

An aerial illustration of a city landscape. The top half shows a rural area with green hills, a winding river, and a small pond. A bird is flying in the sky. The bottom half shows a more developed urban area with a river, a bridge, a harbor with a boat, and a city center with modern buildings, green roofs, and parks. The text is overlaid on the center of the image.

Green Infrastructure Promotion Strategy 2030

—Toward Realizing a Society in Which the Use
of Green Infrastructure Is Standard Practice—

January 2026

Ministry of Land, Infrastructure,
Transport and Tourism

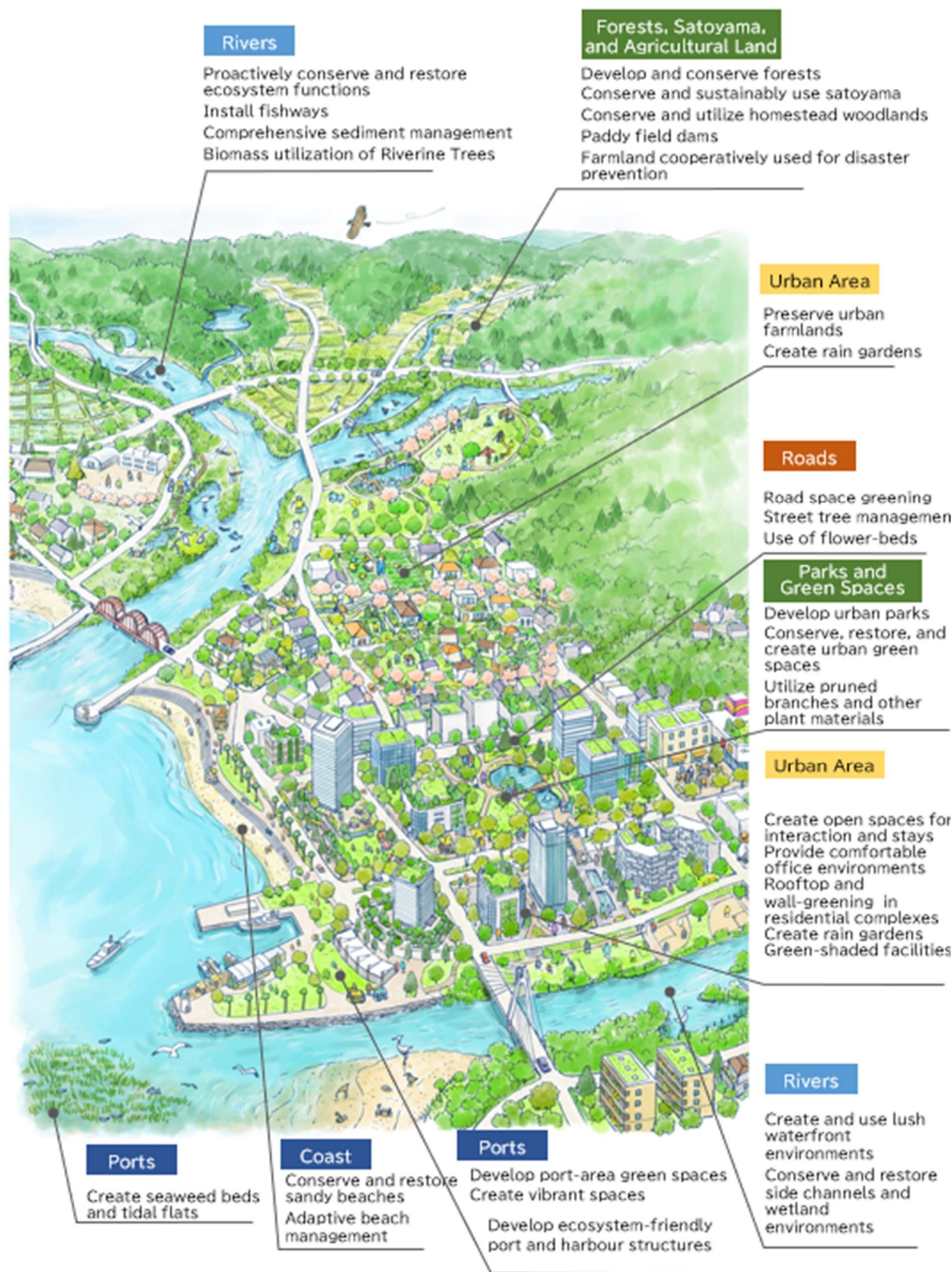


Figure 1: Explanation of the Cover Illustration

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Introduction

Japan is a nation surrounded on all sides by the sea and characterized by complex, varied topography extending from its coastlines to its forested mountain regions. Throughout its history, communities have engaged in activities that harmonized with nature while making use of its distinctive features, thereby shaping region-specific histories, livelihoods, and cultures. Since the Meiji Restoration, when Japan began its pursuit of modernization, infrastructure development has progressed in response to the social demands of each era by leveraging the diverse functions that nature provides.

Building on this background and related developments, the term “green infrastructure” was first formally incorporated into a government document in the Second National Spatial Strategy (approved by the Cabinet on August 14, 2015). Since then, green infrastructure has continued to be positioned in various national plans, and through progress in public-private initiatives, supported by the Green Infrastructure Public-Private Partnership Platform established in 2020, efforts have been made to advance its implementation, expand development activities, and broaden the range of stakeholders involved.

Furthermore, based on discussions within the Green Infrastructure Conference, comprising academic and other experts, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) formulated and published the Green Infrastructure Promotion Strategy in 2019. The Strategy organized the definition, characteristics, and significance of green infrastructure, while outlining the need for collaboration among diverse stakeholders and presenting the policy directions to be undertaken by the Ministry.

Subsequently, the Third National Spatial Strategy (approved by the Cabinet on July 28, 2023) identified “Creating a Green Nation Land” as one of its priority themes. In September of the same year, the government announced a shift toward a full-scale implementation phase and formulated and released the Green Infrastructure Promotion Strategy 2023 (hereinafter referred to as “the previous Strategy”), which systematically and comprehensively organized key perspectives for promoting related initiatives, along with the measures under MLIT.

The previous Strategy has facilitated notable progress in the implementation of green infrastructure through collaboration among diverse stakeholders. Membership in the Green Infrastructure Public-Private Partnership Platform has surpassed 2,000 organizations, indicating that the concept of green infrastructure has become considerably more established in Japan. Furthermore, in addition to on-the-ground implementation, research into more effective methods for implementing green infrastructure has also been advancing.

In the period since the formulation of the previous Strategy, substantial changes have taken place in the domestic and international contexts surrounding green infrastructure.

Domestically, the Sixth Basic Environment Plan (approved by the Cabinet on May 21, 2024) identified “well-being and a high quality of life” as the highest-level objective of environmental policy. The Basic Land Policy (approved by the Cabinet on June 11, 2024) articulated a shift toward the realization of “sustainable land use and management,” moving away from traditional land policies premised on residential land development and similar land-use practices.

Furthermore, the Plan for Global Warming Countermeasures (approved by the Cabinet on February 18, 2025) established new greenhouse-gas reduction targets. The First Mid-Term Plan for the Implementation of National Resilience (approved by the Cabinet on June 6, 2025) set forth the need to advance national resilience measures in response to three emerging changes: changes in external forces and structural resistance to disasters, changes in social conditions, and changes in the environment for project implementation.

Furthermore, at GREEN × EXPO 2027, which will be held in Yokohama City, Kanagawa Prefecture, starting in March 2027, one of its sub-themes, “Harmony with Nature,” positions green infrastructure as a means of presenting to the world the foundations of sustainable, safe, and attractive cities. Efforts toward implementation are already underway.

In addition, the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) were released in 2023, and it is expected to advance domestically in a manner similar to Climate-related Financial Disclosures (TCFD). In the United Kingdom, the concept of Biodiversity Net Gain (BNG), which requires developers to increase biodiversity by at least 10% compared with pre-development conditions, was enacted into law at the national level for the first time in 2024. Moreover, the concept of Nature-based Solutions (NbS), approaches that leverage nature to help address societal challenges, has been gaining global attention. Efforts to promote NbS have begun to emerge globally.

Against this backdrop, the Green Infrastructure Conference was convened in February 2025 to engage in intensive discussions on the future direction of a new Green Infrastructure Promotion Strategy.

During the course of these discussions, an Interim Summary outlining the future directions of green infrastructure policy was compiled in March 2025. The contents of this summary were subsequently reflected in the MLIT Environmental Action Plan, formulated in June 2025 (hereinafter referred to as “the Environmental Action Plan”), in which the aim of realizing “a society in which the use of green infrastructure is standard practice” was identified as a key priority area.

In this Strategy, the role of serving as the implementation plan for the Environmental Action Plan is explicitly defined. Consistent with the Environmental Action Plan, the planning period is set through FY2030.

The Strategy is entitled the Green Infrastructure Promotion Strategy 2030, as FY2030 marks both the final year of the planning period and a milestone year in environmental policy, serving as the target year for nature-positive initiatives and Nationally Determined Contributions (NDCs).

Building on this Strategy, a wide range of stakeholders,-including the national government, local governments, private-sector entities involved in national, urban, and regional development, together with the general public, civic groups, and community organizations,-are expected to advance the implementation of green infrastructure.

Overall Structure of the Strategy and Roles of Stakeholders

This Strategy sets forth the fundamental policies for promoting the use of green infrastructure and is composed of six chapters.

- Chapter 1 organizes the societal challenges expected to address through green infrastructure into seven categories.
- Chapter 2 presents a new definition of green infrastructure and describes its implementation benefits, characteristics, and key considerations for implementation.
- Chapter 3 outlines the envisioned society that green infrastructure aims to achieve.
- Chapter 4 sets out cross-sectoral measures to develop an enabling environment under six thematic pillars.
- Chapter 5 systematically compiles MLIT's individual projects and initiatives that implement green infrastructure in response to the seven societal challenges identified in Chapter 1.
- Chapter 6 presents a roadmap through 2030 for the six pillars in Chapter 4 and the representative initiatives listed in Chapter 5.
- Measures and initiatives undertaken by non-MLIT ministries and agencies are provided in the appendix.

