

Third United Nations Conference on Housing and Sustainable Urban
Development

National Report of Japan

December 2015

Introduction

Since the dawn of history, the Japanese archipelago has been home to an estimated more than 500 million people. On the large and small islands lying north and south extending for 3,000 kilometers, our ancestors have been working upon the land in various ways while preparing themselves for tough natural conditions so that they could enjoy the gifts from the land. Their unceasing efforts have brought us, by starting from a territory with farmland and hamlets, agricultural, mountainous and fishing villages, to the present Japan we now dwell in with large cities, where industries, transportation facilities, and other functions cluster.

Based on our own history as described above, Japan has provided constant support to the United Nations Human Settlements Programme (UN-Habitat) working on the issues of urbanization and human settlements since its inception in 1978.

Before the foundation of UN-Habitat, the first United Nations Conference on Human Settlements (Habitat I) was held in 1976, which spotlighted the historic significance of taking steps forward, from the existing idea that the issue of human settlements was simply viewed as a domestic question that individual countries should deal with by themselves, to define it as a challenge for all of humanity that the international community should address. From the conviction that such efforts to improve the quality of human life and the achievements should contribute to world peace, a common desire that all the nations hope to realize, Japan, on the condition that all nations should strive to help themselves, expressed our active support and cooperation for its programs.

The Second United Nations Conference on Human Settlements (Habitat II) was held in 1996, the year after the Great Hanshin-Awaji Earthquake. The Habitat Agenda of the Conference adopted suggestions that Japan had proposed, including the involvement of women in development as well as construction of appropriate temporary housing for rehabilitation and post-disaster reconstruction. The next year, in 1997, the UN-Habitat inaugurated its Regional Office for Asia and the Pacific in Fukuoka City (Fukuoka Regional Office), Japan. Since then, the national and local governments, the private sector, other organizations, and citizens have worked together to support the regional office in its activities. It is widely known that the Fukuoka Regional Office has carried out projects targeting Sri Lanka, Afghanistan, and other countries, to which Japan has contributed as a major donor, and made contributions to solve the problems facing human settlements.

Since 1976, Japan has undergone a diversity of challenges that people are destined to address when they settle in regions and cities, including progressive urbanization, overpopulation and depopulation, environmental pollution and deterioration in living conditions, sharp rises and falls in property prices, and severe natural disasters. Learning from our ancestors and bringing together technologies and expertise available at the time, we have strived to overcome these difficulties. Even now, however, we face substantial challenges. One is how we should respond to the rapidly shrinking and aging population. The other is preparedness for major natural disasters, which we were reminded of by the Great East Japan Earthquake in 2011.

This national report summarized, reflecting comments from experts, the lessons that Japan has learned in terms of human settlements and the challenges that we must address

for the future generations.

We hope this report will provide useful inputs to international discussion on the framework of development policy regarding human settlement including the Post 2015 development Agenda, and make some contribution to discussions at the Third United Nations Conference on Housing and Sustainable Urban Development(Habitat III) scheduled in 2016.

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Membership of the National Habitat Committee for Habitat III

Chapter I Population problems for cities

This chapter outlines the future population projections in Japan for 2050, and describes major policies relevant to the elderly, gender, and the youth in a rapidly shrinking and aging population and increasingly uneven distribution of people between regions.

1. Changes in the demographic structure and workforce in Japan

In 1950, Japan had a population of 84 million, which continued to increase, amounting to 100 million in 1967, peaking at 128 million in 2008, and took a downward turn. According to the National Institute of Population and Social Security Research (IPSS) the projected future population in Japan is expected to decrease at an accelerating rate and will be 97 million in 2050 (projections with medium-fertility scenario). The proportion of elderly people aged 65 or older of Japan's overall population (the share of aged population) will increase from 5% in 1950^a to 26% in 2014, one of the highest shares in the world. The population will continue to age into the future, with the projected share of aged population reaching 40% in 2060.

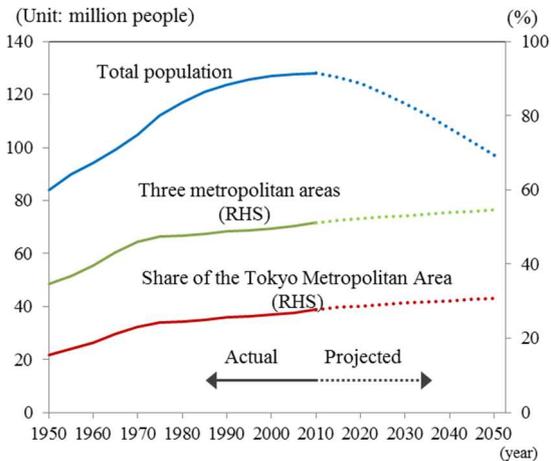
The number of employed persons continued to increase from 41 million in 1955, before losing momentum in the late 1980s after the collapse of what is called the "bubble economy," and peaked in 1997 at 66 million and took a downward turn. On a gender basis, the number of employed persons keeps decreasing among males, while the female figure has remained almost unchanged, leading to a continuing rise in the proportion of females among employees.

The demographic distribution is characterized by a rapid concentration in metropolitan areas since the 1960s, which was a period of high economic growth, and so far remains concentrated in particular in Tokyo metropolitan area, despite slowing down during the phase of stable economic growth in the mid-1970s. The proportion of the total population living in the three metropolitan areas^b reached 50% in 2010, with the Tokyo metropolitan area accounting for almost 30% of the Japanese population. In the future, amid the shrinking population for the entire country, the metropolitan areas are expected to attract a larger percentage of the population.

^a The share of elderly people in 1950 does not include the figure for Okinawa Prefecture.

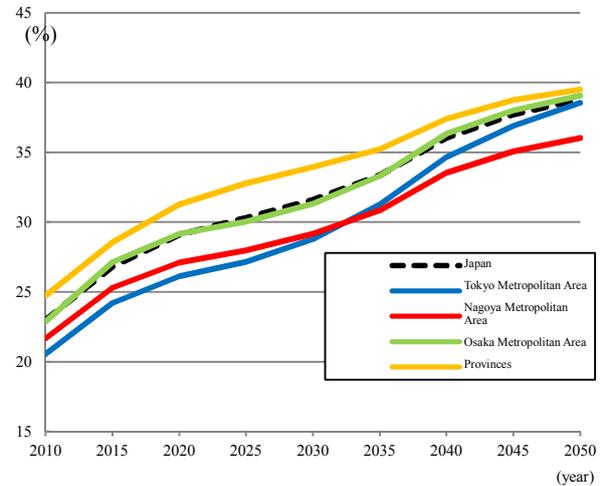
^b The three metropolitan areas include the Tokyo Metropolitan Area (Saitama, Chiba, Kanagawa Prefectures and the Tokyo Metropolis), the Nagoya Metropolitan Area (Gifu, Aichi, and Mie Prefectures), and the Osaka Metropolitan Area (Kyoto, Osaka, Hyogo, and Nara Prefectures).

Total population and the proportion in metropolitan areas



Source: Statistic bureau “Population Census,” IPSS “Regional Population Projection for Japan,” MLIT’s test estimation

Trends in the share of aged population



Source: IPSS “Regional Population Projection for Japan” (March 2013 projections with medium scenarios) for the years until 2040, and the results of estimation by the National Spatial Planning and Regional Policy Bureau, MLIT, for 2045 and 2050.

2. Policies for an aging society adapted to the needs of regional communities

(1) Overview of the policies regarding the aging society

The basic framework of Japan’s solutions to the aging society is based on the Basic Act on Measures for the Aging Society (hereinafter the “Basic Act,” enacted in 1995). With a view to pursuing solutions to the aging society in a comprehensive manner for the sound development of the economy and society, and the stability and improvement of people’s life, the Basic Act sets out the basic philosophy for solutions to the aging society as building a society that is fair and energetic, enables regional communities to be formed based on the spirit of self-sustaining and solidarity, and is affluent.

The Basic Act obliges the government to prepare the General Principles Concerning Measures for the Aged Society (hereinafter the “General Principles”) as basic and comprehensive guidelines for the government to pursue solutions to the aging society over the medium and long term. These General Principles were first formulated in 1996, before being revised in 2001, and the current General Principles were decided by the Cabinet in 2012.

As Japan is entering a super-aged society that no other nation has yet experienced, the General Principles have been formulated for the purpose of asking elderly people to support the society when they have the will and ability to do so, while, when in need of support, encouraging people around them to help them continue living the independent life that they deserve as members of the society and to realize a super-aged society that secures dignity for the elderly, and at the same time building a society in which all the generations help each other, so that everyone can bring their determination and abilities

into full play.

Following the lines of the Basic Act, the General Principles set out six basic policies, the government adopts in pursuing solutions to the aging society, as follows:

- 1) Changing the awareness and the definition of “the elderly”;
- 2) Establishing a social security system that promises people security in their old age;
- 3) Making effective use of the motivation and abilities of the elderly;
- 4) Enhancing the capability of regions, and establishing stable communities;
- 5) Realizing safe and secure living environments; and
- 6) Preparing people for senior status from their youth in the “age of a 90-year lifetime.”

(2) Promotion of home medical and long-term care that copes with aging

With a rapidly aging and shrinking population in Japan, the share of aged population is expected to increase from 26% in 2014 to 30% in 2025. Moreover, the number of elderly people with dementia is increasing as well as households without young members. Meanwhile, 70% of the Japanese people expect to receive medical care at home even at the end-of-life stage as long as they are in a stable condition. These facts have led to forecasts that the demand for home medical and long-term care services will grow further, and thus there is an immediate need for reform of the system for providing medical and long-term care.

Under the Amendatory Law to the Related Acts for Securing Comprehensive Medical and Long-term Care in the Community, enacted in 2014, this reform is under way to provide people with home medical and long-term care in an integrated manner through role allotment of medical institutions and a seamless process from hospitalization to home care. The goal is to establish an integrated community care system, which should allow people, even those in a condition requiring a high level of care, to continue living their own way of life in the community where they have long lived by providing them with medical care, long-term care, preventive long-term care, housing, and daily-life assistance services in an integrated manner.

The integrated community care system must be prepared by a municipal government for a daily-life zone, defined as an area where people can access services they need within roughly 30 minutes, with respect for the autonomy and self-determination of the community and according to its actual conditions. An example of such a system is found in Toyoshikidai, a district in Kashiwa City, Chiba Prefecture (a municipality of 407,000 residents, located near Tokyo). In Toyoshikidai, housing complexes have been rebuilt in order to provide elderly people with houses where home medical and long-term care services are available. This system is based on the cooperation of the Kashiwa City government, the Urban Renaissance Agency, and the University of Tokyo with the help of the local medical association that provides home medical services and private-sector long-term care companies that have opened their offices there.

3. Policies for gender issues and opportunities for women

Under the Third Basic Plan for Gender Equality, decided by the Cabinet in 2010, the

government is working to pursue policy programs for establishing a gender-equal society in a comprehensive and systematic manner. This Basic Plan, mentioning “regional development, disaster prevention, environment, and others” as one of its priority fields, promotes gender equality in communities by, for instance, encouraging them to see community development, revitalization of the local economy, and other activities from the viewpoint of gender equality.

Based on the experience of the Great East Japan Earthquake in March 2011, and other disasters, “Guidelines for Disaster Planning, Response and Reconstruction from a Gender-Equal Perspective” were drawn up in 2013. The Guidelines state that reconstruction plans and post-earthquake town reconstruction must reflect the viewpoint of gender equality.

4. Youth development and education

Under the Act on Promotion of Development and Support for Children and Young People, and the Outline for the Promotion of Development and Support for Children and Young People, the government is working for these purposes in a comprehensive manner. The Act has the basic idea that for the development and support of children and young people, families, schools, business establishments, local communities, and any other member of the society in any field must perform their own roles and work as one, in cooperation with each other. The philosophy constitutes the basis on which the ministries and agencies concerned implement their policy programs.

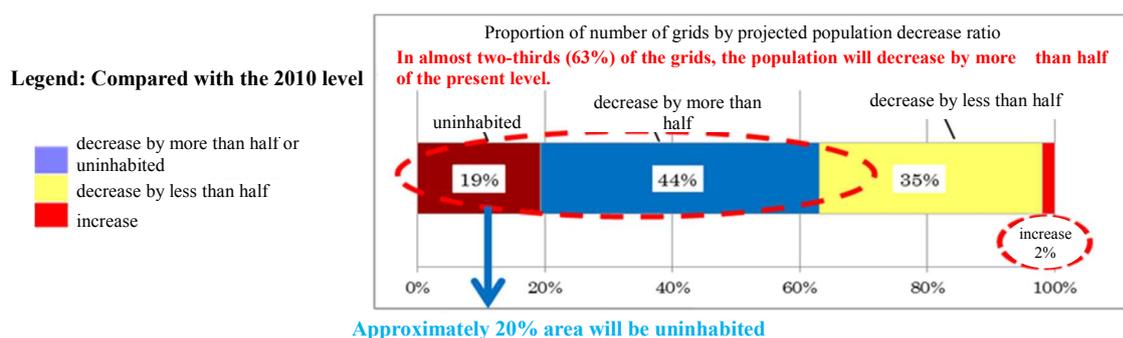
The Second Basic Plan for the Promotion of Education, decided by the Cabinet in 2013, is designed to provide local institutions for higher education with support in education, research and the social contribution activities they perform on an institution-wide basis, with the focus placed on local communities, for promoting interaction between these institutions and their communities and enhancing their functions as a Center of the Community (COC) that the communities can rely on. Under the plan, many universities are working with local communities and the society in general in various ways to help them solve their problems. For instance, universities are contributing through efforts including: curriculum reforms aimed at cultivating abilities of students themselves to find and solve local issues, revitalization of local communities through community developments for tourism in collaboration with local firms etc., and establishing authorization systems for learning fruits that can be utilized in employment examinations in collaboration with local communities for the purpose of promoting students’ settlements in their home towns. For the rehabilitation and revitalization of the local communities described above, the government also supports universities in excellent education and research activities that they perform to supply human capital that can work to solve problems which the local communities are faced with.

The government is also working to promote the Community School system (School Management Council System), a program that involves parents and other residents of a district in the management of a school to use the resources they have in developing a “school that goes with the local community” and solve problems that children have on a community-wide basis for providing quality school education. A school designated by the

Board of Education as a Community School sets up a School Management Council composed of some parents and other residents of the district, and the Council has certain authority over the management of the school. Under the Community School system, many schools have achieved excellent results in solving challenges in student guidance and helping students raise their scholastic abilities. The Second Basic Plan for the Promotion of Education sets the goal of increasing Community Schools to 10% of the public-run elementary and junior-high schools, or some 3,000, and efforts are underway to achieve the target.

5. Policies regarding the shrinking population in the regions

As stated above, Japan already saw its demographic peak in 2008, and has been entering the phase of a rapid population decrease. Studies of demographic changes based on 1 km grid squares demonstrate that in 2050, the population is estimated to decrease by more than half from the 2010 level in more than 60% of the inhabited grids, 20% of which will become non-inhabited. Larger decreasing rates are forecast in municipalities with a smaller population. Maintaining the basic services and facilities such as daily shopping, medical care, and so on is a challenge for the future.



6. Recent trends in lifestyle and demographic flows

Recent trends in regard to urban-rural demographic flows, and immigration into rural areas include, firstly “dual-region habitation,” a lifestyle of urban dwellers having another base for life in an agricultural, mountainous or fishing village. For instance, a person may work in Tokyo during the week and spend weekends in a farming village, or two or three months in another place every year. The idea brings benefits not only to people living in urban areas as it offers them many alternatives, but also to farming villages and other host areas with increased consumption and potential future growth in the residential population, and dual dwelling is expected, in particular, to trigger the regeneration process of the regions, especially for depopulated regions.

Secondly, various rural regions have initiated establishing “small stations.” Rural communities in depopulated areas are seeing their schools and hospitals closed and transferred, and grocery and other daily goods stores are being forced out of business, leaving it difficult for the residents to continue living there. A “small station” is set up in such rural area to bring together stores, clinics, and other functions that people cannot live without in daily life, together with the venues they use for social events in the community,

within walking distance. Basic services for daily life can be made easily accessible just like “one stop services” for local inhabitants in surrounding areas including the elderly population with no car, by providing community bus services and other means of public transport linking neighboring communities to the “small station,” which will also create opportunities to meet and talk with other people, as an additional benefit. Some of the small stations are being used as the market places to promote local specialties and obtain income from outside the community, which are good practices towards developing sustainable regional communities.

7. Towards a new urban agenda

The current birthrate and demographic shifts, assuming that they remain unchanged into the future, will inevitably lead to a sharp decline in the population and an uneven distribution of people between regions. High-level urban functions can be maintained only where a certain size of population is secured. A significant number of urban functional areas are forecast to fail to maintain their population above 300,000, other than the three metropolitan areas. Recovering the birthrate is an urgent challenge for stemming the decline in the population, while another concern is the continuing flow of young generations leaving the rural regions with a relatively high birthrate and coming into the Tokyo Metropolitan Area, characterized by a low fertility rate.

In non-metropolitan regions, the number of the elderly people, defined as those aged 65 or older, will peak in 2025, while that in the Tokyo metropolitan area will go beyond 10 million in 2035, and continue increasing through 2050. Large cities and the suburbs will thus see a rapid growth in the elderly population, leading to a larger mismatch as nursing institutions and other services will be in short supply in metropolitan areas, while other regions will have surpluses.

The government will thereby pursue the policies listed below, for example, during the period of a new urban agenda.

