

carried out as a result of increased maintenance management costs associated with aging of facilities, it is a concern that a large-scale accidental cut in the water-supply may occur. Moreover, water cuts have occurred as a result of damage to facilities through earthquakes and sediment-related disasters. In order to prevent such cuts and to maintain safe and secure water resources for the future, the renovation of facilities including their appropriate maintenance and management as well as the improvement of functions will be promoted taking life-cycle costs into consideration. At the same time, the strengthening of maintenance management systems will be promoted by merging the operation and management of water supply facilities. Furthermore, information will be provided with regard to the effects of accidents and initial response procedures from the viewpoint of promoting understanding and consensus between residents and companies.

Section 3 Handing Down Beautiful Forests to Future Generations

Forests, which account for 70 percent of national land, nurture water, protect people's lives from sediment discharge and collapse, provide affluence and relaxation and are precious habitats for wildlife. They are sources of water and greenery and an integral part of our life. Moreover, lumber and mushrooms sourced from forests have economic value. Furthermore, the use of lumber is important from the viewpoint of recycling, not just economic merits.

As such, it is important to pass on beautiful forests – with their manifold benefits - to future generations to enjoy.

However, as for forests in Japan, the management motivation of forest owners is declining following the long-term stagnation of lumber prices and villages being abandoned. Thus, there is a concern that the affluence of forests may be lost as a result of an increase in forests where necessary management procedures such as thinning are not carried out.

Therefore, beautiful forests should be passed on to future generation by pushing forward the development and conservation of a wide range of sound forests including afforestation in cooperation with local residents through the following measures. In doing so, forest owners and the government also need to do their part.

(1) Diverse and sound forests; national land conservation

In order to enjoy the manifold benefits of forests in the future, the development of a wide range of sound forests will be promoted by pushing forward the development of mixed forests with coniferous and broad-leaved varieties in accordance with location conditions and social needs. In particular, as for artificial forests planted after the war, their active development and conservation will be promoted because the time is approaching when most of them require thinning. However, since they have not been well maintained, they are overcrowded with unsound growing conditions.

Those responsible for the development of forests are aging. However, the securing and development of replacements centering on the younger generation and the improvement of technical capabilities will be promoted taking into account the fact that there are more people

with the motivation to get involved in forestry as they see it as a way to work together with nature.

In carrying out the appropriate development and conservation of forests, it is necessary to make low-cost and efficient efforts. Therefore, the introduction of efficient production systems such as the development of forest road networks and high-performance forestry machines will be carried out. Moreover, research and technological development for the efficient and effective development of a wide range of sound forests will be promoted and their results should be actively transmitted to forest owners, forestry businesses and the people. Furthermore, since sufficient development cannot be expected only with self-remedial efforts of forest owners, local governments should encourage forest owners to manage them and the development of forests by public organizations will be promoted.

As for the public functions of forests such as basin recharge and protection from sediment discharge/collapse, it is necessary to steadily exercise these functions to enable people to live safe and secure lives. Therefore, as for forests which are required to exercise these functions, the systematic designation of them as preservation forests will be pushed forward and their appropriate management will be promoted. Moreover, efforts will be made to minimize damage caused by mountain disasters by promoting the development of afforestation facilities. In doing so, linkage between relevant organizations will be promoted together with the systematic implementation of projects focusing on both national and private forests from the viewpoint of catchment basin protection by understanding which areas are more vulnerable to mountain disasters.

In order to control forest damage caused by wildlife, wide-area countermeasures and countermeasures based on the coexistence with wildlife will be promoted. Moreover, in order to control forest damage by pests such as pine weevils, specific control measures will be implemented.

Moreover, as for national forest land, which accounts for approx. 20 percent of the national land area and extends in inland backbone ranges, the appropriate administration and management by the government will be promoted because it plays an important conservation role and exercises public functions such as watershed conservation. Meanwhile, as for precious wildlife habitats such as virgin natural regeneration forests on national forest land, the designating of forest reserves as well as their appropriate conservation and management will be promoted.

(2) Afforestation in cooperation with the people

The development of forests needs to be pushed forward through cooperation between the people and the government. This can be achieved through wide-spread understanding of the value of forests. Therefore, the development of consultation counters and the introduction of fields of activities will be carried out targeting and promoting the activities of individuals, NPOs and companies addressing forest development and environmental education. At the same time, fields of activities should actively be provided on national forest land. Moreover, in order for people who cannot directly participate in afforestation to be able to get involved in broader activities

contributing to the development of forests, the utilization of the "Green Fund" system and local lumber will be promoted. Furthermore, forest environmental education furthers understanding of forest development and encourages participation in afforestation activities by demonstrating the importance of forests. At the same time, technical guidance in accordance with participants' interests and the technical and other development of leaders will be promoted. As for satoyama areas around residential areas, restoration activities of satoyama forests through linkage between local and residents originally from urban areas will be promoted. In addition, consideration will be given to social cost sharing of forest development such as afforestation taking into account changes in socioeconomic trends.

