

Fiscal Year 2022

Trends Concerning Land

Fiscal Year 2023

Basic Measures Concerning Land

Abstract

June 2023

Ministry of Land, Infrastructure, Transport and Tourism

Table of Contents

Part 1: Trends Concerning Land.....	1
Trends Concerning Land in FY 2022	1
Section 1: Trends in Land Prices.....	1
Section 2 Trends in Land Transactions	2
Section 3: Trends in Land Use	4
Section 4 Trends in the Real Estate Market	8
Section 5 Trends in the Real Estate Investment Market.....	16
Section 6 Attitudes toward Ownership, Use and Management of Land and Real Estate	19
Section 7: Utilization of Digital Technology for Appropriate Land Use and Management and Smooth Transactions.....	23
Part 2 Basic Measures Concerning Land in FY 2022	32
Part 3 Basic Measures Concerning Land in FY 2023	32
Chapter 1 Plan Development for Land Use, Management, etc.....	32
Chapter 2 Measures to Ensure Appropriate Land Use and Management	33
Chapter 3 Measures for Land Transactions	36
Chapter 4 Measures for Implementing Surveys and Providing Information, etc. on Land	37
Chapter 5 Comprehensive Promotion of Land-related Policies	38
Chapter 6 Measures for Recovery/Reconstruction from the Great East Japan Earthquake.....	38

Trends Concerning Land in FY 2022 and Basic Measures Concerning Land in FY 2023 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

Trends Concerning Land in FY 2022

In FY2022, the national average for all uses in Land Market Value Publication increased for the second consecutive year, and the aggregate market value of the J-REIT market remained at a high level as in the previous year. With the ongoing normalization of socioeconomic activities after the COVID-19 pandemic, a gradual pickup has continued.

Part 1 discusses trend in land prices, land transactions, land use, the real estate market, and the real estate investment market, etc. in FY 2022.

Section 1: Trends in Land Prices

(Trends in land prices in 2022)

According to the Land Market Value Publication by Ministry of Land, Infrastructure, Transport and Tourism (hereinafter referred to as the "MLIT"), as of January 1, 2023, land prices for the average for all uses, residential land and commercial land increased for the second consecutive year, while growth rates expanded.

Concerning the land prices in three major metropolitan areas (Tokyo, Osaka, and Nagoya), the average volatility of all and residential use lands rose for the second consecutive year, while growth rates expanded in all three areas. The prices of commercial land increased for the second consecutive year in the Tokyo and Nagoya areas, and growth rates expanded, while those of the Osaka area turned upward for the first time in three years.

In regional areas, average values for all use, residential and commercial land increased for the second consecutive year, while growth rates expanded. In four major cities of the regional areas (Sapporo, Sendai, Hiroshima, and Fukuoka), values rose for the 10th consecutive year for the averages of all use, residential and commercial land, and the growth rates expanded. As for the rest of the country, excluding the four major cities of the regional areas, the average volatility rate for each of the average for all uses and commercial land turned upward for the first time in three years, and for residential land for the first time in 28 years.

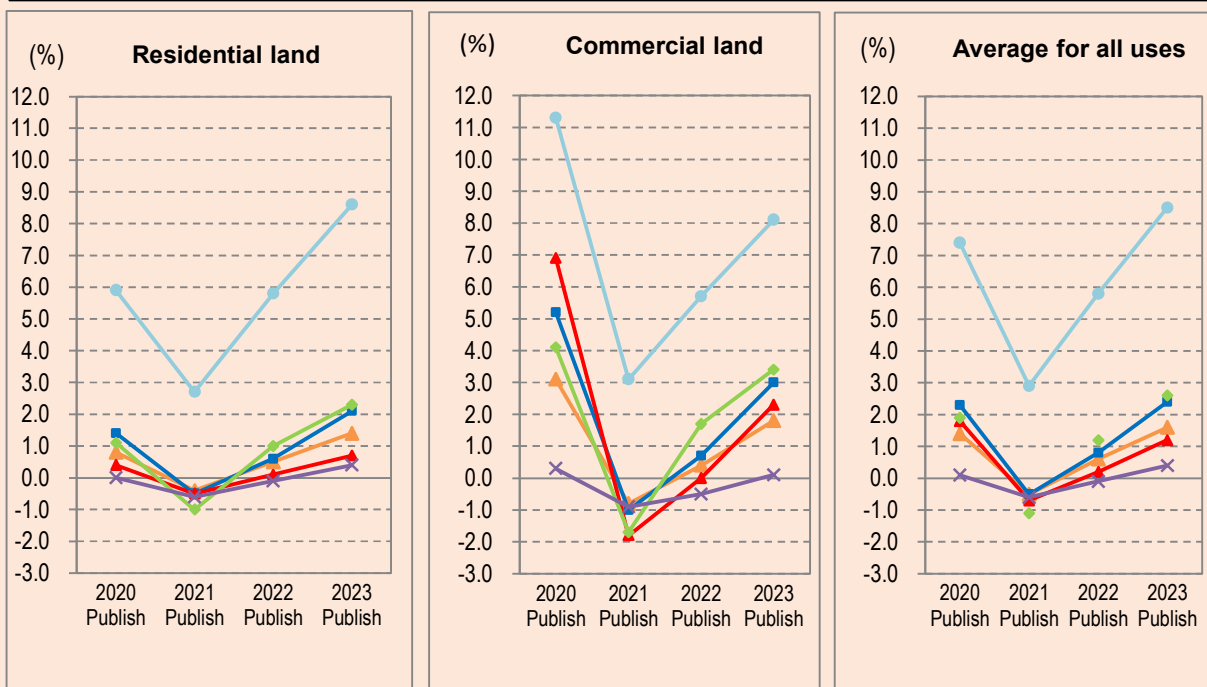
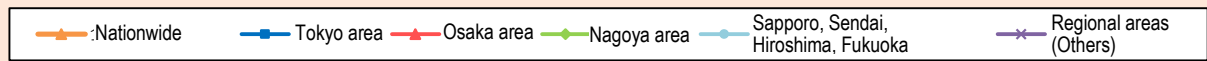
Land prices, waning under the impact of the COVID-19 pandemic, have been slowly recovering through the "living with COVID-19" policy. Despite differences by region, land use, etc., land prices continued to rise, especially in urban areas, and the extent of these increases extended to regional areas as well, indicating a marked recovery trend back to the levels prior to the spread of COVID-19.

As for residential land, in urban centers and areas with excellent living convenience, demand for housing acquisition remains robust, while land prices continue to rise on an ongoing basis. Due to the diversification of consumer demands resulting from lifestyle changes, the scope of land price increases has expanded to include suburban areas. The growth rates expanded in the four major cities of the regional areas. With the rise in land prices in the central areas of these four major cities, cities and towns in the surrounding areas have seen high growth rates as demand has surged.

As for commercial land, demand for store space is recovering, especially in urban areas, and land prices are further recovering due to robust demand for offices, condominium spaces, etc. In addition, there has been a recovery in demand for stores and other services in tourist areas with the return of domestic visitors and in downtown areas that are experiencing a recovery in the flow of people. As a result, land prices are on a recovering trend in many areas.

Figure Changes in land price volatility (annual)

	Residential lands				Commercial lands				Average for all uses			
	2020 Publish	2021 Publish	2022 Publish	2023 Publish	2020 Publish	2021 Publish	2022 Publish	2023 Publish	2020 Publish	2021 Publish	2022 Publish	2023 Publish
Nationwide	0.8	▲ 0.4	0.5	1.4	3.1	▲ 0.8	0.4	1.8	1.4	▲ 0.5	0.6	1.6
Three major met. areas	1.1	▲ 0.6	0.5	1.7	5.4	▲ 1.3	0.7	2.9	2.1	▲ 0.7	0.7	2.1
Tokyo area	1.4	▲ 0.5	0.6	2.1	5.2	▲ 1.0	0.7	3.0	2.3	▲ 0.5	0.8	2.4
Osaka area	0.4	▲ 0.5	0.1	0.7	6.9	▲ 1.8	0.0	2.3	1.8	▲ 0.7	0.2	1.2
Nagoya area	1.1	▲ 1.0	1.0	2.3	4.1	▲ 1.7	1.7	3.4	1.9	▲ 1.1	1.2	2.6
Regional areas	0.5	▲ 0.3	0.5	1.2	1.5	▲ 0.5	0.2	1.0	0.8	▲ 0.3	0.5	1.2
Sapporo, Sendai, Hiroshima, Fukuoka	5.9	2.7	5.8	8.6	11.3	3.1	5.7	8.1	7.4	2.9	5.8	8.5
Others	0.0	▲ 0.6	▲ 0.1	0.4	0.3	▲ 0.9	▲ 0.5	0.1	0.1	▲ 0.6	▲ 0.1	0.4



Data: MLIT "Land Market Value Publication"

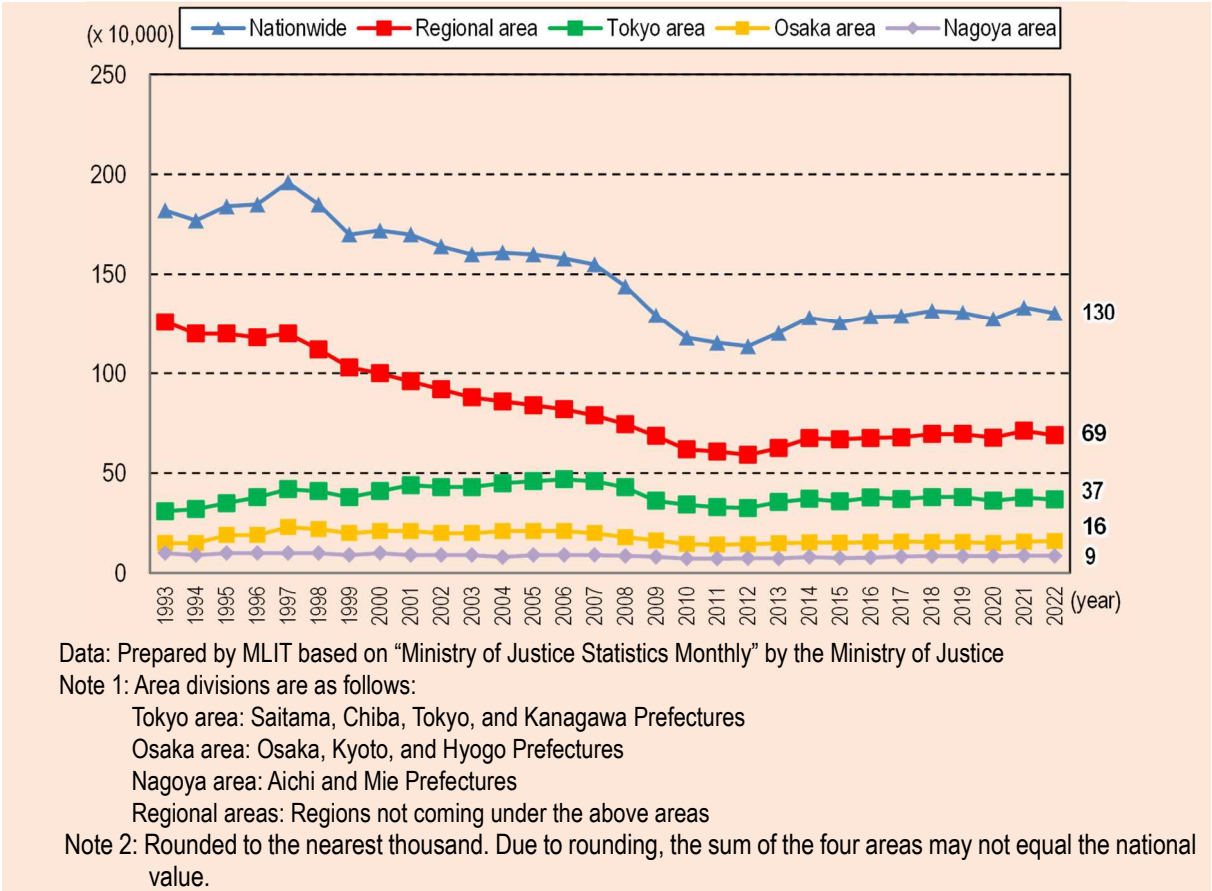
Note 1: Region Classifications are as follows:
 Three major metropolitan areas: Tokyo, Osaka, and Nagoya
 Tokyo area: Cities including existing cities and suburb improvement zones based on Metropolitan Area Improvement Act
 Osaka area: Cities including existing cities and suburb improvement zones based on Kinki Area Improvement Act
 Nagoya area: Cities including urban improvement areas based on Chubu Area Development and Improvement Act
 Regional area: Regions besides the three major metropolitan areas
 Other: Cities besides Sapporo, Sendai, Hiroshima, and Fukuoka among regional area

Note 2: FY 2020 Publish: FY 2020 Land Market Value Publication (Jan. 1, 2019–Jan. 1, 2020)
 FY 2021 Publish: FY 2021 Land Market Value Publication (Jan. 1, 2020–Jan. 1, 2021)
 FY 2022 Publish: FY 2022 Land Market Value Publication (Jan. 1, 2021–Jan. 1, 2022)
 FY 2023 Publish: FY 2023 Land Market Value Publication (Jan. 1, 2022–Jan. 1, 2023)

Note 3: Decrease rate reduced from a year earlier, increase rate expanded from a year earlier Decrease rate expanded from a year earlier, increase rate reduced from a year earlier Unchanged from a year earlier

Section 2 Trends in Land Transactions
 (Changes in the number of land transactions)
 According to "Ministry of Justice Statistics Monthly" by the Ministry of Justice, the number of transfers of ownership registered through the purchase and sale of land in 2022 was approximately 1.3 million nationwide, remaining almost unchanged.

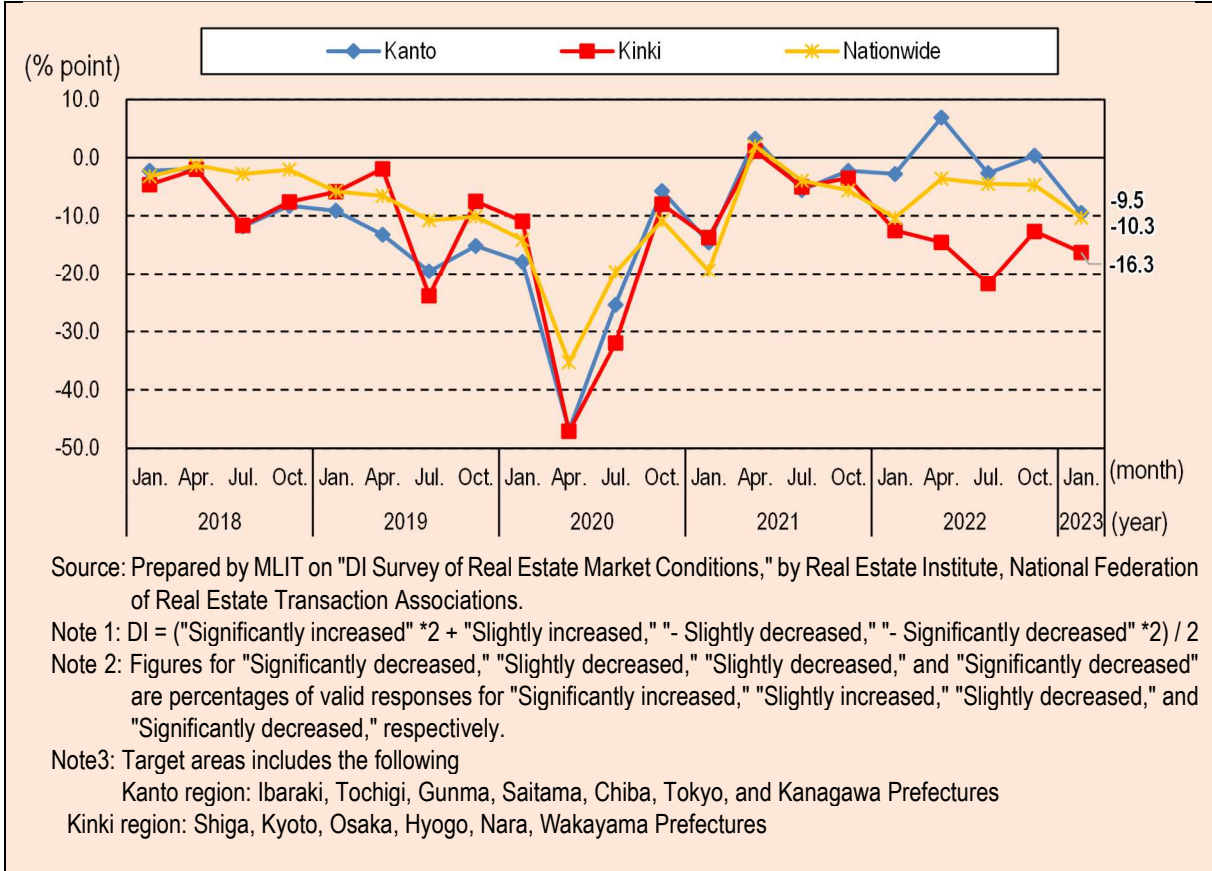
Figure Changes in the number of land transactions of buying and selling



(Attitudes toward land transactions by corporations)

As for corporate attitudes toward land transactions, according to the "DI Survey of Real Estate Market Conditions" conducted by Real Estate Institute, National Federation of Real Estate Transaction Associations, the diffusion index (DI: The index for the number of land transactions at the time of the survey compared to three months earlier, is calculated by subtracting the sum of [the percentage of companies that responded "Significantly decreased" and the percentage of companies that responded "Slightly decreased"] multiplied by 1/2, from the sum of [the percentage of companies that responded "Significantly increased" and the percentage of companies that responded "Slightly increased"] multiplied by 1/2), the DI for current land transactions turned negative for all regions in January 2023, reaching - 9.5 points in the Kanto region, -16.3 points in the Kinki region, and -10.3 points in the nation as a whole.

