

## Foreword

Since its inauguration in September 2005, the Planning Section has been studying national planning based on the strong understanding that situations surrounding the national land have undergone drastic changes and that the national planning has also entered a phase of major change as seen in the drastic revision of the Comprehensive National Land Development Act to the National Land Sustainability Plan Act. This report is intended to be an interim report to the National Land Council. The Section will start review work to prepare a final report based on this interim report.

When preparing the report, the Section paid particular attention to the following points.

- ① **National land development to prevent the decreasing population from leading to the degradation of the country:** As the first attempt at national land planning at a time when the population is decreasing, the report presents measures to provide high-quality public services and maintain unique and attractive living environments amid the advance in a decreasing population and an aging society.
- ② **Demonstration of each region's uniqueness in East Asia:** Keeping in mind globalization and the growth of East Asia, the report expands the spatial vision of the plan to East Asia and reviews regions' uniqueness, attractiveness, and their international functions.
- ③ **Mobilization of regional power for regional development:** In order to realize the plan, the report expresses expectations that not only administrations but also different entities, such as local communities, NPOs and corporations, will play a role and cooperate in the intermediate areas between public and private zones, and has positioned this as a "new public."
- ④ **National land consisting of diversified and autonomous wide-area blocs:** As a new image of national land to achieve these, the report shows the direction of the development of a national land structure consisting of diversified and autonomous wide-area blocs and thereby aims to raise public awareness of zones.

## 1. Trend of the Times and Issues in National Land Policies

More than five years have already passed since the turn of the century and the socio-economic conditions surrounding Japan have undergone drastic changes. The "Grand Design for the 21<sup>st</sup> Century" (Cabinet decision in March 1998), the 5<sup>th</sup> comprehensive national development plan, demonstrated major changes in the perception of the times during the transition into the 21<sup>st</sup> century. This includes significant changes in the national consciousness, global age, the decreasing population and the aging society. Thereafter, we have seen major changes not foreseen in the Grand Design, such as the rapid growth of East Asian countries, a faster-than-expected depopulating society, and changes in national life brought about by the spread of the Internet and mobile phones. In order to draft a national land plan for the new age, it is necessary to recognize the trend of the times and issues involved in national land policies.

## **(1) Great changes in the socioeconomic situation**

### **① Decreasing population and the rapidly aging society**

The total population of Japan has been decreasing after hitting a peak of about 127.8 million in 2004 and Japan is expected to enter a depopulating society in earnest. The birthrate in Japan fell to 1.25 in 2005. Even if the birthrate rises to 1.39 (the assumed value for median estimate by the National Institute of Population and Social Security Research) by the year 2050, the population of Japan is estimated to decrease to about 123.2 million in 2020 and to about 98.9 million in 2050. The ratio of elderly, which stood at around 20% in 2005, is estimated to rise close to 30% in 2020 and to about 35% in 2050.

Based on the assumption that the net migration rate<sup>1</sup> from one wide-area bloc to another over the last five years will remain unchanged in the future, it is estimated that the population will increase slightly in metropolitan areas between 2005 and 2020, but that it will decrease in other blocs. If no migration is assumed, all blocs, including metropolitan areas, are expected to see population decreases toward 2020.

The decreasing population and the aging of society are expected to cause a variety of concerns, including how to maintain affluence amid the decreasing size of the population, how to secure goods and services providers amid a decreasing labor force population, a decline in regional vitality, and an increase in single-person elderly households. The government intends to deal with the falling birthrate in a comprehensive manner. Since the decrease in the total population of Japan is unavoidable, it is necessary for the new plan to deal with the problem on the premise of a population decrease.

Therefore, in order to secure stable economic growth and labor force, productivity should be increased through education, training and innovation, human resources should be developed, and employment opportunities for women and the elderly should be expanded. It is also necessary to reinvigorate residents' associations and regional communities and promote local revitalization measures focused on viewpoints of diverse populations other than those of the residential population.

Furthermore, in order to prevent a limitless decrease in population, it is necessary to establish a stable relationship between people and national land through broad-based national discussions on Japan's total population.

### **② Progress of globalization and economic development of East Asia**

Amid the progress of economic globalization, the rapid economic growth of East Asia, and the advance in industrial structure, moves to develop a production network that spans across East Asia, and economic cooperation have picked up momentum. In the 1980s, Japan's major trading partners were the United States and European countries, and they accounted for close to 60% of Japan's exports. But in 2003, Asian countries surpassed the United States and European countries as major importers from Japan. Under the circumstances, Japan needs to

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<sup>1</sup> The number of people moving into a bloc minus the number of people moving out of the bloc divided by the bloc-by-bloc population five years ago.

deepen cooperation with countries around the world, especially with countries in East Asia, and make efforts to deal with common policy issues, including promotion of the conclusion of an economic partnership agreement (EPAs), with a view to forming an economic zone throughout East Asia for the purpose of strengthening the growth potential and competitiveness of Japan and its various regions and thereby securing their relative positions. Due to the economic growth of East Asia, problems common to East Asia are increasing, including environment problems, resources-and-energy problems, and the aging of the population. In fact, demand for energy is expected to increase sharply in East Asia. Since Japan has the potential to contribute to the resolution of these problems with its technology and experience, Japan needs to get involved positively and contribute to the prosperity of East Asia, with the belief that collaboration with East Asia is inevitable.

Furthermore, in order to secure and enhance Japan's presence in East Asia, it is necessary to increase not only its economic strength but also its soft power, including intellectual power, cultural strength, and information dissemination power. To that end, Japan needs to promote education and research and increase transmission of information in order to let people in other countries hear and see Japan's attractions.

At the same time, we need to pay attention to the increased risks resulting from the deepening of mutual interdependence and the rising tensions over maritime interests in neighboring sea areas.

### ③ Advance in information and communication technology

The striking advance in information and communication technology in recent years has rapidly enhanced living conveniences, improved industry's productivity and caused major changes in national life, including person-to-person contact. For instance, the spread of the Internet has produced new services such as Wikipedia<sup>2</sup> and blogs<sup>3</sup>, which are characterized by "user participation," in which anyone can assemble and make use of the knowledge of other Internet participants. These services are also characterized by "open orientation," in which service providers disclose their databases and allow others to use them actively, leading to the integration of diverse knowledge and joint operation of diverse formats.

These developments of information and communication technology are leading toward the realization of ubiquitous networks that enable anyone to access and exchange information of any kind freely at any time from anywhere and from any appliance; and it is expected to have a wide-ranging impact on the national land along with the increased interchangeability brought about by the progress in transportation. Since access to high-quality information is made available even from outlying regions, it is likely to promote the decentralization of industrial locations and the diversification of working styles, such as telework<sup>4</sup>. At the same time, it may

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<sup>2</sup> An online encyclopedia that allows participating users to add new items, add postscripts, or revise content as needed.

<sup>3</sup> Diary-type Web pages operated by individuals or groups of individuals. Since blogs are equipped with bulletin-board functions and automatic link functions, readers can follow the flow of discussions, making it possible to form communities by type of interest and topics.

<sup>4</sup> A way of working by utilizing IT technology without being constrained by place and time.

accelerate the concentration of intellectual production activities. The progress in geospatial information technology, like the geographical information system (GIS), and the progress in electronic tag and network robot technologies utilizing ubiquitous networks are likely to play complementary roles in various fields for the depopulating and aging society. This includes disaster prevention, security, and medical and nursing care, and will lead to the enhancement of national land infrastructures. From the perspective of national land policy, the progress in IT technology should be positively utilized in regional development, activation of exchanges, and national land management.

## **(2) Changes and diversification of the public's sense of value**

### **① Rising national awareness of safety and security, environment, beauty, and culture**

In recent years, the public's awareness of safety and security has increased against the background of frequent natural disasters and accidents, outbreaks of infectious diseases, and a series of horrible crimes. Progress in global warming is expected to cause far-reaching impacts, such as more frequent abnormal weather (e.g., rises in temperature and sea level, floods and high tide water, and drought). The national land structure of Japan is extremely vulnerable to natural disasters. In recent years, in particular, the increase in heavily rainy days has tended to cause frequent disasters and extensive damage. Japan is one of the largest volcanic countries in the world and is prone to earthquakes, thus raising concerns that great earthquakes, such as a Tokai earthquake, Tonan-kai earthquake, and inland earthquake in a metropolitan area, and tsunami may occur any time.

There is also concern that the shortage of resources and energy would become serious as the world population and economy are expected to continue to increase. At the same time, various problems have become evident, including degradation of ecosystems and increased loads on the national land and the global environment caused by economic and social activities. Against this background, public interest in environmental problems has increased, including prevention of global warming, creation of a cyclical society, and preservation and recovery of the natural environment. Amid the public's increased awareness toward seeking comfort, relaxation, and spiritual wealth, their desire for beautiful scenery, culture, and arts has become stronger than ever.

While investment for maintaining and improving the existing national land infrastructure is expected to increase, it is necessary to enhance preparations to cope with the qualitative change of natural disasters by combining hardware and software and strive for measures against environmental problems and creation of good landscape.

### **② Diversification of lifestyle, growth of entities performing the role of "the public"**

The diversification of the public's sense of value and an increase in disposable time over one's lifetime have made it possible for people to choose from diverse lifestyles. This has been leading to the diversification of working styles like telework and the diversification of living styles, such as a big-city dweller moving their residence to a local or rural area. In post-war

Japan, the number of nuclear families and single-person households of young people increased in the process of urbanization. But in recent years, we have seen a tendency for parents and their children to live in close proximity to each other in order to provide nursing care and child bearing, along with the progress in the diversification of family patterns, such as an increase of single-person elderly households. Moreover, there are moves among the people to have multiple jobs, enjoy multiple enrichment lessons and research activities, and to have “residences in two areas.” From the perspective of national land policy, it is necessary to realize a multiple-choice society that allows diverse ways of working, living, and learning, while focusing on nurturing self-sufficiency and diverse exchanges to reduce constraints imposed by regional differences. It is also necessary to lead the city-dwellers’ moves to rural areas to revitalize local areas.

As a result of the maturization of society, increased public awareness of social contribution, and the diversification of the public’s sense of value, etc., a wider range of “public” roles has come to be played by a variety of entities other than administrations, such as NPOs and corporations. By taking advantage of this movement, individuals and corporations’ awareness of social contribution should be further raised and entities engaged in national land development, such as the revitalization of regional communities and management of national land, should be further developed.