Section 4 Enhancement of Farmland Use

While farmland areas provide agricultural products such as food together with agricultural water-use facilities, they can also be an important infrastructure for national land conservation and forest recreation/relaxation if appropriately managed. It is necessary to make every effort to maintain agricultural land use from the viewpoint of improving food self-sufficiency and maintaining the multifunctional roles of agricultural. Therefore, the effective use of farmland will be broadly promoted together with the promotion of agriculture itself. At the same time, the conservation and improvement of farmland and water for agricultural use, which have been maintained and managed by entire rural communities, will be promoted with the participation of a wide range of entities.

(1) Enhancement of farmland use

As for agricultural land use, it is important to clarify use and conservation strategies for each areas of farmland and implement measures accordingly. This can be achieved through systematic land use based consensus between regions.

From the viewpoint of securing good farmland, farmland use by principle farmers will be promoted centering on land use-type agricultural based on the idea of "ownership to use." In this case, measures will be explored based on the fact that renting land will be more frequent. Measures to prevent and deal with abandoned cultivated land are required. An increase in farmland owned by non-resident land owners is expected due to inheritance and retirement in the depopulating and aging society. In addition to the securing of good farmland, the maintenance of agricultural spaces will be promoted through the broad use of farmland such as small-scale use for value-added/intensive agricultural and part-time farmers, extensive management, changes in crops and citizens' market gardens. In areas with a lot of abandoned cultivated land, the efficient use of farmland will be promoted by promoting the entry of corporations other than agricultural production corporations on a lease basis. As for farmland with few principle farmers, it is necessary for the areas to promote the introduction of landscape crops, conversion to woodland, and utilization for purposes other than farmland from the viewpoint of the conservation and recovery of a rich natural environment.

(2) Improvement of farmland conservation

Multifunctional roles of agricultural are exercised by agricultural production activities utilizing farmland and water for agricultural purposes and their effects are felt by local residents and in the entire population. In particular, rice paddies form water networks with small reservoirs and agricultural water and wastewater channels, and play an important role in the conservation of ecosystems and the creation of good landscapes.

On the other hand, it is necessary for every individual to support efforts for regional conservation and management. This can be achieved by taking into account the fact that the appropriate conservation and management of farmland and water for agricultural use are becoming more difficult following a decline in community functions associated with depopulation, aging society and mixed habitation and that people's interest in quality of life, relaxation and environmental problems are increasing.

Therefore, support will be given to efforts for good conservation and qualitative improvement of farmland/water for agricultural use. This can be achieved by comprehensively supporting highly effective joint activities by the whole areas with the participation not only of farmers but also a wide range of entities such as local residents and urban residents, and innovative farming activities by all farmers.

Section 5 Use and Conservation of Sea Areas

Sea areas around Japan are vast and Japan has a total coastline of approx 35,000 kilometers, world-class territorial seas and exclusive economic zones of approx. 4.47 million square kilometers. There are a variety of resources. Therefore, strict and appropriate responses will be carried out in accordance with international rules with respect to problems of national interests such as the demarcation of continental shelves and exclusive economic zones and the management of remote border islands such as Okinotori Island. Moreover, efforts will be made under international collaboration and cooperation systems concerning issues of safety, the environment and disaster prevention such as responses to sea level rises caused by global warming, marine pollution countermeasures such as marine litter and spilled oil, countermeasures against large-scale tsunamis, the recovery of fishery resources, and the securing of the safety of vessels' navigation.

From the viewpoint of properly using and conserving sea areas as spaces targeted in the National Plan, efforts will be made to develop marine information on meteorological and hydrographic phenomena and water channel conditions. At the same time, the maintenance/recovery of a marine material circulation systems, the sustainable use of the oceans, countermeasures against coastal disasters, the sustainable use of marine living resources, technological development to enable the use of unutilized energy and mineral resources, research and studies, the collection, manipulation and provision of basic data, and publishing of and education surrounding the data will be pushed forward. Moreover, as a national arterial technological development, the Global Ocean Observing System, which enables the observation of seismogenic belts on the ocean floor and ocean floor resources, will be constructed.

Japan has received benefits from the sea in areas such as diet, cultural exchange, trade and production activities. Therefore, the spread of knowledge related to the sea such as nurturing and caring for the sea and the improvement of understanding will be promoted.

The above-mentioned efforts will be made for the proper use and conservation of sea areas.

(1) Converting sea areas into national energy

As Japan depends for most of its trade on marine transport, efforts will be made to strengthen international competitiveness by securing stable international marine transport and strengthening port functions for the purpose of boosting the marine transport industry, a lifeline for socioeconomic activities. Moreover, in order to secure the safety of marine transport, the strengthening of systems to prevent maritime disasters by developing routes in congested sea areas and of crisis management systems such as shoreline control will be promoted.

