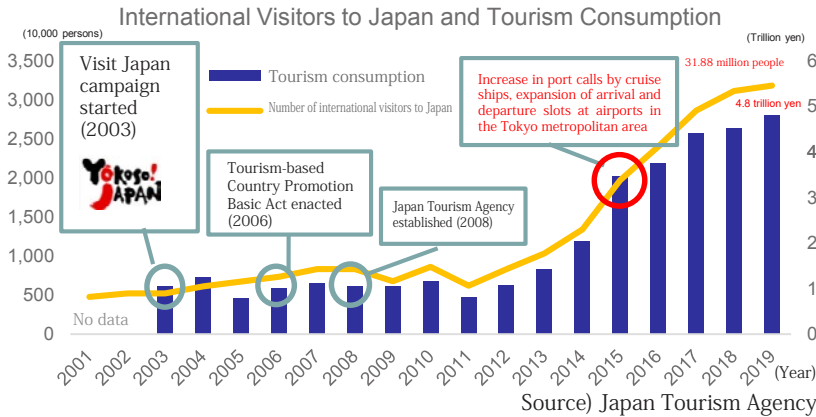
Source: MLIT

Section 2 The MLIT's Efforts to Address Environmental Changes, Part (2)

3. Examples of Measures to Become a Tourism-Oriented Country (Response to Item 6 in Section 1)

(Journey as a tourism-oriented country)

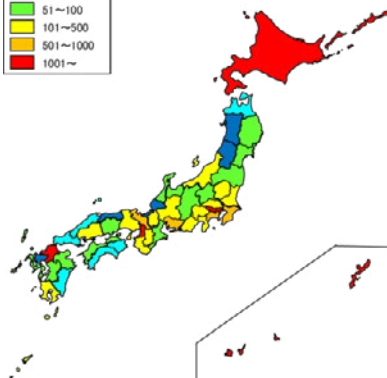
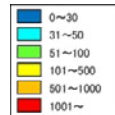
- In 2003, the Visit Japan Campaign was launched as a nationwide strategic initiative aimed at dramatically expanding travel to Japan.
- In 2006, the Tourism-based Country Promotion Basic Act was enacted, and in 2008 the Japan Tourism Agency was established → committed to the realization of a tourism-based country.
- However, the situation in 2020 is difficult, with the number of international visitors to Japan in April down 99.9% year on year due to the effects of COVID-19.



(Responses to accommodation needs)

- With the increase in international visitors to Japan, accommodation needs have diversified.
 - In 2017, the Private Lodging Business Act (New Minpaku Law) was enacted.
- 24,850 registered houses as of March 2020

Distribution of Notifications Based on the Private Lodging Business Act



Source: Japan Tourism Agency

4. Examples of Measures for International Development (Responses to Item 7 in Section 1)

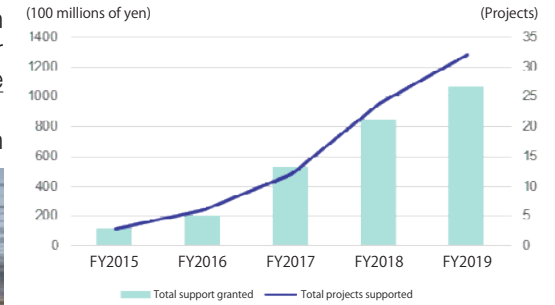
- In order to encourage Japanese companies' entry into the international market, the MLIT established the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN) in 2014 to promote infrastructure system exports.
- JOIN had granted a total of approximately 100 billion yen in support by the end of FY2019.

(Example)

- Indonesia's first mass rapid transit (MRT) system opened in Jakarta in March 2019 (support for yen loans)



Projects and Amount of Support Granted in Total



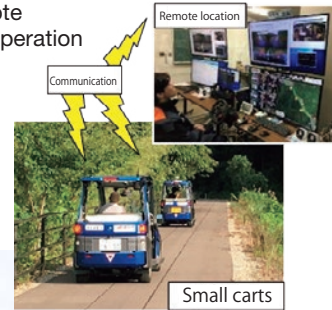
(Note) Additional funding for previously supported projects is included in the number of projects.
Source: MLIT

5. Examples of Measures for Evolving Technologies (Responses to Item 8 in Section 1)

(Promotion of automated driving)

- Automated driving is expected to help reduce traffic accidents and to secure modes of transportation for the elderly in underpopulated areas.
- We conducted a six-month demonstration of a transportation service by a local operator using Automated driving, connecting the nearest station and destinations.
- We conducted long-term field operational tests on automated driving services based at Michi-no-Eki etc. and began social implementation, starting from locations that are adequately prepared.

One-to-two remote monitoring and operation (Eiheiji Town)



Automated driving service based at Michi-no-Eki "Kamikoani" (Social implementation started in November 2019)
Source: MLIT



(Use of drones and ensuring safety)

- Promoting the use of drones in the logistics field is expected to contribute to the maintenance of logistics networks in underpopulated areas.
- We promoted practical use through the implementation of demonstration experiments and the development of business models.
 - A change in the law in 2015 defined drones as "unmanned aerial vehicles" and prescribed basic rules such as no-fly zones and flight methods.

→ In 2020, partial revisions of the Civil Aeronautics Act and other laws were enacted, including the establishment of a registration system for unmanned aerial vehicles.

Demonstration experiment of drone logistics (Chichibu City, Saitama Prefecture)



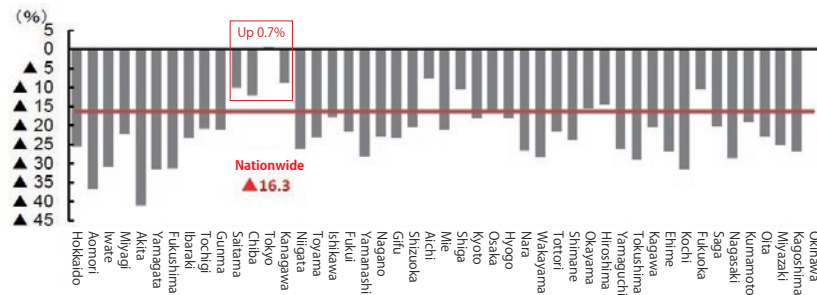
Source: MLIT's Productivity Revolution Project

Section 1 Forecasts Concerning Social Structure

1. Changes in Demographic Structure

- From 2015 to 2045, the population will decrease in the 46 prefectures other than Tokyo.
- With the population concentration in the Tokyo area increasing from 28.4% to 31.9%, the overconcentration of population in Tokyo will progress further.

Forecast of Population Growth by Prefecture from 2015 to 2045

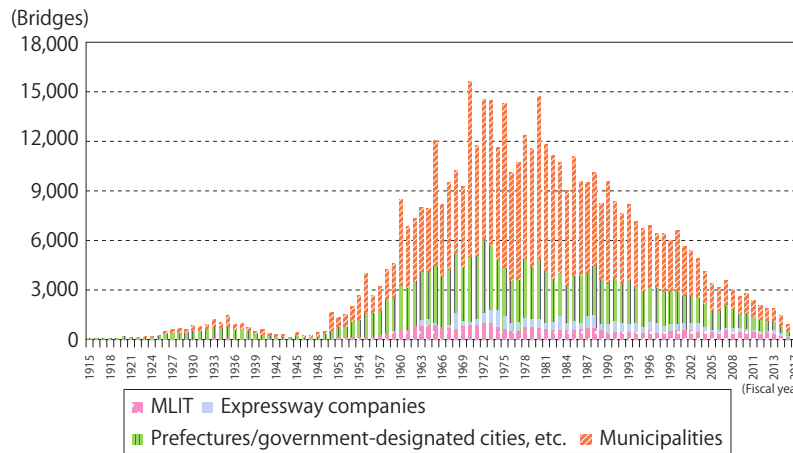


Source: Prepared by Mizuho Research Institute Ltd. based on "Regional Population Projections for Japan" by the National Institute of Population and Social Security Research

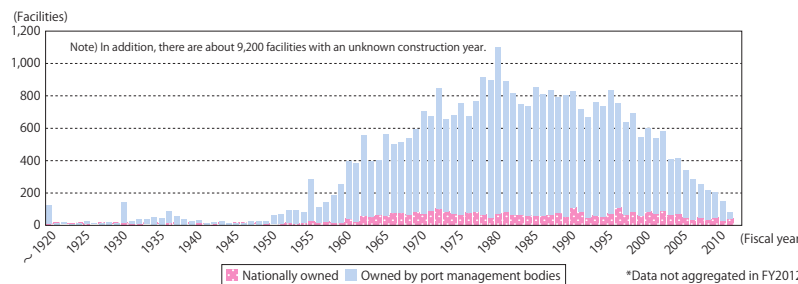
2. Increases in Aging Infrastructure

- The percentage of bridges that are at least 50 years old is expected to be 52% as of 2029.
- Local governments, which manage more than 90% of the approximately 720,000 bridges, will manage large amounts of aging infrastructure in the future.
- The percentage of port facilities that are at least 50 years old is expected to be 32% as of 2023.

Number of Bridges by Construction Year



Number of Port Facilities by Construction Year

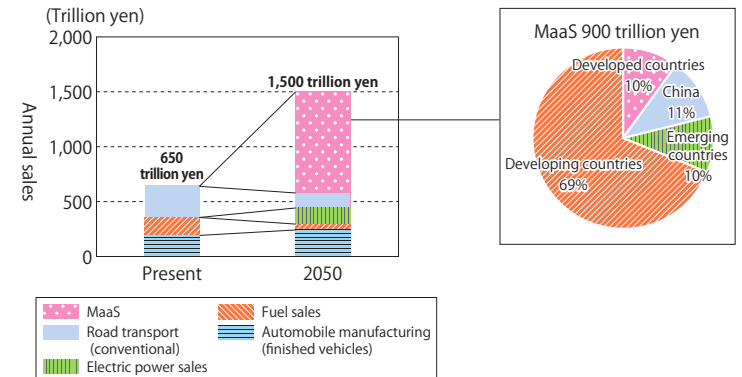


*Data not aggregated in FY2012
Source: MLIT

3. Advances in Technological Innovation

- The global MaaS market is expanding mainly in developing countries. → By 2050, it will be worth 900 trillion yen.