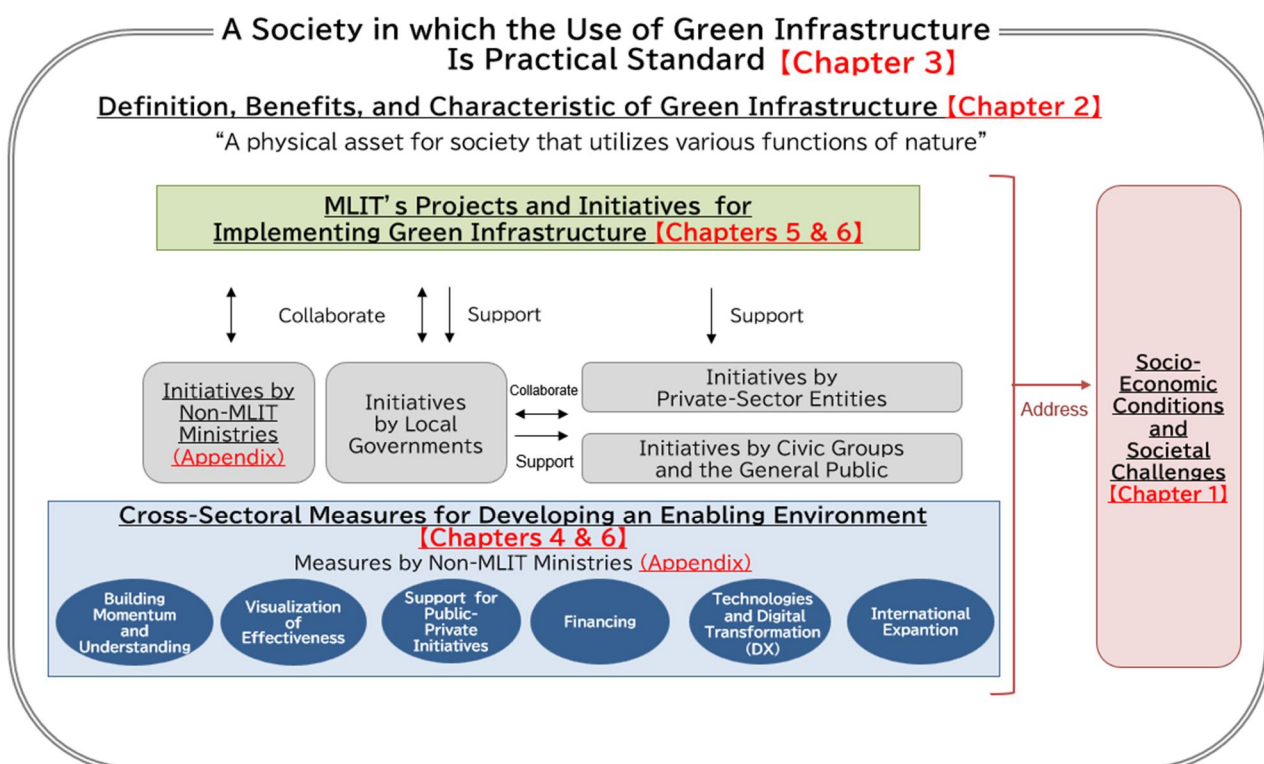


Figure 2: Structure of This Strategy

To further advance the implementation of green infrastructure, it is essential that a wide range of stakeholders, including the national government, local governments, private-sector entities, the general public, civic groups, and community organizations, undertake initiatives consistent with their respective roles and responsibilities. The roles to be fulfilled by the national government, as well as those expected of local governments, private-sector entities, civic groups, and the general public, are outlined below.

■National Government

【Ministry of Land, Infrastructure, Transport and Tourism (MLIT)】

MLIT coordinates various initiatives related to green infrastructure and, through instruments such as the Green Infrastructure Promotion Strategy, presents the overall direction for further implementation of green infrastructure, including policy directions for each stakeholder and the division of roles. It also undertakes cross-sectoral measures to develop an enabling environment that serves as the foundation for stakeholder initiatives, including institutional design, the formulation of guidelines, and other related measures. In addition, MLIT promotes the dissemination and understanding of green infrastructure through activities carried out by the Green Infrastructure Public-Private Partnership Platform and through various public outreach efforts.

Furthermore, by implementing national projects, MLIT advances the implementation of green infrastructure across a wide range of public spaces, including roads, ports and harbors, parks and green spaces, and rivers.

【Non-MLIT Ministries and Agencies】

Non-MLIT ministries and agencies implement measures related to green infrastructure within their respective jurisdictions. They also work to establish frameworks for coordination and cooperation among relevant ministries and agencies to prevent conflicts between policies, particularly in areas where green infrastructure relates to measures that are similar to, or associated with, green infrastructure.

■Local Governments

Local governments are expected to serve as central actors in advancing green infrastructure within their regions. This includes establishing cross-departmental coordination frameworks and implementing green infrastructure across a wide range of spaces, such as roads, ports and harbors, parks and green spaces, rivers, forests, Satoyama (traditional socio-ecological production landscapes), and agricultural land, through the execution of public works and related initiatives. They are also expected to present regional goals and strategic directions by positioning green infrastructure within administrative

plans.

In addition, local governments are expected to support the activities undertaken by diverse local stakeholders toward the implementation of green infrastructure. Through various public outreach efforts, they are also expected to promote the dissemination and understanding of green infrastructure and thereby facilitate its implementation at the regional level.

■ Private-Sector Entities

Given that green infrastructure must be pursued not only in public facilities but also across private facilities and land as part of broader city planning, private-sector entities are expected to implement green infrastructure both in public spaces, through collaboration projects between the public and private sectors and other collaborative efforts—and proactively on privately owned land.

As key actors in economic activity, private-sector entities are also expected to play a leading role in generating business opportunities through sustained investment in green-infrastructure-related projects, as well as through technological development that contributes to the efficient and effective implementation of green infrastructure.

Furthermore, since green infrastructure contributes to the creation of a sustainable national lands, cities, and communities, private-sector participation is also expected from the perspective of risk management.

■ Civic Groups

Civic groups are expected to serve as co-creation partners in advancing green infrastructure that reflects the characteristics of each community. This includes presenting local needs and ideas from the planning and design stages.

They are also expected to utilize green infrastructure proactively as spaces for civic activities and as hubs for community organizations, thereby increasing the number of people who can benefit from green infrastructure and contributing to the broader dissemination of its benefits.

Furthermore, civic groups are expected to collaborate with facility managers in the maintenance and management of green infrastructure, playing a role in sustaining and enhancing the benefits.

■ General Public

The general public is expected to contribute to the implementation of green infrastructure by presenting proposals that reflect local challenges and needs, thereby helping to advance approaches aligned with community characteristics. The general public is also expected to actively implement green infrastructure on privately owned property,

including individual homes.

In addition, the general public is expected to participate in the maintenance and management of green infrastructure through civic groups, thereby helping to sustain and enhance its benefits while finding enjoyment, fulfillment, and a sense of purpose in the process.

【Reference】 Recommended Usage of This Document

A wide range of stakeholders, including the national government, local governments, private-sector entities, the general public, civic groups, and community organizations, are involved in matters related to green infrastructure. In light of the roles of these stakeholders described in the preceding sections, examples of the recommended usage of this document are presented below.

	Chapter 1 (Societal Challenges)	Chapter 2 (Definitions benefits, and Characters)	Chapter 4 (Cross-Sectoral Measures for developing an Enabling Environment)	Chapter 5 (MLIT' s individual projects and initiatives)	Chapter 6 (Roadmap)
National Government (Non-MLIT Ministries and Agencies)	• Guidance for planning and implementing Green Infrastructure(GI)-related policies outside MLIT.	• Reference for understanding the relationship between GI and the measures within one' s jurisdiction.	• Reference for identifying the basic directions for foundational measures when planning and implementing GI-related measures.	• Reference for understanding the specific GI-related measures implemented by MLIT.	• Reference for understanding the future development of foundational measures described in Chapter 4. • Reference for understanding the outlook for representative GI-related measures led by MLIT.
Local Governments	• Reference for positioning GI within various local government plans.	• Reference for understanding the scope for implementing GI in coordination with relevant departments. • Reference for identifying key considerations when implementing GI.	• Reference for understanding approaches and key points for visualizing effectiveness of GI and securing financing.		
Private-Sector Entities	• Reference for planning business projects and preparing disclosure reports.	• Reference for identifying key considerations when implementing GI.	• Reference for understanding directions for utilizing new technologies and for future international deployment.		
Civic Groups and the General Public	• Reference for understanding the current conditions surrounding GI.	• Reference for understanding what GI is.	• Reference for understanding the activities of the GI Public-Private Partnership Platform.		

Chapter 1 Socioeconomic Context and Societal Challenges Surrounding Green Infrastructure

Ensuring the sustainability of the planet is the highest priority for the survival of humankind. Achieving the Sustainable Development Goals (SDGs), global targets designed to address planetary challenges in an integrated and inclusive manner, and the 2050 Biodiversity Vision of “Living in Harmony with Nature” requires secure and reliable social capital, as well as the human capital supported by it. All of these, however, rest upon natural capital¹. In this sense, natural capital forms the foundation of human security.

However, various societal challenges are destabilizing this natural capital, including biodiversity loss, the climate crisis, and population decline. The concept of “planetary boundaries,” one method for objectively assessing the impact of human activity on the Earth system, indicates that certain aspects of the global environment are already reaching critical limits. In this context, Japan faces an urgent need to transition toward a new environmental-driven economic and social system, such as through Green Transformation (GX), to address environmental risks including climate change and biodiversity loss. At the same time, the country confronts a wide range of other societal challenges, including the need to build a resilient, safe, and secure society, issues associated with a declining birthrate and aging population, the over-concentration of populations in urban areas and depopulation in rural regions, and various resource challenges such as food security.

Addressing these challenges requires active participation and engagement from all stakeholders, who must undertake a broad range of activities.

Seven categories of societal challenges that are expected to be addressed through the implementation of green infrastructure are presented below.

1. Development of Sustainable and Livable Environments

Developing a society that is conducive to having and raising children, while enabling older adults to live securely and remain active, has become a major challenge for Japan. This challenge has emerged amid a demographic transition from long-standing growth to a sustained decline, driven by a falling birthrate and a rapidly expanding elderly population. Maintaining both mental and physical health is essential for people of all ages to live with peace of mind, and its importance has continued to grow against the backdrop of rising material affluence. Reflecting this recognition, the SDGs, which aim to create a more sustainable and inclusive world by 2030, identify the promotion of well-being for people of all ages as one of their core objectives.

¹ Natural capital is globally understood to refer to the stock of resources that occur in the natural environment, such as forests, soil, water, air, and biological resources.

(Source: Ministry of the Environment, Japan, <https://policies.env.go.jp/nature/nature-positive/words/#to-sa>)

Moreover, the health of individuals depends on the health of their communities, which in turn requires a sound global environment and healthy ecosystems. Human, animal, and environmental health are closely interconnected within ecosystems and exert strong mutual influence, an approach known as the “One Health” concept, which has been gaining increasing attention. Furthermore, the COVID-19 pandemic prompted a renewed appreciation of the value of open spaces; green, open, and accessible environments where people can engage in essential activities for healthy living, such as walking, recreation, rest, and sports.