In order to utilize coastal zones, which consist of both sea and land areas, and to promote their use, the promotion of industries, creation of locations for transport to little-used land, increase of amenities by creating waterfronts opened to the public, marine leisure and spread of eco tourism will be promoted. Moreover, each regional block will promote economic and cultural exchange through the sea with cities and countries on the opposite shores in collaboration with other regional areas.

Efforts will be made to secure a stable supply of fishery products by appropriately managing fishery resources through resource recovery plans and the development of fishing grounds in offshore areas following the decline in the vitality of fishing villages due to a deterioration of fishery resource conditions and a drop in the number of fishery workers and to the international increase in demand for fishery products. Moreover, in order to promote a stable supply of fishery products and boost the fishery industry and fishing villages, which have multifunctional roles such as the conservation of the environment/ecosystems and border patrol, the comprehensive development of fishing ports, grounds and villages will be promoted.

As for remote islands functioning to conserve national interests and provide relaxing spaces, they will be promoted and conserved by encouraging people to move and work there in order for their functions to be exercised properly, because they are currently struggling under severe situations such as the declining and aging population.

(2) Handing down sea areas to future generations

As population and assets are concentrated in coastal areas, countermeasures against storm surges and tsunamis integrating equipment and facilities with soft measures will be promoted. This can be easily achieved through the development of systems which rapidly and accurately predict tsunamis and storm surges such as through the construction of tsunami-sensing GPS systems, anti-seismic reinforcement and measures to prevent the aging of shore protection facilities and the development of disaster prevention bases. Moreover, countermeasures against beach erosion from the viewpoint of coastal zones and catchment basins will be pushed forward.

Moreover, efforts from the viewpoint of caring for the sea are important. These include

countermeasures against marine litter and spilled oil, which have adverse effects on the habitats of living organisms, landscape and shore protection measures, a reduction in burdens from land areas to improve water quality and sediment in coastal zones, the conservation and restoration of unique ecosystems often seen in shallow sea areas such as marine forests, tidal flat and coral reef and in small islands, and the conservation and creation of beautiful landscapes. In particular, the conservation and restoration of inland seas such as the three major bays including the Setonai Sea will be promoted. This will be regarded as a challenge to get rid of the negative legacy of the period of high economic growth. These efforts include the introduction of adaptive management techniques by monitoring coastal areas, the recycling of resources such as dredged soil and participation of residents and NPOs.

Furthermore, not only individual responses but also the comprehensive management of coastal zones will be promoted. This is because coastal zone issues are caused by multiple factors such as the environment, environmental conservation, use and disaster prevention, and it is necessary to view sea and land areas in an integrated manner.

In promoting the above-mentioned policies, the roles of the government, local communities and the regional blocks should be clarified. Also, fields which require multilayered efforts will be addressed through linkage and cooperation.

Section 6 “Whole Nation Land Care”

The national land of Japan has been effectively used, maintained and managed by people in forests, farmland and residential areas. Moreover, functions such as the creation of good built-up areas, the conservation of national land and fostering of water resources have been exercised through this work. However, there are concerns surrounding a decline in the level of national land management. This is because of an increase in forests and abandoned cultivated land which have not been, for instance, thinned sufficiently. Also, little-used/unused urban land where the appropriate management has not been carried out as a result of an increase in non-resident owners following the aging of the population and handing down and rapid expansion of rural communities in hilly and mountainous areas where maintenance of rural communities is getting more difficult.

On the other hand, as a result of growing interest in environmental issues and growing awareness of the need to participate in social contribution activities, a wide range of entities such as local residents, NPOs and companies are beginning to take an interest in and get actively involved in national land management. Moreover, because companies who are taking environmental issues into consideration and consumers who are taking an interest in how and where their food is produced are steadily increasing, it is necessary to construct new management systems which include the involvement of owners in the future management of national land.

That is to say, the idea of “Whole Nation Land Care” should be specifically promoted based on appropriate management by local owners. This can be achieved if every individual, together with the government, prefectures and municipalities, takes an interest in national land and plays a part in its management. In order to promote this idea, management methods should be established

taking the form of 1) management by owners, 2) management by commission, and 3) management through the cooperation and participation of a wide range of entities. Moreover, it is important for the government to actively address these efforts.

In establishing management methods, each area should fully utilize traditional elements such as agriculture and forestry. It is important to promote measures such as the development of certified farmers in order to develop human resources who work in the agricultural, forestry and fisheries industry. Moreover, it is important to promote information provision related to little-used/unused land and establish linkage between public entities and related service industries through the management of empty land.