### **(3) National land situation**

#### **① Current status of unipolar, uniaxial national land structure**

Japan has been structured in a unipolar, uniaxial way that has led to a concentration of population and function on the Pacific belt, mainly in Tokyo. Under the circumstances, Japan has had a variety of problems, including progress in depopulation, delay in the improvement of living environments in big cities, and the national land’s vulnerability to disasters. With the aim of correcting the national land structure, the government worked out comprehensive national development plans and promoted the establishment of high-speed transportation systems and decentralization of factories and educational institutions under the concept of a balanced development of the national land. These efforts achieved some positive results, such as a decrease in the number of excessive internal migration into the Tokyo metropolitan area and the narrowing of regional income disparities. At the same time, however, they resulted in a standardized allocation of resources and robbed the regions of their individuality.

On the other hand, amid drastic changes in economic and social situations, such as the advent of a full-scale aging society and the economic development of East Asia, Japan needs to develop a new growth strategy to overcome the decreasing population. To that end, it is necessary to promote a strategic investment for enhancing the quality of the obsolete national land infrastructure and strengthening international competitiveness, while utilizing and strengthening the concentrations of cities and industries as the engine to support economic growth.

Since a net inflow of population into the Tokyo metropolitan area has been continuing, it is

necessary to pay close attention to the recent trends in regional disparities among wide-area blocs and prefectures. Attention should also be paid to regional disparities within wide-area blocs and prefectures. Local small and medium-sized towns and hilly and mountainous areas are losing their regional vitality and facing the difficulty of maintaining various social services amid a rapidly decreasing and aging population. Moreover, there are concerns that regional communities could be debilitated and that rural areas with long histories could be weakened or cease to exist. Under the circumstances, in order to promote regional independence, it is necessary to develop new regional development models.

### **② Progress in the environment for regional independence and increase of problems beyond prefectural boundaries**

Meanwhile, decentralization, municipal mergers, and the progress in regulatory reform have strengthened regional communities' power to take initiative in decision-making and, as described earlier, have been contributing to the establishment of the environment for regional independence, such as an increase in opportunity for direct exchanges brought about by the economic growth of East Asia, diversification of people's lifestyles and advances in information and communication technology.

Each wide-area bloc has accumulated population and industries on par with those in mid-size European countries, and each has seen the growth of central urban communities and progress in the establishment of basic public facilities. Therefore, each wide-area bloc has the potential to enhance its international competitiveness through competition and cooperation with neighboring East Asian countries and has a clear regional identity. Moreover, the importance of promoting measures in units of wide-area blocs has increased along with challenges that must be addressed from a wide-area perspective beyond prefectural boundaries. This includes strategic development of international physical distribution and high-speed transportation systems in response to wider economic activities, measures for underpopulated areas and hilly and mountainous areas in prefectural boundaries, measures against major earthquakes, and establishment of broad scenic routes to appeal to tourists from East Asian countries.

### **③ Necessity of restructuring ideal relationship between people and national land on the basis of decreasing population**

Since the dawn of history, people who lived on the Japanese archipelago prepared themselves for severe natural conditions and took various measures on their land in accordance with the changes of the times. Their efforts resulted in the development of farmlands and hamlets, leading to the creation of rural areas and cities. Then the accumulation of industries and transportation facilities, etc. made progress. The scenery and nature surrounding us have been mostly formed by the work of such people. Meanwhile, Japan's own culture and tradition have been nurtured and its regional identity has been cultivated. As a result, various accumulations that form the national land have increased to a considerable

extent. However, since some of them have been accumulated primarily for the purpose of satisfying quantitative requirements in response to the needs of the times, such as rapid economic growth periods, they now need to be improved not only from the perspective of strengthening international competitiveness and promoting regional independence but also from the aspect of disaster prevention and harmony with nature.

The current century offers a good opportunity to restructure an ideal relationship between people and national land as the decreasing population has made it easier to utilize national land. Based on the accumulations made so far, it is important to create a safe and attractive national land by striving to correct the distortion of the national land, enhance its quality, and reduce environment loads—efforts that would have been difficult during the period of population increase and high economic growth. Through these efforts, Japan should appeal to the world with its inherent attractions, such as beautiful rural scenery and clear and safe urban cities, and strive to create a beautiful, trusted, and functional “Japanese brand of national land” where everyone wants to live or visit. To this end, Japan should give importance to the concept of overall management of national land (broadly defined management) ranging from investment to maintenance and control, and recycling.

Considering the current status of the national land and its problems and with the trend of the new age in mind, Japan should strive to create a national land structure for the new age in order to correct the unipolar, uniaxial national land structure.

## **2. New National Land Image**

### **(1) Direction of the development of national land structure**

Under this plan, using the changes in environment described earlier as a stepping stone, Wide-Area Regional Plan Districts should, as a unit, strive to transform the national land structure into one in which each bloc does not rely too much on Tokyo for various functions; and they should draw up a distinctive regional strategy to use its resources to the full with a view to competing and cooperating with other areas in East Asia. Mutual interaction and cooperation among these diversely characterized blocs, such as blocs that have metropolitan areas, blocs blessed with rich natural environments, and blocs facing the Sea of Japan or the Pacific Ocean, will generate synergistic effects on the formation of a vibrant national land.

When doing so, each bloc should strive to create a safe and beautiful national land as described earlier by correcting the distortion of national land, enhancing its quality, and reducing environment loads (national land in which diverse wide-area blocs develop independently).

Within each wide-area bloc, urban cities and industries that could become growth engines for the bloc should be strengthened and each region within the bloc needs to ensure stable economic growth by exerting its diverse regional characteristics rooted in its own culture, tradition and natural conditions. It is also necessary to maintain regional vitality by creating comfortable and sustainable living areas.

A favorable direction for the future of Japan is to increase “the depth of the country” commensurate with its maturity by creating a national land structure comprised of independent wide-area blocs that have different characteristics and by having diversity on its land to allow flexible responses to various changes at home and abroad. It is also necessary for the Tokyo metropolitan area, where the composition ratio of people born and raised in Tokyo has increased, from the perspective of securing its originality and vitality through the dynamism of transfers and exchanges with diverse areas at home and abroad.

Striving for such a national land will contribute to the independent development of wide-area blocs and this in turn will contribute to the development of our country as a whole, leading to the achievement of a well-balanced development of the national land to meet the needs of the new age.

Furthermore, in pursuit of “national land open to Asia,” we envisage the creation of an “East Asian exchange belt,” a broad exchange zone extending about 7,000 miles from Far East Russia to Southeast Asia, by promoting exchanges and cooperation between each wide-area bloc and Asia.

To that end, based on the understanding that the prosperity of East Asia will lead to the growth of Japan, it is necessary to strive to transform the national land structure with East Asia in mind, including the promotion of wide-ranging efforts to utilize the Pacific Ocean and the Sea of Japan, the two oceans that have increased in importance.

These efforts will expand people’s spatial vision of national land from a municipal area to a wider living area, from a prefectural area to a wider bloc, and from Japanese national land to East Asia.

When promoting exchanges and cooperation among wide-area blocs and between each bloc and East Asian regions, it is necessary to pay attention not only to the form of the connections and accumulation of economic activities but also to distinctive characteristics like climate. These contiguous connections between wide-area blocs are in line with the concept of “national axis zone” in the “Grand Design for the 21<sup>st</sup> Century” aiming at forming a multi-axial national land structure that shares climatic characteristics, historical experience of exchanges, and geographical features in the Asian Pacific region.

As to the relocation of the Diet and Other Organization (relocation of Capital function 1), since the matter is being studied by the Diet, it is necessary to take actions based on the direction of the study.

## **(2) Support for the promotion of independence of wide-area blocs**

The latest law revision has institutionalized the formulation of wide-area regional plans in addition to national plans with the aim of creating visions for wide-area blocs through cooperation between the national and local governments. In developing wide-area regional



plans, if the Ministry of Land, Infrastructure and Transport, relevant local offices of the central government, local public bodies, and local businesses collaborate under an appropriate role-sharing, it is expected to lead to the creation of characteristic regional communities. It is also significant to promote sharing common awareness of broad-based facilities through the process of drafting plans. To this end, each wide-area bloc should conduct broad-based and cross-cutting studies with regard to ① its position in the national land and the manifestation of its uniqueness in East Asia, ② cooperation among urban cities and regions within each bloc on the basis of each bloc's characteristics, ③ independent countermeasures against nation-wide problems, ④ measures to resolve problems peculiar to each bloc, and ⑤ focused and selective mobilization of resources based on its independent regional strategy.

In national planning, we should give the direction of national land development that forms the basis of wide-area regional plans and present common problems to be addressed by each bloc, while placing emphasis on each bloc's independence. Moreover, from a national standpoint, expectations on each bloc and the necessity of cooperation among blocs should be made known, as we try to understand the germination of studies on original strategies to be developed by each bloc. The Planning Section, for its part, intends to deepen its consideration of the matters in order to work out a final report.

In order to promote the formation of independent wide-area blocs and to implement measures necessary from the standpoint of national strategy, the national government is required to study and establish support frameworks, such as support for focused measures to strengthen international competitiveness based on wide-area regional plans, support for an efficient and effective realization of regional strategies, and development of the environment for regional competitions in wisdom, ingenuity, and so on.

It is also necessary for the national government to continue to provide support to areas in disadvantageous positions in terms of geographic, natural, and social conditions on the basis of each area's conditions. When doing so, the national government should study appropriate support measures to respond to the needs of each area.

### **3. Aims of the Plan and Strategic Efforts**

In order to respond to the above national land policy problems and realize the new national land image based on awareness of the problem described in the "Introduction," it is necessary to implement measures steadily on the basis of this plan. We have only 10–15 years before the loads of decreasing population and an aging society begin to have full impact on the socioeconomy. Meanwhile, during this period of 10–15 years, the baby-boom generation that has led the Japanese lifestyle enters the 60–75 age group and the generation is expected to continue to play an important role in society. Therefore, without losing this opportunity, the new plan should present the following strategic measures to show the direction of or the steppingstone to the time ahead.

### **[Formation of national land to deal with globalization and decreasing population]**

It is necessary to promote stable economic growth in each wide-area bloc and maintain the vitality and diversity of each area within the bloc by creating national land in which diverse wide-area blocs evolve independently.

To that end, it is necessary to first deepen the relationship between each wide-area bloc and East Asian regions and promote the improvement of infrastructure with the aim of incorporating East Asia's growth dynamism ((1) Realization of a seamless Asia). Second, amid the decreasing population and advancing aging society, it is necessary to restructure urban-area structures, revitalize industries, and promote inter-regional exchanges so that each area within a bloc, from urban cities to rural areas, will be maintained as a living base without losing its vitality and individual characteristic ((2) Creation of sustainable areas).