Figure | DI on perceived state of current land transactions



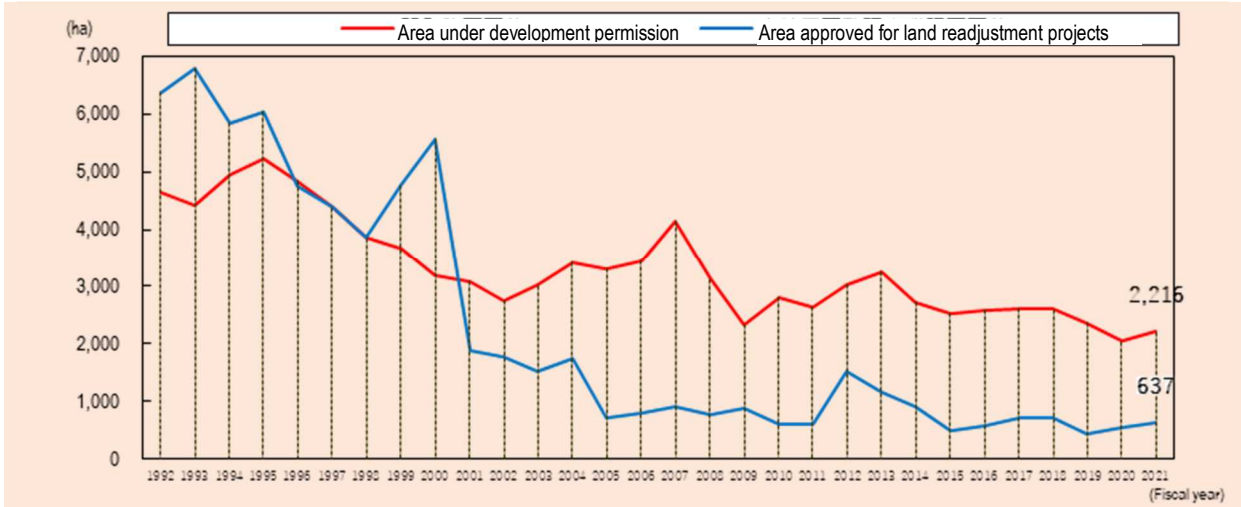
Section 3: Trends in Land Use
 (Overview of land use, etc.)

As of 2020, the total area of Japan was approximately 37.80 million hectares. Forestland accounts for the largest portion (25.03 million hectares), followed by farmland (4.37 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 1.42 million hectares, surface water, rivers, and canals cover 1.35 million hectares, and fields total 0.31 million hectares.

(Changes in land use)

FY 2021, the area with development permission was 2,216 ha and the area with land readjustment projects approval was 637 ha.

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



Data: MLIT

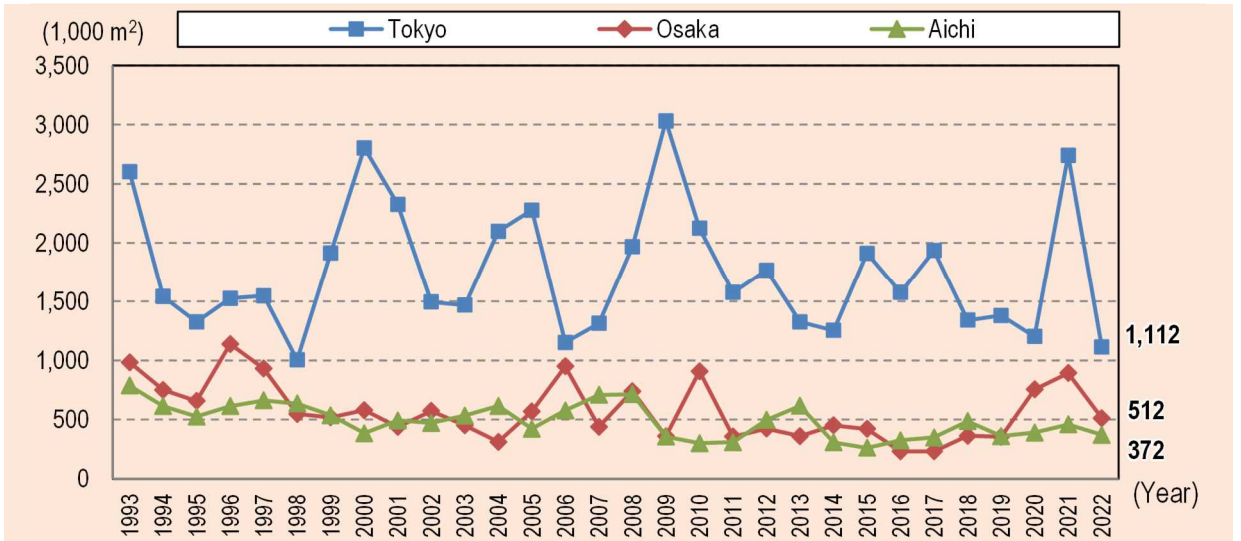
Note 1: "Development permission" refers to projects permitted under the City Planning Act for development activities, mainly for the purpose of residential construction.

Note 2: The approved areas for land readjustment projects are the sum of those carried out by individuals/joint corporations, associations, public bodies, administrative agencies, the Urban Renaissance Agency, and the Local Housing Corporation (LHC).

(Changes in real estate availability, etc.)

In terms of gross office floor areas of building starts by city in 2022, Tokyo had approximately 1,112,000 m² (down 59.4% y/y), Osaka approximately 512,000 m² (down 42.7% y/y), and Aichi approximately 372,000 m² (down 19.0% y/y), all of which decreased from the previous year.

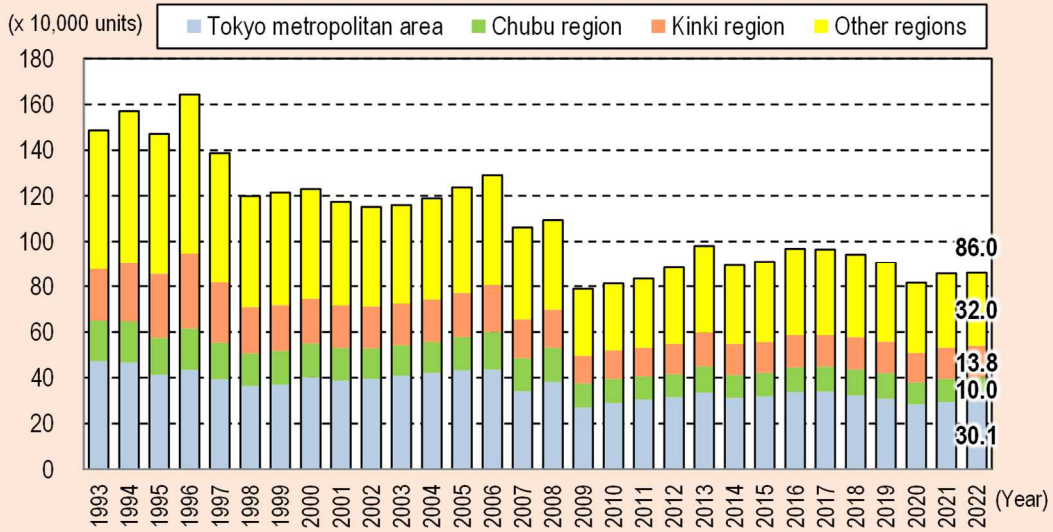
Figure Changes in gross office floor area of building starts by city



Data: MLIT "Building Starts Statistics"

The total number of new housing starts in 2022 was approximately 860,000 units, up 0.5% from the previous year. By area, the Tokyo metropolitan area and the Kinki region saw an increase, while the Chubu region and other regions saw a decrease.

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



Data: MLIT "Building Starts Statistics"

Note 1: Metropolitan area classifications are as follows:

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

Chubu region: Gifu, Shizuoka, Aichi, Mie Prefectures

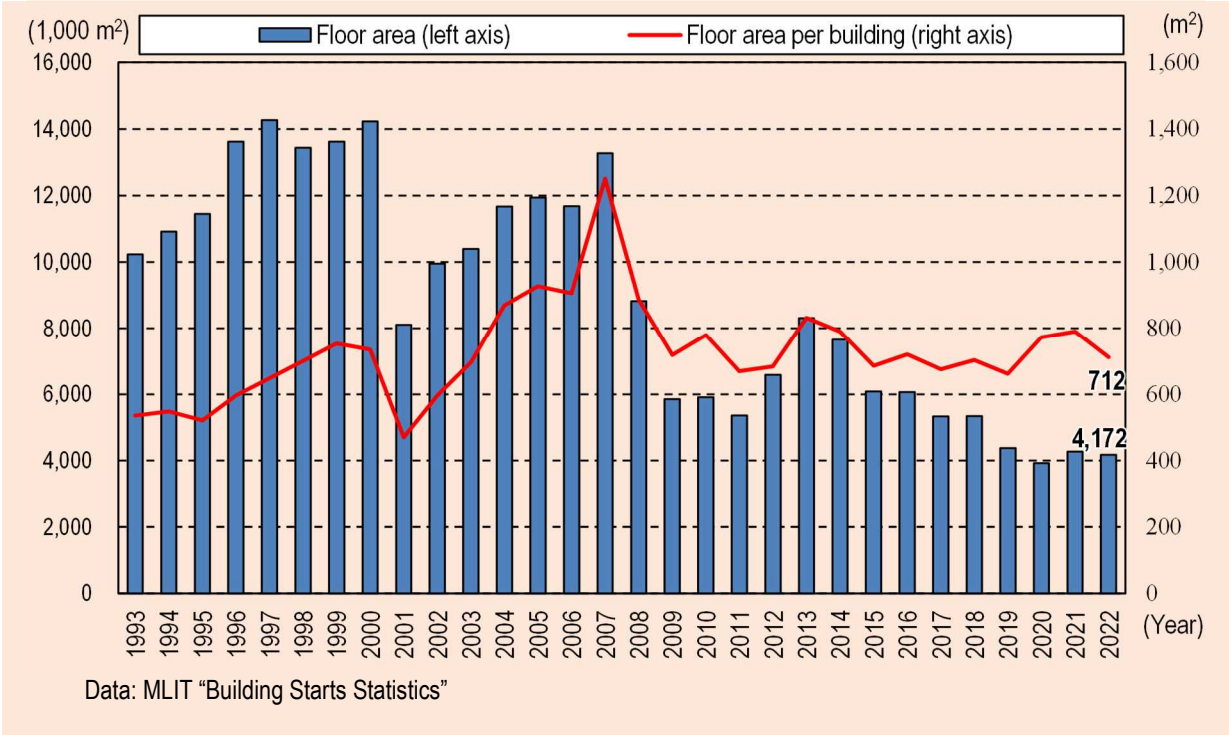
Kinki region: Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama Prefectures

Other regions: Areas other than the above

Note 2: Totals may not match due to rounding

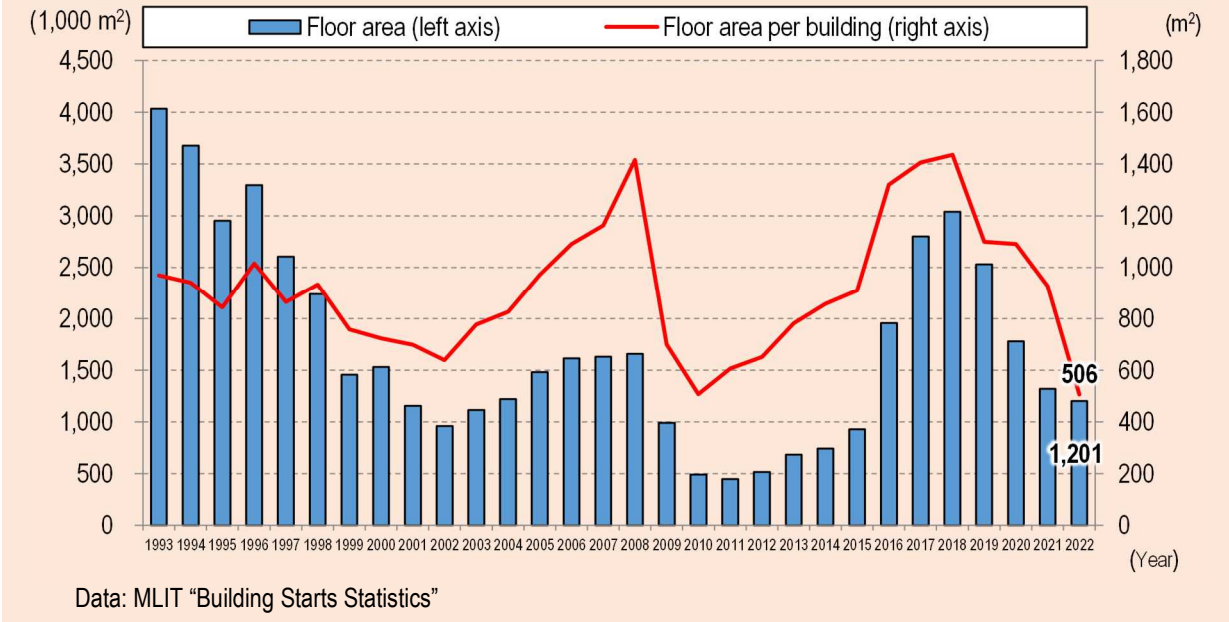
In 2022, the gross floor area of store starts was approximately 4,172,000 m² (down 2.4% y/y), and floor space per building was 712 m² (down 10.0% y/y), both falling from the previous year.

Figure Changes in floor area of store starts



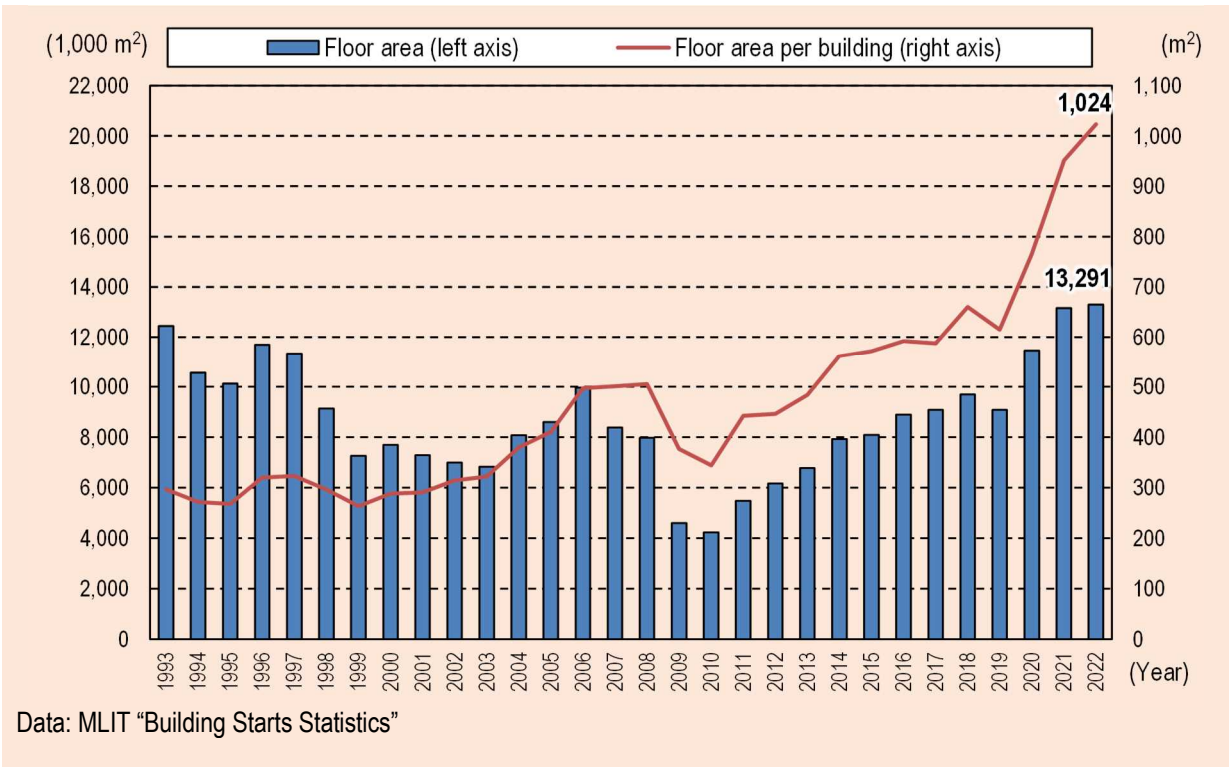
In 2022, the gross floor area of building starts for lodging was approximately 1,201,000 m² (down 8.9 % y/y), and the floor area per building was 506 m² (down 45.4 % y/y), both decreasing from the previous year.

