

Fiscal Year 2020
Trends Concerning Land

Fiscal Year 2021
Basic Measures Concerning Land

Abstract

June 2021

Ministry of Land, Infrastructure, Transport and Tourism

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Trends Concerning Land in FY 2020 and Basic Measures in Relation to Land in FY 2021 are created based on the provisions of Article 11, paragraphs (1) and (2), of the Basic Act for Land (Act No. 84 of 1989).

Part 1: Trends concerning land

Chapter 1: Trends in Real Estate Market, etc. in FY 2020

The Japanese economy in FY 2020 has been significantly affected by the new coronavirus infection.

This chapter focuses on the trends of land prices, land transactions, land use, the real estate market, and the real estate investment market in FY 2020.

Section 1: Trends in land prices

(Trends in land prices in 2020)

According to the publication of value of standard sites by Ministry of Land, Infrastructure, Transport and Tourism, with regard to trends in land prices as of January 1, 2021, the national average volatility for all uses fell for the first time in six years since 2015. By use, residential land values declined for the first time in five years since 2016, and commercial land values fell for the first time in seven years since 2014. Industrial land values increased for the fifth consecutive year, although the rate of increase shrank.

Concerning the land values of three major metropolitan areas, the average volatility has been declining for each of all uses, residential land, and commercial land of each area for the first time in eight years since 2013. Industrial land saw its seventh consecutive year of growth, although the rate of increase shrank.

In rural areas, the values for all uses and commercial land fell for the first time in four years since 2017, and residential land fell for the first time in three years since 2018. Industrial land values rose for the fourth consecutive year, although the rate of increase shrank. Of the four regional cities, Sapporo, Sendai, and Fukuoka continued to see a relatively high rate of increase, although the rate of increase declined from last year.

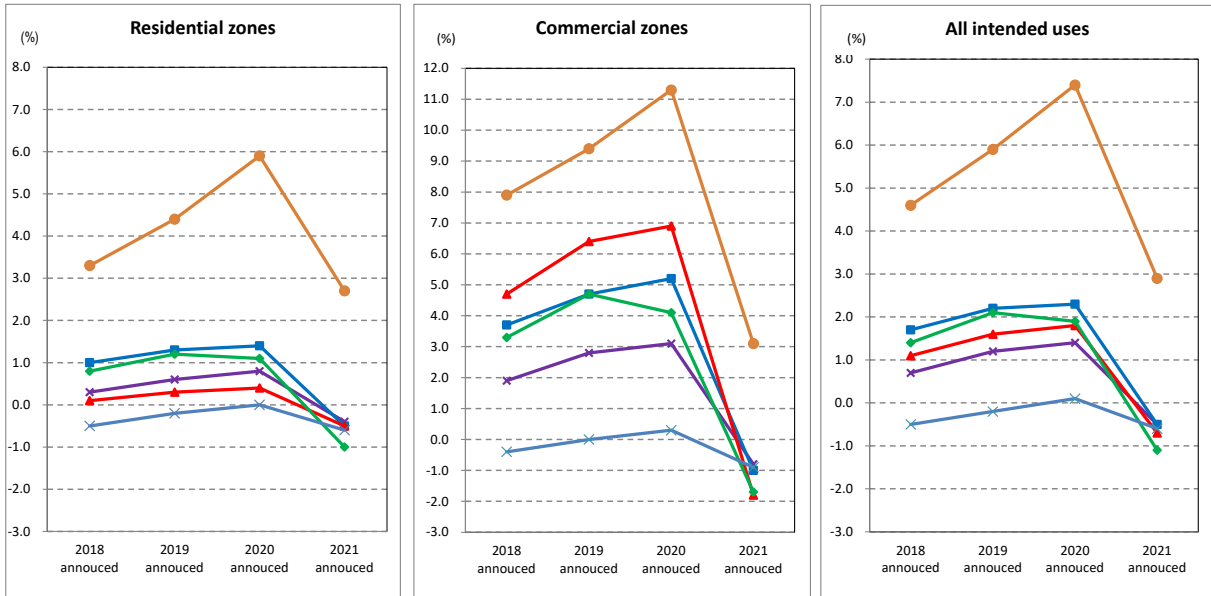
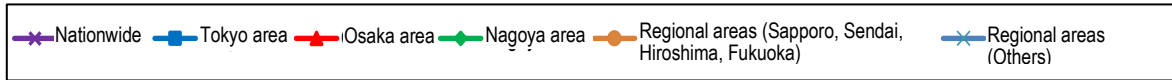
Overall demand has been on a weak note under the influence of the new coronavirus infection, which has led to a decline in transactions and continued increases in construction costs, etc. for residential land. This is due to the weakening employment and wage situation and the cautious attitude of consumers towards prices. Commercial land is also experiencing a significant decline in profitability as consumers become more cautious about prices due to uncertainty about the future. This is reflected in the decline in demand for store leases and hotels, as well as in the decrease in the number of visitors from home and abroad, including foreign tourists. However, compared to the publication of value of standard sites in 2009 and 2010 after the Lehman shock, the range of decrease is smaller. It is due to, for residential land, the continuation of low-interest rates and measures for supporting housing acquisition, while for commercial land, economic measures, and corporate financing support.

In Karuizawa-cho, Nagano Prefecture, and the area around Atami Station in Atami City, Shizuoka Prefecture, land prices of residential areas have been rising following the spread of the new coronavirus infection because of the increased demand for housing for the purpose of relocation and living in two regions alternately.

Figure Changes in Land Price Volatility (annual)

(Unit: %)

	Residential zones				Commercial zones				All intended uses			
	2018 announced	2019 announced	2020 announced	2021 announced	2018 announced	2019 announced	2020 announced	2021 announced	2018 announced	2019 announced	2020 announced	2021 announced
Nationwide	0.3	0.6	0.8	▲ 0.4	1.9	2.8	3.1	▲ 0.8	0.7	1.2	1.4	▲ 0.5
Three major met. areas	0.7	1.0	1.1	▲ 0.6	3.9	5.1	5.4	▲ 1.3	1.5	2.0	2.1	▲ 0.7
Tokyo area	1.0	1.3	1.4	▲ 0.5	3.7	4.7	5.2	▲ 1.0	1.7	2.2	2.3	▲ 0.5
Osaka area	0.1	0.3	0.4	▲ 0.5	4.7	6.4	6.9	▲ 1.8	1.1	1.6	1.8	▲ 0.7
Nagoya area	0.8	1.2	1.1	▲ 1.0	3.3	4.7	4.1	▲ 1.7	1.4	2.1	1.9	▲ 1.1
Regional areas	▲ 0.1	0.2	0.5	▲ 0.3	0.5	1.0	1.5	▲ 0.5	0.0	0.4	0.8	▲ 0.3
Sapporo, Sendai, Hiroshima, Fukuoka	3.3	4.4	5.9	2.7	7.9	9.4	11.3	3.1	4.6	5.9	7.4	2.9
Other	▲ 0.5	▲ 0.2	0.0	▲ 0.6	▲ 0.4	0.0	0.3	▲ 0.9	▲ 0.5	▲ 0.2	0.1	▲ 0.6



Data: MLIT "Land Market Value Publication"

Note 1: Region Classifications are as follows:

Three major metropolitan areas: Tokyo, Osaka, and Nagoya

Tokyo area: Cities including existing cities and suburb improvement zones based on Metropolitan Region Development Law

Osaka area: Cities including existing cities and suburb improvement zones based on Kinki Region Improvement Law

Nagoya area: Cities including urban improvement areas based on Chubu Region Development Improvement Law

Rural District: Regions besides the three major metropolitan areas

Other: City areas besides Sapporo, Sendai, Hiroshima, and Fukuoka among rural districts

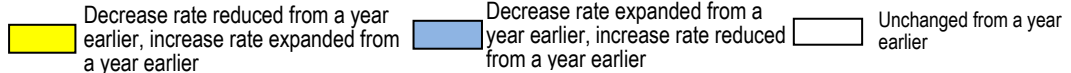
Note 2: FY2018 Publish FY2018 Land Market Value Publication (Jan. 1, 2017–Jan. 1, 2018)

FY2019 Publish FY2019 Land Market Value Publication (Jan. 1, 2018–Jan. 1, 2019)

FY2020 Publish FY2020 Land Market Value Publication (Jan. 1, 2019–Jan. 1, 2020)

FY2021 Publish FY2021 Land Market Value Publication (Jan. 1, 2020–Jan. 1, 2021)

Note:

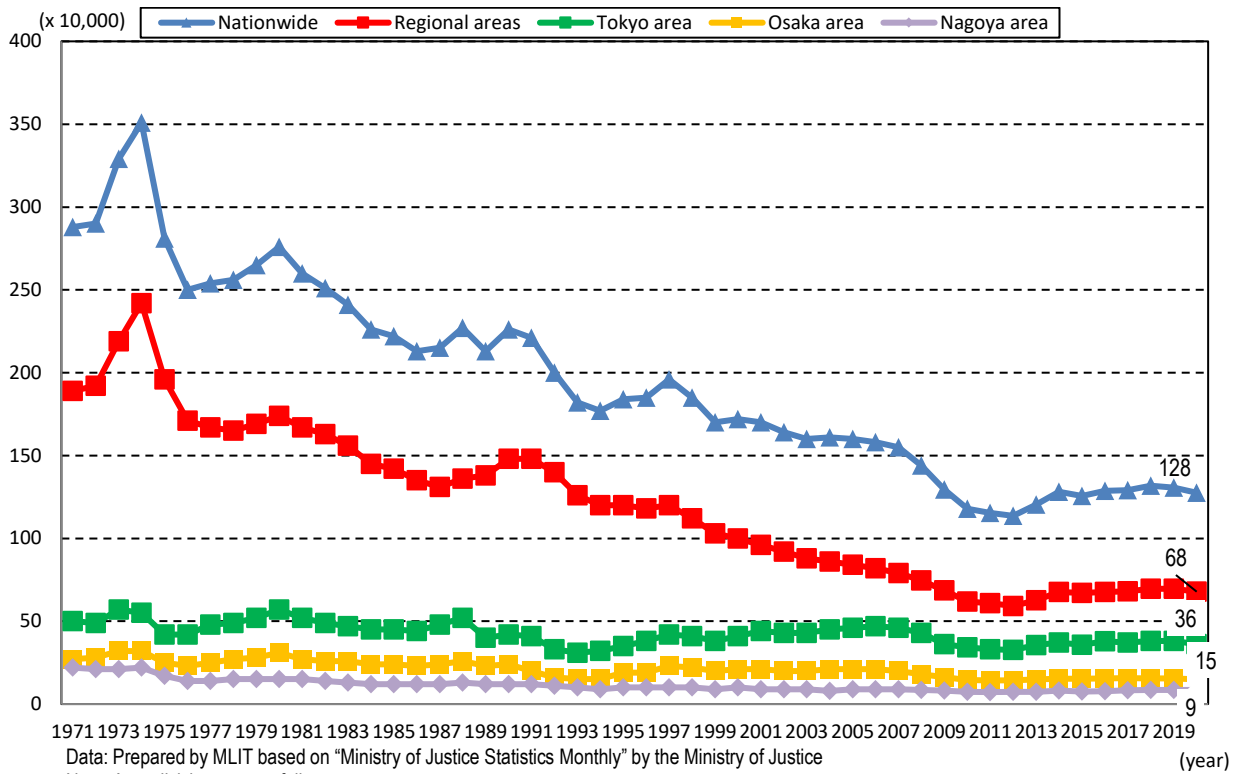


Section 2 Trends in Land Transactions

(Changes in the number of land transactions)

The trends in land transactions are followed by the number of transfers of ownership registered through buying and selling according to Ministry of Justice Statistics Monthly by the Ministry of Justice. The number of land transactions across the nation totaled 1.28 million in 2020, remaining almost unchanged.

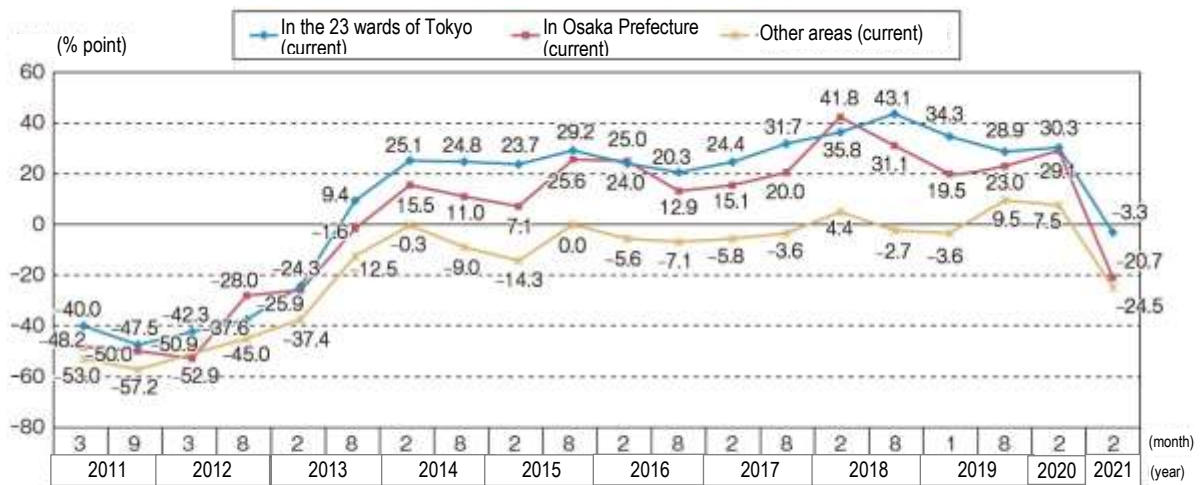
Figure Changes in the number of land transactions of buying and selling



(Perception of land transactions by corporations)

According to the Survey on Trends of Land Transaction conducted by the Ministry of Land, Infrastructure, Transport and Tourism, the diffusion index (DI: the rate of corporations responding that transaction activity is vibrant minus the rate of corporations responding that it is sluggish) regarding the perception of the current land transaction situation at the location of the headquarters decreased in each region in the February 2021 survey: -3.3 points for the 23 wards of Tokyo, -20.7 points for Osaka Prefecture, and -24.5 points for other regions.

Figure. DI as it relates to determinations of the current state of land transactions



Source: Land Transaction Trends Survey, Ministry of Land, Infrastructure, Transport and Tourism (2019)

Note 1: DI = active minus inactive

Note 2: Values for active and inactive are the respective percentages of effective responses given by companies indicating active and companies indicating inactive (%).

Section 3: Trends in Land Use

(Overview of land use, etc.)

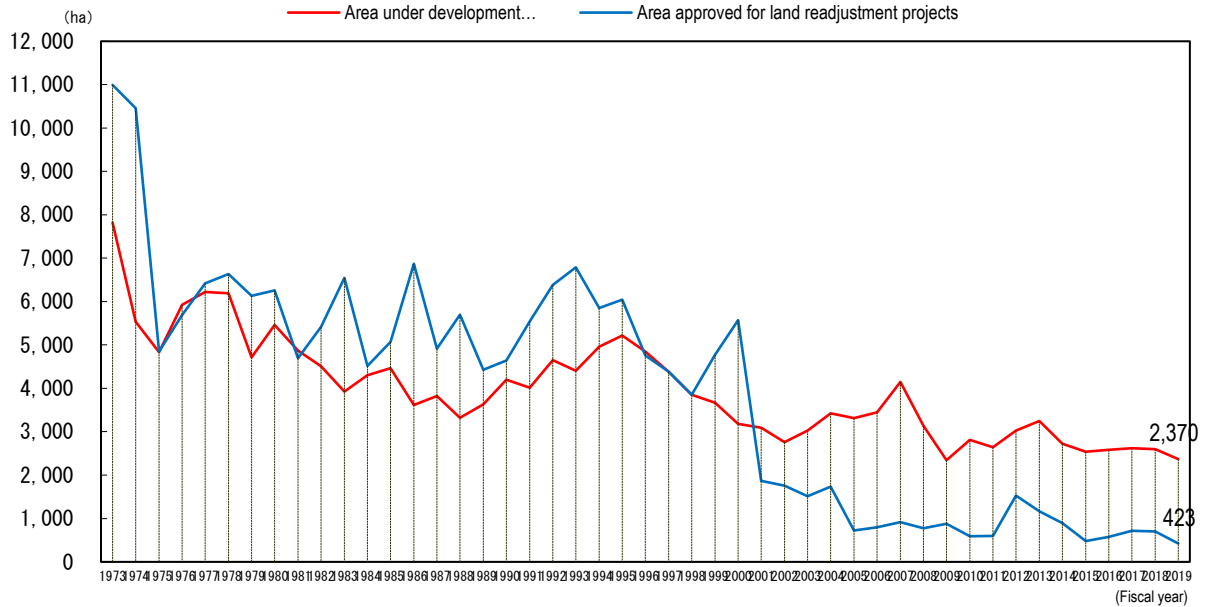
As of 2019, the total area of Japan was approximately 37.80 million hectares. Forestland accounts for the largest portion (25.03 million hectares), followed by farmland (4.40 million hectares). When combined, forestland and farmland account for about 80% of the national land area. In addition, developed land, such as residential and industrial land, amounts to 1.97 million hectares, roads occupy 1.41 million hectares, surface water, rivers, and canals cover 1.35 million hectares, and fields total 0.35 million hectares.

The area of land use change in 2018 was around 21,700 ha, decreasing from the year before. It is roughly broken down into around 16,200 ha of the area changed from forest or farmland and reclaimed land for urban land use (residential, industrial, and public land, an increase of around 800 ha from the year before (y/y)) and around 3,400 ha of the area changed from farmland to forestland for land use for agriculture and forestry (a decrease of around 1,300 ha from the year before (y/y)).

(Changes in land use)

In FY 2019, the area with development permission was 2,370 ha, and the area with land readjustment projects approval was 423 ha; both of which have decreased.

Figure: Changes in the area under development permission and the area approved for land readjustment projects



Data: Ministry of Land, Infrastructure, Transport and Tourism

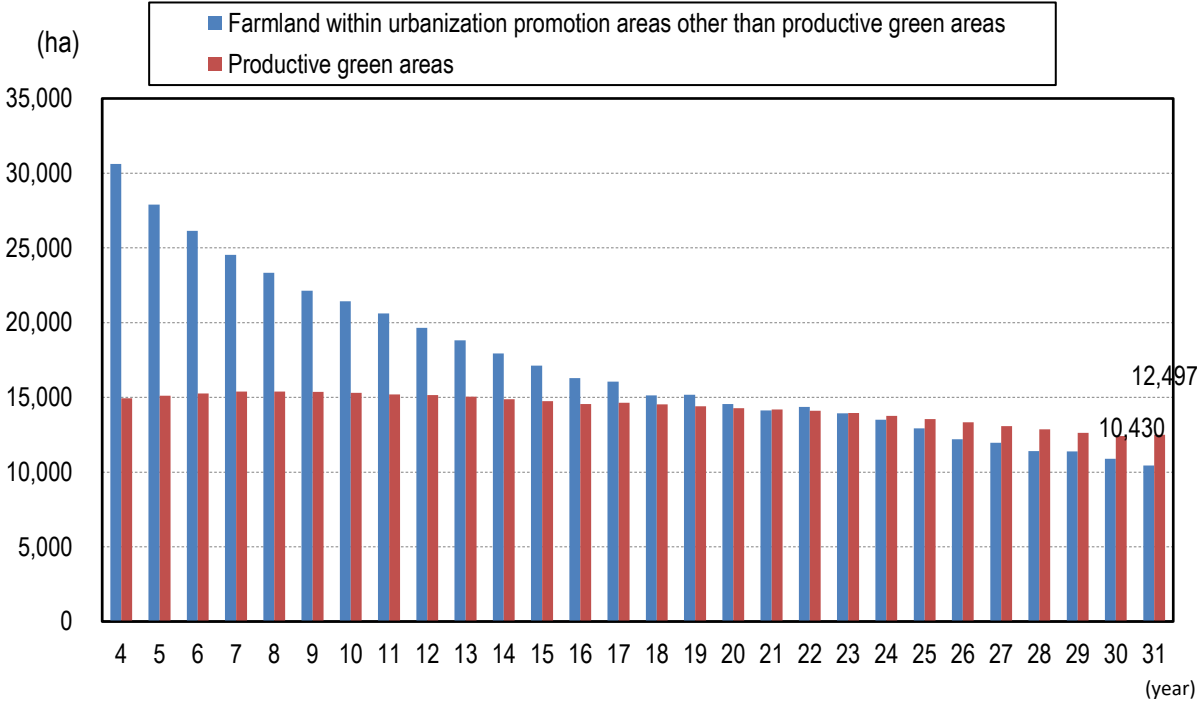
Note 1: "Development permission" refers to projects permitted under the City Planning Act for development activities, mainly for the purpose of residential construction.

Note 2: The 1973 and 1974 figures for development permission areas are those added to those permitted under the former Act on the Development of Housing Land.

Note 3: The approved areas for land readjustment projects are the sum of those carried out by individuals/joint corporations, associations, public

According to data on productive green areas, and farmland in urbanization promotion areas (other than productive green areas), the productive green area in FY 2019 was 12,497 ha (up 0.7% y/y), a slight increase. On the other hand, farmland in urbanization promotion areas (other than productive green areas) was 10,430 ha (down 4.3% y/y), showing a continuing downward trend.

Figure Changes in productive green areas and farmland in urbanization promotion areas (other than productive green areas)

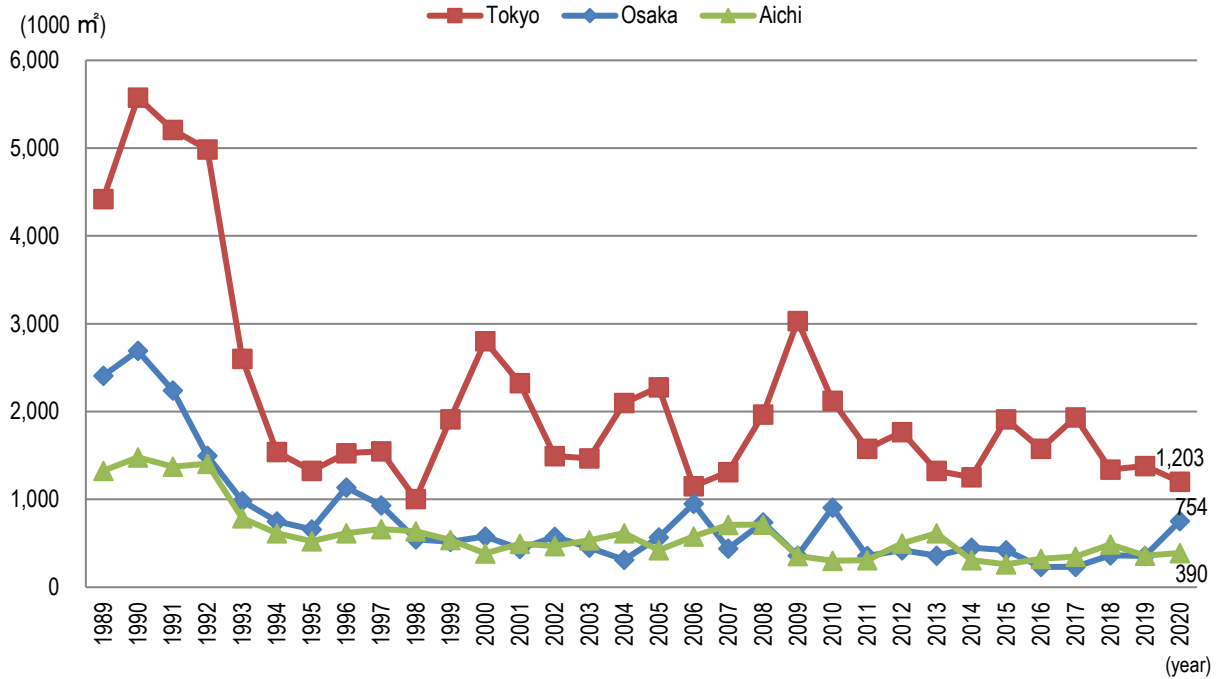


Data: Farmland within specific urbanization promotion areas other than productive green areas: MIC Summary Protocol of Fixed Asset Price, Productive green areas: MLIT Annual Report on City Planning

Note 1: The data on farmland within specific urbanization promotion areas other than productive green areas are as of January 1 of each fiscal year and those on productive green areas are as of March 31 of each fiscal year.

Note 2: Farmland within specific urbanization promotion areas other than productive green areas refers to farmland within the urbanization promotion areas of the specific cities in the three major metropolitan areas.

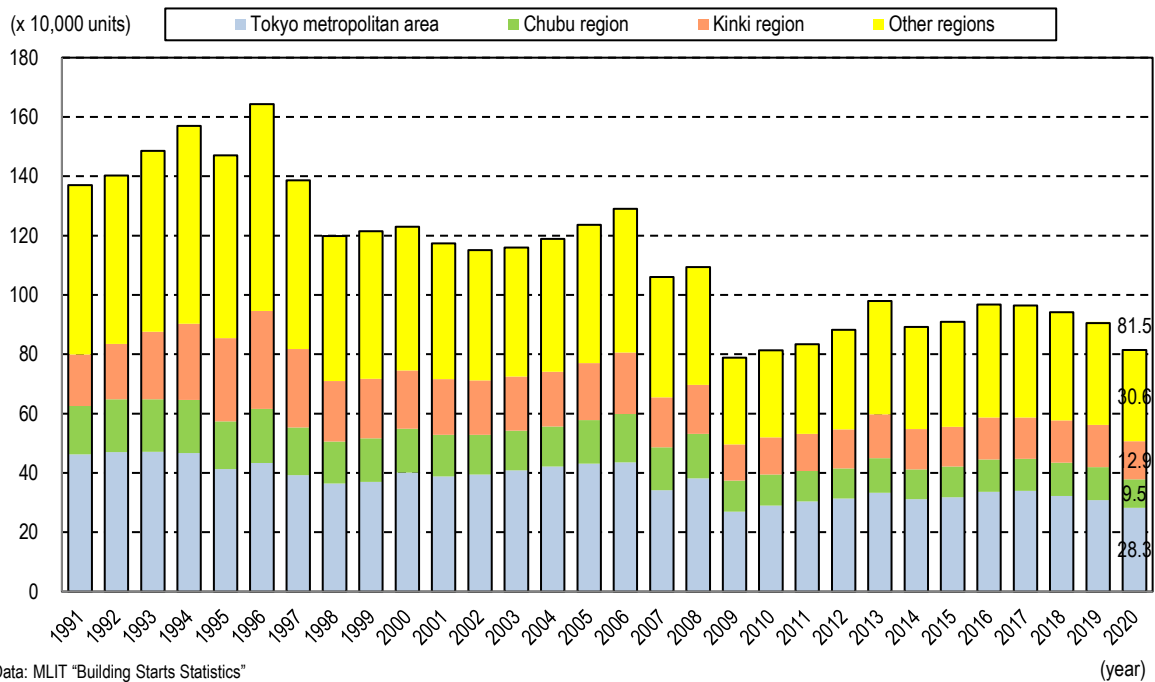
Figure Changes in gross office floor area of building starts by city



Data: MLIT "Building Starts Statistics"

The total number of new housing starts in 2020 was approximately 815,000 units, down 9.9% from the previous year; all metropolitan areas saw a decline.

