

Basic Policy for Nature Restoration

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1 Basic Ideas for the Promotion of Nature Restoration

(1) Status of Japan's Natural Environment

The natural environment, based on biodiversity and a natural material cycle, relies on a delicate balance of the ecosystem. Performing the functions of preventing global warming, protecting the aquatic and atmospheric environments, and providing the habitats for wildlife, the natural environment is an indispensable foundation for our life now and in the future. Its tremendous value to us also extends over societal, economic, scientific, educational, cultural, artistic, recreational, and various other aspects.

Unfortunately, our overexploitation of natural resources, which surpasses nature's ability for renewal, is deteriorating this important natural environment. As a result, biodiversity is decreasing, and the ecosystem is in decline. The natural environment, the irreplaceable base of human existence, is being damaged

Against the backdrop of its geological history and climate, Japan enjoys a diverse and rich natural environment, giving us various blessings, while at the same time requiring us to be prepared to battle natural disasters such as earthquakes, typhoons, heavy rains, and so on.

Although the safety level in times of natural disasters and the living standard in material terms have greatly improved due to Japan's rapid economic growth in the post-war era, the expansion of socio-economic activities characterized by mass production, mass consumption, and mass disposal has placed a heavy burden on the natural environment. With the rapid industrialization and subsequent development, the use of lands changed—the conversion of farmlands and forests to urban land use and the landfill of coastal areas. As a result, quality of the natural environment in the country decreased and many habitats of wildlife have disappeared.

In *satochi-satoyama*—the nature at countryside and community-based forests that have been maintained by local people—in which secondary natural environment has been maintained with human involvement, such as the use of firewood/charcoals and leaves, mowing, etc., changes in socio-economic situations have advanced. Such changes include the shift from energy resources to fossil fuels, decline in the use of biological resources due to changes in lifestyle and production modes, decline in and aging population, etc. These have reduced human involvement in nature, and along with the development of infrastructure that prioritized the use of inappropriate pesticides and chemical fertilizer as well as economy and efficiency, changed the particular quality of ecosystems that have been formed through interaction between humans and nature.

In addition, as an increasing number of people and goods are moving across borders, the number of foreign species that were brought to the country by humans (beyond the natural mobility capability of wildlife) increased. This is posing a great threat to the biota and ecosystems that are peculiar to each region.

Directly and indirectly, human activities and their influences have eroded natural coastlines, tidal flats, and wetlands. Less care is being given to artificial forests and secondary forests, and more farmlands are being abandoned, also contributing to the deterioration of ecosystem. Japan's natural environment is undergoing drastic changes. It is symbolized by the fact that many habitats of wildlife are deteriorating and the population is decreasing, as well as familiar wildlife such as the killifish is being threatened with extinction.

In addition, there is a concern about severe impacts of global warming on ecosystems, which are caused by the increase in greenhouse gas emissions through human activities. Various cases have been observed in Japan, which are considered to have been affected by global warming.

As the target and direction of measures on the conservation and sustainable use of biodiversity, the Third National Biodiversity Strategy was formulated in November 2007. In the light of the fact that biodiversity supports not only foundations of human survival but also cultural diversity, and that biodiversity in Japan and abroad is in a critical situation, the Basic Act on Biodiversity was enforced in June 2008. This is to promote the conservation and sustainable use of biodiversity in a comprehensive and systematic manner.

It is necessary to carry out nature restoration on the basis of these guidelines.

(2) Basic Guidelines for Nature Restoration

Today, the realization of a society in harmony with nature and conservation of the global environment have become important challenges. We humans are part of ecosystems and live by natural resources. It can be said that various cultures of each region including food, crafts, and local entertainment are rooted in the rich natural environment of the region. On the basis of this recognition, we must see the value of the natural environment in a new light, and take actions to protect and conserve existing species of indigenous animals and plants and the ecosystem that have been nurtured in the area throughout its long history. At the same time, we must carry out nature restoration to actively recover the local natural environments that have been damaged in the past and create a community in which people can enjoy nature's blessings.