Global MaaS and Automotive Market Forecasts

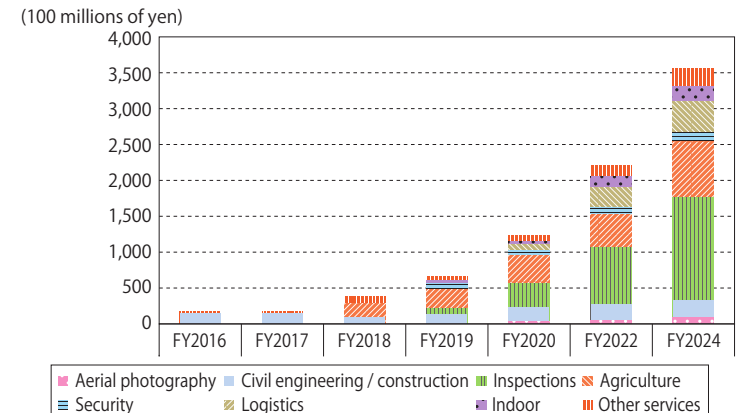


(Note) Estimating annual sales for each related industry assuming that MaaS will spread 50% in developed countries, 75% in China and emerging countries, and 100% in developing countries in 2050. MaaS here refers to road transport services (passengers and cargo) by sharing electric vehicles that run autonomously, as well as the associated information provision services.

Source) Mitsubishi Research Institute, Inc.

- Looking at the forecast of market size by drone service, the expansion is remarkable especially in the field of inspections. → It will more than quadruple in the four years from 2020 to 2024.

Forecast of Market Size by Drone Service



"Drone Business Research Report 2019" by Impress Corporation
Source) Impress Corporation

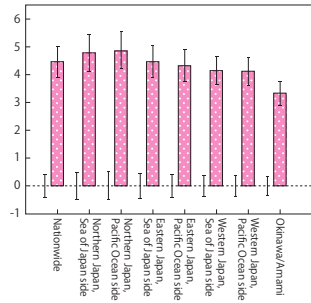
1. Global Warming

Temperature increase and associated weather change in Japan

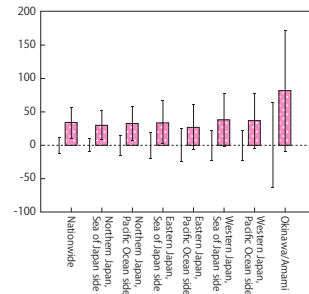
Future climate projection in Japan under the greenhouse gas emission scenario used for the Fifth Assessment Report of Intergovernmental Panel on Climate Change (IPCC) with the largest emission and future change in temperature. Here projected climate status in the future (2076-2095 average) and the end of 20th century (1980-1999 average) are compared.

- Annual mean temperature: increase 4.5 °C averaged over Japan
- Annual maximum daily precipitation amount: 32.6mm increase averaged over Japan
- Annual number of days with precipitation ≥ 200mm: double or more

Projected change in annual mean temperature



Projected change in annual maximum daily precipitation amount



Source) Japan Meteorological Agency

2. Risk of Massive Earthquakes

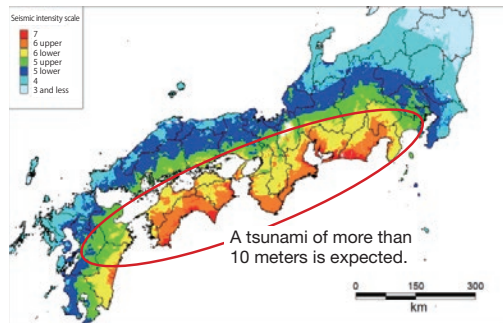
[Nankai Trough Earthquake]

- There is a 70-80% chance within 30 years (with up to around 323,000 deaths).

[Tokyo Inland Earthquake]

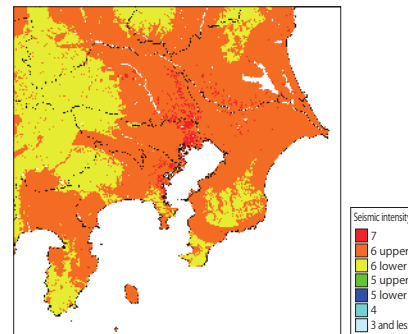
- There is a 70% chance within 30 years (with up to around 23,000 deaths).

Maximum Seismic Intensity Distribution Map



Source: Cabinet Office

Maximum Seismic Intensity Distribution Map

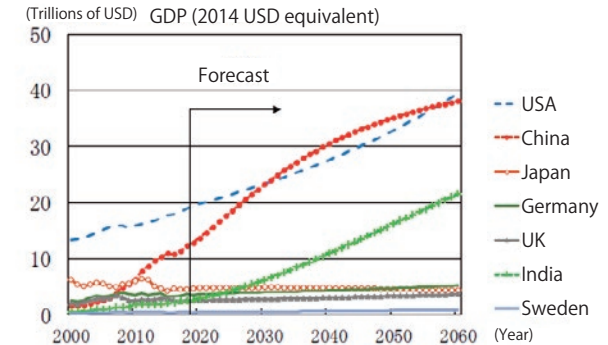


Source: Cabinet Office

1. The International Environment Surrounding Japan

- The ranks of major countries in terms of real GDP in 2060 are forecast as the United States and China vying for first place, with Japan in fifth place, overtaken by India and Germany.

GDP (2014 USD equivalent)

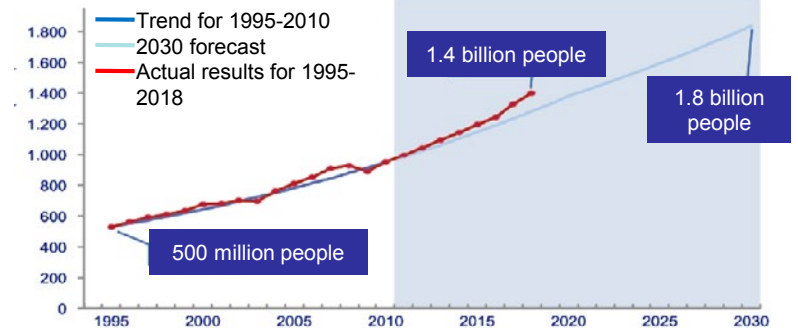


(Note) Nominal dollar equivalents deflated by the U.S. GDP deflator (2014 = 100)

Source: "World Economic Outlook Database" by the IMF; forecasts by the Japan Center for Economic Research

- In January 2019, the United Nations World Tourism Organization announced a forecast that the number of international tourists will continue to increase, reaching 1.8 billion by 2030, based on previous trends.
- However, due to the effects of COVID-19, it was revised downward by 60% to 80% year on year for 2020 (as of May 2020).

Millions of people



Source) "International Tourism Results 2018 and Outlook 2019" by the United Nations World Tourism Organization

Based on the forecasts for the future in Chapter 2, we expected that, with regard to land, infrastructure, transport and tourism administration, it will be particularly important to address these issues: (1) frequency and severity of disasters; (2) increases in aging infrastructure; and (3) securing local means of transportation. It will also be necessary to: (4) tap into global vitality; and (5) promote the use of new technologies. We will consider the direction of future initiatives for these five items. It should be noted that future responses to COVID-19 are also very important, and we will respond as indicated on page 5-4.

1. To Keep Safety from Disasters

(1) Issues Based on Future Forecasts

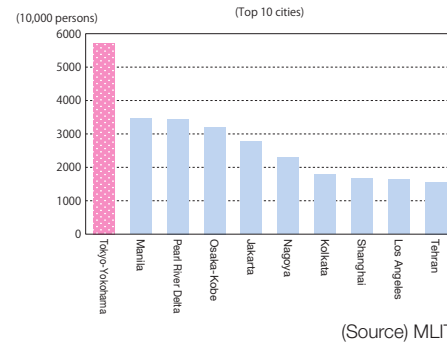
(i) Climate Change

- **Increasing risk of disasters** due to rising average temperature, increased precipitation, rising sea level, etc.

(ii) Risk of Massive Earthquakes

- The probabilities of an earthquake within 30 years are **70-80% for a Nankai Trough Earthquake and 70% for a Tokyo Inland Earthquake**.
- Approximately 60 million people may be affected if a major disaster such as a massive earthquake occurs in the Tokyo and Yokohama areas.

Metropolitan areas that may be affected by floods, storms, storm surges, earthquakes, and tsunamis (Top 10 cities)



(2) Public Awareness

- Answers to what people think are necessary to protect themselves and their community from natural disasters



- There is a tendency to **emphasize measures that have a direct bearing on one's own actions**.
→ **The feasibility and effectiveness of measures can be expected to improve by spreading understanding among the public and making them familiar.**



Drastic and comprehensive disaster prevention and mitigation measures must be taken.

(3) Direction of Future Initiatives

○ Realization of **"a society in which disaster prevention and mitigation are mainstream"**

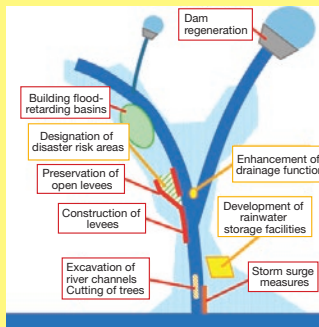
We aim to realize a society in which disaster prevention and mitigation are taken for granted, by incorporating consideration of disaster prevention and mitigation in the "awareness," "actions," and "mechanisms" of the government, the private sector, and individual citizens.

[Basic Approach]

- (i) **Viewpoint of the public** : Plan drastic and comprehensive disaster prevention and mitigation measures that are easy to understand from the public's point of view.

[Examples of Specific Measures]

- Switch to "watershed flood control" in which flood control is carried out throughout the watershed by all parties concerned
- Switch to flood control plans that take climate change into account, and start on drastic measures



- (ii) **Aggregate power of means, actors, and time scales** : Connecting structural and non-structural initiatives by field, we will strengthen cooperation among the national government, prefectures, cities, companies, and residents while leveraging the frontline capabilities of the MLIT, which are its strength, on all time scales from before disasters happen to emergency situations to recovery and reconstruction.

- Regulating and directing land use to prevent people from living in disaster hazard areas as much as possible
- Providing flood risk information in real estate transactions
- Promoting dissemination of easy-to-understand information leading to the proactive evacuation of residents, such as alerting residents to flooding after switching to emergency warnings for heavy rain

- Promoting disaster prevention and mitigation measures in the transportation field, such as improving transportation operators' awareness of disaster prevention, and implementing planned outages, restrictions on airport operations, etc.
- Accelerating restoration and reconstruction through collaboration with projects related to roads, rivers, railways, etc.
- Constructing a transportation network that can function in severe and wide-area disasters
- Promoting measures for insufficiently managed land and land with unknown owners

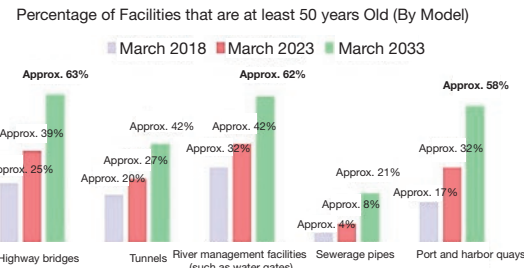
Project logo

2. To Achieve a Sustainable Infrastructure Maintenance Cycle

(1) Issues Based on Future Forecasts

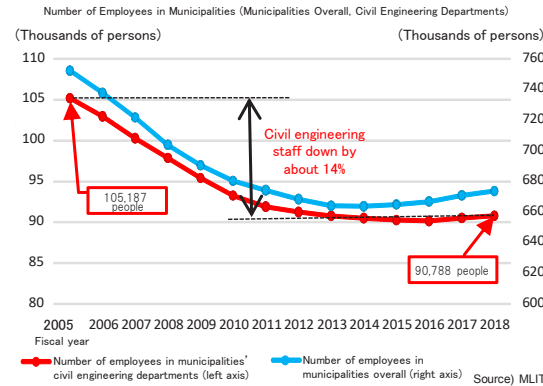
(i) Progression of Aging

The percentage of facilities that are at least 50 years old is on the rise.