In particular, as for management methods with the cooperation and participation of a wide range of entities, the following measures will be promoted in order to enable them to directly and indirectly support national land management by allocating the necessary labor force, knowledge and funds.

a. Support for a wide range of participants

It is expected that the direct participation of a wide range of actors such as local residents, NPOs and companies in activities which contribute to national land management including the afforestation and conservation of green zones by urban residents, the conservation and improvement of farmland/agriculture water utilization facilities by local residents, and the management of neighboring satoyama areas, little-used/unused land in cities and waterfronts will have the effect not only of improving the management level of national land but also of stimulating regional pride, promoting exchange and improving land owners' motivation for management. Therefore, consideration will be given to systematic support for such efforts. This includes multistep development systems according to participants' knowledge and technological level, information transmission, securing of coordinators to establish linkage between owners, participants, companies and NPOs, securing of means of transportation, development of administrative systems, and evaluation methods for people and companies involved.

b. Diversification of participation methods

It is important for every individual to participate in national land management beyond the boundaries of time and space by contributing, providing materials, purchasing local agricultural products and lumber, and providing knowledge and know-how. Therefore, measures will be pushed forward to effectively provide information to all sectors of society concerning the meaning and necessity of national land management and how to participate. Moreover, because experiencing nature during childhood fosters a close relationship with national land management by deepening understanding on and interest in environmental conservation, environmental education for young children will also be considered.

Furthermore, as for the development of satoyama areas in the immediate vicinity in which a number of residents have an interest, there are cases where cooperation is being carried out such as through the participation in management activities and utilization of unutilized resources by

formulating plans in collaboration not only with the government but also with owners, local residents, NPOs, companies and academic experts supporting such efforts. As such, information sharing, exchange and mutual understanding are promoted by promoting direct national land use as common issues and formulating plans concerning future national land use. It is expected that this will contribute to appropriate national land management and will produce various ripple effects. Consideration will also be given to the future of such collaborative management.

c. Development of conditions for appropriate management by owners

As for land which has often been abandoned, there are cases throughout the country where owners restarted management with government support and cooperation. This indicates that it is possible for owners to regain motivation with a little encouragement. Therefore, owners' motivation should be stimulated by first gaining an understanding of their situation through field surveys and patrols and then notifying them of the current situation regarding land and management policies with linkage between the government and corporations with the cooperation of local residents. In the case of non-resident owners, a management commission of their land will be promoted and consideration of measures for others to manage the land will be pushed forward. Moreover, the construction of, for example, joint management activities of agricultural water utilization facilities in rural communities will be promoted.

Chapter 7 Basic Measures Concerning Environmental Conservation and Creation of Landscapes

In order to pass on features of national land in Japan such as an attractive natural environment and landscape and traditional cultures to future generations and to readdress excessive burdens placed by socioeconomic activities on the global environment, it is necessary to harmonize human activities with natural processes and emphasize the use/utilization and reuse of existing urban structural stocks. Moreover, in order to promote symbiosis between human activities and nature, it is important to conserve and restore the remaining nature and to actively rebuild sound ecosystems. In doing so, the quality of national land as a whole should be balanced; it should be not only visually attractive but also safe. This indicates that people in urban areas are recycling-oriented and that soundness of ecosystems will be secured without placing excessive burdens on nature; local residents have pride in their unique cultures and traditions.

In future national land management, under the collaboration and participation of a wide range of entities such as the government, local governments, corporations, private organizations, local residents and NPOs, it is important to push forward the reinforcement of scientific knowledge and technological development and to comprehensively enhance the quality of national land emphasizing these viewpoints. Therefore, the basic measures below will be promoted:

1. Pushing forward efforts to construct a material circulation system where human activities and natural processes are harmonized, such as global warming countermeasures and a sound material-cycle society.
2. Pushing forward efforts to maintain and create sound ecosystems such as creating ecological

networks and promoting contact with nature

3. Promoting interaction between people and nature, comprehensively enhancing the quality of landscapes, and pushing forward the conservation and creation of good landscapes.

Section 1 Material Circulation Where Human Activities and Natural Processes are Harmonized

In securing a sound material circulation system, it is important to address three areas: the extraction of natural materials; the discharge/disposal of materials into the natural world; and the mass movement inside and outside the country. Possible measures then need to be considered, taking into account the fact that material circulation in the natural world and material circulation through socioeconomic activities are inseparably linked. At the same time, it is important to incorporate the concept of recycling of resources into each area. In order to construct a material circulation system where human activities and natural processes are harmonized, the following environmental conservation measures will be promoted.