Situated north and south lengthwise in a monsoon climate zone, Japan is blessed with rich biota and a beautiful and diversified nature. On the other hand, it has a dense population living on narrow areas of land and is characterized by a vulnerability to natural disasters because of its topographical,

geological, and climatic conditions. Depending on the area, the condition of nature differs immensely. Urban areas are under strong pressure to convert land for various usages, and rural areas have formed and maintained a secondary nature through the development of the agricultural, forestry, and fishery industries. Diverse environments have formed in water areas with the combination of Black/Oyashio Currents and the long peninsula stretching north and south. In particular, coastal areas have as rich biota as land areas, offering various ecosystems including long, indented coastlines, beaches, rocky shores, tidal flats, seaweed beds, coral reefs, etc. On the other hand, concentrated population and industries in coastal areas resulted in landfills and inflow of pollution load in shallow sea areas and inner bays. Therefore, when undertaking nature restoration in Japan, we must take into account the conditions influencing nature in a specific area, such as the characteristics of the local natural environment and its socio-economic activities. It is also important to fully coordinate the area's nature restoration with its socio-economic activities.

Furthermore, when undertaking local nature restoration, we need to adopt a regional approach that is based on the concept of ecosystem network, which takes broad perspectives such as relationships with surrounding areas and a river-basin wide initiative. These wide area approaches are important because the ecosystems of forests, grasslands, farmlands, cities, rivers, wetlands, coastal areas, and the oceans are closely interrelated by the river basin's water cycle and material cycle, and wild animals move in wide areas as an ecological characteristic.

As global warming, which is rapidly increasing, may have severe impacts on ecosystems, it is important to secure sound ecosystems that are peculiar to the region with high adaptability to environmental changes. It is necessary to carry out nature restoration in the light of the fact that the conservation and sustainable use of biological diversity contribute to the prevention of global warming.

In order to create a sustainable society, it is necessary to make integrated efforts toward the establishment of three societies: a society in harmony with nature, a low-carbon society, and a sound material-cycle society. In conjunction with the decrease in population and land use reform in the future, it is important to restore a better balance between humans and nature from a long-term viewpoint and improve the quality of nature in the whole country including the oceans. On the basis of these recognitions, nature restoration must be promoted by considering the future vision of each region and in cooperation with a wide range of efforts toward the realization of the vision.

In view of the above ideas as well as basic rules in the Basic Act on Biodiversity, nature restoration shall have the following four aspects:

(i) Nature restoration shall be carried out for the purpose of restoring the ecosystem and other natural environments that have been damaged or destroyed by socio-economic activities in the past, thereby realizing a society in harmony with nature where people can continue to enjoy the benefits through the protection of indigenous biodiversity, and where a sound and bountiful nature for future

generations is maintained, thus further contributing to the conservation of the global environment.

(ii) As it is an effort to restore the ecosystems and other natural environments inherent to an area, nature restoration shall be undertaken respecting regional autonomy, and ensuring transparency, with the participation and cooperation of various actors in the region.

(iii) Nature restoration shall be undertaken with an adaptive approach from a long-term perspective, using scientific knowledge, and based on an understanding that a project deals with complex and ever-changing ecosystems and other natural environments.

(vi) Nature restoration shall be undertaken by prioritizing the conservation of the remaining natural environment and eliminating the underlying causes of deterioration in natural ecosystems. Along with immediate short-term measures such as the prevention of local extinction, it is necessary to take note of considering and undertaking measures after identifying the causes of deterioration and deterioration conditions found as a result of combined effects of such causes.

Based on these aspects, nature restoration shall be implemented in accordance with the following guidelines:

A Scope of Nature Restoration Projects

A project undertaken to restore nature, hereinafter referred to as “nature restoration project,” is a new initiative defined by the four important aspects described above. It shall not be carried out as a compensatory measure to create a similar environment near the environment that has been destroyed by development activities, but to restore the ecosystem and other natural environments that have actually been damaged or destroyed by projects and human activities carried out in the past. The project is aimed at restoring various ecosystems including forests in land areas, grasslands, *satochi-satoyama*, rivers in inland water systems, lakes, wetlands, beaches around sea areas, tidal flats, seaweed beds, and coral reefs.