Figure Changes in the total number of new housing starts by area by metropolitan area



Data: MLIT "Building Starts Statistics"

Note: Metropolitan area classifications are as follows:

Tokyo metropolitan area: Saitama Prefecture, Chiba Prefecture, Tokyo, and Kanagawa Prefecture

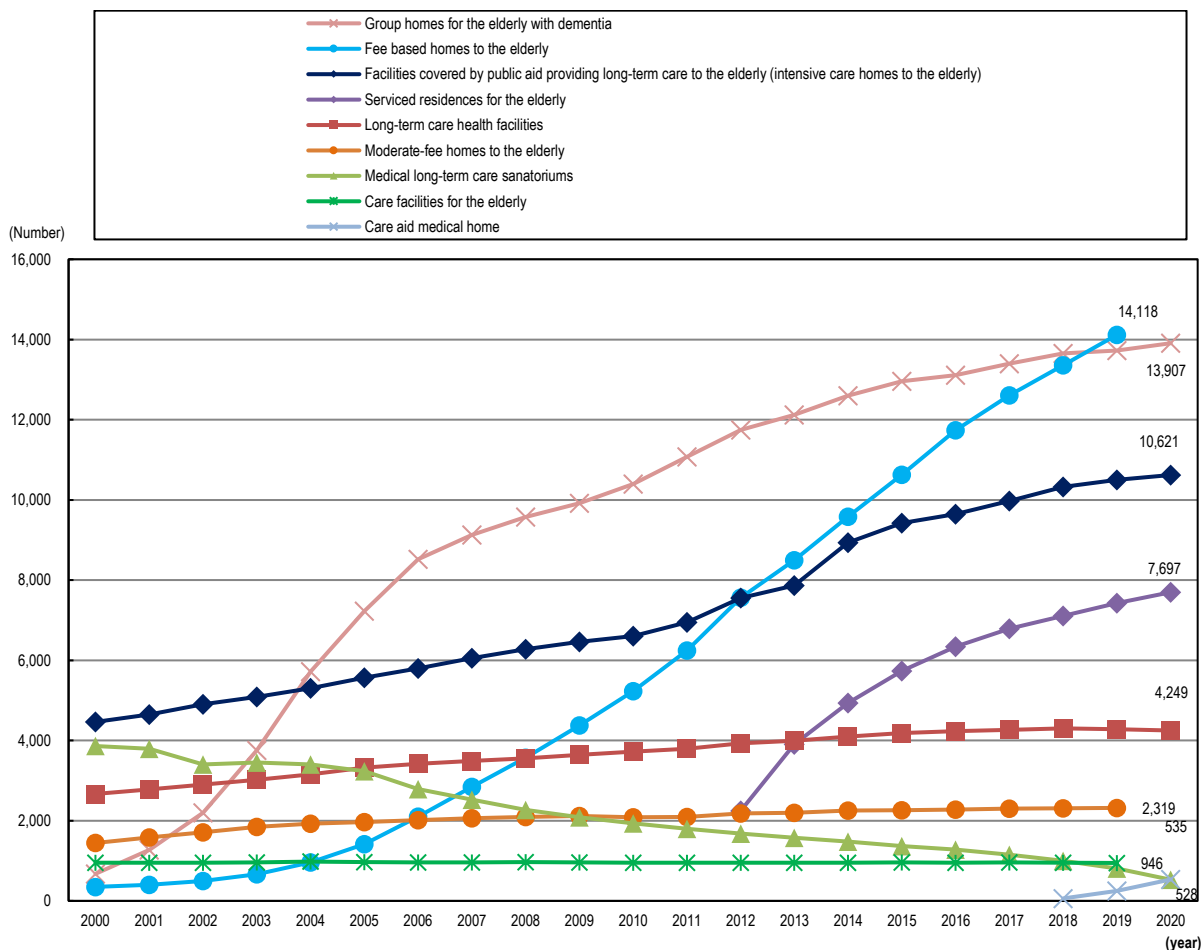
Chubu region: Gifu Prefecture, Shizuoka Prefecture, Aichi Prefecture, Mie Prefecture

Kinki region: Shiga Prefecture, Kyoto Prefecture, Osaka Prefecture, Hyogo Prefecture, Nara Prefecture, Wakayama Prefecture

Other region: Areas other than the above

Among the facilities for the elderly, there has been a growing trend in the number of group homes for the elderly with dementia, fee-based homes for the elderly, and facilities covered by public aid providing long-term care for the elderly. In particular, fee-based homes for the elderly are increasing significantly.

Figure Changes in the numbers of facilities for the elderly / serviced residences for the elderly



*1: Data on the three facilities where nursing care insurance is accepted and group homes for the elderly with dementia are from MHLW Survey of Nursing Care Service Facilities/Service Providers (as of October 1) (2000–2001), Survey of the Cost of Nursing Care Benefits (reviewed in October) (2002–2017), and Statistics on the Actual Cost of Nursing Care Benefits (reviewed in October) (2018).

*2: The number of facilities covered by public aid providing long-term care to the elderly is the total of providers that requested an allowance for facility service for long-term care covered by public aid and community-based facility service for long-term care covered by public aid.

*3: Data on group homes for the elderly with dementia is indicated as those for communal daily long-term care for mental deterioration between 2000 and 2004 and as those for communal daily long-term care for a dementia patient in and after 2005. (Short-term use is excluded.)

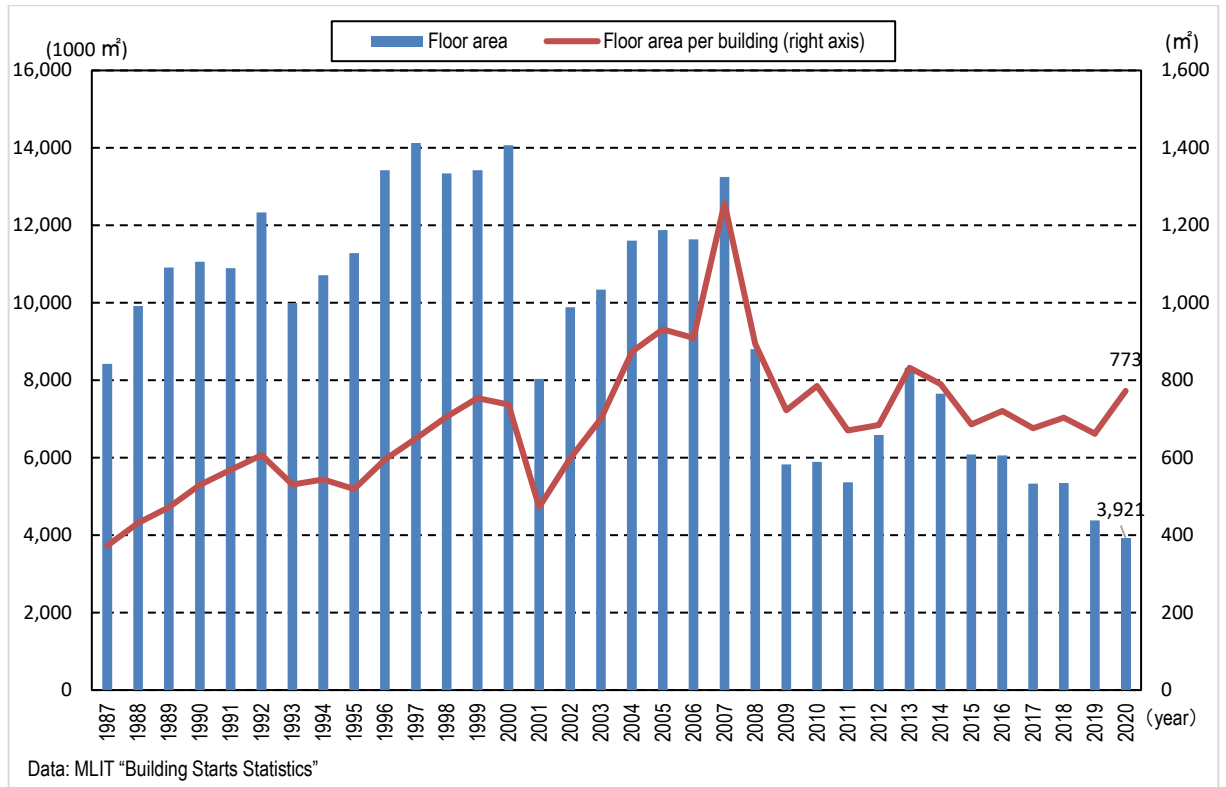
*4: Data on care facilities for the elderly/moderate-fee homes for the elderly are from MHLW Survey of Social Welfare Institutions (as of October 1). However, the numbers between 2009 and 2011 are based on the numbers of facilities relevant to the survey and those between 2012 and 2017 are based on the basic survey form.

*5: Data on fee-based homes for the elderly are based on the result of the survey conducted by the Health and Welfare Bureau for the Elderly of MHLW.

*6: Data on serviced residences for the elderly are from the Delivery System for Information on Serviced Residences (as of September 30).

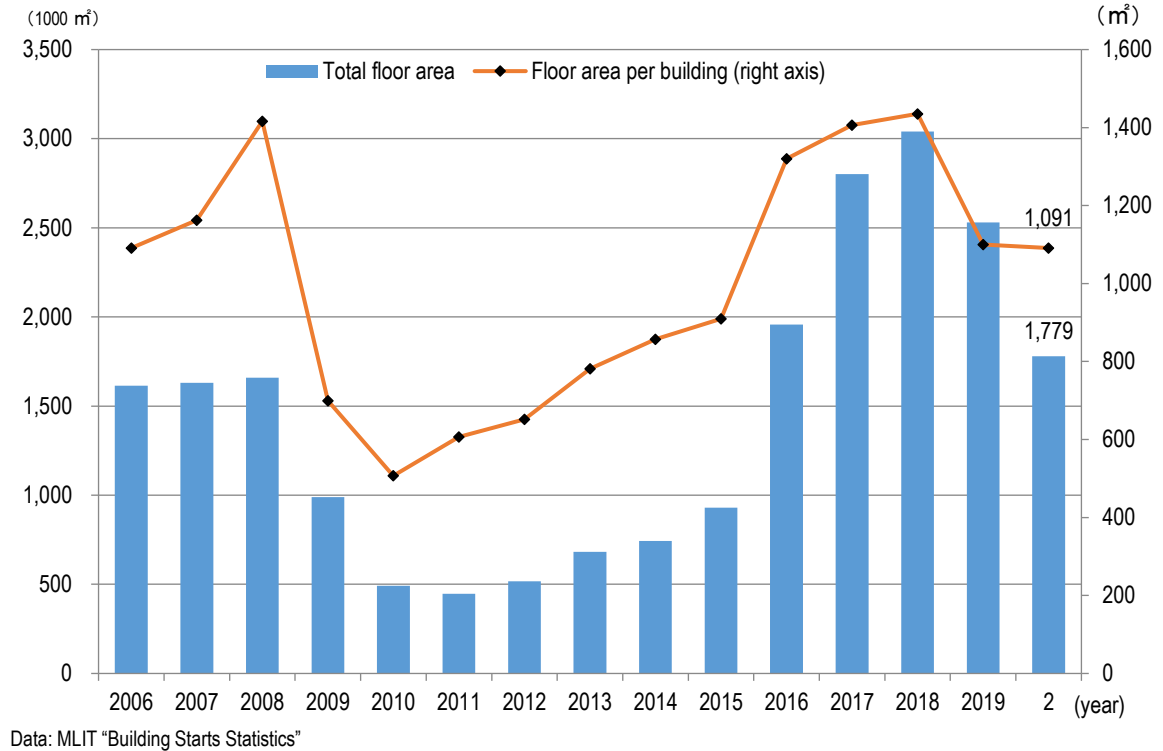
In 2020, floor area of store starts and floor area per building were approximately 3,921,000 m² (down 10.4% y/y), continuing the downward trend of recent years. In addition, floor area per building was 773 m² (up 16.7% y/y), an increase y/y.

Figure: Changes in floor area of store starts



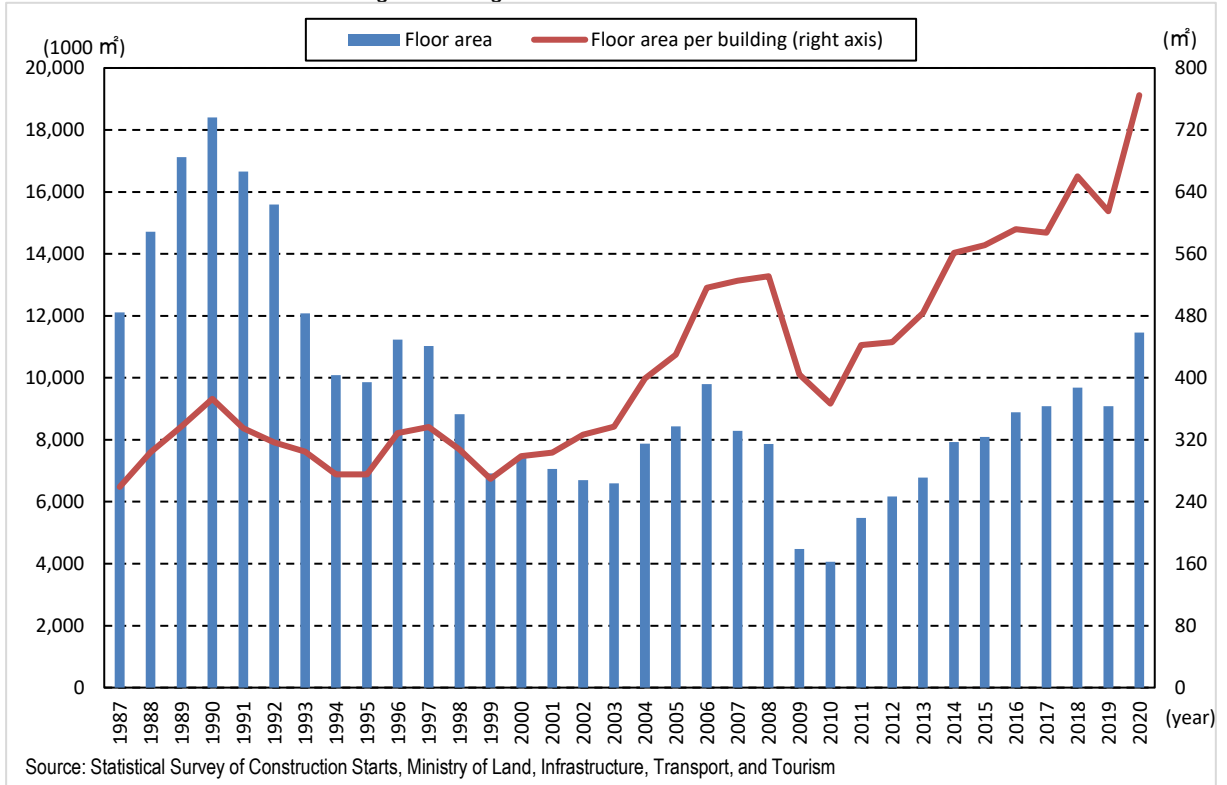
The gross floor area of building starts for lodging and the floor area per building continued to decline in 2019, with starts at approximately 1,779,000 m² (down 29.7% y/y) and the floor area per building at 1,091 m² (down 0.8% y/y).

Figure: Changes in floor area of building starts for lodging



Both the floor area of warehouse starts and the floor area per building increased, with starts at approximately 11,459,000 m² (up 26.1% y/y) and floor area per building at 765 m² (up 24.4% y/y).

Figure: Changes in floor area of warehouse starts

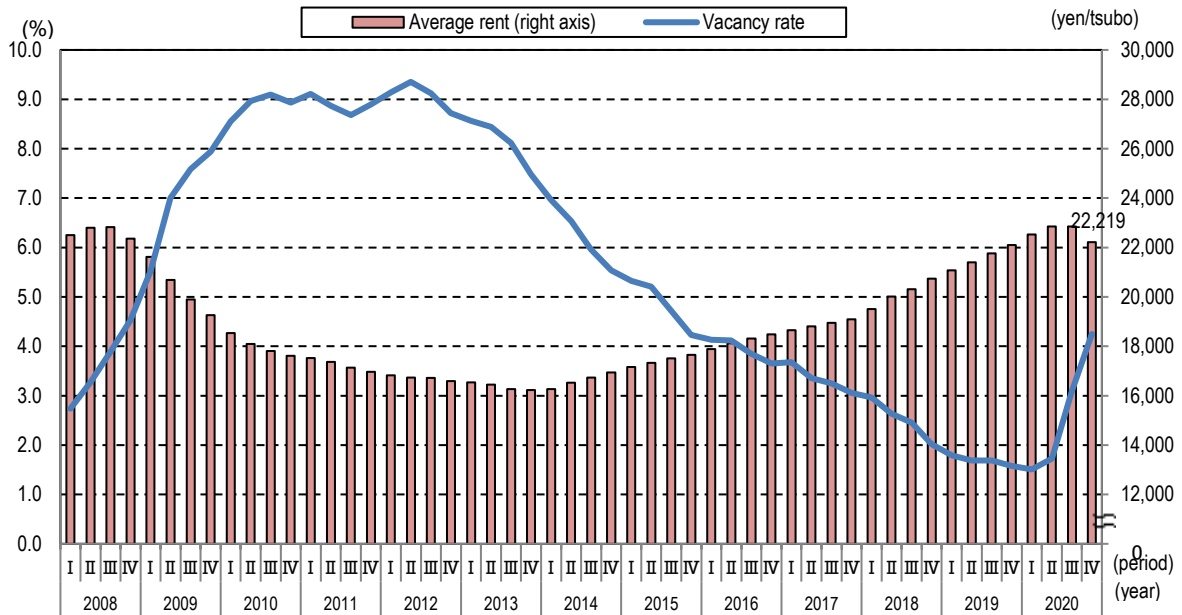


Section 4 Trends in the Real Estate Market

(Trends in the office market)

The office building vacancy rate in the five inner-city wards of Tokyo (Chiyoda, Chuo, Minato, Shinjuku, and Shibuya) was 1.5% in the January-March 2020 period, the lowest since 2007. However, the rate subsequently rose significantly to 4.3% in the October-December 2020 period, exceeding 4.0% for the first time in four years since the April-June 2016 period. The average rent for the October-December 2020 period fell compared to the July-September 2020 period.

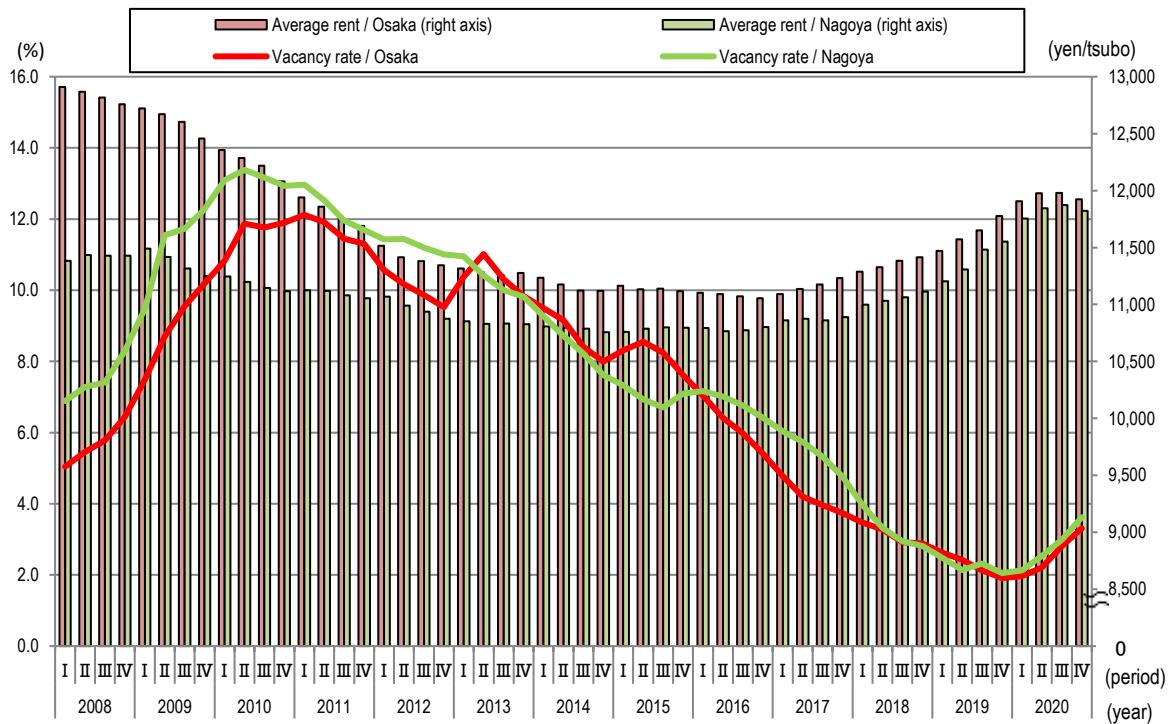
Figure Changes in rental price of office rooms and vacancy rate (the five inner-city wards of Tokyo)



Data: Prepared by MLIT based on "MIKI OFFICE REPORT TOKYO" by Miki Shoji Co.,Ltd.
 Note 1: Values for quarters I through IV are values obtained by averaging values for the months within each quarter.
 Note 2: Target areas include Chiyoda, Chuo, Minato, Shinjuku, and Shibuya wards.
 Note 3: Target buildings include major rental office buildings with a standard floor area of 100 *tsubo* (330.579 m²) or more (Total sum of new buildings that are less than one year old and existing buildings that are more than one year old, including the month of the survey)

In cities other than Tokyo, the vacancy rate in Osaka and Nagoya also increased in 2020. Average rents in Osaka and Nagoya Cities declined in the October-December 2020 period compared to the July-September 2020 period.

Figure Changes in rental price of office rooms and vacancy rate (Osaka and Nagoya)



Data: Prepared by MLIT based on "MIKI OFFICE REPORT OSAKA" and "MIKI OFFICE REPORT NAGOYA" by Miki Shoji Co., Ltd.

Note 1: Values for quarters I through IV are values obtained by averaging values for the months within each quarter.

Note 2: Target areas include the following.

Osaka: Umeda, Minamimorimachi, Yodoyabashi/Honmachi, Semba, Shinsaibashi/Namba, Shin-Osaka Districts

Nagoya: Meieki, Fushimi, Sakae

Marunouchi districts, Chiyoda, Chuo, Minato, Shinjuku, and Shibuya Wards

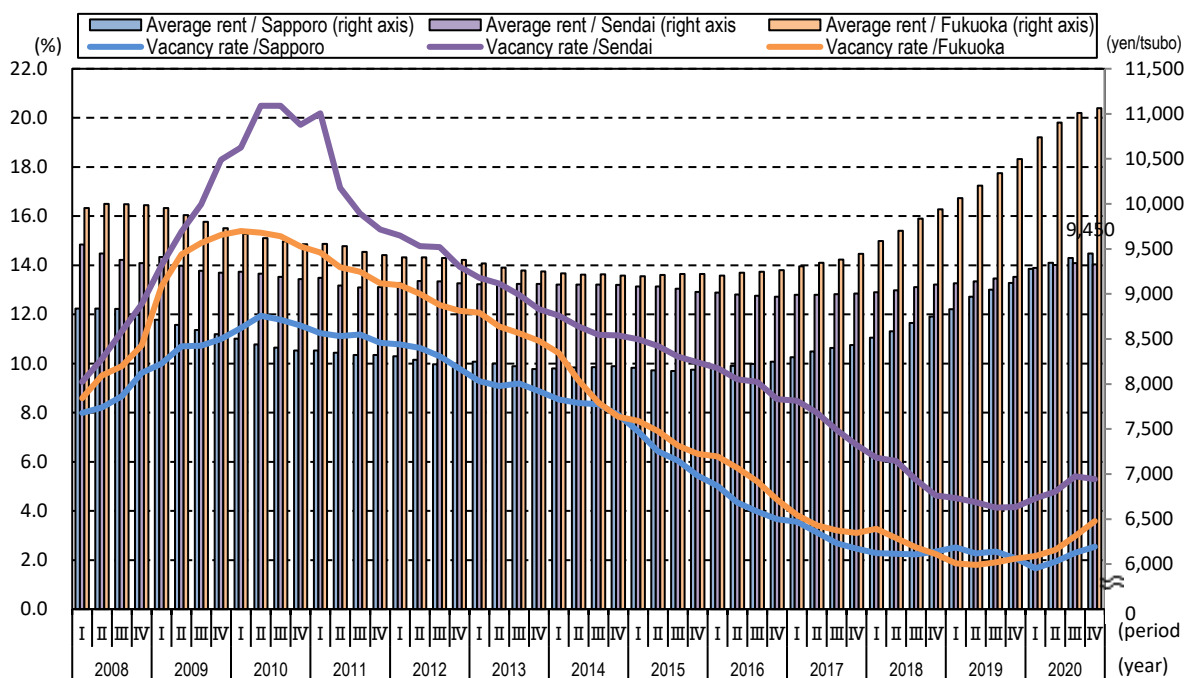
Note 3: Target buildings include the following.

Osaka: Major rental office buildings with a total floor area of 1,000 tsubo (3305.79 m2) or more

Nagoya: Major rental office buildings with a total floor area of 500 tsubo (1652.89 m2) or more (Total sum of new buildings that are less than one year old and existing buildings that are more than one year old, including the month of the survey).

The vacancy rate for the October-December 2020 period increased in Sapporo and Fukuoka Cities, and decreased in Sendai City compared to the July-September 2020 period. Average rents for the October-December 2020 period increased in Sapporo and Fukuoka Cities, but decreased in Sendai City compared to the July-September period 2020.

Figure Changes in rental prices of office rooms and vacancy rate (Sapporo, Sendai, and Fukuoka)



Data: Prepared by MLIT based on "MIKI OFFICE REPORT SAPPORO", "MIKI OFFICE REPORT SENDAI" and "MIKI OFFICE REPORT FUKUOKA" by Miki.com Co., Ltd. Note 1: Values for quarters I through IV are values obtained by averaging values for the months within each quarter. Note 2: The value for the first quarter of 2011 is an average value that excludes the value for March since data tabulation for Sendai in March 2011 was suspended due to the Great East Japan Earthquake.

Note 3: Target areas include the following.

Sapporo: Ekimae-Dori and Odori-Koen, Ekimae-Tozai, Minami 1-jo Inan, Soseigawa River Higashi / Nishi 11-chome, Kitaguchi Districts

Sendai: Ekimae, Ichibancho, Prefectural Government and City Hall, Eki-Higashi, Office Districts

Fukuoka: Akasaka / Daimyo, Tenjin, Yakuin / Watanabe Dori, Gion / Gofukumachi, Hakata-Ekimae, Hakata Eki-Higashi / Eki-Minami Districts (Osaka) Umeda area, Minamimorimachi, Yodoyabashi / Honmachi, Semba, Shinsaibashi / Namba, Shin-Osaka Districts (Nagoya) Meieki, Fushimi, Sakae Districts, Marunouchi Districts, Chiyoda, Chuo, Minato, Shinjuku, Shibuya Wards

Note 4: Target buildings include the following.

Sapporo: Major rental office buildings with a total floor area of 100 tsubo (330.579 m²) or more

Sendai: Major rental office buildings with a total floor area of 300 tsubo (991.73 m²) or more

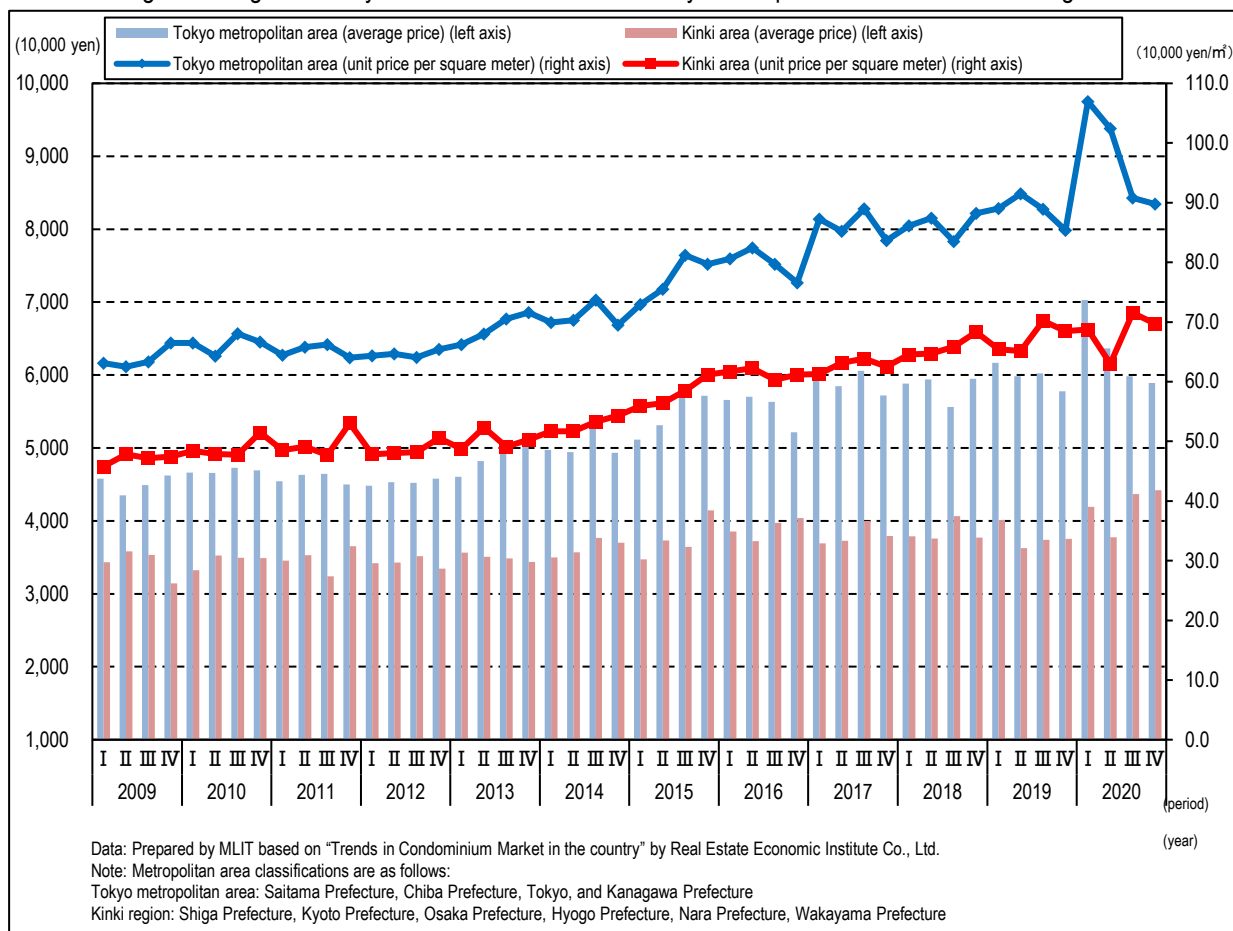
Fukuoka: Major rental office buildings with a total floor area of 100 tsubo (330.579 m²) or more

(Total sum of new buildings that are less than one year old and existing buildings that are more than one year old, including the month of the survey).