(1) Countermeasures against global warming

It is important to construct a low carbon society. This can be achieved by committing to reducing greenhouse gases by 6 percent in accordance with the Kyoto Protocol and by promoting long-term and continuous emission-reduction measures. The “development of a low carbon society” aims to realize a society where people can enjoy a high quality of life and at the same time reduce CO₂ emissions. This is a society where quality of life and economic growth are compatible with environmental conservation and can be achieved by giving further consideration to environmental issues and technology throughout the entire society and through the widespread use of conventional and new innovative technologies. Therefore, in order to reduce CO₂ emissions resulting from energy use, which account for 90 percent of the greenhouse gases Japan emits, countermeasures through individual energy-related equipment and cooperation and cross-sectional measures such as deployment of national movements will continue to be promoted. At the same time, the strengthening of more drastic countermeasures will be carried out. It is important to change the energy supply-demand structure to one with reduced CO₂ emissions in the medium to long term. This can be achieved through a drastic review of the structure of cities and other areas and of transportation systems as well as a review of socioeconomic systems by establishing linkage between energy-consuming entities.

Therefore, CO₂-saving will be promoted on a nationwide basis. This can be achieved through:

- 1) Development of CO₂-saving areas through intensive urban structures, efficient energy supply to multiple facilities and buildings and heat-island countermeasures through afforestation
- 2) Development of arterial road networks such as ring roads and of ITS promoting smooth road transport, and the promotion of public transport and of the introduction of environmentally sustainable low-emission cars
- 3) Maritime measures including the improvement of cargo transport efficiency, reducing transport-related emission, “greening” the whole logistics systems such as through modal shift,

and idling of vessels at its berth

4) Construction of biomass towns utilizing regional biomass resources, and efficient use of locally produced energy resources such as unutilized energies and new energies

Moreover, the efficient use of green zones and surface water as sources of cold air for CO₂ emission-reduction and the improvement of the heat environment will also be addressed in efforts and projects carried out from the viewpoint of environmental protection. At the same time, energy-saving measures with regard to housing and buildings will be promoted.

Furthermore, as greenhouse gas sink measures, the development/conservation of forests and urban afforestation will be promoted. As for forest sink measures, the achievement of the absorption goal is expected to be difficult if the level of forest development remains the same. Thus, the appropriate development of forests and use of lumber will be promoted.

(2) Material circulation; sound material-cycle society

(Proper material circulation)

Increase in use of non-renewable natural resources such as fossil fuels and mineral resources taking ecosystems and biodiversity into account for the purpose of preventing destruction of nature by large-scale resource extraction and of securing proper material circulation in the natural world. Moreover, from the viewpoint of promoting the sustainable use of recycled resources, measures will be taken to conserve and restore the natural environment together with the promotion of the use/utilization of biomass, and the development of appropriate forest development/lumber use.

Furthermore, monitoring through international linkage will be implemented because phenomena such as acid deposition and dust and sand storms are extending over the border.

(Reinforcement of systems for recycling and the disposal of resources)

In order to construct a sound material-cycle society, waste-control measures to encourage proper recycling and the disposal of resources will be promoted, taking into account concepts of waste generator responsibility and extended producer responsibility. In particular, as for reducing the burden on the environment associated with waste disposal, the strengthening of a variety of recycling systems will be promoted, taking into account international consistency. In doing so, the main aim is to further reinforce upstream measures which lead to waste generator responsibility such as the promotion of design/manufacturing considering the product lifecycle in accordance with the product's characteristics.

The 3R concept (reduce, reuse and recycle) and the proper disposal of waste will be pushed forward in desirable ways and extents. Therefore, efficient and highly safe transportation systems for recycled resources will be utilized and the creation and utilization of reverse physical distribution hubs such as recycle ports and eco-towns will be promoted. Moreover, in developing municipal solid waste disposal facilities, efforts should be made to create joint/wide-area waste disposal, material circulation and energy use systems. In particular, wide-area responses will be promoted by developing waste disposal facilities and final disposal sites by promoting

discussions with local residents for the purpose of securing the proper disposal of waste. In addition, economic incentives such as charges will be introduced.

Furthermore, the development of industrial waste disposal facilities in which the involvement of the private sector will be promoted. As for illegal dumping of industrial waste, individuals, corporations, local governments and the government will steadily prevent this by early detection and appropriate integrated responses.

In the future, it is necessary to comprehensively address the rationalization of transportation, the spread of digital manifest, the further development of good companies and proper disposal measures in challenging areas, such as remote islands, for the purpose of promoting the proper disposal of waste. Moreover, the development of the domestic waste disposal industry is an important issue for the future of international material circulation. Furthermore, it is necessary to give consideration to the disposal of large quantities of waste produced in a short time, such as during a large-scale earthquake.

(Promotion of international efforts for a sound material-cycle society)

International movement of resources for recycling purposes has been activated following an increase in the generation of recycled resources and diversification of their quality with economic growth and increase in population mainly in Asia. On the other hand, environmental pollution is a concern associated with this. Therefore, in constructing an international sound material-cycle society on an international level, a sound material-cycle society first needs to be constructed on a national level. Then efforts for preventing the illegal import/export of waste will be reinforced and strengthened. On this basis, the following measures will be implemented.