### **[Restructuring and preservation of a safe and beautiful national land]**

Meanwhile, we have to restructure a safe and beautiful national land by utilizing surplus national land made available by the decreasing population. We must then maintain and preserve it for the next generation, while promoting the creation of independent national land. To that end, third, it is necessary to enhance preparations for disasters both in terms of hardware and software and to promote efforts to make the whole national land structure safe against disasters ((3) Creation of a disaster-resistant and flexible national land). Fourth, it is necessary to develop a sustainable and beautiful national land by promoting national land management focused on cycling and symbiosis ((4) Management and nourishment of a beautiful national land).

### **[Regional development by “new public”]**

When promoting strategic efforts to achieve the above four aims, it is necessary to have a cross-cutting perspective of promoting cooperation between administrations and diverse private entities, including local communities and enterprises, by taking into account the diversification of the public's sense of value and the growth of NPOs.

#### **(1) Realization of a seamless Asia**

As the interdependent relationship between Japan and other East Asian countries has further deepened, it is necessary for Japan to strive for co-prosperity with East Asian countries by strengthening exchanges and cooperation in various fields, while keeping in mind Japan's competitive relationship with them.

It is therefore important to develop an infrastructure for that purpose.

For instance, in the field of transportation, we see a big change in transportation network structures in line with the economic development of neighboring countries, such as increased maritime container transportation for North America by way of the Japan Sea instead of by way of the conventional three major ports on the Pacific side of Japan, a sharp increase in the average growth rate of foreign-trade container volumes handled by ports along the coast of the Japan Sea in the past 10 years (three times faster than the national average), and a sharp

increase in the number of international airline passengers handled by prefectures along the Japan Sea (twice as many as the national average).

In the meantime, neighboring East Asian countries that are linked by land routes have been strengthening their solidarity through promotion of the Asian Highway project and Trans-Asia Railway project, etc. Japan lags behind them in terms of securing the continuity and interchangeability of traffic networks in East Asia.

In order to support exchanges and cooperation between Japan and neighboring East Asian countries, it is necessary to realize a seamless Asia for the faster and smoother flow of people, goods, and information in East Asia.

### **① Strengthening Japanese industries under an industrial structure based on an East Asian network**

The increase in Japanese corporations' active direct investment in East Asia, though it once raised concerns about the hollowing out of domestic industry, has created a virtuous cycle for the Japanese economy as a whole, as it has increased Japan's exports and produced investment income. In order to further activate these moves and grow while competing and cooperating with East Asia, it is necessary for Japan to position its national land development in an East Asian type of industrial structure and strengthen industrial competitiveness.

In order for each wide-area bloc to develop independently, it is important to continue to provide internationally competitive products, technology, and services and to transmit new value to the world by making the best use of its regional resources. Meanwhile, it is important to have the perspective of directly competing and cooperating with foreign countries. To that end, it is necessary to strengthen intellectual and industrial clusters by utilizing the population, industries, and R&D facilities accumulated in major cities and improving related facilities, and to enhance international competitiveness by revitalizing systems for producing innovations through science and technology, such as strengthening two-way communications between research and market. These efforts should lead to the growth and development of advanced industries like fuel batteries, next-generation intelligent robots and various contents such as movies, animations, and digitalized archives, as well as new industries for biotechnology, recycling, and other services.

Japan has many small and medium-sized enterprises that have creative and advanced technologies and that enjoy high shares of the world market. In addition, Japan has a wide range of parts industry and material industry that have advanced manufacturing technologies and that support the highly competitive automobile and information appliance industries. With this in mind, it is necessary to strengthen the small and medium-sized enterprises that have basic manufacturing technologies, or the source of the strength of Japanese manufacturing industries.

As to the construction industry having advanced technology and know-how and contributing to the development of infrastructures abroad, it is necessary to shake off the industry's over-reliance on domestic construction demand by promoting overseas operations,

considering that East Asian countries have a strong construction demand.

In order to invite investment from abroad, the international competitiveness of each wide-area bloc needs to be enhanced by improving international business and living environments. In order to promote investment from abroad, the government needs to accelerate its studies on regulatory reform and tax systems.

## **② Promotion of exchanges and cooperation with East Asia**

Japan needs to strengthen partnerships with neighboring East Asian countries in order to address challenges facing them, including environment problems such as pollution and waste disposal, resources and energy problems, marine contamination problems caused by wreckage, city problems caused by rapid urbanization, and disaster prevention. As a platform to cope with the common issues by utilizing the technological expertise and experiences of Japan, a new government-to-government framework may be established.

In order to keep getting attention and gaining understanding from other countries around the world, including those in Asia, it is necessary to have not only economic power but also soft power, such as intellectual capability, cultural power and information-transmission capability. From this standpoint, it is important to actively transmit Japan-originated content and products, such as movies, animations, games, food culture, and fashion, and deepen the public's understanding of the cultural capability of Japan by increasing the number of visitors from East Asia through the promotion of tourism.

Furthermore, in order to develop human resources at home and abroad for supporting cooperation in East Asia, it is necessary to foster young people equipped with English proficiency, English presentation skills, and the planning and management abilities required in specialized fields and the international community, and to develop intensive exchange networks at multiple levels in order to increase the number of students to Japan and facilitate interchanges by providing increased opportunities to learn Japan and the Japanese language.

Incidentally, in order to facilitate exchanges and cooperation in various fields, it is important to post signs at public facilities not only in English but also in Asian languages.

## **③ Creation of national land infrastructure to support a seamless Asia**

In order for Japan, which has an edge in technical capabilities in such fields of industry, energy, and environment, as well as in cultural capability, to lead integrated and sustainable economic development in East Asia, it is necessary to continue to play its function as an international transportation base linking Asia and the rest of the world as part of the Asian Gateway Vision. It is also necessary to strategically form comprehensive sea-air transportation system in Asia at multiple levels by expanding the function of the international transportation base directly linking the wide-area blocs in Japan and neighboring Asian countries. Strengthening Japan's international transportation and communication networks and resolving cross-border issues with neighboring countries are pressing issues.

Amid the on-going moves to institutionalize intra-Asia transportation and communications,

where people, goods, and information are exchanged closely and frequently as in the European continent, it is necessary to continue to expand the “one-day activity zone in East Asia” as proposed in the “Grand Design for the 21<sup>st</sup> Century.” In addition, it is necessary to promote the realization of a “daytrip business zone” so that, for example, a businessman can come home the same day that he has finished work in an East Asian country, a “overnight freight delivery zone.” Here, great amounts of goods and semi-finished goods produced at various production bases under the international division of labor can be transported speedily by using high-speed marine transportation in the Japan Sea. This will work toward realizing a seamless Asia as symbolized by the “Asia Broadband Environment” that enables anyone to access and exchange information freely at any time from anywhere.

#### **[Promotion of the formation of daytrip business zone]**

When forming a daytrip business zone centering on Japan, the wide-area blocs in Japan, based on their strategic judgment and under agreements with parties concerned, should strive to improve airline route networks by expanding the functions of airports as wide-area bloc gateways in a selective and concentrated manner while at the same time considering utilizing existing infrastructures, and by raising passenger transportation demand in wide-area blocs.

The wide-area bloc gateways need to be efficiently and smoothly connected with major regional traffic routes by carrying out focused improvement of access routes to airports, such as roads and railways. When doing so, it is important to apply the concept of universal design to the networks, including access traffic, so that they can be “freely and easily used by anyone from anywhere. It is also hoped that high-quality travel support services will be provided, including information on speedy customs, immigration and quarantine procedures, travel information, and a broadband environment.

In particular, in metropolitan areas where huge demand for flights to Asian countries already exists, it is necessary to intensively expand airport capacity and promote networking of speedier CIQ procedures in order to expand their functions as seamless wide-area bloc gateways in addition to their functions as international transportation bases linking Asia to the rest of the world.

#### **[Promotion of the formation of overnight freight delivery zone]**

International physical distribution requires the same level of services as those of domestic physical distribution in terms of reliability, delivery speed, and transportation frequency. Therefore, when forming overnight freight delivery zones, it is necessary to appropriately locate international harbors that can function as wide-area bloc gateways and establish land-sea-and-air transport networks for the speedy and smooth handling of international cargoes. With this, the whole areas of each wide-area blocs can enjoy the merits of multimodal transportation services that make full use of high-speed marine transportation, such as international ferries and roll-on roll-out ships, and air cargo transportation.

In international harbors, in order to support the formation of high-speed marine transport

networks with specific East Asia harbors that have a strong demand for cargo transportation via the Japan Sea as partners of wide-area blocs, it is necessary to strategically and intensively strengthen intermodal transportation functions with terminals for international ferries and roll-on roll-out ships and with major regional traffic networks, enhance the logistics functions of physical distribution facilities, and promote 24-hour operations and mutual cooperation between terminals.

At the same time, in order to reduce costs at these international harbors and enhance their services, the pioneering projects being undertaken by super-core harbors should be utilized, and the networking of systems should be promoted by simplifying and making export-import and harbor procedures more efficient.

### **[Promotion of the formation of the Asia Broadband Environment]**

The domestic information and communication infrastructures in some of the Asian countries are at an early stage of development. Therefore, when forming a pan-Asia information and communication infrastructure with the aim of developing the Asia broadband environment, it is necessary to promote spreading to such countries as Japan's advanced models in the fields of information and communications. This includes cooperation and support to promote the spread of IPv6<sup>5</sup> and developing technologies for digitalizing archives of Asia's main cultural assets and for machine translation of major Asian languages, in addition to developing the network infrastructures and IP networks that form the basis of broadband, under the cooperation of Asian government agencies, private corporations at home and abroad, NPOs and international organizations, and in accordance with the actual situation in each country.

### **[Sharing of common policies with neighboring East Asian countries]**

In order to form daytrip business zones, overnight freight delivery zones, and transportation and communications networks supporting the Asia broadband environment on a pan-Asia scale, it is necessary for East Asian countries to work together to effectively develop their domestic transportation networks constituting pan-Asia transportation networks, such as Asia Highway, and to dissolve cross-border issues, including interruption of transportation infrastructures at border areas, regulation and intervention on marine transportation, and differences in structure and safety standards of equipment, facilities, and systems for transportation and communications.

To this end, East Asian countries, under encouragement and technical cooperation from Japan, need to develop systematic transportation and information/communications infrastructures and address cross-border issues, such as international standardization of various ITS technologies, simplification of customs clearance procedures for containers, formation of safe and efficient international intermodal environments through improvement of the interoperability of transportation equipment and utilization of electronic tags, standardization

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<sup>5</sup> IPv6 is an abbreviation of Internet Protocol version 6. It is the next generation version of the Internet protocol and has increased address space, allowing an almost unlimited number of terminals to be directly connected with the Internet. It also has improved data security.

of information and telecommunications equipment like mobile phone networks, and liberalization of marine transportation. It is also important to promote the establishment of a base for common policies on developing and sharing a traffic-related database.