- The government will strive to expand the healthy life span of elderly people by encouraging them to work in various regions by making effective use of their rich knowledge, experience, and skills and to live in countryside while they are in good health. For this purpose, government agencies should work together with private-sector organizations, NPOs, and various other entities to promote dissemination of the information necessary to start country life or to find a home in the countryside, while a growing number of the population will be urban dwellers born in urban areas, who have no background of living in rural areas.
- The government is striving both to build a society that enables young people to stay and work in the regions, and help to generate flows of people coming from metropolitan areas to rural areas, and to promote creating regions friendly to elderly people living in metropolitan areas and hoping to move to rural areas where medical, nursing and other services are made available.
- Gender equality is a basic condition to raise the birthrate and develop sustainable local

communities. Government will thus further improve the conditions for both men and women to share the experience of working and raising children together, either in large cities or regions, so as to increase female participation in the society, by creating regions where young people can find a job and bring up children and by promoting diverse and flexible styles of working and a sound work-life balance, in metropolitan and other urban areas.

- Urban functions should be consolidated by building a consensus among the communities concerned so that administrative services can be streamlined and economic activities stimulated. Collaboration between neighboring communities will be explored, which enables them to share functions and complement each other.
- Government continues promoting country life and “dual-region habitation” and the creation of “Small stations” in rural regions.

Sidebar

Omuta City's* initiatives for supporting dementia patients and their families

Omuta City developed along with the Miike Coal Mine, which used to boast of the largest coal production in Japan. Since the coal mine was closed in 1997, the city has been experiencing a shrinking and aging population. With the proportion of the elderly at 32.4% in April 2014, Omuta has a rapidly increasing number of households composed only of elderly persons or single-person households.

Since 2002, Omuta has been working on a “Project for the Promotion of Care Communities for Dementia Patients,” an initiative to allow people with dementia to live without anxiety in the community that they have long lived in. Specifically, the city strives to train dementia patient coordinators as facilitators for dementia care and community development, offer preventive consultation and examination for early detection and treatment, making effective use of illustrated books in providing elementary and junior-high school students with education on dementia, and form dementia-related support teams that provide coordinated medical and nursing services, among others. A program that has attracted especially great attention is the “SOS Network for the Elderly and People in Need,” and many municipalities have started working to adopt the same scheme.

An SOS Network is formed by a community so that dementia patients can be looked after and, when anyone with dementia gets lost or is missing, they will work on a community-wide basis to search and care for him/her. When the family of, or the care manager for, a missing person informs the police, they are ready to distribute information to people in the community by fax and e-mail. With this information, transportation services, businesses, nursing service providers, and residents, among others, start searching for the missing person. A practice drill is held every year, and members of a community simulate information dissemination and communication between them, carrying out many attempts to find the best way for them and make their network more effective. The photographs below show elementary and junior-high school students who have found a missing person, acted by an old woman, and are talking to her. Junior-high school students who took part in these drills have actually found and taken care of a missing old person.

As missing persons may move across administrative jurisdictions, the city is working with neighboring municipalities to form broader-area SOS Networks. There are some cases where elderly residents, after having become missing, were found outside the city.

The Network is not designed to only find missing persons. It is intended to develop a “town safe enough even when getting lost.” What Omuta considers really important is building communities that look out for dementia patients and their families in a warm and caring way and provide good support for them.

* Omuta City, located in the southern part of Fukuoka Prefecture facing the Sea of Ariake, and linked with Fukuoka City and other cities by the Kyushu Shinkansen line, has an area of 81.55 square kilometers and a population of 121,630 (as of April 1, 2014).



Chapter II National spatial plans, land use plans and urban planning

This chapter looks back at the evolution of Japan's national spatial development policy. Land policy and urban policy from the period of high economic growth in the 1960s, and outlines the improvement of public transportation and development of road networks. It also describes the effective use of Geographic Information Systems(GIS) and the collection of real property information.

1. Evolution of the national spatial development policy

(1) National spatial development plans

In Japan, five Comprehensive National Development Plans (CND Plans) were formulated since 1962, as a series of comprehensive and fundamental programs for the use, development, and preservation of the country, which defined the long-term goals of regional development from the viewpoint of the national economy. The CND Plans were, based on the Comprehensive National Land Development Act enacted in 1950, the basic philosophy that was defined as being the harmonized development of regions for the purpose of appropriately coping with the challenges and needs of the regions at the time.

In 2005, the Comprehensive National Land Development Act was fundamentally reshaped and the National Spatial Planning Act has replaced it in order to place more emphasis on the “use” of existing stocks and “preservation,” including reconciliation with the natural environment towards the further maturation of the society in the 21st century. Based on the revised law, the first National Spatial Strategy (National Plan) was formulated in 2008 with the new national spatial concept of “creating a country with six diverse “wide regions” as groups of several prefectures, each one of which will drive growth in a self-sustaining manner, and forming an attractive country that is comfortable to live in.

In 2015, the National Spatial Strategy (National Plan) was revised to tackle full-scale population decline, and the New National Spatial Strategy (National Plan) was established based on the concept of “Compact and networked structure” aiming at creation of “National land promoting interaction-led Regional revitalization” that can urge active interactions between people, goods and information etc.

Based on the National Plan, “Wide Regional Plans,” individually, strategies that each wide region will pursue and a set of specific programs that they will carry out for this purpose, are formulated in collaboration with the national government and relevant local ones

Hokkaido, a prefecture located at the northern end of Japan, and Okinawa, a chain of islands scattered over a large area of the ocean in the south, have a statutory regional development plan prepared for each of them, with the necessary arrangements made to align them with the National Spatial Strategy, in order to carry out development in a manner relevant to their own conditions.

	Comprehensive National Development Plan	New Comprehensive National Development Plan	The 3rd Comprehensive National Development Plan	The 4th Comprehensive National Development Plan	Grand Design for the 21st Century	National Spatial Strategy (National Plan)	New National Spatial Strategy (National Plan)
Date of approval	Oct 5th, 1962	May 30th, 1969	November 4th, 1977	June 30th, 1987	March 31st, 1998	July 4th, 2008	August 14th, 2015
Background	1. Transition to a high growth economy 2. Overpopulation in urban areas and widening income disparities 3. National income-doubling plan and "the Pacific belt zone projects"	1. High growth economy 2. Concentration of the population and industries in metropolitan areas 3. Information society, internationalization and technological innovation	1. Stable economic growth 2. Emerging dispersion of the population and industry between the regions 3. Dealing with the limits to land, energy, and other resources	1. Concentration of the population and various functions in Tokyo 2. Drastic structural changes in industries, leading to employment problems in the regions 3. Full-scale globalization	1. The global age (global environment problems, international competition and exchange with Asian countries) 2. Demographic decline and aging of the population 3. Information-oriented society	1. Dramatic socio-economic changes (Shrinking and aging population, globalization, and the development of ICT) 2. Change and diversification of values among people 3. Condition of national development (Unipolar and uni-axial structure of the territory)	1. Trends and challenges surrounding Japan (Progressive population shrinking and low fertility rate, Hyper-aging society, No time to lose to prepare for mega disasters and aging infrastructure, etc.) 2. Change of values among people (raised awareness for returning to rural life) 3. Change of national spaces (including increase of vacant or low-used lots and vacant houses)
Target year	1970	1985	Approx. 10 years from 1977	Around 2000	2010-2015	Approx. 10 years from 2008	Approx. 10 years from 2015
Policy targets	Harmonized development between the regions	Creation of a better environment	Comprehensive development of environment for human settlements	Development of a polycentric territorial structure	Building the foundation for a multiaxial structure of the territory	Development to encourage the self-sustainable efforts of individual regional blocks toward the creation of comfortable living environments	Stratified and resilient "Compact and networked structure"
Method of development	Creation of Regional industrial hubs To achieve the goal of the plan, the geographical centralization of industries is necessary. The development of industrial hubs will thus be promoted by considering the location of Tokyo and the other existing agglomerations so that the hubs will be linked by transport and telecommunications and support each other. At the same time development is promoted by taking advantage of the synergistic efforts involving adjacent regions of diverse characteristics, leading to harmonized development between the regions.	Designing mega-projects Offsetting the polarization of land use characterized by overpopulation and depopulation by promoting mega-projects and large scale infrastructure developments such as Shinkansen express railways and highways.	Designing functional regions for living By reducing the concentration of population and industries in large cities and promoting the development of the regions in order to deal effectively with excessive concentration and depopulation and to create cities and regions in a harmonized and integrated way.	Creating interactive networks among regions To create a polycentric territorial structure by: (1) promoting regional development with creativity and innovative ideas by highlighting the advantages of the regions; (2) developing the nationwide key networks of transport, information, and communications through the initiatives of the national government, or based on national guidelines; and (3) creating diverse opportunities for interaction between national and local governments, and the private sector.	Exchanging participative and collaborative practices -Partnership approach involving locally-based diverse actors for regional development- (Four strategy) 1. Creation of nature-friendly regions (small cities, agricultural, mountainous, and fishing villages, hilly and mountainous areas, etc.); 2. Renovation of large cities (restoration, renovation and effective use of urban spaces); 3. Promotion of a regional cooperation axis (linking of regions along an axis); and 4. Creation of broad-area international zones (Development of zones with functions for international exchanges).	(Five strategic goals) 1. Interaction and cooperation with East Asia; 2. Development of sustainable regions; 3. Development of cities and regions resilient to natural disasters; 4. Stewarding and passing on of the beautiful cities and regions; 5. Regional development initiated by a reshaped idea of the "public" involving a wide range of local actors working for public purposes.	(Specific directions) 1. Cities and regions shining locally and progressing globally (including characteristic Regional revitalization) 2. Management of cities and regions and infrastructures supporting safety, security and economic growth 3. Participation and collaboration supporting creation of cities and regions (nurturing actors and developing Society of mutual assistance)

(2) National Land Use Plans

With the rapid growth of the Japanese economy after the World War II, the population and industry became increasingly concentrated in urban areas, leading to growing demand for urbanized land in these areas, followed by substantial increases in property prices and difficulties in obtaining housing and public works sites, with speculative land acquisition on top of this, which turned land and property problems into serious and nation-wide challenges.

As a solution, based on the National Land Use Planning Act, enacted in 1974, the national, prefectural, and municipal governments have formulated four National Land Use Plans since 1976 as a series of comprehensive and fundamental plans for land use over the long term. According to these plans the governments have been working to implement the necessary policy programs. In 2015, along with the New National Spatial Strategy, the Fifth National Land Use Plan was formulated to cope with the full-scale depopulating society.

The National Land Use Plans state three major issues, concepts for land use, goals for land use by category and by region, and an outline of measures to achieve the goals. The Fifth Plan defines as the basic policies to improve the quality of land use further for the purpose of managing national land in the full-scale depopulating society, to promote preservation, revitalization and utilization of national environment, and safe and secure national land use against natural disasters, and to hand the land over to the next generations in a better condition.

2. Evolution of urban policies

The rapid economic growth in the 1960s caused the population to concentrate in urban areas, leading to rapid urbanization. To absorb the increased population, “new towns” were developed through Land Readjustment Projects and other initiatives, though there was no setup in place for controlling such developments in an orderly manner. In 1968, the “New” City Planning Act was enacted, with the incorporation of land use controls, for instance, an Area Division system, and a Land Development Permission system to prevent urban sprawl. The Act also delegated the local governments with the authority to formulate city plans, and adopted procedures for the participation of residents in planning for reasonable decision-making in city planning.

The “New” City Planning Act, once promulgated, proved to be effective to a certain degree in controlling urban sprawl, although urbanization has continued to gradually progress. Existing built-up areas suffered deterioration in their living environments, leading to calls for the supply of more housing in urban areas and improvement of the urban environment. For the purpose of enhancing the high-level use of land in urban areas, and upgrading their functions, the Urban Renewal Act was enacted in 1969 as a solution to improve existing built-up areas, especially in urban districts. Meanwhile, a few city plans formulated according to the New Law addressed the improvement of built-up area environments in individual districts within a city. In 1980, the District Plan system was

adopted to set goals for land use and urban development relevant to the actual conditions of the districts. However, even this system left unsolved the problem of the lack of guidelines set for entire cities in order to ensure coordination between its regions. In 1992, the Basic Policy Concerning City Planning by Municipalities (Municipal Master Plan) was incorporated into the legislation so that the basic design and principles for city planning could be determined for entire cities and each of its districts, with the residents involved in the process.

In the late 1990s, the progress of motorization in the society delayed improvements in the efficiency of land use, and the decline of downtown areas, among others, caused a hollowing out of the city centers. As one of the solutions to this challenge, the Act on Vitalization in City Center was enacted in 1998 for the integrated promotion of development and the improvement of built-up areas in city centers, and the revitalization of commerce and other activities in these centers. In addition, with the growing need for ensuring compact cities to cope with the rapidly shrinking and aging population, three laws, collectively called the “Three City Planning Acts,” were revised in 2006 to control the location of large-scale shopping malls in the suburbs and enable the revitalization of city centers. At the same time, with the stagnation of the Japanese economy that had calmed down the rapid rate of urbanization, reducing the need for the uniform application of the Area Division system, the designation of area divisions was changed to become optional. Growing calls for the participation of residents in city planning, and the changing economic and social environments led in 2000 to establishing the obligation of prefectures to prepare a Policy for the Improvement, Development and the Preservation of City Planning Areas for presenting a clearer concept of what a desirable city is and implementing land-use regulations over broader areas. Under the recognition that cities in Japan had not been designed well enough to cope with the changing social and economic environments, including rapid globalization and the shrinking and aging of the population, the Act on Special Measures Concerning Urban Renaissance was enacted in 2002 to respond to such changes through sophisticated urban functions and improving residential environments in urban areas.

Faced with the serious challenge of the decline in the population, with a low birthrate and an increasingly aging population, urban areas are now required to shift to the Compact City Structure that can cope with changes in the social structure. For the purpose of designating areas that should maintain a certain population density, enhancing public transportation, and prompting the appropriate location of medical, welfare, commerce and other facilities, the Urban Renaissance Special Measure Law was revised in 2014, and based on this revised Law, policy programs are underway to ensure sustainable urban development.

3. Policies regarding regional transportation

(1) Enhancement of public transportation

During the period of rapid economic growth in the 1960s, transport operators in Japan, assuming a continuing increase in passengers amid a growing population and economy, were active in introducing new lines, and secured profitability with fares and other income.

With a view to preventing excessive competition that might compromise service quality and safety, the government put in place regulations for the adjustment of supply and demand. As Japan saw its economy and society become more mature, and it became required to invigorate its economy and society by the market mechanisms, the regulations for the supply and demand adjustment were abolished in phases between 2000 and 2002 in order to encourage competition among transport operators, so that they are able to provide users with a diversity of transport services that should better meet their needs and make their businesses more efficient.

The decline in the number of passengers due to the shrinking population, with a low birthrate and an increasing proportion of aged people, and progress in motorization, among other factors, contributed to the deterioration in business conditions for transport operators, especially in the provinces, resulting in declining public transport networks and a lower level of services. Meanwhile, local public transportation is a service that those who cannot drive themselves, especially students and elderly people, cannot do without, which is the reason why its enhancement is an urgent challenge that must be addressed, especially to ensure that local communities remain viable and become more vibrant.

Against such a backdrop, the Act on the Partial Revision of the Act on the Revitalization and Rehabilitation of Local Public Transportation Systems was enacted in May 2014, with amendments made to move from the existing framework that had relied on private-sector operators to one that requires local governments to take the lead in working with stakeholders to share the roles among them, taking into account the development of communities and the promotion of tourism, and establishing optimal transport networks and services through a consensus achieved between them.

In addition, to meet the calls for barrier-free facilities and environmental protection, efforts are underway to adopt low-floor buses and elevators in railway stations, and to divert journeys from private cars to public transportation, which emits less carbon dioxide.

(2) Development of road networks

Since the First Five-Year Road Development Plan was formulated in 1954, highways have been steadily constructed. The development of a national network of highways, including expressways, has promoted the location of factories around interchanges along expressways, making a great contribution to revitalization of local economies, as well as enabling the regions to receive broad area-based medical services and providing them with detours available when trunk roads are blocked by disasters and other incidents, another great contribution the network has made to the quality and safety of the lives of the people.

Meanwhile, the intercity traffic speed, an indicator of how fast you can move between cities, is typically lower in regions without expressways going through them, and traveling speeds between cities is generally slower in Japan than in some foreign countries. In Europe and the United States, expressways have four lanes or more on average, while in Japan, more than 30% of the freeways have only a single lane in each direction.

Expressways are “safer and cleaner” than general roads as they see on them roughly one-

tenth of the accidents resulting in injury or death, two-thirds of CO₂ emissions, and a seven-fold higher capacity for cars per lane. They also operate as a “lifeline” in disasters. The government is working on a project for steadily building expressway networks and making effective use of existing ones for providing drivers with a smooth and safe transport service.

4. Collection and compilation of land information, and the effective use of geospatial information

(1) Effective use of geospatial information and positioning technology

GIS involve the application of technology for processing digitalized geospatial information (information on positions specified in space, combined with other pieces of information associated with them) in an integrated manner on electronic maps for visual expression and advanced analysis of information. Since the technique first came into use in the 1970s, work has been underway to collect, compile, and make publicly available national land numerical information, and develop city planning GIS as it is an effective tool for regional and urban planning, among other uses.

The Great Hanshin-Awaji Earthquake in 1995 led Japan to recognize again how important GIS is, and the government set up an Inter-ministerial Liaison Conference on GIS to pursue a GIS policy program on a government-wide basis, and encourage public utility enterprises in the private sector, to apply a GIS to facilities management and other activities.

Meanwhile, satellite positioning in the Global Positioning System (GPS) has come into wider use, and GIS and satellite positioning techniques, originally used only in limited fields, have become more widely available in the daily life and economic activities for useful applications, especially with the advancement of computer and internet technologies and reductions in the price, resulting in the wider diffusion of car navigation systems and cell phones with a positioning function.

Amid these changes, the Basic Act on the Advancement of Utilizing Geospatial Information was enacted in 2007. According to the Act, the government is working to establish a society with advanced applications of geospatial information, which should enable anyone, anytime and anywhere, to use the geospatial information they need, and access information made relevant through advanced analysis before taking some action. For this purpose, the government is carrying out policy programs in a comprehensive and systematic manner, including the production of basic plans for the government, collection and compilation of map information as a basis for all services, and the launch of quasi-zenith satellites. The government will continue working to promote the wider application of geospatial information as a solution to diverse challenges of the society, including the shrinking population.