Japan should contribute to the improvement of each country's capabilities with the aim of international standardization of environmental technologies utilizing Japan's experience of environmental pollution, good technologies and human resources. Moreover, the upgrading of the traceability of recycled resources at domestic and international levels, the creation of a common Asian hazardous waste database, and the strengthening of international linkage for appropriate import/export management will be addressed and the construction of recycled resource distribution systems to secure this will be promoted. In doing so, consideration should be given to marine transport which places a low burden on the environment.

(3) Countermeasures against atmospheric and ground pollution

(Securing of a clean air environment)

Air pollution mainly caused by automobiles and the heat-island phenomenon due to an increase in urban activities and congestion are becoming problems in urban areas.

Therefore, from the viewpoint of reducing energy consumption in cities, the utilization of new energies such as wind power and biomass, and the use of fuel batteries, all of which contribute to the prevention of global warming, will be pushed forward and energy-saving will be promoted. Moreover, from the viewpoint of preventing an increase in temperatures resulting from decreased evapotranspiration due to a decrease in green zones and water surfaces and the artificial

orientation of the earth's surface, it is necessary to promote the construction of cities with low environmental burdens by improving the surface of the earth through afforestation and the conservation of green zones.

Moreover, from the viewpoint of realizing environmentally sustainable transportation systems, measures for smooth traffic flow such as the development of ring roads, the improvement of crossroads, urban infrastructure development for promoting use of public transport, and the development of ITS, and the "greening" of logistics such as through modal shift will be promoted. In addition, the further spread of low-emission cars, fuel-efficient cars and clean-energy cars – the development and practical use of which have progressed - will be promoted. At the same time, the use of public transport will be promoted through the promotion of mobility management and of convenience improvement measures. Furthermore, the securing of a clean roadside air environment by promoting local anti-pollution measures and the prevention of air pollution caused by stationary vehicles will be promoted.

(Conservation of soil environment)

It is important to maintain a sound soil environment by addressing preventative and countermeasures against soil pollution. Therefore, preventive measures will be promoted by continuing to properly implement effluent regulation/underground permeability regulation of hazardous materials, and emission regulation of smoke paying attention to the movement of pollutants between the air and water environments. Moreover, from the viewpoint of preventing human health hazards, appropriate research on and countermeasures against soil pollution in built-up areas will be promoted. Furthermore, once issues for promoting greater land use in areas where there are concerns about soil pollution have been understood, countermeasures will be considered.

Regarding farmland, efforts will be made to reinforce knowledge concerning cadmium, lead, arsenic and other hazardous materials. Soil pollution will be addressed by monitoring pollution, identifying areas with excessive pollution in need of countermeasures, formulating preparedness plans and appropriately implementing pesticide regulations.

In addition, the development of scientific knowledge related to the soil environment such as understanding the effects of soil pollution on the living environment as well as the appropriate disposal of polluted soil will be fostered.

Section 2 Sound Ecosystems

In order to pass on blessings from nature-to future generations, it is important to appropriately conserve unique animals, plants and ecosystems in accordance with regional characteristics and to prevent new risks of extinction in Japan. Moreover, it is important to use nature such as satochi-satoyama areas in a sustainable manner to meet the future generations' needs. Therefore, the following efforts such as the maintenance and recovery of biodiversity will be made for the purpose of constructing a society where humans and nature live symbiotically with a view to linkage not only within Japan but also with the Asia-Pacific region.

(1) Conservation and restoration of nature through ecological networks

It is important to promote the conservation and restoration of nature through the creation of ecological networks which organically link forests, farmland, urban green zones, waterfronts, rivers and seas in order to secure symbiosis of people and nature. It is expected that the creation of ecological networks will secure wildlife habitats, provide places for contact with nature and environment education, prevent global warming, and improve urban/water environments. In creating ecological networks, considerations will be given to securing protected areas of a sufficient size and location utilizing internationally important sites such as World Nature Heritage sites and wetlands registered in the Ramsar Convention as well as various domestic protected area systems such as nature conservation areas and national parks. In addition to domestic level efforts, it is necessary to push forward considerations on ecological networks extending as far as the regional blocks through linkage between a wide range of entities such as the government and local governments, taking into account the distribution of wildlife habitats straddling multiple local governments. Therefore, the government presents guidelines, so that various entities can respond on a wide range of levels and effectively implement projects.

Particularly in the case of restoring lost nature, it is necessary to implement it in such a way as to make nature more resilient. As for the natural environment, which plays an important role in the conservation of biodiversity, its restoration will be actively promoted through linkage with related government offices and the participation of a wide range of entities such as specialists, local residents and NPOs.

Meanwhile, in considering ecological networks, it is necessary to take conservation and management of the wildlife's habitat from the viewpoint of prevention of invasion of alien species and preventing conflicts between humans and wildlife such as damages to agricultural, forestry and fisheries industry by wildlife.