Nature restoration projects include the following: “Conservation” is a positive effort to maintain the conditions of an existing good natural environment. “Restoration” is an activity to recover the natural environment of areas where the natural environment has been damaged or destroyed by human activities and development, or those where the secondary natural environment has deteriorated because of the decrease of human involvement in nature, such as the use and management of natural resources. “Creation” is an activity to recover the natural ecosystem of an area by constructing large-scale green spaces in areas where most of the natural environment has been lost, such as in big cities. And “maintenance” is the activity to monitor the condition of the restored natural environment and to provide the necessary management in order to maintain the condition for a long time.

B Participation and Cooperation of Various Actors in the Region

Because the purpose of a nature restoration project is to restore the ecosystem and other natural

environments inherent to an area, the area's local autonomy and independence must be respected when determining the targets of restoration and the methods for restoring the natural environment.

In the implementation of a nature restoration project, it is important to have the participation and cooperation of various actors in the region, including the concerned governmental agencies, concerned municipal governments, local residents, specified non-profit corporations and other civil organizations (hereinafter referred to as "NPOs"), individuals with specialized knowledge of the natural environment, and land owners, from the initial stage of formulating the concept of the nature restoration project, designing surveys, and implementing the project, to maintenance after the project has been implemented. These actors are encouraged to participate in a voluntary and active manner, sharing information and ensuring transparency.

C Project Implementation based on Scientific Knowledge

Nature restoration projects shall be implemented based on scientific knowledge. A scientific base shall be formed, drawing on the knowledge of characteristics of the local natural environment and ecosystem, as well as using scientific methods, to determine the overall image of causes that damaged or destroyed the natural environment, etc., including relations with socio-economic activities. This scientific base shall be utilized to verify the need for nature restoration. At the same time, the project shall be implemented through the following processes: determining, implementing, and verifying the goals of nature restoration and the methods for achieving the goals.

A natural environment, which can be maintained in good condition in terms of technique and socio economy, must be set as the target of nature restoration. It is important to set up long-term and short-term goals, taking into account sustainability on the basis of recovery ability and cycle of nature. In doing so, understanding the system in which natural ecosystems are maintained with changes and disturbance in nature is also necessary. Goals need to be easy to understand and as specific as possible. Possible methods of setting up goals include: 1) setting conditions in a specific period in the past as goals based on the analysis of changes in the natural environment where the project is conducted, or 2) setting up goals focusing on the conditions of characteristic species and ecosystems in the region.

In deciding the methods of nature restoration, consideration should be made to utilize nature's recovery ability and maintain the delicate balance of the ecosystem. Methods of nature restoration shall be fully studied to include methods that rely not just on construction works, etc., but those that place their trust in nature's ability to maintain the restored natural environment on its own.

In Japan, there have been traditional methods that fully utilize local natural resources, such as thinned wood and brushwood, as well as local skills. We must make efforts to gain knowledge, accumulated through experience, of refined, nature-friendly traditional methods. In some regions, prescribed

burning and cleaning ponds are the essential activities to maintain biodiversity as alternative ways of disturbance to nature. These methods should therefore be verified for their effectiveness and employed as methods for nature restoration.

D Adaptive Approach

Because nature restoration projects deal with complex and ever-changing ecosystems and other natural environments, it is necessary to adopt an adaptive approach by obtaining the cooperation of individuals with specialized knowledge of the region's natural environment. An adaptive approach involves conducting a thorough survey of the natural environment before a project starts, monitoring the recovery condition of the natural environment after the project has started, assessing the results scientifically, and reflecting the assessment results to the rest of the project processes.

Scenarios for nature restoration include those in which all conditions are in place to enable nature's recovery power to take control in the recovery process, and those in which human intervention is needed to facilitate the recovery process. In either case, we should fully understand that a long time is needed for the ecosystem to recover its integrity.