## **(2) Creation of sustainable areas**

In order to develop sustainable areas and revitalize industries at a time when the country's population is decreasing, it is necessary to shift from the way of building infrastructure in line with the expansion of urban cities resulting from the population increase to the way of promoting cooperation and structural changes of urban cities in line with the existing infrastructure, while striving to correct the diffusive urban structure. It is important to develop livelihood zones that allow diverse ways of working, living, and learning and where many people, young and old, can lead secure lives. It is also important to encourage efforts focused on value available only in each area, such as revitalization of industries by making use of resources peculiar to the regions and re-evaluation of various functions of rural areas, and promote the accumulation of human resources and inter-area personal exchanges and cooperation.

### **① Formation of sustainable and comfortable urban areas**

Reflecting changes in lifestyles and industrial structure brought about by the progress in motorization, people's living activities and corporate activities have become extensive, and urban areas consisting of hub cities and surrounding areas, including hilly and mountainous areas, a dependence on the hub cities has been formed. In the process, city functions have been dispersed in a disorderly fashion and many of the central cities that had been nurtured by histories have become seriously hollowed out.

With the total population of Japan beginning to decrease, though the number of households is expected to increase for some time to come, the population decrease is expected to accelerate, with the exception of some areas. This trend is evident especially in areas far from hub cities. The decrease in population and the rapidly aging population may potentially lead to a shortage of labor force, a decrease in tax revenue and an increase in the social security burden. There is a fear that such a situation would cause various problems, including devastation of city centers due to disorderly dispersal of city functions and increases in idle land and abandoned houses, decline in the efficiency of public services, rises in administrative and maintenance costs of public facilities, and increased burdens on the environment caused by urban activities. On the other hand, people's desire to live in highly convenient inner cities or central cities has been increasing. Therefore, we have a rare opportunity to create an environment where people, both residents and visitors, can enjoy amenities in life.

With this background in mind, cities should aim to become comfortable places to live, with rich vitality and attractions that are supported by their unique climate and culture. To this end, it is necessary to regenerate high-quality cities by developing pleasant environments rich in water and greenery based on the idea of universal design, while making use of private-sector

vitality and regions' initiatives and ingenuity. Moreover, in order to enhance the sustainability of urban area as one unit, it is necessary to develop a broad-based network through coordination of the maintenance of hub cities and groups of cities and regions.

### **[Efficient use of national land through transformation into an intensive urban structure]**

In order to use national land efficiently and from the perspectives of ensuring accessible urban functions for the elderly and reducing carbon dioxide emissions, it is desirable to transform the urban structure from a dispersed structure into an intensive structure in which it is comfortable to live. In areas with heavy snowfall, there are already moves to shift to the intensive structure in order to reduce the labor and cost required for snow removal. Toward the realization of such intensive urban structures, it is necessary to lend intensive support to efforts to accumulate urban functions in central cities, and in order to support intensive location of urban functions, it is necessary to promote efforts based on a comprehensive transportation strategy for hardware and software development undertaken by local public bodies and public transportation operators in an integrated manner. Specifically, it is necessary to construct smooth and flexible urban transportation systems, ensure public access to broad-based urban functions and enhance the efficiency of inner-city physical distribution through promotion of the introduction of a joint delivery system by implementing such measures as the introduction of light rail transit (next-generation streetcar system), enhancement of the connection functions of mass transit and motor traffic, and establishment of a transit mall (type of exclusive right-of-way reserved for transit vehicles and pedestrian traffic), in addition to improvement of the existing mass transit. Furthermore, in addition to restricting urban development in suburban areas and promoting the effective use of tracts of land that have not been fully utilized in urban areas, it is necessary to study measures for broad-based use of national land, including farming communities that have mutually complementary relationships with cities, such as response to the degeneration of urban areas and regeneration of a natural and rural environment.

From the aspect of environment, it is important to enhance the quality of life and the value of regional land by creating beautiful scenery rich in water and greenery that are formed through rejuvenation of nature and reconstruction of hydrologic circulation. It is also important to promote moves to develop cities, where people can live on foot without relying too much on automobiles, and create environment- and eco-friendly regions and urban structures. From the aspect of safety and security, it is necessary to lead to safe utilization of national land progressively, while promoting the establishment of disaster-prevention facilities and the maintenance and renewal of such facilities.

### **[Ensuring comfortable living in urban areas]**

From the aspect of livability, in order to maintain high-level services in urban areas, such as advanced medical treatment, it is necessary to make broad-based arrangements crossing municipal boundaries, while taking into account the appropriate size of population and arrival



time via public transportation. This is also important from the perspective of regional revitalization. Although municipal areas have expanded due to recent mergers of municipalities, the perspective of broad-based response crossing municipal boundaries is still required. As to various services for daily living to diverse households, such as solitary old people in elderly households, married couples with small children, and foreign residents, the spirit of mutual assistance by diverse entities, such as regional communities and NPOs should be restored and promoted. It is hoped that these entities will be further involved in such fields as crime prevention, disaster prevention, and city development.

Since urban transportation is closely related to urban structure and land use, it is necessary to study a future image of cities and urban transportation measures necessary for the realization of imaged cities in an integrated manner. In particular, we need to take the perspective of ensuring everyday transportation means for the elderly as we deepen our consideration of public transportation systems in local cities, where stable operation of the systems has become increasingly difficult, and in the areas including these cities.

Since housing is not only a place for individuals' private lives but also an important factor for creating prosperous regional communities, it is an asset to have social character. Therefore, it is necessary to enhance the quality of life in one's dwelling, including the surrounding environment such as by creating good scenery, while at the same time enhancing the quality of housing in terms of quake resistance and environment friendliness. Given that environmental constraints are expected to increase further in the future, it is essential to form highly durable housing stocks and pass them down to future generations as assets of the society as a whole.

As to areas with historical buildings, traditional streetscapes, or good natural sceneries, it is necessary not only to preserve them well from the perspective of fostering attachment to the areas and making them more attractive but also to create more beautiful and distinctive sceneries by forming a regional consensus.

### **[Response to problems peculiar to metropolitan areas]**

As to metropolitan areas, the improvement of urban infrastructure should be promoted strategically by utilizing the vast accumulation of population, industry, and national land infrastructure crossing municipal boundaries, while keeping in mind the competition for accumulation of functions with East Asian cities. It is necessary to address problems peculiar to metropolitan areas, departing from the conventional policy of preventing an excessive concentration on already urbanized areas.

Specifically, it is necessary to implement measures to develop an environment in which internationally competitive industries can thrive, such as redevelopment of affluent spaces, alleviation of traffic congestion and improvement of physical distribution systems, in addition to resolution of the negative legacy of the high economic growth period. Since major cities in metropolitan areas are representing Japan in the world, it is necessary to make constant efforts to renew city functions to prevent them from becoming obsolete and give due consideration to city function accumulation, scenery, and universal designs to enhance their attractiveness. It's

desirable to promote urban development with a view to making it possible to invite a large number of people from abroad for sightseeing, business, or big events. Also, measures against disasters need to be taken based on the accumulation of population, assets, and advanced pivotal functions.

In recent years, we have seen a population return to inner cities and a decrease of population in suburban areas. Since abandoned houses and vacant lots are feared to increase in disadvantaged housing districts in suburban areas that have played a role as bedroom communities for metropolitan areas, it is necessary to promote restructuring of broad-based land use. From the aspect of the environment, it is also necessary to take measures, such as preservation, restoration, and creation of a natural environment, reconstruction of zero-garbage cities, and securing sea-level treatment plants in addition to measures against the heat island phenomenon.

While keeping in mind that expenses for the maintenance and renewal of urban infrastructures are expected to increase sharply, we should further increase our awareness of enhancing the quality of urban infrastructure and take heed of the importance of collaboration among relevant local public bodies.

## **② Revitalization of industries by making use of regional resources**

In order to create a stable living environment, it is essential to revitalize industries as well as to take measures from the aspect of livelihood. Changing industrial structure is always required in accordance with changes in the times. But in order to increase the added value and productivity of industry through regional self-help efforts under financial constraints, it is essential to mobilize all regional resources, such as climatic distinctions and economic and human resources, and promote efforts for the creation of industry and employment by making use of regional characteristics. The accumulation of these voluntary and independent efforts by regions leads to the development of blocs as a whole and to the formation of independent wide-area blocs. When doing so, it is important to have the viewpoint of ensuring the harmony of life and nature by utilizing regions' distinctive culture and resources.

To that end, it is necessary to promote effective land use, including development of infrastructures, such as land-sea-air physical distribution infrastructures that are necessary to invite vibrant corporations, and utilization of the industrial complexes that have already been developed. Through the promotion of industrial location policies to contribute to the rationalization of globalized industrial activities, it is necessary to promote the formation of intellectual and industrial clusters and implement growth and revitalization strategies for distinctive industries. It is also necessary to attach importance to the creation of industries with high regional needs, such as medical and welfare services and environmental businesses, in addition to new industries, such as biotechnology.

Since universities are not only important intellectual and human resources but also gathering places for students and young people, it is necessary to promote the development of broad-based education and research and develop communities to return the results of

education and research, such as the creation of new industries through industry-academic-government collaborations, to regions with centers of knowledge, such as universities, forming the core of such communities.

As to industries closely related to regional economy and employment, such as local industries, tourism, agriculture, forestry and fisheries, and construction industries, they need to be revitalized in order to make the regional economy robust. In doing so, regional brands should be strengthened and fostered by utilizing not only Japan's world-class culture and art but also its natural environment, scenery, industrial technology, industrial facilities and assets, and sports. Looking ahead to future market trends, it is important to take the following measures.

Local small and medium-sized enterprises should be revitalized by supporting efforts to develop marketable new products making use of regional resources, such as local technology and primary products. In doing so, it is important to utilize traditional handicraftsmen in order to promote revitalization from the perspective of entering different industries. Such efforts would lead to increasing the attraction of the region. Since tourism is closely related to regional resources, conventional sightseeing areas should be revitalized as internationally competitive tourist areas equipped with world-class attractions; and original styles of tourism should be created by taking advantage of regional attractions in response to changes in market needs. Since there are many promising tourism resources especially in prefecture border areas and in areas covering more than one wide-area bloc, it is important to promote tourism from the perspective of inter-regional or inter-bloc cooperation. As to the construction industry, which has propped up local employment as the key local industry, it is necessary to promote its recovery by establishing an environment in which enterprises that have technical and undertaking capabilities can thrive through fair-market competition, while keeping changes in market environments in mind. Furthermore, the industry's potential should be utilized in regional development to meet diverse needs in various fields, including agriculture, by making use of the various technologies/know-how and the knowledge on regional resources that the industry has cultivated so far.