In light of these circumstances, it has become essential to create urban and living environments in which all people, including older adults, persons with disabilities, children, and child-rearing households, can live safely, securely, and without undue inconvenience, while ensuring that the infrastructure serving as the foundation of these environments is managed appropriately.

Ensuring a prosperous and further enhanced society requires reaffirming that water is a shared resource of humankind and promoting comprehensive measures to maintain or restore a sound water cycle so that its benefits can be sustainably enjoyed by future generations. Challenges related to the water cycle vary widely, from conserving and recharging water resources to conserving and using groundwater and protecting ecosystems, and differ across regions depending on local conditions such as population, industrial structure, socioeconomic circumstances, and natural environments. Accordingly, basin-wide, integrated water management must be advanced nationwide to address these complex issues.

In recent years, the need to reconcile the stable food supply and the sustainable development of agriculture, forestry, and fisheries with the preservation of the global environment has been strongly emphasized. The impacts of large-scale disasters driven by climate change, the rapid and extensive loss of biodiversity, and, in some regions, the spread of pests and diseases as well as declining soil fertility are becoming increasingly severe across production landscapes.

For agriculture, forestry, and fisheries, sectors in which production relies heavily on skillfully harnessing the functions of nature and ecosystems, reducing the environmental burden arising from these activities and maintaining a healthy global environment are essential for ensuring the long-term sustainability of production. Achieving this is an urgent and important task that the international community must collectively pursue for the benefit of future generations.

Japan has long engaged in ways of living that harmonize with nature while making skillful use of its distinctive characteristics, thereby shaping region-specific histories, lifestyles, cultures, and other related aspects. As nature shaped through such practices exists throughout the country, it is essential that diverse stakeholders, including local residents,

participate in efforts to sustainably manage the natural environments that form the environmental, social, and economic foundations unique to each region. Japan's traditional approach to living in harmony with nature has drawn significant international attention, and Japan itself should advance national, regional, and urban development that embodies this concept as a model.

2. Disaster Risk Reduction

To overcome national crises posed by natural disasters such as earthquakes, tsunamis, river flooding, pluvial flooding, storm surges, heavy snowfall, volcanic eruptions, landslides, and sediment- or flood-related inundation, it is essential to advance disaster risk reduction, and national resilience initiatives in a continuous and stable manner, based on a clear medium- to long-term perspective.

Enhancing nationwide resilience to disasters requires the effective coordination of three key approaches: preventing disasters from occurring in the first place, reducing damage even if a disaster does occur, and achieving rapid recovery. Furthermore, large-scale earthquakes require considerable time for recovery, and during this period there remains the possibility of volcanic eruptions, wind- and water-related hazards, and other events. It is therefore essential to anticipate compound disasters and promote pre-disaster measures that are effective for both earthquake-related and volcanic or flood-related hazards. Once a natural disaster occurs, it becomes necessary to establish, and subsequently improve and strengthen, the environments of evacuation facilities, medical institutions, and other sites that serve as bases for disaster response.

As extreme rainfall and other natural disasters such as flooding intensify and occur more frequently due to the impacts of climate change, there is an increasing need to advance mitigation efforts through collaboration and coordinated action among national government ministries and agencies, local governments, and other diverse stakeholders, in order to reduce future damages expected from climate-related hazards.

In light of these circumstances, the Cabinet approved the Climate Change Adaptation Plan in October 2021 to strengthen nationwide adaptation measures, and the government has been promoting comprehensive and planned initiatives under this Plan in a unified and systematic manner.

In the Environmental Action Plan, the government advances climate change adaptation measures that integrate both structural and non-structural approaches, such as accelerating and deepening basin-based flood control, revising flood control plans, and improving the accuracy of disaster-related meteorological information. The Plan also promotes basin-wide, integrated water resources management, under which all stakeholders collaborate across entire river basins, not only in flood control but also in water use and environmental conservation.

Furthermore, flood control plans are to be revised to account for projected increases in precipitation due to climate change. Under this approach, not only catchment and river zones but also inundation zones are regarded collectively as a single river basin. In line with regional characteristics, three multi-layered measures are to be advanced in an integrated manner through both structural and non-structural approaches: (1) measures to prevent or reduce flooding as much as possible; (2) measures to reduce exposure of assets and people to damage; and (3) measures to mitigate damage and ensure early recovery and reconstruction.

3. Heat Countermeasures

Domestic annual average temperatures have been rising due to the impacts of climate change, and both the number of people transported by emergency services for heat illness and the number of heat-related deaths remain at high levels. In response to these conditions, initiatives under the Heat Illness Prevention Action Plan (approved by the Cabinet in May 2023) and other guidelines are being promoted to prevent heat-illness-related harm and mitigate the heat island effect.

Heat illness countermeasures rely heavily on direct engagement with residents, such as public awareness efforts and promoting the use of cooling shelters or other safe spaces during periods of extreme heat. Under the Heat Illness Prevention Action Plan, local governments and other entities responsible for implementing such activities are expected to advance regional initiatives by sharing and applying leading practices, while ensuring that all relevant organizations and institutions work together in a coordinated and unified manner.

Under the Environmental Action Plan, measures to improve living environments, such as mitigating the heat island effect and addressing urban heat hazards, are promoted as part of efforts to build a society capable of adapting to climate change. These measures include the promotion of greening and other nature-based interventions, as well as the development of new technologies.

In advancing heat countermeasures in urban areas, it is important to implement measures that both alleviate the heat island effect by moderating overall urban temperatures and reduce localized heat stress experienced by individuals.

4. Biodiversity Conservation

Biodiversity is being lost at an unprecedented rate in human history on a global scale. At the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP15), held in December 2022, the Kunming–Montreal Global Biodiversity Framework, a set of global biodiversity targets, was adopted. The framework designates the urgent need to halt and reverse biodiversity loss as the mission for 2030.

In Japan as well, biodiversity is considered to have continued to decline over the past 50 years. In response to the adoption of the above-mentioned framework, the Government of Japan approved the *National Biodiversity Strategy and Action Plan (NBSAP) of Japan 2023–2030* at a Cabinet meeting in March 2023. Based on this Strategy, the government is advancing cross-government initiatives related to living in harmony with nature and biodiversity with the aim of halting biodiversity loss and reversing the trend, achieving a “Nature-Positive by 2030” to put nature on a path to recovery by 2030. In this NBSAP, one of the five basic strategies positioned as the pillars of action is addressing societal challenges through the application of nature or Nature-based Solutions (NbS). It calls for a renewed recognition of the natural environment as the foundation of society, the economy, daily life, and culture, and promotes leveraging the benefits of nature to address a wide range of societal challenges.

Growing interest in biodiversity conservation is also evident among domestic and international companies and investors. In September 2023, the TNFD released the final TNFD Recommendations v1.0.

Furthermore, in the Interim Report issued in October 2025 for Japan Biodiversity Outlook 4 (JBO4): Comprehensive Assessment of Biodiversity and Ecosystem Services 2028, it was considered that Japan’s biodiversity is, overall, in a state of decline. The report notes that activities to conserve, restore, and create natural environments, particularly in ecosystems such as *satochi-satoyama* and secondary grasslands, are becoming increasingly important. In addition, it is deemed necessary for industry, government, academia, and citizens to cooperate and collaborate to implement and accelerate multifaceted initiatives toward achieving nature-positive by 2030, as only a limited number of the state-oriented targets of the NBSAP of Japan are currently on track toward achievement.

5. Regional Economic Revitalizing

Japan’s international competitiveness has been declining relative to other countries, and urban regeneration that reflects global trends, such as Digital Transformation (DX) and GX, has become increasingly important for strengthening the nation’s competitive advantage in international markets. At the same time, rural communities in particular are confronting a set of interrelated challenges, including demographic decline, an aging population coupled with a falling birthrate, shrinking local economies, and the declining

vitality of city centers. These circumstances have resulted in a continued outflow of people, goods, and capital to areas outside their regions. To address these issues, it is essential to advance city planning that stimulates private consumption and investment. Moreover, increasing both the visitor population and the engagement population is indispensable for maintaining and enhancing regional vitality. Japan possesses remarkable natural landscapes, climate, culture, and cuisine that attract domestic and international travelers. Going forward, it will be necessary for the public and private sectors to work together to further enhance the added value of the tourism industry and transform it into an industry capable of generating greater economic returns.

In recent years, policy challenges have become increasingly apparent due to the underutilization of land, including inadequate management, abandonment, and the resulting negative externalities. Ensuring the proper use and management of land has therefore become crucial. In addition, advancing digitalization, along with changes in people's working and living styles, such as increased migration to regional areas, Dual residency, and the rise of work vacations (workations) triggered by the spread of COVID-19, has made the promotion of population and business decentralization from metropolitan areas to regional communities increasingly important.

6. Greenhouse-Gas Reduction

Extreme heat events, meteorological disasters, and other climate-related hazards have been occurring with increasing frequency across the globe, including in Japan. Climate change countermeasures have therefore become an urgent priority that the international community must address collectively and without delay. At the 28th meeting of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28), held in 2023, it was confirmed that the current aggregation of national CO₂ reduction targets is insufficient to achieve the Paris Agreement's 1.5° C goal. The conference thus underscored the critical importance of strengthening mitigation efforts.

In Japan, the government declared in October 2020 its commitment to achieving carbon neutrality by 2050. Subsequently, in February 2025, the Cabinet approved the Plan for Global Warming Countermeasures, which sets new greenhouse-gas reduction targets: a 60% reduction from FY2013 levels by FY2035 and a 73% reduction by FY2040.

Furthermore, in promoting measures against global warming, the government seeks to ensure that such efforts contribute not only to Japan's economic revitalization, job creation, and the resolution of regional challenges, but also to the achievement of the SDGs. To this end, Japan aims to advance policies that enhance environmental, economic, and societal outcomes in an integrated manner by leveraging regional resources, technological innovation, and local ingenuity, while simultaneously promoting DX through the use of digital technologies such as Artificial Intelligence (AI), Internet of Things (IoT), and

digital twins.

Under the Environmental Action Plan, efforts to advance the Green Transformation in the Land, Infrastructure, Transport and Tourism Sectors (MLIT GX) are being pursued by further strengthening collaboration with relevant ministries, government agencies, and the business community. The Plan sets forth measures to promote comprehensive energy efficiency in daily life and mobility, accelerate the transition to clean energy from both transportation-mode and infrastructure perspectives, achieve overall life-cycle decarbonization, expand renewable energy supply through the full utilization of infrastructure, and strengthen greenhouse-gas sink measures.