Figure Changes in floor area of building starts for lodging



In 2022, the floor area of warehouse starts was approximately 13,291,000 m² (up 1.0% y/y), and the floor area per building was 1,024 m² (up 7.6% y/y), both increasing from the previous year.

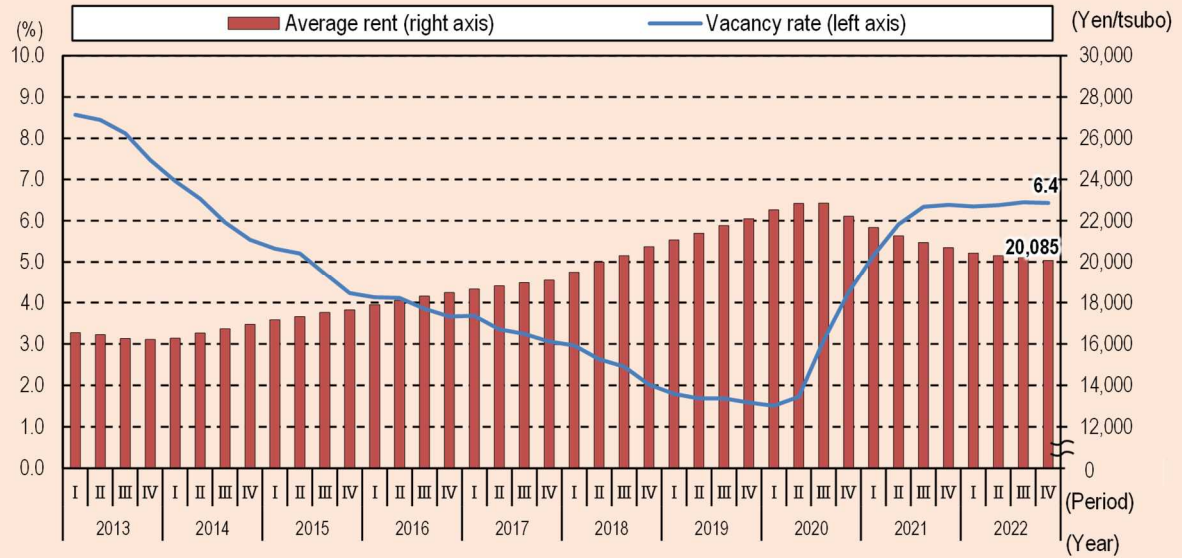
Figure Changes in floor area of warehouse starts



Section 4 Trends in the Real Estate Market
(Trends in the office market)

The gross office building vacancy rate in the five inner-city wards of Tokyo (Chiyoda, Chuo, Minato, Shinjuku, and Shibuya), which had been rising since Quarter II (April to June) of 2020, has remained almost flat since Quarter III (July to September) of 2021, and was at 6.4% in Quarter IV (October to December) of 2022. Average asking rents for office buildings peaked in Quarter III (July-September) of 2020 and have continued to decline since then, but the level of decline has slowed since the beginning of 2022.

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.

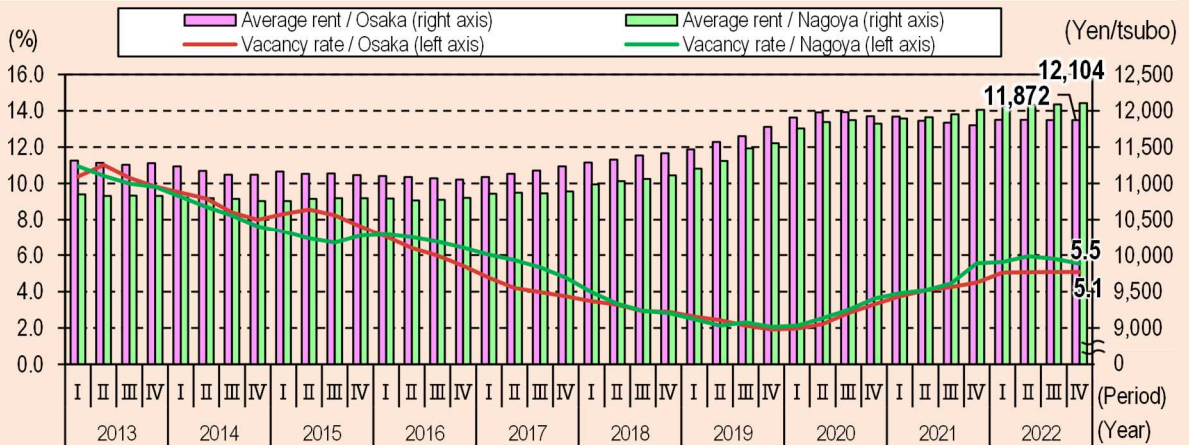
Note 1: Values for quarters I through IV are values obtained by averaging values for the months within each quarter.

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 Osaka City, the gross office building vacancy rate has remained almost flat since 2022. In Nagoya, the vacancy rate had been increasing until Quarter II (April to June) of 2022; however, it has been declining since Quarter III (July to September). Average asking rents for office buildings have remained almost flat in Osaka, whereas in Nagoya they have continued to rise since 2021.

Figure Overview and history of efforts to bring real estate transactions online



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

Note 3: Target buildings include the following:

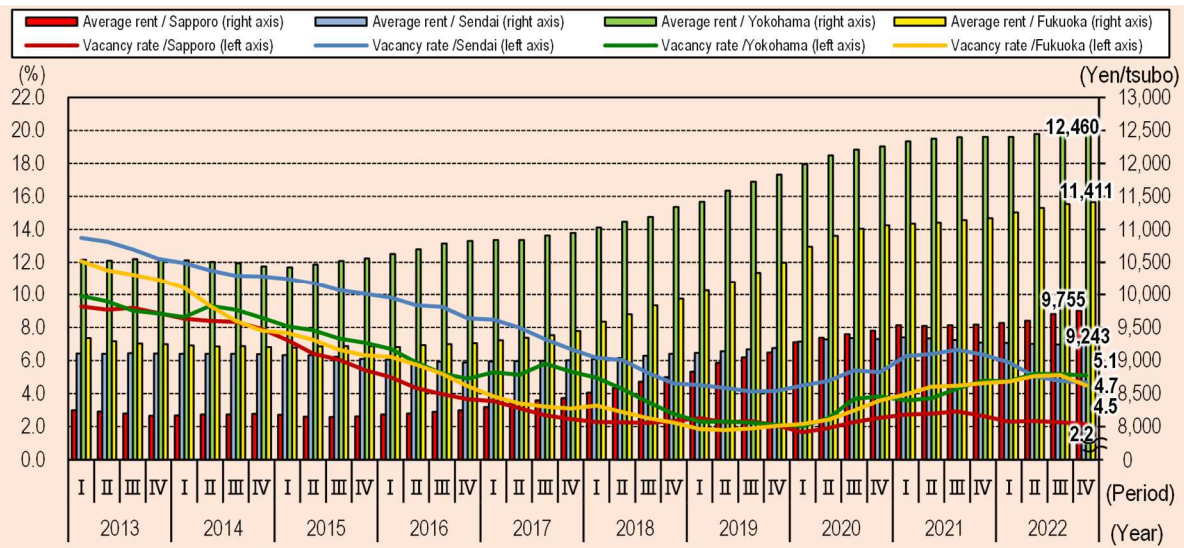
Osaka: Major rental office buildings with a total floor area of 1,000 tsubo (3305.79 m²) or more

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 gross office building vacancy rate in Sapporo and Sendai has been declining since Quarter IV (October-December) of 2021. The vacancy rate in Yokohama City has been on an upward trend since 2021. In Fukuoka City, the vacancy rate had been rising until Quarter III (July-September) of 2022, but turned downward in Quarter IV (October-December). Average asking rents for office buildings showed an upward trend in Sapporo, Yokohama, and Fukuoka, and a downward trend in Sendai.

Figure Changes in rental prices of office rooms and vacancy rate (Sapporo, Sendai, Yokohama 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: 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

Yokohama: Kannai, Yokohama Station, Shin-Yokohama, Minato Mirai 21 Districts

Fukuoka: Akasaka / Daimyo, Tenjin, Yakuin / Watanabe Dori, Gion / Gofukumachi, Hakata-Ekimae, Hakata Eki-Higashi / Eki-Minami Districts

Note 3: 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

Yokohama: Major rental office buildings with a total floor area of 500 tsubo (1652.89 m²) or more

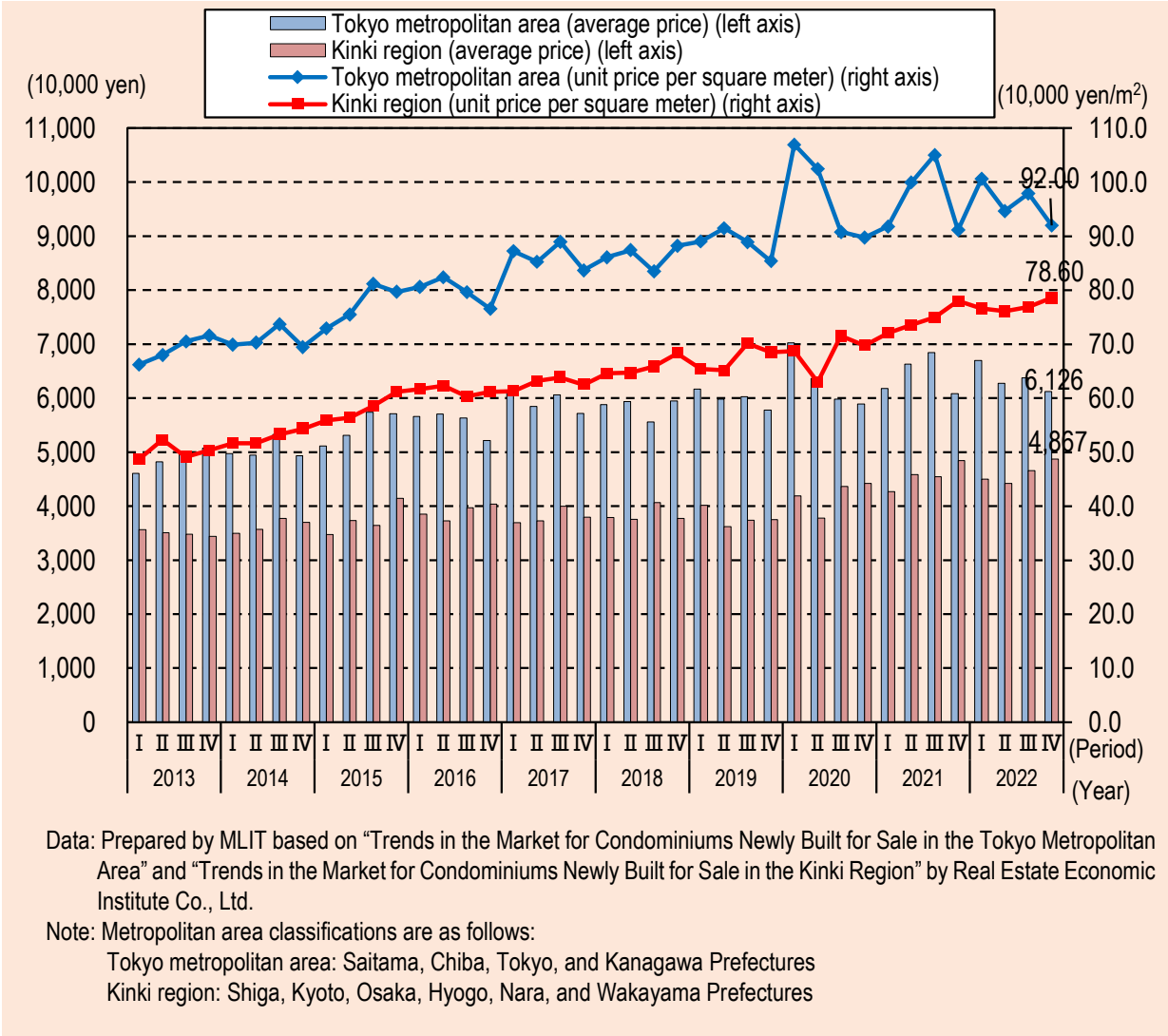
Fukuoka: Major rental office buildings with a total floor area of 100 tsubo (330.579 m²) or more

(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)

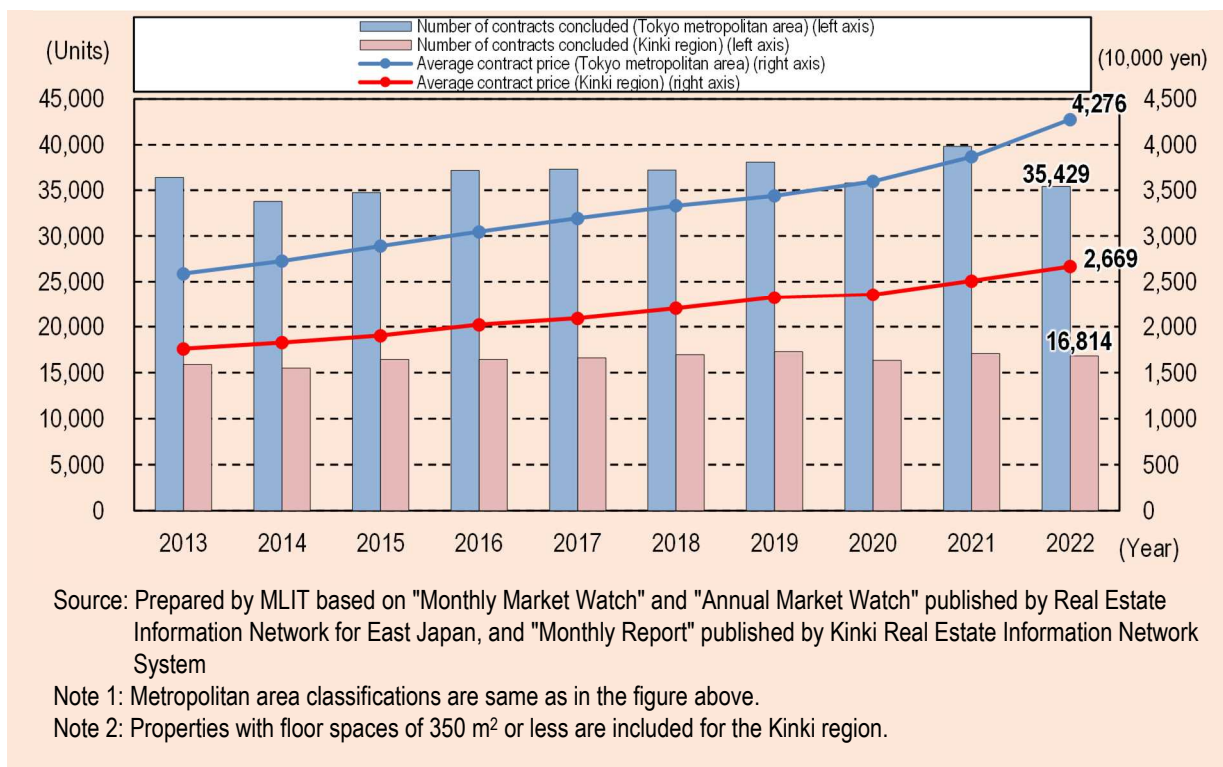
The unit price per square meter of newly built condominiums in 2022 exceeded 1 million yen in the Tokyo metropolitan area during Quarter I (January to March), but subsequently dropped to 900,000 yen. In the Kinki region, the price declined in Quarter I (January-March) and Quarter II (April-June), but has been rising again since Quarter III (July-September). As for the average price, both the Tokyo metropolitan area and the Kinki region have generally followed the same trend as that of the unit price per square meter.

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



The average price of contracts closed for pre-owned condominiums in 2022 showed an upward trend, with 42.76 million yen (up 10.5% y/y) in the Tokyo metropolitan area and 26.69 million yen (up 6.4% y/y) in the Kinki region. The number of contracts closed was 35,429 in the Tokyo metropolitan area (down 11.0% y/y) and 16,814 in the Kinki region (down 1.6% y/y), both of which decreased from the previous year.