(ii) Decreasing Number of Engineers

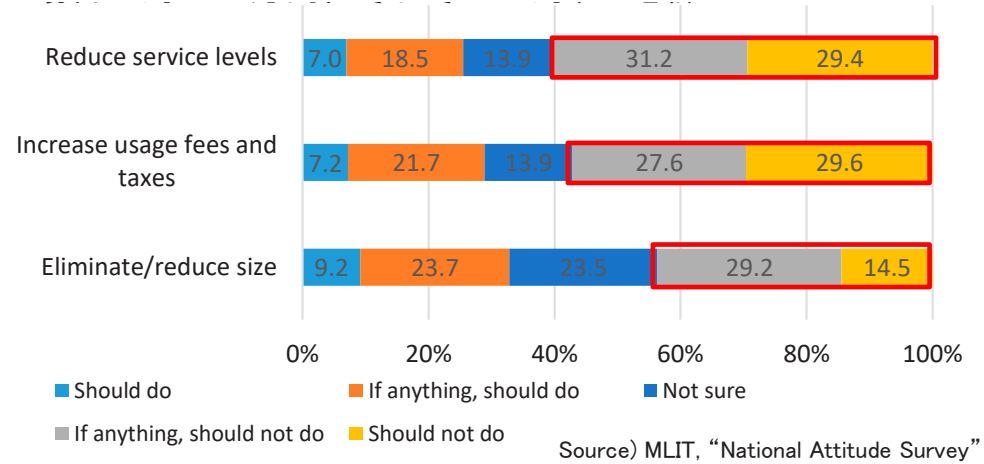
The number of civil engineering and construction staff in municipalities is decreasing.



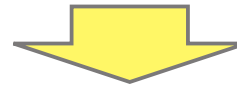
As aging and the decline in engineers progress further, **proper maintenance may become more difficult.**

(2) Public Awareness

Opinion regarding directions of response when it becomes difficult to properly maintain and replace social infrastructure as it is



Opposition in order from highest to lowest is: reduce service levels, increase usage fees and taxes, and eliminate/reduce size.



Methods and systems to properly maintain infrastructure in the future must be established.

(3) Direction of Future Initiatives

(i) Switch to "Preventive Maintenance"

- Switch from the "corrective maintenance" in which measures are taken after problems occur in a facility to the "preventive maintenance" in which measures are taken before problems occur in a facility to reduce maintenance and replacement costs, which are expected to increase in the future.

[Examples of Concrete Measures]

- Implement intensive measures for infrastructure that needs work at an early stage as revealed by previous inspections and assessments.

(ii) Make Use of New Technologies

- Make use of new technologies such as AI, robots, drones, and 5G, and develop and utilize data** to improve the sophistication and efficiency of infrastructure maintenance and management.

[Examples of Concrete Measures]

- Enhance river monitoring through overflow detection, etc. using AI cameras.
- Digitize and accumulate maintenance information for each manager and support the development of an environment that enables its use and application to improve the sophistication and efficiency of infrastructure maintenance by local governments.

(iii) Cooperation among local governments and national government support for local governments

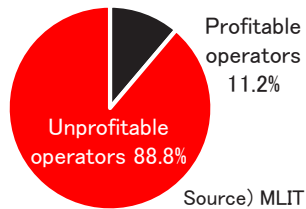
- Cooperation among local governments and national government support for local governments are important** for sustainable and efficient infrastructure maintenance. It is also necessary to **deepen discussions, including on how to share costs.**

3. To Secure Regional Transportation

(1) Issues Based on Future Forecasts

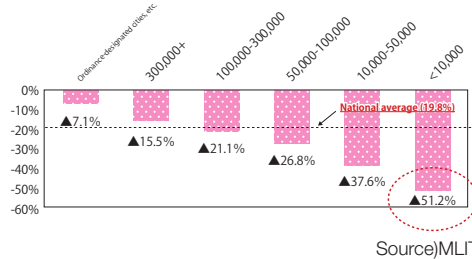
- About 70% of bus operators (about 90% in rural areas) are unprofitable due to the decrease in the number of passengers carried resulting from the decrease in population.
- In the motor carrier industry, the shortage of workers is also becoming serious.

Income and Expenditure of Bus Operators in Regional Areas (2018)



- The smaller a municipality's population, the higher its rate of population decline in the future, and for municipalities with a population of less than 10,000, the population will halve by 2050.
- Operators' businesses will become even more difficult, and **public services such as public transportation may become unsustainable.**

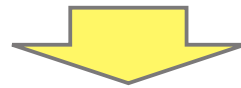
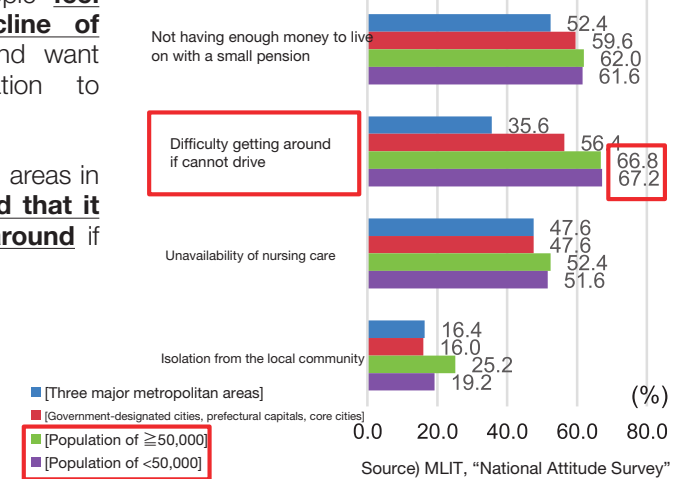
Rate of Population Decline by Municipalities' Population Size (Change from 2015 to 2050)



(2) Public Awareness

- In rural areas, many people **feel uneasy about the decline of public transportation** and want good public transportation to maintain vitality.
- Elderly people living in rural areas in particular are **very worried that it will be difficult to get around** if they cannot drive.

Anxieties about Life in Old Age (60s+)



A system and form of sustainable transportation services must be established to meet local transportation needs in the future.

(3) Initiatives in Recent Years

- Enactment in May 2020 of a special law to exclude application of the Antimonopoly Act
- **Enables mergers with other business operators and joint management**, in order to maintain the basic services provided by passenger bus operators.
- Enactment in June 2020 of revisions of the Act on Revitalization and Rehabilitation of Local Public Transportation Systems, etc.
- Enables targeted action to address local transportation needs, including **facilitating the implementation of a paid passenger transportation system in personal-use automobiles in cooperation with general passenger automobile transportation business operators.**

(4) Direction of Future Initiatives

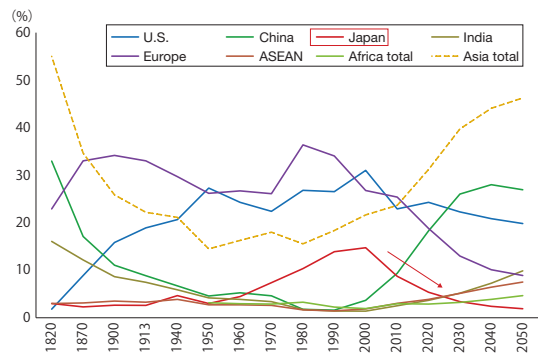
- Optimal Division of Roles among Relevant Parties**
 - **Deepen discussions on appropriate division of roles, such as the cost burden of relevant parties, including users and the local population as a whole**, in order to maintain local transportation services.
 - In regional areas, establishment of a sustainable operation system by utilizing methods such as **cooperation between transportation operators, public-private partnerships** based on vertical separation (in which local governments are responsible for the possession and maintenance of assets while operators are dedicated to transportation operations), and **cooperation throughout regions** for public transportation across multiple municipalities.
- Sustainable Means of Transportation**
 - In regional areas, discuss and **secure sustainable means of transportation**, including switching existing transportation to a paid passenger transportation system in personal-use automobiles, according to the actual local situation (e.g. the Sanko Line of JR West was abolished in 2018 due to a decrease in the number of users, and buses operated as an alternative).
- Formation of Efficient Transportation Networks Tied with Community Development**
 - Attracting residential areas, medical and welfare facilities, etc. along public transportation lines to **form compact cities** will improve the convenience of public transportation. To encourage this, **further understanding by residents** must be encouraged.

4. To Get Overseas Vitality

(1) Issues Based on Future Forecasts

- Due to the significant global impact of COVID-19, for the time being, the movement of people is restricted, and the number of international tourists is less than before the spread of the disease.
- Japan's share of global GDP has declined due to the growth of emerging countries.

GDP share of Major Emerging and Developed Countries

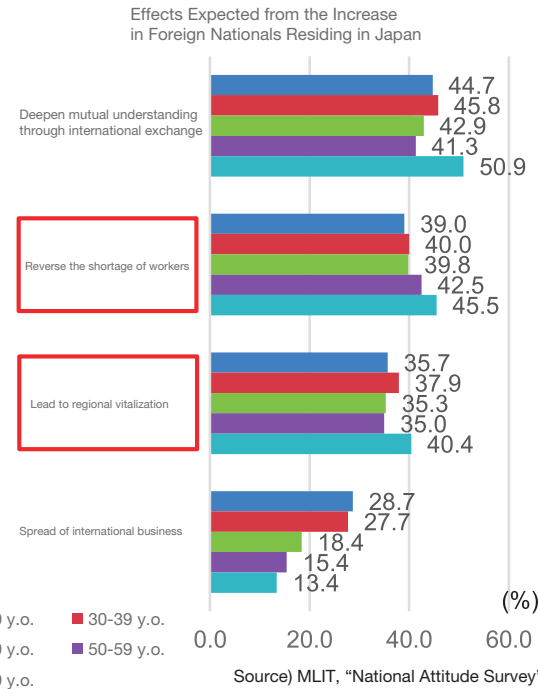


(Note) "Europe" refers to the eurozone countries. "Africa" (total of North Africa and Sub-Saharan Africa) refers to the 53 countries for which both UN and World Bank data can be obtained.