7. The Transition to a Circular Economy

To realize a society capable of achieving sustainable development while promoting sound economic growth with minimal environmental burden, it is essential to curb the consumption of natural resources and to build a circular economy in which environmental impacts are reduced to the greatest possible extent.

Moreover, surging resource prices and concerns over the disruption of supplies of critical minerals arising from heightened regional and international tensions have led to the resurgence of resource nationalism in resource-producing countries. These trends pose significant risks to economic security.

Against this backdrop, the importance of advancing circular-economy initiatives has increased from the perspectives of economic security and strengthening industrial competitiveness. The European Union and the United States have already begun to set out circular-economy approaches in the form of plans and strategies.

In Japan as well, the Cabinet approved the Fifth Fundamental Plan for Establishing a Sound Material-Cycle Society in August 2024, and subsequently compiled the Package for Accelerating the Transition to a Circular Economy in December of the same year, thereby accelerating related initiatives.

To advance the building of a circular economy, it is necessary to transform the socioeconomic system itself into a circular model. To this end, Japan aims to promote initiatives such as building production systems that utilize recycled resources, reducing the input of virgin resources and suppressing waste generation, and developing hubs for circular-economy activities, while fostering collaboration across sectors.

Chapter 2 Definition and Basic Concept of Green Infrastructure

1. Definition and Basic Concept

【Definition】

Green infrastructure is a physical asset for society that utilizes various functions of nature, and contributes to realizing sustainable and attractive national lands, cities, and communities, as well as improving well-being into the future. Green infrastructure is developed through the relationship between people and nature, and its larger effects can be expected from strategic planning, sustainable maintenance, and a wide range of stakeholder involvement.

(1) Terminology

Terms	Explanations
various functions of nature	The roles and processes that emerge through ecological and evolutionary processes of the natural environment. These functions are categorized into 18 items by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES ²). The term “nature” encompasses not only primary ecosystems but also human-modified environments such as secondary forests, Satoyama, and urban green spaces.
physical asset for society	Assets that have broad public relevance and impact across society. This category includes not only publicly owned facilities but also non-public assets that fulfill public functions, such as privately owned green spaces.
well-being	A state in which individuals are in good physical, mental, and social conditions.
developed through the relationship between people and nature	A condition characterized by mutual interactions between humans and nature ³
strategic planning	Planning processes grounded in technical, policy, and institutional considerations, designed to maximize the effectiveness of green infrastructure initiatives.
sustainable maintenance	Activities aimed at the appropriate conservation, management, and enhancement of green infrastructure to ensure that the diverse functions of nature are sustainably maintained and enhanced.
stakeholder	An individual, group, or organization that has an interest in, or is affected by, an organization’s activities, and that can influence or be influenced by those activities.

² IPBES Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers © 2019 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

<https://www.iges.or.jp/jp/pub/ipbes-global-assessment-spm-j/ja>

³ This concept encompasses not only cases in which humans utilize nature, but also instances in which humans receive benefits from nature. Accordingly, untouched natural environments, such as remote, pristine forests, are also considered part of green infrastructure.

Column: Nature-based Solutions (NbS)

Nature-based Solutions (NbS) refer to initiatives that leverage the functions of healthy ecosystems to address a wide range of societal challenges. In 2022, the resolution adopted at the Resumed Fifth Session of the United Nations Environment Assembly (UNEA 5.2) defined NbS as:

“Actions to protect, conserve, restore, sustainably use, and manage natural or modified terrestrial, freshwater, coastal, and marine ecosystems that address societal, economic, and environmental challenges effectively and adaptively, while simultaneously providing benefits for human well-being, ecosystem services, resilience, and biodiversity benefits.”

NbS serve as an overarching concept that integrates various approaches to addressing societal challenges. They encompass initiatives such as Ecosystem-based Adaptation (EbA) and Ecosystem-based Disaster Risk Reduction (Eco-DRR). In light of the definition of green infrastructure adopted in this Strategy, NbS can be regarded as an approach closely aligned with the utilization of green infrastructure.

In the United States and Europe, policies to promote NbS are advancing, and in the financial sector, institutions such as the World Bank have begun initiatives to encourage investment in NbS. Discussions on NbS have also become more established within the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and other international forums, reflecting growing global interest.

Written by the Ministry of the Environment, Japan

(2) Benefits

Green infrastructure generates environmental, social, and economic benefits through the utilization of nature’s diverse functions within infrastructure. Furthermore, synergistic interactions among these benefits are expected to contribute to enhanced well-being. The relationship between functions and benefits is not one-to-one: a single function may produce multiple effects, while the synergy of multiple functions may result in a single effect. These benefits are interrelated and cannot be strictly separated.

“Environmental benefits” refer to the benefits that support the living environment surrounding people and that serve as the foundation for social and economic benefits. These include:

- biodiversity conservation, achieved through the habitat-provision functions of natural ecosystems;
- preservation of a sound water cycle, achieved through water-resource recharge and the maintenance and improvement of water quality;
- enhancement of the living environment, achieved through functions such as maintaining and improving water and air quality, moderating and regulating temperature through evapotranspiration, absorbing noise and vibration, providing windbreak and dust-control effects, providing green shade, and contributing to landscape formation; and
- climate change mitigation, achieved through greenhouse-gas sink measures.

The term “social benefits” refers to the benefits that enable people to conduct social activities in a safe, secure, and healthy manner. These include:

- stable food supply effects, achieved through the use of natural environments as areas for food production;
- improved psychological health effects, derived from the psychological stability and stress reduction provided by exposure to nature;
- enhanced physical health effects, gained through the use of natural spaces for physical activities such as sports and walking;
- disaster risk reduction effects, including delayed or prevented fire spread, the formation of evacuation routes and evacuation spaces during disasters, the storage and infiltration of rainwater, the prevention of slope failures, the reduction of tsunami energy, and the capture of driftwood and other debris;
- traffic safety effects, enabled by functions such as glare reduction, visual guidance, traffic separation, wayfinding cues, and impact mitigation;
- child-rearing and educational effects, generated by the use of natural spaces for environmental education and child development;
- community and well-being benefits, including the creation of a sense of fulfilment, the formation of community organizations, and strengthened attachment to the region through the continuous use of green infrastructure; among other effects.

The term “economic benefits” refers to the benefits that contribute to human economic activities. These include:

- enhancement of real-estate value through the creation of well-designed spatial environments;
- generation of vibrancy through the use of attractive public spaces;
- tourism promotion and regional revitalization, achieved by leveraging regional assets integrated with local history and culture, as well as benefits related to encouraging migration, settlement, and dual residency;
- improved productivity resulting from the alleviation of techno-stress;
- revitalization of local industries, including the promotion of forestry and agriculture; and similar effects.

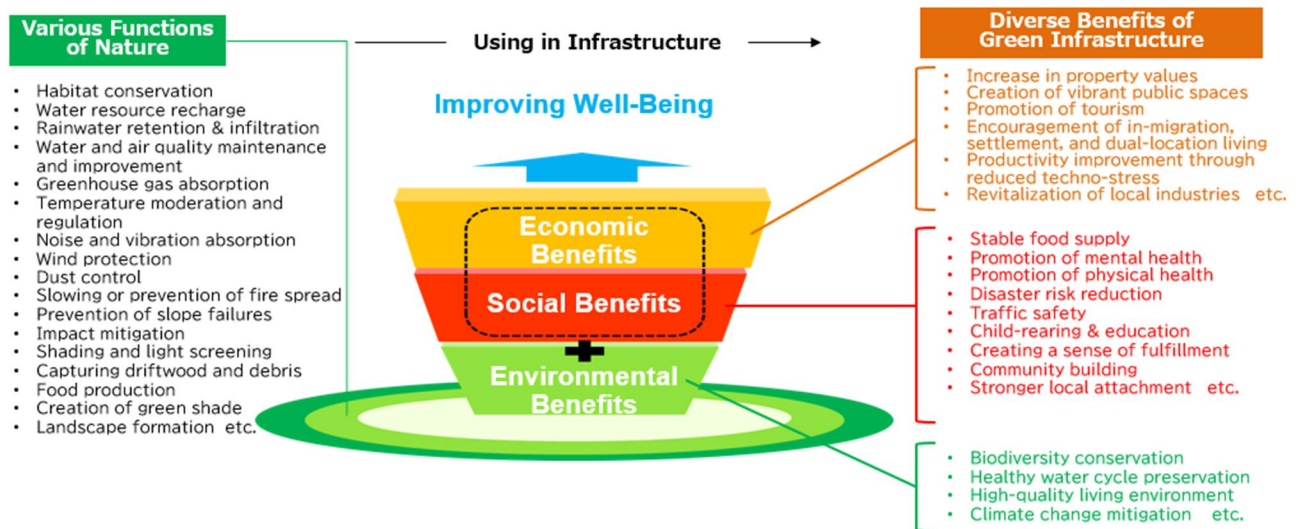


Figure 3: Functions of Nature and Various Benefits of Green Infrastructure

Column: Existence Effects and Utilization Effects

The effects of parks and green spaces are classified into two categories: existence effects and utilization effects.

“Existence effects” refer to the benefits generated simply by the presence of parks and green spaces, contributing to urban functions, the urban environment, and other structural aspects of the city.

“Utilization effects” refer to the benefits that urban residents obtain through the actual use of these spaces.

This framework also applies to green infrastructure. It helps illustrate the processes through which the various functions of nature translate into diverse benefits of green infrastructure. For example, planting trees along a street can create existence effects such as the formation of green shade and improvements in air quality solely through the trees' presence. Furthermore, when people run along a tree-lined street or use the space by setting up tables and spending time there, utilization effects such as enhanced physical health and strengthened local community engagement can also be realized.

When seeking existence effects, it is important to conserve, restore, or create green infrastructure in locations where such functions are needed. These include areas suitable for water-resource recharge or rainwater retention for flood risk reduction, as well as locations with high pedestrian traffic and significant heat-countermeasures needs.

To achieve utilization effects, the intended users and use of the space should be considered. For example, if the objective is to address physical inactivity among older adults, creating walkable spaces in areas with large elderly populations becomes important.

Green infrastructure can be used more efficiently by recognizing the broad categorization of existence effects and utilization effects.

Source: Based on the *2023 Edition of the Park and Green Space Manual* (June 2023), Japan Green Space Foundation

Characteristics

Based on the definition and benefits of green infrastructure, its key characteristics are summarized as follows:

【Addressing Multiple Societal Challenges】

Given the diverse functions inherent in nature, green infrastructure can serve as an effective measure that addresses multiple societal challenges. For example, a single ecosystem may provide several functions, such as a greenhouse-gas sink function and rainwater retention and infiltration functions. Similarly, even an individual tree can deliver multiple benefits, including the provision of green shade and the enhancement of landscape quality. Accordingly, by utilizing the diverse functions of nature as green infrastructure, it is possible to generate multiple effects simultaneously, such as climate change mitigation, reduced flood damage, and heat- countermeasures effects.