In creating ecological networks, it is important to appropriately implement the protection and management of endangered species so that the formulation of programs for protection and rehabilitation and their steady implementation will be promoted. The content includes regulation on capturing wildlife, improvement of habitat conditions, captive breeding, and individuals' return to nature. Moreover, as for the prevention of damage caused by wildlife and the maintenance of a sound regional population, prefectures formulate specified wildlife protection and management plans and promote scientific and systematic protection and management. Furthermore, as for countermeasures against alien species, regulations on rearing and importing of invasive alien species and control measures will be steadily implemented to avoid the serious disturbance to the ecosystems that can be caused by invasive alien species.

(2) Conservation, restoration and sustainable use of satochi-satoyama areas

Satochi-satoyama areas were formed through contact between local residents and nature. However, their quality has declined year by year as seen by the deterioration of habitat environments of living organisms unique to the areas and the loss of distinctive landscapes due to

an increase in abandoned cultivated land associated with recent changes in social and industrial structures and changes in satoyama-forest usage.

Therefore, the conservation and development of satochi-satoyama areas will be promoted through an agricultural and forestry industry in harmony with the environment. Also, comprehensive conservation will be implemented. This can be achieved by broadly utilizing a variety of systems such as system development through the establishment of linkage between the government, specialists, local residents and NPOs, utilizing it for contact with nature and environmental education, supporting activities of NPOs and land owners and concluding agreements with land owners, etc.

(3) Promoting contact with nature

In order to deepen understanding on symbiosis with nature, it is important to ensure opportunities for contact between people and nature with the participation of and linkage between a wide range of entities.

Therefore, the development of spaces for contact with nature and for expanding opportunities, the spread and establishment of eco tourism which aims at the sustainable use of the regional natural environment, history and cultures by appropriately conserving them, and "green tourism" whereby urban residents engage in extended-stay leisure activities in rural communities will be promoted. In particular, in important areas such as national parks, the proper development, management and operation will be promoted by designating natural scenic sites. Moreover, in cities, the conservation of green zones and development and afforestation of city parks will be pushed forward systematically from the viewpoint of restoring and securing good natural environments and securing contact with nature in daily life.

(4) Conducting environmental assessments

In implementing projects related to national land creation, it is necessary to take appropriate measures, giving priority to measures for avoiding changes of places to be conserved or minimizing those changes through environmental assessments in order to promote the conservation of natural environment.

Therefore, it is necessary to promote environmental assessments by continuing to push forward reviews of technical methods, considerations for functions of scope to be fully exercised, and the development of methods for fostering communication among concerned parties. Moreover, it is necessary to give appropriate consideration to the environment by considering environmental aspects when considering public works' locations and sizes, taking into account the works' characteristics.

Section 3 Conservation and Creation of Attractive Landscapes

An area, whose character is the result of the action and interaction of natural and/or human factors, is defined as a "landscape." The aim is to create sustainable and attractive landscapes in order to foster good relationships between humans and nature utilizing nature to the maximum

extent. This can be achieved by pushing forward modernization. However, care should be taken not to overlook aspects of traditional life that is still alive in modern rural life. Moreover, based on these ideas, the conservation and creation of good landscapes will be pushed forward in cities and rural communities.

(1) Sound and attractive landscapes

Forests which are not managed appropriately and abandoned cultivated land are increasing as a result of stagnation of the agricultural and forestry industry following changes in industrial structure and progress of disorderly land development with rapid urban expansion. Moreover, fuelwood forests have been abandoned following the fuel revolution. Furthermore, the desolation of satochi-satoyama areas, which were originally maintained and managed by local residents, is becoming a problem in some areas because the numbers of those responsible for their management are dropping as a result of the weakening of community functions associated with depopulation and the aging of society. As mentioned above, there is a tendency for good relationship between humans and nature to be destroyed and regional traditions and cultures which have been nurtured to be lost. Thus, there is a concern that the spiritual home of the Japanese may be lost. It is necessary to restructure the relationship between humans and nature so that it is ready for the new era and to create good landscapes in the areas. This can be achieved by creating good urban environments and beautiful and comfortable rural communities, promoting the maintenance and creation of sound ecosystems, promoting whole nation land care and promoting sustainable regional management.

Therefore, whole nation land care and ecological networks will be promoted. Also, efforts will be made for the ideas mentioned above to be reflected in plans concerning the use of regional land, to be disseminated and introduced into education, and for their meaning to be promoted. Attractive landscapes provide relaxation and comfort not only for local residents but also for visitors. Thus, efforts will be made to create good landscapes as well as measures for the protection, boosting and development of tourism resources including the development of footpaths such as nature trails.²¹

(2) Distinct regional landscapes

As attractive landscapes are essential for the creation of beautiful and stately national land and ensuring a good quality of life, it is necessary to promote their development and conservation as common assets of the people to be enjoyed now and in the future. Moreover, it is important for local governments, corporations and residents to push forward those efforts in an integrated manner.