Therefore, by adopting an adaptive approach in the implementation of a nature restoration project, , the recovery of the natural environment must be monitored on a continuous long-term basis and, when necessary, the contents of the plan or the project must be revised to ensure that the functions of the ecosystem and other natural environments targeted by the nature restoration are not impaired. This includes cancellation of the project, and in the case of cancellation, ensuring that the surrounding environment is not affected.

E Promoting Natural Environmental Education

Natural environmental education is important in that it can arouse people's interest in their natural environment, deepen a shared understanding and enhanced awareness of its importance, and ultimately rebuild the weakened relationship between mankind and nature.

In order to ensure the effectiveness of natural environmental education, it is necessary to provide opportunities for people to experience nature directly "using five senses" and participate in conservation activities rather than just passing out knowledge, and thereby to create spaces for the natural experience. Nature restoration based on an understanding of the characteristics of local natural environment and scientific knowledge is an appropriate opportunity for natural environmental education. Consideration shall therefore be given to fully utilizing the location of a nature restoration project as a venue for the acquisition of practical knowledge of the natural environment, such as the characteristics of the local natural environment, nature restoration techniques, and nature's recovery process.

Education systems to promote human resource development toward the creation of a sustainable society should be introduced in various fields of education, and students should gain deeper understanding of the natural environment and learn to contribute to environmental conservation. To this end, it is important to improve environmental education in schools and to provide citizens with various opportunities of lifelong, high-quality environmental education and learning at such places as home, school, community, and work place in order to respond to the increase in their awareness of environmental conservation. When promoting such environmental education and learning in various forms, it is necessary to actively utilize the community that conducts natural restoration projects. Therefore, cooperation and coordination with concerned local institutions including schools and research institutes, social education facilities such as museums and community centers, and natural environment education facilities such as visitor centers, should be strengthened. In such circumstances, rules shall be set up to prevent excessive usage that may affect nature restoration adversely.

F Efforts Made in Cooperation with Local Industries

Taking cooperative approach with local industries is necessary to carry out nature restoration in a sustainable and effective manner. In particular, agriculture, forestry, and fisheries are sustainable productive activities that rely on nature's material cycle function and have contributed greatly to the formation of a secondary nature, such as *satochi-satoyama*. With this basic understanding, efforts that are in harmony with the local environment shall be promoted in conjunction with the implementation of nature restoration projects. The following initiatives, for example, should be promoted while obtaining consensus of concerned parties: implementation of environmentally conscious agricultural production activities such as reducing agricultural chemicals and chemical fertilizers, etc.; sustainable methods of maintenance and development of infrastructure for ditches, small reservoirs, footpaths between rice fields, etc. with consideration of the network conservation for water and ecosystems; forestry activities that take into consideration biodiversity; and the selection of fishing equipment and setting of fishing seasons to match the restoration progress of fishing ground environments, etc. In such areas, peculiar ecosystems and culture have formed through interaction between human activities and nature. With this in mind, it is important to respect local expertise accumulated by the practitioners of agriculture, forestry, and fisheries, and carry out nature restoration using traditional methods of maintenance that are important for the preservation of biodiversity. At the same time, local industries and socio-economic activities should be correlated with nature restoration as sustainable initiatives, by linking them with the cyclical use of natural resources and revitalization of communities.

G Other Necessary Matters related to the Implementation of Nature Restoration

In order to effectively promote nature restoration into the future, the national and municipal

governments shall promote research and studies, advances in scientific technology, and provide information such as nationwide case reports in Japan.

Gaining the understanding and cooperation of local residents is essential in ensuring the effectiveness of nature restoration measures. In carrying out nature restoration, consensus must be sought through discussions at local council meetings, and nature restoration must proceed with the understanding and cooperation of landowners who have authority or influence over the areas targeted for nature restoration. In order to further promote participation and cooperation of local private entities and residents, it is important to secure systems in which the whole community supports activities of private entities including those in private land, as well as support for such activities. Citizens who live in and enjoy the benefits of the restored nature should also try to understand and cooperate with nature restoration activities. To promote understanding of the importance of nature restoration and to enhance awareness at the local and national levels, the national and municipal governments shall actively carry out public awareness activities including the effective implementation of natural environmental education.