(2) Promotion of cadastral surveys

Cadastral surveys are undertaken for each parcel of land to examine its owner, lot number, and land category, as well as demarcate its boundary, and measure its area, before

recoding the results on maps and registers. The results of a cadastral survey, once approved by the competent minister or prefecture governor, have their copies sent to registry offices. Based on the transcripts, registries revise the contents of registers and other documents produced to identify land sites, and make cadastral maps available there as an official “map” to replace existing drawings, such as old maps created in the Meiji period between 1868 and 1912.

Once a cadastral survey is performed for a parcel of land, its boundary can be identified on site, producing a diversity of benefits, including the prevention of boundary disputes necessary for smooth transactions involving land and the preservation of land as assets, reductions in the cost of public works and private-sector development projects, quicker recovery and reconstruction after disasters, appropriate management of public lands, and ensuring fairness in the assessment of real property tax.

The government is working actively to promote cadastral surveys by supporting municipalities responsible for implementing these surveys on the financial side, and by performing fundamental surveys, a phase based on which a cadastral survey can be carried out in urban areas, which lag behind in the progress on cadastral surveys, and in mountainous villages, where demarcation information is rapidly disappearing mainly because the people there are aging.

(3) Collection, compilation, and provision of land and real property information

The government implements the policy programs below for the collection, compilation, and provision of real property information.

Firstly, as basic data mainly for land and real property policy, the government collects, compiles, and produces statistical data on the ownership of land and buildings and the state of their use.

A category of land information the government releases is a land price publication. The land price publication announcing the “normal prices” of land as of January 1st every year, is used as a yardstick for ordinary transactions involving land, and the assessment of land for inheritance and fixed property taxes, and serves as criteria in calculating the price of land to be acquired for public works projects, which is why it constitutes an important part of the institutional infrastructure of Japan.

In addition to the appraisal of land prices, the government started in 2005 to survey the transaction prices of real properties, including condominiums, with a view to making the real property market more transparent, smooth, and active. After processing information on individual transaction prices to prevent specific real properties from being identified, their locations, areas, and prices are made publicly available on the internet.

Based on lessons they had learned from the subprime crisis, international organizations worked together in 2011 and produced global guidelines for designing residential property price indices. According to these guidelines, Japan produced its own Residential Property Price Index and started a trial survey for it in 2012, before transferring it into full-scale operation in 2015. Studies on the Commercial Property Price Index have also

been undertaken, working towards a trial survey.

5. Towards a new urban agenda

National spatial development and urban policies need to be designed as part of a medium and long term vision, with the entire area of Japan and its future in mind, taking into account a progressive decrease in the population, the low birthrate, and the unprecedented aging of the society, as well as the trends of the times and challenges Japan faces, such as the progress of globalization, including intensifying competition between cities; the forecasted occurrences of extremely large disasters, and the aging infrastructure; limits to food, water, and energy supplies, and global environmental problems; and the dramatic progress in ICT and other technological innovations.

In August 2015, the new “National Spatial Policy” was established presenting principles and ideas for the designing of the country against the full-scale depopulating society. The plan aims at creating national land making much of regional characteristics to realize Regional revitalization, and generating innovations and supporting economic growth. As one of basic initiatives, it presents the creation of “National land promoting interaction-led Regional revitalization” that can generate active interactions through regional and international collaborations, while recognizing as interactions active mutual movements between people, goods, money and information among regions generated by mutual collaborations by various regions with diverse characters. It also suggests that regions develop their structure under the concept of “*compact*” and “*networks*,” as described below:

- With a shrinking population, Japan can maintain and efficiently provide people with basic services necessary for life including administrative, medical, and welfare services, as well as commerce only by consolidating these functions into specific areas (*compact*). However, compactification by itself is an insufficient solution to the reduction in surface areas and markets resulting from a decreasing population, as it may fail to maintain the agglomeration necessary to make services feasible that can be delivered only by urban functions of a higher order. This means that individual areas need to be linked in networks to retain a total population so that various urban functions could be delivered.
- Encouraging interaction and encounters between people, goods, and information is expected to enable a higher intensity of interaction between them, leading to the stimulation of innovation and creation of new values.
- “*Compact and networks*” will be the key guiding principle to generate new clusters for higher efficiency, and build a structure of the country with more value added.

Taking into consideration the principles stated above, the government pursues the policy programs listed below, among others, during the period of developing a new urban agenda.

- In rural regions with small population, the government will strategically promote forming and utilizing “Small Stations” that integrate various functions including life services to maintain them.
- As regional cities widely provide higher urban functions than life services provided by Small Stations, and play important roles in securing job opportunities, the government will promote forming networks between Small Stations located within the urban areas or with other regional cities, along with compactification.
- In metropolitan areas including Tokyo area, by taking advantages of the decline of development pressures caused by population decline, the government will promote locating workplaces and houses closely, resolving traffic congestions, reducing disaster risks, improving urban environments and renovating large cities by means of utilizing vacant houses and lots etc., along with integration and aggregation of functions. In particular, the government will intend to accumulate industries leading the economy of our country by utilizing Develop National Strategic Special Zones, and develop fascinating cities attracting highly creative human resources from the world.
- Looking ahead of the formation of Super Mega-region with the highest population of the world by starting operation of Chuo-Linear Shinkansen connecting Tokyo, Nagoya and Osaka, the government will promote forming a mega economic area attracting human resources, goods, money and information, and leading the world.
- And, from the viewpoint of international contribution, as Japan possesses the experience and expertise that it acquired in terms of urban planning and management during the period of rapid economic growth in striving to solve the problems that Japan was faced with in the process of drastic urbanization, such as experience of, and expertise in, the development of urban areas integrated with railways and other public transport systems, this needs to be applied to help countries in Asia solve problems they have in urbanization, encouraging private-sector businesses based in Japan to work together with the public sector to promote a sustainable contribution to the international community.

Sidebar

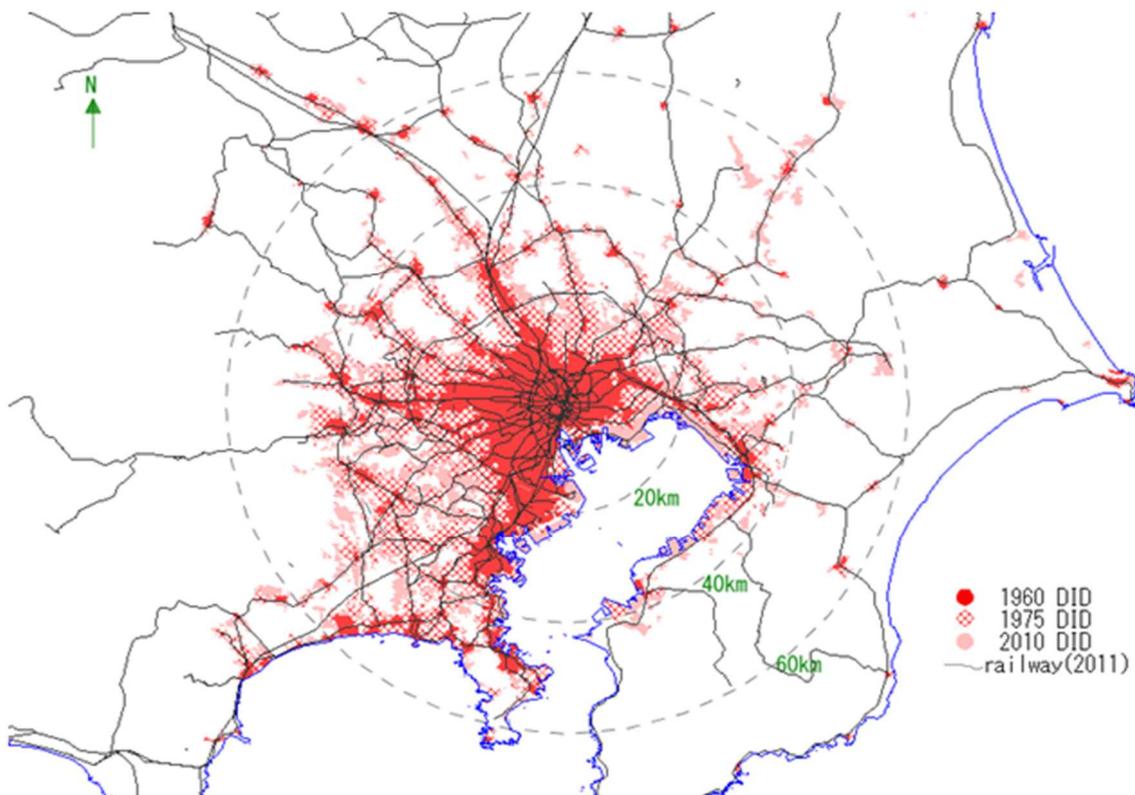
Expansion of built-up areas in Tokyo and its railway networks (displayed on GIS)

Since the 1970s, Japanese government has collected and compiled geographic information on cities and regions, including topography, climate, population, industry, and infrastructure, as “national land numerical information” in order to use it effectively in formulating national spatial development plans.

The chart below shows rail lines and densely-populated districts (DIDs) in the Tokyo Urban and Suburban Area displayed on a map by the G-ISLAND, a system developed to support the formulation of national and regional development plans. You can see DIDs at three points in time, 1960, the earliest year, 1975, about the peak year of population concentration in the Tokyo Metropolitan Area, and 2010, the latest.

The map shows how DIDs have spread along railways, demonstrating that in Tokyo, built-up areas have grown in tandem with the development of public transport.

Source: National Land Numerical Information



Chapter III Environment and urbanization

This chapter begins by discussing the policies Japan carries out for environmental preservation, especially solutions to global warming, and environment-conscious urban development. It then describes the policies to develop disaster resilient regions and those for natural disaster reduction, based on lessons learnt of the Great East Japan Earthquake.

1. Impact of climate change on Japan and the solutions to global warming

In recent decades, changes in climate have caused impacts on natural and human systems on all continents and across the oceans. Japan has also observed many changes, such as rises in the average annual temperature and more days of heavy precipitation in a year. The progression of climate change is likely to cause extreme events, such as heavy precipitation, storm surges, and typhoons, with greater intensity and frequency, with anticipated impacts on many aspects including damage to the urban infrastructure and consequences for human health such as extreme heat and a higher incidence of infectious diseases.

As for Japan's greenhouse gas emissions reduction target towards post-2020, the Government of Japan decided at the Global Warming Prevention Headquarters to set Japan's Intended Nationally Determined Contribution for greenhouse gas emissions at the level of a reduction of 26.0% by FY2030 compared to FY2013 (25.4% compared to FY2005), and submitted it to the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).

To achieve this reduction target, the Government is to develop the Plans for Global Warming Countermeasures as soon as possible in view of the status of agreement on a new international framework at the 21st Conference of the Parties to the UNFCCC.

One of the concrete initiatives Japan is carrying out to address global warming is the systematic and strategic implementation of policy programs for introducing renewable energy, such as those for the technological development and demonstration of offshore wind power and geothermal power generation, and storage batteries, with a view to building an independent and decentralized low-carbon society. Japan is also working to develop, introduce, and spread cutting-edge low-carbon technologies for promoting large-scale energy saving. The government also implements the Home Eco-diagnosis Project, a program to provide families with detailed advice on the reduction of CO₂ emissions that should fit their lifestyle.

Chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), typical ozone depleting substances, and hydrofluorocarbons (HFCs), alternatives to them, create an immense greenhouse effect. Japan has two major laws to control the use of these substances, the Act for the Protection of the Ozone Layer through the Regulation of Designated Substances and so on, and the Act Concerning the Recovery and Destruction of Fluorocarbons. Additional initiatives promote the introduction of fluorocarbon-free products.

2. Air pollution control, and other policies for environmental preservation

From the 1960s, amid the period of rapid economic growth, Japan experienced some serious environmental pollution problems, including the four major pollution-caused diseases, such as Minamata disease and Yokkaichi asthma.

To preserve water environments and implement fundamental solutions to exacerbating water pollution, the Water Pollution Control Law was enacted in 1970, which sets uniform effluent standards across the country. As a way to reduce the pollution load in closed water areas suffering particularly serious pollution, a scheme for total pollutant load control was formally set up in 1978 for Japan's large bodies of closed waters: Tokyo Bay, Ise Bay, and the Seto Inland Sea. In 1984, the Law Concerning Special Measures for the Conservation of Lake Water Quality was enacted. With the exception of some closed waters, the water environment was greatly improved, due to the progress of measures to control household wastewater in addition to these effluent regulations.

Japan will continue working to secure good water environments not only in terms of water quality, but also from the viewpoint of the quantity of water and the conservation of aquatic organisms.

As for the preservation of air environment, from the early 1960s and early 1970s, Japan focused on the control of air pollution caused by emissions from factories and workshops and enacted the Soot and Smoke Control Act in 1962 and the Air Pollution Control Act in 1968. From the late 1970s, Japan also focused on the control of air pollutants emitted from motor vehicles. Starting with the Japanese version of the Muskie Act enacted in 1978, Japan addressed the control of nitrogen oxides (NO_x) and particle matters (PM). With these initiatives for increasingly stringent regulations, Japan has almost fully achieved its environmental standards for emissions such as carbon dioxide.

Japan has recently been facing new problems such as photochemical oxidants and other substances that affect larger areas and PM 2.5 and other types of suspended particulate matter that cause air pollution. With efforts to enhance scientific expertise, Japan will work to achieve the environmental standards by pursuing policy programs in a comprehensive and systematic manner to reduce the environmental load associated with diversified social and economic activities.

3. Environment-conscious urban development

(1) Initiatives for achieving a low-carbon society

In its Forth Basic Environment Plan, the Government refers to the comprehensive establishment of a "society of low-carbon and sound materials recycling in harmony with nature" as a model of a sustainable society that Japan should aim to achieve. To turn the concept of comprehensive establishment into reality in regional local communities, Japan has started the leading "Low-carbon, Sound Material Recycling, and Harmony with Nature" project for regional community development (Green Partnership Project) in FY2014 as an initiative to help regional communities build low-carbon cities integrated with recycling and in harmony with nature based on an "Action Plan" as the core mainly

for controlling emissions of greenhouse gases in their districts. All the local governments are obliged by the Act on the Promotion of Measures to Cope with Global Warming to produce or strive to produce an Action Plan. In such an action plan, a local government must incorporate its initiatives to encourage all the entities in its jurisdiction, including residents and businesses, to reduce carbon emissions. The government also provides aid for the development of the next-generation social infrastructure, including transport systems, and disaster-response lifeline facilities, that should add low-carbon value to social systems.

Meanwhile, Asia, a region in a period of rapid economic growth, is undergoing sharp increases in energy consumption and greenhouse gas emissions with rapid urbanization. It will not be possible to achieve the long-term target of a greenhouse gas emissions reduction by half in 2050 on a global basis if we fail to achieve low-carbon societies in Asia, which is forecast to discharge about 50% of the energy-related emissions around the globe in 2030.

As an initiative to address global warming, Japan has been implementing the Joint Crediting Mechanism (JCM), a bilateral scheme to help developing countries reduce greenhouse gas emissions through facilitating diffusion of leading low-carbon technologies etc. By utilizing JCM, Japan is able to support developing countries from the stage of urban planning through cooperation between local governments and assist them to realize “leapfrog” development to low-carbon societies. As a result, the developing countries can avoid repeating the history of huge GHG emissions which developed nations experienced.

(2) Environment-conscious city development

In the field of urban administration, as cities, which emit a significant amount of carbon dioxide, are expected to pursue initiatives for reducing carbon emissions for building a low-carbon and recycling-oriented society and developing a sustainable and viable national land, the Low-Carbon City Development Guidance was formulated in 2010.

The Guidance presents principles for low-carbon city development, calculation of the amount of carbon dioxide emissions and absorption, and cases of low-carbon city development in the fields of the “Urban structure and transportation sector,” “Energy sector” and “Greenery sector.”

In addition, the Low Carbon City Act, a law enacted based on the principles stated in the Guidance, came into force in 2012. According to the Act, the national government adopts special measures and provides financial support for initiatives based on a Low-carbon City Plan for municipalities that they formulate themselves as a way to promote low-carbon city development.

In the field of river administration, Japan is carrying out “Nature-oriented River Works,” a program to conserve and/or create environments for living organisms in terms of habitation, growth, and reproduction, and the diversity of river landscapes, or the functions they were originally expected to perform, from the perspective of the entire processes of nature along rivers and harmony with the livelihoods, history, and culture of

the region taken into account.

The Nature-oriented River Works concept serves as the basis for any river development, and covers all activities for river management, including research, planning, designing, construction, and maintenance. River development should not be a mere collection of many elements regarded as natural or nearly natural, but the application of the features and mechanism of nature to the greatest extent possible.

■ Initiatives for the Maruyama River (Toyooka City, Hyogo Pref.)



Example of an ecological network developed along a river

(3) Overseas development of Eco-cities

During the period of high economic growth in 1960s, Japan experienced a rapid population concentration in urban areas, and faced many challenges, including housing shortage, uncontrolled development around urban areas, inadequate infrastructure, and traffic jam, difficulties in the disposal of waste and polluted water. To overcome these problems, many city planning systems have been formulated, which enabled urban sprawl to be prevented, large scale housing were supplied by the public sector, and infrastructure was developed based on a long-term plan. The government also developed new town projects, integrated with railway construction and other public transport systems. This enable to reduce population concentration in urban area by supplying fine housing areas in suburbs with good transportation access. Through these process, the government, government-affiliated organizations, and private companies, have accumulated diverse experience and expertise in city planning and management.