【Regional Characteristics】

In Japan, ways of living that harmonize with nature while making use of its distinctive characteristics have long been practiced, forming region-specific histories, lifestyles, and cultures. Green infrastructure likewise possesses characteristics that reflect such regional contexts. It is therefore essential to fully understand these regional characteristics when promoting the use of green infrastructure.

In urban areas with limited natural environments, efforts to increase the presence of nature and biodiversity are crucial. In contrast, in rural areas rich in natural environments, it is especially important to recognize that everyday life is supported by the existing natural capital. For this reason, initiatives that regard local natural environments as natural capital, and that seek to revitalize communities through continuous maintenance, management, and sustainable use, are of great importance. Additionally, fostering connections between regions can also be effective. For example, enabling urban residents to make use of nature in rural areas when they seek greater contact with the natural environment, or facilitating the movement of people from urban to rural areas to support communities experiencing accelerated population decline.

【Ecological Network】

Regional ecosystems and hydrological cycles function as integrated systems. Connecting natural areas such as green spaces and rivers into a network that facilitates healthy material cycles and the movement of flora and fauna. This enhances the full expression of nature's diverse functions and generates broader synergistic effects across the entire region, among other similar effects.

Furthermore, establishing an ecological network enables physical continuity of water and

greenery, thereby enriching human activity spaces. As a result, it is expected to contribute to creating a more livable living environment and promote regional revitalization, among other benefits.

【Growth and Resilience】

Nature develops over time, such as the growth of vegetation. Even when natural environments are disturbed by events such as natural disasters, they possess a certain degree of restorative capacity when appropriate human intervention is applied. This makes green infrastructure a viable option for enhancing regional resilience.

2. Key Considerations for Implementation

In the implementation process of green infrastructure, consisting of (i) planning and institutional development, (ii) design and construction, and (iii) maintenance and utilization, the following points require particular attention to maximize the effectiveness of green infrastructure initiatives. It should be noted that green infrastructure is not limited to public facilities; rather, it is relevant to all users of land and the built environment, including private facilities and premises such as commercial and logistics facilities. Accordingly, green infrastructure must be advanced as an integral part of comprehensive city planning. This requires both government and private-sector entities to work in tandem, taking proactive and collaborative roles in its implementation.

■ Common Considerations

[Addressing Societal Challenges]

To clearly define the purpose of implementing green infrastructure, identify societal challenges and future regional visions in line with local conditions, and utilize green infrastructure to address and realize these objectives.

[Leveraging Diverse Benefits]

Examine measures to address multiple societal issues by effectively leveraging the diverse benefits of green infrastructure. As conflicts may arise among different policy measures, it is essential to carefully analyze local societal challenges and needs and to build consensus among stakeholders. This approach enables not only responses to the primary societal challenges being targeted, but also the generation of secondary effects.

■ Planning and Institutional Development

[Cross-Sectoral Collaboration]

Develop a framework that engages experts from a wide range of technical fields related to green infrastructure and enables coordination with other structural and non-structural measures to address societal challenges effectively.

[Diverse Stakeholders]

Develop a cross-sectoral collaboration framework that brings together diverse stakeholders, such as government agencies, private entities, and local residents.

[Feasibility]

Ensure that green infrastructure continues to generate effects by identifying the technologies and financial resources required for its development and maintenance, and by implementing these efforts based on plans supported by appropriate technical capacity,

organizational structures, and financial foundations.

【Landscape Approach】

To ensure that planning and implementation are carried out at spatial scales appropriate to natural and social units, such as watersheds, ecosystems, and living areas, it is essential to take an integrated view of diverse land uses, including forests, farmland, urban areas, rivers, and coastal zones, and to promote cross-sectoral collaboration that transcends administrative boundaries.

【Reevaluation and Utilization of Existing Natural Assets】

Recognize existing natural environments as natural capital. Examine measures to fully harness their effects while minimizing impacts on existing nature.

■Design and Construction

【Consideration for Local Ecosystems and Cultural Contexts】

Ensure that potential impacts on locally specific ecosystems, native species, and cultural heritage are carefully considered.

【Use of Native Species】

Actively utilize native species characteristic of the region.

【Integration with Other Infrastructure】

Examine approaches that combine natural elements with artificial structures to enhance overall effectiveness, as well as approaches that incorporate nature into spaces formed by existing infrastructure. In addition, given the ongoing deterioration of infrastructure, proactively explore measures to integrate green infrastructure into infrastructure renewal, consolidation, or reorganization.

■Management, Maintenance, and Utilization

【Long-Term Perspective】

Maintain a long-term perspective that accounts for the fact that natural environments change over time and develop management plans based on the life cycles of natural systems.

【Adaptive and Preventive Management】

Conduct adaptive maintenance by regularly monitoring natural conditions and the effects being generated and intervening when necessary. Also implement preventive maintenance to reduce long-term costs.

【Community-Led Management】

Actively explore approaches that enable local communities to take the lead in maintenance and management.

【Human Resource Development】

Ensure the development and retention of personnel with the specialized knowledge and skills required to continuously manage, maintain, and foster green infrastructure.

Column: Community Building through Citizen-Led Activities (Yokohama Park Aigokai Associations)

(Overview of Activities)

The management of neighborhood parks, spaces that serve both as the “gardens” of local residents and as shared public assets, requires not only the involvement of the City of Yokohama, which establishes these parks, but also the active cooperation of local communities. Yokohama has approximately 2,700 parks, and Park Aigokai Associations have been formed for roughly 90% of them.

(Activities)

Park Aigokai Associations are organized primarily by local community members, including neighborhood associations, senior citizens' clubs, children's associations, and condominium management associations. These groups carry out routine maintenance activities, such as cleaning, weeding, and the upkeep of flowerbeds and plantings, approximately once a month.

To support these activities, the City of Yokohama provides tools and materials, offers technical training programs, and recognizes organizations and individuals who have made outstanding contributions to the communities. The city has also developed a framework to properly acknowledge the ongoing efforts of local communities and hosts training sessions on maintenance methods designed to reduce operational burdens.

Furthermore, in the exhibition area of GREEN × EXPO 2027, the city will establish the Yokohama Civic Activity Field, created together with Yokohama citizens and environmental volunteer organizations, including Park Aigokai Associations. Through this initiative, the city aims to broaden public participation in environmental activities and to collaborate with citizens in envisioning “a future lifestyle in harmony with the Earth.”

(Effects on the Community)

Engaging with greenery, exercising, and interacting with others help reduce stress and support overall health. These activities also promote natural interaction among people of different generations. Furthermore, events such as summer festivals and collaborative flowerbed-creation projects provide opportunities to strengthen community bonds and help foster a sense of belonging within the community.

Written by: Strategic Planning Division, Environmental Planning Bureau, City of Yokohama

Chapter 3 Vision for a Society Enabled by Green Infrastructure

In line with the government-wide policies set forth in Cabinet decisions and other initiatives described in the Introduction, as well as relevant international trends, a cross-sectoral enabling environment for the further implementation of green infrastructure will be established. Through the implementation of individual projects and programs under MLIT that apply green infrastructure to address societal challenges, the realization of a society in which the use of green infrastructure is standard practice will be pursued. Looking ahead to 2050, efforts will aim at achieving a “nature-positive society.”

1. Society in Which the Use of Green Infrastructure Is Standard Practice

The “society in which the use of green infrastructure is standard practice,” envisioned for 2030, is one in which the concept and benefits of green infrastructure are properly understood; the legal systems, social frameworks, technologies, and financing mechanisms necessary for its implementation are well established; and, under such conditions, green infrastructure is commonly adopted across various sectors and among diverse stakeholders. More specifically, the envisioned situation is as follows:

- The definition of green infrastructure has become widely recognized and accepted.
- Green infrastructure is considered one of the viable options for addressing societal challenges in various spaces, including urban areas, rivers, roads, ports and harbours, parks and green spaces, as well as forests, Satoyama, and farmland.
- Green infrastructure is implemented strategically based on broad-area plans.
- Implementation of green infrastructure is promoted through collaboration among industry, academia, government, finance, labor, and media, as well as local communities, NPOs, and other related entities.
- Green infrastructure is maintained and managed on an ongoing basis.
- Frameworks for financing the development and maintenance of green infrastructure are in place.
- Evaluation methods and information infrastructure that support the broader application of green infrastructure are well developed.
- As a result of these efforts, the diverse benefits of green infrastructure are continuously realized and help shape livable urban and living environments. These benefits, in turn, contribute to improving overall societal well-being.

2. Society in Harmony with Nature

The “society in harmony with nature”⁴ envisioned for 2050 is one in which healthy ecosystems, supported by rich biodiversity, are secured and in which the benefits derived from nature are sustainably utilized. This vision originates from the long-term global goal of “Living in Harmony with Nature,” articulated in the Aichi Biodiversity Targets, the first comprehensive set of global biodiversity goals, adopted at the 10th Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10), held in Nagoya, Aichi Prefecture in 2010. It was formulated based on the Japan's Proposal for Post 2010 Biodiversity Targets, which reflects Japan's unique culture of living in harmony with nature. The nature shaped through the long relationship between people and the environment represents a cultural asset of which Japan is proud, and learning from these interactions, their characteristics, and their history is an essential process in pursuing a society in harmony with nature.

A society in harmony with nature realized through the implementation of green infrastructure is, more specifically, envisioned as follows.

(1) A Society Supported by Nature-Based, Sustainable Living Environments in Which People Can Live Safely and Securely

Nature provides the foundation for a healthy atmospheric environment and a sound water cycle, while also serving as habitats for diverse species. Through the implementation of green infrastructure, efforts are made to reduce health risks, restore healthy water cycles, conserve biodiversity, and form sustainable urban and living environments.

Mitigation measures, such as reducing greenhouse gas emissions, together with adaptation measures, such as heat countermeasures, further contribute to sustaining living environments into the future.

In addition, implementing green infrastructure to absorb and accommodate natural phenomena contributes to protecting people's lives and property from disasters and stabilizing living environments. These efforts help advance disaster risk reduction, including measures to reduce flood and sediment-related damage and to secure evacuation spaces, thereby creating a society in which people can live safely and securely.

Through green infrastructure, a society supported by nature-based, sustainable living environments, in which safety and security are ensured, can be realized.

⁴ Quoted from the societal vision presented in the National Biodiversity Strategy of Japan 2023–2030.
<<https://www.env.go.jp/content/000124381.pdf>>.