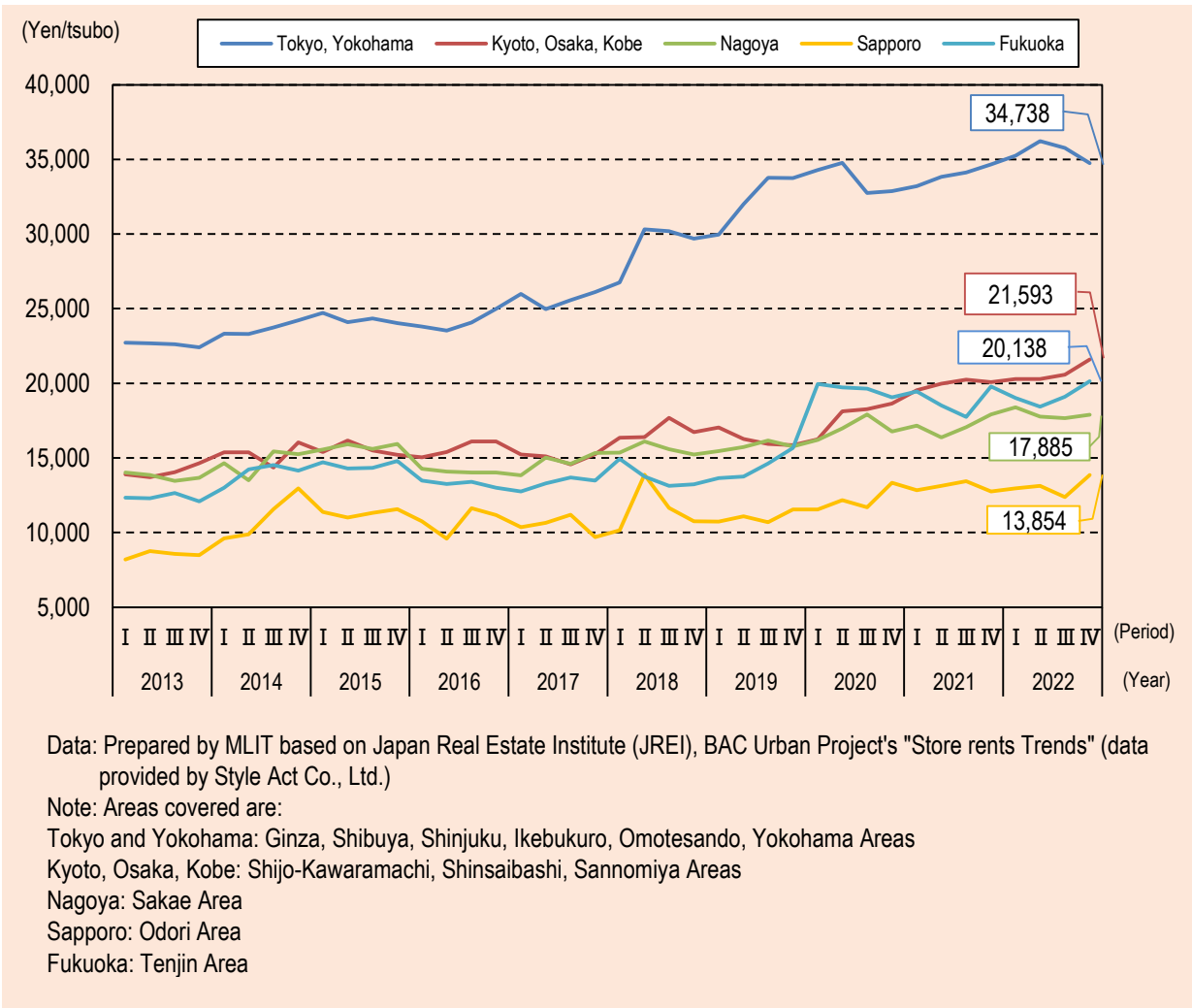
Figure Changes in the number of contracts concluded and the average price of pre-owned condominiums in the Tokyo metropolitan area and the Kinki region



(Trends in the markets for stores and logistics facilities)

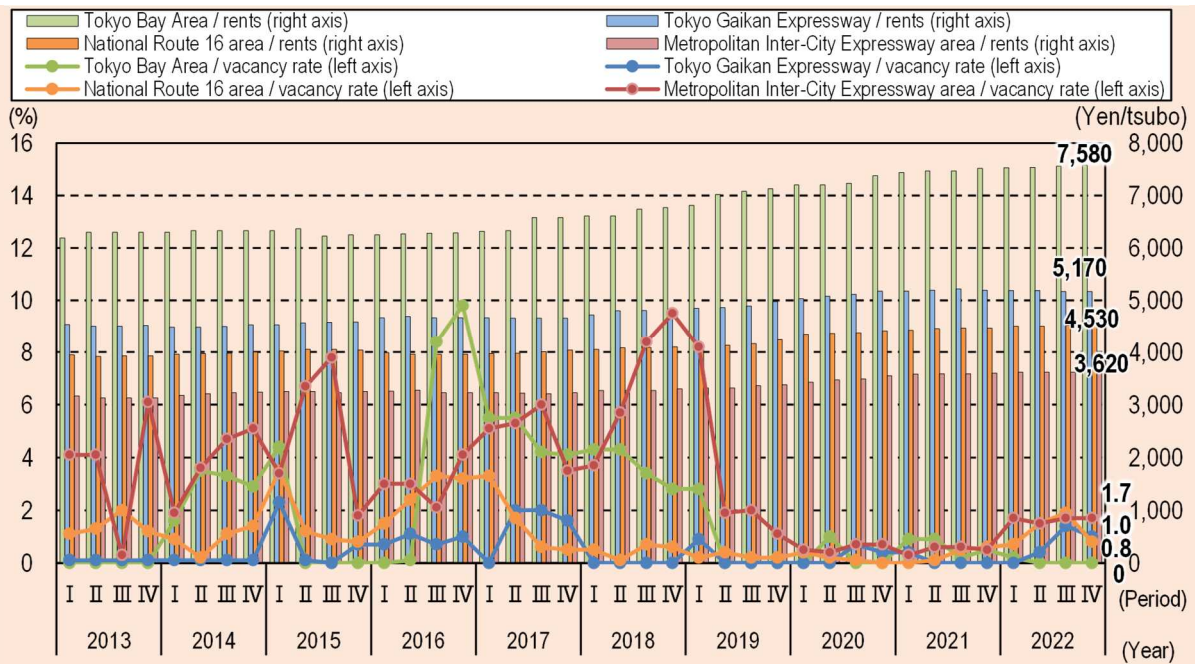
Store rents in major cities for Quarter IV (October-December 2022) rose in all cities except Nagoya; specifically, 34,738 yen per tsubo in Tokyo and Yokohama (up 0.2% y/y), 21,593 yen per tsubo in Kyoto, Osaka, and Kobe (up 7.6% y/y), 17,885 yen per tsubo in Nagoya (down 0.1% y/y), 13,854 yen per tsubo in Sapporo (up 8.7% y/y), and 20,138 yen per tsubo in Fukuoka (up 1.9% y/y).

Figure Trends in store rents in major cities



In 2022, rents for logistics facilities in all four areas of the Tokyo metropolitan area remain high and unchanged. While vacancy rates are low, they rose slightly in the Tokyo Gaikan Expressway, National Route 16, and Metropolitan Inter-City Expressway areas.

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.

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: Area surrounded by the Tokyo Outer Ring Road, excluding the Tokyo Bay Area.

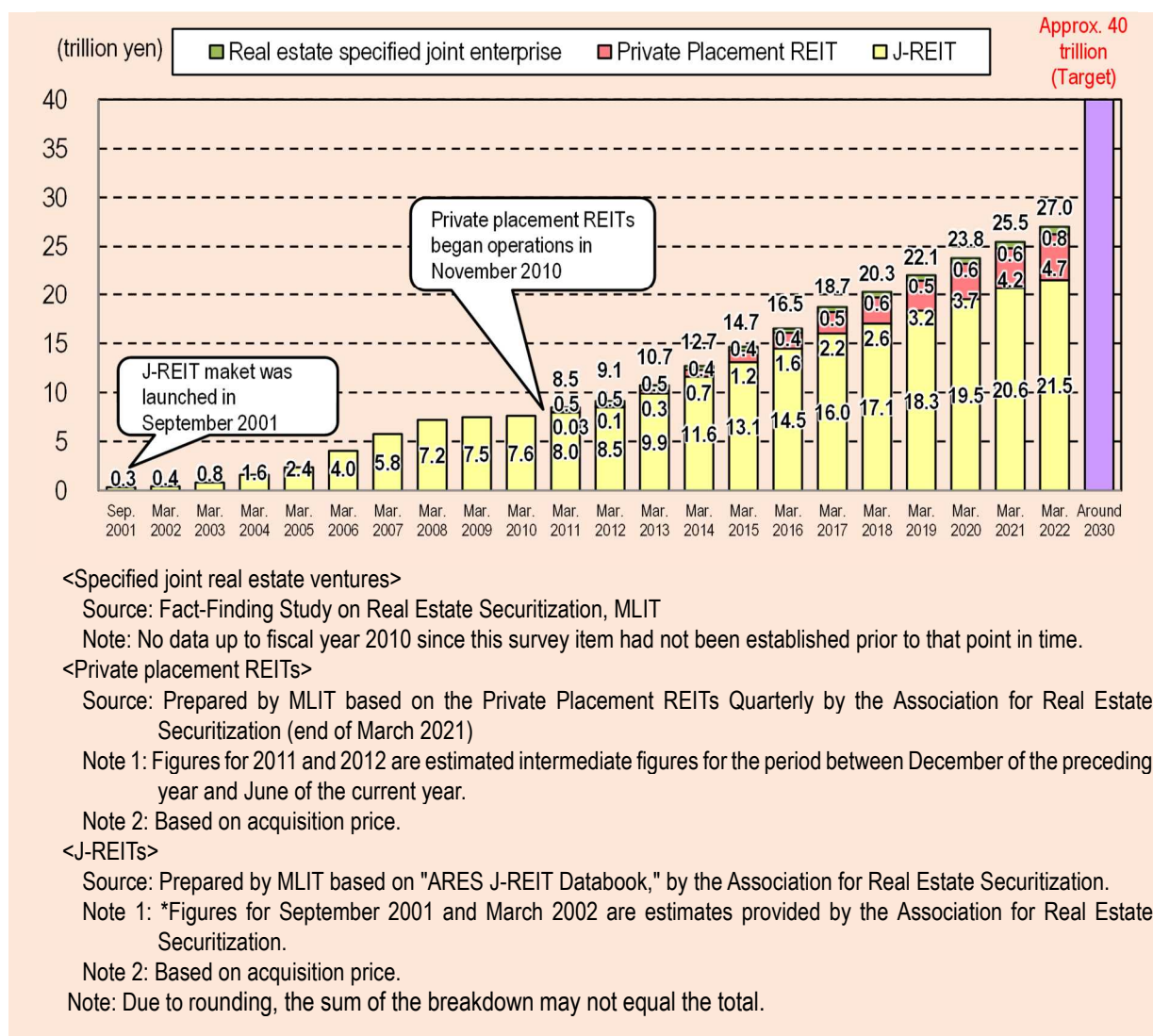
National Route 16 area: Semi-donut-shaped area from outside the Tokyo Outer Ring Road to the area along the ring road and National Route 16

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)

MLIT has set a target of increasing the total assets of REITs to approximately 40 trillion yen by around 2030. As of March 31, 2022, total assets were approximately 27 trillion yen in terms of acquisition value, of which offices accounted for 32.7%, warehouses 22.3%, residences 19.4%, commercial facilities 9.3%, healthcare facilities 2.4%, and hotels and inns 1.2%.

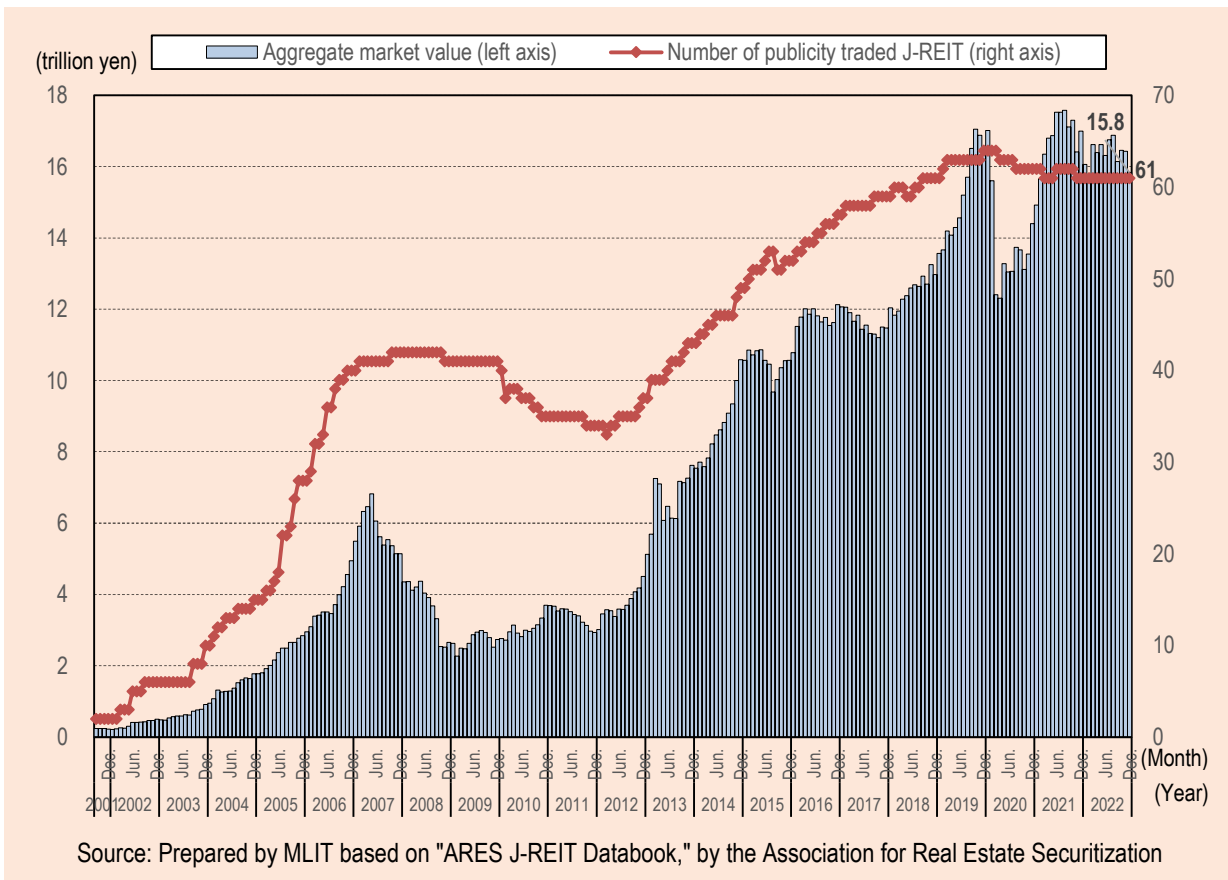
Figure Changes in the total assets of REIT (Trends in the J-REIT market)



(Trends in the J-REIT market)

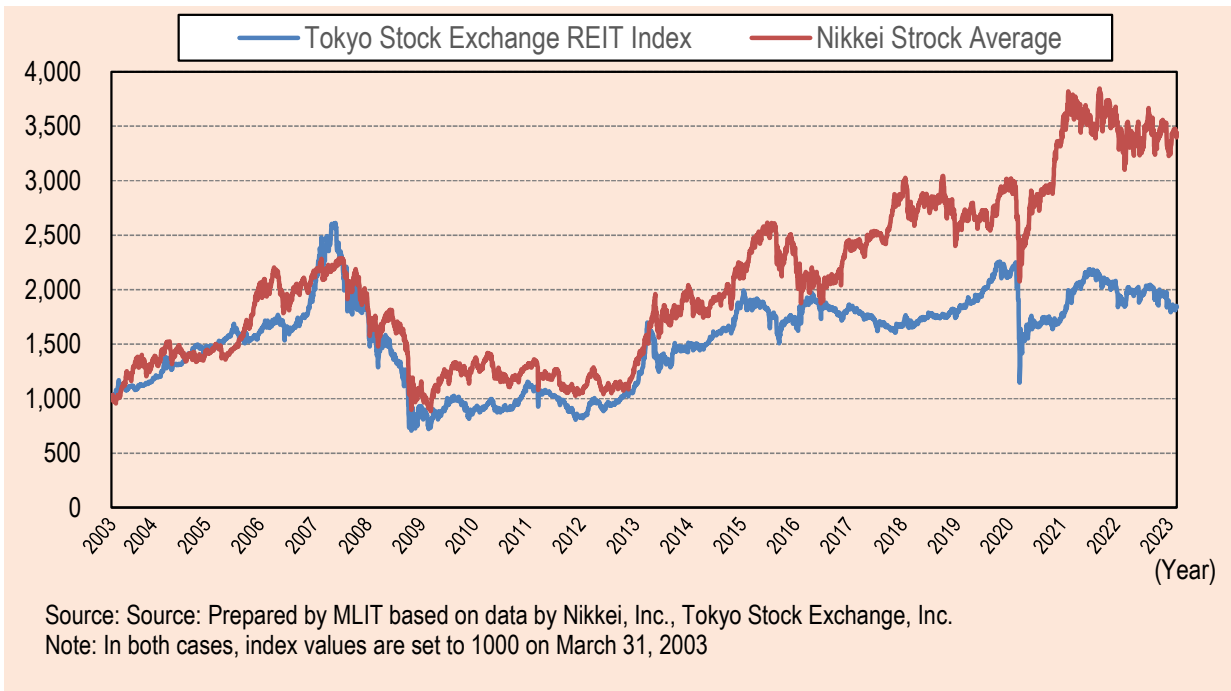
As of the end of December, 2022, 61 various stocks for J-REIT were listed on the Tokyo Stock Exchange, and the current aggregate market value of real estate investment trusts was about 15.8 trillion yen.