Therefore, the creation of landscape plans by local governments and the utilization of systems such as the introduction of an afforestation rate will be promoted. Moreover, the dissemination/education of basic philosophies for creating good landscapes, the reinforcement of education concerning landscapes for the participation of a wide range of entities, information

²¹ Paths for enjoying walking in contact with nature and cultures unique to an area

provision concerning innovation, and the reinforcement of soft support measures such as development of specialists will be promoted. This leads to the creation of attractive landscapes, the development of affluent and comfortable areas/cities with abundant water and greenery. Moreover, the development of social overhead capital considering landscapes will be pushed forward. This can be achieved through landscape assessment systems which carry out landscape assessments by listening to the opinions of local residents affected by projects, other concerned parties and academic experts, taking into account the characteristics of individual projects and reflecting those opinions in project plans, and through landscape creation guidelines for each project. In order to promote the improvement of city landscapes and disaster prevention capacities, the securing of safe and comfortable traffic spaces, and the conservation of historic cityscapes, the laying of underground electric poles and the creation of high-quality road landscapes utilizing regional resources will be promoted. Furthermore, the creation of good landscapes will be pushed forward through the conservation, restoration and creation of waterfront/beachfront spaces. Moreover, the protection of good landscapes will be promoted through the appropriate utilization of systems such as designating certain areas as national parks.

Chapter 8 Basic Measures for Developing Local Communities Based on “New Public ”

The “new public” is a concept that positions not only the government but also a wide range of private entities as responsible for regional development, and these entities collaborate in the private sector, as well as in fields midway between the public and private sector with “public values” and existing public sector fields. Regional development based on this concept brings multiple benefits such as participants’ self-development through social contribution, regional pride, improvement of quality of life (QOL) through the diversification and reinforcement of social services, ripple effects of the movement of people and goods on the regional economy, and saving of administrative and financial resources. Therefore, basic measures for regional development based on the “new public” will be pushed forward in line with the following basic strategies taking into account global environmental problems and changes in demographic/regional structures.

1. Pushing forward regional development centered on the “new public” by securing members of the “new public” and development of an environment for their activities.
2. Realizing the management of immediate national land infrastructure such as roads, rivers and ports utilizing the initiatives of a wide range of entities such as local residents, NPOs and private companies based on the concept of the “new public.”
3. Pushing forward efforts to actively apply initiatives and activities of a wide range of private entities to regional development.

Section 1 Establishing the “New Public”; Developing an Environment for its Activities

(1) Raising awareness; opportunities for participation and experience

In order to realize regional development based on the “new public,” it is essential to develop and secure a wide range of private entities, especially individuals, regardless of age, sex,

occupation or nationality. Mutual linkage between a wide range of entities and the continuation of private entities' activities will then be established.

To this end, the raising of awareness of the multifunctional roles of the "new public" and the need to participate not only at the governmental level but also at the private sector level to develop human resources who will be members of the "new public." Specifically, widespread awareness raising by passing on the message to all generations through school education and community activities that working together to find solutions to pressing issues such as social welfare, child-raising, crime/disaster prevention and residential environments contributes to the improvement of quality of life and alleviates the burden on the whole of society.

Baby boomers are expected to be key members of the "new public." On the other hand, in order to continue activities on a long-term basis, the participation of the younger generation is essential. Younger generations tend to have greater awareness of the need to contribute to society. Thus, in order to utilize this opportunity, it would be beneficial to provide opportunities for a wide range of volunteer and community activities at various stage of life - from childhood to adolescent - to encourage participation. The aim of these efforts is to create a virtuous circle whereby participation in activities enhances self-satisfaction which then leads to motivation for further participation.

Additionally, the development of human resources who can be members of the "new public" will be promoted through community town planning education (machidukuri-juku), which is already under way in several areas. Furthermore, management mechanisms will be incorporated to encourage the participation of residents, NPOs and companies in public facilities and social services.

(2) Expansion of participating entities

In order to create a system that is easy to participate in for those who emphasize individuality, it is necessary to form a loose organization so that they can be involved in different forms depending on their situation and available time. Moreover, it is necessary to consider the participation of a broad range of people and the continuity of activities by including environmental activities, in which there is a lot of interest. Particularly in cities, it is necessary to tailor events taking into account the characteristics of urban lifestyles such as people not having much time to participate in local activities as a result of lengthy commuting or the frequent movement in and out to try to make it is easier for more residents to participate.

Furthermore, in order to facilitate the participation not only of those who find it relatively easy to make times for activities, such as self-employed individuals, the retired and housewives, but also of those who work outside the home, consideration will be given to future leave systems and restrictions on dual employment.

On the other hand, region-based communities such as residents' associations, PTAs and merchants' associations - the closest organizations to residents -, are also expected to act as the "new public." However, region-based communities have declined in cities and some of their activities have become stagnant in rural communities following the aging and declining