To ensure that the restored natural environment is properly maintained for many years to come, the restoration implementation must be extensively coordinated with various other programs concerning the land use, including surrounding areas and environmental conservation, and also be supported by necessary financial measures according to local conditions.

Nature restoration must also be implemented taking into account, according to local conditions, the conservation of the global environment. Consideration should be given to the formation of global ecosystem network such as the conservation and restoration of habitats and migratory points for wildlife species that move on a global scale, and to take measures to mitigate global warming by taking the following actions: 1) appropriate management of forests that store a large amount of carbon in trees and soil; 2) appropriate conservation of wetlands and grasslands that store carbon in peat and soil; 3) use of biomass from grass and trees that is produced through appropriate management of ecosystems such as the thinning of artificial forests, management of *satoyama* forests, and mowing in secondary grasslands; and 4) adoption of methods to reduce the discharge of greenhouse gases.

2 Basic Matters concerning the Nature Restoration Council

When undertaking nature restoration in an area, the party who plans to implement the project (hereinafter referred to as “implementer”) shall form a nature restoration council (hereinafter referred to as “Council”) with local residents, NPOs, individuals with specialized knowledge of the natural environment, landowners, other parties who intend to participate in the nature restoration project or activities related to the nature restoration project, concerned governmental agencies, and concerned

municipal governments. The Council shall draw up an overall design for the project, deliberate the drafts of the implementation plan, and appropriately conduct various communication and coordination related to the implementation of the nature restoration project. The Council must also thoroughly deliberate to ensure that the restoration is implemented according to the local social and natural conditions, in accordance with the conservation of national land and other public interests.

The implementer and the Council shall be responsible for the organization and operations of the Council, with attention given to the following matters:

(1) Organization of the Council

A The implementer shall announce the establishment of the Council, indicating the purpose of the nature restoration project to be undertaken and its contents. The implementer shall provide an opportunity for broad and fair participation by parties, such as NPOs, to participate in local nature restoration projects.

B Nature restoration shall be implemented with the cooperation of various actors in the region. The Council shall try as much as possible to invite these various actors to join.

As it is important to conduct Council discussions based on scientific knowledge, it is especially important to enlist the participation of individuals who have specialized knowledge of the local natural environment.

In order to facilitate the implementation of a nature restoration project, it is important to gain the understanding of concerned parties, particularly landowners, about the purpose of the restoration and to invite them to join the Council as participants in the project.

C The concerned governmental agencies and concerned municipal governments shall provide the necessary assistance for organizing the Council. For example, the concerned governmental agencies can provide the implementer with consultation services and join the Council as members in order to promote measures for the implementation of nature restoration projects.

(2) Operations of the Council

A The Council shall be operated fairly and properly under the consensus of the Council. The principle goal of the Council's operation should be consensus building for nature restoration in the area targeted by the nature restoration project.

B It is important that the Council establish a system that matches local conditions and that can facilitate deliberations based on objective, scientific information, with the cooperation of individuals

who have specialized knowledge of the regions' natural environment.

C Except in such cases as those that impede the protection of rare species or that involve the protection of personal information, the Council shall, in principle, be open to the public in order to ensure transparency in the Council's operations. When necessary, third party opinions on the Council's operations shall be sought.

D The Council shall discuss methods for ensuring continuous communication and coordination with regard to the implementation of the nature restoration project, assessing the monitoring results of the project, and reflecting the assessment results to the project in an appropriate manner.

E The person to be in charge of administrative duties, such as the operations of the Council, shall be appointed from among Council participants based on agreement arrived at the Council. Participants of the Council shall actively cooperate in the operations of the Council.

3 Basic Matters Concerning Formulation of the Overall Design of Nature Restoration and the Nature Restoration Project Implementation Plan

Before implementing a nature restoration project, an overall design for nature restoration (hereinafter referred to as "Overall Design") and a nature restoration project implementation plan (hereinafter referred to as "Implementation Plan") shall be drawn up.