Source) "Future Society 2050" by Mitsubishi Research Institute, Inc.

(2) Public Awareness

- The increase in international visitors to Japan creates **high expectations for regional economic revitalization**.
- The increase in foreign nationals residing in Japan also creates **high expectations of them as workers**, in addition to international exchange and regional vitalization.



(3) Initiatives in Recent Years

- Tourism Vision Realization Program
 - Development of multilingual support, free Wi-Fi, cashless support, etc. and promotion of MaaS in tourist areas
 - Experience-based lodging content (castle stay, temple stay, farm stay)
 - New tourist content utilizing nighttime, early morning, etc.
 - Smoother entry and departure (face recognition system, increase the number of arrivals and departures at airports)
- Establishment of a New Resident Status (Specific Skills)
 - Acceptance of foreign human resources has started in the construction field and other fields to cope with the shortage of workers.



There is a need for further efforts to become a world-class tourist destination and the development of an environment that is chosen by talented foreign nationals while preparing for risks such as infectious diseases.

(4) Direction of Future Initiatives

(i) Strengthening Efforts to Become a World-Class Tourist Destination

- Improving economic effects with **captured tourism demand** not only from Asia but also **from Europe and the United States, long-term stays, and increased per capita travel spending. Creating attractive tourist destinations** through enhanced experience-oriented consumption, etc.
- There is a significant downside risk in international tourism from events such as epidemics, and so energy must also be put into domestic tourism in the future. For example, promoting **long-term stays** using **"workations"** (teleworking while taking a vacation at tourist sites, etc.).
- Since the tourism industry has been greatly impacted by COVID-19, it is necessary to **verify previous measures and to study measures to promote tourism while preventing the spread of infection.**

(ii) Developing an Environment that is Chosen by Talented Foreign Nationals

- As the number of workers declines due to the declining population, Japan is already dependent on foreign workers, with even greater expectations of them as workers in the future. However, if Japan's presence declines, **it may not be chosen as a place to work.** It is necessary to **create an attractive environment for foreigners so that they want to settle down and work in Japan.**
Example: Ensuring trouble-free places to live and communicating in "easy-to-understand Japanese" in transportation facilities and during disasters.

5. To Make Use of New Technologies

(1) Issue 1: Decreasing Presence of Japanese Companies

- As technological innovation continues, digital platforms such as GAFA have emerged at the top of market capitalization in recent years.
- In 2018, the highest ranked Japanese company was Toyota Motor Corporation in 35th place.

1989				2018			
Rank	Company	Market cap (100 millions of dollars)	Country	Rank	Company	Market cap (100 millions of dollars)	Country
1	NTT	1,638.6	Japan	1	Apple	9,409.5	U.S.
2	The Industrial Bank of Japan	715.9	Japan	2	Amazon.com	8,800.6	U.S.
3	The Sumitomo Bank	695.9	Japan	3	Alphabet (Google's parent company)	8,336.6	U.S.
4	The Fuji Bank	670.8	Japan	4	Microsoft	8,158.4	U.S.
5	The Dai-ichi Kangyo Bank	660.9	Japan	5	Facebook	6,092.5	U.S.
6	IBM	646.5	U.S.	6	Berkshire Hathaway	4,925.0	U.S.
7	The Mitsubishi Bank	592.7	Japan	7	Alibaba Group	4,795.8	China
8	Exxon	549.2	U.S.	8	Tencent Holdings	4,557.3	China
9	Tokyo Electric Power Company	544.6	Japan	9	JPMorgan Chase	3,740.0	U.S.
10	Royal Dutch Shell	543.6	UK	10	Exxon Mobil	3,446.5	U.S.
				...			
				35	Toyota Motor	1,939.8	Japan

Source) Prepared by the MLIT based on materials from Diamond, Inc.

(2) Issue 2: Delay in Penetration into Lifestyle

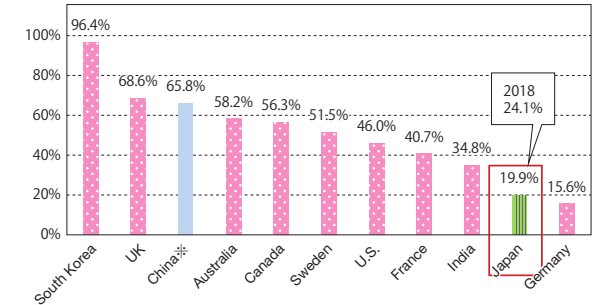
(i) Penetration of Telework

- The percentage of companies in Japan that have introduced telework is 19% (2018), which is lower than in other countries (85% in the U.S. and 38% in the UK in a 2015 survey).
- It is thought that adoption has accelerated due to the spread of COVID-19, but **further environmental improvement is necessary to promote penetration and entrenchment.**

(ii) Percentage of Cashless Payment

- Japan is at a low level of 24% (2018) compared to 40-60% in major countries and more than 90% in South Korea.

Percentages of Cashless Payment Around the World (2016)

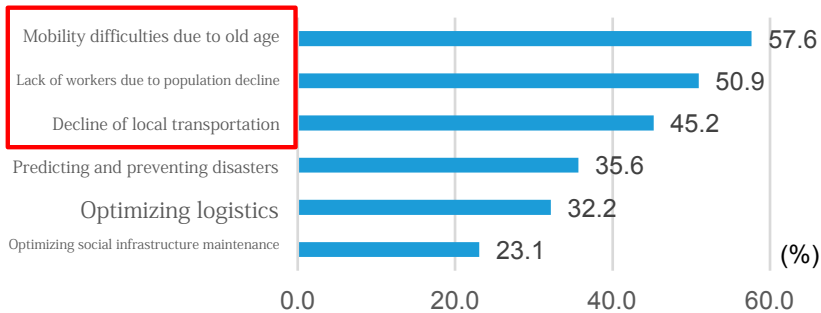


Source) Payments Japan Association

(3) Public Awareness

- Advances in technology are expected to solve various problems.
- In particular, it is desirable to use technology in daily life, such as transportation and employment.

Challenges that Technological Advances are Expected to Solve



Source) MLIT, "National Attitude Survey"



Superior technologies must be spread effectively and quickly.

(4) Direction of Future Initiatives

(i) Promote Spread with Safety

- With regard to the spread of technologies that are already being used in other countries, **measures are needed to further promote their spread while ensuring security, etc.**
- Safety standards for autonomous-driving vehicles have been developed** (and took effect in April 2020). In the future, we will lead international discussions and work to reflect them in international standards.

(ii) Deepening Original Japanese Technologies

- We have developed unmanned construction technology for disaster sites.
→ **Further development is expected with the future improvement of communication performance by utilizing 5G.**

(iii) Improve Productivity through Digital Transformation

- We will more thoroughly pursue digitization and the shift to remote provision in the infrastructure and logistics fields**, with a view toward preventing the spread of COVID-19 in addition to improving productivity.

Chapter 1 Initiatives towards Restoration and Reconstruction from the Great East Japan Earthquake

- Current Status and Measures Towards Restoration and Reconstruction
- Steady Recovery and Reconstruction of Infrastructure and Transportation
- Promoting Post-Disaster Town Reconstruction and Securing Stability of Residency
- Securing Local Public Transportation and Promoting Tourism
- Ensuring the Smooth Execution of Reconstruction Projects
- Reconstruction and Revitalization of Fukushima
- Building Tsunami-resistant Communities by Learning from the Great East Japan Earthquake

Chapter 2 Deploying Land, Infrastructure, Transport and Tourism Administration Tailored to Urges of the Times

- Driving the Implementation of a National Land Policy Package
- Measures, etc., against Aging Social Infrastructures
- Driving the Social Infrastructure Development
- Promoting the Implementation of Transport Policy
- Driving the Implementation of a Tourism Policy Package
- Driving the Implementation of Ocean Policy
- Protecting Territorial Land and Territorial Waters Firmly
- Promoting Water Cycle Policy
- Promoting Land Policy
- Promoting Bicycle Use Policy
- Efficient, Prioritized Deployment of Measures
- Forming a New Phase of Relationships between the Central and Local Governments and Private Sectors
- Policy Evaluations, Project Evaluations, and Interactive Administration
- Initiatives for the Tokyo 2020 Games

Chapter 3 Realizing a World-Class Tourist Destination and Building a Beautiful Nation

- Trends in Tourism
- Initiatives to Realize a World-Class Tourist Destination
- Building a Beautiful Nation Blessed with Pleasing Landscapes, etc.

Chapter 4 Promoting Regional Revitalization

- Approaches to Regional Revitalization
- Promoting Measures Supporting Regional Revitalization
- Promoting the Private Urban Development
- Promoting Localized Promotion Measures
- Promoting Comprehensive Development of Hokkaido

Chapter 5 Creating a Comfortable Living Space

- Realizing Affluent Residential Living
- Realizing Comfortable Living Environments
- Realizing Traffic with Enhanced Convenience

Chapter 6 Building Competitive Economy and Society

- Developing Trunk Road Networks
- Implementing Comprehensive and Integrated Logistics Policies
- Reactivating Industries

Chapter 7 Building a Safe and Comfortable Society

- Realizing a Universal Society
- Natural Disaster Measures
- Ensuring the Safety of Architecture
- Strengthening Safety Measures in the Transport Sector
- Crisis Management and Security Measures

Chapter 8 Creating and Preserving a Beautiful and Healthy Environment

- Promoting Global Warming Countermeasures
- Promoting the Creation of a Recycling Society
- National Land Development That Revives and Preserves the Natural Environment
- Maintenance and Restoration of Sound Water Cycles
- Protecting the Marine Environment
- Improving Living Environments by Preventing Atmospheric and Noise Pollution
- Observing, Monitoring, and Forecasting Changes in the Global Environment

Chapter 9 Strengthening Strategic International Development and International Contributions

- Promoting the Overseas Development of Infrastructure Systems
- Promotion of International Cooperation and Negotiations
- Initiatives for International Standardization

Chapter 10 Utilizing ICT and Promoting Technology Research and Development

- Promoting Innovation in the Fields of Land, Infrastructure, Transport, and Tourism Through the Use of ICT
- Promoting Technological Research and Development
- Improving Construction Management Technology
- Technology Development for Construction Machinery and Mechanical Equipment

Steady Recovery and Reconstruction of Infrastructure and Transportation

■ All railways affected by the Great East Japan Earthquake have been restored (including restoration by BRT) with the full opening of the JR Joban Line on March 14, 2020.