Emerging countries, especially Asian countries, are now facing rapid economic growth and urbanization, as Japan once experienced. As stated before, Japan has a lot of experience and expertise, such as its framework of city planning-related legislation

developed to solve problems of urbanization in Japan, techniques for the effective application of urban public transportation in forming an efficient city structure, the smooth implementation of individual city development projects, including land adjustment and redevelopment projects, the improvement of the energy efficiency of cities, waste treatment and recycling, and pollution control. This know-how will support emerging countries to construct the social infrastructure they need for sustainable urban development and economic growth. The government and government-affiliated organizations, as well as private companies are promoting together to develop Eco-cities in emerging nations.

4. Development of regions resilient to natural disasters

(1) Geographical conditions of Japan and its history of disaster reduction policies

As a country located on the Circum-Pacific Volcanic Belt, with frequent earthquakes and volcanic activity, Japan experiences some 20% of the earthquakes with a magnitude of six or higher on the Richter scale, and has 7% of the active volcanoes in the world, while Japan's territory occupies only 0.25% of the world. In addition to earthquakes and consequent tsunamis, geographic, topographic, and meteorological conditions of Japan cause frequent natural disasters, such as typhoons, torrential rainstorms and heavy snow with great loss of human life and economic assets every year.

In response to a succession of natural disasters with thousands of victims after the World War II, Japan enacted the Disaster Relief Act, Flood Control Act and other legislations. Having been hit by the Isewan Typhoon, or Vera, in 1959, which claimed more than 5,000 lives, Japan established the Disaster Countermeasures Basic Act in 1961, which prescribes comprehensive disaster management measures for protecting cities and regions and people's lives and assets from natural disasters. The following year, the Central Disaster Management Council was set up according to the Act. The Council plays an important role in formulating the Basic Disaster Management Plan and determining other key policies.

The Basic Disaster Management Plan, together with sectoral plans and local plans formulated based on the Basic Plan, defines the roles and responsibilities of the national and local governments in all phases of a disaster: prevention, mitigation, emergency response, recovery and rehabilitation, and developing and implementing a disaster management system in a comprehensive and systematic manner.

With these efforts, especially for the development and enhancement of a disaster management system, the pursuit of land preservation, improved weather forecasting, improved disaster response capabilities mainly through the enhanced communication of disaster information, and the elimination of vulnerability to disasters, Japan has seen less damage caused by natural disasters since the 1960s.

However, the Great Hanshin-Awaji Earthquake in 1995 claimed more than 6,400 lives, and the Great East Japan Earthquake and Tsunami in 2011 left more than 18,000 people dead or missing, with catastrophic damage over a wide area, mainly in parts of the Tohoku Region along the Pacific coast. Based on these experiences, Japan has strengthened its capabilities for quick response to large-scale and broad-area disasters, enhanced local

preparedness by strengthening disaster education and efforts to share the lessons learned from generation to generation, and formulated frameworks for recovery and reconstruction after a large-scale disaster, among other efforts.

As described here, Japan has been strengthening and improving disaster management measures, and continues its efforts to prepare for future disasters, by learning the lessons from past large-scale natural disasters and accidents.

(2) Flood, sediment, and tsunami disaster management

1) Flood control

In Japan, many large cities are situated in low-lying areas below the water level of a river, with the very serious potential risk of flooding. So far, Japan has implemented flood management measures based on a long-term perspective and an ex-ante approach such as the widening of river courses, the construction of embankments, digging of flood control channels, and building of dams and retarding basins to temporarily store river water, in order to allow swollen rivers to safely release their flow. These efforts have brought about steady improvements in the safety level of flood control.

However, new challenges are emerging as climate change would lead to, among other phenomena, a rise in the sea level, more frequent torrential rains, and severer typhoons, with a greater frequency and intensity of floods, landslides, and storm surges, as well as greater fluctuations in precipitation that come with more frequent and serious droughts. Recognizing again the important lessons we have learned from the Great East Japan Earthquake and Tsunami, including that “Disasters come with no upper limit to the damage.” and “Put human life first,” Japan continues making preparations to take appropriate action to deal with any large-scale disasters by further pursuing disaster management solutions through a combination of structural and non-structural measures.

2) Sediment-related disaster control

Every year, Japan experiences some 1,000 cases of debris flow, landslides, and other sediment-related disasters caused mainly by torrential rain and earthquakes, with serious damage inflicted. Sediment-related disasters account for a large percentage of natural disaster victims in Japan. The government is pursuing efficient sediment disaster control measures by integrating structural and non-structural measures to reduce the number of sediment-related disaster victims, such as by the construction of Sabo dams and landslide-preventive facilities at priority locations that are especially in need of some countermeasures, land use regulation, the production of hazard maps that indicate dangerous places for people and keep them fully informed of these, and the development of warning and evacuation systems that transmit accurate information to people when there is imminent danger and encourage early evacuation.

3) Tsunami disaster control

To make preparations for large-scale tsunami disasters caused by the expected Great Nankai Trough Earthquake and other seismic events, Japan is working to develop tsunami-resilient communities based on multiple protection measures, a combination of structural and non-structural solutions to the largest-scale tsunamis, and provide local governments with support for the designation of tsunami risk areas and the preparation of

evacuation plans.

To protect coastal urban areas against tsunamis that come with a rather high frequency (once in several decades to less than several hundred years), the sea embankments are being steadily constructed by the government in addition to quakeproof measures. As part of this effort, it has developed sea embankments and breakwaters with a structure that ensures they are resilient enough to be effective even against tsunamis that go over their crown. For the Tokyo, Ise, and Osaka Bays, around which the population and urban functions are concentrated, Japan is also considering ways to secure the relevant level of protection in anticipation of specific scales of tsunamis that come rather frequently, and pursue the automation and remote control of floodgates, floodwall gates, and other tsunami control facilities.

(3) Urban disaster management

One of the solutions Japan has adopted for urban disaster management is the revised Act on Regulation of Residential Land Development, which requires more stringent technical standards for newly-developed residential areas in relation to earth filling to reduce damage caused by the sliding and/or collapse of large-scale earth filled structures resulting from large vibration amid a great earthquake. For existing housing land, the Project for the Promotion of the Earthquake Resistance of Housing Land is underway to prevent damage from landslides, earth collapse, and/or liquefaction by, for instance, providing local governments with support for ground deformation forecast surveys and prevention measures.

The Government also works with the Liaison Council for Judgment of the Danger Level of Disaster-Affected Housing Land an organization composed of prefectures and ordinance-designated cities, to develop the arrangements needed to prevent secondary disasters in housing areas and secure the safety of people there by, for instance, preparing an operation manual that experts can refer to when they work after a disaster to determine the level of danger quickly and accurately.

Immediate improvement and redevelopment of densely inhabited areas is another challenge that must be addressed with urgency, as they are crowded with decrepit wooden buildings, and are short of public space, such as roads and parks, with a great risk of building collapse and the spreading of fires in a conflagration or after an earthquake. Japan pursues improved disaster resilience and better living conditions in densely inhabited areas with meticulously designed solutions, which include: projects for making buildings more fire-resistant along highways and providing the roads with fire-spread prevention and evacuation routes together in order to develop Disaster-prevention Framework Axes (Disaster-prevention Environment Axes) in cities, and for constructing disaster-prevention parks as evacuation areas; Disaster prevention block improvement projects, and the Project for the Comprehensive Development of Residential Urban Areas, among others, for removing old buildings, combined with replacing the surrounding buildings with fire-resistant ones in collaboration with the landowners, and the widening of narrow roads to enhance evacuation and firefighting.

In addition, to provide cities with better disaster-prevention functions and make them more safe and secure, Japan is working to develop, among others, bases for their recovery

and reconstruction after an earthquake, disaster-management bases that serve as relay points for subsistence goods and other supplies, and disaster-prevention parks that serve as evacuation spaces to accommodate evacuees from neighboring districts and commuters stranded due to the failure of the transport system and protects them from fires in built-up areas. The government also has a Project for the Development of Disaster-prevention Parks and City Blocs, an initiative to develop and improve disaster-prevention parks and built-up areas around them in an integrated manner.

(4) Construction and Retrofitting of earthquake-resistant housing and buildings
Historically, Japan has experienced a great number of large earthquakes, and number of people is increasing who recognize that they should not be surprised to see another severe earthquake occur anywhere in Japan at any time. The high probability of the imminent earthquakes, such as Tokai, Tonankai and Nankai, and Tokyo Inland Earthquakes, has also been pointed out, with a prediction that each of these potentially great earthquakes, once they become a reality, should cause extremely serious damage.

The Central Disaster Management Council has produced an Earthquake Disaster Reduction Strategy, which specifies target goals for disaster reduction for large-scale earthquakes forecasted to be greatly imminent.

The Earthquake Disaster Reduction Strategy identifies the construction and retrofitting of quake-resistant housing and buildings as the most important task for achieving its target goals for disaster reduction, reducing the number of fatalities and the value of economic damages by half, and positions it as an issue Japan must struggle with the highest priority and urgency.

In the context described above, the Act on the Promotion of the Seismic Retrofitting of Buildings was enacted after the Great Hanshin-Awaji Earthquake, in 1995, to set up a framework for the authorization of seismic retrofitting plans and other items.

With the revision of the Act in 2013, owners of large-scale buildings constructed under the so-called old seismic code, which was in force until 1981, and visited by large numbers of the general public, such as hospitals, stores, and hotels, are obliged to execute an earthquake resistance test of the buildings, and notify the authorities of the results of the test. And the results will be publicly reported.

The revised Act has also introduced a scheme under which any building owners can authorize their buildings as having earthquake resistance, and indicate the fact in the building where it can be easily noticed by users, or in advertisements.

With the revised Act, and enhanced subsidy programs and other initiatives, Japan has been striving to meet the target of making the share of earthquake-resistant housing and buildings 90% by 2015, and 95% by 2020.

5. Reconstruction after the Great East Japan Earthquake

Recovery and reconstruction after the Great East Japan Earthquake of March 2011 is

given the highest priority by the Cabinet, and the Minister for Reconstruction plays a central role in the efforts to carry out reconstruction work at an accelerated pace, in particular, as follows:

(i) The Reconstruction Agency enhanced its structure by adopting a two-headquarters system, with one based in Fukushima and the other in Tokyo, and set up taskforces for each of the three themes, housing reconstruction and community rehabilitation, decontamination, and damage caused due to rumors, to consider policy programs on an inter-ministerial basis, so that the Agency is able to perform stronger functions as a control center, and that the principle of people-on-the-ground-first would be fully established;

(ii) As part of the compilation of a budget for fiscal 2013, the Agency reviewed the framework of the reconstruction effort, expanding the scale of reconstruction work from 19 trillion yen over five years to 25 trillion yen, and secured the necessary appropriations; and

(iii) As part of efforts to specifically define and pursue measures to perform reconstruction works at an accelerated pace, the Agency introduced measures for accelerating housing reconstruction and community rehabilitation, including the formulation of the Work Schedule for Housing Reconstruction, an outlook for housing and urbanized land development work. To help Fukushima, a prefecture suffering grave and enormous damage from a nuclear disaster, achieve recovery and reconstruction, the Agency has also set up the Fukushima Home Community Revival Project as a new scheme to provide the prefecture with support in addressing challenges that have been left aside. In addition, the Agency has a diversity of specific measures in place to help the people of Fukushima to return to their homes and permanently live there without anxiety, while offering long-term evacuees a base for their life.

Recognizing that these three issues must be addressed soon, the government is working for reconstruction after the Great East Japan Earthquake at an accelerated pace.

The principle that has been presented is that rehabilitation after this major earthquake should not stop at the “reconstruction of livelihoods at the very least” but that a “New Tohoku” should be built up as a place of creativity and promise. The creation of a “New Tohoku” is an idea that enables us to address in the region the very issues that Japan as a whole is now faced with, specifically the declining and aging population, the hollowing out of industry, and the development of a sustainable energy society, and the government should take advantage of the reconstruction after the earthquake and aim to build a “future society of creativity and opportunities” in Tohoku ahead of the rest of the country to provide a model for the world.

6. Towards a new urban agenda

Undertaking preparedness measures for natural disasters is a policy challenge of particular importance in Japan, vulnerable to natural disasters.

Preparedness for large-scale natural and other disasters requires an integrated approach with a millennial perspective encompassing national spatial development policy and industrial policy, beyond the classic and narrow definition of “disaster prevention”

Based on “disaster reduction,” the concept of mitigating damage from a disaster to the minimal level to achieve a quick recovery, as the principle of disaster management, it is necessary to enhance policy programs for each phase of disaster prevention, emergency response, and recovery and reconstruction, and to build up the capabilities of Japan to cope with any disaster, following the Basic Disaster Management Plan.

As for environmental preservation, Japan should work to establish a sustainable and truly affluent society that places less environmental load on the earth through measures, among others, to cope with global warming, to preserve biodiversity, to promote recycling of resources, and so on.

For this purpose, Japan mainly pursues the policy programs listed below during the period of pursuing a new urban agenda.

- Based on the Fundamental Plan for National Resilience, formulated in June 2014 as the guidelines of the other relevant government plans, the government will work as a single organization in a systematic manner to make the whole country more resilient, so that Japan can demonstrate sufficient resilience in coping with any national crisis in case of a Nankai Trough or Tokyo Inland Earthquake, or any other significant natural disasters.
- To make the country more resilient to disasters, the government will evaluate disaster risks, and share them among the parties concerned. And based on this shared information, intensive policy programs for disaster prevention and reduction will be undertaken by combining structural and non-structural solutions. In assessing disaster risks, growing external forces as a result of climate change and other factors will be taken into account to make accurate assessments and to have them shared in an easy-to-understand way. The effective use of big data, automation, and other technologies will be promoted to obtain information quickly and share it after a disaster.
- For disaster management in local communities, the government will nurture and enhance voluntary disaster management organizations, and encourage them to form partnerships with volunteer fire corps so that disaster management capabilities at local level will be strengthened. Training seminars and other opportunities for nurturing disaster management leaders will be provided and a diversity of generations can take part in these disaster management organizations so that the emergency response will become routinized and that drills will periodically be carried out.
- What is important from a global perspective is promoting the “Mainstreaming of Disaster Risk Reduction,” the concept of incorporating the perspective of disaster reduction into any development projects. In March 2015, Japan hosted the Third UN World Conference on Disaster Risk Reduction in Sendai City. In this international conference, “Sendai Framework for Disaster Risk Reduction 2015-2030” that is the new international policies for disaster prevention, and “Sendai Declaration” declaring

the promotion of this framework, were adopted. This framework, specifying the importance of prepared investment in disaster prevention, the notion of “Build Back Better”, and the governance with participations by a variety of stakeholders, determines seven goals including decrease of the number of fatalities by disasters. Japan will promote measures based on this framework and make suggestions for the mainstreaming of natural disaster risk reduction through widely sharing Japan’s expertise in this field with the international community.

For environmental preservation, Japan will mainly address the policy programs listed below:

- In the Working Group II contribution to the IPCC(Intergovernmental Panel on Climate Change)’s Fifth Assessment Report, risk relating to sea-level rise, tidal waves, heat stress, extreme precipitation, inland floods, coastal floods, landslides, air pollution, droughts, and water scarcity are pointed out as increasing risks in urban area globally. In the context, Japan will also appropriately address these impacts and progress the efforts for adaptation.
- To mitigate global warming, Japan will promote low-carbon city development. Specifically, the government will address the formation of water and green networks as a solution to the heat island effect, taking into account the setting up of area energy networks at the district/bloc level, the recycling of water in urban areas and passages for wind.
- For rivers, Japan will continue carrying out “Nature-oriented River Works,” a program to preserve and/or generate environments for living organisms in terms of habitation, growth, and reproduction, and the diversity of river landscapes, or the functions they are originally expected to perform, from the perspective of the entire processes of nature along rivers and harmony with the livelihoods, history, and culture of the region taken into account. In addition, the formulation of ecological networks will be promoted that cover river basins as an integral part of these, focusing on the preservation and restoration of rivers and wetlands.

Sidebar

Fukuoka City's* initiatives for environmental preservation

In the late 1960s, Fukuoka had a problem of polluted water and foul odors from landfill sites mainly from dumping kitchen waste. In the early 1970s, the city started to work with Fukuoka University to conduct experiments for improving landfill sites and purifying the leachate. Based on the findings of a large-scale experiment that started in 1973 in the Hisayama Landfill Site, they suggested the basic concept of a semi-aerobic landfill structure. The idea was successfully put to practical use at the Shin-Kamata Landfill Site, constructed in 1975. The methodology has been adopted for landfill sites around Japan as a standard structure for the country. Since then, the semi-aerobic landfill structure has been called the “Fukuoka Method.” Fukuoka accepts trainees from, and sends engineers to, foreign countries, mainly in the Asia-Pacific Region, for improving landfill sites there as a form of international technical cooperation for the environment. In 2001, the city worked with the UN-Habitat to help Weifang, Shandong, China, construct a landfill site using the Fukuoka Method.

The Fukuoka Method equips a landfill site with a leachate collection pipe system, composed of cobble stones and perforated pipes at the base, which is a structure designed to discharge the leachate as quickly as possible. With the end of the leachate collection pipe kept exposed to the air, the structure allows outside air to naturally flow into landfill to keep it aerobic, making waste decomposition faster and the leachate better in quality. As the methodology decomposes waste using aerobic bacteria, which release less methane in the first place, improvement work for existing landfill sites using the Fukuoka Method was recognized in 2011 as a new Clean Development Mechanism under the UN Framework Convention on Climate Change.



Before improvement work



After improvement work

* Fukuoka, a large city facing the Sea of Japan, located in the northern part of Kyushu, is the seat of the prefectural government of Fukuoka. The UN-Habitat has its Regional Office for Asia and the Pacific in the city. Fukuoka has an area of 343.38 square kilometers and a population of 1,531,919 (as of September 1, 2015).