(Trends in the residential market)

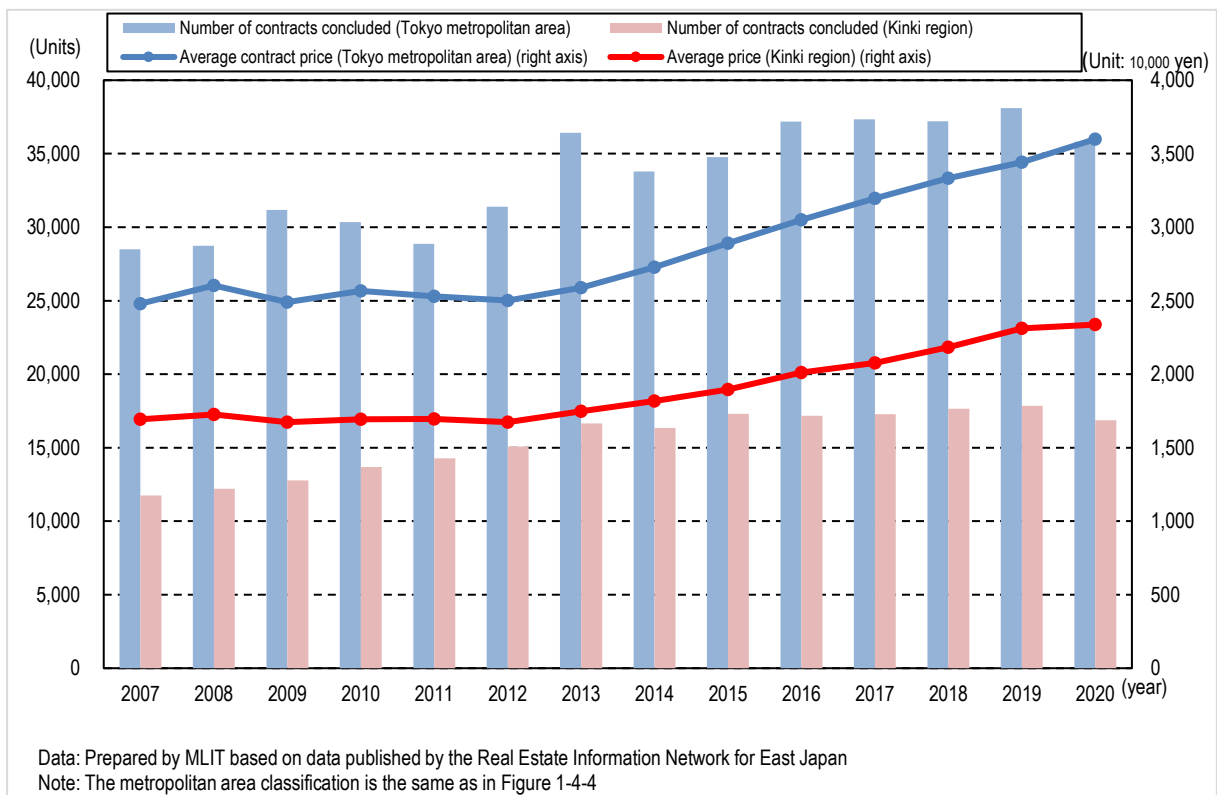
Prices of newly built condominiums per square meter in the Tokyo metropolitan area exceeded 1 million yen in the January-March 2020 period; however, they have since declined to the same level as in 2019. The prices in the Kinki region fell once but rose sharply in the July-September 2020 period, remaining in the 700,000-yen range. The average price in the Tokyo metropolitan area exceeded 70 million yen in the January-March 2020 period, but has been declining since then, while the average price in the Kinki region has been hovering around 40 million yen.

Figure Changes in newly built condominiums in the Tokyo metropolitan area and the Kinki region



Trends in the market for pre-owned condominiums indicate that in 2020, the average price of contracts concluded was 35.99 million yen (up 4.6% y/y) in the Tokyo metropolitan and 23.37 million yen (up 1.2% y/y) in the Kinki region, showing a continuing upward trend. The number of contracts concluded decreased in both of the areas; 35,825 units in the metropolitan area (down 6.0% y/y) and 16,862 units in the Kinki region (down 5.6% y/y).

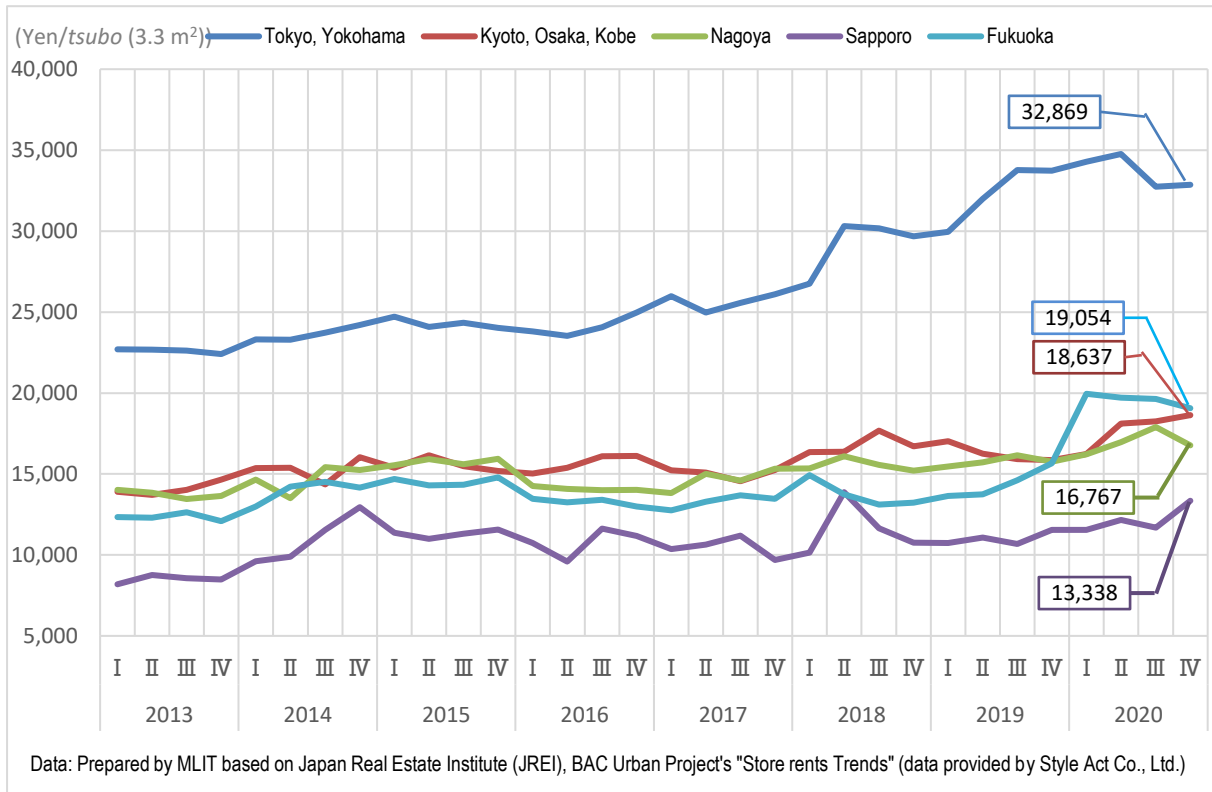
Figure Changes in the number of contracts concluded and the average price of pre-owned condominiums in the Tokyo metropolitan area and the Kinki region



(Trends in the markets for stores, lodging and logistics facilities)

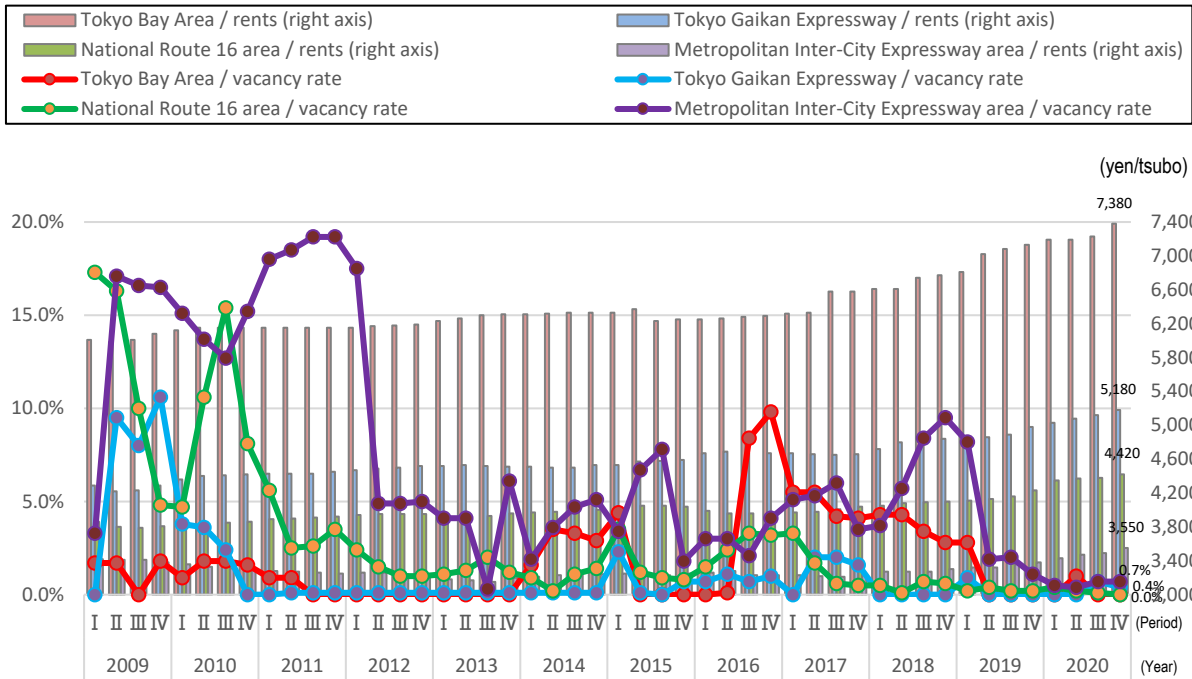
According to changes in store rents in major cities during the October-December 2020 period, 32,869 yen/*tsubo* (1 *tsubo* = 3.3 m²) (down 2.6% y/y) in Tokyo and Yokohama, 18,637 yen/*tsubo* (up 17.6% y/y) in Kyoto, Osaka and Kobe, 16,767 yen/*tsubo* (up 6.4% y/y) in Nagoya, 13,338 yen/*tsubo* (up 15.5% y/y) in Sapporo, and 19,054 yen/*tsubo* (up 21.7% y/y) in Fukuoka; indicating an increase in all cities except Tokyo and Yokohama.

Figure Trends in store rents in major cities



As for the market conditions of logistics facilities in the Tokyo metropolitan area in 2020, rents are on an upward trend in all four areas of the Tokyo metropolitan area, and vacancy rates remain at a low level.

Figure Rents and vacancy rates of logistics facilities in the Tokyo metropolitan area



Data: Prepared by MLIT based on data released by CBRE K.K. <https://www.cbre.co.jp/en/about/corporate-profile>

Note 1: Vacancy rates are based on logistics facilities that have been completed more than one year.

Note 2: Tokyo Bay Area: Core area along the coast of Tokyo Bay.

Tokyo Gaikan Expressway area: Semi-donut-shaped area along the Tokyo Outer Ring Road and National Route 16, excluding the Tokyo Bay Area.

Metropolitan Inter-City Expressway area: Area outside the National Route 16 line.

Metropolitan Inter-City Expressway area: Area outside the National Route 16 line.

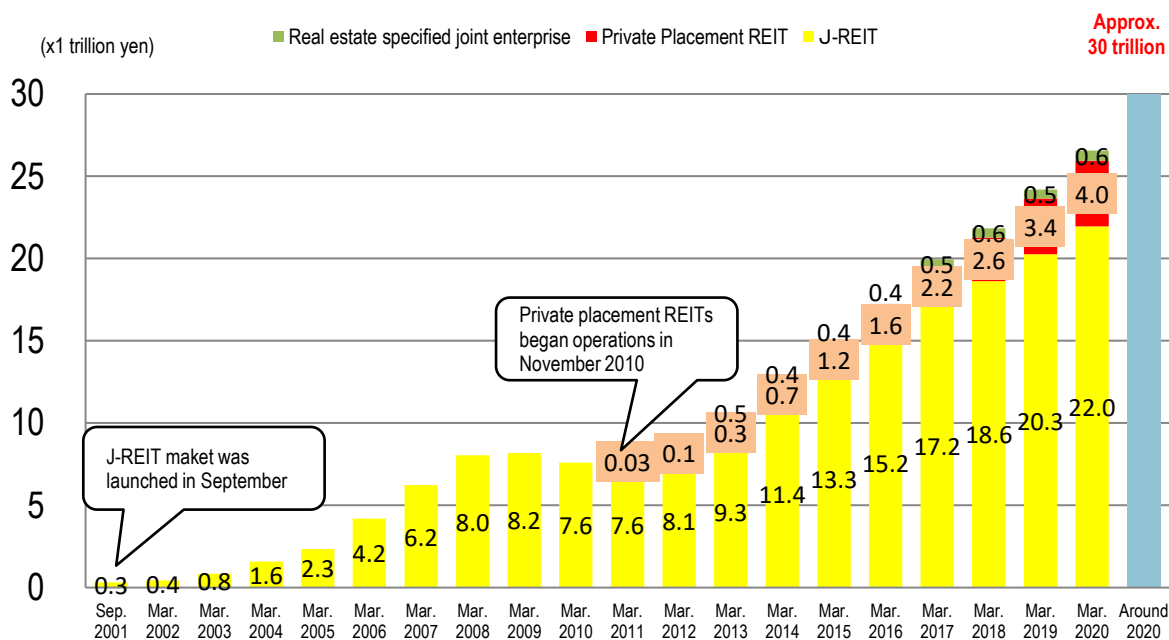
(The Tokyo Gaikan Expressway and Metropolitan Inter-City Expressway, which run through Tokyo, Saitama, Ibaraki, and Chiba prefectures, are at the center of this area)

Section 5 Trends in the Real Estate Investment Market

(Trends in the real estate securitization market)

The total assets of the real estate investment market was around 26.6 trillion yen as of the end of March 2020, in the course of realizing the Investments for the Future Investment Strategy 2017 (approved by the Cabinet on June 9, 2017), the target of achieving the total assets of around 30 trillion yen, including REIT, by around 2020 as part of the government's growth strategy.

Figure Changes in the total assets of REIT (Trends in the J-REIT market)



<Private placement REITs>

The Association for Real Estate Securitization's Private Placement REITs Quarterly (end of March 2019)

*Figures for 2011 and 2012 are estimated intermediate figures for the period between December of the preceding year and June of the current year.

*Based on acquisition price.

<J-REITs> Data published by the Investment Trusts Association of Japan

*Figures for September 2001 and March 2002 are estimates provided by the Association for Real Estate Securitization.

Real estate specified joint enterprise>

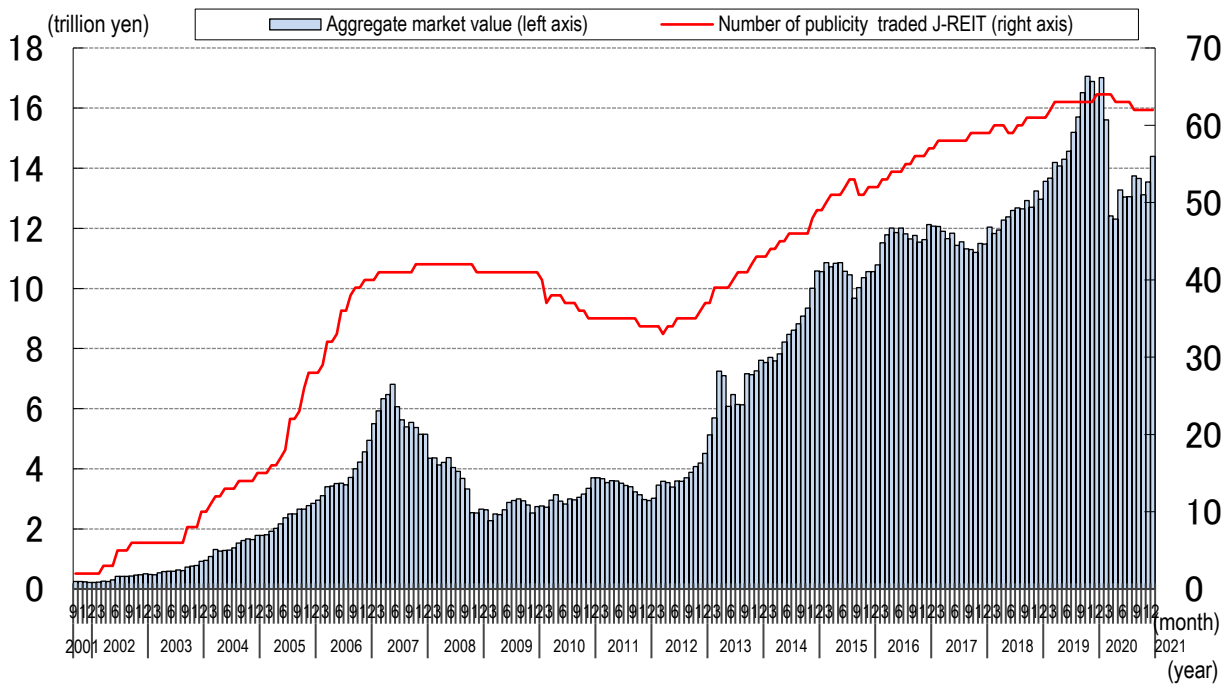
According to the Ministry of Land, Infrastructure, Transport and Tourism's Real Estate Securitization Actual Conditions Survey

*No data up to fiscal year 2010 since this survey item had not been established prior to that point in time.

(Trends in the J-REIT market)

As of the end of March 2021, 61 different stocks for J-REIT were listed on the Tokyo Stock Exchange, and the current aggregate market value of real estate investment trusts was about 16.3 trillion yen.

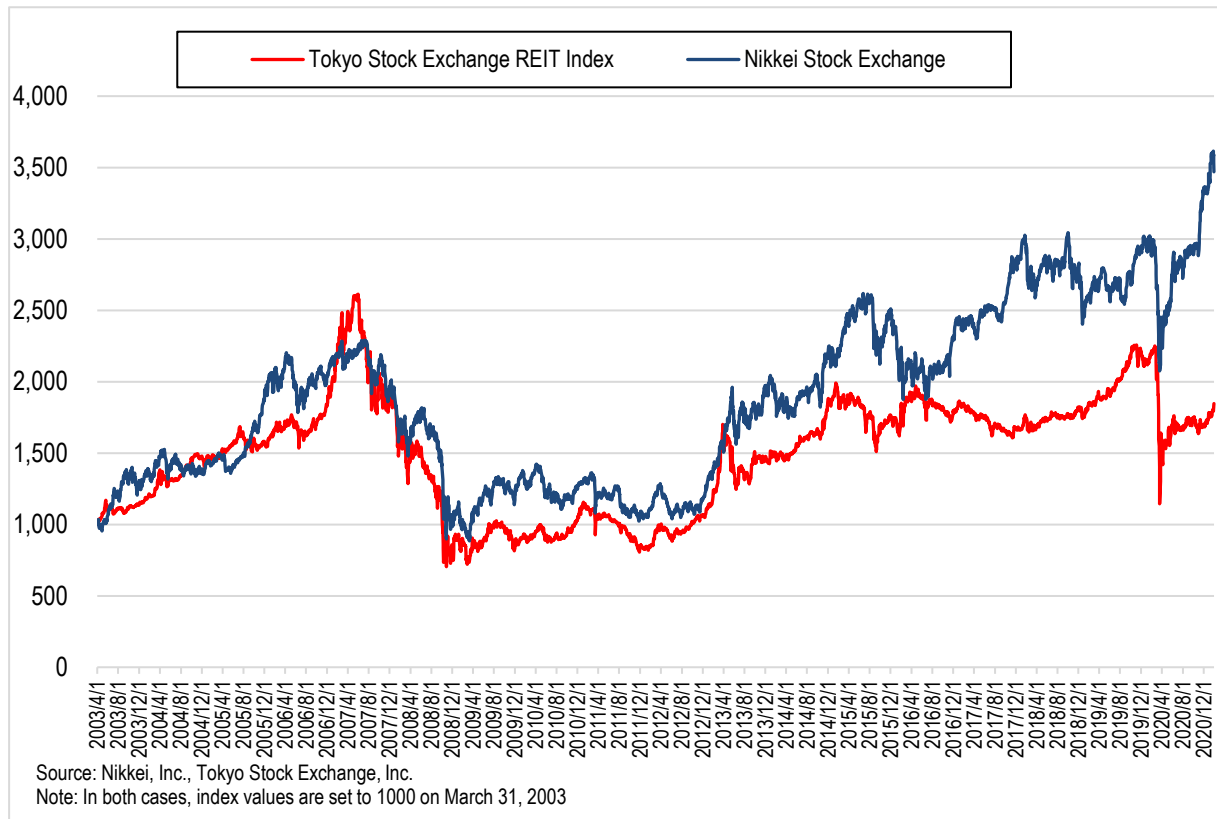
Figure Changes in the number of J-REIT listed issues and market capitalization



Source: Association for Real Estate Securitization

The Tokyo Stock Exchange REIT Index, which indicates the value movement of the whole JREIT market, fell to 1,145 points in March 2020, the lowest level since January 2013, due to the spread of the new coronavirus. With the gradual lifting of the emergency declaration, however, expectations for the resumption of economic activity increased, and the index recovered to the 1,700-point level by the end of May 2020. Subsequently, the index fell to the lower half of 1,600 points at the end of October 2020 as investor confidence worsened following the spread of the new coronavirus in Europe and the United States. However, progress in the development of a vaccine for the new coronavirus helped the index to recover to 2,013 points by the end of March 2021; the 2,000 point level was the first time since March 2020.

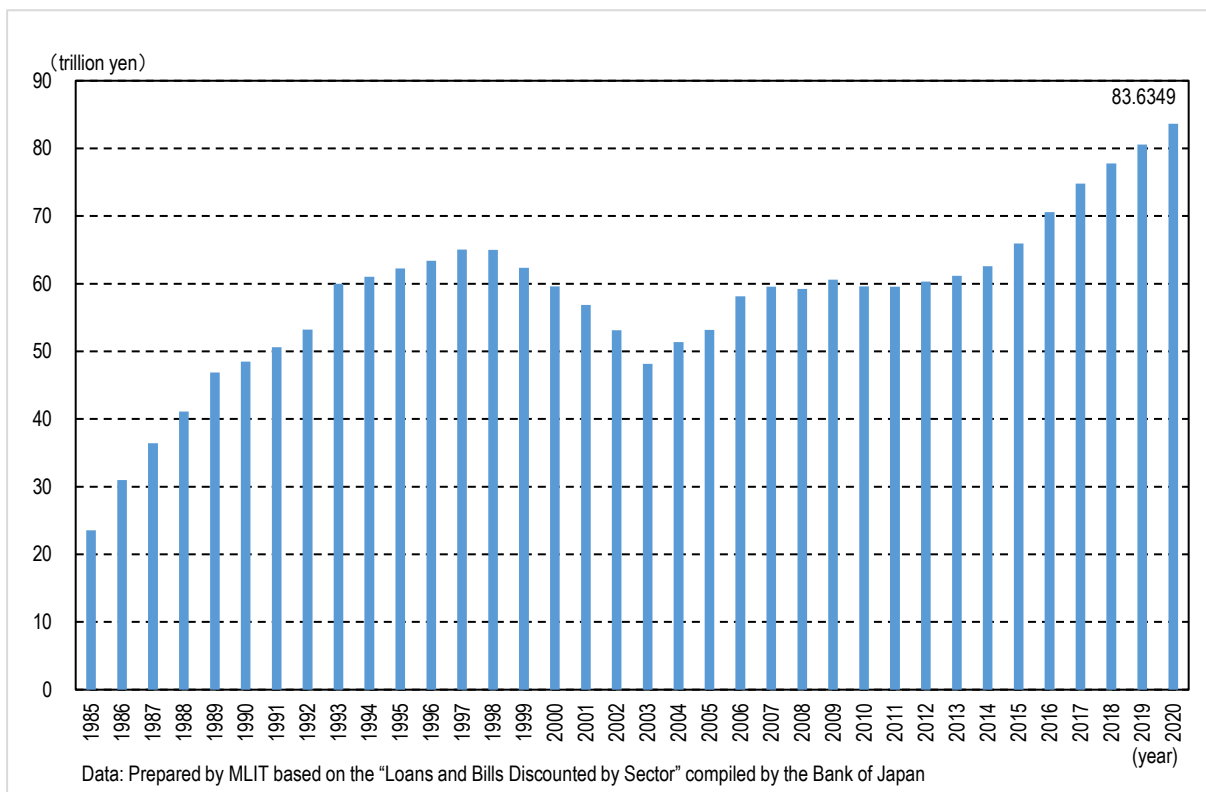
Figure Changes in the Tokyo Stock Exchange REIT Index and the Nikkei Average Stock Index



(Trends in loans to the real estate industry)

The amounts outstanding of loans and bills discounted from banks to the real estate industry, according to the Loans and Bills Discounted by Sector compiled by the Bank of Japan, continued to show a marked upward trend, reaching a record high of 83,634.9 billion yen in 2020, the highest level since 1985.

Figure Changes in the amounts outstanding of loans and bills discounted to the real estate industry



Section 6 Perception of Ownership, Use and Management of Land and Real Estate

(Public awareness toward land and real estate)

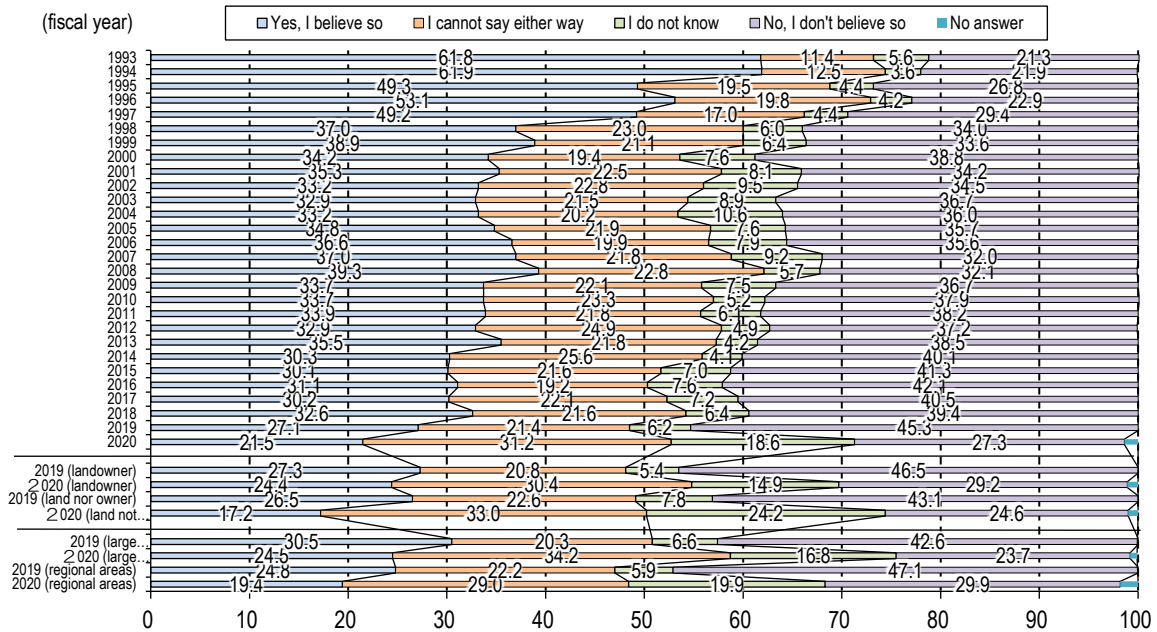
For people, owning land is not only for the purpose of residential land, etc., which is the foundation of their lives, but also as an asset.