(2) A Society in Which People Can Lead Healthy Lives in Harmony with Nature

Green, open, and spacious environments provide valuable public spaces that support physical activities essential for healthy living, including walking, playing, resting, and sports. Nature also offers relaxation and stress-reduction benefits, enabling people to live peacefully in natural surroundings. In addition, the natural environment of each region possesses unique characteristics, allowing individuals to find enjoyment, fulfillment, and a sense of purpose through activities in nature and its maintenance. Such activities also promote interaction among local residents and help cultivate a strong sense of community.

Through green infrastructure, the rich natural assets of each region can be utilized to realize a society in which people can lead healthy and fulfilling lives in harmony with nature.

(3) A Society Enriched by Nature-Based Economic Activities

Nature produces regional resources such as food, including agricultural products, and materials such as timber, which can be used to create locally branded products with strong market appeal. Nature also shapes the unique history, culture, and landscapes of each region. These nature-derived resources hold significant potential to bring prosperity and vibrancy to local communities.

Furthermore, initiatives involving nature conservation, restoration, and creation, as well as nature-based regional revitalization and business development, are expected to provide employment opportunities within local areas, particularly as industrial structures undergo major transitions driven by DX and GX.

By promoting the development of industries and businesses that utilize natural assets through green infrastructure, a society enriched with prosperity and vitality through nature-based economic activities can be realized.

Chapter 4 Developing a Cross-Sectoral Enabling Environment for Further Implementation of Green Infrastructure

1. Past Efforts and Challenges in Developing a Cross-Sectoral Enabling Environment

In March 2020, the Green Infrastructure Public-Private Partnership Platform was established, and activities have been carried out mainly through its three working groups: the Planning and Public Relations Working Group, the Technical Working Group, and the Finance Working Group. As a result of expanding a wide range of activities, the number of members has increased significantly from 409 at the time of establishment to 2,150 as of October 2025, approximately five times the original number.

【Activities of the Working Groups under the Green Infrastructure Public-Private Partnership Platform】

Planning and Public Relations Working Group: This working group has undertaken extensive outreach and awareness-raising activities, including the publication of the *Green Infrastructure Casebook*, which presents examples of green infrastructure initiatives, as well as the organization of online seminars aimed at supporting organizations in promoting their own green infrastructure efforts.

Technical Working Group: This working group has disseminated information widely on technologies related to green infrastructure by preparing materials such as *Concepts and Examples of Evaluating Green Infrastructure Functions*, which organizes evaluation approaches and case studies, and by hosting online seminars to introduce high-quality technical information.

Finance Working Group: This working group has conducted broad examinations related to financing for green infrastructure. These efforts include compiling *Green Infrastructure and Its Financing*, which organizes various financing cases, and establishing a finance team to support the development of the *Green Infrastructure Finance Guidelines* (tentative title) scheduled for formulation in FY2025.

In FY2023, MLIT developed the *Green Infrastructure Implementation Guide* to promote local governments' initiatives. In FY2024, MLIT published *Recommendations for Green Infrastructure Projects and Finances* to encourage efforts and investments by private companies and other entities.

In addition, through the *Support Program for Leading Green Infrastructure Models*, MLIT has supported local governments, which play a crucial role in developing regional living infrastructure. Furthermore, through the *Green Infrastructure Creation Promotion Program*, MLIT has advanced public-private initiatives by conducting small-scale regional

demonstrations to assess the practicality of new technologies for addressing local challenges.

To further build on these efforts, it is necessary to promote initiatives to address challenges arising from the implementation of green infrastructure, as well as initiatives to enhance public awareness and recognition of green infrastructure.

2. Cross-Sectoral Measures to Develop an Enabling Environment

Building on the outcomes achieved to date, efforts toward realizing a society in which the use of green infrastructure is standard practice will be further strengthened. To this end, initiatives associated with the six pillars will be actively promoted.

(1) Fostering Nationwide Momentum and Understanding

Fostering nationwide momentum and understanding is essential for the substantial expansion of green infrastructure. To achieve this, diverse actors, including industry, government, academia, financial institutions, labor organizations, and media, must work collaboratively to further advance outreach and awareness-raising efforts.

In particular, challenges remain regarding limited public recognition, insufficient understanding of green infrastructure's benefits, and the need to generate stronger public interest. To address these issues, efforts will focus on developing nationwide campaigns, implementing user-friendly public communication, promoting citizen participation and community-building, and disseminating effective case examples.

【Specific Measures】

- Develop activities in partnership with the business community, promote participation in the Green Infrastructure Public-Private Partnership Platform, and conduct user-friendly and carefully targeted public communication tailored to the interests and needs of each stakeholder.
- Aim to increase the number of members in the Green Infrastructure Public-Private Partnership Platform, particularly local governments, and further promote initiatives that support the commercialization of green infrastructure by local governments.
- Encourage participation at the citizen level to foster motivation to engage, promote the formation of local communities, and help secure local actors who can support regional initiatives.
- Operate systems that recognize and commend leading and effective initiatives, such as the TSUNAG, formally known as the Certification System for Securing Quantity and Quality Urban Green Space and the Green Infrastructure Grand Prize, and widely disseminate successful case examples by refining these mechanisms and collaborating

with prize recipients. In addition, foster public momentum and understanding through the organization of the Green Infrastructure Industry Exhibition.

- Disseminate information and promote awareness of the Social and Environmental Green Space Evaluation System (SEGES), which fairly evaluates activities involving the conservation, restoration, and creation of green spaces, in order to expand the number of certified SEGES sites.
- Strongly promote public awareness of green infrastructure at GREEN×EXPO 2027, beginning in March 2027, through indoor and outdoor exhibits and events presented as part of the government's participation in the exposition. In addition, continue to advance the use of green infrastructure in the new park to be developed on the exposition site after the event.
- Advance consideration toward positioning green infrastructure within the legal framework as a medium- to long-term task, taking into account domestic and international trends and the growing nationwide momentum.

(2) Visualizing the Diverse Benefits of Green Infrastructure

Evaluation methods for green infrastructure remain under development, and due to its diversity and multifunctionality, the visualization of its benefits has not yet been sufficiently advanced.

It is essential that a wide range of people recognize and understand the significance and benefits of green infrastructure. To this end, it is important to organize evaluation methods that measure the various benefits of green infrastructure, taking into account the objectives of implementation and the contexts in which it is applied, and to progressively introduce methods that are ready for use.

In addition, as more cases of green infrastructure application are accumulated, it is also important to identify benefits that have not been previously recognized.

【Specific Measures】

- Given that green infrastructure is implemented to address societal challenges, ensure that evaluation methods function as instruments that visualize its effectiveness and degree of contribution through both quantitative and qualitative indicators.
- Organize and clarify the appropriate use of various evaluation methods by considering the objectives, target areas, and characteristics of existing evaluation methods and certification schemes, and identify suitable situations in which each method should be applied. Examples include the use of internationally standardized evaluation methods, adoption by local governments, explanations provided to financial institutions in the context of Environmental, Social, and Governance (ESG) investment, and communication with relevant stakeholders.

- In evaluating green infrastructure, apply both quantitative and narrative (qualitative) assessments. Ensure that a logical framework reflects the effectiveness of narrative evaluations and demonstrates benefits in concrete terms from a citizen-oriented perspective, including subjective and experiential elements.
- Collect and analyze quantitative data and research findings with a focus on economic and social value; verify their validity through empirical studies; and organize the results so that the value of green features in real estate can be accurately assessed in the market and clearly communicated to a wide range of stakeholders, including tenants, owners, developers, and investors.
- Accumulate case examples of green infrastructure and advance studies and consideration on benefits that contribute to the sustainability of infrastructure.

(3) Creating an Enabling Environment to Promote Public-Private Initiatives

Green infrastructure faces various challenges, including technical issues such as insufficient knowledge on effective methods for implementation and maintenance, economic issues such as limited economic incentives, and a shortage of personnel with specialized expertise in green infrastructure. Accordingly, there is a need to develop an enabling environment that provides support from the perspectives of technology, finance, and human resources. It is also necessary to create an environment that enables intermediary support organizations, entities that play a role in connecting implementing bodies of green infrastructure with various stakeholders and facilitating collaboration, to operate effectively. Furthermore, instead of approaching initiatives related to green infrastructure in isolation, it is important for all relevant actors to work together to develop an integrated understanding of green infrastructure that looks ahead to the future of the entire region. In particular, as the concept and characteristics of nature differ between urban and rural areas, perspectives that allow for mutual complementarity are required.

【Specific Measures】

- Collect and analyze technical cases that are effective for the introduction and utilization of green infrastructure nationwide, present them in a clear manner, and provide support to address technical challenges, including efforts to standardize relevant knowledge and practices.
- Address economic challenges by providing fiscal and financial support for pioneering and effective initiatives undertaken by local governments, private companies, and other implementing entities. In addition, create leading examples of public-private collaboration through matchmaking between local governments and private-sector actors.

- Collect and analyze effective case examples of the maintenance and management of green infrastructure nationwide and present them in a clear manner.
- Develop an enabling environment for intermediary support organizations by disseminating the successful cases nationwide in which such organizations have functioned effectively and by introducing support measures.
- Promote the development of an enabling environment for specialized personnel by raising awareness of training programs for human resource development provided by national and local governments and professional organizations, and by supporting the acquisition of relevant qualifications and other related measures.
- Advance consideration of the potential incorporation of green infrastructure into project evaluation schemes alongside the organization of evaluation methods for green infrastructure.
- In accordance with the Basic Policy on Urban Green Space Conservation formulated in FY2024, promote the formulation of Prefectural Regional Plans for the Conservation of Urban Green Space and Municipal Master Plans for Parks and Open Spaces.
- Encourage Prefectural Regional Plans for Urban Green Space Conservation and Municipal Master Plans for Parks and Open Spaces to incorporate initiatives aimed at addressing societal challenges, together with relevant indicators.
- Promote the dissemination of the Master Plan for Parks and Open Spaces and Green Infrastructure Guidelines (Draft) and consider necessary revisions based on the latest research outputs and the progress made in the formulation of Municipal Master Plans for Parks and Open Spaces.
- Promote urban planning and the formation of planned green space networks from a broader regional perspective, taking into account the significance and importance of conserving and enhancing the natural environment.
- Promote the coordination between compact city planning and green space conservation efforts by harmonizing the Master Plans for Parks and Open Spaces with the Location Optimization Plans, and by applying measures for the conservation, restoration, creation, and utilization of green spaces in accordance with the characteristics and conditions of each urban area.