Chapter IV Governance of cities, and legislation

This chapter outlines the local government system in Japan, before describing the partnership-approach involving locally based non-profit organizations and a variety of stakeholders that should play a key role in the governance of cities and regions into the future. It also refers to crime prevention measures from the viewpoint of cooperation with local communities for making cities and regions safer, and to ensure safety in cities, including policies promoting universal design, a precondition for the safety of an aging society.

1. Japan's local government system

(1) Structure of systems for the organization and administration of local governments

In its Chapter VIII, Local Self-Government, the Constitution of Japan guarantees the fundamentals of local self-government, establishing the system as a constitutional institution. Japan has the Local Autonomy Act, enacted in 1947, as the fundamental legislation for its local government system.

(2) Division of roles between the national and local governments

The national government is primarily responsible for the roles it is primarily supposed to perform, such as (1) matters relating to its position as a nation in the international community; (2) matters concerning basic rules on national activities or local autonomy that should be standardized nationally; and (3) matters concerning policies and programs to be implemented on a national level or from a national viewpoint. As a rule, administrative matters close to the people should as far as possible be referred to the local public bodies.

The local governments are composed of prefectures and municipalities, or cities, towns, and villages. Prefectures, as comprehensive local public bodies comprising municipalities perform affairs which cover a wider area, or relate to the liaison and coordination of municipalities, or exceed the work in scale or property that ordinary municipalities are deemed to be able to efficiently handle. A municipality, as the basic component of local government, generally deals with “its own community affairs and the other affairs taken upon itself by law or by cabinet order duly authorized by law” except those devolved upon the prefectures.

(3) Categories of affairs that local governments deal with

Local governments deal with two types of functions, statutory entrusted functions and local government functions. Statutory entrusted functions are those concerning matters that are particularly designated by law or cabinet order founded in law as being the properly the task of the State or prefectures, for which the State or prefectures must ensure the proper handling. Local government functions are those performed by local public bodies with the exception of Statutory entrusted functions. Any statutory entrusted functions must be performed in compliance with the law or the cabinet order founded in law, and the national government is granted strong authority for intervention, including the direction to rectify and execution by proxy.

(4) Main affairs local governments are responsible for

Affairs that prefectural governments are responsible for include the establishment and administration of high schools, police administration, and the administration of national and prefectural roads. Municipal governments are responsible for the establishment and administration of elementary and junior-high schools, firefighting and ambulance services, the construction and administration of municipal roads and bridges, the construction and administration of water supply and sewerage systems, and other administrative affairs.

2. Partnership-approach involving locally based non-profit organizations and a variety of stakeholders for regional development

(1) Regional development and a variety of stakeholders

Thanks mainly to the increasing proactiveness of local actors brought about administrative decentralization, there are widening opportunities through which a region's advantages and attractiveness can be re-identified, while another growing concern includes that the progressive demographic shrinking and aging of the population could undermine fragile rural economies. In these circumstances, individual regions are required to carry out proactive initiatives by working cohesively. The key to such efforts is collaboration of all the stakeholders by involving a variety of private-sector entities as the main players in regional development, in addition to local governments.

The Comprehensive National Development Plans (CND Plans) had focused on roles of regions and inhabitants in regional development. The Fourth CND Plan (1987) attached great importance to promoting regional development by making full use of the capabilities of national and local authorities, as well as those that diverse private-sector organizations have. The Grand Design for National Spatial Policy for the 21st Century (1998), the fifth CND Plan formulated at the end of the last century, stated that the partnership-approach involving locally based non-profit organizations and a variety of stakeholders, including private-sector businesses should be promoted for regional development.

The National Spatial Strategy, formulated in 2008, defines as a strategic goal across the pillars of the plan, regional development initiated by a reshaped concept of the "Public" sector, extended from the statutory public sphere to some parts of the private sphere implying public value, and those working in between the public and private spheres.

In addition, the "New National Spatial Strategy", formulated in 2015, points out that in some regions issues such as lack for players solving social community issues and weakened communities have become evident facing the full-scale depopulating society, although measures for "New Public" are making progresses. Based on these challenges, the plan suggests that measures mainly taken by governments are not enough for solving varied issues in local societies and that it is necessary to promote creating Society of mutual assistance, where various players including local residents and firms in local societies take part in proactively and work together to solve local issues.

(2) Society of mutual assistance

“Society of mutual assistance” means a society where residents are proactive for supporting each other with the mind of mutual assistance in order to cope with regional issues and intend to activate the region. “New Public” advocated in The National Spatial Strategy formulated in 2008, is the idea; that a variety of stakeholders extend their activities to private territories involving public values and territories between public and private in addition to conventional public territories, while supporting the lives of regional residents and fulfilling functions for maintaining regional activities. Later the field of this activity has widened and players have varied. While creating Society of mutual assistance requires the balance between self-support, mutual assistance and public assistance with prioritizing self-support and independence. However, considering that the progress of population decline and financial constraints on public assistance have widened fields where mutual assistance is expected to play a great role, it is necessary to promote creating Society of mutual assistance. In the promotion the view is important that regional issues are solved not only by volunteer activities but by profitable businesses and activities (social business) for matters that can be commercialized.

3. Safe and secure cities and regions, and crime prevention measures

(1) Universal design for community development

From the standpoint of promoting the development of safe and secure cities and local communities, and with an eye to the aging of society, the Act on the Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc. (Barrier-free Act) was enacted in 2006 as a law based on the concept of universal design, “freedom and convenience for anyone and anywhere.” The Act obliges newly built facilities (passenger facilities, various vehicles, roads, off-street parking facilities, city parks, buildings, etc.) to conform to the Accessibility Standards, while requiring existing facilities to make an effort to conform. There is also the Basic Policy on Accessibility in place, which has set development targets to be achieved by the end of FY2020 to promote accessibility.

Also, in accordance with the local accessibility plan created by municipalities, the focused and integrated promotion of accessibility is carried out in priority development districts; to increase “caring for accessibility,” by deepening the national public’s understanding and seeking their cooperation for the promotion of accessibility, “accessibility workshops” are hosted where people learn to assist as well as virtually experience being elderly, disabled, etc.; these efforts serve to accelerate accessibility measures (sustained development in stages).

(2) Crime prevention measures

Japan saw the number of reported criminal offenses break post-war records every year between 1966 and 2002, and reach 2,850,000 in 2002, before starting to decline in 2003 and falling to 1,212,163 in 2014. The police will continue working to keep people safe in their daily life, and for this purpose will develop the infrastructure to prevent crime into the future by (i) forming cooperative relations with local communities, (ii) designing environments with the objective of crime prevention, and (iii) adopting crime control measures relevant to the crime situation of local communities.

(i) Cooperation with local communities

It is critical to develop safe and secure communities by raising public awareness of crime prevention and promoting voluntary activities for crime prevention. As of the end of 2014, the police knew of 47,532 voluntary organizations for crime prevention, with a membership of 2,780,000 nationwide. The police support them by offering crime information and going on patrol jointly with them, among other measures.

With a view to promoting the development of sound and attractive towns in shopping streets and amusement areas, the police link with local people, governments, chambers of commerce and industry, and other parties in a shared awareness of problems, and actively engage in community development projects conducted by local governments from the planning phase. The police also work to control public nuisances, such as gatherings of juvenile delinquents, garbage and bicycles abandoned on the street, illegal parking, and graffiti, to keep the streets more orderly. They also control adult entertainment related cases, such as operating illegal adult amusement businesses, illegal immigrant workers, human trafficking, and organizational crimes for raising funds, among others. As part of their efforts to eradicate the criminal infrastructure, they work to prevent criminal organizations from operating behind the scenes in shopping streets or amusement areas by denying them any access to multi-tenanted buildings, advertisement and publicity media, and other facilities.

(ii) Environment design to strengthen crime prevention

Examining again how cities have been structured in order to develop in cities physical environments that make crime difficult to commit, the police have formulated safety standards for improving housing for better crime prevention and developing public buildings and other facilities to improve their role in crime prevention, and are working to get these standards into more widespread use. They are also endeavoring to develop a common system for the recognition or registration of condominiums and parking lots that have been designed with crime prevention in mind in terms of their structure or facilities to encourage excellent examples of crime prevention and act as models of security parking lots.

(iii) Crime control measures relevant to the crime situation of regions

With a view to implementing effective crime control measures relevant to the crime conditions of local communities, the police analyze the crime conditions in each of them, and specify which type of crime they should focus on in their crime control efforts to prepare a crime prevention plan. In the plan, they define the roles that local people and other related parties are expected to play in relation to crime prevention and support the police in this, such as by communicating information on the crime situation. They examine how effective the initiatives in the plan are while pursuing their own crime prevention measures.

4. Towards a new urban agenda

Amid the ongoing changes in economic and social conditions, including shrinking and aging population, it is necessary to strategically develop functional urban areas that should play core roles to support people's life and lead regional economy, and set up

systems that enable basic local governments to sustainably deliver to the inhabitants interpersonal services supporting their daily life.

The precondition includes to improve the structure of local administration in the three metropolitan areas and other regions, and the governance of the prefectures and municipalities so that the regions will become more self-reliant by enhancing their strengths.

Keeping these challenges in mind in working to develop vitalized regions and encouraging cities with a certain size of population and capacity as a core of their region to foster a close cooperation with neighboring municipalities to invigorate them, such a Core Local Cities together with the commuting areas and other self-sustaining functional regions needs to be developed to work on initiatives for driving the economic growth of entire areas, concentrating high-level urban functions, and maintaining and improving basic services. It is also important to encourage collaboration among municipalities and prefectures in geographically handicapped areas.

Regional communities are becoming weaker in terms of the functions they have to perform amid ongoing urbanization, nuclearization of the family, and the taking over of the roles of traditional communities by businesses in providing social functions. Meanwhile, people's values are becoming ever more diversified, and a rapid increase in single-person households is anticipated. In these circumstances, local communities need to be reshaped as a bond between people living there, and to make them more sustainable in a manner adapted to their actual conditions. The priority is especially to achieve regional communities that enable the youth who will lead the future of the regions, to learn, work, live, take on a challenge, and explore their own career plans there.

Regarding creation of Society of mutual assistance, local businesses, including social businesses are to be nurtured, supported, and empowered further.

In anticipation of the growing demand for services closely related to needs in local communities, such as social businesses mainly in the fields of disaster management and welfare, it is necessary to explore effective measures facilitating the suppliers of these services, the use of crowd funding, capacity building of those working for public purposes in particular, that of business management need to be investigated.

Meanwhile, information technology is not only useful in boosting productivity, the basis for potential growth, but is also of great help in solving social challenges. The policies and initiatives as follows will be undertaken for public services, and safety and security.

- Regarding public data, the principles are renewed to have it openly accessible. The great diversity and a huge amount of data held by the national and local governments, as well as other public entities, will thereby be made publicly available on the internet in some machine-readable data formats under terms and conditions that allow users to edit or process them freely, including for commercial purposes.
- Quasi-zenith satellites and advanced indoor positioning system should be effectively

used to achieve a world-leading society of highly precise positioning. Other cutting-edge information and communication technologies will also be actively applied, including automatic driving and telemedicine.

- Sensors, robots, and other technologies applicable to medical, nursing, and life care services will be developed, demonstrated, and put to practical use, which could facilitate self-reliance and social participation of elderly people and improve quality of their life.

Sidebar

Kanazawa City's^{*1} initiatives for the participation of students in their local communities

Kanazawa has *chokais*, or neighborhood associations, as the core of each community. The city is composed out of 62 *kokas*, which are almost identical to the elementary school districts. Every *chokai* forms a *koka*, which is a federation among them. There are 1,361 *chokais* in the City. *Kokas* are characterized by such a close relationship between member residents that they have their own neighborhood field days and cultural festivals.

In the city, community halls, bases for life-long learning in the communities, are administered under the Kanazawa method. In this method, when halls are set up, the city government and local residents share the funds they need to construct a building, and once completed, the residents engage in the administration of the hall on their own initiative, and help make the hall very active in its programs.

Zenrinkans, or settlement houses, also help underpin local communities as a base for volunteer fire corps and welfare services.

As stated above, Kanazawa has more than one type of organization that serves as a basis for local communities to pursue their activities. It is said, however, that the decline and aging of the population, the urbanization, and the diversification of values among people have led to a weaker sense of community.

Meanwhile, Kanazawa, together with its neighboring municipalities, is a cluster of 18 universities, junior colleges, and technical colleges, and is home to 33,000 students. To capitalize on the large number of universities and students, the city enacted the first Municipal Ordinance for the Promotion of Towns for Students in Japan, which came into force in April 2010. A project set up under the Municipal Ordinance is the “Student Volunteer Snow Shovelers.” In the project, groups of students and other participants have close agreements with the communities (*chokai*), and when requested by a *chokai*, they come together to remove snow there. The project also aims at “interaction with students to make communities more active” and “promotion of the engagement of students in the society.” It has proved to be successful as students come to participate in events held by *chokais*, and the *chokais* and students have opinion exchange meetings between them.



With this and other initiatives, Kanazawa is pursuing policy programs to form closer relationships between students, citizens, and communities, and make the streets more

^{*1} Kanazawa, a city facing the Sea of Japan and located almost in the center of the main island of Japan, is the seat of the prefectural government of Ishikawa. It has a population of 452,144 in an area of 468.22 square kilometers (as of January 1, 2014).

lively and active to enhance local communities.

Fukuoka Prefecture's*2 initiatives for achieving a society of universal design

Fukuoka is working to take universal design into account in community development, so that everyone in the prefecture may enjoy safety, security, and comfort in their life there.

In October 2012, the 4th International Conference for Universal Design in FUKUOKA 2012 was held in Fukuoka Prefecture under the sponsorship of the International Association for Universal Design (IAUD), with the prefecture as a cosponsor. The Conference was attended by a total of 11,400 people from 22 countries and regions around the world over a period of three days.

For achieving a society of universal design, Fukuoka Prefecture has set four pillars of universal design, “town planning,” “manufacturing,” “information and services,” and “awareness raising.” The prefecture is working to improve its facilities in terms of accessibility and is implementing the “Fukuoka Compassion Program for Parking Lots,” a project that encourages the fair use of parking spaces for people with disabilities. They are also striving to widen sidewalks, remove steps along them, and install tactile paving blocks with a textured surface for people who are visually impaired. They produce pamphlets with embedded digitalized voice data printed on them for visitors coming to the prefectural office, and leaflets that explain their initiatives for welfare town planning and universal design.



Permanent wheelchair users with disabilities who drive themselves

People with physical or intellectual disabilities or a mental disorder, elderly people, and people with intractable diseases

Pregnant women and injured persons

Parking permits for the Compassion Program

*2 Fukuoka Prefecture, an administrative division facing the Sea of Japan, and located in the northern part of Kyushu, is composed of 28 cities, including Fukuoka and Kitakyushu Cities, 30 towns, and two villages. UN-Habitat has its Regional Office for Asia and the Pacific in Fukuoka City. The prefecture has a population of 5,092,834 in an area of 4,986 square kilometers (as of August 1, 2015).

Chapter V Urban economy

Among a diversity of policies relevant to regional and urban economic development, this chapter focuses on regional industrial development, urban agriculture, and tourism promotion. It also highlights policies for developing excellent landscapes, national projects to strengthen the competitiveness of the Tokyo Metropolitan Area, and policies regarding job creation in the regions.

1. Regional economic development by highlighting regional advantages

(1) Background of regional development policy

(i) Regional development during the period of rapid economic growth

Along with the high economic growth leading to over-congestion in metropolitan areas and depopulation in rural areas, a series of Comprehensive National Development Plans (CND Plans) had been formulated (see Chapter II). Diverse policies reflecting the policy targets of individual decades had been undertaken under the philosophy of harmonized development between regions.

Large infrastructure development in the regions including roads and high speed railway networks were first accelerated, followed by a series of policies promoting regional industries under the recognition that job opportunities are the key to attracting people to the regions, in particular, the younger generations: Development of New Industrial Cities and Special Areas for Industrial Consolidation defined in the 1st CNDP, development of core cities in regions, the relocation of existing factories and other business facilities, and inviting industries to the regions. After the oil crises, the government, faced with the structural shift of industries towards the service sector and the sophistication of the industrial structure as well as the remaining unipolar concentration on Tokyo, has selected a variety of special areas in regions to invite and promote cutting edge industries by providing incentive measures facilitating regional innovation.

For the regions geographically, naturally or socially handicapped including remote islands, snowy, mountainous, peninsular, and depopulated regions, which remain disadvantaged in terms of basic conditions, in particular industrial infrastructure and living conditions, the government has designated areas to provide preferential measures tailored to these disadvantages.

(ii) Policies encouraging the self-sustaining development of the regions

Since the 1980s, the government has pursued more effective support programs for regional development by encouraging place-based and inclusive regional development and by supporting non-physical projects adapted to the needs of the age, through means of reevaluating each region's resources and assets, including its traditional culture, rich natural environment, and traditional industries.

In recent years, greater importance has been placed on a proactive approach and creativity by the sub-national governments to initiate non-physical measures such as rediscovering each region's attractiveness and human resources development for regional innovation.

Recently, increasing number of local projects is undertaken through a partnership-based approach by local non-profits and a variety of stakeholders, together with governments.

Regional economic development covers a broad range of policies. This chapter first addresses policies for regional industrial development, agricultural policy, in particular that in urban areas, tourism promotion policy in regions, and the creation of beautiful regions including excellent landscapes. It then focuses on projects for strengthening the competitiveness of the Tokyo Metropolitan Area, and policies regarding job creation in the regions.