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



The Tokyo Stock Exchange REIT Index, which indicates the value movement of the whole JREIT market, was at 2,000-point level at the beginning of 2022. However, with the deterioration of investor sentiment due to concerns about rising U.S. interest rates and the reemergence of the COVID-19 pandemic and Russian aggression against Ukraine, the index fell to the 1,800-point level at the end of February 2022. In March of the same year, the Index temporarily recovered to the 2,000-point level due to expectations of an improvement to the situation in Ukraine. With the FRB's subsequent aggressive stance on monetary tightening and the Bank of Japan's raising of the ceiling on long-term interest rates, the index was at the 1,800-point level as of the end of December of the same year.

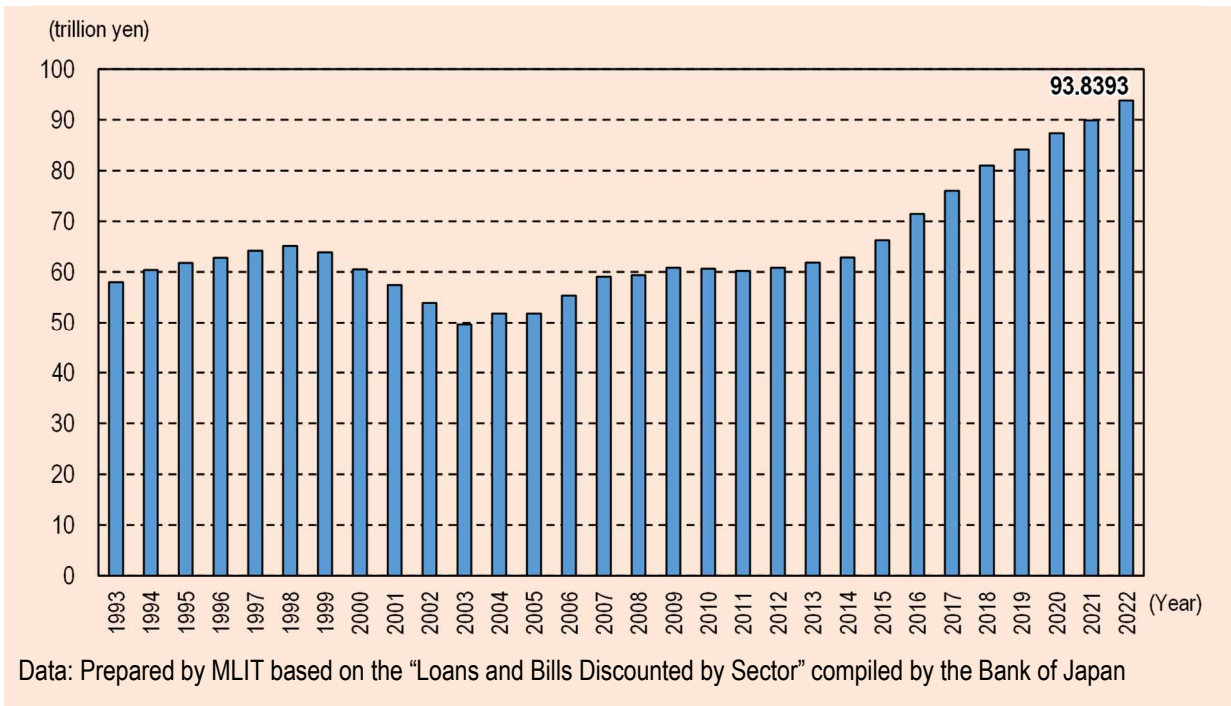
Figure Changes in the Tokyo Stock Exchange REIT Index and the Nikkei Stock Average



(Trends in the amounts outstanding of loans and bills discounted 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 93,839.3 billion yen in 2022.

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



Section 6 Attitudes toward Ownership, Use and Management of Land and Real Estate
(Public awareness toward land and real estate)

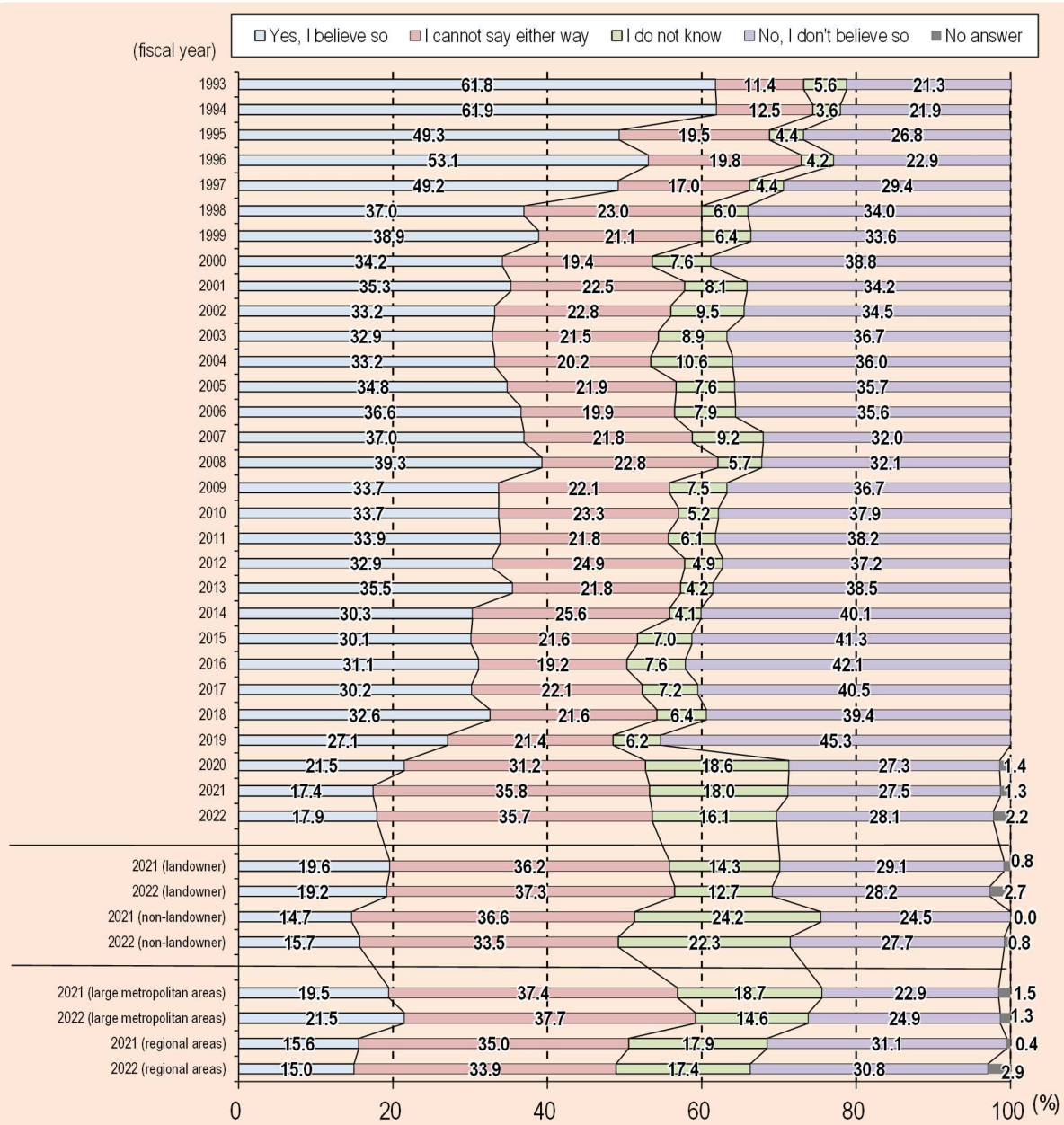
For people, owning land is not only for the purpose of residential land, etc., which is the foundation of their lives, but also as an asset.

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 COVID-19 pandemic the 2020 survey was conducted using the postal method instead of the interview method that had been employed in the past. Also, from FY 2021, the survey method was expanded to accept online responses in addition to the postal method.

According to the FY 2022 Survey, in response to the question "Do you think land is a profitable asset compared with deposits/savings or stocks?", 17.9% of respondents answered "Yes", 28.1% of those answered "No", and 35.7% 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 2021 Survey. In this Survey, the percentage of "No" again exceeded "Yes."

Of these responses, 19.2% of respondents who owned land answered "Yes," while 15.7% 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, 21.5% of respondents living in metropolitan areas answered "Yes," while 15.0% of those living in regional areas answered so, showing that the percentage is higher in metropolitan areas than in regional areas.

Figure Is land a profitable asset compared with deposits/savings?



Source: Public Awareness Survey on Land Issues, MLIT

Note: Metropolitan areas: Tokyo, Osaka, Nagoya

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

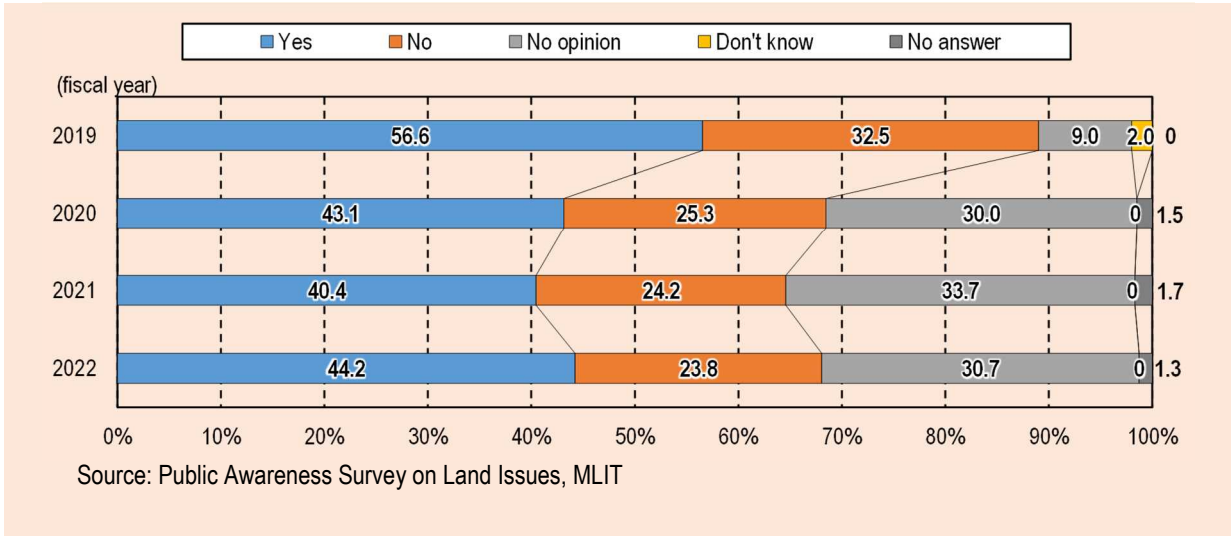
Osaka area: Municipalities inclusive of established urban zones and suburban developed zones under the Kinki Area Improvement Act

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

Regional area: Municipalities other than those in metropolitan areas

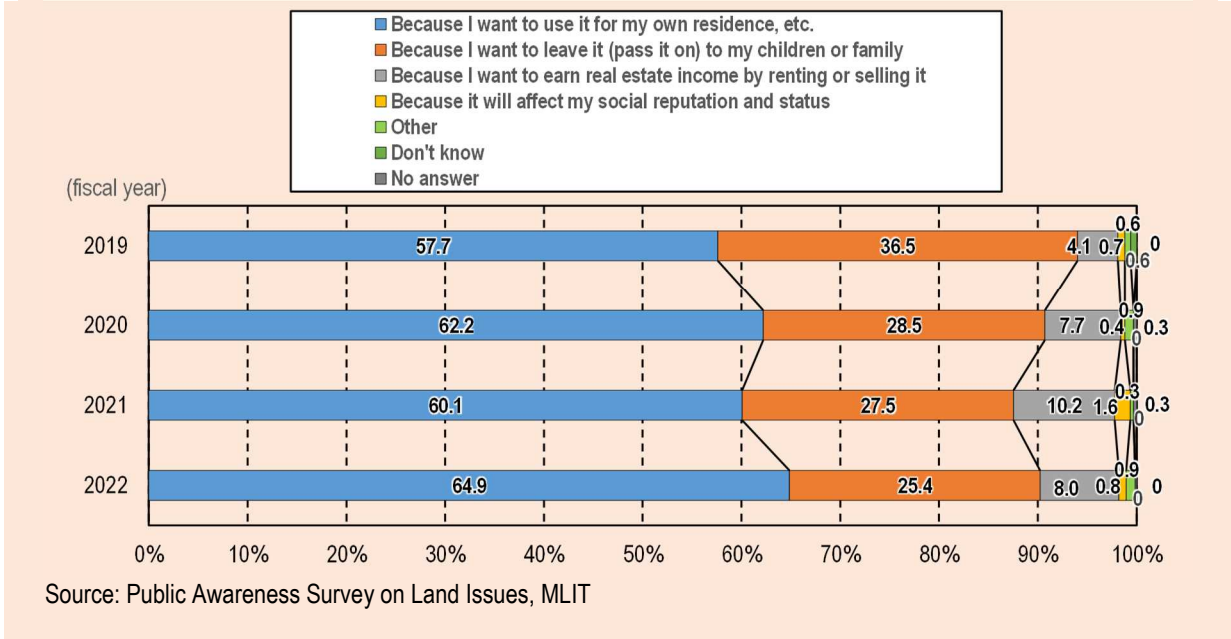
In response to the question "Do you want to own land?" 44.2% of respondents answered "Yes," while 23.8% answered "No." Also, 30.7% answered "No Opinion."

Figure | Do you want to own land?



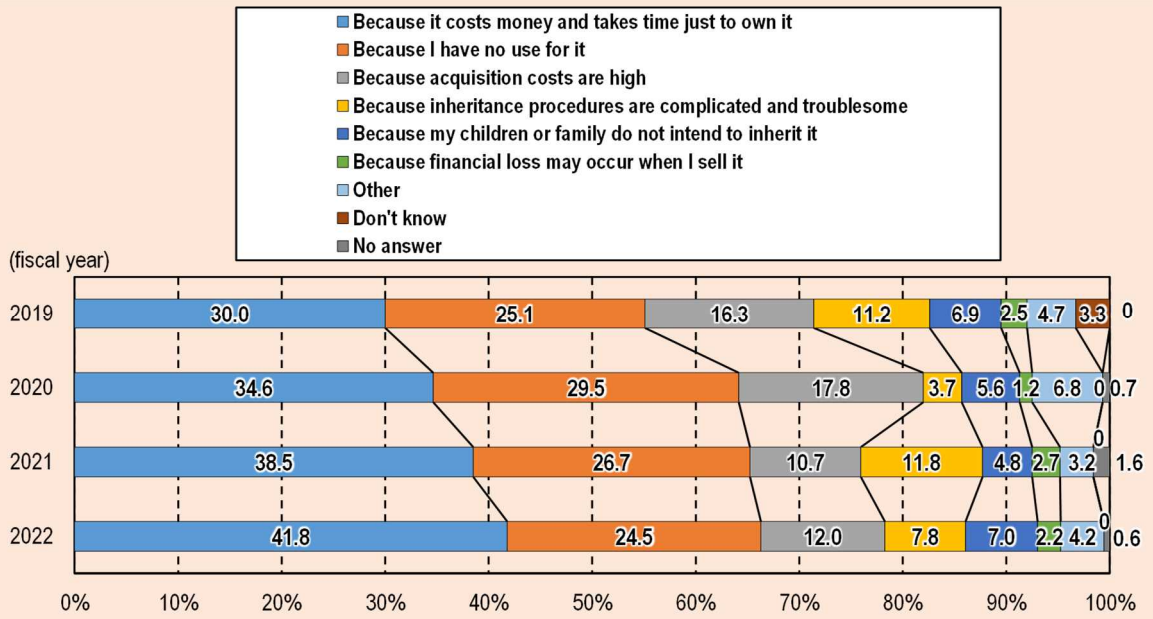
Asked why "I want to own land," the highest percentage of respondents (64.9%) answered "I want to use it for my own residence, etc.," followed by "I want to leave it (pass it on) to my children or family (25.4%)."

Figure | Reasons for wanting to own land



In addition, asked why "I don't want to own land," the highest percentage of respondents (41.8%) answered "Because it costs money and takes time just to own it," followed by "Because I have no use for it"(24.5%)."

Figure Reasons for not wanting to own land



Source: Public Awareness Survey on Land Issues, MLIT

Section 7: Utilization of Digital Technology for Appropriate Land Use and Management and Smooth Transactions

1. Need for Utilization of Digital Technology

With a shrinking population and declining land use needs, there is concern about the increase in vacant houses and lots (as well as owner-unknown land), land whose owners are not known according to real estate registry information and land that is mismanaged and causes external diseconomies. These lands need to be addressed urgently, as they lead to delays in infrastructure development and disaster prevention measures, in addition to the deterioration of the living environment.