BRT: Abbreviation for Bus Rapid Transit, a transportation system in which buses operate on exclusive bus roads/lanes

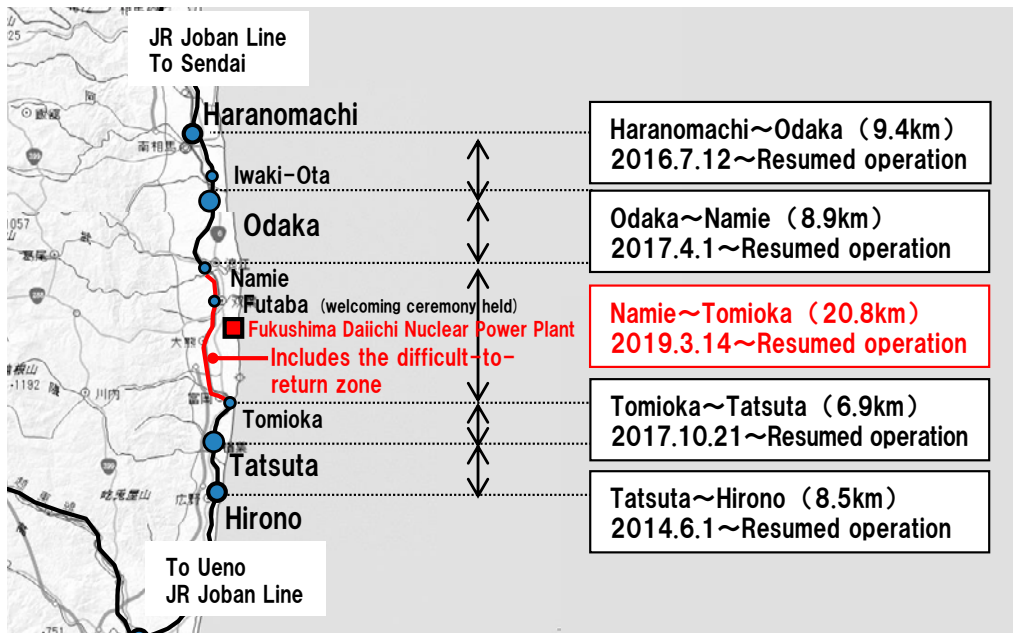
<Restoration of All Railway Lines Affected by the Disaster>

- On March 14, 2020, the JR Joban Line was fully opened when the section between Namie and Tomioka stations was opened for the first time in about nine years.
- As a result, all railway sections affected by the Great East Japan Earthquake have been restored.

<Commemoration of the Line's Full Reopening at JR Futaba Station>

- On the day of the line's full reopening, an express train welcoming ceremony commemorating the full resumption of the line's service was held at JR Futaba Station.
- The first express train "Hitachi 3" from JR Ueno Station (heading to Sendai) was welcomed at the platform.

Opening of the JR Joban Line



Welcoming ceremony at JR Futaba Station



Promoting the Implementation of Transport Policy / Promoting Land Policy

- In order to promote MaaS, we selected Pilot Projects in June 2019 and formulated Guidelines for MaaS-related Data Linkage in March 2020.
- The Act Partially Amending the Basic Act for Land, etc., which includes measures for land with unknown owners, was enacted in March 2020.

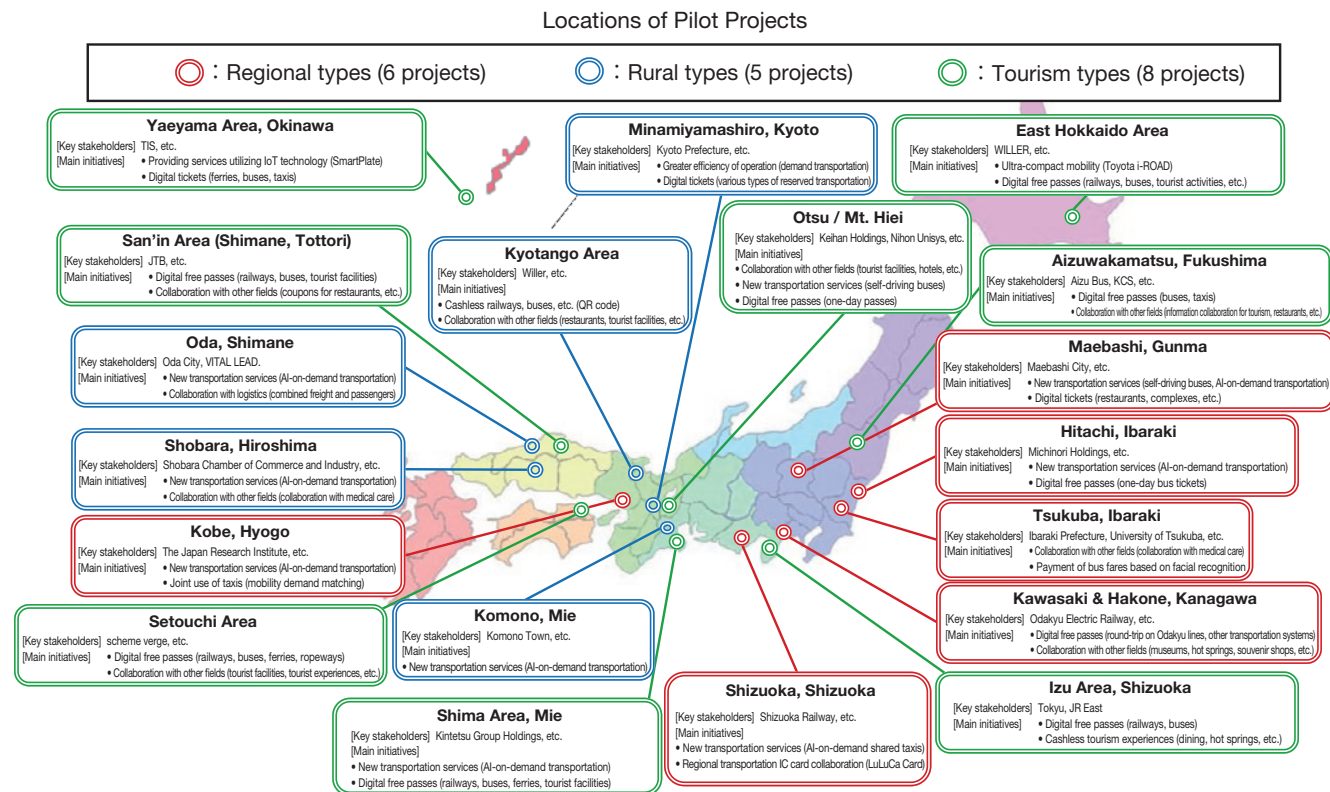
<Promoting MaaS, Etc.>

- In order to promote the establishment of a model for MaaS* according to regional characteristics, in light of the interim report of the Council on New Urban and Rural Mobility Service in March 2019, we selected 19 Pilot Projects in June 2019 to carry out pioneering initiatives that will serve as driving forces nationwide, and will support demonstration experiments with the aim of solving mobility issues and revitalizing regional areas through social implementation of new mobility services such as MaaS.
- In order to promote smooth data linkage by transportation operators, etc., we formulated Guidelines for MaaS-related Data Linkage in March 2020.

*MaaS: A service that integrates searching, reservations, payments, etc. into one by optimally combining multiple public transportation and other mobility services through smartphone apps and websites.

<Measures for Land with Unknown Owners>

- To ensure proper use and management of land, the Act Partially Amending the Basic Act for Land, etc., which clearly states the responsibilities of landowners, etc. and includes measures for proceeding smoothly and quickly with cadastral surveys, was enacted in March 2020, in light of the Basic Policy for the Promotion of Measures for Land with Unknown Owners decided in June 2019. In addition, based on the Act, we formulated the Basic Land Policy in May 2020.



Trends in Tourism / Initiatives to Realize a World-Class Tourist Destination / Building a Beautiful Nation Blessed with Pleasing Landscapes, etc.

- We established the National Cycle Route System toward a world-class cycling road network in September 2019.
- The introduction of free Wi-Fi on bullet trains (shinkansens) was nearly complete in March 2020.

<Status in 2019>

Item	Performance	Year on year
Japanese domestic tourism consumption	21.9 trillion yen	Up 7.1%
Number of international visitors to Japan	31.88 million	Up 2.2%
Tourism consumption by international visitors	4.8 trillion yen (record high)	Up 6.5%
Number of international conferences held (preliminary figures)	527 (8th in world)	Up 4.4%
Number of Japanese going overseas	20.08 million (achieving government targets ahead of schedule)	Up 5.9%

<Main initiatives>

- The National Cycle Route System that creates a network of Japan's leading, world-class cycling roads was established on September 9, 2019, to attract domestic and international cyclists to various parts of Japan. (The designated routes include: Tsukuba-Kasumigaura ring-ring road, Biwaichi, and SHIMANAMI KAIDO cycling road.)
- As part of the efforts of the Committee for Promotion of Outbound Travel by Young People, we implemented the "First Step as a Hatachi (20-year old) – First Overseas Experience Project," through a public-private partnership in FY2019 to stimulate outbound tourism by young people.
- In response to the major need among international visitors to Japan for free Wi-Fi on trains, we completed its introduction on almost all bullet trains (shinkansens) in March 2020.
- To contribute to community development, we promote the preservation and utilization of historically significant government buildings and facilities locally beloved in their areas for a long time.

Hikone Local Meteorological Office, which has been preserved in its original 1932 form, and its wooden staircase, which was restored retaining the design when it was built



Promoting Measures Supporting Regional Revitalization / Promoting Comprehensive Development of Hokkaido

- **The Act Partially Amending the Act on Special Measures Concerning Urban Reconstruction, Etc., was enacted June 2020 to take measures to promote the creation of “comfortable downtown areas that make you want to walk.”**
- **Upopoy (National Ainu Museum and Park) opened in July 2020 in Shiraoi, Hokkaido, as a base for the revival of Ainu culture.**

<Regional Revitalization>

- To promote initiatives for regional revitalization, we are promoting the creation of communities that are resilient to disasters where people can live with peace of mind, the creation of comfortable downtown areas that make you want to walk, the securing of means of transportation for the elderly, regional promotion through tourism, and the creation of attractive tourist areas, based on the second phase of the Comprehensive Strategy for Overcoming Population Decline and Vitalizing Local Economy (decided by the Cabinet in December 2019).
- With a view to promoting the creation of “comfortable downtown areas that make you want to walk around” through the integrated restoration and utilization of public-private spaces such as roads, parks, squares, etc. in the downtown areas, the Act Partially Amending the Act on Special Measures Concerning Urban Reconstruction, Etc., was enacted June 2020 to include community revitalization efforts in cooperation between private and public sectors in municipalities’ community development plans.