(2) Promotion of local industries

In regard to regional industrial development policies, through the 1990s, as the rise of the yen and other factors led manufacturing bases in Japan to transfer overseas, with the fear of the hollowing out of industry in the country, even in large urban areas, which came with the greater need for decentralization, the regions were called on to ensure self-sustaining development. To help local industries develop in a self-sustaining manner, support programs were introduced for invigorating industrial clusters in the regions and promoting the foundation of new businesses there. In 2001, the Industrial Cluster Plan started for the development of environments in the regions that help generate successive innovation. The Plan was intended to encourage local businesses, universities, research institutions, support organizations, and other academic, business, and government entities to form networks and make effective use of the technologies and knowhow that they each have in establishing new industries and businesses that capitalize on the strengths of the region to achieve spontaneous development. Under the Plan, 18 projects were carried out nationwide by 2009, with 80,000 new businesses established.

In 2007, partly as a reflection of the movements of Japanese companies to going back to their home base, the Act on the Formation and Development of Regional Industrial Clusters through Promotion of the Establishment of New Business Facilities, etc., was enacted to make effective use of the strengths of the regions in promoting the establishment of business facilities with a view to generating jobs and reinvigorating local industries there.

In line with the Act, some initiatives were also introduced to help the regions develop new products by effectively applying their own strengths, such as techniques that they have as production centers, agricultural, forestry, and fishery products, and tourism resources, for promoting the establishment of business facilities in the regions and at the same time making effective use of regional resources for reinvigorating them in tandem with the pursuit of policy programs for regional industries.

(3) Promotion of urban agriculture

(i) Diverse roles of urban agriculture

Among the broad range of policies regarding agricultural area development, this section focuses on urban agriculture. Taking advantage of their proximity to the consuming areas, farmers in urban areas supply consumers with fresh agricultural products through farm stands and other channels. Besides this, the farming industry has other diverse roles to

play in urban areas, such as offering people opportunities to experience agriculture and interact with farmers, securing disaster control areas in case of a natural disaster, and helping the urban population to better understand agriculture.

The current state of farmland in urban areas shows in the urbanization promotion areas across Japan, the farmlands are decreasing due to the great demand for converting farmlands to housing sites and other uses, whereas some 17% of the farmland is designated as productive green zone under city plans (as of 2013) and is kept generally in a good state of preservation.

In densely built-up areas, farmland provides precious space that performs disaster control functions, such as for evacuation in case of natural disasters and firebreaks. Recognizing these functions, local governments are working to form agreements with farmers that allow them to use their agricultural fields as evacuation sites in the event of an emergency and as storage space for materials used for recovery and restoration after a disaster.

(ii) Spread of farm-based lives

In urban areas, as people living there have a growing number of allotment gardens, which are farm plots that they cultivate for recreational and other purposes, further effort is important to set up more farms of this kind.

Allotment gardens have been set up in various different forms. Some users may lease one of the small farming lots someone has set up, and start farming. Others may not want to lease a plot and instead participate in a series of farm work experiences, from planting to harvesting. Allotment gardens are made available for a variety of people, from beginners to experienced amateurs.

In recent years, many farmland owners give the users careful guidance to help them experience full-fledged farming. A growing number of allotment gardens hold harvest festivals for users as an opportunity to meet and talk to develop closer relationships between them. They serve as a precious forum for residents and consumers in urban areas to have a better understanding of farming.

(4) Promotion of local tourism

Tourism is another important industry for invigorating regional communities. Tourism has a great ripple effect on the economy, as tourism consumption of 23.6 trillion yen (2013) in Japan has the potential to produce 48.8 trillion yen in outputs in other sectors, with 4,190,000 jobs created. The industry has a broad sphere of influence, benefiting not only tourism-related businesses, such as travel agencies and hotels, but also other sectors, including agriculture, forestry, and fisheries, the transport industry, and retail trade.

Japan has “Building a good country to live in and to visit” as a vision for national development. It is based on the idea that when every one of the people living in Japan loves their own cities and regional communities, and takes pride in them, leading a happy life there, thus anyone abroad should feel like visiting the country. The priority is not resort development merely for tourists but destination management, efforts to develop tourism areas that local people have such pride in, and such affection for, that tourists

themselves feel how great what they have is, thus attracting them as regular visitors and, on top of that, becoming part of a “nonresident population” for revitalizing local communities.

Destination management for building an attractive tourism region can be pursued only with (i) a clear definition of the direction that the region should take, and (ii) the development of a management scheme. The direction a region should take, mentioned above as (i), means the concept of unique attractiveness that only the region can offer as a brand, and a common target that everyone in the region should aim for. The unique attractiveness of a region offers tourists a brand concept that can be really perceived by them only when the region successfully produces space unique to it, offers a “cuisine” available nowhere else, and develops visitor programs that lead them to make tours in and around the region. What is also important is developing receptive environments that ensure tourists are comfortable while staying in the region and making tours in and around it. Among environments that should be developed or secured for this purpose are guide arrangements, means of transport, quality services and safety of the accommodations, as well as multilingual services. Carrying out these initiatives in a smooth manner requires what has been referred above as (ii), the development of a management scheme. Destination management must be pursued by a broad range of stakeholders working together for the region in securing and training people who can work for this management, by establishing organizations and distributing information in a uniform manner. It is important to make improvements in these initiatives based on how high they are rated by tourists.

As part of the support provided for tourism areas that pursue the initiatives stated above, the government recognizes, according to the Tourism Zones Development Act, a Tourism Zone as an area in which tourist sites strive together to make the region more attractive for tourists and encourage them to stay and take tours in and around it. The government offer support to these regions in their efforts to establish their own “brand” and establish a “stay-and-interact” style of tourism.

(5) Creation of excellent landscapes and beautiful regions

With a view to developing good urban and rural landscapes, building a beautiful, dignified national land, creating an attractive and comfortable living environment, and realizing vibrant communities with distinct personalities, the Landscape Act was enacted in 2004 as the first comprehensive legislation in Japan concerning landscape.

A local government may serve as a Landscape Administrative Organization (LAO), an entity that implements landscape administration according to the law. The number of LAOs has increased to 658 as of March 31, 2015, of which 478 organization have a Landscape Plan, a program that the LAO plays a central role in formulating, a fact which demonstrates that efforts are well underway for developing an excellent landscape. The number of municipalities that, in their capacity as a LAO, have enacted a category of municipal ordinances stated in the Outdoor Advertisement Act on matters that the prefectures are in principle in charge of, has increased to 68 as of April 2015, another fact demonstrating that efforts are well underway to developing landscapes in communities in a comprehensive manner.

Japan has many excellent landscapes (historic landscapes) such as a taste, feel, and ambience that reflect the history and culture of the community with its crafts that are manufactured and sold there and other festivals and other cultural assets shared among the people such as shrines, temples, and castle ruins and its surrounding historical buildings that have high historical value. However, mainly due to the great cost, both in money and requiring great care for maintenance, the aging of the owners and the shrinking population resulting in a shortage of successors, historic buildings were rapidly disappearing all around Japan, with a loss of historic landscapes. As a solution, the Law on the Maintenance and Improvement of Historic Landscapes in a Community was enacted in 2008.

When a local government formulates, according to the Law on the Maintenance and Improvement of Historic Landscapes in a Community, a Plan for the Maintenance and Improvement of Historic Landscapes for promoting urban development to take advantage of history and culture, the national government approves it to provide the local government with intensive support for the work they carry out based on the plan. Since the enactment of Law on the Maintenance and Improvement of Historic Landscapes in a Community, the number of cities that have a plan approved by the government has been increasing year by year. As of April 2015, 49 cities have approved plans.

2. Strengthening of the competitiveness of the Tokyo Metropolitan Area

The Tokyo Metropolitan Area, the capital of Japan, is one of the largest megalopolises, with a population of 43 million. However, its position in terms of international competitiveness is going into a decline compared to other Asian cities that are rapidly emerging as Tokyo lags behind them in ease of doing business, development of quality international conference halls and office buildings, access to transportation, and the risk of natural disasters.

To make the Metropolitan Area more internationally competitive, Japan is working to improve its environments for international business by developing airports and seaports as an international hub, and railways and beltways helpful in improving access to, and from, the Metropolitan Area, as well as the setting up of National Strategic Special Zones and making effective use of private-sector capital in renewing the cities for greater ease in doing business there.

Specifically, Haneda Airport brought a new runway into service in October 2010 to expand its takeoff and landing capacity, offering a network of more diverse service lines, and enabling more frequent arrivals and departures for greater convenience for the users. To meet the greater need of the Metropolitan Area for international airports, Haneda Airport also expanded its international airline area and brought the expanded section into service in March 2014. For the Keihin Ports (Yokohama, Kawasaki, and Tokyo Ports) Japan is striving to maintain and increase the number of international arterial services coming to the country, and make them an international hub in East Asia by equipping them with large-scale container terminals with a depth of water large enough to cope with the ongoing growth in size of container vessels.

In the field of roads, work is underway to improve the three major beltways in the Metropolitan Area that support economic activities and livelihood there with a view to mitigating chronic traffic congestion in the center of Tokyo, and enhancing access to airports and seaports, the gateways to Japan, mainly to secure predictability and fast movement in transportation. For railways, Japan, taking into account the Games of the XXXII Olympiad , Tokyo 2020 Paralympic Games, and what will come after them, is considering a plan to construct a new line that will link the center of Tokyo directly to Haneda and Narita International Airports, and improve railway access between them to a level comparable to those of other major cities around the world.

In May 2014, the government, with an eye to the Games of the XXXII Olympiad and Tokyo 2020 Paralympic Games, designated Chiyoda and eight other special wards in Tokyo, Kanagawa Prefecture, and Narita City, Chiba Prefecture as National Strategic Special Zones with the aim of developing the best environments for doing business in the world, so that they will form international business bases that attract capital, people, and businesses from around the globe, and encourage business startups and innovation for drug development and other facilities for generating new businesses with international competitiveness. The Special Zones are expected to construct buildings helpful in forming international business bases, and introduce simplified procedures for founding corporations for the quicker establishment of new enterprises.

To take efficient and effective action to deal with the aging of the public infrastructure under the tough conditions the public sector is faced with in its finances, the government needs to use private-sector capital in an effective manner. Japan is working to integrate an urban renaissance with the upgrading of the Tokyo Metropolitan Expressway and other public infrastructure initiatives.

3. Job creation in the regions

(1) Act on the Promotion of Job Opportunities in Certain Regions

The creation of jobs in cities and the provinces plays a key role in promoting their economies, and measures to generate jobs in the regions must be designed and implemented in a manner relevant to their actual conditions, such as their industries and social situation. With this in mind, according to the Act on the Promotion of Job Opportunities in Certain Regions, Japan is carrying out the policy programs needed to improve the employment structure in the regions, such as Practical Local Employment Creation Projects (discussed again later), and a program for providing grants for employers in regions that are short of job opportunities due to, for instance, a lower ratio of active job openings-to-applicants when they hire local jobseekers for business establishments that they have set up or upgraded.

(2) Emergency Employment Creation Fund Project

From 2008, to cope with the rapid deterioration in employment conditions after the financial crisis following the bankruptcy of the global financial services company Lehman Brothers Holdings (the so-called Lehman Shock) and offer job seekers temporary work opportunities, Japan has in place the Emergency Employment Creation Fund Project, an initiative under which the national government provides prefectural governments with

grants to set up funds that prefectures and municipalities can use for carrying out job creation projects relevant to their actual conditions. As job creation is closely related to the revitalization of local economies, and an integral part of such efforts, these funds have had additional contributions given to them in phases since they were first set up. They are also used to support initiatives for the generation of new job opportunities in sectors with great growth prospects, and provide support on the employment side for startups that are taking root in local communities.

(3) Job creation support integrated with industry policy programs for regional communities

Now that the disparity between regions in employment conditions is becoming evident again a few years after the Lehman Shock, the need is arising to improve employment structures in regions short of job opportunities. In particular, some regions lagging behind in the recovery from the deterioration in employment conditions caused by the Lehman Shock and other events are faced with the need to transform their industrial structure, and pursue job creation initiatives integrated with industrial policy programs.

With this situation in mind, Japan set up in FY2013 a framework for Projects for Creating Employment in Strategic Industries to create programs to support quality job creation initiatives formulated based on suggestions made by local stakeholders from the prefectures in such a way that the initiatives are integrated with industry policy. In FY2013, 11 prefectures had these types of projects underway.

Practical Local Employment Creation Projects, another category of programs implemented under the Act on the Promotion of Job Opportunities in Certain Regions for municipalities short of job opportunities to support projects suggested by regional councils for generating jobs, training people, and promoting employment in line with industry promotion programs and other policy programs that the Cabinet Office and other ministries have in place for revitalizing regions, were carried out for 71 regions in 2013.

4. Towards an urban agenda

In order to bridge the growth of national economy to economic development of individual regions, as place of life for people, the prerequisites are to develop local industries, to create jobs in the region, and to achieve a positive cycle in the regional economy by creating attractive regions through the initiative of local actors.

Meanwhile, amid the progress of globalization, the key to the development of regions lies in whether they can capitalize on the enhanced international competitiveness of large cities, and the potential return of manufacturers back home, and how many people they can attract to the regions from around the world and how much capital, expertise, and creativity they bring with them. For this purpose, cities and regions in Japan, in particular, major cities, which play central roles in economic activities, need to be turned into places that offer diverse values to people coming from around the globe. In this respect, tourism is a pillar for Japan to get back the strength of its economy. Tourism is also quite important to increasing the “nonresident population” in regions for retaining their vitality and developing the regions, as well as promoting two-way interactions with foreign countries

and building up deeper mutual understanding.

However, while Japan has achieved modernization and economic growth, diversity of regions in the country acquired through their long history is gradually fading. Regions thereby need to recover their diversity and enhance their own resources for themselves.

Amongst the broad range of challenges to promote the development of cities and regional economies, the major policy programs during the period of a new urban agenda are listed below.

- The government promotes the development of local industries by helping to effectively apply the skills of local companies with unique techniques at the top level in the world and scientific expertise, technologies, and equipment to be provided by universities and other research institutions.
- Japan aims to lead the world in serving as a “showcase” of robots working for practical uses in a variety of fields.
- Quality healthcare services will be provided and the health industry will be invigorated, by offering medical, nursing, and other services in an integrated manner and providing incentives for health maintenance and disease prevention.
- With a view to helping small and medium-sized enterprises and small businesses, the pillars of the local economy, society and employment, enhanced support needs to be provided for starting up new businesses, marketing in Japan and abroad by making effective use of ITC, starting businesses overseas, securing human capital, making effective use of local resources for business, encouraging especially young people and women to start businesses, invigorating shopping streets, forming a broad-area network of a diversity of local stakeholders, and supporting development by core enterprises and academy-business-government partnerships.
- In order to secure a wide range of potential entrants, the agricultural, forestry, and fishery industries need to become familiar for young people and women to enter careers in them. It is necessary to encourage the effective use of ICT and help develop and spread new technologies for turning the agricultural, forestry, and fishery industries into a cutting-edge business, and exporting more agricultural, forestry, and fishery products, and food. It is also effective for rural regions to replace some of the energy they purchase from outside with woody biomass, which helps to circulate capital that otherwise flows out of a region. Developing the “sixth” industries is required by encouraging collaboration of the primary, secondary, and tertiary industries in regions to achieve higher value added, and interacting with those outside a region to bring in capital from outside.
- Regarding the Super Mega-region, composed of the three major metropolitan cities linked by the maglev Chuo Shinkansen Line, an intensive linking of people, goods, and information coming from Japan and abroad is expected to be realized by

connecting the knowledge-hubs generating innovation of the three metropolitan regions to create a "knowledge link," the positive effects of which will then spill over to other regions around Japan.

- In order to achieve a higher target of 20 million incoming tourists to Japan, after the number reached 10 million in 2013, policy measures will be taken to dramatically increase the number of inbound tourists including promotion campaigns for tours to Japan: relaxing visa requirements and taking other measures for facilitating visits to Japan; developing conditions to attract more foreign tourists by, for instance, promoting the installation of free public wireless LAN systems, and improving access to airports; promoting the invitation and hosting of MICE (Meetings, Incentive Travel, Conventions, and Exhibitions/Events), bringing in foreign business travelers.
- For destination management to build up tourist sites that can compete with the rest of the world, resources of regions will be enhanced, including some of the greatest megalopolises on the globe, rural villages with rich natural environments that present a different face each season, the special cultures of snowy and subtropical regions, buildings and cultural assets that embody the long history of Japan, and shopping streets and workshops full of unique features, so that they can meet the diverse expectations and needs of foreign tourists.
- The Games of the XXXII Olympiad and Tokyo 2020 Paralympic Games and related events will come not only as a ceremony for the entire country of Japan, but also as the best opportunity to show off the attractive features and resources that Japan has and bring vitality back to the country. As the government prepares for hosting the events, it will promote exchanges with participating countries through people, economy, and culture, with the focus placed on a national commitment to sports, the promotion of globalization, revitalization of regions, development of tourism, and dissemination of innovative environmental and scientific technologies.
- Specifically, Japan is implementing a "Sport for Tomorrow" program, the international contribution in the field of sports to disseminate the values of sports, and expand the Olympic Movement and the Paralympic Movement to more than 10 million people from every generation, especially young people, who should lead the future, in at least 100 countries, mainly developing nations, during the seven years from 2014 to 2020 in order to make a better future for the world.

Sidebar

Kanazawa City's efforts to build a historical and creative city

Kanazawa has so far experienced no destruction from war, thus keeping its remaining historic buildings and old streets almost intact. The city also demonstrates the craft skills and performing arts which successive feudal lords promoted over several hundreds of years, such as Japanese lacquer ware, metalwork, pottery, and cloth dyeing, as well as the tea ceremony, the Noh theatre, and traditional Japanese music, which are firmly embedded in the life of people as a source of their excellent sense of beauty and sophistication in artistic skills.

Kanazawa has led the rest of the country with its efforts to implement landscape policy as it enacted the Kanazawa Municipal Ordinance for the Preservation of Traditional Environments in 1968. With the municipal ordinance, the city started working to maintain its historical appearance, and develop a unique town with great individuality. Their efforts came to fruition when the city became the first to have a historic scenery maintenance and improvement district plan recognized under the Act Concerning the Maintenance and Improvement of Historic Scenery (Historic Scenery Act).