The Public Awareness Survey on Land Issues (hereinafter referred to as the "Survey") is conducted by MLIT every year. Due to the impact of the new coronavirus, the 2020 survey was conducted using the postal method instead of the interview method that had been employed in the past.

According to the FY 2020 Survey, in response to the question "Do you think land is a profitable asset compared with deposits/savings or stocks?", 21.5% of respondents answered "Yes", 27.3% of those answered "No", and 31.2% of those answered "No opinion." In the past, the percentage of "No" answers continued to exceed the percentage of "Yes" answers from the FY 2009 to FY 2019 Survey. In this Survey, the percentage of "No" again exceeded "Yes".

Of these responses, 24.4% of respondents who owned land answered "Yes," while 17.2% of those who did not own land answered "Yes," showing that the percentage of respondents who answered "Yes" was higher among landowners. By metropolitan area, 24.5% of respondents living in metropolitan areas answered "Yes," while 19.4% of those living in rural areas answered so, showing that the percentage is higher in metropolitan areas than in rural areas.

Figure 1s land a profitable asset compared with deposits/savings?



Source: Public Awareness Survey on Land Issues, Ministry of Land, Infrastructure, Transport and Tourism (fiscal year 2020)

Note: Metropolitan areas: Tokyo, Osaka, Nagoya

Tokyo area: Municipalities inclusive of established urban zones and suburban developed zones under the Capital Regional Improvement Act

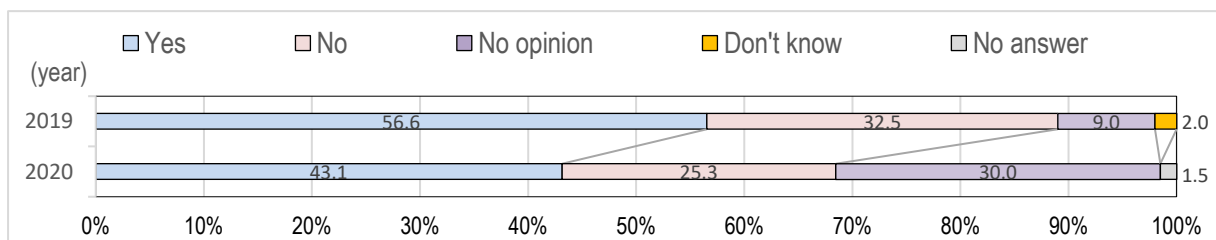
Osaka area: Municipalities inclusive of established urban zones and suburban developed zones under the Kinki Region Improvement Act

Nagoya area: Municipalities inclusive of urban development zones under the Chubu Region Development and Improvement Act

Regions: Municipalities other than those in metropolitan areas

In response to the question "Do you want to own land?" 43.1% of respondents answered "Yes," 10% while 25.3% answered "No." On the other hand, "No opinion" answers accounted for 30.0%.

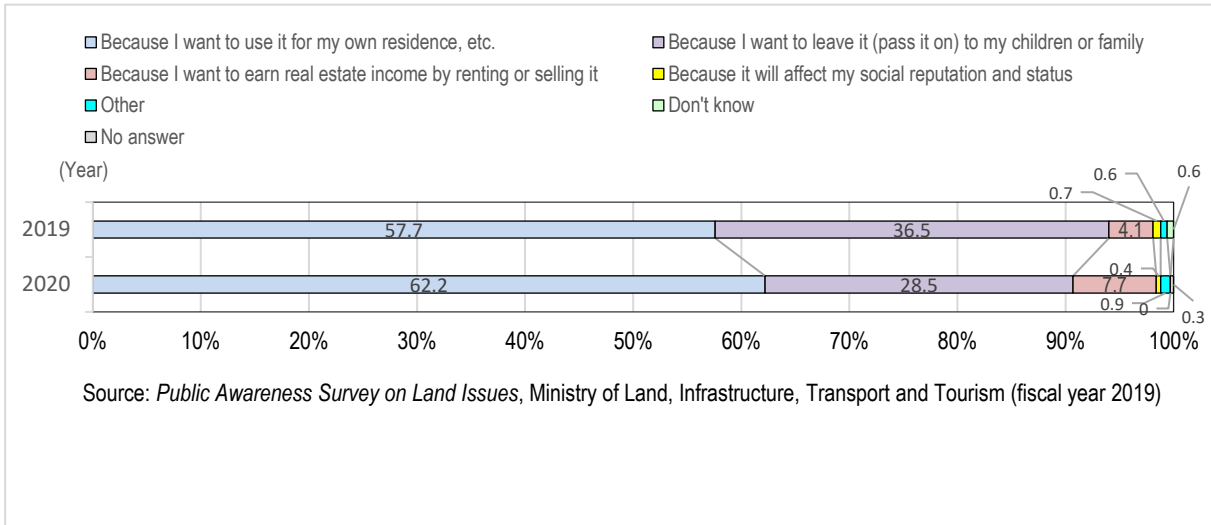
Figure Do you want to own land?



Source: Public Awareness Survey on Land Issues, Ministry of Land, Infrastructure, Transport and Tourism (fiscal year 2020)

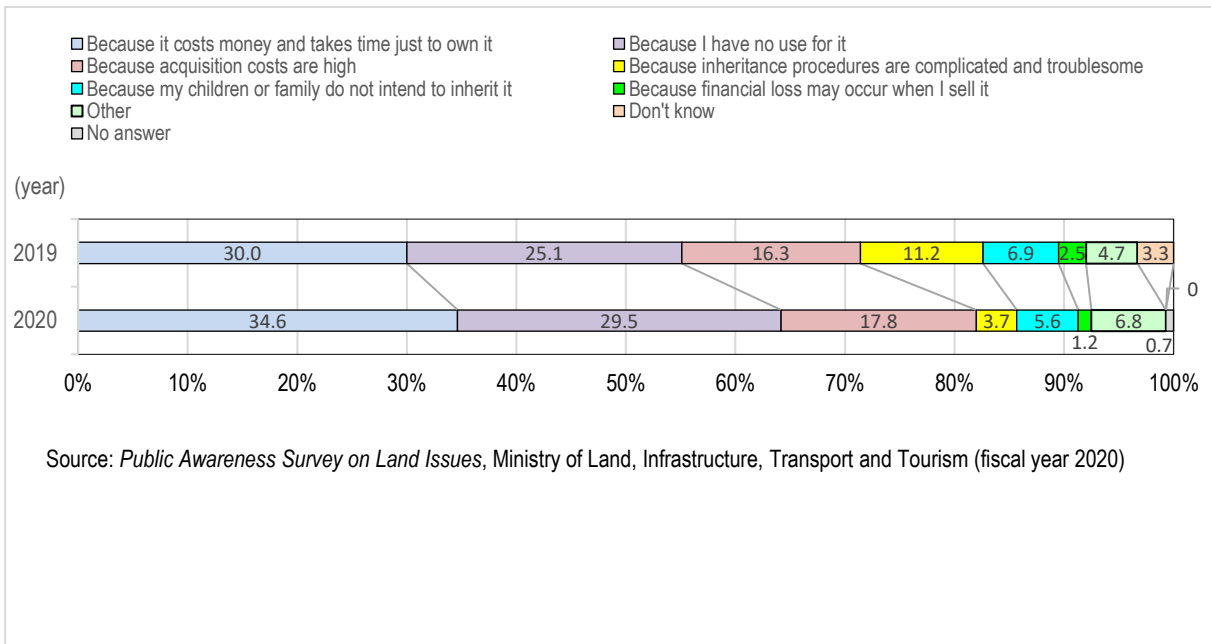
Asked why "I want to own land," the highest percentage of respondents (62.2%) answered "I want to use it for my own residence, etc.," followed by "I want to leave it (pass it on) to my children or family (28.5%). These rankings were the same as those in the 2019 Survey.

Figure Reasons for wanting to own land



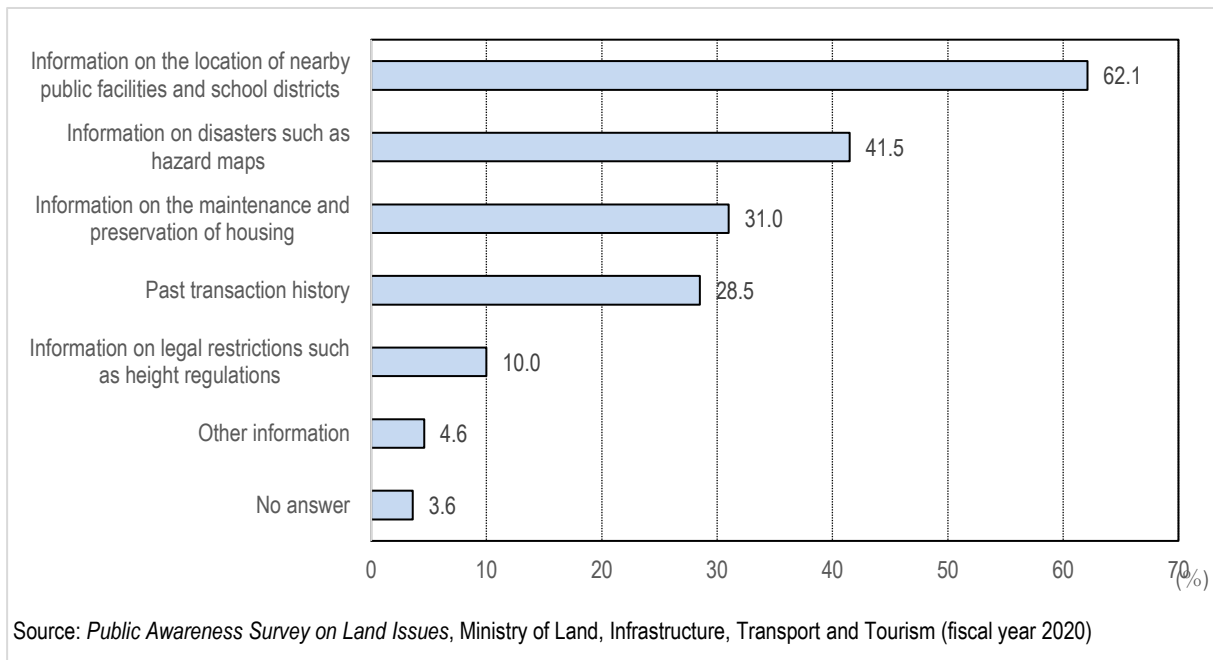
In addition, asked why "I don't want to own land," the highest percentage of respondents (34.6%) answered "Because it costs money and takes time just to own it," followed by "Because I have no use for it"(29.5%).

Figure Reasons for not wanting to own land



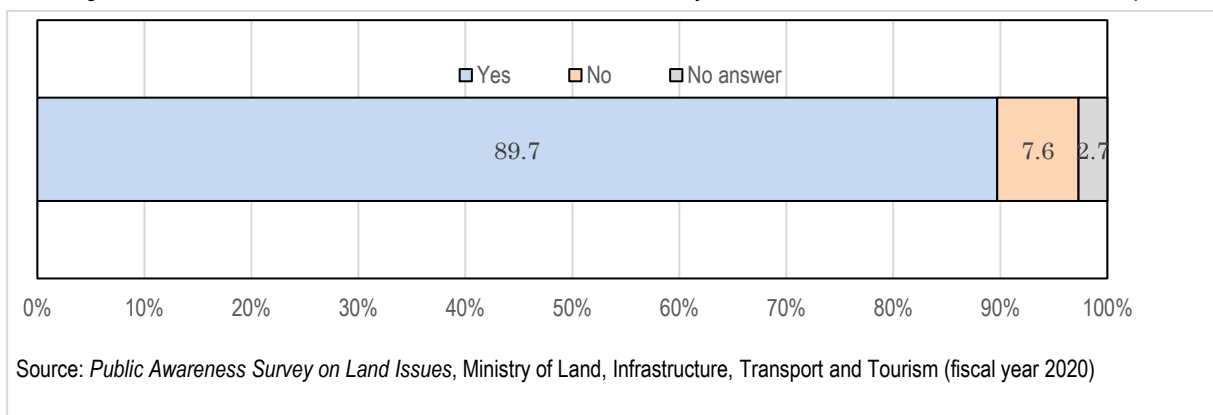
Then, in terms of the public's perception of what information they mainly referred to (or would refer to) during real estate transactions, the highest percentage of respondents (62.1%) answered "information on the location of nearby public facilities and school districts," followed by "information on disasters such as hazard maps" (41.5%) and "information on the maintenance and preservation of housing" (31.0%).

Figure Information used as reference in real estate transactions (Information on non-price matters such as hazard maps) (Multiple responses)



When asked whether the occurrence of disasters in recent years had affected the respondents who referred (or would refer) to hazard maps and other information on disasters, 89.7% of the respondents answered "Yes" and 7.6% answered "No."

Figure Whether or not the occurrence of disasters in recent years has affected the choice of hazard maps



Chapter 2 Initiatives for Land Use, etc. to Protect People's Lives and Livelihoods

The year 2020 saw the spread of a new coronavirus epidemic on a global scale. To prevent the spread of the virus, the government of Japan for the first time responded to the unprecedented crisis by declaring a state of emergency under the provisions of the "Act on Special Measures against Novel Influenza, etc." (Act No. 31 of 2012) from April 7 to May 25, 2021. The spread of this virus has had a tremendous impact on people, threatening their lives and health, and plunging the economic growth of the country into what is effectively its worst condition since the end of World War II. This has led to the need to adopt a "new lifestyle" in an effort to both prevent the spread of infection and maintain economic activity.

In recent years, the effects of climate change have caused ever more severe and frequent natural disasters throughout Japan, coupled with concerns about the occurrences of large-scale earthquakes such as the Nankai Trough earthquake and those that directly impact the Tokyo metropolitan area.

It is essential to protect the lives and properties of the people and maintain the important functions of the nation and society from such large-scale natural disasters. It is also necessary to accelerate and strengthen efforts toward disaster management, damage reduction as well as to build and promote the creation of a resilient nation that will not succumb to disasters.

The government has established the "Three-Year Emergency Measures for Disaster Management, Damage Reduction, and National Land Resilience" (decided by the Cabinet on December 14, 2018) from FY2018, and focused on the implementation of these measures. In order to further accelerate and strengthen efforts toward disaster management, damage reduction and national land resilience, the government has developed the "Initiatives to address The Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience" (decided by the Cabinet on December 11, 2020), which specifies the scale of additional projects that will be required in the five years starting from FY2021, and takes priority and intensive measures to promote each effort.

In addition, March 11, 2021 marked the 10th anniversary of the Great East Japan Earthquake. In the reconstruction process, the "Basic Act on Reconstruction in Response to the Great East Japan Earthquake" (Act No. 76, 2011) was enacted. The government has established the "Basic Guidelines on Reconstruction from the Great East Japan Earthquake" based on the Act, and the national and local governments have been working together to promote reconstruction projects in various fields. Due to the efforts undertaken so far, areas affected by the earthquake and tsunami have entered the final stage of reconstruction. Also, the reconstruction and revitalization of the areas affected by the nuclear disaster is going full speed, but so also is the necessity of implementing medium-to-long-term measures. In light of these circumstances, in order to ensure the best possible reconstruction in FY2021 and beyond, the government will continue to make all-out efforts in accordance with the "Basic Guidelines on Reconstruction from the Great East Japan Earthquake in the Second Reconstruction and Revitalization Period" (decided by the Cabinet on March 9, 2021).

Insofar as trends related to land use to protect people's lives and livelihoods, this chapter includes the following: Section 1 Impacts of the New Coronavirus Infection on the Real Estate Market and Measures to Be Taken; Section 2 Utilization of Land, etc. for Disaster Management and Damage Reduction; and Section 3 Recovery and Reconstruction from the Great East Japan Earthquake and Land Use Efforts.

Section 1 Impacts of the New Coronavirus Infection on the Real Estate Market and Measures to Be Taken

Japan faces a number of issues, including the enormous impact of the prolonged outbreak of the new coronavirus on the social economy and the livelihoods of the people.

This section describes various data trends in the real estate market, etc., and discusses "support systems for businesses affected by the spread of the disease," and introduces cases related to "changes in land use" and "signs of change in workplaces and in business transactions" in view of life with COVID and post-COVID era.

1. Various data trends in the real estate market, etc.

(1) Trends in land prices

To clarify leading land-value trends for residential and commercial land in major cities, this chapter includes the results of the "Trend Report of the Value of Intensively Used Land in Major Cities (Land Value LOOK Report)" which are leading indicators of property market trends, through the identification on such trends on a quarterly basis.

[1] Residential land

Until the January 2020 survey, most prices of the residential land locations had been rising; however, at the time of the April survey, the number of locations where the land prices had leveled off increased, and in the July survey, all locations either leveled off or declined.

The October survey did not show a noticeable change from the July survey, whereas the January 2021 survey showed an upward trend in major cities such as Sapporo City, Sendai City, Yokohama City, two locations in Nagoya City, and Kobe City.

[2] Commercial land

Until the April 2020 survey, many locations in commercial lands had been on an upward trend, whereas according to the July survey flat or declining land prices showed in all areas except Sendai City.

The October survey showed an increase in the number of locations with falling land prices, including parts of Tokyo, Kumamoto City, and Naha City.

Only one location, Sapporo City, showed an increase from surveys conducted from July to October.

Six locations (Sendai City, two locations in Yokohama City, two locations in Kawasaki City, and Nishinomiya City) showed an upward trend as of the January 2021 survey.

(2) Trends in the real estate market

[1] Trends in the office market

The average vacancy rate in the market for office buildings in business districts nationwide is on an upward trend. No major changes have been seen in average rents.

[2] Trends in the housing market

In April and May 2020, the number of new condominiums built for sale decreased significantly compared to previous years.

[3] Distribution of new houses built for sale in the Tokyo metropolitan area based on the time required to access the nearest stations

In 2020, there was no significant change from the previous year in the distribution of new houses built for sale in the Tokyo metropolitan area based on the time required to access the nearest station.

[4] Vacancy rates of logistics facilities, etc.

The vacancy rates of logistics facilities in the Tokyo metropolitan area remain low, while development is progressing in waterfront areas, etc.

(3) Use of telework

The government has released a list of practical examples of "New Normal" based on the recommendations of the Novel Coronavirus Experts Meeting (May 4, 2020), so that people can visualize the specifics of this "New Normal" within the new coronavirus scenario. The guidelines include "telework and rotating work hours," "flexible and time-shifted commuting," "office space," "online meetings," and "ventilation and masks for face-to-face meetings."

The telework usage rates by residence per prefecture as of December 2020 were 30% in Tokyo, 24% in Kanagawa, 22% in Saitama, and 21% in Chiba, showing a higher trend in the Tokyo metropolitan area. Among the employed nationwide, the percentage of those who were using telework as of April or May, 2020, rose to 25%, and by December it was 16%. According to the survey conducted in January 2021, the percentage of employees wishing to telework remains high.

2. Support systems for businesses affected by the spread of the disease

(1) Extension of measures for coordinating the burden of fixed asset taxes on land, etc. in line with economic conditions

The impact of the new coronavirus dealt a major blow to the economy, causing a significant drop in Japan's GDP. There was an urgency to improve the business environment and stimulate private investments. FY2021 was the year for the triennial reassessment of fixed asset taxes. As land prices have been on the rise nationwide in recent years, the burden of fixed asset taxes is expected to increase in many locations.

Due to the impact of the new coronavirus, land prices in commercial areas continued to rise in the three major metropolitan areas and some regional areas as of July 2020, while nationwide land prices began to fall for the first time in five years.

In light of these circumstances, measures for coordinating the burden of fixed asset taxes will be taken to ensure stable taxation on fixed assets in consideration of the foreseeability of taxpayers. The government decided to continue the system for coordinating the burden of fixed asset taxes, including measures for correcting declines, and a system for reducing the tax rate based on local government ordinances during the period from FY2021 to FY2023.

In addition, considering that the situation surrounding socio-economic activities and people's lives in general having changed significantly due to the new coronavirus, and in consideration to the taxpayers' feelings of burden, the government decided to retain the previous year's tax rates on land where these rates will increase due to the measures for coordinating the burden, etc., only for FY2021.

(2) Other measures

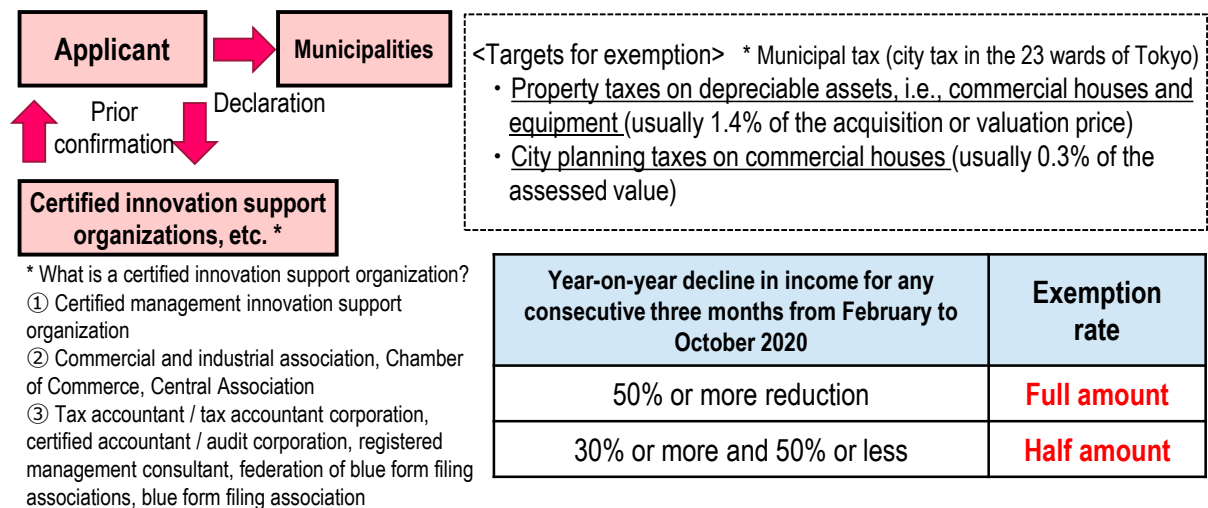
The government has provided a Sustainability Subsidy that can be widely used for businesses in general to support the continuation of businesses, especially for those that have been severely affected by the spread of the new coronavirus. Specifically, this program provides up to 2 million yen for small and medium-sized corporations and up to 1 million yen for sole proprietors of businesses that meet requirements such as a 50% or more decrease in sales in one month compared to the same month of the previous year.

Also, businesses have faced declines in sales due to the extension of the state of emergency declared in May 2020. In order to support the continuation of these businesses, the government has established the Rent Support

Subsidy, a lump-sum cash payment of up to 6 million yen for corporations and up to 3 million yen for sole proprietors, with the aim of reducing the burden of properties and rent.

In addition, the government has taken measures to reduce the burden of fixed asset and city planning taxes on depreciable assets and houses for business use by one-half or zero for small and medium-sized businesses in a difficult business environment for only one year of FY2021 taxation.

Figure Reduction scheme for fixed asset tax and city planning tax



Additional allocation of temporary grants for regional revitalization is one of the support measures taken following the declaration of the state of emergency. This is provided if local governments, with a certain level of involvement with the national government, effectively request reductions in business hours, etc., and pay cooperation fees, etc., to counter the spread of the new coronavirus.

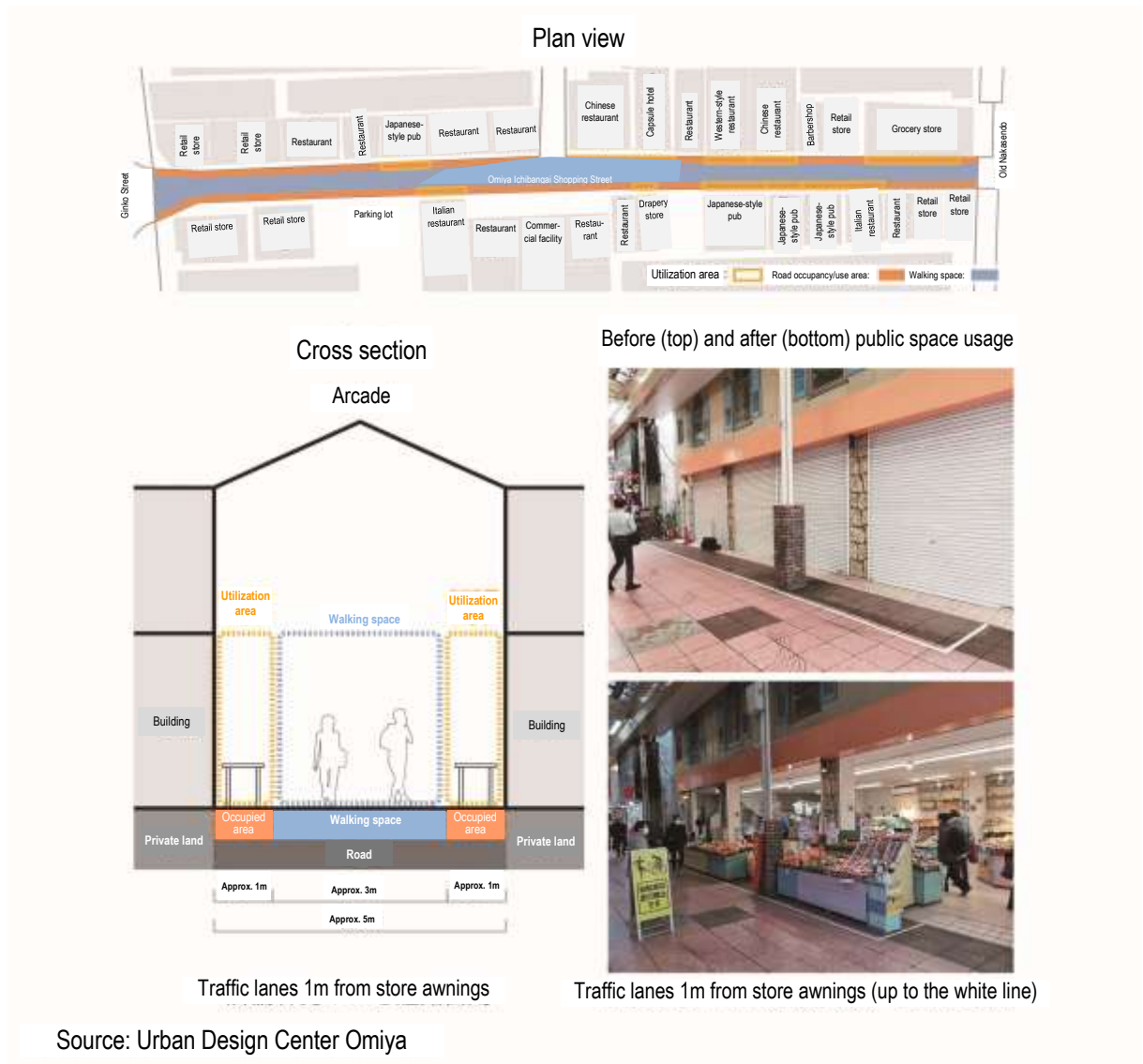
3. Changes in land use

- Road used as space for eating, drinking, and selling (Saitama City, Saitama Prefecture)

As an emergency measure to support restaurants and other establishments affected by the new coronavirus, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) has relaxed the standards for road occupancy permits for takeout and terrace operations.

Following this measure, Saitama City has been conducting the Omiya Street Terrace @ Ichibangai, a social experiment for a New Normal unique to Omiya, since August 1, 2020, led by the Urban Design Center Omiya, Saitama City, and the Omiya Street Terrace Executive Committee. During this period, eating and drinking spaces and shopping spaces were set under the eaves of stores in Ichibangai, where customers could enjoy foods and shopping outdoors while avoiding the three Cs (crowds, close spaces, and closed contact). This project has had certain positive effects, such as the strengthening of cooperation among participating stores in the shopping district to actively share information.

Figure Omiya Street Terrace @ Ichibangai



○ Parks used as kitchen car spaces (Tokyo)

As an emergency measure to support restaurants and other businesses affected by the new coronavirus, the Tokyo metropolitan government has decided to relax restrictions on temporary stores in metropolitan parks and allow food and beverage businesses operating locally in metropolitan parks to conduct temporary business. The parks eligible for the measures are, as a general rule, open to the public without stores and restaurants. The metropolitan government designates locations that will not interfere with the management of the park during periods desired by businesses. Eligible businesses can operate within a two-week period with one application with business hours that are in principle between 9:00 and 17:00.

In Musashino-no-mori Park, sandwiches and coffee beans were sold while avoiding the three Cs.