<Promotion of Ainu Culture>

- Upopoy (National Ainu Museum and Park), consisting of the National Ainu Museum and National Ainu Park, opened in Shiraoi, Hokkaido, in July 2020 as a base for the revival of Ainu culture.
- With a variety of programs that can only be experienced at Upopoy, visitors can experience various aspects of Ainu life and traditional performing arts.

Illustration of the core area of Upopoy



Upopoy logo



Source: The Foundation for Ainu Culture

Realizing Affluent Residential Living / Realizing Comfortable Living Environments / Realizing Traffic with Enhanced Convenience

- The Road Act was revised in May 2020, establishing a road-designated system to create lively road spaces.
- Toyama City's Tram Line North-South Connection Project was completed and the operation started in March 2020.

<Residential Living>

- To promote the revitalization of aging condominiums, we have expanded the scope of special tax measures (corporate taxes, etc.) for the condominium site sales business. To facilitate the division of sites of condominium complexes, we established special tax measures (corporate taxes, etc.).

<Road Traffic Safety Measures>

- We focused on supporting traffic safety measure programs in light of the results of emergency safety inspections conducted based on Emergency Traffic Safety Measures for Preschoolers and Other Children as well as Elderly Drivers.
- Under the FY2020 budget, we established a subsidy system to support traffic safety measures that are implemented in a systematic and concentrated manner in certain areas (such as speed reduction, area-wide measures to encourage entry restriction, and the installation of sidewalks).

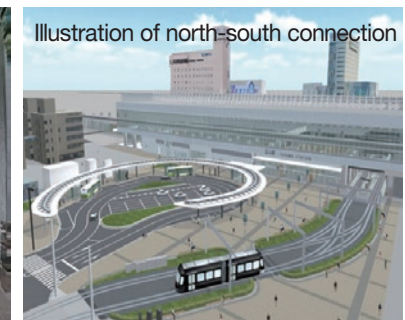
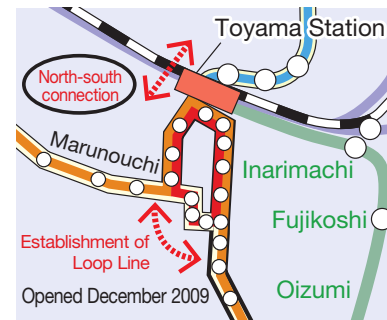
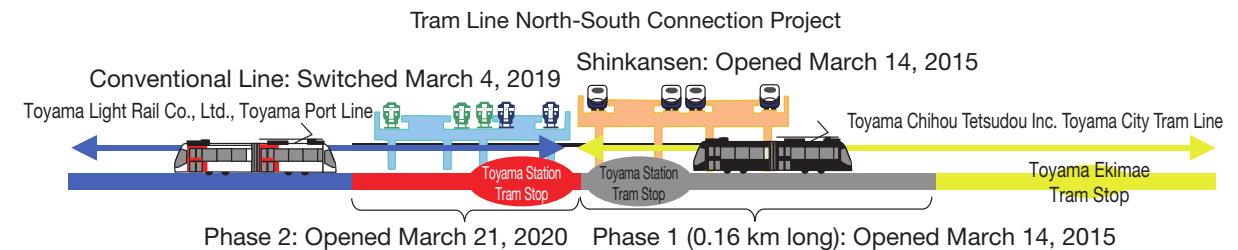
<Creating Lively Road Spaces>

- By establishing a system for roads that enhance convenience for pedestrians (commonly called "hokomichi" in Japan), we made it possible to designate "spaces for enhancing pedestrian convenience," such as terrace seats on sidewalks, etc., and promoted the reconstruction and utilization of road spaces.

<Realizing More Convenient Traffic System>

- To streamline urban traffic flow, we are promoting the development of urban monorails, new transportation systems, and LRTs*. For example, Toyama City's Tram Line North-South Connection Project was completed and the operation started in March 2020.

*LRT: Light Rail Transit. Next-generation rail transportation system using low-floor cars and improved tracks and tram stops that are easier to climb aboard and alight and comfortable to ride.



Source) Toyama City

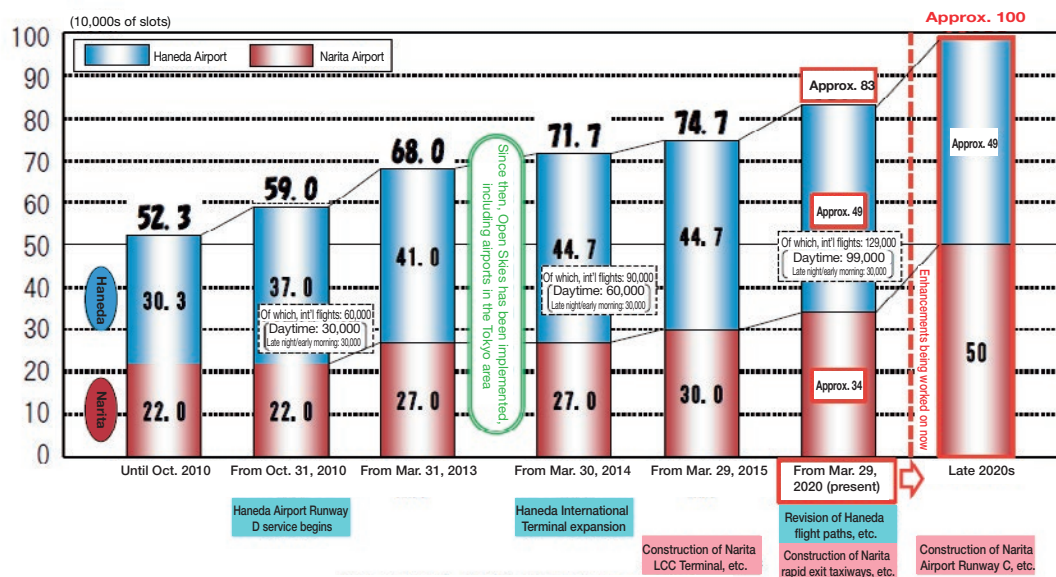
Developing Trunk Road Networks

- Operation of new flight paths started at Haneda Airport in March 2020, increasing its international flight capacity by approximately 40,000 slots per year.
- A dedicated LCC terminal opened at Chubu Centrair International Airport in September 2019.

<Expansion of Aviation Networks>

- We are strengthening the functionality of airports in the Tokyo area and making efforts to increase the arrival and departure capacity to approximately one million slots per year at Haneda and Narita airports combined. Haneda Airport started new flight paths in March 2020, increasing its international flight capacity by approximately 40,000 slots per year. At Narita Airport, the construction of rapid exit taxiways was completed in December 2019, expanding the airport's capacity by approximately 40,000 slots per year from March 2020.
- At Chubu Centrair International Airport, the number of passengers and arrivals/departures reached a record high in 2019. A dedicated LCC terminal was constructed to respond to new LCC services and other flights and opened in September 2019.

Airport Arrival and Departure Capacity at Tokyo Airports (Haneda/Narita)



Chubu Centrair International Airport LCC-only Terminal 2



Source) Central Japan International Airport Co., Ltd.

(Note) 1 All figures represent the number of slots per year.
 2 The slot count is once for each takeoff and once for each landing; hence one landing and takeoff counts as two slots.

Implementing Comprehensive and Integrated Logistics Policies

- The Port and Harbour Act was amended in November 2019 to strengthen efforts to maintain and expand international trunk routes.
- In response to efforts to economize on labor in logistics and reduce environmental impact, we have implemented operating expense subsidies and special tax measures.

<Enhancement of Port Functionality>

- To strengthen the international competitiveness of Japanese industries, the Act Partially Amending the Port and Harbour Act was enacted in November 2019. It strengthened efforts to maintain and increase the number of port calls by container ships operating on international trunk routes.
- FY2020 tax reforms established special measures to reduce the burden of tonnage and special tonnage taxes (scheduled to come into effect in October 2020) to reduce the cost of entering and leaving strategic international ports.

<Faster Process for Approving the Use of Oversize/overweight Vehicles>

- To further speed up the approving process for the use of oversize/overweight vehicles, the Act Partially Amending the Road Act, Etc. was enacted in May 2020 to create a new system that allows registered oversize/overweight vehicles to pass immediately through digitalization.

<More Efficient Logistics>

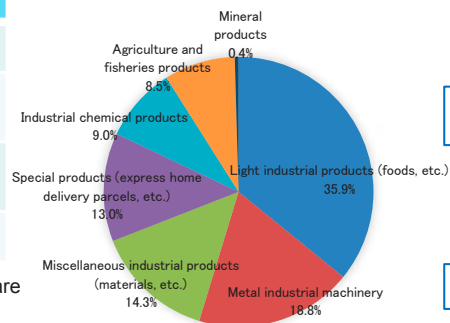
- To economize on labor and reduce environmental impact in the logistics business, we have certified 223 comprehensive efficiency plans (as of the end of July 2020), including joint transportation and delivery, modal shifts, and consolidation of transportation networks, and provide support through operating expense subsidies and special tax measures.

—<Results and Effects of the Comprehensive Efficiency Plans (As of the End of July 2020)>—

By type

Item	Plans
Modal shift	88
Joint transportation and delivery	20
Transportation network consolidation	123
Other	10

Main items handled



CO₂ reduction

- Approx. 88,000 t-CO₂/year
- Equivalent to CO₂ absorbed by about 10 million cedars
- (Converted to area: About 99.98 km²)

Labor saving

- Equivalent labor saving of 1.19 million hours/year
- Securing labor equivalent to about 551 truck drivers

Reduced load waiting time

- 78 truck reservation reception systems introduced

Certified cases based on the Act on Advancement of Integration and Streamlining of Distribution Business

● Combined freight/passengers business



Miyazaki Kotsu Co., Ltd., Japan Post Co., Ltd., Yamato Transport Co., Ltd.