The revitalization of regional industries will stimulate the supply of young human resources from big cities to wide-area blocs and this in turn will help the blocs become independent.

It is also necessary to further promote the utilization of human resources abroad, such as excellent researchers and engineers.

### **③ Formation of beautiful and comfortable rural areas and new development of the agriculture, forestry and fisheries industry**

Rural areas have a variety of functions. They are places for production for the agriculture, forestry and fisheries industry and living places for local residents. They are also places visited by tourists. In rural areas, production activities are being performed by cleverly making use of nature. Rural areas are in close contact with the life of the residents. The production activities, the status of land use, and residents' lifestyles are all combined to make the rural areas more

attractive. In rural areas, it is necessary to maintain harmony between the natural environment on the one hand and production infrastructures and living environments on the other hand. For this reason, it is necessary to form beautiful, comfortable rural areas by developing an eco-friendly production infrastructure and living environment in an integrated manner and by promoting efforts to maintain and recover beautiful scenery. It is also necessary to create rural communities by promoting the sharing of functions and cooperation with cities, such as a stable supply of food and lumber, comfortable residential environment, rich natural environment, distinctive regional scenery, and traditional culture.

The vitality of rural areas had declined on the whole as seen in the progress of depopulation and the aging population as well as the sluggish performance of regional industries. However, some rural areas have revitalized their economies by making maximum use of regional resources and adopting innovative regional strategies without being constrained by stereotype and existing frameworks. So, it is necessary for the regions to strive to get back on their feet by taking action in cooperation with businesses and through their creative ingenuity and efforts based on their diverse attractions and value. It is also necessary to change direction toward the revitalization of the regions as a whole through their friendly competition. When doing so, it is important to utilize human resources outside the regions. For instance, in order to give young people who were born and raised in cities and are interested in rural areas a chance to engage in farming, forestry work or fishing, it would be good to make arrangements for comprehensive support from acceptance, consultation, training, and settlement.

The agriculture, forestry and fisheries industry can also expect a new dimension. In other words, due to the economic growth of East Asia and changes in supply-and-demand trends for oil, the consumption of high-quality domestic primary products and biofuel is expected to increase. Under the circumstances, it is necessary to increase competitiveness by nurturing and securing well-motivated and talented young people and by heightening the added value through brand development for production regions and enhanced production-processing coordination.

As to food supply, since it is appropriate to try to cover more than 50% of people's calorie needs by domestic production, it is necessary to increase the productivity of domestic agriculture, ensure food supply capability, and enhance competitiveness, while promoting cooperation between the food industry and other related industries and establishment/maintenance of production infrastructure while keeping in mind the diverse and sophisticated needs of consumers and demanders. Over the long run, it is important to introduce an agricultural production system based on nonfood use of agriculture, such as for biofuel. From the perspective of strengthening the domestic agricultural industry, it is necessary to take more concentrated and focused measures to train people, including women, who have good management skills and promote new entry from non-agricultural fields, such as well-motivated enterprises and young people. As to the resources that have been maintained by village functions, such as farmland and agricultural water, preservation efforts need to be implemented with the participation of diverse entities, including local residents.

As to the forestry and lumber industries, with the world lumber market changing rapidly, it is important to increase their competitiveness by taking advantage of the improvement in domestic forest resources and the progress in technological development concerning wood utilization. To this end, the forestry industry and the lumber industry need to be revitalized in an integrated manner by promoting cost reduction through expansion of the size of forest management, introduction of an efficient production system and examination of physical distribution structure, thereby reliably providing lumber in response to the needs of consumers and demanders, and, in addition, by fostering human resources. From the perspective of expanding the use of lumber, the Japanese wood culture and the merits of lumber should be widely disseminated.

As to the fishing industry, there is an interest in marine products increasing due to global changes in eating habits, but marine resources are decreasing. Therefore, it is necessary to promote the recovery and management of marine resources in order to ensure a stable supply of marine products. It is also necessary to concentrate support on certain management entities in order to foster internationally competitive entities. Efforts should also be made to strengthen the selling power of production areas, make distribution more efficient, develop technology to culture high value-added fish, and heighten the added value by processing.

#### **④ Promotion of invitation and relocation of people to regions and inter-regional exchanges and cooperation**

Regional development requires the accumulation of competent people who support the development. Since the “residential population” is expected to decrease sharply as a whole, it is necessary to have diverse viewpoints of population, such as a “two-residence population,” city residents with another resident in a rural area, an “exchange population,” tourists, an “information exchange population,” and Internet residents. Therefore, the accumulation of human resources needs to be promoted by increasing the number of people who are interested in and like regional communities and by promoting the invitation and relocation of people in diverse forms. Since city dwellers have a strong desire to have a “two-residence lifestyle” and having such a lifestyle is expected to become a big movement especially among baby boomers approaching retirement age, it is necessary to promote “two-residence” lifestyles.

To this end, the various measures to promote the invitation and relocation of people to regional areas need to be implemented in a coherent manner under national land plans. For instance, in order to promote the invitation and relocation of people, a variety of information, including the needs of both the people and the regions, needs to be provided appropriately. Therefore, it is necessary to develop a comprehensive information platform that has integrated intermediation functions for sightseeing, transportation means, accommodation, life in regional communities, specialized human resources, employment, and various activities (multiple work, multiple hobby). Moreover, in order to make the invitation and relocation of people easy, it is necessary to study various measures, including the promotion of improved leave systems and reduction of expenses for two-residence lifestyles. Since ensuring

residences and living environments for people who have two residences is an important issue, it is necessary to study systems for making use of abandoned houses in regional areas and measures to secure housing funds in regional areas by utilizing support systems for changing residence from cities to regional areas.

Inter-regional exchange/cooperation is predicated on regional independence in that each region is aware and proud of its regional resources, including diverse individuality, tradition, and culture. That each region has its distinctive value and attraction will both create needs for inter-regional movements and interchanges of people, goods, money, information, and knowledge without being constrained by administrative boundaries. It will also stimulate such movement and interchanges, making strategic cooperation with other regions possible. Exchanges between regions, including regions in foreign countries, often remind one of the importance of regional culture and resources.

In order for a region to achieve sustainable development by differentiating itself from other regions, it is important to promote the development and nourishment of traditional culture based on the region and the creation and transmission of new regional culture rich in individuality and attraction. It is also important for diverse entities, such as local governments, corporations and NPOs, to cooperate in two different regions each having distinctive value and attraction, for instance, between a city and a rural community, and establish a system for sustainable exchanges that are advantageous to each region.

To this end, it is important for regional areas to actively develop regional and national networks for the transmission and exchange of information by utilizing information and communications technologies. It is also important for them to establish and utilize what can be called a “hometown supporter” system, under which outside supporters visit the regions and purchase regional goods on a regular basis. Furthermore, efforts should also be made to train people, including such outside supporters, to ensure a supply of personnel in charge of supporting regional culture. As to specific traffic and information services to support regional strategies that are essential for the above infrastructures, each region should ensure such services through selective and intensive implementation of various projects from broad-based aspects.

### **(3) Creation of disaster-resistant and flexible national land**

Due to big earthquakes and tsunamis, frequent torrential rains in the world, and high tides in zero-meter areas, there are concerns about an increase in the risk of a variety of serious disasters not seen in the past and about wide-ranging, complex and prolonging disasters. Moreover, while local communities have weakened their strength due to the declining population and the aging of the society, the society’s capacity to deal with disasters has been decreasing as abandoned land is increasing and as the number of foreign residents is expected to increase further due to the globalization of the economy.

Therefore, it is necessary to create a disaster-resistant and flexible national land so that people requiring support at a time of disaster can be safe and comfortable.

When doing so, it is also important to ensure strong and universally designed traffic and communications networks so that rescue and evacuation activities and information transmission may not be disrupted in times of disaster.

### ① **Promotion of disaster countermeasures also focused on disaster damage reduction**

With regard to the creation of disaster-resistant and flexible national land, when enhancing “disaster prevention” to protect people’s lives and property from various external forces that cause disaster, such as earthquakes, tsunamis, volcanic eruptions, torrential rains, heavy snowfall, and high tides, there is a pressing need to specify the concept of “disaster reduction” to minimize damage in a time of disaster. Based on the well-balanced combination of “self-help” efforts to save one’s own life for oneself, “mutual assistance” between residents and regional communities, and “public assistance” by administrative bodies, disaster countermeasures should be implemented both in terms of hardware and software, with emphasis also placed on the aspect of “disaster reduction.”

As to disaster-prevention facilities, their improvement will be steadily continued based on the conditions of previous damage and the effects of previous improvement. Also in consideration of investment capacity for the future, efficient and effective disaster countermeasures will be carried out by effectively utilizing existing infrastructures, promoting measures based on the characteristics of each region, such as natural and social conditions and on the types of natural disasters that could occur in the region, and by enhancing facility management by utilizing information and communication technologies, such as sensor network technology. Since there are still many facilities whose functions have become outdated or whose functions were designed before the current anti-earthquake design standard was put in place, these facilities should be examined properly to check if they are performing properly and living up to the public’s expectations, while taking into account recent changes in public awareness of disasters.

As to the promotion of software measures aimed at disaster reduction, proactive steps for the prevention of disaster need to be enhanced, such as preparation of hazard maps, ensuring evacuation routes and evacuation areas, implementation of emergency drills, stockpiling of food and daily necessities, raising awareness of disaster prevention, and diffusion of disaster-prevention education. As to emergency measures at a time of disaster, the steps to be taken during a disaster are important, such as transmission of disaster information and issuance of evacuation instructions. It is also necessary to enhance the steps to be taken after a disaster, such as provision of disaster and safety information, the rescue/protection/transfer of victims, establishment of medical and home-returning systems, preparation of equipment and materials, and manpower to implement disaster recovery promptly. All these steps should be incorporated in a comprehensive disaster-reduction system.

When implementing the disaster-reduction measures, due considerations should be given to the viewpoints of people who require support at times of disaster and those of men and women and, in order to support smooth implementation of the measures, multiple local public bodies

should cooperate to develop a broad-based disaster-prevention and crisis-management system. Administrative bodies and private enterprises should develop multiple and diverse lifelines that are essential to people's lives and also make efforts to lessen the economic and social damage of a disaster by, for instance, developing a business continuity plan (BCP) to minimize the impact of a disaster on economic and social activities so that their important businesses are not interrupted or can be restored promptly. Furthermore, in order to expand the collaboration among self-help, mutual assistance, and public assistance, a national campaign should be carried on to encourage individuals, households, communities, corporations, and various bodies to take action and invest in disaster reduction on a long-term basis.