In the field of craftwork, the Kanazawa College of Art was founded immediately after the end of World War II in 1946, immediately after the end of World War II, for passing on industrial arts to the next generation and developing them further, as well as promoting local culture and industry. In 1989, Kanazawa Utatsuyama Kogei Kobo, a craftwork studio and workshop, was established as part of the commemorative project for the 100th anniversary of Kanazawa as a municipality. The studio invites applications from young industrial artists with specialist skills, and works to train artists to produce creative works and cope with the changes of the times, and promote traditional industries. The city was rated so high for these activities, that it was the first Japanese municipality recognized by UNESCO and registered in its UNESCO Creative Cities Network in the field of crafts and folk art.



* Kanazawa City is responsible for the choice and presentation of views contained this report and for opinion expressed therein, which are not necessarily those of UNESCO and do not commit the Organisation.

Amid the globalization of the society and economy, Kanazawa aims to make the best of the resources it has accumulated so far, and gather people, goods, and information from within Japan and overseas to create new values through interactions and development in a sustainable manner. The city hosted the UNESCO Creative Cities Network Conference in 2015 for the first time in Japan. They are working towards a consensus on the basic direction of the cultural promotion policy of registered cities around the world, and present suggestions.

Chapter VI Housing and basic services

This chapter deals with the policies relevant to housing, as well as basic services supporting life including water supply, sewerage, and waste management. Policies promoting the use of renewable energy are also summarized.

1. Development of housing and living environments

Against the backdrop of the severe shortage of housing after the World War II, Japan had carried out housing policy programs based on five-year plans (1st to 8th) formulated under the Housing Construction Planning Act. The core policy programs were the Government Housing Loan Corporation (present Japan Housing Finance Agency), Publicly-operated Housing Act, Japan Housing Corporation (present Urban Renaissance Agency), and other policy instruments that were aimed at supporting the supply of new houses. As a result, the number of houses (54 million units) surpassed that of households (47 million families) in 2003.

With the arrival of a society characterized by the low fertility, aging and shrinking of the population and households on a full scale, the Basic Act for Housing was enacted in 2006 to shift the aim of the policy from “securing housing in quantity” to “improving housing in quality.” Japan is now working under the Basic Plans for Housing (National Plan: FY2011 to 2020) to implement policy programs and achieve the targets stated below in (1) to (4).

As described below in (2), the stock of housing constructed during the period of rapid economic growth to satisfy demand in those days is increasingly aging, and the rebuilding and effective use of the existing stock are among the challenges the government must address. As mentioned in (3), developing appropriate conditions for the market in second-hand house transactions and renovation are also the challenges.

(1) Development of living environments that support safe, secure, and quality housing

(i) Development of houses and residential environments that ensures the safety of housing life

To develop safe houses and residential environments, Japan promotes the renovation of housing and buildings to ensure earthquake-resistant structures, and the improvement of densely inhabited areas.

(ii) Development of environments that provide services underpinning the reliability of housing life

Japan carries out policies to achieve “Housing and Cities for Smart Wellness” environments that enable households of elderly people, persons with disabilities, and parents with children, and other diverse types of households to interact and live with a sense of security and healthiness. According to the Act on the Securement of a Stable Supply of Elderly Persons' Housing, enacted in 2001 and revised in 2011, the government is working to develop “Housing with Services for the Elderly,” facilities designed with a barrier-free structure to provide elderly people with the services needed to support them

in cooperation with nursing and medical service providers, and redevelop public rental housing complexes as local bases for welfare.

(iii) Suggestions on housing and lifestyle for a low-carbon society

With a view to improving energy efficiency in housing and buildings, Japan is working according to the Low Carbon City Act to establish a system for the recognition of low-carbon buildings in order to promote them. The government also supports initiatives for the development and introduction of advanced energy-saving technologies, energy efficiency improvement work, and Zero-energy Housing with favorable budget appropriations and tax treatment for them.

(iv) Smooth transportation and use, and the development of attractive streetscapes and townscapes

Based on the concept of universal design, Japan provides building owners with support for renovation work and other initiatives to help improve accessibility in relation to houses. The government is also working to maintain and develop beautiful streets and townscapes that make the housing stock more comfortable and prosperous.

(2) Appropriate management and renovation of housing

According to the Act on the Promotion of the Appropriate Management of Condominiums (2000), Japan works to develop environments for appropriate administration. The government has also adopted the Act on the Facilitation of the Reconstruction of Condominiums (2002) to encourage the rebuilding of aging condominiums and selling building sites of them.

(3) Facilitation of environments for a housing market that appropriately satisfies diverse needs for housing

(i) Development of markets that facilitate the effective use of existing housing

To achieve the target of doubling the amount of the market in second-hand house transactions and renovation to 20 trillion yen, Japan prepared Inspection Guidelines for Existing Housing (2013) to specify inspection items for used houses and relieve consumers of concerns about the quality of second-hand housing. The government is also working to make the Defect Insurance System for Traded Existing Housing and the Remodeling Defect Insurance System come into more common use, and have in place favorable tax treatments for second-hand housing and renovation.

(ii) Building up of a stock of quality housing that can be used into the future

Japan enacted the Housing Quality Assurance Act (1999), which obliges the sellers of newly-built houses to provide a 10-year warranty against defects, and the Housing Performance Indication System (2000) as a mechanism for the objective evaluation of the basic performance of houses. According to the Act Concerning the Promotion of Long-Life Quality Housing (2008), the government also works to make long-life quality housing more widely available, and promotes types of houses that have a certain level of durability in terms of their structure and other elements. In addition, to meet the needs of people for wooden houses, the government provides support for the construction of wooden long-life quality housing.

(iii) Availability of housing that meets the diverse needs for houses and eliminates mismatches between supply and demand

To help private-sector financial institutions provide long-term fixed-rate mortgage loans at a low interest rate, the Japan Housing Finance Agency supports them in securitization (2000). The Agency also makes loans itself in some fields that are of significance for certain policy objectives, but are difficult for private-sector entities to deal with, such as loans for disaster mitigation. They also work to make the Terminal Tenancy System more popular, help elderly people move into a new dwelling in order to bring the houses that they own into use as housing for families consisting of parents and children, and to also put vacant houses to effective use.

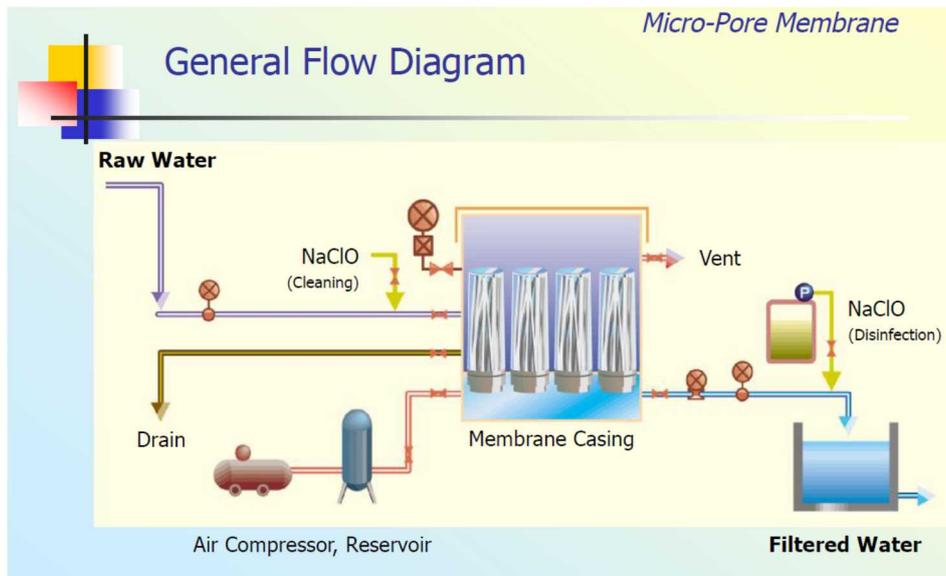
(4) Stable availability of housing for people who need special care in finding a house
Local governments supply publicly operated housing to rent them to low-income persons with difficulties in finding an affordable dwelling. In addition, the Good Quality Regional Rental Housing system (2007) is effectively used, and public housing is constructed by the Urban Renaissance Agency and other entities. To enable private-sector rental housing to work better as a safety net, local governments and real estate-related trade organizations have formed Housing Support Councils that offer support, including information services, to persons in need to more easily find a house to live in.

2. Access to safe and reliable water

In Japan, the coverage of the water supply system, calculated as the population with water supply services divided by the total population, reached 80% in 1970, and stood at 97.7% in 2013. Among Japan's water services technologies expected to come into widespread use in the country and abroad, here, the membrane filtration and leakage prevention techniques will be highlighted.

(1) Membrane filtration facilities

Membrane filtration, a water purification methodology that uses membranes as a filter to pass raw water through in order to remove impurities and obtain clean and clear water, has been adopted by an increasing number of facilities in Japan in recent years.



Conceptual diagram of a membrane filtration plant

The membrane filtration method is used to purify water mainly for the reasons below:

- (i) Filters with different properties are available to remove various types of impurities larger than a certain size from raw water, including suspended matter, colloids, bacteria, and cryptosporidium;
- (ii) Despite the need for regular inspections, the cleaning of membranes with chemicals, and the replacement of membranes, membrane filtration equipment is easy to operate automatically, and saves the labor of operators in day-to-day operations and maintenance to a greater extent than other treatment methods;
- (iii) Smaller in size than other types, membrane filtration equipment can be installed on a smaller site with a shorter construction period;
- (iv) The entire equipment, even rather large units, can usually be installed in a single building, which makes entry and exit control easier, and remote surveillance through the adoption of closed-circuit camera systems provides greater safety in terms of risk management (antiterrorism measures) than conventional methods; and
- (v) As a membrane filtration unit is applicable for setting up small-scale water purification systems that can be carried on a vehicle, the method is expected to be applicable in rural areas.

As membrane filtration removes substances larger than a certain size at a stable rate with high removal efficiency, it is suitable for raw water containing a little amount of dissolved materials other than suspended matter.

(2) Leakage prevention measures

Tokyo Metropolis government has been carrying out measures to prevent water leakage, achieving a decline in the leakage rate from more than 30% around 1950 to 2.0% in

FY2012. The metropolis is working strategically on the three policy programs below.

(i) Systematic replacement of water pipes, and improvement of pipe materials in terms of performance (distribution mains and service pipes)

- Distribution mains are being replaced in a systematic manner with ductile iron pipes, which have greater strength and earthquake resistance.
- For service pipes, which are a major source of leakage accidents, fragile lead pipes are being replaced with stronger stainless steel ones.

(ii) Early detection of leaks and quick repair

- When notified by a user of a water leak found on the ground, the water works bureau responds on a round-the-clock basis, and completes the repair on the same day, in principle. (Record in FY2012: 11,018 leak repairs completed)
- To find leaks left unnoticed underground, the bureau conducts leakage inspections at midnight. (Record in FY 2012: 1,855 km inspected, with 542 leak repairs completed)

(iii) Development of leakage prevention-related technologies

- Tokyo Metropolis government strives to apply cutting-edge technologies to develop new techniques, such as “in-pipe inspection robots.”

3. Treatment of domestic wastewater

Amid the economic prosperity during the period of rapid growth, Japan saw its population and economic activities concentrated in urban areas, and environmental problems accompanied this process, such as air pollution and water pollution from domestic wastewater. As a result, the Sewerage Law was revised in 1970 with the addition of the provision to “contribute to the preservation of water quality in public water areas” to the purposes of the Law. In the 20th century, Japan laid emphasis mainly on the expansion of sewerage services and greater coverage, working especially on the efficient “removal and treatment” of wastewater to improve public health and the living environment.

As of the end of FY2011, percent of the population with sewer access reached 75.8%, or 93.55 million people, while sanitary wastewater treatment services, which include water treatment facilities other than sewerage services, such as rural community effluent facilities and household wastewater treatment tanks (Johkasou), covered 87.6% of the population, with a certain amount of progress made in achieving national minimum standards, such as improved living environments and the wider availability of flush toilets.

More advanced wastewater treatment performed mainly for water quality conservation started in 1982 with the addition of total nitrogen and phosphorus to the environmental quality standards. As of the end of 2011, advanced wastewater treatment covered 20.1% of the population. Meanwhile, it turned out to be a social problem that heavy rainfall sometimes caused combined sewer systems to release untreated sewage containing human excrement into waterways. In FY2003, the Order for Enforcement of the Sewerage Law was revised to oblige small and medium-sized to large cities (170 and 21 municipalities, respectively) to complete urgent improvement measures by FY2013 and FY2023, respectively, as part of efforts to preserve water quality.

The 21st century came with great changes in the social conditions, such as an increasing world population and economic growth in developing countries, along with the strains that these put on supplies of energy and other resources, the deteriorating global environmental problems, followed by abnormal weather conditions and frequent disasters, and the arrival of a society with a declining population in Japan. The sewerage services in the 21st century should cope with these changing social conditions as part of the social infrastructure that underpins sustainable development in the regions by shifting from the “removal and treatment” of wastewater to “effective use and recycling” for achieving “beautiful and sound environments,” a “safe life,” and an “energetic society,” and help make regions more self-reliant in their use of water and other resources. Japan, seeing the future of sewerage services in terms of the more active functions it should perform for the sound recycling of materials and the roles it has to play as infrastructure that buttresses a recycle-oriented society, it is working on the further development of these services.

Economic and social conditions surrounding the infrastructure are becoming stricter as disaster risks are becoming more evident, limitations on government finances are growing, as they also are on the workforce, and the facilities are aging. Japan, fully recognizes these current conditions and challenges, and with an eye to the future will work to establish crisis and asset management systems for sewerage services, together with other appropriate administrative arrangements, so that sewerage will make some contribution to building a society that can grow in a sustainable manner, and in addition, contribute to more regions and fields of activity, and Japan will bring sewerage services to such maturity that they will serve as the foundation of a recycling-oriented society.

4. Waste management promoting 3Rs

In Japan, waste is managed according to the Waste Management and Public Cleansing Act. General waste (household waste and human excrement, etc.) is under the jurisdiction of municipalities, to whom prefectures must strive to give necessary guidance, while the national government must endeavor to give municipalities and prefectures the necessary guidance and financial support.

In FY2012, 45.22 million tons of general waste was discharged in total. Since FY2000, the amount of general waste has been on a downward trend. The final disposal of waste stood at 4.65 million tons in FY2012, half the amount ten years before.

What lies behind the changes is the Basic Act for Establishing a Sound Material-Cycle Society, a law enacted in 2000, which has acted as a trigger for people to reconsider the ways of the society, and their lifestyle, is the system that relies on mass production, mass consumption and mass disposal, and the Act has thus made a great contribution to establishing a sound material-cycle society, leading to the restrained consumption of natural resources and a smaller load on the environment. With a view to establishing a recycling-oriented society, Japan has been working on a diversity of initiatives to promote the 3Rs (Reduce, Reuse and Recycle).

Specifically, Japan has been endeavoring to develop a legal framework for recycling,

which includes special measures stated in the Waste Management and Public Cleaning Act that mandate some contribution is made to promoting the 3Rs, such as a certified system of recycling, Containers and Packaging Recycling Act and other recycling-related laws. As part of awareness raising efforts and education for the general public, who themselves generate household waste, the government uses a website “Re-Style,” in an effective manner to work actively to provide information on the 3Rs, and to try and persuade the public to practice the 3Rs.

In terms of support that the national government grants to municipalities, responsible for the management of general waste, the state offers municipalities financial aid for replacing the general waste disposal facilities they have constructed. The national government has also prepared a “Guide of the General Waste Disposal System” and other guidelines to help municipalities do more in promoting the 3Rs, as well as revising them and working to ensure that they are fully recognized and understood by municipalities.

Carrying out waste management policy not only from the standpoint of waste disposal but also as a solution to global warming, Japan has strived to incinerate only types of waste where there is no better option for disposal, and collect the heat generated from this incineration for power generation or other purposes as efficiently as possible as part of the efforts to reduce fossil fuel consumption.

For enhanced disaster control measures, Japan, changing the view of waste disposal facilities and regarding them not only as a place for the disposal of waste in ordinary times, but also as a base for the smooth management of disaster waste, has decided on broad administrative areas that maintain the capacities of their incineration plants and final disposal sites with a certain level of margin to secure the availability of alternatives and redundancy. For waste disposal facilities that should serve as core plants for each region, the government has also determined the work required to make them earthquake-resistant and keep them resilient at the level required for a waste management system.

5. Broader use of sustainable energy and the promotion of energy-saving in the household sector

(1) Initiatives for the broader use of sustainable sources of energy

Initiatives of Japan for bringing renewable energy into wider use started as policy programs for replacing oil with other energy sources based on the Act for the Promotion of the Development and Introduction of Alternative Energy Resources (Petroleum Alternative Energy Act). Since the two oil crises in the 1970s, Japan has been working to shift from oil to coal and natural gas, as well as renewables and other energy sources that can replace petroleum.

In 2003, Japan inaugurated the Renewables Portfolio Standard (RPS) system, which obliges electric utilities to generate, or purchase, more than a certain amount of power using renewable energy every year, in order to put renewables into wider use in the power sector. In July 2012, the RPS system was replaced by the feed-in-tariff system. Under the system, utilities are required, according to the Act on the Purchase of Renewable Energy Sourced Electricity by Electric Utilities, to purchase power generated using renewables

(solar, wind, hydroelectric, geothermal, and biomass energy) during a certain period of time at a certain price, both specified by the state. The feed-in-tariff system is supposed to help reduce uncertainty in the recovery of capital invested in power generation using renewable energy, and thereby encourage investment in the use of renewables more widely and at an accelerated pace.

(2) Initiatives for promoting energy saving in the household sector

Initiatives for energy saving in the household sector include policy programs for improving home appliances and other household articles in terms of energy efficiency, and those for making housing itself more energy-efficient as the two pillars of this policy.