Use of general buses (including joint transportation and delivery) (certified in February 2018)



Sagawa Express Co., Ltd., Hokkaido Railway Company

Combination of multiple passenger transport modes (railway and taxi) (certified in April 2019)

● Business of consolidating transportation networks with the construction of specified distribution service facilities



Yokohama Reito Co., Ltd. "Yokohama Mirai Satellite" (certified in April 2020)



The Shibusawa Warehouse Co., Ltd. "Ebisucho Warehouse No. 2" (certified in January 2020)

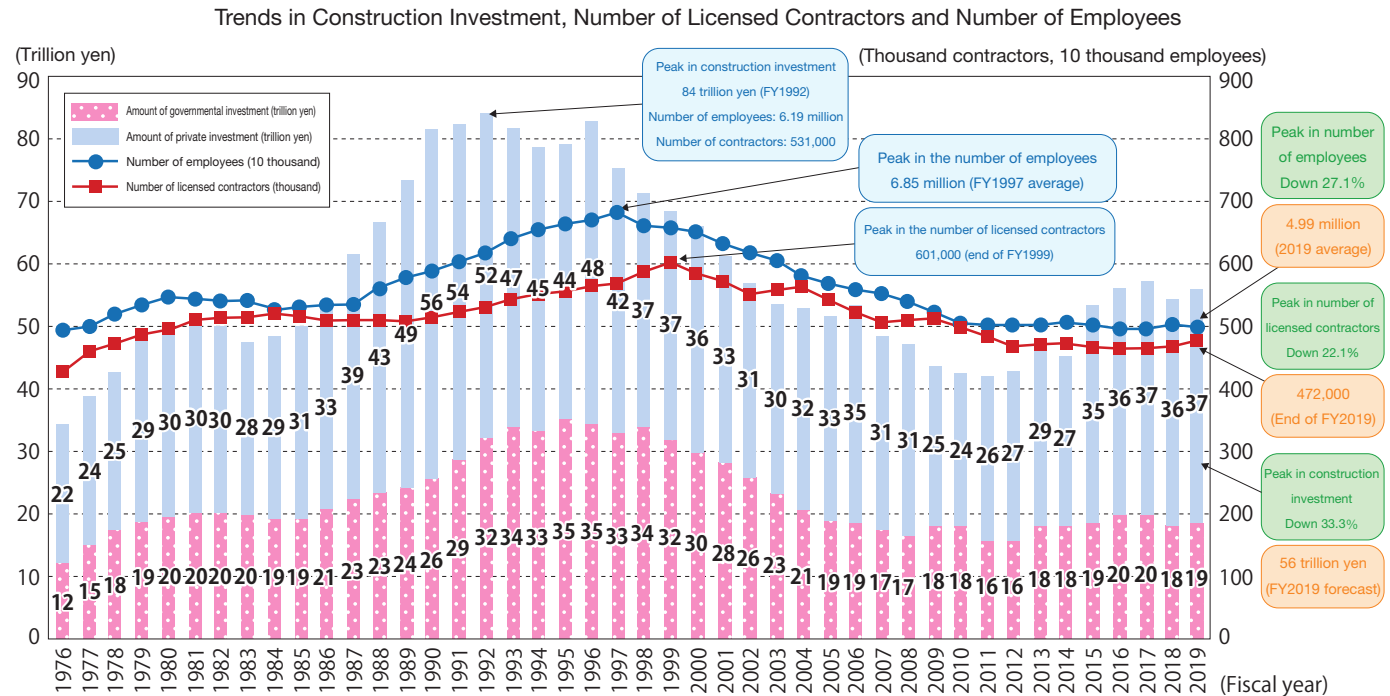
*Initiatives that fall under more than one type are aggregated for each type
 *Modal shift: Shifting freight transportation by truck or other automobile to railways and ships, which have a smaller environmental impact

Reactivating Industries

- The new Three Acts to Secure Leading Workforce were enacted in June 2019 with the aim of reforming work styles in the construction industry, improving construction site productivity, and ensuring a sustainable business environment.
- To promote a modal shift to seaborne shipping, we established the “Maritime Modal Shift Award”, and bestowed the award upon two operators in February 2020.

<Construction Industry>

- Although the number of workers in the construction industry has remained flat in recent years, workers are aging, creating an issue for securing and developing future workers.
- In June 2019, the Three Public Works Bearers Acts were enacted to revise the Act on Promoting Quality Assurance in Public Works, the Act on Promoting Quality Assurance in Public Works, and the Construction Industry Act. Based on the Act, we will promote the reform of work styles in the construction industry, the improvement of construction site productivity, and the ensuring of a sustainable business environment, and will secure and develop workers.



Source: Ministry of Internal Affairs and Communications, MLIT

<Maritime Industries>

- The “Maritime Modal Shift Award” was established to further promote a modal shift to seaborne shipping, which plays an important role as a means of transportation during disasters as well as daily transportation of people and commodities from region to region. The first awards were presented in February 2020 to two companies that made the highest contributions: Gekkeikan Sake Co., Ltd and the Kyoto Branch of Nippon Express Co., Ltd.

Realizing a Universal Society

- The “Barrier-Free Law” was revised in May 2020 to strengthen non-structural measures from the perspective of a “barrier-free mindset.”
- To promote telework, we held “Telework Days 2019” from July 22 to September 6, 2019, and approximately 680,000 people in 2,887 organizations participated.

<Promoting Barrier-free Design>

- The Act on the Partial Amendment of the Act on Promotion of Smooth Transportation, etc., of Elderly Persons, Disabled Persons, etc. (“Barrier-Free Law”) was enacted in May 2020 to strengthen non-structural measures, including the enhancement of measures from the viewpoint of a “barrier-free mindset” related to the facilitation of smooth mobility, in addition to structural measures.

Partial Outline of Amendments to the “Barrier-Free Law”

Promoting the proper use of priority seats, parking spaces for wheelchair users, etc.

(Priority seats on vehicles, etc.)



(Parking spaces for wheelchair users)



Promoting a “barrier-free mindset” in collaboration with school education, etc. (Specified Project for Education and Enlightenment)

(Elderly Persons experience)



(Wheelchair support experience)



<Telework>

- We promote telework to support the advancement of women, the elderly, and people with disabilities into society and the improvement of productivity in corporate activities.
- In 2019, we designated approximately 1.5 months from July 22 to September 6 as “Telework Days 2019” and called for the implementation of telework across the country. Approximately 680,000 people in 2,887 organizations participated this campaign.

Record of Telework Days

Year	Period	Organizations	Participants
2017	July 24	Approx. 950	Approx. 63,000
2018	July 23–27	1,682	Approx. 302,000
2019	July 22–September 6	2,887	Approx. 680,000

Natural Disaster Measures

- We promote initiatives such as “Get Away Call” to prevent people from failing to escape disasters.
- The Japan Coast Guard save lives and investigate damage during disasters by its mobility.

<Get Away Call>

- A system in which people register the area where their family lives by app or e-mail, and if they receive an alarm or evacuation information, they call their family directly to tell them to take shelter.
- During Typhoon Hagibis (2019), 54% of people who checked the disaster and evacuation information contacted their families, and 58% of the families contacted took evacuation action.

<Improving Methods for Conveying Disaster Prevention Weather Information>

- The Committee for Examining Methods for Conveying Disaster Prevention Weather Information compiled future improvement measures in March 2020 so as to better convey a sense of crisis with improvements such as changing the lifting of an emergency warning for heavy rain to “switched to a heavy rain warning.”

<Disaster Responses by the Japan Coast Guard>

- During heavy rain and typhoons in 2019, the Japan Coast Guard carried out helicopter rescues of isolated people, searches for missing people, recovery of spilled oil, and more. In addition, it dispatched coast guard officers to disaster-affected municipalities to gather information and provided support for victims such as supplying water by patrol vessels and craft.



Transportation of rescued person by aircraft



Maintenance and Restoration of Sound Water Cycles

■ To provide a stable supply of water to the Tokyo metropolitan area, the Yanba Dam and Watarase Reservoir were newly added to the flexible management of dams during the flood season, expanding and strengthening the Water Shortage Action Plan in April 2020.

(Yanba Dam)

March 10: Storage starts, April 1: Full-scale operation starts



(Watarase Reservoir)

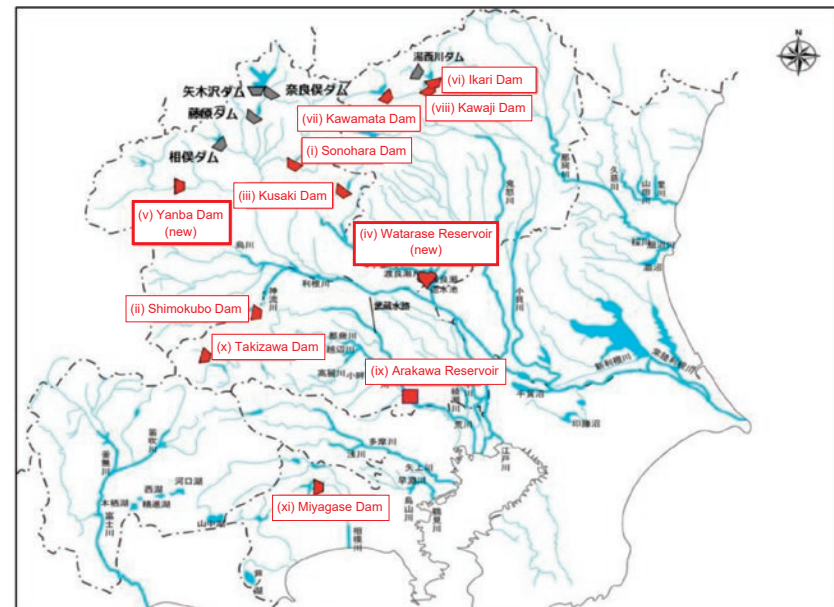
February 17: Storage starts (1.5 months earlier than usual)



<Stable Supply of Water Resources>

- To ensure a stable supply of water to the Tokyo metropolitan area, we have implemented more effective and systematic use of water resources in accordance with The Metropolitan Water Resources Management for Tokyo 2020 Olympic and Paralympic Games formulated in August 2019.
- In April 2020, in order to prepare for the impact on water use due to low snow in the Tone River basin, we added Watarase Reservoir, etc. to the flexible management of dams during the flood season, and expanded and strengthened the Water Shortage Action Plan, which is now implemented with a total of 11 dams.

Flexible Management: Locations of Included Dams (As of April 13, 2020)



*Flexible management of dams: Water storage to the extent that it does not interfere with flood control, and its use in water supply.

Promoting the Overseas Development of Infrastructure Systems

■ We promote overseas expansion of infrastructure systems through top-level sales promotion by the Minister of Land, Infrastructure, Transport and Tourism and the holding of international conferences, and support Japanese companies' participation in projects.

< Top-level Sales Promotion >

○ The Minister, State Minister or Parliamentary Vice Minister of Land, Infrastructure, Transport and Tourism visited a total of 26 foreign countries on a total of 35 occasions for top-level sales promotion regarding infrastructure in 2019. Among them, Minister Akaba toured Indonesia, Myanmar, and Singapore in December 2019.

<International Conferences>

- In August 2019, MLIT held the "2nd Africa-Japan Public-Private Conference for High Quality Infrastructure" to promote the development of high-quality infrastructure in Africa.
- In October 2019, MLIT held the "1st ASEAN Smart Cities Network High Level Meeting" to promote the development of smart cities in the Association of Southeast Asian Nations region.
- In November 2019, MLIT held the "17th ASEAN and Japan Transport Ministers Meeting" to promote Japan-ASEAN cooperation in the transport sector.
- In February 2020, MLIT held the "Japan-Texas Infrastructure Investment Forum" to promote Japan-U.S. cooperation in the infrastructure field.