Figure Parks used as kitchen car spaces (Tokyo)



Source: Tokyo Metropolitan Government

- Using private contents as a mobile library in a parking lot that has been used less frequently (Sakura City, Chiba Prefecture)

An outdoor parking lot for tour buses in Sakura Furusato Hiroba was located in a place with a good view along the Imbanuma Lake; however, it had been used less frequently due to the pandemic. Sakura City used this parking lot to conduct a social experiment involving a mobile library on August 11, 2020. With the theme, "Public Space x Mobile Library x Rich Lifestyle," lunch wagons selling bread, bagels, coffee, and smoothies were set up in addition to the mobile library. The purpose of the event was to examine new library services that combine public and private contents, with a focus on the mobile library. With the catchphrase, "Start your day with a book, coffee, and bread at the waterside in the early morning," the event was held from 7:00 a.m. to 10:00 a.m. and attracted about 200 visitors.

Sakura City has set the following objectives for this social experiment.

- (1) Utilization of outdoor public space
- (2) Provision of public services in the era of Living with COVID
- (3) Promotion of the use of mobile libraries and enhancement of their added value
- (4) Publicizing plans to rebuild the Shinmachi Revitalization Complex, including the Sakura Library (tentative name)
- (5) Seeking new management methods across the organization

4. Signs of change in workplaces and in business transactions

- (1) Efforts by the real estate industry to utilize Real Estate Tech

As a preventive measure against the new coronavirus, there is a growing need for non-face-to-face interactions and non-contact. In this context, the promotion of digital transformations in the real estate industry has attracted attention.

Specifically, examples of such utilization include online accessible real estate property information and viewings, customer services using web conference systems and customer management systems, and online Explanation of Important Matters (explanation of important matters by IT), etc. The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) formulated "Guidelines for Preventing COVID-19 Infection in the Real Estate Industry" on May 20, 2020. These Guidelines provide examples of specific measures that should be taken, such as "reducing the number of on-site visits by using online services such as photos and videos, virtual reality (VR), virtual tours, etc., which allow

non-face-to-face visits and using web conferencing systems and video calls that allow customers to take virtual property tours.

Online information on real estate properties, for example, as well as property information on real estate portal sites, will be upgraded. In addition, virtual reality (VR) created by using a 360° camera to capture live-action images will be used for enhanced viewing.

VR viewing makes it easier to grasp the experience of the property, and narrow the field of the property being viewed. This is expected to shorten the service time of the provider and increase the satisfaction of the user.

In addition, issuing digital keys to users via e-mail, etc., and using smart locks that allow users to unlock rooms by themselves with their smartphones, etc., will also enable "self-viewing," in which users can view rooms unaccompanied by an agent. This eliminates the work of handing over and managing keys easier. It also makes it possible to respond to requests on non-business days or outside of business hours, thereby improving operational efficiency.

Figure VR viewing (image)



Source: Federation of Real Estate Brokerage Associations

The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) has decided that the following shall be treated in the same way as a face-to-face explanation of important matters: for the online Explanation of Important Matters in rental transactions from October, 2019, and for the online Explanation of Important Matters for sales transactions from March 2021. A social experiment is also underway to digitize the Explanation of Important Matters for transactions in rentals and sales.

Benefits of the online Explanation of Important Matters are as follows:

- Reducing the burden of travel and expenses for customers in remote areas, thereby reducing time and costs;
- Expanding the scope of schedule adjustment for the Explanation of Important Matters;
- Providing the Explanation of Important Matters in an environment where customers can relax, (such as at home, etc.).

In addition, the "Act on Advancement of Proper Condominium Management" (Act No. 149 of 2000) was amended and the "Act on the Optimization of Rental Housing Management Business" (Act No. 60 of 2020) was enacted. Based on these laws, efforts have been made to allow the condominium and rental housing management businesses to provide the online Explanations of Important Matters and to digitalize written Explanations of Important Matters, etc.

(2) Changes in office demand with telework

- Consolidating and integrating offices

The promotion of telework has caused a shift from traditional office-based work styles to those that is location-independent, and the demand for office space has changed accordingly. Since the pandemic, teleworking from home has accelerated, while the trend of setting up satellite offices between homes and offices has emerged.

A satellite office is an operative style in which an employee works at another office or remote facility other than the office to which he/she is connected. In some cases, these other offices may be located near the employee's home. If so, by setting up a dedicated workspace for his/her telework in the office, he/she can ensure an environment of habitation and proximity between living and working activities, and reduce commuting time.

Fujitsu Ltd. has been promoting large-scale work style reforms since July 2020, including the expansion of flextime, elimination of single-employer assignments, and the revision of its personnel system. In the process, the company has been promoting large-scale consolidation and integration of its existing offices.

The company's main offices nationwide, including its head office building, will soon do away with individual workstations and turn them into communication spaces for meetings.

Other functions were also categorized as follows: "hub offices" to be set up in major locations, "satellite offices" which are easy to use for meetings, etc., and "home and shared offices" which are set up in many locations near stations and used as stop-trees. While consolidating and reducing the area of hub offices, the company is also promoting the introduction of satellite offices, aiming to optimize the office area by combining hub and satellite offices.

(3) Teleworking in public spaces

○ Yaizu City to build dedicated telework facilities (Yaizu City, Shizuoka Prefecture)

Yaizu City has developed "Anchor," a dedicated facility for corporate teleworkers, in front of Yaizu Station to accommodate new work styles such as telework, in line with the New Normal.

This facility is equipped with six individual booths, two private rooms, four counter seats, and one meeting space (seating four), as well as a ventilation system, air purifier and antibacterial cloths to prevent transmission of the new coronavirus.

Shizuoka Railway Co., Ltd. is in charge of the construction, planning and operation of the facility, and has utilized its own experience in operating the co-working space/shared house "=ODEN (Equal ODEN)" for this facility as well.

This facility is designed as a "commuting in front of the station" third place, neither at home nor at the office, primarily targeting citizens who commute from Yaizu Station to work outside the city by train, and proposing a new work style that is not restricted to the place of work.

After the facility was completed in December, a trial telework program was implemented from January until the end of March. By the end of March, 114 people from 13 companies had used the facility, and 29 people from 12 other organizations, including local governments and corporations, had visited the site for inspection.

The facility has been in full operation since April 1 and is cooperating with existing private coworking spaces and stores in the shopping district to create an environment where workers can gather in front of Yaizu Station.

Figure Dedicated teleworking facility in front of Yaizu Station



Source: Yaizu City

○ Co-working space utilizing space in a local electric railway station (Choshi City, Chiba Prefecture)

Choshi City, Chiba Prefecture, has concluded a "Comprehensive Collaboration Agreement on the Promotion of Worcation and Revitalization of Choshi City" with We'll-Being JAPAN Co. Worcation is a word coined from the combination of "work" and "vacation," which means to work while enjoying leisure time at a place different from one's usual workplace (such as a resort, hot spring resort, or national park) through telework, etc. In February 2020, Choshi Electric Railway Co., Ltd. renovated a vacant space in Inubou Station and opened a coworking space. This space was created for telework through the development of an environment that allows people to work comfortably while waiting for trains, taking some free time on a trip, or during a stay at the Inubosaki hot spring resort.

The city aims to establish a new method of attracting visitors in the "living with corona" and "post-corona" era for lodging businesses that have been severely affected by the new coronavirus. Worcations are great opportunities for the city to attract long-stay visitors that will have a significant positive economic impact on the region.

Section 2 Utilization of Land, etc. for Disaster Management and Damage Reduction

In order to ensure safety and security against natural disasters and protect people's lives and livelihoods, it is essential to build a society in which "disaster prevention," and "damage reduction," are in mainstream consciousness. In recent years, the importance of disaster management and damage reduction has been further heightened due to the increasing severity and frequency of natural disasters.

To establish drastic and comprehensive disaster management and damage reduction measures, in January 2020, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) established the "MLIT Disaster Management and Damage Reduction Task Force" headed by the Minister of MLIT. Also, the ministry has launched the "Disaster Management and Damage Reduction Project All-out Efforts: Disaster Management and Damage Reduction to Protect People's Lives and Livelihoods" and made a concerted effort to promote the project in a strong and comprehensive manner.

To cope with large-scale natural disasters, it is essential not only for the government to take action, but also the private sector, which is responsible for economic and social activities, to take action on a regular basis.

This section reviews the occurrence of natural disasters in recent years, and discusses efforts by the national government, local governments, and private sector to utilize land in order to cope with increasingly severe and frequent natural disasters.

1. Natural Disasters, etc. in Recent Years

○ The Heavy Rain in July 2018

[1] Outline

The total precipitation from June 28 to July 8, 2018 was double to quadruple the normal monthly precipitation in July, with some areas exceeding 1,800 mm in the Shikoku region and 1,200 mm in the Tokai region. Many locations, especially in western Japan, experienced the highest 48-hour and 72-hour rainfall in recorded history, resulting in record-breaking rainfall over a wide area for a long period of time (MLIT information, as of January 9, 2019).

[2] Damage data

Due to river flooding, inundation damage, landslides, etc., 263 people were killed, 8 went missing, and 449 were injured (Fire and Disaster Management Agency information, as of April 1, 2019).

In Hiroshima Prefecture, mudslides and other disasters occurred simultaneously in Hiroshima City, Kure City, Saka Town, and other areas. In Okayama Prefecture, water levels remained high for a long time due to the "backwater phenomenon," in which water flow is blocked when the Oda River (a tributary of the Takahashi River), joins with the mainstream Takahashi River. This sequence of events caused the Oda River and other rivers to overflow their banks, resulting in large-scale flood damage mainly in Mabi Town, Kurashiki City.

○ Hokkaido Eastern Iburi Earthquake in 2018

[1] Outline of the earthquake

On September 6, 2018, at 3:07 a.m., an earthquake measuring 6.7 on the Richter scale occurred in the central and eastern parts of the Iburi Region of Hokkaido, with intensity 7 on the Japanese scale in Atsuma Town, intensity 6+ in Abira and Mukawa Towns, and intensity 6- in Higashi District, Sapporo City.

[2] Damage data

The earthquake killed 43 people and injured 782 (Fire and Disaster Management Agency information, as of April 1, 2019). Major causes of the deaths were landslides (mudslides, mudflows, etc.), mainly in Atsuma Town, where a large scale landslide from the mountainside caused many deaths and injuries in private homes.

The earthquake caused many water pipes to burst and the ground to sink in various parts of Sapporo City. In particular, dozens of houses in residential areas such as Kiyota District, located in the hilly southeastern part of Sapporo City, were damaged and roads caved in. The Satozuka Area in the same region, built-up land combined with a valley filled with volcanic ash sandy soil, had a pre-existing high groundwater level caused by Typhoon No. 21. The earthquake's motion liquefied the layer of soil beneath the groundwater level, and the whole erupted from the lower elevations, resulting in severe damage to houses.

Figure Roads caved in caused by ground subsidence (Hiraoka District, Kiyota District, Sapporo City)



Source: White Paper on Disaster Management 2019

○ Typhoon Hagibis (Typhoon No. 19) in 2019

[1] Outline

In 2019, Typhoon Hagibis (Typhoon No. 19) made landfall on the Izu Peninsula and passed through the Kanto Region with large and strong force. With the approach and passage of the typhoon, total precipitation from October 10 to 13 reached 1,000 mm in Hakone Town, Kanagawa Prefecture, and exceeded 500 mm in 17 locations, mainly in eastern Japan. In particular, many points in Shizuoka and Niigata Prefectures, Kanto-Koshin and Tohoku Regions experienced record-breaking rainfall, setting new records for 3, 6, 12, and 24-hour rainfall amounts.

[2] Damage data

Rivers overflowed over a wide area, causing flooding, landslides, etc., with 118 people killed, 3 missing, and 388 injured (Fire and Disaster Management Agency information, as of October 13, 2020).

The typhoon caused many rivers to overflow their banks, including 6 river systems, 7 rivers, 12 under national management and 128 river under prefectural management. The inundated area caused by the muddy water was extensive, especially in the Chikuma River basin of the Shinano River system and the Abukuma River basin, where a lot of damage occurred due to bank breaches. One of the major damages to the transportation infrastructure was the submersion of 10 Shinkansen cars (12 cars per train) at the Hokuriku Shinkansen depot, which affected the Hokuriku Shinkansen schedule over a long period of time. In the flooded areas of Kawasaki City, Kanagawa Prefecture and other areas, power supply equipment was flooded in some of the tower condominiums. This caused a disruption of electricity and water supplies for over a week, presenting an issue of the necessity of making the power supply system water resistant.

Figure Flood damage in Chikuma River Area



Source: Brochure of "Disaster Management and Damage Reduction Project All-out Efforts" by MLIT

○ Heavy Rain in July 2020

[1] Outline

During July 3 to 31, 2020, warm and humid air continued to flow in due to a front that stalled near Japan, causing heavy rainfall in many areas. The total amount of precipitation from July 3 to July 31 exceeded 2,000 millimeters at many locations in Nagano and Kochi Prefectures. Many locations in southern Kyushu, northern Kyushu, Tokai, and Tohoku Regions recorded the highest 24, 48, and 72-hour rainfall totals in recorded history.

[2] Damage data

Due to river flooding, inundation damage, and landslides, etc., 84 people were killed, 2 went missing, and 80 were injured (Fire and Disaster Management Agency information, as of February 26, 2021).

Ten rivers managed by the national government, including the Kuma River and Chikugo River, and 193 rivers managed by prefectures overflowed, resulting in a total of approximately 13,000 ha of flood inundation nationwide (as of October 1, 2020). Also, the number of landslide disasters such as mudslides and landslides reached 961 nationwide (as of January 7, 2021). This disaster also had a tremendous impact on social infrastructure, with 16 expressways and approximately 750 sections of national and prefectural roads damaged nationwide, and 13 companies and 20 railroad lines damaged nationwide, including bridges that were washed away.

2. Efforts by the Government

(1) Operation of laws and regulations related to disaster management and damage reduction

○ Disaster risk areas

In accordance with Article 39 of the Building Standards Act (Act No. 201 of 1950), local governments have designated (by ordinance) disaster risk areas that are at significant risk from tsunami, tidal surge, water outflow, etc. The ordinance may prohibit the construction of buildings used as dwellings and establish other restrictions on the construction of buildings that are necessary for disaster prevention. Disaster risk areas have been designated in 22,784 locations nationwide as of April 1, 2021.

○ Sediment disaster alert areas

As of December 31, 2020, 640,810 areas have been designated as sediment disaster alert areas under Article 7 of the Act on Sediment Disaster Countermeasures for Sediment Disaster Prone Areas (Act No. 57 of 2000). Also, 517,243 areas have been designated as sediment disaster special alert areas under Article 9 of the Act.

- Establishment of areas likely to be inundated by tsunami, etc.

Areas likely to be inundated by tsunami under Article 8 of the Tsunami Defense Facility under the Act on Regional Development for Tsunami Disaster Prevention (Act No. 123 of 2011) have been identified in 37 prefectures as of March 26, 2021. 18 prefectures, including some municipalities, have been designated as tsunami disaster alert areas under Article 53 of the Act as of March 26, 2021. Under Article 72 of the same Act, tsunami disaster special alert areas have been designated in Izu City, Shizuoka Prefecture.

- Areas likely to be inundated

Under Article 14 of the Flood Control Act (Act No. 193 of 1949), areas likely to be inundated by floods include 448 rivers under national management and 1,689 rivers under prefectural management as of July 2020. Two organizations have been designated as areas likely to be inundated by rainwater runoff as of December 2020, and five prefectures have been designated as areas likely to be inundated by tidal surge as of March 2021.

(2) Efforts to revise systems that contribute to disaster management and damage reduction

- Act on Partial Revision of the Act on Special Measures concerning Urban Reconstruction, etc.

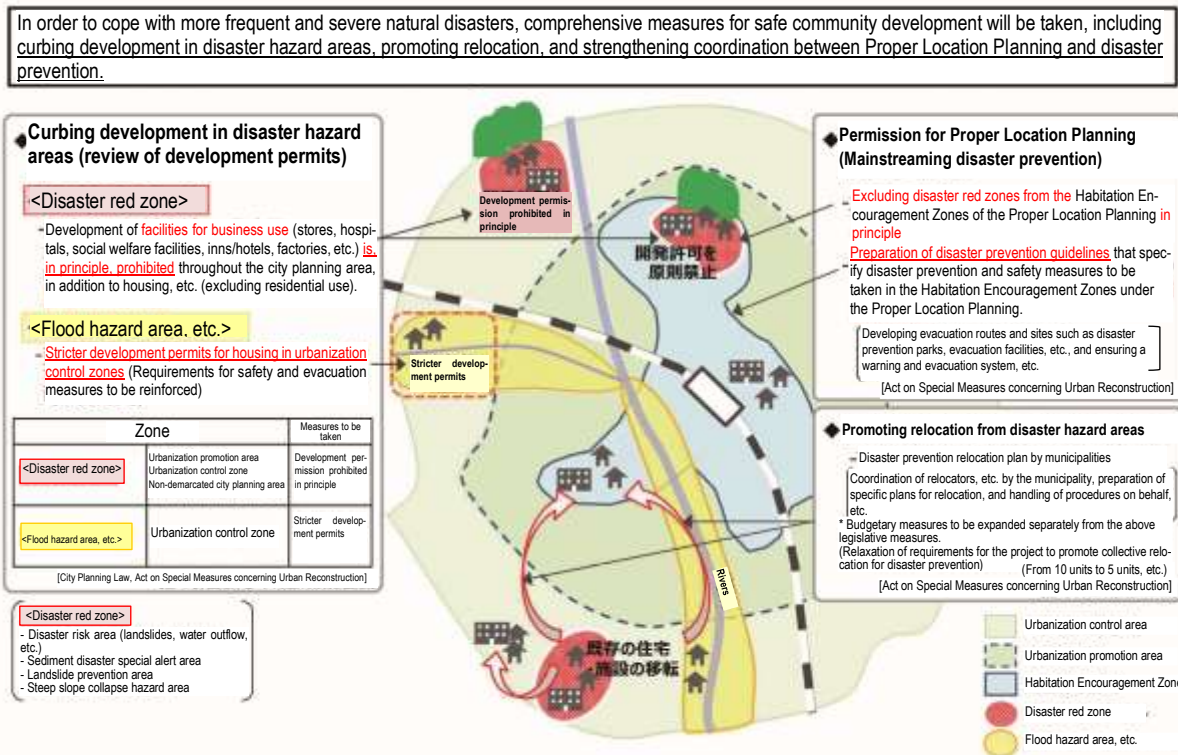
To cope with increasingly severe and frequent natural disasters, an urgency has developed to take comprehensive measures from the perspective of restraining new locations in disaster hazard areas, promoting relocation and urban development for disaster prevention, etc.

The Act on Partial Revision of the Act on Special Measures concerning Urban Reconstruction" (Act No. 43 of 2020) came into effect in September 2020 in response to these issues and promote safe and attractive urban development.

As for safe urban development, new locations in disaster hazard areas are to be controlled, specifically, by prohibiting, in principle, the development of facilities for private business use in disaster red zones, tightening development permits for housing in flood hazard areas in urbanization control zones, and recommending and publicizing the development of housing, etc. in the disaster red zones outside the Habitation Encouragement Zones.

Relocation from disaster hazard areas will be encouraged by preparing a plan to support smooth transitions from disaster hazard areas by municipalities. Also, it is required to exempt disaster red zones from Habitation Encouragement Zones in principle, and to prepare disaster prevention guidelines that include disaster prevention measures within Habitation Encouragement Zones, in order to strengthen the link between Proper Location Planning and disaster prevention.

Figure Safe urban development to cope with increasingly frequent and severe natural disasters



Source: MLIT

○ Partial Revision of the Enforcement Regulations of the Real Estate Brokerage Act

In recent years, frequent occurrences of large-scale water disasters have caused enormous damage. In real estate transactions, information on flood risks has become an important factor in making decisions on contracts.

For this reason, amendments to the Enforcement Regulations for the Real Estate Brokerage Act (Ministry of Construction Ordinance No. 12, 1957), which added the locations of properties subject to transactions to the flood hazard maps based on the provisions of the Flood Control Act, have been enforced since August 2020 as items subject to the Explanation of Important Matters in real estate transactions.

Also, the Guidelines for the Interpretation and Operation of the Real Estate Brokerage Act (Act No. 176 of 1952) specify that, when real estate brokers provide explanations, they should also indicate the locations of shelters in the vicinity of the property to be traded. It also requires that consideration be given to prevent other parties from mistakenly believing that there is no risk of flooding simply because the property to be traded is located outside of the areas likely to be inundated.

○ Main land policy-related efforts identified in the Initiatives to Address the Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience

The areas to be further promoted and strengthened are identified as follows: "Measures to cope with increasingly severe winds, flood disasters and impending large-scale earthquakes," "accelerating countermeasures for aging infrastructure by shifting to preventive maintenance," and "promoting digitalization, etc. to efficiently advance measures for building national resilience." In order to determine the scale of additional projects required in the five years up to FY2025 and to take priority and intensive measures, the "Initiatives to Address the Five-Year Acceleration

Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience" was decided by the Cabinet in December 2020.

As for main efforts related to land policy, the government will focus on cadastral surveys in areas with high probability of landslides, etc., especially in areas with high urgency, to facilitate the construction of infrastructure necessary for disaster countermeasures and to speed up recovery and reconstruction after disasters.

○ Main land policy-related efforts identified in the Disaster Management and Damage Reduction Project

Regarding the MLIT's "Disaster Management and Damage Reduction Project All-out Efforts: Disaster Management and Damage Reduction to Protect People's Lives and Livelihoods" the government will promote cadastral surveys and comprehensive land policies (including the efforts of related ministries and agencies, as the main efforts related to land policy in accordance with the Basic Guidelines for Land), which was revised in March 2020 and based on the Basic Act for Land" (Act No. 84 of 1989). Also, efforts for the smooth implementation of the Act on Special Measures in Relation to Easement of Use of Owner-unknown Land (Act No. 49 of 2018) and the study of its expansion are to be carried out.

The government will develop various disaster risk information sources created by local governments (in paper form as GIS data that can be superimposed with various geospatial information) and promote the use of open data. By overlaying surface data such as areas likely to be inundated with floods with GIS data on population, buildings, public facilities and infrastructure, it will also provide an application that can easily count the approximate number of people in an area. Through these efforts, functions for providing disaster-related information will be strengthened at the G-Geospatial Information Center, etc. over the medium to long term.

○ Partial Revision of the Act on Partial Revision of the Act on Countermeasures against Flood Damage of Specified Rivers Running Across Cities, etc. (Acts related to Flood Control in River Basins)

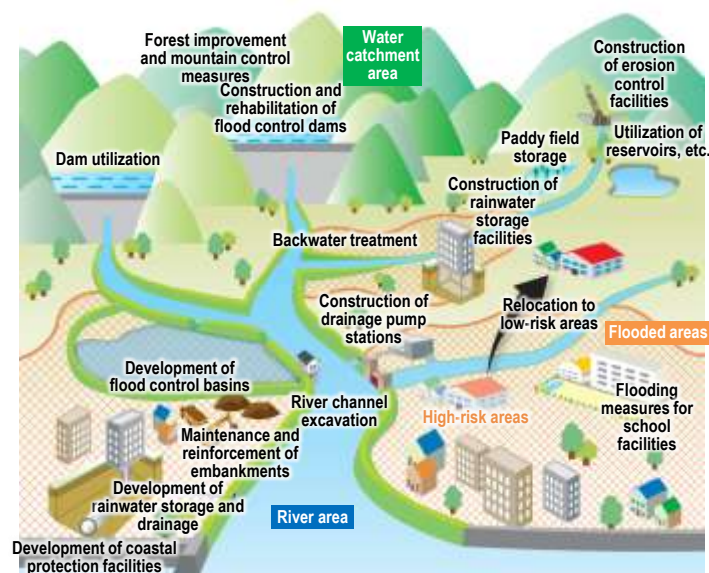
Water-related disasters have become increasingly severe and frequent throughout Japan in recent years, and due to the effects of climate change, the amount of rainfall and the frequency of flooding are expected to increase nationwide in the future. Under these circumstances, the government has needed to increase the effectiveness of "flood control in river basins," in which all parties involved, including the national government, local governments, businesses, and residents of the basin, work together to improve the effectiveness of flood control by viewing the entire basin, including upstream, downstream, and main and branch rivers, in addition to accelerating and enhancing hardware development and reviewing flood control plans. To this end, the Act on Partial Revision of the Act on Countermeasures against Flood Damage of Specified Rivers Running Across Cities, etc. (Act No. 31, 2021, also known as the "Acts related to Flood Control in River Basins ") was enacted on April 28, 2021 and promulgated on May 10, 2021.

Under this Act, specifically, flood control plans and systems for river basins will be developed by increasing the number of rivers that utilize plans for flood control in river basins, and by creating councils for flood control in river basins and enhancing the plans. Also, the government will promote measures to prevent flooding as much as possible by strengthening measures in rivers and sewerage systems, as well as rainwater storage measures in basins, such as the establishment of storage function protection zones.

In addition, measures for damage reduction, early recovery, and reconstruction will be promoted, including coordination with urban development for flood prevention, such as the establishment of flood damage prevention

zones, promotion of measures to reduce the number of people affected by flooding (by devising new ways to live), expansion of hazard mapping areas and expansion of the scope of authority delegated by the Minister of MLIT, etc.

Figure Image of flood control in river basins



Flood control in river basins through the cooperation of all stakeholders

Source: MLIT

○ Guidelines for Flooding Countermeasures for Electrical Equipment in Buildings

Heavy rains caused by Typhoon Hagibis (Typhoon No. 19) in East Japan in 2019 flooded the high-voltage receiving and transforming equipment in the basement of a high-rise condominium, causing a power outage. This resulted in damage to lifelines such as elevators and water supply systems that were put out of service for a certain period of time. Learning from the experience of flooding in buildings, the "Study Group on Flooding Countermeasures for Electrical Equipment in Buildings," consisting of academic experts and related industry groups, was held in cooperation with related ministries and agencies, and the "Guidelines for Flooding Countermeasures for Electrical Equipment in Buildings" was compiled in June 2020.

The Guidelines include measures to install electrical equipment in locations with low risk of flooding and prevent flooding in the target building, prevent flooding of rooms where electrical equipment is installed, and to ensure early recovery of electrical facilities, etc. Further, it is to be promoted to ensure the continuity of functions in new and existing buildings in the event of floods and other disasters.

○ Establishment of the "Michi-no-eki (roadside station) with disaster prevention functions" system

A new system of "Michi-no-eki (roadside station) for disaster prevention functions" will be introduced to help strengthen the disaster prevention functions of "Michi-no-eki" that serve as bases for wide-area recovery and reconstruction activities.

○ Promotion of green infrastructure

"Green infrastructure" utilizes the diverse functions of the natural environment in both hard and soft aspects of social capital improvements and land use. This approach contributes to disaster management and damage reduction through rainwater harvesting and filtration, healthy and comfortable urban development to accommodate the New Normal, and environmentally friendly community development to realize the SDGs, thereby contributing to the resolution of various social issues. One example of this is the multipurpose recreational area developed along the Tsurumi River.

The mainstream of the Tsurumi River originates in Kamiyamada Town in Machida City, Tokyo, flows through the Tama Hills and Kawasaki City, and meanders through the eastern part of Yokohama City before flowing into Tokyo Bay at Namamugi, Tsurumi District in the Keihin Industrial Zone. The Tsurumi River has long been known as a "raging river" due to its frequent flooding. The basin has been rapidly urbanizing: the urbanization rate of the basin, which was about 10% in 1958, reached about 60% in 1975 and about 85% in 2003, causing frequent flood damage. In addition to river channel improvements such as embankment improvement and river channel excavation, the development of multipurpose recreational areas has been promoted.

Typhoon No. 18 in 2014 caused the second largest amount of rainfall in the Tsurumi River basin in the postwar period (average 2-day rainfall in the basin: 323 mm), and 1.54 million m³ (the largest ever) was stored in the Tsurumi River Multi-purpose Recreation Area. This amount of rainfall was higher than that of Typhoon No. 4 in 1966 (more than 10,000 houses were flooded), which recorded the third highest rainfall in the postwar period (average 2-day rainfall in the basin: 307 mm). Due to the successful implementation of these measures, the number of inundated houses was reduced to six, contributing to the efforts to cope with the increasingly severe and frequent natural disasters associated with climate change.

On the other hand, the Tsurumi River multipurpose Recreation Area is used for sports and environmental education events during normal times, and also functions as a habitat for a variety of organisms, contributing to regional development and environmental conservation.