In line with this Basic Policy for Nature Restoration, the Overall Design establishes the general ideas of local nature restoration by determining the target areas for restoration, the goals of the restoration, the names of individuals or organizations to join the Council and their respective responsibilities, and other necessary matters related to the implementation of the project. In accordance with the Basic Policy for Nature Restoration, the Implementation Plan clarifies the contents of each nature restoration project under the Overall Design, by determining the area covered by each project and its contents, relationship with the natural environment of surrounding areas, the significance and effect of the conservation of the natural environment, and other necessary matters related to the implementation of the project.

Attention shall be given to the following matters in the formulation of the Overall Design and Implementation Plan:

(1) Scientific Methods of Survey and Assessment

In drawing up the Overall Design and the Implementation Plan, the Council shall obtain the cooperation of individuals with specialized knowledge of the local natural environment, conduct

advance surveys, and evaluate the results based on scientific knowledge. When necessary, subcommittees shall be set up for this purpose.

During this process, the validity of the Overall Design and the Implementation Plan shall be verified as to whether better or more feasible technologies or methods have been adopted. This review process shall also be made open.

(2) Contents of the Overall Design

A In the formulation of the Overall Design, objective scientific data on the local natural environment shall be gathered in advance, investigation of the local social conditions shall be conducted, and based on these results, a thorough deliberation shall be carried out by the Council.

B The Overall Design shall establish the general ideas of nature restoration for the targeted area. When several Implementation Plans are developed for the area, the Overall Design will govern these individual plans.

C In the Overall Design, the area subject to nature restoration and the goals of restoration for the area shall be determined as specifically as possible, based on the objective, scientific data of the area. The design shall give a summary of the project necessary for achieving the goals, classify the category of the project, and determine the responsibilities of the Council's participants.

(3) Contents of the Implementation Plan

A The implementer shall formulate the Implementation Plan based on the Overall Design and the latest information on the natural environment and the social situation in the area, taking into account the Council's deliberation results.

B In order to determine the area targeted for the nature restoration project and the project's contents, objective, scientific information on the local natural environment shall be gathered in advance with the cooperation of individuals who have specialized knowledge of the local natural environment. Detailed field surveys shall be conducted when necessary. Thorough review of their results shall be carried out so that the project will agree with the characteristics of the local natural environment. In doing so, consideration shall be given to the necessity of cooperation with various efforts in the surrounding areas after analyzing the relationship between the target area and the surrounding areas.

C The implementation plan shall specify a specific plan for the timing and frequency of the advance surveys on the condition of natural environment and social situations of the area targeted for the nature restoration project and its surrounding areas, and also for the monitoring of the recovery status during and after the implementation of the project. The contents of these specifics shall be discussed

by the Council. Discussions shall also be made on an adaptive approach to the project, such as the scientific evaluation of the monitoring results of the nature's recovery status and the reflection of results in the nature restoration project concerned.

D Precaution shall be taken to prevent exerting any negative impact on local biodiversity in conjunction with the implementation of a nature restoration project. This would include, for example, the introduction of animals and plants that do not grow in or inhabit the area targeted for the project.

E Under the Overall Design, if several Implementation Plans have been drawn up, the implementers shall exchange information through the Council and share information on the various restoration efforts in order to ensure that nature restoration will become effective as a whole.

(4) Disclosure of Information

In the formulation of the Overall Design and the Implementation Plan, information concerning the drafted contents in the formulation process shall, in principle, be disclosed to the public to ensure transparency.

(5) Review of the Overall Design and Implementation Plan

The implementer shall take a flexible approach to apply the results of monitoring carried out during and after the implementation of the nature restoration project—after the results have been assessed scientifically with the cooperation of individuals who have specialized knowledge of the local natural environment—to the project in progress, including cancellation of the nature restoration project when necessary. The Overall Design shall be reviewed chiefly by the Council, and the Implementation Plan by each implementer, both taking a flexible approach in order to make adjustments when necessary. Revisions to the Implementation Plan shall be made based on the results of thorough deliberation by the Council.