(4) Facilitating Access to Financing

The economic benefits and other advantages of green infrastructure have not yet been sufficiently communicated to financial institutions, investors, and other relevant stakeholders. While some initiatives have successfully secured funding, their overall dissemination remains limited. Accordingly, it is necessary to promote diversified financing for local governments and private-sector entities through efforts such as visualizing and effectively utilizing the multiple benefits of green infrastructure.

In addition, nature-related financial disclosures and other related actions conducted in accordance with the TNFD are increasingly expected to help create an environment that enables nature-positive management to attract investment, acquire customers, and facilitate other business opportunities.

Furthermore, when considering financing methods, due attention should also be paid to ensuring an appropriate allocation of risks, based on the establishment of a sound evaluation framework.

【Specific Measures】

- Promote the development of an enabling environment that ensures smooth access to financing by examining and modeling a variety of financing methods that encourage the utilization of green infrastructure, and by creating pioneering projects and expanding them nationwide.
- Consider the introduction and utilization of mechanisms, such as credits, that assign monetary value to the benefits generated by initiatives contributing to the conservation, restoration, and creation of green infrastructure, in order to attract capital through their trade.
- Enhance incentive schemes under TSUNAG and work to develop model cases for private investment within ESG investment frameworks.
- Examine approaches to reflect the economic value of green infrastructure in market transactions and to further promote.

(5) Utilization of New Technologies and DX

The development of technologies related to green infrastructure remains at an early stage, and the accumulation and dissemination of advanced case studies are still insufficient. Therefore, it is necessary to further promote the development of innovative technologies, such as component technologies and monitoring technologies, and to facilitate the horizontal sharing of relevant information.

Moreover, as the collection, development, and integration of fundamental data related

to green infrastructure, including geographic information and biodiversity data, are still inadequate, it is also necessary to consider measures for consolidating and integrating such information.

Furthermore, in the maintenance and management of green infrastructure, it is essential to pursue efficient and effective maintenance through the utilization of new technologies and DX, as well as to analyze the potential of existing local green infrastructure by applying such technologies.

【Specific Measures】

- Promote the development and nationwide deployment of advanced technologies, including component technologies and monitoring technologies.
- Advance the development, consolidation, and integration of various types of nature-related data; promote interoperability among datasets; and enhance mapping and data utilization in collaboration with relevant institutions, while giving due consideration to data governance based on intended uses and other pertinent factors.
- Promote the matching of needs and seeds related to green infrastructure technologies, along with other related initiatives.

(6) International Deployment

In Japan, case studies and knowledge have increasingly accumulated regarding the categorization of the benefits generated through the introduction of green infrastructure, as well as the methods for implementing such measures to realize these benefits. These advancements have been supported by the Green Infrastructure Promotion Strategy, along with practical initiatives and research undertaken by a wide range of public- and private-sector stakeholders.

Given that evaluation methods for green infrastructure have not yet been standardized globally, Japan will leverage this situation to advance discussions toward the international standardization of green infrastructure in accordance with the New International Standards Strategy (Decision of the Intellectual Property Strategy Headquarters, June 3, 2025). These efforts will particularly target countries, such as those in Southeast Asia, that are in the process of developing nature-based cities. In addition, Japan will actively promote the effectiveness and other associated benefits of its green infrastructure in various international conferences and other relevant forums.

【Specific Measures】

- In accordance with the New International Standards Strategy, advance discussions

toward the international standardization (ISO standardization) of a Japan-led framework for evaluating green infrastructure.

- In collaboration with organizations such as the Japan Business Federation (Keidanren), highlight Japan's initiatives related to green infrastructure and the diverse methods for evaluating its associated benefits to the international community, with the aim of gaining broader understanding and support.

Chapter 5 Implementation of Green Infrastructure to Address Societal Challenges

This chapter outlines the individual projects and related initiatives under MLIT to implement green infrastructure as a means of addressing the seven societal challenges identified in Chapter 1. Measures related to green infrastructure can be classified into the following categories: (1) structural measures aimed at restoring or creating green infrastructure; (2) non-structural measures for its conservation; (3) non-structural measures that promote maintenance, management, and utilization; and (4) integrated packages that combine items (1) through (3). Chapter 5 provides a comprehensive overview of these measures.

In addition to ensuring the steady implementation of these measures, it is also important to advance initiatives that address multiple societal challenges by leveraging the diverse benefits offered by green infrastructure.

1. Green Infrastructure That Contributes to develop Sustainable and Livable Environments

The implementation of green infrastructure helps reduce health risks associated with environmental factors in urban life by improving air and water quality, reducing noise, and providing other related benefits. Green infrastructure also offers valuable open spaces in which people can enjoy activities essential to healthy living, such as walking, play, relaxation, and sports, within green, open, and comfortable environments. These spaces contribute to physical well-being and also enhance mental well-being by alleviating stress, offering opportunities for relaxation, encouraging interactions among residents, and supporting community building. Furthermore, the creation of attractive landscapes contributes to the formation of high-quality living environments.

In addition, by promoting the use of green infrastructure in water-cycle-related initiatives, it is possible to maintain or restore a sound water cycle through functions such as water-resource recharge, the storage and infiltration of rainwater, and the appropriate use of groundwater.

Furthermore, green infrastructure helps safeguard the integrated relationship between people and nature shaped through human activity. This contributes to passing down region-specific histories, cultures, and traditional knowledge related to a society in harmony with nature to future generations.

【Specific Measures】

<High-Quality Urban and Living Environments>

- Promote the securing of public spaces, such as the development of urban parks by national and local governments, the designation of Special Green Conservation Districts and other similar areas, the greening of road spaces, the creation of vibrant waterside spaces, and the development of port-area green spaces, as natural environments whose permanence is ensured through institutional measures. These spaces help enhance mental and physical well-being, foster community building, and enable the diverse functions expected of green infrastructure.
- For Special Green Conservation Districts, support local governments in carrying out timely land acquisitions. In addition, promote the efficient and effective implementation of post-acquisition green-space projects based on expert knowledge by utilizing the Urban Greening Support Organization and by providing fiscal support for local-government projects aimed at maintaining and enhancing green-space functions.
- Provide financial assistance through the Organization for Promoting Private Urban Development, along with tax incentives, to support high-quality private urban development projects that incorporate environmental and other relevant considerations.
- Promote greening in residential complexes.
- Promote the development of high-quality real estate, such as properties with superior environmental performance, by supplying risk capital that catalyzes private investment through the Project for the Promotion of Earthquake-Resistant and Environmentally Friendly Real Estate.
- Promote the preservation of urban farmland that contributes to the creation of a favorable living environment.
- Promote public-private collaboration with residents and private entities engaged in conservation, restoration, creation, and utilization of green spaces. Promote the use of these green spaces as places that provide enjoyment, fulfillment, and a sense of purpose for people in local communities.
- Promote the development of play areas in urban parks to create an environment that is conducive to having and raising children, and to support parents balancing work and child-rearing responsibilities.
- Create urban spaces with greenery and areas for relaxation, as well as comfortable and walkable environments, through integrated public-private efforts. In addition, advance the development of interaction and stay-oriented spaces by coordinating the integrated restoration and utilization of existing public and private assets, such as roads, parks, plazas, and roadside buildings, to help generate urban vitality.

- Enhance pedestrian spaces and surrounding areas to improve urban appeal and vibrancy through the utilization of road spaces. This will be achieved by designating Hokomichi (Pedestrian Priority Streets) and appropriately implementing road greening measures, such as flower beds, in collaboration with local stakeholders.
- Promote the creation of comfortable and vibrant waterside spaces and further utilization of river spaces through initiatives such as Kawamachi (riverside city) development, in collaboration with diverse stakeholders, including local governments, community residents, and private-sector entities.
- Advance efforts to realize a “Society that Learns from Rivers” by promoting initiatives such as the Children’s Waterside Rediscovery Project and implementing instructor-training programs designed to convey both the natural environments of rivers and their potential hazards.
- Create beautiful, comfortable, and safe port areas that enhance regional brand value by securing functions for strolling, dining, and shopping in and around port areas, fostering interaction with local residents, and generating vibrant activity. Develop comfortable and highly convenient public interaction spaces, and strategically pursue beautiful and attractive port-city development that leverages the region’s unique cultural and historical characteristics.

<Restoring Healthy Water Cycles>

- Promote initiatives for the conservation and restoration of biodiversity across entire river basins. These efforts will be advanced not only through actions within river channels but also through collaborative activities among diverse stakeholders, including river administrators, local governments, farmers, foresters and fishers, NPOs, schools, and companies, in areas such as rice paddies, forests, and wetlands.
- Promote the utilization of green infrastructure, including rain gardens (gardens designed to temporarily capture and infiltrate rainfall), to strengthen regional rainwater retention and infiltration functions.
- To maintain valuable retention and water-resource recharge capacities in urban areas, promote the conservation and creation of woodlands, rain gardens, urban farmlands, and other related spaces, as well as the greening of private facilities and public or public-interest facilities, through the participation of diverse stakeholders.
- Advance efforts to maintain or restore a sound water cycle by promoting public awareness of water-cycle issues and by strengthening groundwater management and related measures.

<History and Culture>

- Promote historic city development to preserve and enhance “historic landscapes,” which integrate historically valuable buildings, their surrounding urban districts, and the traditional ways of life that reflect regional history and cultural traditions, and to ensure that these historic landscapes are passed down to future generations.
- Promote the preservation and utilization of outstanding historical and cultural assets through urban park development and related initiatives undertaken by national and local governments.

2. Green Infrastructure That Contributes to Disaster Risk Reduction

The implementation of green infrastructure helps secure emergency evacuation spaces, final evacuation sites, disaster-prevention hubs, and similar facilities for local residents, thereby contributing to the protection of human life from building collapse and urban fires. It should be noted that the implementation of green infrastructure is important not only for securing open spaces but also for ensuring that such open spaces are equipped with disaster-prevention functions.

For flood damage, promoting the use of green infrastructure in basin-wide flood control contributes to conserving or restoring ecosystem functions and reducing runoff into sewer systems and rivers through the storage and infiltration of stormwater.

For storm surges, tsunamis, and similar events, the conservation and restoration of sandy beaches help attenuate wave energy and protect human life and property in hinterland areas from such disasters.

For sediment-related disasters, developing continuous forest belts contributes to enhancing safety against such hazards and to securing the safety and peace of mind of local communities.

【Specific Measures】

<Earthquake-Related General Measures>

- Promote the development of parks, green spaces, plazas, and related facilities that serve as emergency evacuation spaces, final evacuation sites, and disaster-prevention hubs for residents, and promote measures to address the deterioration of facilities, such as the renovation of deteriorated park pathways, restrooms, and similar park facilities, in order to protect human life from building collapse and urban fires.
- Promote the securing of urban green spaces that help prevent the spread of fires and provide functions as evacuation sites, evacuation routes, and similar facilities.
- Enhance the disaster resilience of urban districts by appropriately utilizing roadside greenery, including street trees and similar vegetation, with streets serving as core structural elements.