As the number of players in land use and management is decreasing, the market is facing many challenges that are difficult to solve. Accordingly, public entities such as local governments are expected to play a greater role, yet they need to overcome challenges such as a lack of manpower. Digital technology, which has developed remarkably in recent years, has the following advantages: (i) activities and services that could not be administered in the past due to location and time constraints can now be provided; and (ii) complex issues can be addressed efficiently and effectively through data linkages that transcend the boundaries of fields and entities. In the field of land policy, the active use of digital technology is expected to enhance efficiency and sophistication in all phases of land use, management, and transactions.

In addition, the "Comprehensive Strategy for the Digital Garden City State Initiative" (Cabinet decision on December 23, 2022) states the policy to utilize the power of digital technology to solve social issues and improve the attractiveness of local communities. The use of digital technology is also required from the perspective of creating attractive local urban living areas and ensuring local safety and security.

Based on the above, it is necessary to develop the infrastructure to promote the coordination and utilization of data held by the public and private sectors, and to utilize digital technology in the fields of infrastructure development, disaster prevention, proper land management, real estate distribution, etc., thereby promoting efficiency and sophistication of efforts, solving local social issues and enhancing the attractiveness of local communities.

2. Development of the Use of Digital Technology

GIS uses typical digital technology that can be used for land policy. GIS is a technology that enables advanced analysis and rapid decision making by comprehensively managing and processing data with location information (geospatial data) and making it visible on electronic maps.

The government's full-scale efforts toward GIS began with the Great Hanshin-Awaji Earthquake in 1995. Due to the lack of a system for mutual use of data held by related agencies, the government was unable to quickly and efficiently assess the damage (at an early stage), support relief efforts immediately after the earthquake, or assist in reconstruction efforts. In response to this major point of consideration, the government decided to promote efficient development of GIS and its shared use under the cooperation of related ministries and agencies. In September 1995, the "Inter-ministerial Meeting on Geographic Information System (GIS)" was established, and in December 1996, the "Long-term Plan for the Development of the National Digital Geospatial Data Framework and the Promotion of GIS Dissemination" was formulated. This plan promotes development of the National Digital Geospatial Data Framework, which is the basic data on the national lands that are indispensable for the use of GIS, as a core initiative. This effort is based on the fact that while hardware and software have become less expensive, making it possible to introduce a simple GIS, the digitization of map data, etc., has not progressed. Subsequently, the "Standardization and Development Plan for the National Digital Geospatial Data Framework" (March 1999) and the "GIS Action Program 2002-2005" (February 2002) were established. The objectives of these programs were to (i) standardize geospatial data developed by different entities to facilitate their mutual use, (ii) develop and provide a geospatial data infrastructure, and (iii) promote and educate the public about GIS.

Furthermore, to realize a society that can highly utilize such geospatial information, it is necessary not only to digitize map information, but also to comprehensively and systematically develop the technologies, systems, and human resources to utilize them. Based on these necessities, the "Basic Act on the Advancement of Utilizing Geospatial Information" (Act No. 63 of 2007) was enacted in May 2007. Based on the Act, the Phase I "Basic Plan for the Advancement of Utilizing Geospatial Information" was formulated in April 2008 to promote comprehensive and systematic measures for the promotion of geospatial information use. According to this plan, the development of basic geospatial information, such as fundamental geospatial data, and establishment of a system for its provision and distribution, etc., were further promoted.

Fundamental geospatial data refers to location information such as building perimeters, road edges, municipal boundaries, and representative points. In accordance with the "Basic Act on the Advancement of Utilizing Geospatial Information," MLIT and other agencies have developed this database as a reference for locations in electronic maps. MLIT also prepares and provides free of charge on its website "digital national land information (DNLI)," which are GIS data on basic geospatial information on national land, including topography, land use, public facilities, disaster risk information, urban planning, etc. This information is used by various entities in both the public and private sectors.

Subsequently, GIS has been used in a wide variety of operations by the national and local governments and private entities through the efforts based on Phase II and Phase III plans in various fields, including city planning, management of public facilities, disaster prevention, agricultural land management, forest management, building certification and

guidance. In March 2022, the 4th "Basic Plan for the Advancement of Utilizing Geospatial Information" was approved by the Cabinet. Based on the evolution of technologies related to geospatial information, etc., and with the aim of realizing the creation and provision of diverse services that take full advantage of its potential, the government will work on various measures such as promoting the construction of an integrated G-spatial disaster prevention/mitigation system, promoting accelerated smart agriculture, and developing and utilizing 3D urban models and open data.

3. Development of an Information Collaboration Platform

(1) Open data and base registry

In recent years, there has been a trend toward open government, which ensures transparency in government activities and promotes citizen participation and cooperation/collaboration between the public and private sectors. With this trend, there is growing interest in promoting the use of public and private sector data (i.e., "open data"). The government has been strengthening its efforts toward open data in response to the lessons learned through the recovery and reconstruction from the Great East Japan Earthquake, coupled with changes in the environment regarding information and communication technology (ICT) (e.g., the rapid spread of smart phones). The Declaration to Be the World's Most Advanced IT Nation (decided by the Cabinet on June 14, 2013) included the promotion of the opening of public data to the private sector. In addition, the Basic Act on the Advancement of Public and Private Sector Data Utilization (Act No. 103 of 2016) stipulates that the national and local governments shall take necessary measures to promote the utilization of the data they keep. Based on the concept of Open Data by Design, the government promotes open data initiatives through presenting the "Open Data Basic Guidelines" to guide national and local governments and businesses in their efforts to disclose and utilize public data. Thus, it is expected to solve various issues, revitalize the economy, and improve the sophistication and efficiency of public administration through public participation and public-private collaboration.

If each ministry and agency maintains and operates its own data such as mapping and address information, it becomes difficult to link data with others. For this reason, the Cabinet Secretariat designated a "base registry" in May 2021 to promote the development of databases. Regarding land, for example, addresses, locations, and other information such as real estate registry information are subject to maintenance.

The relevant ministries and agencies have been working on the development of a master data base to start centralized management of such information in FY2025.

Local governments are also digitizing and releasing public data related to disaster prevention planning, town development, daily life, etc., in order to solve local issues in cooperation with residents and the private sector. However, the data sets released to the public may differ, and this effort has not necessarily led to the utilization of data. For this reason, the Digital Agency has published the "Municipal Standard Open Data Set," a set of data sets that the government recommends for public use, as well as rules and formats that must be followed in creating the data.

In an effort to open and utilize public data, MLIT, in preparation for the opening of city planning basic survey information held by local governments, has discussed with the Personal Information Protection Commission, formulated the criteria for determining the applicability of personal information and the methodology for opening the information to the public, and issued a notice for local governments ("Handling of Land and Building Use Status for City Planning Basic Survey Open Data (March 2023))." In addition, MLIT has developed and published "Guidelines for the Use and Provision of City Planning Basic Survey Information" etc., which take into account protections for personal information, etc., and has also prepared a procedural manual that explains the procedures for using and analyzing open information for each possible use case. These data are expected to be used to compare urban structures among municipalities in the Compact Plus Network initiative and solve regional issues through private-sector use, and also used as open data to be shared on a platform for related parties in the smart city initiative through public-private partnership.

The G-Spatial Information Center, operated by the Association for the Promotion of Infrastructure Geospatial Information Distribution, releases data kept by various organizations in industry, government, and academia as a hub for the distribution and utilization of geospatial information. With the increase in the registration of new data such as 3D city models and human flows, registry map data began opening up to the public free of charge in January 2023. The largest source of registry map data is cadastral maps, which are the result of cadastral surveys to provide basic information such as land boundaries and areas. MLIT has been promoting cadastral surveys based on the National Land Survey Act (Act No. 180 of 1951). The release of registry map data in a processable form is expected to bring new economic benefits and a positive impact on social life through its use in various fields, such as city planning, town development, and disaster response.

(2) 3D point cloud data

3D point cloud data is a three-dimensional representation of the shape of terrain, buildings, and other objects by using laser scanners mounted on aircraft and vehicles to collect a large amount of information on their location, height, and other factors. 3D data on natural terrain and man-made structures such as buildings are necessary to construct a digital twin, which reproduces real space in digital space and enables simulation of floods and other disasters. With the growing awareness of disaster prevention and changes in social conditions and needs based on the progress of information and

communication technology that utilizes geospatial information, Geospatial Information Authority of Japan (GSI), MLIT formulated the “Long-Term Plan for Basic Survey” (the 8th Long-Term Plan) in April 2014. Since then, the technology for acquiring 3D point cloud data has become widespread. 3D maps, prepared using 3D point cloud data, are expected to be used in diverse fields such as urban development, inundation estimation, automatic driving of automobiles, and drone operation management.

In FY2021, GSI provided 3D point cloud data obtained from aerial laser surveying on a trial basis, and conducted a publicly solicited demonstration project on the use of 3D point cloud data for planning flood control and understanding the reconstruction status of disaster-stricken areas.

Responding to increasingly severe challenges such as the intensification of natural disasters, aging social infrastructure, and a shortage of skilled workers, Shizuoka Prefecture has been constructing VIRTUAL SHIZUOKA, a system that acquires 3D point cloud data and reproduces prefectural lands in a virtual space. This system is used in various fields, including early assessment of damage in the event of a disaster, creation of maps for automated operations, boundary confirmation using data-generated parcel boundary plans, and tsunami and landscape simulations. In addition, the acquired 3D point cloud data, which are open data that can be freely used by anyone, contributes to the creation of new services and businesses. Shizuoka Prefecture has long been using ICT in public works and other projects to collect and accumulate data at the time of construction completion, in response to the i-Construction initiative promoted by MLIT to improve productivity at construction sites.

Figure Flood control planning using 3D point cloud data



4. Application of Digital Technology for Appropriate Use and Management of Land

(1) Project PLATEAU

PLATEAU is a project led by the MLIT to develop, utilize and open data 3D city models nationwide in Japan.

3D urban model, a 3D urban geospatial information platform, reproduces the urban space itself by adding attribute information such as name, use, and year of construction to buildings, roads, and other landmarks that exist in the urban space.

Various urban activity data are integrated into a 3D urban model to achieve a sophisticated fusion of the real world (physical space) and the virtual world (cyberspace), allowing for advanced city planning, simulation and analysis of urban activities, etc. The PLATEAU project has realized open data of 3D city models for approximately 130 cities nationwide (covering an area of approximately 20,000 km²). The data specifications and results of the project are published as a series of guidebooks and other publications to support the development, utilization, and open data creation of 3D city models by local governments.

Also, PLATEAU's 3D urban models also have a strong affinity with the field of disaster prevention. In addition to visualizing disaster risk information in an easy-to-understand 3D format by overlaying maps of anticipated inundation zones and other information, various efforts have been made in disaster prevention, including the development of applications that contribute to risk communication and administrative operations. Furthermore, PLATEAU has developed a variety of best practices in areas other than disaster prevention. This includes, for example, the development of tools

to easily reproduce landscape and development plans in VR space, precise estimation of photovoltaic potential, and efforts to promote carbon neutrality.

MLIT intends to promote the integrated operation of PLATEAU, Building BIM, which combines 3D data of buildings with attribute information, and Real Estate ID, a common code that uniquely identifies real estate. Through these efforts, MLIT aims to create a high-definition digital twin from the interior of buildings to the urban scale, and to improve the efficiency of urban development and maintenance management, sophisticate regional policies, and create new industries through data collaboration between the public and private sectors.

Figure	Advantages of utilizing 3D urban models (example)
--------	---

		
<p>Visualization (visibility) Enables three-dimensional perception of urban space, improving explanatory power and persuasiveness</p>	<p>Simulation (reproducibility) Reproduction of urban space with three-dimensional information on cyber enables a wide range of precise simulations</p>	<p>Interactive (interactivity) Provides a platform for physical and cyber space to exchange information and interact with each other</p>
<p>Source: MLIT</p>		

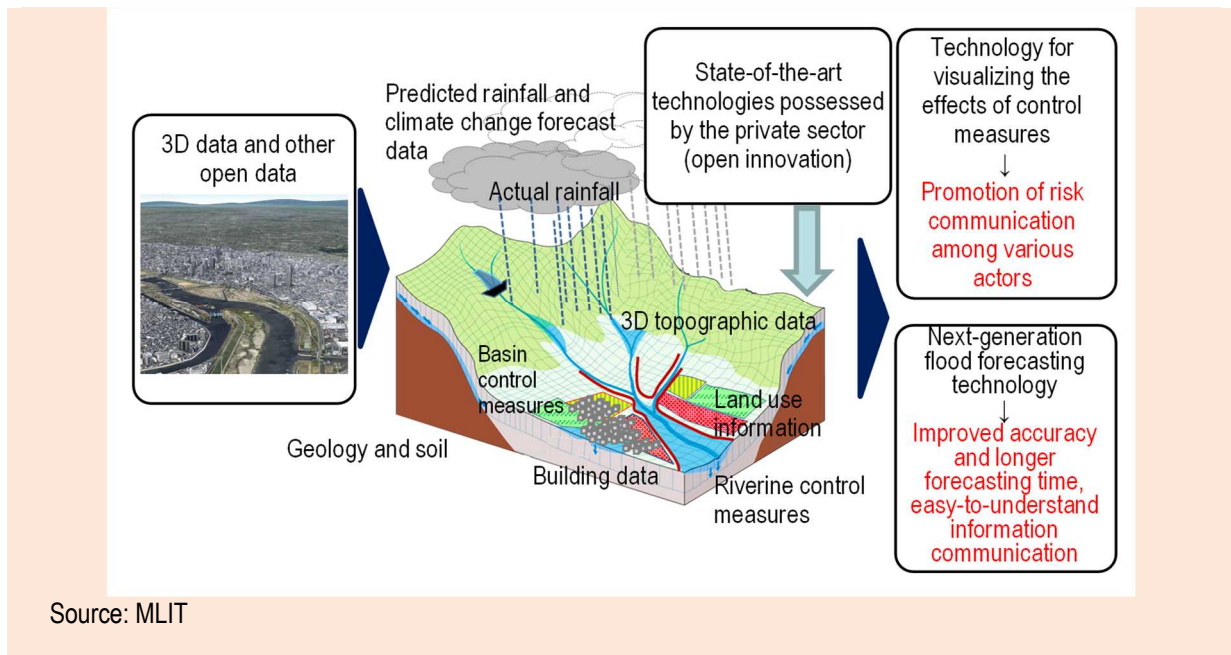
(2) DX for basin flood control

In order to cope with the increasing frequency and severity of water-related disasters caused by climate change, it is important to promote "basin flood control," which is a cooperative effort by all parties concerned, based on a bird's-eye view of the entire basin, including the main river, branch rivers, and upstream and downstream areas. In this effort, MLIT has been promoting the sophistication and efficiency of disaster prevention and mitigation measures through DX.

For example, MLIT promotes the development and implementation of technology for flood forecasting that integrates the main and branch rivers and dam operation using AI, while also working on a demonstration project to determine the extent of flooding in real time using small, inexpensive sensors. In addition, to promote innovation through the use of digital technology, they intend to work on an open provision of data on historical water levels and flow rates.

Furthermore, to promote the development of technologies for flood forecasting and "visualization" of the effects of flood control measures through open innovations made in collaboration with the public and private sectors, MLIT began to develop a demonstration test platform (digital testbed) in FY 2022 that reproduces a basin in a virtual space. It combines various basin-related data, such as topography, geological features, actual rainfall, and climate change forecast data, with calculation and evaluation functions on a virtual space, and promotes the development of flood forecasting and other technologies through open innovation by opening the project to private companies and other organizations. It will also "visualize" disaster risks in the basin and the effectiveness of crisis management responses, and promote risk communication, such as by communicating water-related disaster risks in an easy-to-understand manner from normal times. Through these efforts, it aims to stimulate voluntary actions by all entities involved in disaster prevention, and to dramatically improve the disaster preparedness of the entire basin.

Figure Image of the development of the demonstration test platform (digital testbed)



Source: MLIT

(3) Area Management DX

For cities to serve as platforms on which to provide a variety of options to meet the lifestyles and values of diverse people and create new values through interactions between diverse groups of people, it is necessary to move from "digitalization" to improve the quality of life and convenience of activities in cities, with DX involving "transformation of existing systems."

To continuously provide finely tuned city services that accurately meet the needs of residents, MLIT has been promoting "Area Management DX," which aims to upgrade town development activities (area management) in neighborhoods close to home through the introduction of digital technology.

In the Takeshiba District of Minato Ward, Tokyo, Tokyu Land Corporation (who have expertise in urban development and area management), and SoftBank Corporation (who have expertise in digital technology), have collaborated since July 2019 to build a model case for a smart city that utilizes cutting-edge technology throughout. Using services such as a cloud-based status (opening status) management function (i.e., for temporary accommodation facilities at the time of a disaster) and a function for (posting information on damage to towns using smartphones), the district aims to strengthen the disaster preparedness of the community by making it easier to understand congestion and damage status, while encouraging efforts such as improving circulation through the use of data.