<Projects won by Japanese companies>

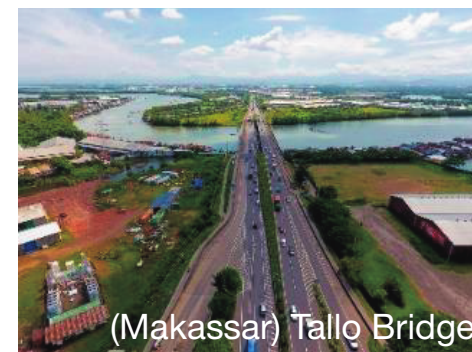
- New Ulaanbaatar International Airport Project (Mongolia)
- Operating the New Ulaanbaatar International Airport constructed with Japanese ODA loan.
- In July 2019, a Japanese consortium including Narita International Airport Corporation participated in the project for operating the airport. This is the fifth O&M (operation and maintenance) project in the aviation field that Japan won under a Team Japan initiative leveraging the expertise of Japanese airport operators.



- Jakarta & Makassar Highway O&M Project (Indonesia)

- This is a public-private partnership (PPP) project for operating and maintaining toll expressways.
- In May 2020, Japan Expressway International Company (JEXWAY) and West Nippon Expressway Company acquired shares in an Indonesian company that manages local expressway operating companies to participate in the project. JOIN also invested in the Indonesian company to promote Japanese companies' participation in PPP projects.

*The Japanese companies participate in the operation and maintenance of a Jakarta toll expressways in addition to the Makassar toll expressways.

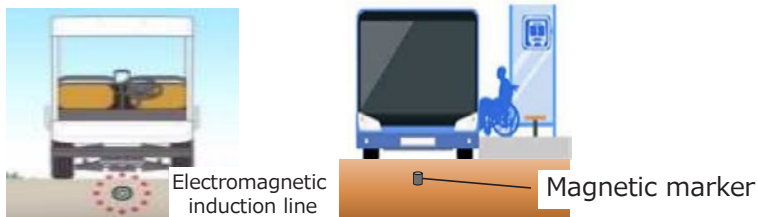


Promoting Innovation in the Fields of Land, Infrastructure, Transport, and Tourism Through the Use of ICT

- With a change in the law aimed at realization of automated driving, in May 2019, automated driving systems were added to the devices subject to national safety regulations. In addition, in May 2020, supporting facilities for autonomous driving vehicles were approved to be installed on roads.
- In March 2020, we established and started operating a “secular crustal deformation correction system (POS2JGD)” that eliminates the discrepancy between “map” and high-precision “positioning results.”

<Realization of Autonomous Driving>

- To ensure the safety of level 3 and 4 automated driving vehicles, the Act Partially Amending the Road Transport Vehicle Act was enacted in May 2019 to add “automated driving systems” to the devices subject to national safety regulations. In addition, we formulated safety regulations for the systems.
- The Act Partially Amending the Road Act, Etc. was enacted in May 2020 to include supporting facilities for autonomous driving cars (magnetic markers, etc.) in auxiliary road facilities as “supporting infrastructure for automated driving” and to consider them as road occupation.



▲Driving assistance by vehicle position determination using electromagnetic induction wires and magnetic markers

<Utilization of Geospatial Information>

- In recent years, the use of high-precision positioning that can determine position to within several centimeters has begun in fields such as i-Construction and smart agriculture.
- In March 2020, we established and started operating a “secular crustal deformation correction system (POS2JGD)” that corrects positioning results and adjusts the position on a map, in order to eliminate the discrepancy between “map” and high-precision “positioning results.”
- We will create an environment where anyone can easily use high-precision location information, contributing to the creation of new services such as autonomous driving and drone logistics.

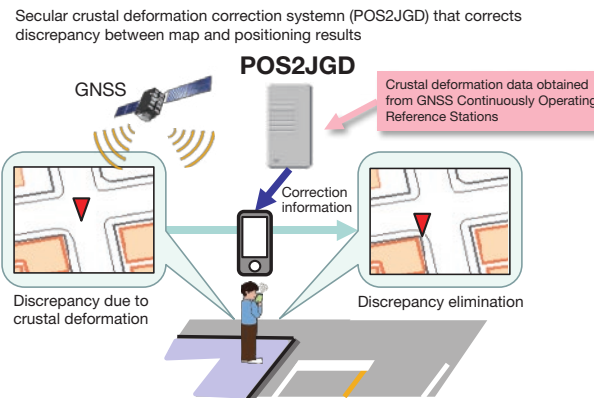
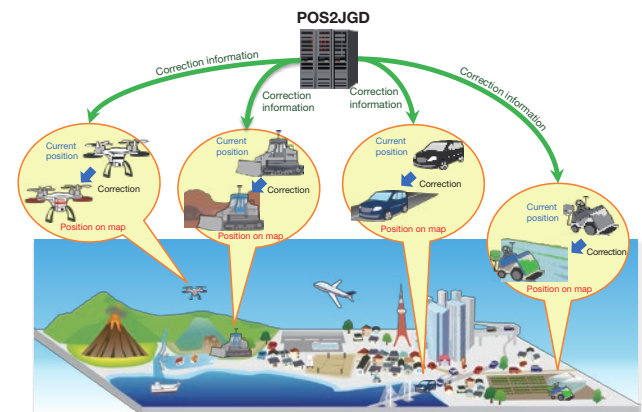


Illustration of usage of the secular crustal deformation correction system (POS2JGD)



Promoting Innovation in the Fields of Land, Infrastructure, Transport, and Tourism Through the Use of ICT / Improving Construction Management Technology

- **Automobile inspection certificates are to be issued as IC cards (scheduled to be introduced in 2023).**
- **We are accelerating the utilization of 3D data and the introduction of new technologies such as ICT through the “3D Information Utilization Model Project” implemented at the newly established i-Construction Model Offices.**

<Issuing Automobile Inspection Certificates as IC Cards>

- We have established a system (with the enactment of the Act Partially Amending the Road Transport Vehicle Act in May 2019) under which automobile inspection certificates are issued as IC cards and the national government outsources administrative tasks such as the recording of automobile inspection certificates. With this, we will promote the expanded use of One-Stop Services (OSS) for executing automobile ownership procedures online and at the same time.
- The MLIT revised the MLIT Digital Government Medium- to Long-Term Plan in March 2020 and has been actively promoting initiatives to realize electronic government, including OSS.

<BIM/CIM Initiatives>

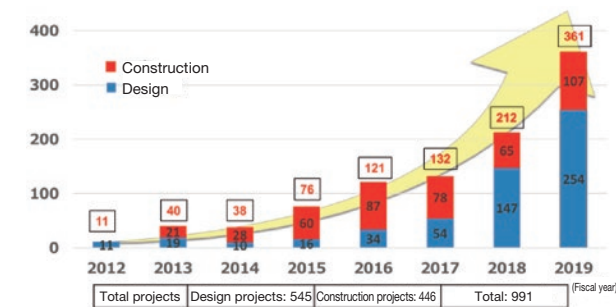
- We are promoting BIM/CIM* initiatives to streamline and sophisticate of the entire construction production and management systems by linking and developing BIM/CIM models while providing more information from the surveying, research, design, construction, maintenance management, and upgrading stages and by facilitating the sharing of information among concerned parties involved in the entire project.

*BIM/CIM: Building/Construction Information Modeling/Management

- In an effort to further utilize BIM/CIM, we have established 10 i-Construction Model Offices that will lead the way in utilizing 3D data, and 53 i-Construction Support Offices to support initiatives by local governments and other organizations.

- In the civil engineering field, we have been working to expand the utilization of BIM/CIM by making its application standard in detailed design and construction of large structures (using BIM/CIM for detailed design) since FY2019. BIM/CIM has been used in a total of 991 design and construction projects as of March 2020.

Trend in Design and Construction Projects Using BIM/CIM in the Civil Engineering Field



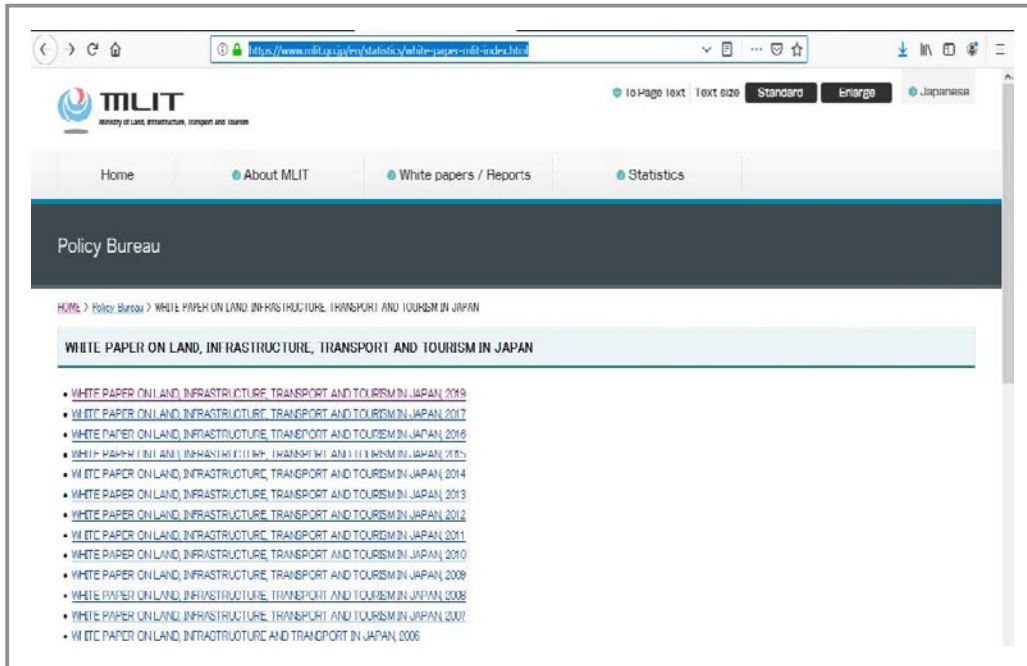
- In the field of architecture, we established the BIM Promotion Roundtable in June 2019 to advance BIM on the basis of public-private cooperation, and developed Vision for the Future and Roadmap to BIM and guidelines based thereon. In government building projects, we expanded a trial of construction BIM for renovation work in addition to the new construction work.

This document and the full White Paper on Land, Infrastructure, Transport and Tourism in Japan can be found on the website of the MLIT.



※Full White Paper is only available Japanese.

<https://www.mlit.go.jp/en/statistics/white-paper-mlit-index.html>



<https://www.mlit.go.jp/statistics/file000004.html>