In order to minimize damage caused by wide-scale disasters, such as the Indian Ocean tsunami, and to promote sustainable development on a global scale, it is important for Japan to take the initiative in providing its disaster-prevention knowledge and technology to the rest of the world and lead them to the establishment of coordinated observation systems on a global scale and the promotion of disaster and disaster-prevention researches that utilize international networks.

## **② Renovation of the national land structure to make it disaster resistant**

The tracts of underutilized land that are expected to increase further as Japan enters a full-scale decrease of population can be taken as offering a good opportunity to promote the renovation of the national land structure for improved and intensified use of land and restoration of nature in cities and other areas. When promoting the creation of a disaster-resistant and flexible national land, studies should be made on measures to lead to the development and utilization of the disaster-resistant national land structure in reviewing or regulating urban space allocations, such as measures for crowded city blocs to lessen the risks of urban disasters, locating more efficient disaster-prevention facilities, and ensuring evacuation areas and disaster preparedness centers by utilizing the spaces made available by the renovation. In particular, in order to minimize the damage caused by floods, studies should also be made on measures to alleviate damage in inundated areas.

Incidentally, disaster information, such as hazard maps, should be utilized not only in evacuation activities and disaster-prevention activities but also in creating a vision for the development of disaster-resistant regions.

Since fulfilling the multiple functions of forest and agriculture, such as land conservation, is also important in creating a disaster-resistant and flexible national land, their appropriate improvement and conservation need to be promoted.

In the metropolitan areas and center cities in provinces and prefectures, which form the core of the economic and social functions of the country and wide-area blocs, it is necessary to enhance the complementarity and substitutability of these central functions by mutually networking them and ensure the redundancy in traffic and communications networks, such as roundabout routes, in order to ensure emergency transportation in the event of a disaster.

It is also necessary to study measures to prevent the isolation of hilly and mountainous areas



and disadvantage areas, such as remote islands, peninsulas and heavy-snowfall areas, by using information and communications technology in order to avoid the disruption of traffic and information in a time of disaster.

#### **(4) Management and nourishment of a beautiful national land**

Because the first period for the reduction of greenhouse gas emissions that was promised under the Kyoto Protocol is expected to start in 2008, efforts to prevent global warming are urgently called for. It is against this background that public interest in environment conservation has increased. It is important to develop beautiful national land by promoting national land management focused on cycling and symbiosis and to pass it down to the next generation. With regard to food and forest resources, Japan needs to increase its self-sufficiency rate, while at the same time anticipating a rise in demand from other Asian countries prompted by their economic growth.

##### **① Formation of properly managed national land focused on cycling and symbiosis**

In order to form and preserve a beautiful national land for the next generation, “cycling” and “symbiosis” are important challenges. In other words, it is important to develop a material cycle where human activities and natural processes exist in harmony, such as a material cycle not only through the realm of nature but also through socioeconomic activities and effective utilization of existing national infrastructures. It is also important to promote symbiosis between human beings and nature, such as through preservation and recovery of the biodiversity in critical situations. Considering the decreasing population and industrial structural changes, it is necessary to study overall management of land-use including farmland, forest, and urban land use and their mutual relationship. Regions where human activities and nature are in harmony and where good interaction between them is well maintained eventually give the residents and visitors peace of mind and plenitude and make people feel that the regions are beautiful. The spatial expanse, which people recognize as workings of human beings and workings of nature, or the result of their interaction, can be defined as “landscape.” It is necessary to study measures to recover and enhance the quality of the “landscape” with regions acting as leading entities.

##### **[Establishment of material cycle where human activities and natural processes are in harmony]**

In order to develop a material cycle where human activities and natural processes are in harmony, first, it is important to make efforts to prevent global warming from a global perspective. Measures to absorb greenhouse effect gas should be implemented, including improvement and conservation of forests, promotion of the use of lumber, and urban greening. In order to reduce emissions, measures to make physical distribution systems eco-friendly should be implemented, including promotion of the use of biomass and other renewable energy sources, development of urban structures that emit less CO<sub>2</sub> in line with the

reorganization of urban land use, efficient arrangement of green space and a water surface to generate cool air for the improvement of the urban heat environment, enhancement of the efficiency of cargo transport, and stricter pollution controls on transportation facilities.

With forest resources expected to mature rapidly in the future, it is important to enrich the forests that account for 70% of the national land and hand them down to the next generation, while enjoying the benefits of forests, such as the conservation of national land and cultivation of riverheads. To this end, it is necessary to develop diverse and sound forests by steadily implementing tree-thinning, planting broadleaf and conifer trees, and implementing longer tree-thinning. It is also important to conserve and control forests that have rich natural environments and those that are vital for the conservation of national land, with the governments playing an active role in cooperation with forest owners. In order for the forest management cycle through foresting (e.g., timely tree-thinning) to work well, the forestry and the lumber industries that utilizes lumber products produced by the forestry need to be rehabilitated in an integrated manner. Furthermore, considering the increasing activities by people and corporations, such as participation in forest-nurturing activities, including financial assistance, and active use of thinned wood and other domestic lumber, it is necessary to promote the move to support forestry-nurturing activities throughout society.

Since farmland is not only the base to supply farm products to the public but also the base for the material cycle through which the multiple functions of agriculture, such as underwater recharge and the degradation of organic waste, are fulfilled, it is necessary to maintain the agricultural use of land as much as possible, while giving due consideration to its harmony with the environment. Therefore, in addition to ensuring rich farmland through the agricultural promotion measures described earlier, it is necessary to promote the maintenance and extensive management by utilizing measures for disadvantaged areas or changing crops. As to farmland in urbanization-promotion areas, it is necessary to promote planned use of such farmland for the sake of conservation and from the perspective of creating a good urban environment.

In order to promote the construction of a recyclable society through 3Rs (reduce, reuse, recycle) in a desirable method and scale in accordance with the characteristic of recyclable resources, the reconstruction of a system for waste treatment, resources-recycling and energy use should be promoted jointly by multiple municipalities by utilizing the transport system for efficient and safe recyclable sources. Moreover, Asian-wide recycling of resources should be promoted while ensuring the prevention of environment pollution. To this end, Japan will contribute to capacity-building in Asian countries by making use of its advanced technology and human resources, while aiming for the international standardization of environment technology. Furthermore, Japan should promote upgrading the traceability of domestic and international movement of recyclable resources and strengthen international cooperation for appropriate export/import control in order to facilitate the construction of a physical distribution system for recyclable resources. When doing so, Japan should consider utilizing marine transport, which is less of a load on the environment.

### **[Maintenance and creation of sound eco-system]**

In order to ensure the symbiosis between man and nature, it is important to promote the conservation and restoration of nature by forming, in important areas like primeval natural areas, an ecological network that organically links an ecological mass of forests, farmlands, inner-city green areas, waterfronts, rivers, and seas with another mass of moorlands, tidelands, seaweed beds, etc. The formation of a network is expected to help nature fulfill its multiple functions, including ensuring the habitat of wildlife, providing communications between man and nature, and preventing global warming. When forming an ecological network, studies should be made not only at the national level but also at the level of wide-area blocs under the cooperation of various entities including national and local public bodies, keeping in mind that some habitat distributions of wildlife extend multiple local public bodies. Also, in areas such as villages, coastal areas, and unused or underutilized land in cities, that have lost nature and whose management level has declined due to, for instance, a population decrease and changes in lifestyle and industrial structure, active nature conservation and restoration projects should be promoted. From the perspective of preventing entry of adventives and conflicts between man and wildlife, such as agricultural, forestry and fishery damage caused by wild beasts and birds, conservation of the habitat environment for wild beasts and birds should be taken into account when studying a network.

It is also necessary to promote the establishment of ecotourism, which will contribute to people's increased contact with nature and the conservation of the natural environment, history, and culture of regions, as well as to regional development. Furthermore, effective measures to prevent and reduce the effects of non-native animals on native animals and ecosystems should be steadily promoted.

### **② Utilization of national land and management of hydrological cycle systems in river basins**

Water utilization, water control, water quality conservation, soil and sand movement, mass transfer, and ecosystems are all closely related to national land use in river basins via the hydrological cycle system linking forest, farmland, city, river, ocean, and coastal areas. The hydrological cycle system has undergone a drastic change due to the concentration of population and industry on cities and the transformation of industrial structure, bringing in new problems, such as frequent floods and droughts and the rise of the sea level in recent years, in addition to such problems as blockage of the smooth movement and fluctuation of water and soil, and sand within river basins, water pollution, coastal erosion, and decreases in habitats. Therefore, it is important to address these problems by taking advantage of the recent increase in surplus land and water made available by the population decrease.

Specifically, a sound hydrological cycle system should be established in river basins through such means as ensuring water for the environment, conservation and management of farmlands, improvement and conservation of forests, conservation of wetlands, reduction of

inflow of polluting load, proper management of underground water, recycling of sewerage, and rationalization of water use. It is also important to ensure a sound mass-transfer of nutrient salts. Integrated and comprehensive management of soil and sand should be promoted from mountain districts to seacoast areas by conducting a study and evaluation of effective technologies for a string of problems, such as accretion of sand in dams, coastal erosion, and sludge disposal, and by formulating action programs for cooperation among relevant organizations.

Furthermore, it is important to develop a system for diverse entities' participation and cooperation for comprehensive flood-prevention measures in all river basins, guidance for national land use that takes into account the disaster risks in river basin areas, ensuring security and safety by preparing water resources in the event of an extreme shortage of water, cooperation of residents, and raising public awareness in upstream and downstream areas for appropriate management of the hydrological cycle system.

### **③ Promotion of efforts toward “national management of national land”**

There are concerns about a decline in the management level of national land, such as increases of forests not satisfactorily cared for and cultivation-abandoned land, and an increase of unused or underutilized land in cities, reflecting population decreases, changes in industrial structure, and a shortage of people engaged in the forestry. For this reason, the concept of “national management of national land” becomes important. Under this concept each and every person in the country plays a role in the management and nourishment of beautiful national land and passes it down to the next generation through such efforts as forest-nurturing activities and green-space conservation activities by urban residents, conservation-promotion activities for farmland and water supply facilities by local residents, participation in direct management of nearby villages, unused or underutilized land in cities and waterfronts, purchases of local farm products and wood products, and indirect management of national land through fund-raising and donation. All this is done by taking advantage of the growth of diverse entities engaged in regional development, in addition to the public roles of national, prefectural and municipal government, and appropriate management by owners.

When realizing the national management of national land, based on the concept that owners should do their primary activity properly, it is important to promote condition ordering, such as encouragement of appropriate management by owners, and diversification of workers and participation methods, such as prodding local residents to take initiative in the management of their familiar land. Based on such efforts, it is necessary to carry on a national campaign to appropriately manage the national land as a whole.