4 Basic Matters concerning the Promotion of Natural Environmental Education Associated with Nature Restoration

It is meaningful to use the actual locations of nature restoration as a venue to acquire knowledge of the natural environment, including for example, the recovery process of the environment. Areas in which nature restoration projects are conducted shall therefore be used and provided for natural environmental education in a proactive manner. A party who intends to conduct natural environmental education in the area targeted by the Overall Design shall pay attention to the following matters:

(1) Establishing a Program for Natural Environmental Education

Ways of utilizing the natural environment, including for education, shall be thoroughly studied. A specific program of studies for the area targeted shall be established in the Implementation Plan.

(2) Human Resources Training

Efforts shall be made to nurture human resources for natural environmental education in each area, working towards cooperation with NPOs and volunteers in order to facilitate the implementation of such studies.

(3) Sharing and Provision of Information

Efforts shall be made to share information related to the venues, opportunities, human resources, and educational programs among community members, and to improve the function of information provision including cooperation with measures concerned.

5 Other Important Matters related to the Implementation of Nature Restoration

Attention shall be given to the following important matters in the implementation of nature restoration:

(1) Nature Restoration Promotion Conference and Nature Restoration Expert Panel

In order to lead the country in nature restoration, the Ministry of the Environment, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Land, Infrastructure and Transport shall strengthen cooperation between themselves and other concerned government agencies through communication and coordination at the Nature Restoration Promotion Conference.

The Nature Restoration Promotion Conference and Nature Restoration Expert Panel shall, in principle, be open to the public to ensure transparency in their operations. For this purpose, matters concerning the establishment of these entities, such as their organization structure, secretariat, etc. shall be determined separately at their establishment, and the information shall be made available to the public.

(2) Promotion of Research and Studies

The national and municipal governments shall make efforts to gather information on the local natural environment on a continuous, long-term basis, make the information available appropriately, and

conduct research and development on technology for nature restoration in coordination with the implementation of nature restoration projects.

(3) Collection and Provision of Information

The national and municipal governments shall gather and provide information on nature restoration, including case reports on projects and activities of nature restoration carried out in Japan and overseas. The national government shall make efforts to study methods and establish a system for the collection and provision of information efficiently and effectively. One example is setting up a website to give a comprehensive listing of summaries and progress reports of nature restoration projects undertaken by various implementers nationwide.

(4) Enhancement of Public Awareness

The national and municipal governments shall carry out public-awareness activities to increase the understanding of local residents and NPOs about the status of the natural environment and the importance of its conservation and restoration.

(5) Support for the Council

If implementers organize a council or create an overall design and implementation plan, they shall report it to the competent minister and the governor of the prefecture that administers the area targeted by nature restoration projects. They shall also send related materials and be able to request technical or other necessary support.

The national government shall hold nature restoration expert meetings as needed in order to provide the Council, etc. with technical support. The government should also establish a council, exchange information between councils, provide support for nature restoration activities conducted by local residents and private entities, and promote nature restoration in cooperation with local public authorities.

(6) Promotion of Efforts on the Basis of Nation-Wide and Wide-Area Perspectives

On the basis of global efforts and trends concerning the conservation and sustainable use of biodiversity, the national government shall promote nature restoration activities in response to Japan's natural and social conditions. Such activities as well as efforts using local characteristics should be promoted in a systematic manner from nation-wide and wide-area perspectives. For example, it is important to take into account the ground design of the national land in terms of biodiversity, including a global perspective that Japan's biodiversity is linked with other surrounding countries via the sea and the sky. Another example is to hold discussions to identify areas with high

necessity of nature restoration on the basis of comprehensive evaluation of biodiversity on a national level and specific advancement of ecosystem network design.

When the natural environment declines or deteriorates in an extensive area beyond the boundary of a municipality, as in the case of a metropolitan area, the national and municipal governments should seek the participation of various actors in the region to form a common understanding with a wide-area perspective such as the necessity of developing ecosystem network and to take systematic measures to restore the environment.