(4) Common Geographic Information System of the Ministry of Agriculture, Forestry and Fisheries (eMAFF Map)

The Ministry of Agriculture, Forestry and Fisheries (MAFF) administers agricultural and rural development policies based on information related to farmland. However, information on farmland (e.g., the area and location of farmland), is managed by different organizations (e.g., the Secretariat of the Board of Agriculture and the Regional Agricultural Revitalization Councils), and in some cases this information varies depending on the source.

MAFF developed the "Common Geographic Information System of MAFF (eMAFF Map)" to centrally manage this information and began operations on some of its functions in FY 2022. The eMAFF Map links on-site farmland information (e.g., farmland ledgers and paddy field ledgers), with digital maps created for farmland parcel information and thereby drastically improves the efficiency of farmland-related operations in the field. Advantages for farmers include the availability of online applications for various declarations, a single (one-stop) point of contact and capability to omit previously entered information (once-only).

In the future, the system might even be applied to smart agriculture using automated vehicles, drones, etc., as well as on-site confirmation and disaster monitoring using satellite images, etc.

(5) Digitization of forest information

Municipalities, forestry cooperatives, and other forestry management entities need information on forest resources, topography, status of road maintenance, ownership, etc. when carrying out the business of forest management.

Regarding the forest register (which lists tree species, age, and legal regulations) and the forest plan map (which shows forest areas and forest roads, etc.), the prefectural governments manage the privately owned forests of individuals and corporations, while the Forestry Agency, MAFF, manages state-owned forests belonging to the national government. Also, municipalities manage the forest land registry, which contains information on forest owners.

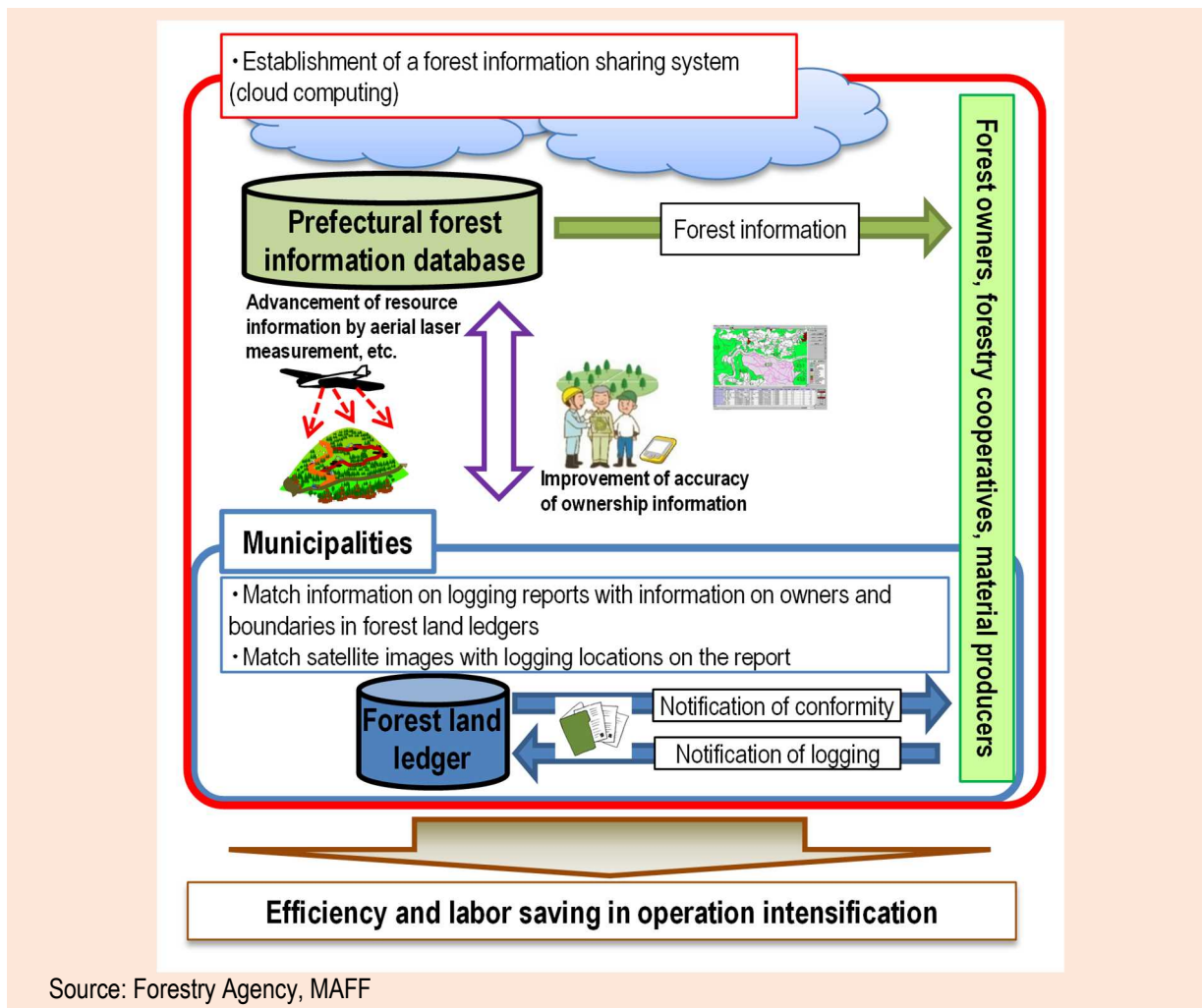
Towards the consolidation of forestry operations, it is planned to centrally manage information held by these entities and to improve the efficiency of collaboration among local governments and the provision of data to forestry management entities. To this end, the Forestry Agency, MAFF, has standardized the specifications and data formats of the Forest Cloud System, which utilizes cloud computing technology, and is promoting the introduction of the system by prefectures and other entities.

Furthermore, local governments nationwide are acquiring and analyzing high-precision data using laser measurement and other methods, and have efforts underway to accumulate this information in the Forest Cloud System.

Based on the "ICT Community Development Project to Utilize Maniwa's Forests," which was adopted as an ICT town development promotion project by the Ministry of Internal Affairs and Communications in 2012, Maniwa City, Okayama Prefecture, established a cloud system using place numbers for common IDs, thus allowing mutual sharing of local resource information between the Maniwa City Office and the Maniwa Forestry Cooperative. In addition, the system's functions continue to expand through utilization of the information from this platform to enable on-site checks of forest information with tablet terminals, as well as by conducting surveys of forest owners' intentions based on the Forest Management Administration System, which started in April, 2019.

The Forest Cloud System's expected use will not only be forest resource management, but also disaster prevention measures due to its functions being customizable to the characteristics of forest management in each region as well as to the needs of the parties concerned.

Figure Image of intensification of forestry operations using the Forest Cloud



5. Utilization in Real Estate Distribution

(1) Online real estate transactions

Starting with the Declaration to Be the World's Most Advanced IT Nation in 2013, online real estate transactions have been gradually promoted through social experiments and other means.

There had been no clear position stated in the law regarding Explanations of Important Matters provided through the use of IT such as videoconferencing. Therefore, a clarification was added to the "Concept of Interpretation and Application of the Real Estate Brokerage Act" stating that such explanations shall be handled in the same manner as face-to-face explanations of important matters.

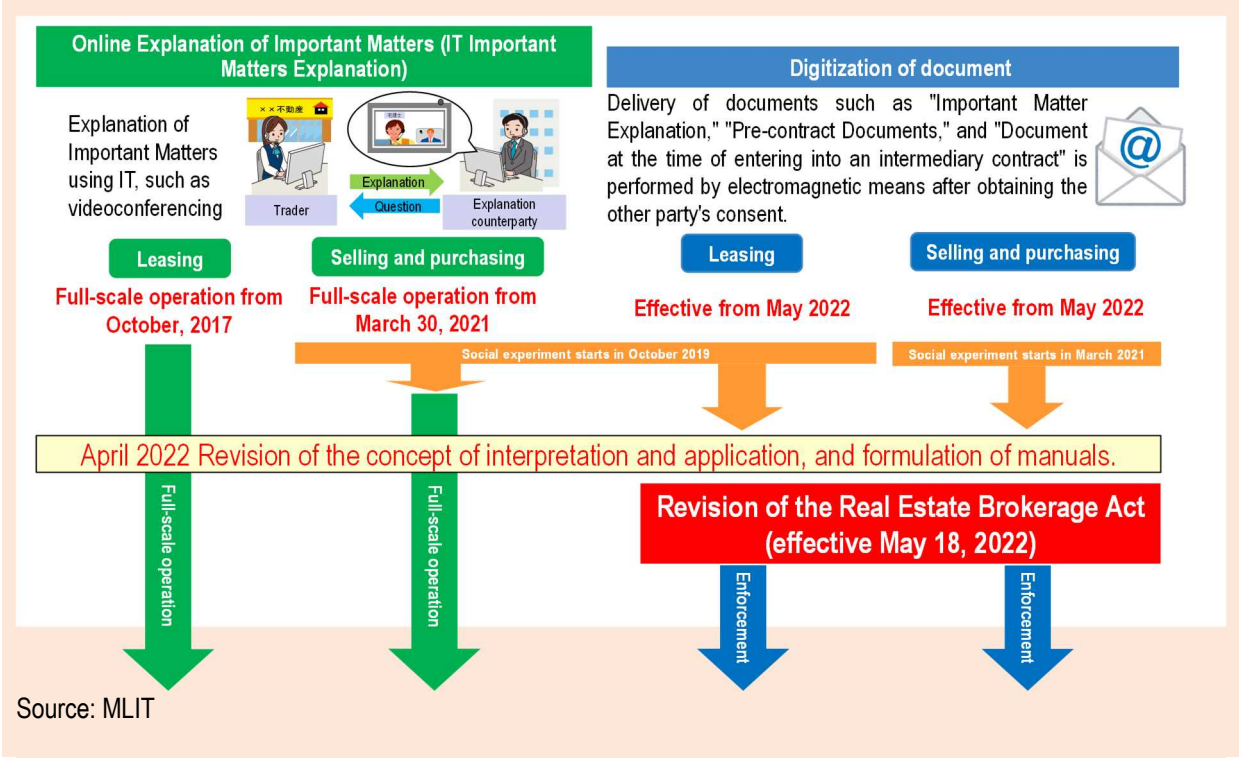
As for the delivery of documents such as Explanation of Important Matters, the relevant provisions of the "Real Estate Brokerage Act" (Act No. 176 of 1952) were revised to allow the provision of Important Matters of Explanation by electromagnetic means, provided that certain technical standards are met, such as measures to confirm whether the electronic document has not been altered.

It is expected that the convenience of the public regarding real estate transactions will be improved by the provision of information by electromagnetic means. Based on the results of the survey on online real estate transactions, etc., efforts will be made to develop an appropriate environment for further online real estate transactions.

Also, a system is in development that would make it easier for anyone to obtain information needed for real estate transactions. While there is a wide range of information required for real estate transactions, including real estate transaction prices, disaster prevention information, urban planning information, and information on nearby facilities, the information sites are still scattered. MLIT works to build a Land and Real Estate Information Library that superimposes this real estate-related information onto a map and displays it in an easy-to-understand manner. Using the Land and Real Estate Information Library, consumers will be able to check information (e.g., hazard maps and nearby facilities) and price information superimposed on a map, which will greatly reduce the burden from researching real estate

purchases and collecting local information. The Land and Real Estate Information Library is to be designed and developed in FY 2023 and put into operation in FY 2024. It is expected to contribute to the elimination of information asymmetry, improvement of transparency in the real estate market, and revitalization of real estate transactions.

Figure Overview and history of efforts to bring real estate transactions online



(2) Real Estate DX

Real estate tech, which has expanded mainly in the U.S. since the late 2000s, has become popular in the domestic real estate industry, offering new services using IT, AI, and other technologies. It offers a variety of services for each stage of real estate distribution, including dissemination of property information, property previews, contracting procedures, and real estate investment.

As a use case of DX in the Real Estate Market, for example, services are offered to provide information useful for making real estate transaction decisions about using AI and big data, and to visualize optimal properties and transaction timing. For example, some companies provide information on nearby public and commercial facilities, hazard maps, etc., that can be used to make decisions during real estate transactions.

Also, there is a service that diagnoses the optimal use of real estate based on the type of property owned, which is expected to lead to effective uses for real estate. Furthermore, real estate crowdfunding, which allows individuals and others to invest in properties from small amounts, has been introduced, providing opportunities for investment and utilization of real estate.

Figure Real estate tech services offered in the real estate distribution sector (examples)

Service examples	Details
Visualization and assessment of real estate prices	Service that uses AI and big data to request a lump-sum estimate of the sale price of condominiums from multiple real estate companies
Optimal land use diagnosis service	Optimal land use diagnosis service that easily identifies the best use for the owned land
Crowdfunding	Service that collects funds from investors, mainly individuals, through the Internet and invests in real estate

Source: MLIT

6. Future Prospects for Appropriate Land Use and Management and Smooth Transactions

As mentioned above, the Comprehensive Strategy for the Digital Garden City State Initiative centers around a policy to utilize the power of digital technology to solve social issues and improve the attractiveness of rural areas as well as initiatives to utilize digital technology spreading to the land sector as well.

Specifically, the G-Spatial Information Center has released registry map data free of charge since January 2023. In addition, open data (e.g., city planning basic survey information) has been made available in a form that facilitates data linkage, and "Architecture and Urban DX" (which integrates PLATEAU, architectural BIM, and real estate ID initiatives), has been promoted. In this context, DX in the land sector is expected to progress further with technical verification for practical application of methods to obtain and confirm real estate IDs in conjunction with the development of a real estate registration-based and address-based registry, and establishment of the Private-Public Partnership Council for Real Estate IDs, as well as model projects utilizing real estate IDs.

In addition, due to the wide variety of stakeholders in the land sector and cases in which digital technology is used, it is important to increase the versatility, connectivity with other data, and scalability of the data. It is also important to update the data as frequently as necessary. While taking this into account, the national and local governments must promote measures for DX, such as maintaining and updating data and system construction.

Part 2 Basic Measures Concerning Land in FY 2022

(omitted)

Part 3 Basic Measures Concerning Land in FY 2023

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

Section 1 Promotion of Proper Use of Land under Land Planning

(1) Based on the Fifth National Land Use Plan (National Plan) decided in the Cabinet Meeting of 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. It will also proceed with the Planning Promotion Subcommittee of the National Land Development Council to formulate the Sixth National Land Use Plan (National Plan).

In addition, the government will take necessary measures, such as surveys and provision of information, to modify prefectural and municipal plans based on the National Plan.

Moreover, based on the fact that the decline in the level of national land management under a declining population is positioned in the Fifth National Land Use Plan (National Plan) as a major issue to be addressed in the future, the government will promote efforts in municipalities and regions through model projects and seminars, etc. in accordance with the National Land Management Concept (June 2021), which indicates how to appropriately manage national land under a declining population.

(2) The government intends to formulate a new National Spatial Strategies (National Plan) in the summer of 2023. The plan's priority themes include the formation of regional living areas that integrate the digital and real worlds. Also, a framework for a new Regional Plan will be compiled.

Section 2 Promoting the Appropriate Land Use in City Planning

(1) It will continue to promote the appropriate use of the land use system, including the zoning system for urbanization zones and urbanization control zones; the regional district system, including use zones, special use zones, and specific use restricted zones, and zone planning system. 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 Renaissance (Act No. 22 of 2002) to promote the formation of compact cities.

(2) In accordance with the Act on Partial Revision of the Act on Special Measures concerning Urban Renaissance, 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 Location Optimization Plan.

(3) The government will formulate a regional public transportation plan in conjunction with the Location Optimization Plan, implement projects related to the plan, promote the formation of a regional public transportation network led by local governments, and encourage appropriate 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.

To promote efforts to secure and effectively use good farmland, the government will systematically promote measures related to agriculture (by designating agricultural promotion areas to be promoted and developing the Agricultural Promotion Area Development Plans etc.) in accordance with the Act Concerning Establishment of Agricultural Promotion Regions (Act No.58 of 1969). In accordance with the Act for Partial Revision of the Act on Reinforcement of the Agricultural Management Framework, etc. (Act No. 56, 2022), the government will promote the formulation of regional plans (that clarify the future use of farmland to be aimed for through regional discussions) and the consolidation of farmland through the use of the cropland intermediary management institution.

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

Aiming for 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 Land Use and Management

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

1. Promotion of Regional Development

Based on the Comprehensive Strategy for the Digital Garden City State Initiative approved by the Cabinet in December 2022, the government will accelerate digitalization in each region and realize the Digital Garden City State Initiative, which aims for bottom-up growth from the local to the national level.

2. Promotion of Urban Renewal

For the Urgent Urban Renewal Areas designated (52 regions as of March 31, 2023) under the Act on Special Measures concerning Urban Renaissance, 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.

In addition, by establishing and publicizing candidate areas for Urgent Urban Renewal Areas, the government aims to further stimulate private investment and improve the quality of urban revitalization.

Furthermore, starting in FY 2023, the requirements for the scale of urban development projects (that can apply for approval from the Minister of MLIT in Urgent Urban Renewal Areas other than Designated Urgent Urban Renewal Areas) will be relaxed to further promote urban revitalization efforts in local cities.