3. Efforts by Local Governments

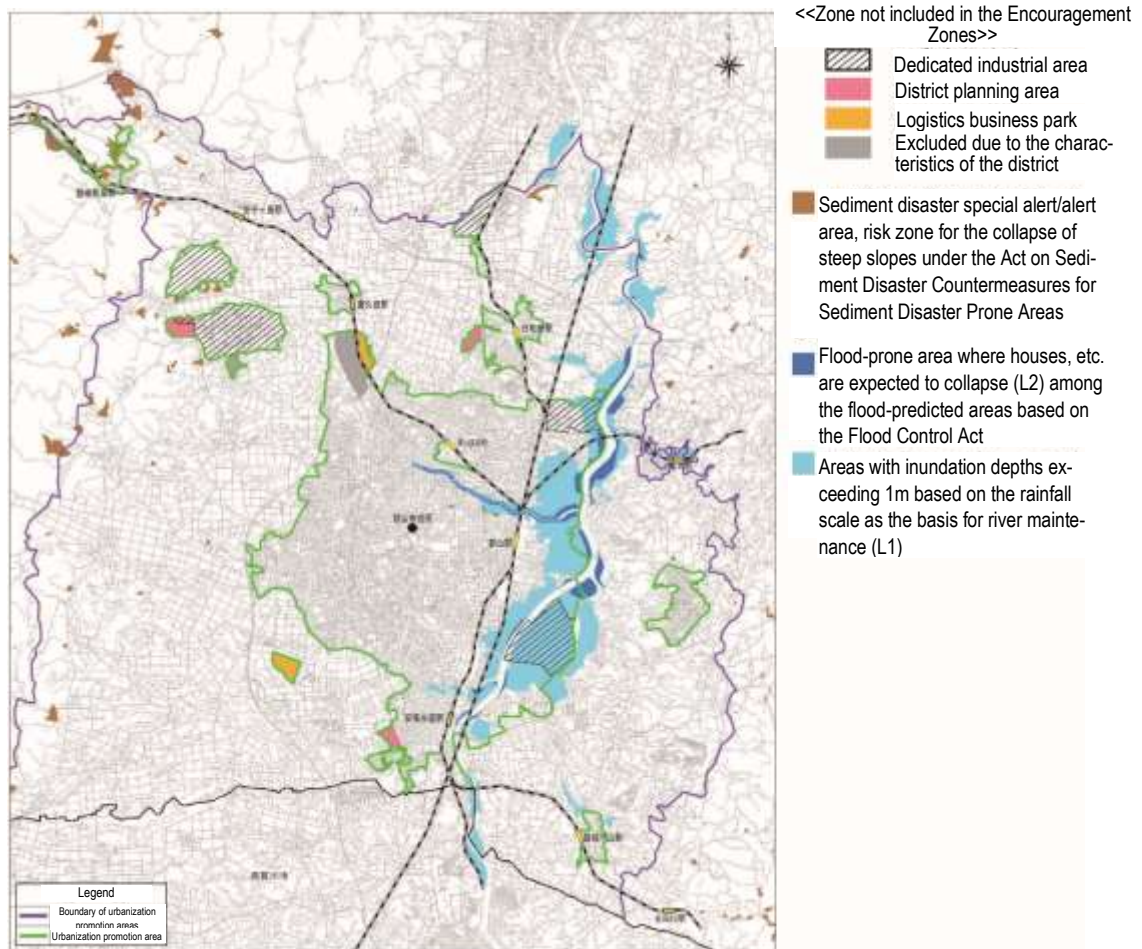
○ Areas with deep inundation tendencies are in principle excluded from Habitation Encouragement Zones (Koriyama City, Fukushima Prefecture)

Koriyama City, Fukushima Prefecture, has been repeatedly hit by flooding, and areas likely to be inundated by the Abukuma River have been designated on the east side of the city. In order to promote urban development based on the concept of compact plus network, the city formulated the "Proper Location Planning for Koriyama City" based on the "Act on Special Measures concerning Urban Reconstruction" (Act No. 22 of 2002) in March 2019. The plan designates the central hub area around Koriyama Station and Koriyama City Hall and three other secondary hubs where higher-order urban functions are concentrated as "Urban Functions Encouragement Zones." The areas along the key public transportation lines, including the Urban Functions Encouragement Zones, are designated as "Habitation Promotion Zones" ("Habitation Encouragement Zones" based on the Act on Special Measures concerning Urban Reconstruction). In principle, areas where houses are expected to collapse or be inundated (L2) and areas where the depth of inundation will exceed 1m (L1) are excluded from the "Habitation Promotion Zones."

In 2019, Typhoon Hagibis (Typhoon No. 19) inundated about 2% (about 54 ha) of the Habitation Encouragement Zones designated by the city. Considering this experience, the city government re-examined where the disaster

prevention guideline should be placed in the Proper Location Planning, and revised the plan in March 2021 to promote more appropriate hardware and software measures.

Figure Areas not included in the "Encouragement Zones" of the Proper Location Planning for Koriyama City in principle



Source: Koriyama City

○ Building restrictions in areas with high inundation risk by ordinance (Shiga Prefecture)

Shiga Prefecture has established the "Shiga Prefecture Ordinance on the Promotion of Flood Control in River Basins," designating areas with a high risk of inundation as "alert areas for inundation" and enforcing building restrictions. Specifically, in the event of a rainfall with a 200-year probability, land areas with an estimated depth of inundation of more than 3 meters can be designated. Within these areas, permission from the governor is required to build a residence, etc. Flood risk information based on the assumption of flooding caused by rainfall of three levels of magnitude is also published as the "Safety Level Map." The analysis covers rivers for which flood forecasts and water levels are known, as well as major first-class rivers, ordinary rivers and waterways in the prefecture.

○ Restoration of urban areas affected by the Hokkaido Eastern Iburi Earthquake (Sapporo City, Hokkaido)

Recovery work was completed at the end of 2020 in the Satozuka Area, Kiyota District, Sapporo City, where large-scale land subsidence occurred due to the Hokkaido Eastern Iburi Earthquake on September 6, 2018.

The Satozuka Area, Kiyota District, was developed into a residential area in the mid-1980's. This area is an embankment construction site where a valley was reclaimed with sandy volcanic ash soil. The earthquake motion liquefied the layer of soil below the groundwater level, causing it to flow along the old topography, erupting from weakened areas and causing ground subsidence. It caused significant damage to public facilities and residences.

Ground improvement work was started in 2019 to prevent another large-scale sediment outflow. Specifically, the following methods were applied: the chemical grouting method for residential areas, which can be applied even if there are buildings on the ground; the deep mixing method for roads, which prevents lateral movement of the ground; and the replacement method for parks, which prevents liquefaction and flow. In the affected areas, housing reconstruction work was carried out in concert with the countermeasure work. Many victims had completed their housing reconstruction by the end of 2020, taking advantage of various aid funds and subsidies.

○ Designation of disaster risk areas and land use (Miyazaki City, Miyazaki Prefecture)

In Miyazaki Prefecture, Typhoon No. 14 in September 2005 recorded a total rainfall of more than 1,000 mm in the upper reaches of the Oyodo River, which runs through the center of Miyazaki City. Following the inundation of more than 3,000 houses above floor level, Miyazaki City enacted the "Ordinance on Disaster Risk Areas of Miyazaki City" based on Article 39 of the Building Standards Act in 2006.

Based on the same ordinance, disaster risk areas were designated the following year, and the construction of houses and other structures in these areas must be approved in advance by the mayor, Miyazaki City provides a certain percentage of subsidies for the renovation of existing buildings in the area and for surveying for new construction, in an effort to quickly realize disaster-resistant urban development.

○ Evacuation Facilities in Difficult Areas for Tsunami Evacuation (Mihama Town, Wakayama Prefecture)

Wakayama Prefecture has been repeatedly struck by tsunamis, raising fears that the prefecture could be severely damaged by the Nankai Trough Earthquake (hereinafter referred to as the "Nankai Trough Mega Earthquake"), which is one of the largest earthquakes ever predicted by science. In 2013, the prefecture identified areas where it would be difficult to evacuate to a safe place by the estimated time of arrival of the tsunami based on the expected tsunami inundation as "difficult areas for tsunami evacuation." Aiming to "reduce the death toll from tsunamis to zero," it has been promoting measures to support evacuations of individual residents.

Mihama Town is located along the coast from the right bank of the mouth of the Hidaka River, a second-class river. The tsunami is expected to inundate 590 hectares, which is equivalent to about 46% of the entire town and 90% of the residential areas. The depth of inundation is estimated to exceed 7 meters in low-lying areas near the sea and rivers. The estimated arrival time of the tsunami is 16 minutes for a 1-meter-high tsunami and 20 minutes for a 5-meter-high tsunami, thus tsunami evacuation measures have become an urgent issue.

Mihama Town drew up a development plan for tsunami evacuation from the Nankai Trough Earthquake in March 2015. In July 2016, the town began construction of a shelter on a 15.5-meter-high hill in the Matsubara district, which can accommodate the entire population of the difficult-to-evacuate area, and was completed in November 2017 (photo). The shelter has a capacity of about 2,000 people and can accommodate all evacuees from Shinhama, Hamanose, and Taibata. It is also equipped with toilets, a stockpile of daily necessities and emergency rations.

Figure Tsunami shelters on high ground in Matsubara District, Mihama Town, Wakayama Prefecture



Source: Wakayama Prefecture, Mihama Town, Asakawa Reform Co., LTD.

4. Efforts by the private sector

○ KIBOTCHA, a lodging facility for experiencing disaster prevention, which utilizes a closed school (Higashi-matsushima City, Miyagi Prefecture)

"KIBOTCHA is a project in Higashi Matsushima City, Miyagi Prefecture, to transform an abandoned school building of Nobiru Elementary School, damaged by the Great East Japan Earthquake and tsunami, into an accommodation facility for experiencing disaster prevention.

The facility is maintained and operated by Kirintyou Inc., a company that manages lodging facilities and provides disaster and crisis management education. The company leased the land and building from Higashi-matsushima City, the owner of the property, and used its own funds as well as Miyagi Prefecture's "Subsidy for the Development of Model Facilities for the Expansion of Interchange Population in Coastal Areas" to pay for the renovation of the facility.

The facility has a restaurant and bathing facilities on the first floor, a disaster experience zone, a learning room on the second floor and lodging facilities on the third floor. It can function as a temporary shelter for 300 people in case of emergency. In the theater room with large digital video equipment, visitors can learn about disaster situations and response measures by using digital images based on local history and actual disaster cases. All of the playground equipment in the disaster prevention experience zone is based on the theme of "disaster prevention," allowing visitors to acquire the ability to respond to fires, tsunamis, and disasters through physical exercise. Also, under the guidance of former staff from the Self-Defense Forces, police, and fire departments, visitors can learn to make stretchers using familiar items and how to use ropes for first aid.

In October 2019, this facility won the Minister of Land, Infrastructure, Transport and Tourism Award at the "2019 Land Use Model Grand Prix" organized by the Organization of Promotion for Urban Future, as a model case of sustainable land use by taking a dual approach to disaster prevention and regional revitalization.

Figure Summary of KIBOTCHA facilities



Source: Cabinet Secretariat, "Case Studies of Private Sector Initiatives for Building National Resilience (April 2019)," KIBOTCHA

○ Relocation of warehouses from areas likely to be inundated to inland areas (Yao City, Osaka Prefecture)

Dainippon Logistics Co. was concerned about the vulnerability of its warehouse facing the Kizu River in Minamihorie, Nishi District, Osaka City to tsunamis and tidal surges due to the location in an area likely to be inundated in the event of the Nankai Trough Mega Earthquake.

In order to continue its own activities and to protect the goods and assets of its shippers, the company relocated its warehouse to Yao City, Osaka Prefecture, more than 10 kilometers inland from the coastline, following the Great East Japan Earthquake. In addition, it was designated by Osaka Prefecture as a base for handling emergency relief supplies in the event of a disaster, thus expanding its social role in disaster situations.

The company has been working to strengthen the disaster prevention functions of the warehouse facility itself at the new location. Designated by MLIT as a base for private-sector supplies in the event of a wide-area disaster, the company installed a new 110kVA private power generator and satellite phone as emergency power supply equipment in September 2014, while taking advantage of the "Subsidy Project for the Development of Wide-Area Supply Base Facilities." The newly installed in-house power generator is powered by a diesel engine and stocked with 1,000 liters of diesel fuel to enable operation up to 72-hours. Given that the company's assets are mainly warehouses and that it is not a type of business that requires a large number of cargo vehicles, it uses the stockpiled diesel fuel for forklifts, etc. during normal times to prevent waste due to deterioration.

Figure Osaka East Office of Dainippon Logistics Co.



Source: Cabinet Secretariat, "Case Studies of Private Sector Initiatives for Building National Resilience (June 2018)," Dainippon Logistics Co.

○ Second headquarters office established to strengthen business continuity system (Sapporo City, Hokkaido)

AXA Life Insurance Co., Ltd. established a second headquarters office in Sapporo City, Hokkaido, in November 2014. When the Great East Japan Earthquake struck, the company set up an alternate cold standby headquarters base in Fukuoka City to ensure business continuity. Learning from these experiences, the company realized the need for a backup base as a "hot site." They considered it urgent to decentralize its headquarters functions in order to strengthen its business continuity system in preparation for an earthquake that directly hits Tokyo metropolitan area or the Nankai Trough Mega Earthquake.

In selecting location candidates for headquarters functions, the company made a list of 65 major cities nationwide. Considering various risks and conditions such as natural disaster risk, population of the metropolitan area, location of headquarters functions, concentration of higher education institutions and government support systems, they finally selected Sapporo City. One of the factors that led to the decision was the fact that the Hokkaido Government and Sapporo City have been promoting the "Backup Base Concept" since FY2011. They have been proactive in attracting companies and have a deep knowledge and understanding of business continuity management in preparation for emergencies.

○ Private building with measures against flooding, etc. (Osaka City, Osaka Prefecture)

Kurihara Kogyo Co., Ltd. has constructed a new headquarters building in Minamimorimachi, Kita District, Osaka City in March 2019. The new headquarters office building is located in a convenient downtown area; however, it is located in close proximity to the Uemachi fault line. The nearby flood hazard map predicts a maximum depth of 0.3m below ground level in the event of inland flooding. As an electrical equipment construction business, the company has implemented a variety of disaster countermeasures with an emphasis on maintaining their functionality in the event of a disaster and serving as a base for the recovery of electrical infrastructure.

Electrical equipment such as high-voltage power receiving and transforming equipment and emergency power generating equipment are installed on the roof. Pumps, power panels, and oil supply outlets attached to various water tank (i.e., the receiving water tank and fire tank on the first floor) are installed at a height of 2.0 m or more above the floor level. A gradual slope is also provided between the road boundary and the entrance (a difference in elevation of approximately 0.3m), and the floor level is raised in stages toward the elevator lobby, making the first floor

approximately 0.6m higher than ground level. Furthermore, the building is seismically isolated to maintain its functionality in the event of a disaster, and is powered by an emergency generator, solar energy, storage batteries, as well as electric vehicles that can supply power to the building's storage batteries.

Section 3 Recovery and Reconstruction from the Great East Japan Earthquake and Land Use Efforts

Ten years have passed since the Great East Japan Earthquake on March 11, 2011. In the disaster-stricken areas, mainly in the Tohoku region, there has been significant progress in reconstruction through efforts such as housing reconstruction and urban development. The earthquake and tsunami-affected areas have entered the final stages of reconstruction, nuclear disaster-affected areas have begun reconstruction and rehabilitation in earnest as well.

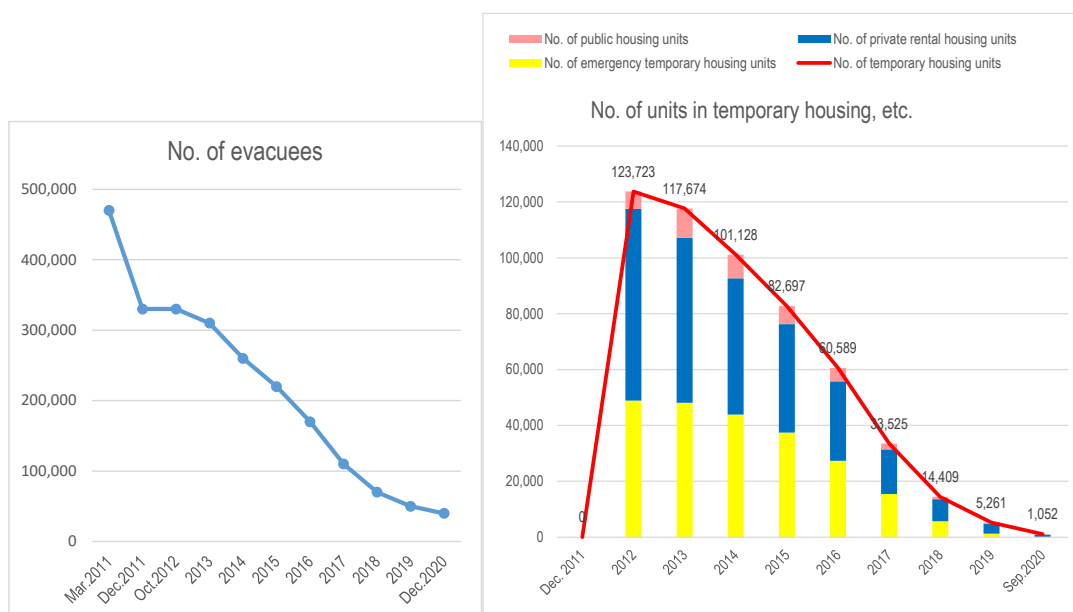
This section summarizes the current situation of recovery and reconstruction and discusses land use among the specific efforts for recovery and reconstruction.

1. Recovery and Reconstruction from the Great East Japan Earthquake

(1) Reconstruction of housing and community

Since the Great East Japan Earthquake, evacuees initially numbered about 470,000, but as of December 8, 2020, the number has decreased to about 42,000. With more evacuees moving from temporary shelters to permanent housing, the number of temporary shelters has decreased from a maximum of about 124,000 units to about 1,000 units.

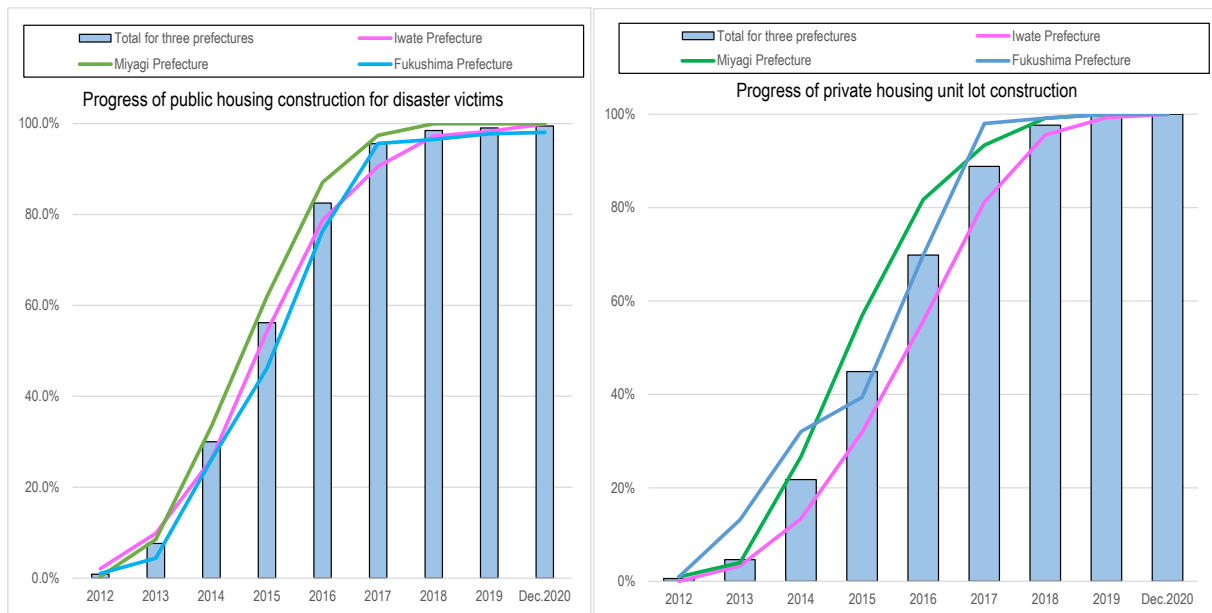
Figure Changes in the number of evacuees and the number of temporary shelters, etc.



Source: Reconstruction Agency

Regarding public housing for disaster victims and relocations to higher ground, about 30,000 units of public housing for disaster victims and 18,000 housing unit lots for relocation to higher ground were completed as of the end of December 2020. Except for public housing for nuclear evacuees and returnees, construction has been completed.

Figure Changes in the rate of completion of public housing for disaster victims and private housing unit lots



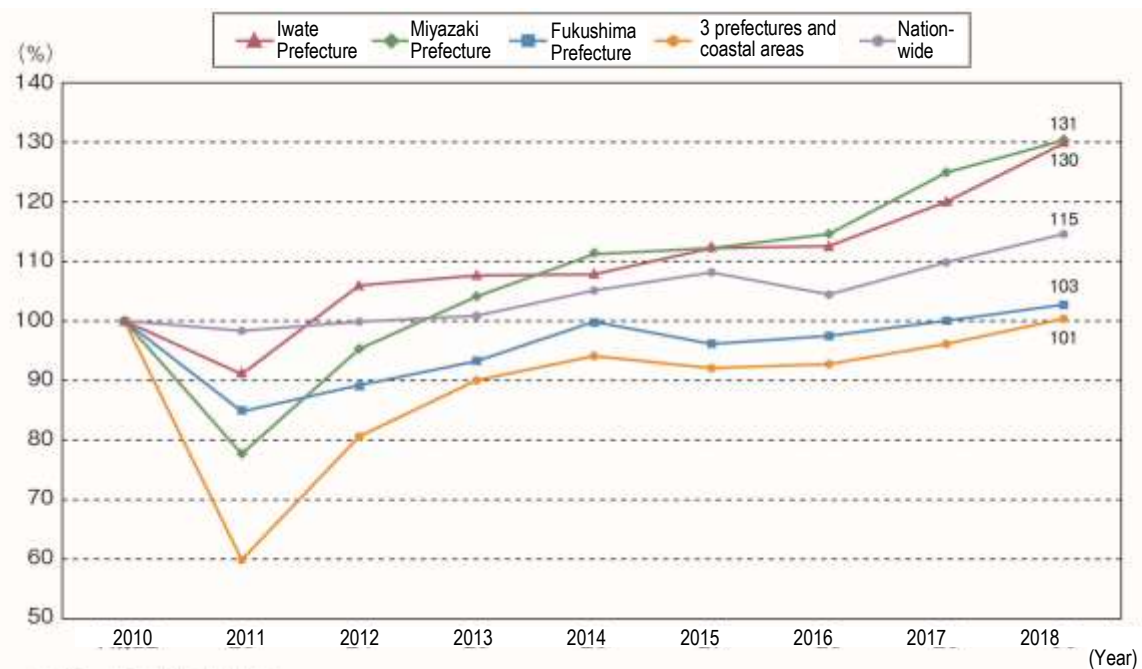
Source: Reconstruction Agency

Development of transportation infrastructure such as reconstruction roads, support roads, railroads, and ports, which serve as the foundation for economic development in the affected areas, has been underway. Except for the areas affected by the nuclear disaster, the project is on track for completion. Through these transportation and logistics networks, the integration of production bases in inland areas and the linking of ports in coastal areas have been realized.

(2) Revitalization of industries and livelihoods

Due to the effects of the earthquake, the value of shipments of manufactured goods, etc. in Iwate, Miyagi, and Fukushima prefectures dropped significantly in 2011, but recovered to pre-earthquake levels in 2014. The value of shipments of manufactured goods, etc. in 2018 was 130% in Iwate Prefecture, 131% in Miyagi Prefecture, and 103% in Fukushima Prefecture compared to 2010. Overall, the value of shipments of manufactured goods, etc. in the coastal areas of the three prefectures has also recovered to the pre-earthquake level.

Figure Reconstruction of the manufacturing industry (Changes in the value of shipments of manufactured goods, etc. in the three prefectures) (2010=100)



(Three prefectures, and municipalities in the coastal area)

【Iwate Prefecture】 Miyako City, Ofunato City, Kuji City, City of Rikuzentakata, Kamaishi City, Otsuchi Town, Yamanda Town, Iwaizumi Town, Tanohata Village, Fudai Village, Noda Village, Hirono Town

【Miyagi Prefecture】 Sendai City (Miyagino Ward, Wakabayashi Ward), Ishinomaki City, Shiogama City, Kesenuma City, City of Natori, Tagajo City, Iwanuma City, Higashi Matsushima City, Watari Town, Yamamoto Town, Matsushima Town, Town of Shichigahama, Rifu Town, Onagawa Town, Minamisanriku Town, 【Fukushima Prefecture】 Iwaki City, Soma City, Minamisoma City, Hirono Town, Naraha Town*, Tomioka Town*,

Okuma Town*, Futaba Town*, Namie Town*, Shinci Town

(Note) Data may not be available for some years due to their exclusion from the survey.

Source: Reconstruction Agency

Prepared by Reconstruction Agency based on 2010 Survey of Industry Statistics, 2012 Survey of Industry Statistics, 2013 Survey of Industry Statistics, 2014 Survey of Industry Statistics, 2017 Survey of Industry Statistics (2016 actual data), 2018 Survey of Industry Statistics (2016 actual data) by Ministry of Economy, Trade and Industry; 2012 Economic Census - Activity Survey (2011), 2016 Economic Census - Activity Survey (2015) and 2019 Survey of Industry Statistics (2018 actual data) by Ministry of Internal Affairs and Communications and Ministry of Economy, Trade and Industry

(3) Reconstruction of agriculture and fisheries

As a result of systematic recovery projects, 94% of the tsunami-affected farmlands have resumed farming. All affected fishing ports are now able to berth vessels, and 97% of them have recovered the full function of their wharves (as of the end of January 2021).

(4) Population in affected areas

Iwate Prefecture had experienced a population decline prior to the Great East Japan Earthquake. The Great East Japan Earthquake caused a further decline in 2011, and the population numbers have been dropping ever since, mainly due to natural attrition.

After the Great East Japan Earthquake, the population of Miyagi Prefecture temporarily turned toward social growth, which is presumed to be due to an increase in the number of people relocating from the affected areas in other prefectures. The population has been declining since then, but the main cause is natural attrition

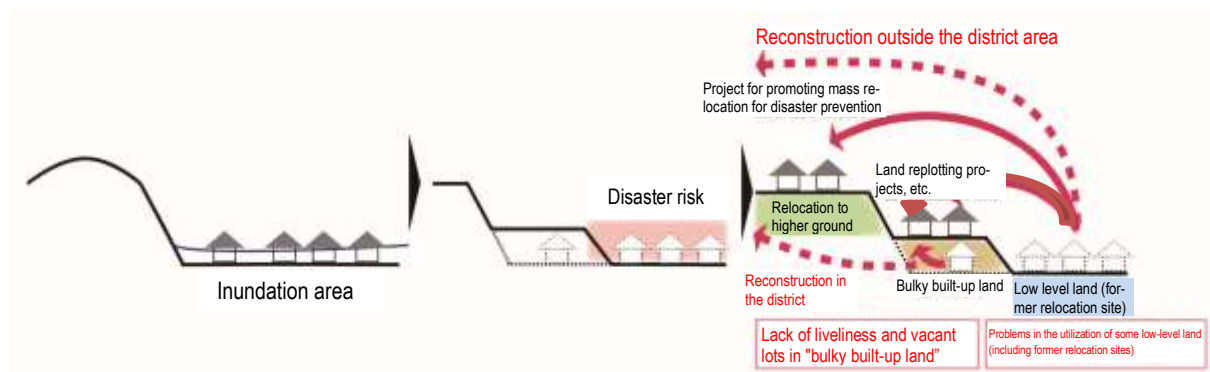
Fukushima Prefecture had experienced a population decline prior to the Great East Japan Earthquake. In 2011, when the Great East Japan Earthquake struck, and in 2012, the following year, the prefecture saw a sharp social decline, but since then, natural attrition has accounted for most of the population decline.

(5) Promotion of land use in the affected urban areas

In tsunami-affected areas, parts of the inundated areas have been raised to create bulky built-up lots through land replotting projects, etc. In land-replotting projects, etc., land of owners who intended to sell or lease their land were consolidated and used for public housing, commercial facilities, etc. through planning and land rearrangement design based on the owner's intentions. However, even with these efforts, the owners may change their intentions over time, resulting in a lack of life and/or vacant lots after the project.

Under the projects for promoting mass relocation for disaster prevention in the disaster-affected areas, residential lands in disaster risk areas have been designated as relocation promotion areas, and a lot of land owned by the public sector has been generated. Large lots or sites with good locations, have attracted businesses, etc. On the other hand, in small residential areas and villages far from urban areas, land use needs are declining and land owned by the public sector and that owned by the private sector are distributed in a mosaic pattern. This situation means that there are no prospects for the utilization of the land.

Figure Image of issues in affected urban areas



Source: Reconstruction Agency

To ensure a smooth supply of land from owners who do not intend to use the land to users who do, it is necessary to actively disseminate information to the public, as there is a limit to capturing the needs of vacant plots of land while waiting for inquiries from those who wish to use them.

However, even if left in the hands of the private sector, private real estate transactions are not necessarily active in the affected areas. Therefore, it is necessary to establish a system to facilitate the supply of land to users who want to use it with government involvement.