One of the major policy programs in the first category is the Top-runner System. Under this system, some categories of home appliances or other goods are specified, and the best product in each category at the time in terms of power consumption, energy efficiency, or other performance is used as a reference in setting numerical standards that producers and importers are required to set their products to satisfy by a specific target year. The system has helped make air-conditioners and refrigerators 30 and 43% more energy-efficient, respectively, for instance.

An initiative in the second category is a series of amendments made to the Act on the Rational Use of Energy in 2013 to encourage efforts in energy-saving as stated above in the housing sector as well by adding to these the Top-runner System products that should help make houses and other appliances more efficient in energy consumption. Under the revised Act, construction materials came under the Top-runner System, and the standards for insulating materials have just been announced. The government have also set targets for standard and other types of newly-built houses for qualification as net-zero energy houses (ZEH) in and after 2020 and 2030, respectively. In addition, while working to develop such environments, taking fully into consideration the need for, the level of, and the equity of the regulations, Japan obliges newly-built houses to conform to specific energy-efficiency standards by 2020 using a phased approach.

6. Towards a new urban agenda

Basic services indispensable for life, such as water, disposal of household effluent and domestic waste, and supply of energy should be provided despite increasingly financial constraints, by maintaining and improving safety, stability, reliability, and quality, and retaining conformity with other policy requirements including greater efficiency in public administration and preservation of the global environment.

Parts of the infrastructure that underpins these services, especially those constructed intensively in and after the period of high economic growth, will soon start getting old in the same period. Appropriate action to cope with the aging of the infrastructure is of high priority.

In anticipation of further decline and aging of the population in the future difficult state of public finances, it is important, among other measures, to make the right adjustments in the functions of the infrastructure that should be maintained, and to encourage the

public and private sectors to work cooperatively in using them effectively, especially by maintaining and replacing them strategically.

As for housing, one of the greatest challenges is the improvement of the quality of the housing stock. Japan needs to supply houses for the elderly who can live in them with a sense of security, integrated with welfare and other services that they need in their daily life. Improvement of the energy efficiency of housing and other measures for achieving a low-carbon society are also needed.

Based on the situation described above, the following policies will be undertaken during the period of a new urban agenda for extending the life of the infrastructure.

- Japan will strive to strengthen the technical foundation for the maintenance and replacement of the infrastructure by, for instance, developing or adopting the most advanced techniques in the world for the entire lifecycle from construction through maintenance to replacement to develop a system for maintaining and securing a safe and resilient infrastructure into the future.
- While constructing new infrastructure, most of the existing stock of infrastructure will be made by pursuing some novel solutions based mainly on progress in technological innovation.
- Export of water-related infrastructure systems developed in the tough natural and social conditions in Japan will be promoted. At the occasion of construction and maintenance work of the infrastructure in Japan, the techniques and systems for the work will carefully be designed in a manner helpful to promoting exports.

In regard to housing, major policy programs include:

- To secure for elderly people homes that they can live in with a sense of security, and with medical services and nursing care Japan pursues policy programs for supplying them with serviced houses so that the number of houses to be tailored to the elderly will amount to from three to five percent of the elderly population, by 2020.
- The government works to make housing and buildings more energy efficient by enhancing the regulations, raising awareness of and promoting the certification system based on the Act on the Rational Use of Energy (Energy Saving Act), and providing incentives for energy saving behaviors.

In the field of the supply of safe water, treatment of domestic wastewater, and the supply of energy to households, among others, Japan pursues the policy programs listed below.

- With a view to developing a system to secure safe and reliable water, and make it available in a stable manner, and establish a society that enables people to enjoy the benefits of water in the future, the government works to, among other measures, secure water needed in case of an emergency, establish a sound system for the circulation of water, recycle energy and materials, preserve and use groundwater, and apply systems

for storm water and recycled water use.

- With a view to making effective use of energy sources originating from urban areas, the government works for the broader application of renewable energy made available in sewerage facilities, such as the use of sludge for biogas power generation and the production of solid fuel, and the use of heat from sewage treatment for air conditioning and space heating. Amid concerns about the increased risk of water shortages caused by climate change, the reuse of sewage water will be promoted by applying membrane processing technology to the treatment with a view to providing a stable supply of water. In addition, as part of the international contribution in the field of sewerage systems, the experience and techniques of Japan which can be applied for solving water and sanitation problems that foreign countries are faced with, will be promoted.
- Japan is working to establish a hydrogen-energy society and make effective use of new types of energy, such as methane hydrate and other marine energy resources. Energy subsystems using renewable energy need to be strategically developed such as locally generated energy consumption based on the effective use of renewable energy including biomass and small-scale hydroelectric generation.

9. Percentage of city, regional and national authorities that have implemented urban policies supportive of local economic development and the creation of decent jobs and livelihoods
10. Percentage of city and regional authorities that have adopted or implemented urban safety and security policies or strategies
11. Percentage of city and regional authorities that have implemented plans and designs for sustainable and resilient cities that are inclusive and respond to urban population growth adequately

(9, 10 & 11) It is assumed that almost all of the local governments in Japan implement the policies mentioned above.

12. Share of national gross domestic product (GDP) that is produced in urban areas
Economic statistics that exclusively cover urban areas are not available.

13. Any other urban-related data relevant to the National Report
See the text of the Report.

(Reference)

Preparation process for the national report

This National Report was prepared by the National Habitat Committee for Habitat III, composed of government ministries and agencies relevant to human development issues, and subnational governments (See the list below.) The report was drafted by the organizations in charge of the individual subjects and completed after being examined by the relevant parties by the National Committee for Habitat III.

Membership of the National Habitat Committee for Habitat III

The National Habitat Committee of Japan, composed of 10 national government ministries and agencies, and two local governments was set up in April 2014. Its membership is listed below.

Co-chairs

Director, Global Issues Cooperation Division, International Cooperation Bureau,
Ministry of Foreign Affairs
Director, General Affairs Division, National Spatial Planning and Regional Policy Bureau,
Ministry of Land, Infrastructure and Transport

National government ministries and agencies concerned

Director, International Affairs Office, Policy Coordination Division, Minister's
Secretariat, Cabinet Office
Director for International Cooperation, Disaster Management Bureau, Cabinet Office
Director, International Affairs Division, Commissioner General's Secretariat, National
Police Agency
Director, International Affairs Office, Local Administration Bureau, Ministry of Internal
Affairs and Communications
Senior Analyst for Policy Information, International Affairs Division, Minister's
Secretariat, Ministry of Education, Culture, Sports, Science and Technology
Deputy Assistant Minister for International Affairs, Minister's Secretariat, Ministry of
Health, Labour and Welfare
Director, International Cooperation Division, International Affairs Department,
Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries
Director, International Economic Affairs Division, Trade Policy Bureau, Ministry of
Economy, Trade and Industry
Director, International Strategy Division, Global Environment Bureau, Ministry of the
Environment

Sub-national governments

Director General, International Relations Bureau, Fukuoka Prefectural Government
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The National Habitat Committee consulted the experts listed below.

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1. Rapidly shrinking and aging population and demographic polarization between regions

The population of Japan, having peaked in 2008 at 128 million, is projected to decrease to 97 million in 2050, with the share of elderly people aged 65 or older reaching 40 percent against the total population (projections with a medium scenario). Entering into a super-aged society that no other country has yet experienced, Japan is now working to develop cities and regions that are more friendly towards elderly people so that they can easily take part in their communities, which will keep them active throughout their life, while striving to build a society that will enable young people to stay and work in regional communities, and generate flows of people coming from metropolitan areas to rural areas. Enhancing solutions to the low fertility rate is also an important challenge.

The distribution of the population between the regions shows that almost 30 percent of the national population concentrated in the Tokyo metropolitan area in 2010, and in the midst of a decrease in the population, a larger percentage of people are projected to reside in metropolitan areas. Meanwhile, studies of demographic changes based on 1 km grid squares demonstrate that in 2050 that the population will have halved from the 2010 level in more than 60 percent of the inhabited grids, 20 percent of which will by then have become uninhabited. The current birthrate and other parameters, assuming they remain unchanged into the future, will inevitably lead to a sharp decline in the population and an unbalanced demographic distribution between regions. In particular, a significant number of functional urban areas located outside the three metropolitan areas, are forecast to fail to keep their population above 300,000.

In the future, among others, urban functions should be consolidated by building a consensus among the communities concerned, and collaboration between neighboring communities will be explored, which should enable them to share functions and complement each other. For this purpose, the government will further improve the conditions for both men and women to share the experience of working and raising children together, either in large cities or regions, so as to increase female participation in the society, by creating regions where young people are able to find a job and bring up their children and by promoting diverse and flexible styles of working and a sound work-life balance, in metropolitan and other urban areas. Also, the various efforts have been conducted through the development of young people and children in their education phase in order to resolve problems in each local community.

2. Evolution of the national spatial plans, land and urban policies

Since 1962, in Japan five Comprehensive National Development Plans (CND Plans) were formulated as a series of integrated and fundamental programs for the use, development, and preservation of the country, the basic philosophy of which was defined as the harmonized development of its regions. After the turn of the century, the law was revised with more emphasis placed on the “use” of existing stock and “preservation,” harmonized with natural environments. Based on the revised law, the first National Spatial Strategy (strategy period: around 10 years) was formulated in 2008, which aimed

at creating a country with six diverse large regions, each one of which will drive growth in a self-sustaining manner. In July 2014, a “Grand Design for National Spatial Policy 2050” was presented as a proposal of principles for designing the country in the longer-term towards 2050, and from the perspective of a new interaction between people and the regions, and the position of Japan in the world,

This Grand Design underlines “diversity,” “connectivity,” and “resilience to natural disasters” and encourages cities and regions to work together with a diversity of stakeholders in designing the regions. It presents a direction for Japan with a shrinking population: consolidating functions people need in their life, including administrative, medical, and social welfare, as well as commerce, into specific areas to achieve higher efficiency, linking cities in networks, so that they will maintain a certain level of agglomeration in a zone, and seeking to structure cities and regions that could generate more value added.

With regard to urban policy, urban areas are required to shift to a “Compact City Structure” that is able to cope with the societal changes and Japan is therefore required to address the challenges of designating some areas that should maintain a certain level of population density, and promoting the enhancement of public transportation and appropriate location of medical, welfare, and commercial facilities. Another important issue is to make use of the lessons learnt from the experiences of Japan in urban planning and management to support countries in Asia to solve problems they will face in urbanization, and to make a contribution to the international community. Real property and cadastral information need to be further collected and compiled based on which land and property policies are formulated. Geographic Information Systems (GIS) and satellite positioning have been in widespread use in policy making in these fields and now these techniques have also come into use in our daily life.

The collection and compilation of a diversity of geospatial information thus needs to be further promoted so that a diversity of geospatial information including that on, among others, medical and welfare services, and shopping can be made available as much as possible as open data, which will lead to upgrading of spatial planning. GIS is expected to contribute to effective regional strategy making, as it will facilitate “visualizing” such information on a common platform.

3. Global warming countermeasures and the development of regions resilient to natural disasters

As for Japan’s greenhouse gas emissions reduction target towards post-2020, the Government of Japan decided at the Global Warming Prevention Headquarters to set Japan’s Intended Nationally Determined Contribution for greenhouse gas emissions at the level of a reduction of 26.0% by FY2030 compared to FY2013 (25.4% compared to FY2005), and submitted it to the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).

To achieve this reduction target, the Government is to develop the Plans for Global Warming Countermeasures as soon as possible in view of the status of agreement on a new international framework at the 21st Conference of the Parties to the UNFCCC. For promoting low carbon use in cities, the Low-Carbon City Act was enacted in 2012.

Japan has geographical characteristics that cause frequent natural disasters. Despite its small proportion of the surface area at only 0.25 percent of the entire earth, some 20

percent of the earthquakes the world experiences with a magnitude of six or larger on the Richter scale occur in Japan, and seven percent of the total number of active volcanoes around the globe are located in its territory. Comprehensive and systematic natural disaster management systems were thereby developed and implemented based on the Disaster Countermeasures Basic Act, leading to less damage caused by natural disasters, before the Great Hanshin-Awaji Earthquake claimed more than 6,400 lives in 1996. In March 2011, the Great East Japan Earthquake took place, leaving more than 18,000 people killed or missing. Thus Japan is working for the reconstruction and rehabilitation of the affected areas as the highest priority at an accelerated pace. For reconstruction and rehabilitation, the government has also announced a policy of creating a “New Tohoku” (northeastern Japan) and developing there a “future society of creativity and opportunities” as a pioneer for the rest of the country and as a model for the world.

Based on the Fundamental Plan for National Resilience formulated in June 2014, the government will work as a single organization in a systematic manner to make the whole country more resilient. In March 2015, Japan will host the Third UN World Conference on Disaster Risk Reduction in Sendai City and will promote the mainstreaming of natural disaster risk reduction through widely sharing Japan’s expertise in this field with the international community.

4. Development of safe and secure regions in collaboration with a variety of stakeholders

In Japan, the national government focuses primarily on the roles it should fulfill itself, while the local governments (prefectures and municipalities) are delegated to provide the inhabitants with as many of the administrative services they need in daily life as possible. Thanks mainly to the increasing proactiveness of local actors brought about administrative decentralization, there are widening opportunities for regions to re-identify their advantages and attractiveness, while another growing concern includes that the progressive demographic shrinking and aging could undermine fragile rural economies. This leads to the need to recognize the greater importance that a variety of private-sector stakeholders should have as major players in regional development, together with local governments.

Along with the weakening of neighborhood communities after the World War II, functions that they used to perform have been transferred to the public administration. Locally-based neighborhood communities have, however, become needed again including residents’ and neighborhood store associations. A renewed concept of an extended “public,” or a “New Public” has been defined as a strategic axis of regional development, and a variety of stakeholders, including NPOs, universities and other educational institutions, and businesses, as well as governments as the statutory “public” will continue working together by maintaining a loose form of cooperation for solving challenges that regional communities are faced with.

There will be a further need to reshape regional communities to enable their residents, especially young people, to learn, work, live, and take on challenges in their communities. There will also be more importance attached to nurturing people who can play central roles in social enterprises that should cooperate closely with regional communities, and to making effective use of information and communications technology (ICT) for solving social problems. With a view to developing safe and secure cities and regions in an aging society, the government is promoting provision of barrier-free facilities and crime

prevention measures in collaboration with communities in the regions.

5. Promoting the economy in cities and regions

In order to bridge the growth of the national economy to the promotion of economic development in individual regions as a place of life for people, the prerequisites are to develop local industries, to create jobs in the regions, and to achieve a positive cycle in the regional economy by creating attractive regions initiated by local actors. Regional development in Japan was defined by the philosophy of harmonized development facing the aggravation of both over-population in large cities and depopulation in the regions during the high economic growth period. A wide range of policies were undertaken to relocate industries by designating core cities in the regions.

After the oil crises, the government continued working to cope with the sophistication of the industrial structure, and carried out a diversity of programs to locate advanced industries in regions. Since the 1980s, the government has pursued more effective measures for regional economic development by encouraging place-based and inclusive regional development and by supporting projects adapted to the needs of the times, other than infrastructure development, through the reevaluation of the resources and assets of each region. Since the turn of the century, industrial cluster plans aiming at innovation and inclusive development have been encouraged by focusing on each region's comparative advantages. Taking into account the recent trend for Japanese companies to return to Japan, the government has promoted job creation and industrial revitalization in the regions by encouraging location of new business establishments in Japan. In addition, to bolster the international competitiveness of the Greater Tokyo Metropolitan area, development of the Special Districts for International Strategies has been undertaken, together with urban renovation projects by mobilizing private sector capital. Today, several years after the Lehman Crisis, regional disparities in the employment situation have become more evident, job creation programs have thereby been supported in close collaboration with industrial policies in the regions. Tourism plays increasingly important roles in maintaining and enhancing the vitality of the regions through a growing number of non-permanent residents from overseas and other regions of Japan. Opportunities of a "stay-and-interact" style of tourism in the regions have been explored by means of "local branding." Regions thereby need to recover their diversity and enhance their own resources for themselves.

6. Maintenance and improvement of housing and basic services

In 2003, the number of houses (54 million units) surpassed that of households (47 million families). With the arrival of a society of low fertility and aging, or a society of a shrinking population and households, the Basic Act for Housing was enacted in 2006 to shift the course of policy from "securing housing in quantity" to "improving housing in quality." The challenges Japan should address today include supplying "Housing with Services for the Elderly," or some other types of houses designed for elderly people to live in comfortably, integrated with the provision of welfare services that they need in daily life, improving housing in terms of energy efficiency, and promoting policies contributing to a low-carbon society.

Amongst the basic services that support our daily life, the coverage of water supply

services reached 97.7 percent in 2013. Some of the water service technologies, such as membrane filtration and leakage prevention, are expected to have a broad range of applications within and outside Japan. The sewerage services are expected to function in the 21st century as the infrastructure that underpins the recycling-oriented society, which encourages regions to be more self-sufficient in their use of water and other resources. For waste management, the “Basic Act on Establishing a Sound Material-Cycle Society,” enacted in 2000, has led Japan to re-examine the type of society and lifestyle based on mass production, mass consumption and mass disposal, and work on the 3Rs (Reduce, Reuse and Recycle). When no option but incineration is available, efforts are made to recover heat for power generation or other purposes and reduce fossil fuel consumption. The Feed-in-Tariff system was introduced in 2012 to oblige electric power suppliers to purchase power produced with renewable energy for a certain period of time at specified prices.

The population is further aging both in urban and rural areas, and so are the housing stock and infrastructure that were built intensively throughout the high economic growth period. Despite the growing budgetary constraints, public and private-sector entities need to work together to maintain and improve housing and basic services in terms of their safety, security, reliability, and quality to meet the fundamental challenges that will ensure the quality of life for people within human settlements.