### **④ Comprehensive use and conservation of ocean and coastal areas**

As a maritime state surrounded on all four sides by seas and in order to preserve the blessings of the “seas” to the next generation, it is necessary for the government to establish comprehensive policies for not only its territorial waters but also for exclusive economic zones

and continental shelf as the space covered by the national land plan and strategically promote the policies.

Japan has one of the broadest surrounding sea areas in the world, with a total of about 4.47 million km<sup>2</sup> of territorial water and exclusive economic zones, and its coastline is about 35,000 km. Japan is blessed with various marine resources. Therefore, with regard to problems of national interest, such as the demarcation of continental shelf and exclusive economic zones, it is necessary for Japan to deal with them harshly and appropriately in accordance with international rules. Japan also needs to promote international coordination and cooperation concerning safety, the environment, and disaster prevention. It is also necessary to strategically promote the development and conservation of mineral, energy, and marine resources, technology development and R&D concerning oceans and coastal areas, and collection and provision of basic data.

For Japan, which relies most of its trade on marine transportation, it is important to galvanize maritime traffic, which is the lifeline for the Japanese socioeconomic activity, and ensure its security and safety. Since population and assets are concentrated on coastal areas, it is necessary to promote countermeasures for high tides and tsunamis and measures against coastal erosion from the aspect of coastal areas and river basins.

In addition to such efforts as the development of industry in coastal areas and location of physical distribution functions in unused or underutilized land, the creation of attractions for waterfront areas, promotion of marine leisure, and popularization of ecotourism, it is necessary to actively promote the independence of the forestry industry and fishing villages that have multiple functions, such as conservation of the environment and ecosystem and border patrol, besides their primary role of supplying marine products on a regular basis. As to isolated islands that have such functions as conservation of national interests and provision of healing space, since they are in severe conditions due to the decreasing and aging population, settlement and employment measures should be implemented so that they can properly fulfill their roles. Measures from the perspective of caring for the seas are also important, such as measures against ocean pollution caused by wreckage and spilled oil, which are having adverse impacts on habitat environments, scenery, and coastal protection functions, reduction of load from land in order to improve water quality in coastal areas, conservation and restoration of natural environments like unique ecosystems often seen in shallow sea areas and islets, such as seaweed bed, tideland, and coral reef, and conservation and creation of beautiful scenery. In particular, the conservation and restoration of the enclosed coastal seas of Tokyo Bay should be promoted as a challenge to eliminate the negative legacy of the high economic growth period. Since these efforts require the introduction of a conformist control method through monitoring and the participation of residents and NPOs, it is necessary to promote public understanding by conducting dissemination and enlightenment activities through environment education.

Incidentally, since many of the problems of coastal areas involve mutually affecting factors, such as environment conservation, utilization, and disaster prevention, and require an

integrated approach to the aggregate of land areas and sea areas, the efforts should be promoted as the comprehensive management of coastal areas as well as on an individual basis.

In promoting the above policies, the roles of the national and local governments and region should be clarified and they should cooperate in the areas requiring approaches from multiple levels.

#### **(5) Regional development by a “new public” (cross-cutting perspective)**

As a cross-cutting perspective that is common to (1) through (4), new approaches to regional development are described here.

Due to progress in the decreasing and aging population, some regions have lost their regional vitality and they find themselves unable to keep providing social services. On the other hand, with the public’s values diversifying, they are calling for a higher quality of life overall, such as a higher level of satisfaction with contributions to society. Therefore, considering that not only administrations but also diverse private entities should form the core of regional development, it is necessary to promote regional development based on the concept of a “new public” that calls for the public and private sectors to collaborate. The goal is to provide well-thought-out services by expanding their activities to the intermediate areas between public and private zones. These efforts will help establish systems for new regional management and regional problem resolution. Furthermore, the “new public,” through private and other diverse entities, is expected to lead to the practice of open regional development, where people with different backgrounds interact through two-residence lifestyles, and to the realization of communities by making use of their original attractions.

#### **① System for regional development based on the axis of a “new public”**

Local-based communities, which were once important players in the public arena, have declined in city areas in line with the urbanization of lifestyles; and the functions that had been performed by local-based communities have been shifting to administrations. Though local-based communities still play important roles in regional cities and rural villages, their activities are stagnant due to the aging of society and decreasing population.

It is necessary to encourage diverse individuals and NPOs, in addition to conventional local-based communities, such as neighborhood community associations, PTAs, and local merchant associations of retail store owners, and diverse entities, including corporations and administrations, to share common goals and continue activities in loose partnership with each other. Such activities should not be confined to outsourcing administrative work to the private sector. Rather, it is hoped that various entities, sharing affection for their region inspired by the region’s unique culture and nature, will participate on a voluntary and continuous basis to solve problems faced by local residents and the local community. Such a setup, it is hoped, will lead to solving problems according to local needs and providing well-thought-out services. It is necessary to strive for the development of regional management and regional problem-solution systems based on the axis of a “new public,” which, unlike the conventional

“public” that is dependent mainly on administrations, aims to improve services under the cooperation between diverse private entities and administrations.

The concept of regional development by a “new public” applies to wide-ranging regional problems, including elderly care, child-raising, anticrime and disaster-prevention measures, improvement of living environments, environment conservation, management of national land infrastructures, and ensuring public transportation. The fields of activities by a “new public” relative to those of conventional “public” and “private” are as follows:

- a. Private entities are taking initiative in activities that have so far been undertaken by administrations in conventional public areas (Example: Management of street clean-up, etc. carried out by residents associations and corporations.)
- b. New activities in intermediate areas where neither administrations nor private entities have been engaged (Bus and taxi operations for the elderly by NPOs, etc. in the regions where public transportation is not available)
- c. Activities that should be undertaken by private entities in conventional private areas but have public value (Revitalization of central cities by utilizing vacant stores)

Expanding these activities will not only lead to participants’ self-fulfillment through social contribution and foster their pride in and attachment to their regions, but also contribute to improving their quality of life, ensuring security and safety and conserving national land. In addition, it is also expected to lead to revitalizing regional economy, providing opportunity to people aspiring to try it again, and easing burdens on administrative and public finance.

Administrations, for their part, have to develop infrastructures to help the regional management system, etc. based on a “new public” perform their functions smoothly. Therefore, it is necessary for administrations to promote the disclosure of information to diverse private entities, foster mutual trust among them, and develop the environment for the usage of information and communication technology to that end. In addition, on a case-by-case basis, administrations may have to develop intermediate support organizations and the manpower to work out a mechanism that helps private entities continue their activities. They may also have to organize the activities of diverse private entities for certain purposes and promote mutual understanding among them and between them and the administration. Furthermore, in order to develop a socioeconomic system, under which individuals, regardless of age, sex, and occupation, are actively committed to their local communities, it is necessary to study, not only at the administration level but also at the private level, fostering the desire to participate in residents’ associations, leave systems and dual-employment systems to enable participation of diverse generations, and systems to encourage financial support by residents. In consideration of the characteristics of lifestyles in urban areas, where people, due to long commutes, have no time to take part in community activities, we should aim for a loose form of participation so that as many residents as possible can take part in regional activities.

## ② Management of national land infrastructures by diverse entities

Due to their rapid quantitative expansion during the recovery and high economic growth

periods, some of our familiar national land infrastructures, such as roads, rivers and harbors, have become obsolete and unused. They have also impaired scenery due to their efficiency-focused uniform designs. There is concern that investment for the maintenance or renewal of the aging facilities will increase in the years to come. There is also concern about local residents' fading awareness of being the stakeholders of national land infrastructures and of the need to maintain and utilize the infrastructures as their common property.

On the other hand, the existing national land infrastructures have been developed by local residents and private corporations and preserved as common assets. The infrastructures have played an important role in forming the national land. Therefore, it is desirable to continue to promote optimum management and utilization of the infrastructures by the administrators and at the same time to lead them to regional development and the promotion of the regions by making use of the opinions of diverse entities, such as local residents, NPOs, and private corporations.

Against this historical background, it will be necessary to expand the type of management of national land infrastructure in which diverse entities with diverse perspectives actively participate on a voluntary basis as the players of the "new public," backed by residents' awareness of being stakeholders and private enterprises' corporate social responsibility (CSP), while upholding the basic stance that the national government and local public bodies owning facilities are responsible for the management of the facilities.

It is important for the national government and local public bodies to specify the framework of the participation-type management and disclose extensive and accurate information and rules concerning the functions and services required for national land infrastructures so that private entities, which form the core of national land infrastructure management, can expand the opportunity to draw the maximum utility of national land infrastructures with their ingenuity.

### **③ Regional development through self-help efforts focused on the initiatives and activities of diverse private entities**

Reflecting regions' increased right of self-determination, which was brought about by progress in local administrative and fiscal reforms and changes in people's values (attaching importance to areas other than economics), the possibility that the value and attractiveness of regional communities will be rediscovered has increased. On the other hand, regional vitality has declined and is likely to decline further amid the decreasing and aging population and changes in industrial structure. It is necessary to have a sense of crisis that failure to make self-help efforts makes it difficult to maintain a regional community, not to mention regional development. Each region should take the initiative and make all-out efforts to create its distinctive value and attractions in order to foster local people's pride in and attachment to their region.

Each region should promote not only administrative measures but also the regional development proposed and carried out by diverse private entities based on the concept of a



“new public.” It is the responsibility of the national government and local public bodies to provide necessary support to the regions in making self-help efforts when they face problems that cannot be solved by their own ability alone.

A study of the examples of regional development made so far shows that regions have begun to make active use of the initiatives and activities of diverse private entities in their regional development. Support for such efforts should be further extended. Among them are:

- a. Discovery, improvement, utilization and sharing highly competitive regional resources, such as heightening the added value, brand-creation, combination of multiple resources, focusing also on natural environment and culture, etc.
- b. Promotion of activities of outside experts, such as baby boomers with experience and know-how; promotion of innovation by scouting people, including the elderly and women, forming the core of a diverse community workforce, and by loosely organizing them
- c. Promotion of “Mini Circulation of Funds” through which regional funds are reinvested in the region, in addition to promotion of investment from outside; Raising funds from corporations in the spirit of corporate social responsibility (CSR) (donations, etc.) and through investment by those willing to make social contributions
- d. Promotion of active inter-regional transfer/interchanges and strategic inter-regional cooperation
- e. Active utilization of information and communications technology for redevelopment/reinforcement of communities and for transmission of regional information

In the hilly and mountainous areas, there are some villages whose existence is being threatened by the serious problem of the decreasing and aging population, raising numerous problems, including the devastation of farmland and forest and the inconveniences felt by the elderly and other residents in their everyday lives. But, despite their geographical and other severe conditions, the needs of the residents have come to be reflected less in government policies.