Therefore, the Reconstruction Agency conducted a model survey on land use promotion for bulky built-up areas and low-lying areas, and prepared a Guidebook on the Promotion of Land Utilization, etc. for horizontal development of the know-how gained from the reconstruction to the affected areas.

The Guidebook includes the following matters and collects case studies: organization and structure, collection and organization of basic information, understanding the intentions of landowners, compilation of land information, and preparation, implementation, and contract for matching, etc.

For example, Otsuchi Town, Iwate Prefecture, has set up a "vacant land bank" for bulky built-up areas. Through that bank, the Town and the Real Estate Public Interest Incorporated Association have signed a contract to implement

open matching services with less government involvement, leaving everything from matching to contract negotiations to the real estate agents and contractors.

Miyako City, Iwate Prefecture, has also conducted a survey of the intentions of private landowners around the low-lying relocation site to identify potential sites for exchange. This is an effort to make it possible to meet the needs of users who want to utilize large areas of land.

The Reconstruction Agency aims to achieve self-reliance in the affected areas, which are "advanced areas facing challenges," such as a declining population and other medium- to long-term issues common to all regions throughout Japan. In the future, the Agency will make the most of an infrastructure strengthened by recovery and reconstruction projects and ties with various entities and know-how cultivated during the reconstruction period, working to increase the number of people interacting and involved with the city as well as people moving to the city. The necessity of regenerating communities and creating sustainable and vibrant local communities by utilizing the policies of the government as a whole, including those for regional vitalization is at the forefront.

(6) Trends in land prices in the affected areas

The trends in land values published for the three affected prefectures in the 2021 land value publication, by prefecture, are as follows. Iwate Prefecture saw a continued decline in both residential and commercial land values, with residential land values falling -0.4% (-0.1%, according to the 2020 land value publication) and commercial land values falling -1.7% (-0.7%, year-on-year; YoY). In Miyagi Prefecture, both residential and commercial land values continued to rise, with residential land values rising 1.0% (3.5% YoY) and commercial land values rising 1.2% (6.2% YoY). In Fukushima Prefecture, both residential and commercial land turned towards decline, with residential land value falling -0.1% (0.4% YoY) and commercial land values falling -0.6% (0.5% YoY).

With the progress of reconstruction projects such as public housing for disaster victims and disaster prevention group relocation projects, land value trends for residential land in the 27 cities, towns and villages along the coast of the three prefectures affected by the disaster have shown a slowdown in demand for relocation. Land values have fallen in many municipalities due to sluggish land demand caused by declining birthrates and an aging population. In addition, land values for commercial land have been declining in many municipalities due to a stagnant demand for land caused by declining birthrates, an aging population, and the hollowing out of central commercial districts.

(7) Trends in land transactions in the affected areas

In terms of the number of land transactions (sales) in the three affected prefectures, the number of transactions decreased immediately after the earthquake in March 2011, whereas with the progress of reconstruction, it increased significantly compared to the pre-earthquake level in Iwate, Miyagi, and Fukushima Prefectures from the beginning of 2013.

Subsequently, in Iwate, Miyagi and Fukushima prefectures, the number of transactions has been gradually decreasing, but is still above the pre-earthquake level.

(8) Trends in the office market in affected areas

According to the trends of the office market in Sendai City, Morioka City and Koriyama City, Sendai City had a high vacancy rate of around 20% immediately before the earthquake due to the large number of new office buildings from 2008 to 2010. Since the earthquake, however, there has been a continuing downward trend due to demand for office

space from reconstruction-related companies, and the rate for the period from October to December 2020 was 5.3%. Rents were also on a downward trend before the earthquake. They have generally remained flat since the event, and have risen in recent years.

In Morioka City, the vacancy rate has been on a downward trend since the earthquake disaster due to reconstruction-related demand. In recent years, however, the vacancy rate has been rising. Rents have been on a downward trend since before the earthquake.

Koriyama City has seen a downward trend in vacancies since the earthquake due to reconstruction-related demand. In recent years, however, the vacancy rate has leveled off. Rents had been on a downward trend prior to the earthquake but have since risen and have leveled off in recent years.

(9) Trends in housing and building starts in the affected areas

According to trends in the housing market in the three affected prefectures, the number of new housing starts year-on-year fell sharply immediately after the earthquake but recovered toward the middle of the year, showing an upward trend from roughly the second half of 2012 and then a gradual decline. The number of housing starts in 2020 was 5,956 in Iwate Prefecture (down 29.6% YoY), 12,451 in Miyagi Prefecture (down 17.9% YoY), and 9,868 in Fukushima Prefecture (down 10.6% YoY).

Trends in building starts for non-residential buildings such as offices and stores in the affected areas show that the total floor space of building starts in Iwate and Miyagi prefectures was on a general upward trend from the time of the earthquake until 2013, after which it began to decline gradually. In 2020, the total floor area of building starts in Iwate Prefecture was about 497,000 m² (up 0.6% YoY), in Miyagi Prefecture about 892,000 m² (down 9.4% YoY), and in Fukushima Prefecture about 729,000 m² (down 13.9% YoY).

2. Efforts for Land Use in the Affected Areas

Considering the disaster situation, topographical conditions, and the intentions of the local residents, local governments that have suffered tremendous damage from the tsunami caused by the Great East Japan Earthquake have been steadily working on reconstruction of housing, reconstruction town planning, and industrial reconstruction such as restoration and new location of factories and business offices. These projects have been carried out under the collaboration of various entities, including local governments, local residents, and private companies.

This section discusses specific initiatives in these areas that are unique in terms of land use.

(1) Creating a place of relaxation for local residents with underutilized/unused land

○ Creation of a Community Garden in Collaboration with tsunami survivors (Ishinomaki City, Miyagi Prefecture)

The town of Ogatsu, Ishinomaki City, Miyagi Prefecture, was severely damaged by the earthquake and tsunami, and its population (numbering about 4,000 before the disaster) decreased to about 1,100 (as of the end of March 2021).

After the earthquake, the "Ogatsu Rose Factory Garden" was established by Ogatsu Hana Monogatari in 2013 as a memorial and a place for socializing and relaxation in Ogatsu Town. In 2018, it was relocated 70 meters behind its previous location and has since been operating as a community garden.

The inspiration for this project came from a representative of the Ogatsu Hana Monogatari, who planted flowers on the site of her parents' house to mourn her deceased mother. Many volunteers from the local community, students

of Chiba University's Faculty of Horticulture and private companies were moved by this idea and lent their support to various projects such as the creation of a place of relaxation for the community in low-lying, disaster risk-designated areas.

At the time of the relocation, the residents of the area, led by Ogatsu Hana Monogatari, discussed the land use plan for the surrounding areas, and the "Ogatsu Garden Park Concept" was formulated with the support of Chiba University. Under the "Hands-on Support Project for Regional Development" of the Reconstruction Agency, a plan for the utilization of low-lying land was formulated with the help of experts dispatched to the site, and a cooperative system among related organizations was established to realize the concept.

In FY2019, under the "Model Study for Promoting Land Utilization" by the Reconstruction Agency, discussions were repeatedly held with Ishinomaki City for the planning of the "Ogatsu Garden Park Concept." As a result, plans for the utilization of the Ogatsu Rose Factory Garden as a for-profit enterprise, to include an olive grove and grape cultivation for wine, park golf course, training farm, flower and fruit picking farm, flower and greenery plaza, have all been formulated, and efforts to implement the plans are underway. Ishinomaki City has established a model for the utilization of relocated land in the Ogatsu area, and plans to apply this method to other peninsular areas.

Figure Ogatsu Rose Factory Garden



Source: Ogatsu Hana Monogatari

○ Temporary use of underutilized/unused land in the city center (Ishinomaki City, Miyagi Prefecture)

By developing a multi-protective two-line embankment in the central city of Ishinomaki City, Miyagi Prefecture, land has been used as before. However, the tsunami of the Great East Japan Earthquake inundated almost the entire area, and as a result, many of the vacant stores before the earthquake were demolished. Some of these stores closed for business after the disaster, leaving the central city area increasingly vacant.

Under these circumstances, Machizukuri Manbow Co., Ltd. got involved and leased a vacant, privately owned lot about a 10-minute walk from Ishinomaki Station to open challenge store, "Hashi-dori COMMON," in 2015 for a limited period of two-and-a-half years with the aim of "bringing life the town" and "creating new businesses."

On the site, vehicle-type containers were placed for use as stores while tents shelter common eating spaces. The stores can be renovated and DIY-style design strategies increase flexibility and reduce costs. An event space has also been set up for interaction and communication between residents of both inside and outside communities.

Tenants were recruited by sending notices mainly to young people who had moved to the area after volunteering in the disaster. This has contributed to the establishment of a support hub of new businesses through which people who visited Ishinomaki City after the disaster could set down roots and live in Ishinomaki City with little initial investment.

This project was temporarily terminated in November, 2017. After that, in response to local requests for a revival, it was reopened in April 2018 as "COMMON-SHIP Hashi-dori" for a period of two-and-a-half years, and then regrettably closed again in November 2020.

Some of the businesses have left the temporary stores and successfully established their permanent stores in the city center. In this way, the project achieved a certain level of success, and Machizukuri Manbow Co. Ltd. will continue to support entrepreneurship, including the use of open spaces, and help revitalize the city center.

○ Creation of a place of relaxation for residents in disaster risk areas (Onagawa Town, Miyagi Prefecture)

The central part of Onagawa Town was severely damaged by the earthquake. The local government built up the land through the Tsunami Reconstruction Project and the Reconstruction and Replotting Project, and Onagawa Station was opened in 2015. The commercial area in front of the station was opened to the public, and the Onagawa Town Coastal Plaza in the disaster risk areas on the coastal side was later developed and completed in December 2020.

The Onagawa Urban Development Promotion Council has been studying the development of the Onagawa Town Coastal Plaza to meet the needs of the residents and has been implementing various initiatives.

The former Onagawa Police Box, a reinforced concrete building that collapsed in the tsunami, has been preserved as an earthquake survivor. Also, there is a children's playground called "MASH Park," which features equipment with motifs of sea creatures. The construction costs of this park were covered by the proceeds from an annual charity event organized by MASH Holdings Co. Ltd.

In recent years, there has been a growing need for skateboarding accommodations in the town, so a dedicated skateboard park with an area of 880 m² has been built. With this facility, a place for communication among residents, including those from outside the area, has been formed.

(2) Creating a bustling hub through public-private partnerships

○ Area management through public-private partnerships for reconstruction (Ofunato City, Iwate Prefecture)

In the area around Ofunato Station in Ofunato City, Iwate Prefecture, the land on the mountain side of the JR Ofunato Line was built up to create a residential area that could withstand a tsunami of the magnitude of the Great East Japan Earthquake. The area on the ocean side of the JR Ofunato line has been designated as a disaster risk area, where residential construction is prohibited and a commercial business area, "Kyassen Ofunato," is being developed.

In the commercial and business areas, approximately 10.4 ha of mainly city-owned land was designated as a "post-tsunami restoration area" and leased on a fixed-term basis for business purposes for 10 to 40 years. "Kyassen Ofunato" is an urban renovation firm established by the private sector and Ofunato City. Of the nine city blocks that comprise the project, they develop facilities in the third block as a landlord and attract businesses as the main developer of the block, and now consider the block development plan in the first block as a planned landlord. Local stores will tenant the facilities, and when these close, they will be able to replace their stores smoothly, thereby preventing the area from becoming a shuttered shopping mall in the future.

Ofunato City has deemed that if each tenant (the main landowner in the post-tsunami restoration areas) cooperates with the area management project implemented by the urban renovation firm "Kyassen Ofunato" and bears the expenses, the land rent shall be equivalent to the fixed asset tax. If there is a difference between that

amount of the fixed asset tax and the regular land rent, the surplus will be used to fund the area management project. Most of the project funding is used for area management projects, while the remainder is used for urban development projects in which each tenant leverages its own strengths. In addition, the urban renovation firm "Kyassen Ofunato" was designated by Ofunato City as an urban renewal promotion corporation in 2018.

For these efforts, "Area Management Partners" were publicly solicited from the private businesses. Daiwa Lease Co., Ltd. has been selected to contribute to the establishment of an urban renovation firm and to the layout of commercial facilities by utilizing the know-how of the private sector.

Area management efforts specifically include preserving the landscape of the area as a whole, holding events that contribute to the life of the area, securing candidates for the next tenants and training in human resources.

Figure Kyassen Ofunato



Source: Ofunato City

○ Development of a bustling hub integrated with the river (Natori City, Miyagi Prefecture)

In Yuriage District, Natori City, Miyagi Prefecture, tsunami disaster prevention measures have been implemented through the construction of an embankment on the Natori River. Also, projects for replotting affected urban areas and for promoting mass relocation for disaster prevention are in progress.

Kawamachiterasu Yuriage has opened in April 2019 on a site which includes the bank side of the Natori River. This commercial facility houses local stores that were damaged by the disaster and forms a bustling hub of a region that is integrated with the river. The commercial facility is operated by Kawamachiterasu Yuriage, an urban renovation firm funded by the private sector and Natori City, which also manages the area by organizing events that take advantage of the waterfront space along the river.

The site of the commercial facility is divided into two sections: national land on the side zone of the embankment, and municipal land below the side zone. The national land zone, which is leased by the city from the government, has been leased to the urban renovation firm along with other municipal land. The Tohoku Regional Development Bureau, MLIT, has designated the Yuriage District as part of the River Town Project and has granted Natori City the right to use the zone for urban and regional revitalization.

In the neighborhood, there is a River Disaster Prevention Station with the city's Disaster Recovery Memorial Museum onsite, which is intended to revitalize the area through urban development integrated with the river space.

Figure Kawamachiterasu Yuriage



Source: Natori City

(3) Advanced land use by utilizing new technologies

○ Concentration of industrial parks utilizing robots and drones (Namie Town, Minamisoma City, Fukushima Prefecture)

Fukushima Prefecture has been promoting the "Fukushima Innovation Coast Initiative," a national project aimed at building a new industrial infrastructure, in order to restore the industries in the Hamadori and other areas of Fukushima Prefecture that were lost due to the Great East Japan Earthquake and the nuclear disaster.

Within the vast grounds of the reconstruction industrial park in Minamisoma City, "Unmanned Aerial Vehicle Zone," "Underwater/Water Robot Zone," "Infrastructure Inspection/Disaster Response Zone," and "Development Infrastructure Zone" were established as part of this concept. In March 2020, the Fukushima Robot Test Field, which has a runway for long-distance flight tests, was fully opened in the Tanashio Industrial Park, Namie Town.

The Unmanned Aerial Vehicle Zone accommodates Japan's largest airspace for unmanned aircraft, a runway, and an airfield with a buffer net. It boasts a variety of testing environments, including basic flight, collision avoidance, emergency landing, cargo dropping, and long-distance flight, in order to promote the practical use of unmanned aircraft.

The Underwater/Water Robot Zone is the only test site in Japan that has been developed for the purpose of conducting demonstration testing of underwater infrastructure inspection and disaster response use robots. In this zone, it is possible to reproduce infrastructure conditions and disaster sites that occur underwater and above water, such as dams, rivers, ports, and submerged urban areas.

The Infrastructure Inspection/Disaster Response Zone is the only test site in Japan that has been developed for the purpose of conducting demonstration testing of infrastructure inspection and disaster response use robots. In this zone, it is possible to reproduce the conditions of aging infrastructure and disaster sites by setting up structures such as tunnels, bridges, plants, urban areas, and roads.

Due to the development of the facilities, etc., many robotics businesses that did not exist before the Great East Japan Earthquake have moved into the area. Also, new local businesses are entering the market, and the concentration of robot businesses has been steadily increasing in the Hamadori area.

Figure Panoramic view of the Fukushima Robot Testing Field (industrial parks for reconstruction in Minamisoma City)



Source: Fukushima Innovation Coast Promotion Organization

○ Urban development centered on the world's largest hydrogen production base (Namie Town, Fukushima Prefecture)

The former construction site of the Namie-Odaka Nuclear Power Plant was transferred free of charge from Tohoku Electric Power Company to the town of Namie in Fukushima Prefecture. The Tanashio Industrial Park was built on the site, and the Fukushima Hydrogen Energy Research Field (equipped with the world's largest hydrogen production equipment of 10 MW) opened in March 2020. This is part of the initiatives of the "Fukushima Innovation Coast Framework" and the "Fukushima New Energy Society Framework."

With the power generated by 68,000 solar panels, the maximum amount of hydrogen produced per hour is equivalent to the fuel for about 350 fuel cell vehicles.

Electricity derived from renewable energy sources, whose output fluctuates greatly, can be converted into hydrogen so that it can be used anytime and anywhere it is desired. They also strive to achieve a carbon-free society that emits zero CO₂ from production to use.

Data is obtained through the Hydrogen Demand Forecasting System, which predicts the demand for hydrogen, and the Power System Side Control System which monitors and controls the supply and demand balance of the power system. By making use of the data, the Hydrogen Energy Operation System ensures optimal control, thereby expanding the use of renewable energy.

Namie Town has taken this opportunity to put together the Namie Hydrogen Town Concept to make use of hydrogen in a wide range of fields including commerce, industry, transportation and consumer households. This Concept includes the commencement of demonstrations of power generation by transporting hydrogen in trailers, etc. to fuel cells installed in homes and commercial facilities.

○ Development of public housing for disaster victims using CLT (Iwaki City, Fukushima Prefecture)

CLT (Cross Laminated Timber) is a panel made by laminating and gluing ground boards so that the fiber directions are orthogonal. This is widely used as wall and flooring materials in condominiums and commercial facilities mainly in Europe and the United States and is expected to create new demand for wood in Japan through the use of domestic CLT in mid- and high-rise buildings.

In Shimoyu Nagaya District, Joban, Iwaki City, Fukushima Prefecture, a site for public housing for disaster victims (for reconstruction) was secured for people displaced by the nuclear disaster, and the prefectural Iwasaki Housing Complex with CLT panels was developed. Approximately 2,300 m³ of CLT is used, which is equivalent to 12,000 cedar trees 50-60 years old. The CLT factory in Okayama Prefecture processes domestic timber, including prefectural products, to build two three-story apartment buildings.

The structure was designed for a one-hour fireproof rating using a burning margin method, taking advantage of the characteristics of CLT. In addition, the construction period was shortened by 40% (RC construction: 13 months → CLT construction: 5.5 months) compared to that of a standard reinforced concrete house, thus realizing the capability to construct a quick supply of houses. It has 212.5 mm thick sound insulation material installed under the floor to ensure sound insulation.

CLT is employed for the exterior walls, eaves, and part of the interior, and wood is used for the exterior curtain wall, creating a design that allows people to feel the soothing, humidifying, and warm effects of wood, and realizing a comfortable, safe, and secure living environment.

The Fukushima Prefecture Purchase-type Reconstruction Public Housing Project is a program in which the prefecture purchases housing built by businesses in Fukushima Prefecture. The prefecture is working with the Shibaura Institute of Technology in an industry-academia collaboration to facilitate the rapid and smooth development of this project, thereby contributing to the accumulation of know-how on the CLT panel method, an advanced construction method.

(4) New initiatives for agricultural revitalization

○ Development of an industrial promotion base for the production of pecan nuts (Rikuzentakata City, Iwate Prefecture)

Aiming to produce pecan nuts (a highly nutritious and profitable crop native to North America) a new local product, Rikuzentakata City, Iwate Prefecture signed an industry-academia-government collaboration agreement with the University of Tokyo and Salon de Royal Co., which had the largest volume of pecan nuts transactions in Japan, in July 2017. The city is working to create a foundation for the first domestic commercial production of pecan nuts and to build a market and distribution base for them.

Pecan nuts, a member of the walnut family, contain the highest amount of antioxidants of all nuts, which has attracted worldwide attention. However, an infrastructure for the full-scale domestic production and distribution of pecan nuts has not yet been established. Taking advantage of the mechanism of the Law on Special Great East Japan Earthquake Reconstruction Areas (Law No. 122 of 2011), Rikuzentakata City aims to brand pecan nuts by creating an integrated base from raw material production to processed product manufacturing.

Specifically, an industrial promotion facility for the processing and sales of pecan nuts is under construction as a base for promoting both the appeal and food culture of pecan nuts, and is slated for completion in 2022 within built-up lot in the center of Rikuzentakata City.

Other projects include the formation of a market and food culture for pecan nuts, including the development of industrial promotion facilities, and the creation of a foundation for cultivation, such as the test cultivation of seedlings for the selection of optimal varieties and the development of seedling greenhouses.

Figure Image of the completed industrial promotion facility



Source: Rikuzentakata City

(5) Reconstruction efforts, memories and lessons learned from the disaster

- Reconstruction efforts and the development of a stadium that conveys the wisdom of disaster prevention

(Kamaishi City, Iwate Prefecture)

Kamaishi City, Iwate Prefecture, was the host city of the Rugby World Cup 2019™ in Japan, which was held in 2019. The city built the new "Kamaishi Unosumai Memorial Stadium" as part of its reconstruction after the Great East Japan Earthquake.

The stadium is constructed on the former site of an elementary and junior high school in Unosumai, where the evacuation of children at the time of the disaster was widely viewed to the world. As a symbol of disaster prevention in the region, the stadium is designed to function as a disaster prevention base as well.

Specifically, the stadium is equipped with an underground 100-ton earthquake resistant water storage tank in case of disaster. Use of the grounds as a heliport and evacuation route to the mountain behind the stadium have also been developed.

About 70% of the stadium's seats are made of cedar wood culled from the site of the massive forest fire that occurred in Osaki Peninsula, Kamaishi City, in 2017. The seats also symbolically represent reconstruction efforts after the fire.

This stadium was selected as one of the "Top 20 rugby stadiums" by the British rugby medium, The Rugby Paper, in 2020, and the efforts by Kamaishi City have been highly evaluated internationally. With the legacy of the Rugby World Cup continuing to be passed on, it is expected to be used by the community as a base to convey the image of reconstruction and the newfound wisdom of disaster prevention.

Figure Kamaishi Unosumai Memorial Stadium



Source: Kamaishi City

○ Mourning and reposing the souls of the victims, and passing on the memories and lessons of the disaster to future generations (Iwate, Miyagi and Fukushima Prefectures)

Both national and local governments are working together to build a national memorial and prayer facility in the Reconstruction Memorial Park. The purpose of this project is to mourn and repose the souls of the victims of the Great East Japan Earthquake, to pass on the memories and lessons of the disaster to future generations and to demonstrate a strong will for reconstruction in Japan and abroad.

In March 2021, national memorial and prayer facilities were completed in Rikuzentakata City, Iwate Prefecture and Ishinomaki City, Miyagi Prefecture. These facilities are designed to pass on and disseminate the memories and lessons learned from the earthquake and tsunami both domestically and internationally. They are equipped with exhibits, etc. that contribute to the further enhancement of disaster prevention education. A national memorial and prayer facility in Namie Town, Fukushima Prefecture, was partially opened for use in January 2021.

Learning from the lessons of the Great East Japan Earthquake, the "3.11 Densho Road" project has been underway. The purpose of this initiative is to provide various efforts and projects related to disaster prevention by utilizing the network of earthquake legacy facilities. By collaborating with related organizations in and outside the country, and through cross-regional exchanges, the project is designed to promote the spread of disaster learning and preparedness, as well as to promote regional development by increasing the population interacting with each other in the affected areas.

Part 2 Basic Measures in Relation to Land in FY 2020

(omitted)

Part 3 Basic Measures in Relation to Land in FY 2021

Chapter 1 Plan Development for Land Use, Management, etc.

Section 1 Promotion of Proper Use of Land under Land Planning

Based on the Fifth National Land Use Plan (National Plan) decided by the Cabinet Meeting in August 2015, the government will continue to implement necessary studies on the use and management of land, and effectively promote these plans while utilizing various indicators according to the three basic policies that follow: (i) national land use to realize proper land management; (ii) land use to preserve, restore, and utilize the natural environment and beautiful landscapes; and (iii) land use that ensures safety and security.

The government will conduct continuous reviews at special committees, etc., established in the Planning Promotion Subcommittee of the National Land Development Council, of effective promotion measures for the National Spatial Strategies (National Plan) for the formation of Circulate Promoting National Land, which is the basic concept of the Plan, make a "long-term forecast to draw up an image of the national land" by 2050 and identify future problems to explore the solution.

As by FY2020, five years had passed since the comprehensive regional plan was formulated, the government will evaluate the achievement status of the strategic goals and future vision during the first half of the plan, and conduct an interim evaluation to sort out issues for the second half of the plan.

Section 2 Promoting the Proper Use of Land in City Planning

The government will promote appropriate implementations of the Policy for Improvement, Development and Preservation of City Planning Areas (master plan) in response to changes in social conditions, etc., that are laid out in each city planning area. In order to realize healthy and comfortable living for residents and sustainable urban management amidst a declining population and an aging society with fewer children, the government will also support municipalities in developing location optimization plans based on the Act on Special Measures concerning Urban Reconstruction to promote the formation of compact cities.

In accordance with the "Act on Partial Revision of the Act on Special Measures concerning Urban Reconstruction, etc." (Act No. 43 of 2020), to cope with natural disasters that are becoming more severe and more frequent, the government will promote appropriate land use in cooperation with disaster prevention measures by: (i) reducing the number of new locations in disaster-prone areas, (ii) promoting relocation from disaster-prone areas, and (iii) promoting disaster prevention measures in the Habitation Encouragement Zones of the Proper Location Planning.

In addition, the government will formulate a regional public transportation plan in conjunction with the Proper Location Planning, implement projects related to the plan, promote the formation of a regional public transportation network led by local governments, and encourage proper land use guidance in conjunction with the compact cities policy.

Section 3 Promotion of Securing and Effectively Using Good Farmland through the Agricultural Promotion Area Development Plans, etc.

In order to secure and promote the effective use of good farmland, the government will systematically promote measures related to agriculture by designating agricultural areas to be promoted and developing the Agricultural Promotion Area Development Plans etc. In addition, in accordance with the Act on Promotion of Improvement of Agricultural Management Foundation (Act No. 65 of 1980) and the Act on Promotion of the Cropland Intermediary Management Program (Act No. 101 of 2013), etc., the government will promote the integration and intensification of farmlands through human resources and agriculture planning along with appropriate, efficient use of farmlands for agriculture.

Section 4 Promotion of Appropriate Utilization and Management through Forest Planning, etc.

In terms of the appropriate use and management of forests, the government will promote appropriate afforestation, thinning, etc., to ensure the full exercise of the multifunctional nature of forests through forest planning systems, etc., based on the Forest Act (Act No. 249 of 1951). Government will also promote the integration and intensification of forest management based on the Act on Forest Management (Act No. 35 of 2018).

Chapter 2 Measures to Ensure Appropriate Use and Management of Land

Section 1 Promotion of Regional Development, Urban Renewal, etc.

1 Promotion of Regional Development

Based on "Basic Policies for Vitalization of Towns, People, and Jobs" (2020 revised version) (decided by the Cabinet on December 21, 2020), in order to achieve both a "vigorous regional society" and reduction of "focus on the Tokyo metropolitan area," the government will work to "create regions resistant to the spread of disease" by avoiding the "three Cs (closed spaces, crowded places, and close-contact settings)." Then, efforts for regional development will be promoted by creating a flow of people and work based on changed perceptions and behaviors caused by the new coronavirus pandemic, and enhancing urban functions toward a higher quality of life by promoting independent, proactive efforts that are unique to each region.

With the aim of promoting regional development efforts involving the national and local governments, comprehensive and effective efforts will be made to implement a variety of measures, including national strategic zones, special zones for structural reform, SDGs¹ Future City, "Environmental Future City" concept, urban renewal, regional revitalization, and central city revitalization. Furthermore, the government will make concerted efforts toward the realization of the "Super City," the world's first "integrated city of the future" to realize future lifestyles in the now.

2 Promotion of Urban Renewal

For the Areas for Emergency City Regeneration designated under the Act on Special Measures concerning Urban Reconstruction, the government will utilize support measures, in such areas as taxation, special provisions for urban planning, as well as mezzanine support operations that help the Organization for Promoting Urban Development raise middle-risk funds. With the Social Capital Development Comprehensive Grant (Urban Revitalization Planning Project), such revitalization projects throughout the nation will be continually promoted, taking advantage of the creativity and

¹ Abbreviation for Sustainable Development Goals.

ingenuity of local communities. In particular, with the aim of realigning the urban structures to make them more sustainable and resilient, the government will provide support for initiatives based on the Proper Location Planning through the Intensive Urban Restructuring Support Project (individual support system) to be established in FY2020.

3 Promotion of Utilization of the Know-how of Private Corporations, etc.

As for the system to prioritize the introduction of PPP/PFI methods, the government will continue to visualize the formulation and operation of the priority review guidelines, and through follow-up, etc., extract data and know-how according to population size and deploy them horizontally (in order to ensure the accurate operation of the guidelines by organizations that have already formulated them) and the prompt creation of guidelines by local governments with populations of 200,000 or more. In addition, based on local conditions, operational status, and precedent cases, the system will be expanded to be applied to local governments with populations of less than 200,000.

