

Basic Policy for Nature Restoration

1 Basic Directions for 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 functions such as 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 the 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.

Due to its geological history and climate, Japan enjoys a diverse and rich natural environment that gives us various blessings. At the same time, it requires 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.

The quality of secondary natural environment has also changed. *Satochi-satoyama*—the Japanese traditional rural landscapes that have been influenced and maintained by local people—has changed due to a decline in population, changes in lifestyle and production modes, and other socio-economic changes that have reduced human involvement in the maintenance of such nature.

Directly and indirectly, human activities and their influences have eroded natural coastlines, tidal flats, and marshes. Less care is being given to artificial forests and secondary forests, and more farmlands are being abandoned, also contributing to the deterioration of ecosystem, and familiar wildlife such as the killifish is being threatened with extinction. In ways such as these, Japan's natural environment is undergoing drastic changes. .

(2) Basic Directions for Nature Restoration

Today, the realization of a society in harmony with nature and conservation of the global environment have become important challenges. To this end, we must see the value of the natural environment in a new light, and take actions to protect existing species of indigenous animals and plants and conserve 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.

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. 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 emphasizes the relationships with surrounding areas and takes a broad perspective, such as that of a river-basin wide initiative. These wide area approaches are important, because the ecosystems of forests, farmlands, cities, rivers, and coastal areas are closely interrelated by the river basin's water cycle and material cycle, and wild animals move in wide areas as an ecological characteristic.

In view of the above, nature restoration shall have the following three 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 indigenous biodiversity is protected and 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.

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

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 three 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.

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. “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 local governments, local residents, specified nonprofit corporations and other civil organizations (hereinafter referred to as “NPOs”), and individuals with specialized knowledge of the natural environment, 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 causes that damaged or destroyed the natural environment, etc. This scientific base shall be utilized to verify the need for nature restoration, set up the goals of nature restoration, and determine the methods for achieving the goals.

In this process, 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 need to make efforts to gain knowledge, accumulated through experience, of refined, nature-friendly traditional methods. These methods should then 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 Learning

Natural environmental learning 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 people and nature.

In order to ensure the effectiveness of natural environmental learning, it is necessary to provide opportunities for people to experience nature directly and participate in conservation activities rather than just passing out knowledge. Nature restoration based on an understanding of the characteristics

of local natural environment and scientific knowledge is an appropriate opportunity for natural environmental learning. 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. In such circumstances, rules shall be set up to prevent excessive usage that may affect nature restoration adversely. Cooperation and coordination with social education facilities such as museums and community centers, and concerned local institutions such as schools and research institutes are also important.

F Other Necessary Matters related to the Implementation of Nature Restoration

In order to effectively promote nature restoration into the future, the national and local 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 committees, and nature restoration must proceed with the understanding and cooperation of landowners who have authority or influence over the areas targeted for nature restoration. To promote understanding of the importance of nature restoration and to enhance awareness at the local level, the national and local governments shall actively carry out public awareness activities including the effective implementation of natural environmental learning programs.

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 environmental conservation programs and supported by necessary financial measures according to local conditions.

In essence, agriculture, forestry, and fisheries are sustainable productive activities that rely on nature's material cycle function and have contributed to the formation of a secondary nature, such as *satochi-satoyama*. With this basic understanding, agriculture, forestry, and fisheries 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 the use of agricultural chemicals and chemical fertilizers, etc.; sustainable methods of maintenance for ditches, small reservoirs, footpaths between rice fields, etc.; 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. It is also important to respect local expertise accumulated by the practitioners of agriculture, forestry, and fisheries, who have carried out activities in harmony with the natural environment for many years.

Nature restoration must also be implemented taking into account, according to local conditions, the conservation of the global environment. Consideration should be given to habitats and migratory points for wildlife species that move on a global scale, and to measures to mitigate global warming through the adoption of methods to reduce the discharge of greenhouse gases and proper forest management to absorb carbon dioxide.

2 Basic Matters concerning the Nature Restoration Committee

When undertaking nature restoration in an area, the party who plans to implement the project (hereinafter referred to as “effector”) shall form a nature restoration committee (hereinafter referred to as “Committee”) 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 local governments. The Committee shall draw up an overall plan for the nature restoration 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 Committee 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 effector and the Committee shall be responsible for the organization and operations of the Committee, with attention given to the following matters:

(1) Organization of the Committee

A The effector shall announce the establishment of the Committee, indicating the purpose of the nature restoration project to be undertaken and its contents. The effector 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 Committee shall try as much as possible to invite these various actors to join. As it is important to conduct Committee 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 Committee as participants in the project.

C As the concerned governmental agencies can provide the effector with consultation services, the agencies and local governments shall provide the necessary assistance for organizing the Committee and join the Committee as members in order to promote measures for the implementation of nature restoration projects. .

(2) Operations of the Committee

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

B It is important that the Committee 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 Committee shall, in principle, be open to the public in order to ensure transparency in the Committee's operations. When necessary, third party opinions on the Committee's operations shall be sought.

D The Committee 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 Committee, shall be appointed from among Committee participants based on agreement arrived at the Committee. Participants of the Committee shall actively cooperate in the operations of the Committee.

3 Basic Matters Concerning Formulation of the Overall Plan for Nature Restoration and the Implementation Plans for Nature Restoration Projects

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

In line with this Basic Policy for Nature Restoration, the Overall Plan 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 Committee 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 Plan, 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 Plan and Implementation Plan:

(1) Methods of Scientific Survey and Assessment

In drawing up the Overall Plan and the Implementation Plan, the Committee 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 Plan 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 Plan

A In the formulation of the Overall Plan, 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 Committee.

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

C In the Overall Plan, 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 Committee's participants.

(3) Contents of the Implementation Plan

A The effector shall formulate the Implementation Plan based on the Overall Plan and the latest information on the natural environment and the social situation in the area, taking into account the

results of the Committee's deliberation.

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.

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 Committee.

D Precautions 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 Plan if several Implementation Plans have been drawn up, the effecters shall exchange information through the Committee 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 Plan 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 Plan and Implementation Plan

The effector 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 Plan shall be reviewed chiefly by the Committee and the Implementation Plan by each effector, 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 Committee.

4 Basic Matters concerning the Promotion of Natural Environmental Learning 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. A party who intends to provide opportunities for natural environmental learning in the area targeted by the Overall Plan shall pay attention to the following matters:

(1) Establishing a Program for Natural Environmental Learning

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

(2) Human Resources Training

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

(3) Sharing of Information

Efforts shall be made to share information related to the venues, opportunities, human resources, and learning programs among community members.

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 local 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.

(3) Collection and Provision of Information

The national and local 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 effectors nationwide.

(4) Enhancement of Public Awareness

The national and local 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) Inter-regional Cooperation

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, it is important that the national and local governments seek the participation of various actors in the region to form a common understanding with a wide-area perspective and to take systematic measures to restore nature.