In order to deal with the situations, administrations should pay closer attention to the concerns and requests of the residents and understand them so that all residents remain linked with their communities. Then, after providing information and having sufficient communications with the residents, the administrations should build a consensus on the future course of their villages on the basis of their initiatives and intension.

While making such consensus-building efforts, administrations should study investment and land-use measures for public purposes and at the same time provide necessary support for measures for disaster-prone villages to provide social services in response to local residents’ needs, such as ensuring the delivery of everyday commodities, and ensure snow-disposal policies in heavy-snowfall areas, by making use of private resources. Moreover, with regard to the residential buildings, housing land, farmland, and forests, whose control levels have decreased markedly, devices and mechanisms to control and utilize them should be studied and

necessary support should be provided from the perspective of national land conservation.

The role of municipal governments and other local authorities in regional development should shift from, for instance, taking the initiative to invite plants to the region to encouraging and supporting the initiatives and business sense of private entities. The role of broader administrative entities, such as the national government, should shift from providing standardized support to encouraging and supporting the formation of a new model of regional community and developing the environment for competition to enhance the distinctiveness of regional strategies by utilizing regional wisdom and ingenuity. To that end, wide-area traffic and information services should be ensured in order to avoid bottlenecks in inter-regional movement and exchanges. It is also the role of the national government, etc. to provide support to areas in disadvantageous positions in terms of geographic, natural and social conditions on the basis of each area's conditions.

#### **4. Realization of the Plan**

##### **(1) Direction of national land infrastructure investment**

With the advent of a population-decreasing age and other trends of the times, and without wasting time until the socioeconomic loads begin to take full effect, it is necessary to correct the unipolar, uniaxial national land structure and strive to create a national land on which diverse wide-area blocs develop independently. To that end, it is important to improve the quality of the national land infrastructure through more focused and efficient infrastructure investment based on regional characteristics by making use of the accumulation of infrastructures so that it will contribute to stable economic growth, enhancement of regional vitality, and restructuring of a safe and beautiful national land.

The investment environment for a national land infrastructure is expected to become severe due to increases in investment for maintaining and improving the existing infrastructure. Against this background, it is necessary to strategically develop a national land infrastructure that will also be required in the next generation, while keeping the ideal form of regional communities that are envisioned in the wide-area regional plans firmly in mind. To that end, it is necessary to make well-focused investments from multiple perspectives, such as ① investment to realize national strategies and regional strategies for independence, ② investment to resolve problems to be dealt with by regional communities, and ③ investment necessary to maintain security and safety in people's lives. The direction of such investments should be studied in the course of formulating plans to promote the development of a social infrastructure.

##### **[National government's strategies for national land infrastructure investment]**

The national government should focus its strategic investment for sustainable development of the country, such as an international traffic gateway and national arterial traffic and information networks, development and conservation of forests for national land conservation purposes, creation of a nation-wide crisis management network, ensuring security and safety

of maritime transportation, innovation and human resources development that form the source for growth of the country, enhancement of the international competitiveness of the agriculture, forestry and fisheries industry, global warming countermeasures, and creation of a cyclical society.

The national and local governments should conduct objective studies to ensure the fairness and transparency of the effect of investment and process of investment concerning, for instance, investments that are necessary for the independence of wide-area blocs (e.g., the development of transportation infrastructures for direct exchanges and cooperation among wide-area blocs and between Japan and its East Asian neighbors) and investments that are necessary for appropriate maintenance or renewal of the existing national land infrastructure. Based on the studies, the governments should also select appropriate methods and procedures.

On the other hand, with regard to investments in complex projects to solve various problems involving a single prefecture, such as disaster prevention in wide-area blocs that are covered by the wide-area regional plans, efforts to restore sound resource-recycling and a hydrological cycle, development of sustainable intra-city and inter-city public transportation systems, and improvement of regional production infrastructures, the national government should provide support, keeping the following points in mind. That is to say, the government should give priority based on its overall evaluation concerning the synergy effects generated through application of the service level and local rules that are based on regional climate and selected by local residents or through comprehensive and cross-cutting policy development, cost-benefit performance for the national economy, soundness of a cost-recovery structure, fairness and transparency of the investment process, and citizens' participation and cooperation. The national government should also study how to develop a framework to monitor the outcome of the implementation of projects.

### **[Handing down technology to next generations, and innovation]**

Furthermore, in order to enhance the quality of the national land and national life, not only high technology but also technological innovation to create national land infrastructures needs to be promoted by deploying social technologies integrating human science and social science for solving problems involved in disaster prevention, rejuvenation of national land infrastructure, and the environment. We should also promote the development and securing of engineers for such innovation. It is also necessary to promote technology development with regard to the sensor technology and robots that have the potential to drastically increase the convenience, safety and mobility of national life by making use of innovative information and communications networks and the technology to transport man and goods at supersonic speed, as well as to study how to strategically utilize them for the construction of a new national land structure.

In addition, it is necessary to develop ways to hand down the skills of engineers involved in such fields as development, maintenance, and operation of national land infrastructures regardless of the framework of administration and corporation.

### **[Management of existing national land infrastructures]**

Moreover, in order to promote well-planned use of the existing national land infrastructure, it is important to promote the optimum management and utilization of the infrastructure by incorporating the concept of asset management methods in the private sector in addition to the conventional concept of public property management and maximize the functions of the national land infrastructure, while appropriately dealing with the natural conditions surrounding Japan, such as earthquakes, typhoons, heavy rainfall, and heavy snow. When doing so, it is important to promote investments to maintain the functions of the national land infrastructures, such as improvement of the facilities built before the current earthquake-resistant code was introduced and removal of snow in heavy-snowfall areas, investments to update appropriately prioritized functions, and prompt restoration and improvement of the national land infrastructures damaged in times of disaster, not to mention minimizing lifecycle costs. Furthermore, while keeping in mind the perspective of market value and the conservation and restoration of the environment, it is also important to check the utilization of national land infrastructures and promote more effective utilization of the assets not effectively utilized, such as disposing of them or converting them into other functions or uses.

## **(2) Improvement/utilization of national land information and monitoring of plans**

### **[Improvement and utilization of national land information]**

National land information allows for the analysis and examination of the geographic dimensions of people's activities, such as society, economy, and culture. Diverse information, if interrelated with each other through location information will increase its added value and becomes more convenient. The recent advance in information and communication technology has made it drastically easy to unite diverse national land information, not only static data, such as maps, statistics, and ledgers, but also dynamic data, such as the movement of people and goods. Improvement and utilization of such national land information should be aggressively promoted, as it is effective in all aspects of activities conducted on the national land, such as utilization, improvement, and conservation of national land, improvement of administration and making it more efficient, ensuring the security and safety of national life and increasing its convenience, promotion of innovation, and creation of new industries and services.

Therefore, the national and local governments should promote the improvement of basic national land information, such as development of land-sea maps, implementation of cadastral surveys, basic statistical information like national census, and improvement of information concerning land use and the natural environment, and also promote the standardization and distribution of information. It is necessary to promote the active utilization of the geographic information system (GIS), which is a useful tool for efficiently collecting, improving, analyzing, and utilizing diverse information about land. Since information about land is

created not only by the national and local governments but also by diverse entities at home and abroad, including universities, research institutes, corporations and NPOs, it is important to promote distribution and mutual exploitation of these data among the entities. To that end, the establishment of social rules and mechanism and human resource development should be promoted. Considering recent municipal mergers, it is also important to ensure the continuity of municipal statistical data.

### **[Monitoring and evaluation of national land plans]**

The improvement and utilization of national land information not only have far-reaching impacts on socioeconomic activities but are also useful for the management of national land plans. In order to enhance the guidelines for the entities engaged in the National Land Sustainability Plan, it is necessary to establish a “national plan management cycle” for efficient and effective progress management through the process of the formulation, promotion, and evaluation of plans. To that end, it is necessary to conduct monitoring of the plans by constantly gathering, organizing, and analyzing a variety of information on national land in a comprehensive and systematic manner. The monitoring of the plans should cover a variety of information, including economic and social conditions, land use, natural environment, and conditions of existing national land infrastructures. In order to carry out the monitoring after plans are drafted, it is necessary to study specific monitoring procedures and systems, such as efficient and effective operations, by utilizing the geographic information system. It is also necessary to study setting up monitoring indicators that would make people feel that national life has improved.

### **(3) Inspection of various systems related to the plan**

In order to realize the national land and national life envisioned in the new plan, it is necessary to inspect national land policy-related systems and study a new framework by taking advantage of the formulation of the plan.

## **5. Formulation of National Land-Use Plans**

The national land-use plan (national plan) based on the National Land-Use Planning Act is a long-term vision that presents the future “use” of national land across the country in accordance with the land-use classification of national land, such as farmland, forest, and residential land, and will exert its full effect together with the National Land Sustainability Plan (national plan). Therefore, the two plans should be formulated in an integrated manner and necessary measures for the national land-use plan should also be studied with changes in socioeconomic situations taken into account.

With regard to national land use, there are various problems, such as low-quality use of national land, like disaster-vulnerable urban areas, excessive loads on national land and the global environment, and a decline in the level of national land management, as well as new conditions, such as the growing public awareness of security, environmental and spiritual richness, and

expanding the move to protect and nurture regional strength. Therefore, when developing national land-use plans, it is necessary to present the direction of sustainable national land management focused on three perspectives: “cycling and symbiosis” (development of a material-circulation system in harmony with human activities, development of a sound hydrological cycle system in river basin areas, conservation and recovery of nature, etc.), “security and safety,” and “beauty” (overall high quality of national land, such as human activities healthily harmonizing with the ecological system).

## **Conclusion**

In this interim report, we have presented our view that, as the basic direction for national land development, each wide-area bloc should draw up a regional strategy with a view to competition and cooperation with other areas in East Asia and form a national land structure consisting of independent zones. We have also presented the following ideas: Realization of a seamless Asia; Creation of sustainable areas; Creation of a disaster-resistant and flexible national land; Management and nourishment of a beautiful national land; and Regional development by a “new public” (cross-cutting perspective).

We hope that the preparation of this interim report will prompt active discussions at all levels with regard to the direction for the construction of a national land structure that national land sustainability plans should aim for. We further hope that it will lead to a broad consensus on the development of national land sustainability plans. In particular, in order to give shape to the views in this report and create diverse and independent wide-area blocs, discussions should be held immediately in each wide-area bloc with participation of diverse entities, such as relevant ministries and agencies, local public bodies, and the business world, while taking into account the opinions and suggestions of experts. The Planning Section for its part intends to continue its efforts for the preparation of a final report.