Section 2 Promotion of Town Development and Enhancement of Disaster Resistance

In accordance with the "Act on Partial Revision of the Act on Countermeasures against Flood Damage of Specified Rivers Running Across Cities, etc." (Act No. 31 of 2021; commonly known as "flood damage control acts"), which were enacted on April 28 and promulgated on May 10, 2021, the government will focus on planning and systems for flood control and promote measures to reduce flooding and extent of damage, while promoting recovery and reconstruction.

Furthermore, in accordance with the Seventh Ten-Year Plan for the National Land Survey Project (decided by the Cabinet on May 26, 2020), which started in FY2020, the government will support cadastral surveys conducted by municipalities, etc., focusing on those that contribute to rapid recovery and reconstruction after disasters, in order to improve local disaster response capabilities.

Section 3 Promotion of Use of Underused or Unused Land

The following measures will be taken to promote the use of underused or unused land.

- In the case of the transfer of underused or unused land, etc., where costs are relatively high due to the low transfer price, utilize special taxation measures for individual transfer income, encourage property transfers by reducing the burden on the seller and providing incentives to sell, and promote appropriate use and management by those with the intention to put the property to use.
- Establish a local consulting system consisting of government and private experts to share information on vacant lands and houses and promote appropriate land use by matching and coordinating its appropriate use and management, promoting land banks that act as a substitute for landowners in terms of management and other functions, and promoting nationwide efforts to revitalize underused or unused real estate through renovation, etc.
- Local governments post information on individual vacant houses and lots on the "National Bank of Vacant Houses and Vacant Lots" for an easy cross-sectional searches of information on vacant houses and lots. By promoting the use of this bank, match supply with demand and promote transactions of underused or unused land and real estate.
- With a view to capturing the needs for migration to rural areas, promote appropriate use of underused or unused land in rural areas by providing support for the smooth acquisition of "vacant houses with farmland."
- Promote appropriate transactions and utilization of underused or unused land and real estate by encouraging the use of small-scale specialized joint real estate ventures, improving the environment for crowdfunding, and

revitalizing small-scale real estate in the region through special taxation measures for specialized joint real estate ventures, etc.

- In areas lacking parks, etc. promote the use of the green space authorization system for citizens and the Midori Corporation (green space preservation and greening promotion corporation) system, under which private entities establish and manage vacant urban land as green space to be used by residents.
- Promote the use of green infrastructure in underused or unused land by local governments and private businesses through technical and financial support, etc., and thereby promote the development of sustainable, attractive cities and regions.

Section 4 Utilization of Land Owned by the Public Sector

1 Promotion of Optimal Use of Land Owned by the Public Sector

With the "New Economic and Fiscal Revitalization Plan: Reform Process Chart 2020" (decided by the Council on Economic and Fiscal Policy in December 2020) calling for promoting the optimal use of national and public properties, the government will optimize the use of national and public properties in cooperation with local governments by sharing information on national and public properties in certain areas and establishing coordination for optimal use of such properties while respecting the opinions of local governments.

In order to reduce the cost of managing unused national lands, the government will diversify management and disposal methods by disseminating information to find buyers, utilizing temporary loans and other tentative measures, and applying preferential treatment to properties that have not yet been sold.

Based on the "Comprehensive Economic Measures to Secure People's Lives and Livelihoods toward Relief and Hope" (decided by the Cabinet on December 8, 2020) and the "Five-Year Acceleration Measures for National Resilience Contributing to Preventing and Mitigating Disasters" (decided by the Cabinet on December 11, 2020), the government will promote the construction of rainwater harvesting and filtration facilities using national land from a safety and security perspective, including disaster management and damage reduction, and enhancement of national land resilience.

2 Systematic Acquisition of Land Owned by the Public Sector

Efforts to rationalize land acquisition will be further promoted toward expediting public works, taking the "new normal" into account. In addition, the government will take measures to exempt the full amount of interest tax during the grace period for tax payment on agricultural land for which deferred inheritance or gift tax is transferred by March 31, 2026 for use in public works.

Section 5 Promotion of Housing Measures

1 Promotion of the Basic Plan for Housing

The "Basic Plan for Housing (national plan)" (decided by the Cabinet in March 2021) defines the following eight targets from three perspectives of "changes in the social environment," "residents and communities," and "housing stock and industry": (1) Realizing a new living style in response to the "New Normal" and the progress of DX, (2) Creating safe housing and residential areas and securing housing for victims of emerging disasters (which are becoming more frequent and severe), (3) Creating housing environments where it is easy to raise children, (4) Creating a community and planning a city where various generations can support each other and the elderly can live

a healthy and secure life, (5) Developing safety net functions that allow people who need to secure housing to live in peace, (6) Building a housing circulation system and creating high-quality housing stock for a decarbonized society, (7) Promoting appropriate management, removal, and utilization of vacant houses in an integrated manner according to their conditions; and (8) Developing a housing industry that improves the convenience and affluence of residents. Based on the above, the government will promote the necessary measures.

2 Promotion of the Supply of Public Rental Housing, etc.

The government will promote the supply of high-quality rental housing, including public housing, high-quality regional rental housing, Urban Renaissance Agency rental housing, and service residences for the elderly, for households that require special consideration for stability in each area, such as households with elderly, disabled, and child-rearing families. In particular, it will promote efficient supply by focusing on existing stock and private sector vitality. In addition, the government will continue to promote the registration of safety-net housing under the new housing safety net system (effective October 25, 2017), which utilizes private rental housing and vacant houses, and provides support for housing renovations and reduction of tenants' burden.

3 Proactive Promotion of the Urban Housing Supply, Especially in Large Cities

Through the urban housing areas infrastructure development project, the government will promote the development of roads, parks, sewage systems, rivers, and other necessary public facilities (in connection with housing construction), and residential infrastructure facilities such as roads, multi-purpose plazas, etc. in a focused and comprehensive manner.

4 Formation of Good Living Environment by Redevelopment of Existing Urban Areas

The government will promote projects for the comprehensive development of urban housing areas and high-quality buildings in existing urban areas to create a comfortable living environment, renewing urban functions, developing and improving densely populated urban areas, and promoting life in the city by supplying housing with close proximity between residential and work activities.

5 Creation of High-Quality Housing Stock and Effective Use of Housing Stock, etc.

Based on the "Draft Act for Partial Revision of the Act on Promotion of Long-Term Quality Housing for the Purpose of Improving the Quality of Housing and Creating a Smooth Trading Environment" (decided by the Cabinet on February 5, 2021), the government will promote the spread of long-term quality housing and strengthen functions for handling disputes related to existing housing.

In addition, to ensure the smooth implementation of the new system established by the "Act on Advancement of Proper Condominium Management and the Partial Revision of the Act on Facilitation of Reconstruction of Condominiums" (Act No. 62 of 2020) promulgated on June 24, 2020, the government will promote the preparation of plans to promote appropriate condominium management by prefectures, etc. through explanations to local governments, and work on publicizing the national basic policy on appropriate management of condominiums, the condominium management plan, and the certification system for the disposition of condominiums.

In addition, based on the "Act on the Optimization of Rental Housing Management Business" (Act No. 60 of 2020), the government will develop an environment for smooth operation of the new system, etc., and ensure optimization of the rental housing management business, etc.

6 Enhancement of Housing Acquisition Measures, etc.

The 2021 Tax Reform will include the following measures:

[1] Take the following measures for housing loan tax reduction as an economic policy.

The current 13-year deduction period will be extended for one year for both the contract period and occupancy period, and for the extension of the 13-year deduction period, the floor area requirement will be eased to 40m² or more with an income limit.

[2] Take the following measures regarding the gift tax exemption for funds for home acquisition, etc. as an economic policy.

In the case that a contract is made for the acquisition of a house by December 2021, the same amount of the maximum tax exemption for 2020 (up to 15 million yen) will be applied, and in the case of a gift of 10 million yen or less after January 2021, the floor area requirement will be eased to 40 m² or more.

[3] In the case where a buyer/reseller acquires an existing house and resells the house after making certain improvements, the application period of the special real estate acquisition tax will be extended for two years until March 31, 2023.

[4] The application period of the tax system to promote the supply of service residences for the elderly will be extended for two years to March 31, 2023.

[5] Take necessary tax measures in accordance with the revision of the Act on Facilitation of Reconstruction of Condominiums (Act No. 78 of 2002) in order to promote the rehabilitation of aging condominiums.

[6] Special measures for the tax base of residential land, etc. affected by the Kumamoto Earthquake and the heavy rain in July 2018, and special measures for the tax amount of replacement houses affected by the disaster, will be extended for two years (until FY2020 → until FY2022).

[7] The application period of the tax reduction measures for newly constructed buildings for disaster prevention facilities associated with the implementation of the Disaster Prevention District Development Projects will be extended for two years until March 31, 2023.

7 Formation of High-Quality Living Environment, etc.

The government will promote the reduction and appropriate use of underused or unused land by introducing regional housing complex revitalization projects (one-stop services that ease use restrictions and required licensing procedures for the introduction of community buses, etc.) and a variety of building uses, and revitalizing residential complexes by improving the convenience of local public transportation. In addition, hands-on support for the revitalization of housing complexes, which started in FY2020, will provide technical advice, etc. for initiatives related to the revitalization of housing complexes, including regional housing complex revitalization projects.

Section 6 Promotion of Town Development for Coexistence of City, Greening, and Agriculture

While enhancing the activities of the "Green Infrastructure Public-Private Partnership Platform," the government will promote the implementation of green infrastructure through public-private partnerships and cross-sectoral

cooperation, and encourage the appropriate use of land and real estate. In addition, studies will be conducted on preparations for an "ecosystem function potential map" for the implementation of disaster management and damage reduction using ecosystems.

Section 7 Appropriate Conservation of Farmland

With the full enforcement of the "Act on Partial Revision of the Act on Promotion of the Cropland Intermediary Management Program" (Act No. 12 of 2019) in April 2020, etc., the government will promote the integration and intensification of farmland to farmers by encouraging the establishment of cropland intermediary management institutions in all prefectures. In addition, efforts by farmers, etc. to reclaim and utilize blighted farmland will be promoted. In accordance with the Cropland Act (Act No. 129 of 1952), the government will utilize a series of procedures, such as a survey by the Board of Agriculture of the intention to use the land and a recommendation for consultation with the cropland intermediary management institution. Also, efforts will be made to prevent and eliminate the generation of blighted farmland by promoting the establishment of use rights for blighted farmland that can be reclaimed and used by the cropland intermediary management institution.

Section 8 Ensuring Appropriate Conservation and Utilization of Forests

In order to maximize the multi-functionality of forests, the government will provide guidance and advice to local governments and forest owners on the systematic development of forests based on the forest planning system provided by the Forest Act. In addition, the government will promote appropriate management of safety forests, which are designated to ensure the public interest functions of forests (i.e., recharging water sources and preserving the national land), through measures such as systematic deployment and restrictions on logging and conversion. Also, the government will promote conservation and management through erosion control measures, such as restoration and maintenance of blighted land, etc., and maintenance of forests whose water and soil conservation functions have been degraded.

With the aim of promoting low-carbon town development to achieve medium-to-long-term reductions in greenhouse gas emissions, based on the Act on Promotion of Global Warming Countermeasures, Act No. 117 of 1998) (hereinafter referred to as the "Global Warming Countermeasures Promotion Act"), as well as the 2nd Term Comprehensive Strategy (2020 revised version), the government will promote the formulation and implementation of local government action plans. In addition, support will be provided for the preparation of the plans and initiatives based on these plans, including "Low Carbon Town Development Plan" based on the Low Carbon City Development Act (Act No. 84 of 2012) and "Proper Location Planning" based on the "Act on Special Measures concerning Urban Reconstruction."

Section 9 Promotion of Measures Concerning Environment Conservation

The Basic Environment Plan, in accordance with the Basic Environment Act (Act No. 91 of 1993), sets forth the general outline of comprehensive and long-term measures for the conservation of the environment. The "Fifth Basic Environment Plan" (decided by the Cabinet in April 2018) sets forth a series of cross-cutting key strategies for the future development of environmental policies, in which specific measures are designed to solve different issues in an integrated manner. In 2021, based on this plan, while aiming to create a "Regional Circulation-based Symbiotic Area,"

the government will promote land-related measures for environmental conservation, and give consideration to environmental conservation in the formulation and implementation of various land-related measures and projects.

Section 10 Promotion of Proper Protection of Cultural Property and Creation of Favorable Landscapes

As for historic villages and townscapes, the government will provide guidance and advice to municipalities regarding the preservation and utilization of conservation zones for clusters of traditional structures and will carry out selection of conservation zones for clusters of important traditional structures, as well as promoting the preservation and utilization of such structures. Aiming to promote town development that makes the most of the historical atmosphere and sentiment of the region, based on the "Act on Maintenance and Improvement of Traditional Scenery in Certain Districts" (Act No. 40 of 2008), the government will promote the approval of plans for the maintenance and improvement of historic landscapes and provide support for initiatives based on those plans. In addition, support will be provided for the renovation of buildings that serve as scenic and historical resources to promote the formation of a favorable landscape and the maintenance and improvement of historic districts.

Section 11 Promotion of Measures to Ensure Appropriate Land Management

1 Measures against Insufficiently Managed Land that Adversely Affects the Surrounding Area

The government will continue to support efforts by local governments, including measures to improve infrastructure through public works, ordinance on vacant land, etc., and initiatives based on the Act on Special Measures concerning the Promotion of Measures for Unoccupied Houses (Act No. 127 of 2014). In addition, in order to ensure the appropriate management of insufficiently managed land, the government will (with reference to the survey on measures against insufficiently managed land such as vacant land ordinances), establish a mechanism based on the needs of municipalities to create an environment that enables effective administrative measures (guidance, recommendations, orders, administrative subrogation, etc.) for insufficiently managed land.

Furthermore, in accordance with the "Act on Partial Revision of the Act on Promotion of Railway Crossings" (Act No. 9 of 2021), which was enacted on March 31, 2021, the government will further promote the improvement of level crossing roads, and strengthen the disaster prevention functions of roads and railroads to ensure safe and smooth traffic.

2 Ensure Appropriate Land Management for Private Sector (Review of Basic Civil Legislation)

The "Act Partially Amending the Civil Code, etc." (Law No. 24 of 2021) was enacted on April 21 and promulgated on April 28, 2021, which includes the following: Establishment of the owner-unknown land management system, specializing in the management of owner-unknown land; establishment of management system for insufficiently managed land in order to cope with increasing insufficient management of land; review of basic civil legislation, including review of the provisions on the relationship between adjacent lands for the smooth and proper use of adjacent lands, etc. The government will now proceed with preparations for the implementation of the new system, including informing the public of its details.

Section 12 Promotion of Measures for the Owner-unknown Land

November will mark the three-year anniversary since the Act on Special Measures in Relation to the Easement of Use of Owner-unknown Land (Act No. 49 of 2018) (hereinafter referred to as the "Act for Owner-Unknown Land ") was enacted in 2021. It is time to review the Act. Therefore, the government will review the following:

- Expansion of a mechanism to ensure the smooth utilization and management of owner-unknown land;
- Creation of a mechanism to ensure the smooth utilization and management of insufficiently managed and underused or unused land, which is important from the perspective of preventing the increase of owner-unknown land. Specifically,

[1] Expansion of a mechanism for the smooth utilization of owner-unknown land, such as projects based on the need for new land use and management in the region, based on a model survey of regional welfare promotion projects;

[2] Establishment of a mechanism for the appropriate management of insufficiently managed land, such as the establishment of a mechanism based on the needs of municipalities for the development of an environment that enables effective administrative measures (guidance, recommendations, orders, administrative subrogation, etc.) against insufficiently managed land, as obtained through the survey on measures against insufficiently managed land such as the vacant land ordinance;

[3] Establishment of a mechanism for the smooth utilization of underused or unused land, such as the establishment of a system based on the needs of the region for a corporation or council (land bank) to promote the matching of needs for the utilization of underused or unused land, obtained through the regional model project for measures for underused or unused land.

[4] The government will study the mechanism of administrative involvement in owner-unknown land, etc., based on the amendments to the Civil Code, etc., at the National Land Development Council, etc., and finalize it by around December this year, and review the necessary system in 2022. This includes the establishment of further necessary mechanisms based on the amendments to the Civil Code, etc. from a viewpoint of ensuring the involvement of the government in of owner-unknown land and insufficiently managed land.

The "Act for Partial Revision of the Basic Act for Land" (Act No. 12 of 2020) was enacted on March 27, 2020. Based on the new principles, responsibilities of owners, etc., and basic measures stipulated in this law, the Basic Land Policy was formulated to ensure that the relevant ministries and agencies work in unison to promptly implement land policies to cope with this era of declining population. The government will update this Basic Policy in 2021, and steadily promote individual measures to deal with owner-unknown land, insufficiently managed land, etc. The Basic Land Policy is expected to be revised as needed in light of the progress of measures and changes in social conditions.

The "Act Partially Amending the Civil Code, etc." (Act No. 24 of 2021) was enacted on April 21 and promulgated on April 28, 2021. This Act includes a review of basic civil legislation, such as a mechanism for the smooth and appropriate use of co-owners-unknown land, and a system that allows the use of other people's land for the installation of lifeline conduits, etc.

The application for inheritance registration is not mandatory, and those who have inherited low-value land feel burdened by the inheritance registration procedure. This has led to occurrences of owner-unknown land left without inheritance registration. In light of this situation, the "Act Partially Amending the Civil Code" (Act No. 24 of 2021) was enacted on April 21 and promulgated on April 28, 2021, which includes a review of the basic civil legislation such as

making the application for inheritance registration mandatory and measures to reduce the burden of registration procedures.

In addition, the "Act on the Vesting of the Right of Ownership of Land Acquired by Inheritance, etc. in the National Treasury" (Act No. 25 of 2021) was enacted on April 21 and promulgated on April 28, 2021. This Act includes the establishment of a system under which those who have acquired land through inheritance, etc. will be able to relinquish ownership of the land and vest the land with the government under certain requirements.

The government will proceed with preparations for the implementation of the new system, including informing the public about its contents in the future.

Section 13 Land Use and Management from the Perspective of Security, etc.

The "Basic Policies for Economic and Fiscal Management and Reform 2020" (decided by the Cabinet on July 17, 2020) states "from the perspective of security, etc., the relevant ministries and agencies will make efforts to understand the status of land ownership by collecting information, etc., studying the ideal method of land use and management, etc., and taking necessary measures." Based on this, the "Draft Act on the Survey of Land Use and Regulation of Land Use in the Vicinity of Defense-Related Facilities and Other Important Facilities and in Remote Border Islands" was submitted to the Diet in March 2021, and efforts will continue to be made toward legislation.

Chapter 3 Measures for Land Transactions

Section 1 Improvement of Real Estate Transaction Market

In order to promote measures for enhancement and vitalization of the real estate transaction market, based on the "Act on the Optimization of Rental Housing Management Business" (Act No. 60 of 2020), the government will ensure the appropriate operation of the real estate rental housing management system (to be implemented from June 2021), through the appropriate operation of the system, to ensure proper operation of rental housing management companies and to optimize the rental housing management industry.

Section 2 Improvement of Real Estate Investment Market

The government will survey domestic and international cases and systems related to the sale and purchase of equity in investment using digital technology in the real estate sector and study the nature of the system for the sale and purchase of equity in investment using digital technology in specialized joint real estate ventures. In order to promote the formation of high-quality real estate such as environmental real estate, the government will also make efforts to properly supervise the Earthquake Resistance & Energy-Efficiency Diffusion (Re-Seed) project, promote the formation of high-quality real estate with excellent earthquake resistance and environmental performance, and promote town development that contributes to regional regeneration and revitalization, and measures against global warming.

Section 3 Land Tax Measures

From the perspective of achieving a quick recovery of the Japanese economy (which has been hit hard by the new coronavirus) and stimulating land transactions and promoting the effective use of land, the government will continue to take tax measures for the acquisition, ownership and transfer of land.

The main measures taken in the FY2021 Tax Reform include:

- (1) With regard to the property tax on land, the current measures for expenditure sharing coordinating, etc., will be extended for three years, and the amount of tax on land whose tax amount increases due to the same measures, etc., will remain at the amount of the previous year's tax only for FY2021. This is from the perspective of giving consideration to the taxpayer's sense of burden in light of the significant changes in the circumstances surrounding socioeconomic activities and people's lives in general due to the new coronavirus infection.
- (2) Extension for three years the application period of special measures for the tax base and tax rate of the real estate acquisition tax on the acquisition of land.
- (3) Extension for two years of the application period of the special tax rate for registration and license tax on registration of transfer of ownership of land.

Section 4 Support for Global Business Development in Real Estate Markets

Through training programs for government officials of ASEAN countries, etc., the government will support the development and dissemination of systems that contribute to the improvement of the business environment in the countries where Japanese real estate companies operate. In addition, the business environment will be improved by utilizing bilateral frameworks and international negotiations to ensure legal stability and improve systems and operations for local business implementation.

Section 5 Proper Operation of Land Transaction System

In order to eliminate the adverse effects of speculative land transactions and soaring land prices on the lives of the people, and to ensure proper and reasonable land use, the government will continue to implement basic land transaction regulation surveys to collect information on land transactions, etc., and strive for the proper operation of the land transaction regulation system, etc., based on the National Land Use Planning Act (Act No. 92 of 1974).

Chapter 4 Measures for Implementing Surveys and Providing Information, etc. on Land

Section 1 Promotion of National Land Surveys

Based on the Seventh Ten-Year Plan for the National Land Survey Project starting in FY2020, as for cadastral surveys conducted by municipalities, the government will promote the introduction of procedures to facilitate smooth surveying (even in cases where the owner of the land is unknown), and efficient survey methodology (according to the regional characteristics of urban and mountainous areas), as provided for by the National Land Survey Act (Act No. 180 of 1951) and other revisions. Cadastral surveys will also be promoted by providing priority support for those surveys conducted in areas with high policy impact.

In particular, to ensure the steady implementation of cadastral surveys in conjunction with social capital improvements, the government will systematically and intensively promote cadastral surveys to be carried out in conjunction with social capital improvements, which are expected to be implemented in FY2021 under the newly established individual subsidy system.

Section 2 Promotion of Development of National Land Information

As for digital national land information, the government will revise land value publication and prefectural land price survey, and continue to develop the information necessary for national land policy and land/real estate policy. In

addition, a web-based service for downloading digital national land information and a digital web map for viewing digital national land information will be operated and expanded.

Section 3 Development of the Land Registration System

The government will focus on the intensive mapping of urban areas for which lot numbers are not adequately registered and other areas requiring urgent mapping across the nation (i.e., major cities, key areas of regional hub cities, etc.) in order to provide them at registries.

Section 4 Promotion of Information on Real Estate Transactions, etc.

The FY2022 land value publication will be released based on the results of the analysis of land price trends for 26,000 standard locations throughout the nation, in order to fulfill its role as a system infrastructure. Also, the 2020 prefectural land price survey will be published based on the results of the analysis of land price trends conducted by each prefectural governor. For major cities (i.e., the three major metropolitan areas), which tend to indicate land price trends in advance, quarterly land price trends for 100 intensively used land areas will be published in the "Land Price LOOK Report." The government will also review its land value publication and other survey methods to respond to the increasingly individualized and multi-polar nature of land prices, and will monitor and disseminate land price trends in a more detailed manner.

Section 5 Promotion of Provision of Information on Disaster Risk, etc.

The government will promote the maintenance, disclosure, and utilization of information in order to make it available in geospatial areas, and the smooth implementation of measures related to land use, management, and transaction through the development of technology for "i-Urban Renewal," which visualizes urban information through three-dimensionalization, etc. This information includes the following: disaster risk information, such as areas estimated to be inundated, and disaster history of the land in the area, which contributes to disaster management and damage reduction according to the needs of society, real estate price information, and information on the "National Bank of Vacant Houses and Vacant Lots."

Chapter 5 Comprehensive Promotion of Land-related Policies

Section 1 Collaboration and Cooperation between National and Local Governments

Regional platforms will be disseminated nationwide to promote the development of concrete PPP/PFI projects. In this process, the government will encourage local governments, local companies, and regional financial institutions nationwide to participate in the regional platform so that local governments with smaller populations can also develop projects and promote the participation of local companies in projects. Also, the government will hold opinion-exchange meetings with mayors of municipalities to encourage the development of PPP/PFI projects in local governments, in addition to developing human resources and creating opportunities for public-private dialogue by dispatching experts and holding training and seminars for local government officials and local businesses.

Section 2 Collaboration and Cooperation with Experts in Related Fields

The Urban Renaissance Agency will utilize its know-how and technology to provide technical assistance in the development of concepts and plans for town development projects.

Section 3 Dissemination of Basic Philosophy on Land

During the Land Month of October (October 1 is Land Day), the government works to publish the White Paper on Land and disseminate the basic philosophies on land, while introducing various measures and systems in collaboration with relevant organizations. In particular, since FY2021, the land-related system has been changing due to the future review of the basic civil legislation and the Act for Owner-unknown Land. Under these circumstances, the government will expand activities related to Land Month and strengthen other public relations activities throughout the year, taking into account the situation of the spread of the new coronavirus.

Section 4 Securing of Funds and Farmers

While actively utilizing the private sector's improvements, innovative approaches and business motivations, the government will continue to promote support services for the Organization for Promoting Urban Development toward good town development. Specifically, the government will set up a town development fund jointly with regional financial institutions, provide area management, and promote multiple renovation projects, etc. one by one. Town development funds of local governments, etc. support those engaged in town development projects using crowdfunding. The government will also provide financial support to these funds, thereby promoting urban development using "aspirational funds" such as crowdfunding.

Chapter 6 Measures for Recovery/Reconstruction from the Great East Japan Earthquake

Section 1 Measure in Relation to Land Use

1 Measures concerning residential land

The government will provide support for the development of land and communal facilities through urban redevelopment projects in order to develop housing for disaster victims, welfare facilities, and commercial facilities in an integrated manner.

2 Measures concerning agricultural land

Based on the "Basic Policy for Reconstruction after the Great East Japan Earthquake after the "Reconstruction and Regeneration Period" (decided by the Cabinet in December 2019), the government will implement projects for disaster recovery of agricultural land and facilities, and for land readjustment in conjunction with these projects. It will also develop an agricultural infrastructure improvement plan and support investigation/coordination activities conducted by farmers' organizations for farmland integration through land readjustment and replotting.

3 Efforts for realignment of land use, etc.

In accordance with the Reconstruction Improvement Plan System of the Act on Special Zones for Reconstruction in Response to the Great East Japan Earthquake (Act No. 122 of 2011), the government will promote the smooth and rapid implementation of various projects, including the development of urban areas and agricultural production infrastructures (which are necessary to promote town/regional development for reconstruction), by utilizing special

provisions, such as one-stop processing of procedures related to licensing and zoning, and relaxation of standards for such licensing.

Section 2 Measures in Relation to Housing

1 Support for public housing, etc. for disaster victims

Local governments provide public housing for disaster victims who are unable to reconstruct or acquire housing on their own, and will continue to implement special measures to support costs related to rent reduction and transfer, etc.

2 Support for reconstruction of individual residences, etc.

The government will continue to reduce interest rates and extend the principal deferment periods for housing loans for disaster reconstruction by the Japan Housing Finance Agency in order to support the reconstruction of residences of disaster victims and also provide loans for building lots for disaster reconstruction in order to support cases where housing lots have been damaged.

Section 3 Efforts for acceleration of residence reconstruction and town development

The government will respond to individual local issues in detail through hands-on support, from the planning stage to the land utilization stage, etc., for the utilization of developed residential land by land readjustment projects and other projects for promoting mass relocation for disaster prevention. While coordinating reconstruction measures with general measures and making comprehensive use of government-wide measures, it will also continue to support the efforts of affected local governments.

Section 4 Measures in Relation to Land Information

1 Promotion of clarification of land boundaries

In order to contribute to the further promotion of recovery/reconstruction in the areas affected by the Great East Japan Earthquake and the Kumamoto Earthquake of 2016 (Iwate, Miyagi, Fukushima, and Kumamoto Prefectures), the government will work to create maps to be kept at registries.

2 Provision of information on land transactions to ensure appropriate transactions

In order to ensure appropriate land transactions in the affected areas, the government will continue to provide the land measures departments of Iwate, Miyagi and Fukushima prefectures and Sendai City with registration information and transaction price information on land transactions in the prefectures concerned as information that will contribute to understanding the actual status of land transactions.

Section 5 Tax Measures

The government will continue the tax measures at each stage of land acquisition, holding, and transfer as they are necessary to promote the reduction of burdens on victims of the Great East Japan Earthquake as well as efforts toward recovery and reconstruction.