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., identify issues and extract know-how according to population size and deploy them laterally to ensure the accurate operation of the guidelines by organizations that have already formulated them and promptly create guidelines by local governments with populations of 100,000 or more. In addition, based on local conditions, operational status, and precedent cases, the system will be expanded to apply to local governments with populations of less than 200,000. To expand the base of PPP/PFI to smaller local governments and local governments with limited experience in PPP/PFI, the government will provide support from the initial stage, such as feasibility studies, and disseminate introduction study methods that reduce the burden on the implementing entities.

Section 2 Promotion of Town Development and Enhancement of Disaster Resistance

(1) Considering the recent increase in the severity and frequency of water-related disasters, the following measures will be implemented based on the concept of "river basin management," in which all stakeholders in a basin work together to implement flood control measures in the entire basin.

(i) In view of the frequent occurrence of torrential rains and the progress in the use of underground space to reduce flood damage in urban areas, the government will promote comprehensive flood control measures on a priority basis, targeting areas with histories of inundation or areas that are at risk of inundation damage of a specified scale. These measures include hardware improvements such as sewer trunk lines and stormwater storage and infiltration facilities; publication of inland water hazard maps and real-time rainfall information; soft measures by providing information on disasters such as water levels in sewer trunk lines; installation of watertight panels at entrances to underground malls, etc., and efforts by residents themselves using disaster information.

In addition, the government will promote the designation of flood damage prevention zones by local governments, as well as encourage the construction of stormwater storage and infiltration facilities by the private sector, etc., and promote measures to control runoff.

Furthermore, even in the event of a large-scale earthquake, assurances should be given that sewage systems perform their expected functions them during an earthquake (i.e., toilet functions at disaster prevention centers and disinfection functions at sewage treatment plants), to reduce the impact on the health of residents and social activities. Aiming for these, the government will promote comprehensive earthquake response measures that combine "disaster prevention," (which includes earthquake-resistant pipeline facilities and water treatment facilities connecting disaster prevention centers and sewage treatment plants) and "disaster mitigation" (which minimizes damages in the event of a disaster).

(ii) In accordance with the Act for Partial Revision of the Act on Countermeasures against Flood Damage of Specified Rivers Running Across Cities (Act No. 31, 2021, commonly known as the "River Basin Management Act") in FY 2021, the government will strengthen river basin management plans and systems and promote measures to prevent flooding as much as possible, reduce the damage, and quickly restore and reconstruct the area.

(2) Regardless of the purpose or use of the land on which the embankment is to be constructed, to ensure the smooth operation of the Act on the Regulation of Housing Land Development (Act No. 191 of 1961), which comprehensively regulates dangerous fills, etc. under a uniform nationwide standard, the government will formulate guidelines for conducting basic surveys for designation of regulated areas, etc., as well as manuals, guidelines, etc., necessary for safety measures for fills, etc. In addition, to ensure the prompt and effective implementation of regulations based on the

Act, the government will strive to prevent disasters caused by fills by, for example, supporting local governments' efforts to conduct basic surveys for early designation of regulated areas, safety surveys for dangerous fills, and encouraging them to take safety countermeasures.

Section 3 Promotion of Use of Underused or Unused Land

(1) The government will extend for three years the period of application of special tax measures for individuals' transfer income in the case of transferring underused/unused land, etc. Also, the government will raise the requirement for the transfer price of the following land from 5 million yen or less to 8 million yen or less to encourage appropriate use and management by those who show new intentions for land use, thereby preventing further occurrences of underused/unused land due to population declines and decreases in the number of households, etc.: (i) land located in an urbanization area or a zoning district in a non-area divided city planning area, and (ii) land located in a municipality that has formulated an owner-unknown land countermeasure plan.

(2) With the revision (effective November 1, 2022) of the Act on Special Measures for the Facilitation of Use of Owner-unknown Land (Act No. 49 of 2018, hereinafter referred to as the "Owner-unknown Land Act"), the government will promote appropriate land use by promoting the use of the expanded and established regional welfare promotion projects and the planning and council system for owner-unknown land measures, and utilizing the designation system for corporations promoting the smooth use of owner-unknown land as well as effectively utilizing the housing stock through efforts to revitalize underused/unused properties such as renovation of vacant houses.

Section 4 Utilization of Land Owned by the Public Sector

With the "reform time schedule for the New Plan to Advance Economic and Fiscal Revitalization 2022" (decided by the Council on Economic and Fiscal Policy in December 22, 2022) 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.

Regarding government buildings, the government will promote the efficient use of existing government buildings. Also, in cases where reconstruction is required due to aging, etc., it will promote relocation and consolidation, etc., while giving sufficient consideration to improving convenience for users.

Section 5 Promotion of Housing Measures

To develop and improve the living environment, the government will continue to support the utilization and retirement of vacant houses. In addition, to further promote efforts by municipalities based on the "Act on Special Measures concerning Promotion of Measures against Vacant Houses, etc." (Act No. 127 of 2014), the government will support comprehensive measures to mitigate vacant houses, which are implemented in cooperation with private enterprises, etc. based on the "Plan for Measures against Vacant Houses, etc.", as well as surveys, studies, or repair works, etc. for utilization of vacant houses with a high model nature by specified nonprofit corporations, private businesses, etc.

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. To implement disaster prevention and mitigation utilizing ecosystems, the government will provide technical support to local governments for preparing and utilizing the "Ecosystem Conservation and Restoration Potential Map" released in FY2022, and planning and initiatives based on its nationwide base map.

Section 7 Appropriate Conservation of Farmland

In accordance with the Act on Promotion of Settlement and Interregional Exchange for Vitalizing Rural Areas (Act No. 48 of 2007), etc., which was revised on October 1, 2022, the government promotes the effective use of devastated farmland and the use of farmland with low-cost fertilizer management (coarse use) through community-based discussions by farmers, etc. Based on the Cropland Act (Act No. 229 of 1952), the government will also strive to prevent and eliminate the generation of idle or devastated farmland through a series of procedures such as surveys by the Board of Agriculture on the intention to use the land and recommendations for consultation with the Organization for Land Use Management, and establishing the right of use of idle farmland to the Organization for Land Use Management.

Section 8 Ensuring Appropriate Conservation and Utilization of Forests

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, and promote public interest-oriented management and administration of state-owned forests, which account for approximately 30% of the total forest area in Japan.

Section 9 Promotion of Measures Concerning Environment Conservation

The Basic Environmental Plan provides the general outlines of comprehensive and long-term measures for environmental conservation based on the Basic Act on the Environment (Act No. 91 of 1993). The Fifth Basic Environmental Plan (approved by the Cabinet on April 17, 2018) sets forth six priority cross-sectional strategies as the direction for the future development of environmental policy, with specific measures providing integrated solutions to several different issues. For example, the plan states that, as "Enhancing the value of land as a national stock," it is necessary to create a national land that is environmentally friendly and that addresses economic and social issues, such as maintaining national land diversity based on coexistence with nature, creating sustainable and attractive communities and regions, and improving resilience through the use of environmental infrastructure and green infrastructure, etc. The plan also calls for the creation of a "Circular and Ecological Economy," in which multiple regions form self-reliant and decentralized societies, while complementing and supporting each other with resources available thanks to their region's characteristics.

In FY 2023, aiming to create the Circular and Ecological Economy, the government will promote land policies for environmental conservation through the formulation and implementation of various land policies and projects based on the Plan. In addition, the government will work with the Basic Environmental Plan on various plans related to land which stipulate matters concerning environmental preservation.

As five years have passed since its formulation, the Fifth Basic Environmental Plan is now under review.

Section 10 Promotion of Maintenance and Improvement of Historic Districts and Creation of Favorable Landscapes

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 support for initiatives based on those plans. In addition, the government will support 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

As for the system established in 2022 allowing the mayor of a municipality to make recommendations, issue orders, and take action against owner-unknown land, the government will support the system's smooth operation by providing explanatory meetings for municipalities, subsidies for owner-unknown land countermeasures based on the owner-unknown land countermeasure plan, and horizontal deployment of knowledge obtained through model surveys.

2. Ensure Appropriate Land Management for Private Sector (Review of fundamental civil laws)

The "Act Partially Amending the Civil Code and Related Acts" (Act 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 fundamental civil laws, including review of the provisions on the relationship between adjacent lands for the smooth and proper use of adjacent lands, etc. These provisions came into effect on April 1, 2023, and the government will continue to endeavor to disseminate the details of the new system.

Section 12 Promotion of Measures for the Owner-unknown Land

(1) For initiatives by municipalities and other concerned parties in the region to facilitate the use and proper management of owner-unknown land, based on the Owner-unknown Land Act, the government will provide necessary know-how through practical training and consultation, while further disseminating and promoting the system through the activities of the Land Policy Promotion Coordination Council, which was established 10 blocks nationwide and consists of the national and local governments and related professional associations.

(2) The "Act Partially Amending the Civil Code and Related Acts" was enacted on April 21 and promulgated on April 28, 2021. This Act includes a review of fundamental civil laws, 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. With the provisions which came into effect on April 1, 2023, the government will make efforts to disseminate the revised "Guidelines for Handling Private Roads with Unknown Owners" as well as publicize the contents of the new system.

(3) The application for inheritance registration is not mandatory, and those who have inherited low-value land may feel burdened by the inheritance registration procedure. This has led to occurrences of owner-unknown land left without inheritance registration. Due to these circumstances, the "Real Property Registration Act" (Act No. 123 of 2004) was partially amended by the "Act Partially Amending the Civil Code and Related Acts," creating a new system that makes it obligatory to apply for inheritance registration and reduces the burden of registration procedures. The amendment to the mandatory application of inheritance registration is scheduled to go into effect on April 1, 2024, and the government is preparing for its implementation by informing the public of the contents of the new system.

(4) In accordance with the "Act on Vesting of Land Ownership Acquired through Inheritance or Bequest in the National Treasury" (Act No. 25 of 2021), which came into effect on April 27, 2023, the government will ensure the proper and smooth operation of a system whereby persons who have acquired land by inheritance or other means can give up ownership and vest the land to the state under certain conditions.

Section 13 Survey of Land Use and Regulation from the Perspective of National Security, etc.

Based on the "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" (Act No. 84 of 2021), the government will proceed with the designation of watch and special watch areas, and steadily conduct land use surveys, etc.

Chapter 3 Measures for Land Transactions

Section 1 Improvement of Real Estate Transaction Market

To comprehensively promote measures to develop and revitalize the real estate distribution market, the government will take the following measures:

- [1] Based on the revision (effective May 18, 2022) of the Real Estate Brokerage Act (Act No. 176 of 1952), etc. that enable the provision of documents in real estate transactions by electromagnetic means, the government will conduct surveys, etc., and promote the development of an appropriate environment for further real estate transactions to be conducted online.
- [2] To implement real estate IDs in society, the government will establish a new public-private partnership platform (council) and conduct demonstration projects to verify issues related to the utilization of real estate IDs and horizontally deploy use cases in a wide range of fields (including logistics, insurance, and public administration) in addition to the real estate sector.
- [3] The government will promote transactions by matching supply with demand through the promotion of the utilization of the "National Vacant Homes/Vacant Land Bank," which allows for easy searching across local governments on vacant land and houses identified and provided by local governments.
- [4] The government will promote the distribution of existing houses by creating a market environment in which sellers and buyers can do business with confidence through the promotion of the utilization of building condition studies (inspections) and the Safe R-Housing System, which indicates that the house exists and its building condition has been studied, etc.

Section 2 Improvement of Real Estate Investment Market

The government will disseminate the "Handbook for the Promotion of Usage and Utilization of Specified Joint Real Estate Ventures (FTK)," which outlines the significance of specified joint real estate ventures, advantages of utilization, good examples and key points for success. It will also promote the development of human resources familiar with real estate securitization and the formation of high-quality real estate stock in local regions through holding meetings attended by local stakeholders and others, and by establishing a system of collaboration among the parties involved.

Section 3 Land Tax Measures

From the perspective of promoting the effective use of land, the following tax measures will be implemented in the 2023 tax reform:

- (1) The special measures for taxation in the case of replacement of business assets related to long-term land holdings, etc., will be revised only for the replacement of head office, and the applicable period will be extended for three years.
- (2) The applicable period of the special measures for registration tax on registration of transfer of ownership of land will be extended for three years.
- (3) The special exception for the taxation of long-term transfer income in the case of transfer of land, etc. for the creation of superior residential land, etc. will be partially revised in terms of eligible projects, etc., and the applicable period will be extended for three years.
- (4) The term of suspension of the additional taxation system (heavy taxation) on gains from the transfer of land, etc., will be extended for three years.

Section 4 Support for Global Business Development in Real Estate Markets

Through training programs for government officials of Association of Southeast Asian Nations (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 (Cabinet decision on May 26, 2020) starting in FY 2020, 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. Cadastral surveys will also be promoted by providing priority support for those surveys conducted in areas with high policy impact, such as areas where social infrastructure development is planned, etc.

Also, the national government will develop basic information on efficient cadastral survey methods according to regional characteristics, such as the use of remote sensing data including aerial laser surveying in mountainous areas and the utilization of measurement data from mobile mapping systems (MMS) in urban areas. The government will then accumulate and disseminate such application methods, etc., to promote their introduction in municipalities, etc.

In addition, the government will support the utilization of survey results other than cadastral surveys prepared by private businesses and public works departments of local governments for cadastral development, assuming that the survey results are as accurate as or more accurate than cadastral surveys.

Furthermore, to promote smooth cadastral surveys, the government will disseminate the new system and methods, and support to municipalities by dispatching experienced experts to provide them with advice on how to overcome survey-related challenges.

In addition, the government will actively and strongly promote cadastral surveys by examining the implementation status of cadastral surveys and compiling specific directions for review by the end of FY 2023.

Section 2 Promotion of Development of National Land Information

(1) Toward the realization of a society that can highly utilize geospatial information (i.e., fundamental geospatial data, thematic maps, ledger information, statistical information, and aerial photographs), based on the Basic Plan for the Advancement of Utilizing Geospatial Information (approved by the Cabinet on March 18, 2022), the government will develop and enhance geospatial information that serves as the foundation of society (including fundamental geospatial data), promote the distribution and utilization of geospatial information centered on the G-spatial Information Center, and promote G-spatial projects to implement technologies that utilize geospatial information in society. Also, through collaboration between industry, academia and government, the Geospatial EXPO will be held to promote the dissemination of knowledge and the development of human resources.

(2) Toward the realization of an ecosystem for the development and utilization of 3D city models and open data, the government will work on technological developments to improve efficiency and sophistication of data maintenance, development of use cases in various fields, etc., and promote creation of local open innovation such as community support, etc.

Section 3 Development of the Land Registration System

(1) 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.

(2) While ensuring proper handling of personal information through coordination between the registry, mainly real estate registration, and the ledgers of other public agencies, etc., the government will promote studies with the aim of establishing a system that enables relevant administrative agencies to smoothly obtain information on landowners.

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

With the aim of contributing to the formation of appropriate land prices, the results of the 2024 Land Market Value Publication will be published as an analysis of trends in land prices, based on the results of 26,000 standard lots throughout Japan. Also, the 2023 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 80 intensively used land areas will be published in the "Land Price LOOK Report."

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 Revitalization," which visualizes urban information through three-dimensionalization, etc. This information includes: 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, etc.

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

In addition to the publication of the White Paper on Land, a poster contest on the subject of land will be held to encourage people to think about the land around them and deepen their understanding of the land system. In addition, through the Land Month of October (October 1 is Land Day), in which educational booklets and other materials are distributed and lectures on land-related themes are held, the government, in cooperation with related organizations, will disseminate basic land-related principles and introduce various land-related policies and systems. In light of the changes in the system related to land due to the revision of the fundamental civil laws and the Act for Owner-unknown Land, the government will strengthen its public relations activities.

Section 4 Securing of Funds and Farmers

By utilizing the designation system for corporations promoting the smooth use of owner-unknown land established by the amendment of the Owner-unknown Land Act and the subsidy system for projects based on the owner-unknown land countermeasure plan, etc., the government will promote the efforts of organizations that assume functions such as matching and coordinating for appropriate land use and management, and management on behalf of land owners, etc., while establishing a local consultation system and sharing information on vacant land and houses in the community.

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 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 Guidelines for Reconstruction in Response to the Great East Japan Earthquake from the Second Reconstruction and Revitalization Period" (decided by the Cabinet in March 9, 2021), the government will implement projects for disaster recovery of agricultural land and facilities and land readjustment in conjunction with these projects.

In addition, the government will support the formulation of plans necessary for the development of agricultural infrastructure, etc., based on the recovery policy of the region's agricultural infrastructure.

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 Incorporated Administrative Agency 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 Promotion of Land Utilization Efforts by Disaster-Affected Municipalities

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

To ensure appropriate land transactions in the disaster-affected area, the government will provide, upon request from Miyagi Prefecture, Fukushima Prefecture and Sendai City, registration information on land transactions to Fukushima Prefecture and Sendai City and transaction price information to Miyagi Prefecture, Fukushima Prefecture and Sendai City.

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.