- Promote the development of parks, green spaces, plazas, and similar facilities that serve as rest areas and as locations for providing information and other forms of support to stranded commuters, in order to prevent confusion associated with excessive numbers of people unable to return home.
- Implement integrated and comprehensive sediment management from headwater areas to coastal zones to address safety- and usability-related issues caused by sediment movement. These issues include sediment-related disasters, sedimentation in dam reservoirs, impacts on river structures associated with riverbed degradation, coastal erosion, and similar problems.

<Flood-Related Disasters>

- Promote the concept of green infrastructure in basin-wide flood control by utilizing the diverse functions of nature, and actively conserve or restore ecosystem functions that contribute to reducing disaster risks.
- Promote the use of green infrastructure, including rain gardens and similar facilities, to enhance local stormwater retention and infiltration capacity.
- With the participation of diverse stakeholders, conserve, restore, and create forested areas, rain gardens, urban farmland, and similar spaces, and promote the greening of private facilities and public or public-interest facilities in order to maintain valuable water-storage and water-resource recharge capacity in urban areas.

<Storm Surges, Tsunamis, and Similar Disasters>

- Advance tsunami countermeasures in ports by developing resilient-structure breakwaters, evacuation facilities, and other related measures to prevent catastrophic damage from large-scale tsunamis and enable prompt recovery and resumption.
- Promote the conservation and restoration of sandy beaches to attenuate wave energy and protect human life and property in hinterland areas from storm surges, tsunamis, and similar disasters. In addition, promote “prediction-oriented adaptive beach management,” which manages beaches from the perspectives of sediment transport and littoral drift systems, incorporating monitoring results and accounting for uncertainties in predictive assessments.
- Promote collaborative protection by conducting vulnerability assessments for each designated collaborative protection zone and implementing a combination of structural and non-structural measures tailored to area-specific conditions, through coordinated efforts among relevant port stakeholders.

<Sediment Disasters>

- Promote the Urban Foothill Green Belt Development Project.

3. Green Infrastructure That Contributes to Heat-Countermeasures

The implementation of green infrastructure promotes measures against the heat-island effect by enhancing evapotranspiration, preventing excessive surface heating, and creating wind corridors and similar features. In addition, the implementation of such measures helps alleviate localized heat stress experienced by people by reducing surface and wall temperatures and providing green shade and other related benefits.

【Specific Measures】

<Measures Against Heat-Island Effect>

- Promote the conservation, restoration, and creation of green spaces as heat-mitigation measures against rising summer temperatures. Also promote rooftop and wall greening to prevent increases in surface temperatures and the retention of heat in building envelopes.
- Promote the formation of wind corridors by securing continuous green spaces, in addition to improving ground-surface coverage through green-space development, greening initiatives, and the conservation of urban farmland and similar areas.
- Form a livable urban environment by developing greenbelts, rain gardens, and similar features that contribute to mitigating the heat-island effect.

<Measures to Alleviate Localized Thermal Discomfort>

- Promote the use of waterside spaces, the utilization of stormwater, and other similar approaches to help create a livable environment.
- Promote heat-countermeasures measures in urban spaces, such as parks, plazas, and streets, through the provision of green-shade facilities and similar features.
- Enhance the continuity of shaded areas along streets by appropriately utilizing roadside greenery, including street trees and similar vegetation, with streets serving as core structural elements.

4. Green Infrastructure That Contributes to Biodiversity Conservation

Efforts will focus on restoring degraded ecosystems, enhancing the quality of natural environments, and building and maintaining ecological networks by taking into account the characteristics of each regional classification that constitutes the national territory. These classifications include Remote Mountain Natural Areas, Satoyama and Rural Areas, Urban Areas, River and Wetland Areas, Coastal Zones, Marine Areas, and Island Regions⁵.

【Specific Measures】

⁵ This classification system is based on the National Biodiversity Strategy of Japan 2023–2030.

<Urban Areas>

- Promote the securing of green spaces for biodiversity conservation in urban areas through collaboration among a wide range of stakeholders, including government agencies, private businesses, residents, and nonprofit organizations. These efforts begin with expanding the designated area of Special Green Conservation Districts and similar zones, as well as encouraging private-sector initiatives to secure high-quality green spaces.
- Enhance the quality of green spaces through appropriate forest regeneration and related practices, and promote the quantitative expansion and qualitative improvement of green spaces on a broader regional scale by organically connecting them as part of an ecological network.
- Promote road development that incorporates ecological considerations by installing wildlife crossing structures, wildlife-warning signs, and other measures to prevent the fragmentation of wildlife habitats.
- Strengthen driver awareness to prevent frequent roadkill by utilizing accident data and implementing roadway markings, in-vehicle navigation alerts, and similar measures.

<River and Wetland Areas>

- Promote nature-oriented river management to ensure biodiversity conservation in rivers. This approach serves as the fundamental principle for all river management. It includes installing fishways; modifying sluice gates and related facilities to restore ecological connectivity between rivers and agricultural waterways; and conserving and restoring side channels, former river courses, wetland environments, and similar natural features.
- Advance basin-wide initiatives for biodiversity conservation and restoration, not only within rivers but also across rice paddies, forests, ponds, wetlands, and similar environments, through collaboration among a diverse range of stakeholders, including river administrators, local governments, farmers, foresters, fishers, NPOs, schools, and companies.
- Aim to conserve and create favorable river environments by incorporating quantitative targets for river environmental conditions into river improvement plans (for sections under national management). Also promote the establishment of an adaptive management framework through monitoring based on these quantitative targets.

<Coastal Areas>

- Promote efforts to ensure biodiversity conservation in coastal areas by restoring lost marine environments and creating favorable conditions through the effective use of dredged sediment generated from port development to create seaweed beds, tidal flats,

and similar habitats; developing green port structure; and backfilling deep holes and similar areas.

- Utilize favorable natural environments and conduct the Seaside Environmental Experience School in collaboration with the national government, local governments, NPOs, and other organizations. Raise public awareness on biodiversity through environmental education and related activities.
- Promote the development of coastal protection facilities tailored to the natural characteristics of each coastline in order to conserve the diverse ecosystems along coastal areas. In particular, further advance measures that prioritize the conservation and restoration of sandy beaches.
- Promote the implementation of proactive operation for nutrient control in wastewater treatment, based on local consensus, in partially enclosed coastal waters in which nutrient deficiency has been identified.

5. Green Infrastructure That Contributes to Revitalizing Regional Economies

The implementation of green infrastructure contributes to enhancing Japan's international standing by developing urban environments suitable as bases for internationally operating companies. At the regional level, green infrastructure creates attractive public spaces and promotes local vitality, while also contributing to the development of green infrastructure as a tourism resource. It also supports the effective use and proper management of underutilized or low-use land. Furthermore, principles of green infrastructure are incorporated into initiatives for appropriate national land use and management based on National Land Management Concept.

In addition, community development that utilizes green infrastructure is promoted, thereby revitalizing regional economies through encouraging migration, long-term settlement, and Dual residency.

【Specific Measures】

<Business and Innovation>

- Develop urban environments suitable as bases for globally operating companies by providing office environments that incorporate diverse service functions and environmental considerations, and by enhancing landscapes that reinforce urban identity.
- Create venues and spaces for interaction and accommodation within urban areas to generate innovation and enrich daily life through diverse encounters and exchanges. Also foster a positive cycle that attracts a wide range of domestic and international talent and associated populations by enhancing the appeal and international

competitiveness of cities.

<Utilization of Public Spaces>

- Promote sound private-sector investment in the installation of park facilities, such as restaurants, retail kiosks, and similar amenities, in urban parks by utilizing the Park-Private Finance Initiative (Park-PFI) system and related schemes. Also improve the quality of urban parks as well as the convenience for park users.
- Enhance pedestrian spaces and similar areas in order to improve urban appeal and vibrancy through the utilization of road spaces. This includes designating Hokomichi (Pedestrian Priority Streets), and appropriate use of road greening measures, such as flower beds, in collaboration with local stakeholders.
- Support road cooperation organizations that voluntarily engage in activities to resolve everyday road issues and to address the needs of road users through attentive responses and similar activities.
- Promote the creation of comfortable and vibrant waterside spaces and enhance the utilization of the river areas through initiatives such as Kawamachi (riverside city) development, in collaboration with diverse stakeholders including local governments, community residents, and private-sector entities.
- Promote the use of waterside spaces, the utilization of stormwater, and similar approaches to help create a livable living environment.
- Promote public-private partnership (PPP) initiatives, including the *Mizbering* project, to advance collaborative and effective utilization of waterfront spaces.
- In port green areas and similar facilities that serve as core hubs for port-city development, promote the creation of high-quality and vibrant waterfront spaces by leveraging private-sector capabilities through mechanisms such as the Port Environmental Improvement Plan (Port Green Area PPP).

<Tourism>

- Promote the creation of beautiful and attractive cityscapes that contribute to regional revitalization through tourism by implementing measures such as forming high-quality urban landscapes that make use of the city's inherited culture and history; utilizing, creating, and disseminating distinctive cultural and artistic resources while fostering the individuals who support them; creating vibrant urban spaces and advancing the development of urban parks; conserving, restoring, and creating valuable green spaces that remain within cities; and promoting garden tourism and related initiatives.
- Promote inbound tourism to regional areas by supporting communities and other entities that develop tourism content leveraging diverse local resources, and advance the utilization of green infrastructure as tourism assets.

- Support the activities of the Japan Scenic Byways program, which makes use of regional resources such as landscapes, nature, history, and culture, with roads serving as the stage for these initiatives.
- Promote the development of beautiful and attractive port cities that make use of the region's unique culture and history, by identifying and enhancing the diverse tourism resources found in ports, including their calm waters, natural features, and varied landscapes.
- Further promote initiatives focused on the conservation and restoration of sandy beaches, which serve as key elements of beautiful coastal landscapes such as white sandy shores and pine forests.
- Promote initiatives related to tourism green transformation (Tourism GX) and the conservation and utilization of natural environments and local resources, through the implementation of the Japan Sustainable Tourism Standard for Destinations (JSTS-D) at the regional level.
- Promote the Dynamic SABO (Erosion and Sediment Control) Project.

<Migration, Long-Term Settlement, and Dual residency>

- Promote regional revitalization by encouraging migration, long-term settlement, and Dual residency that make use of the area's natural characteristics and unique cultural resources, while expanding the number of people engaged with the region and supporting industrial development.

<Effective Land Use>

- Promote the formulation of the Land Management Concepts at the municipal and regional level that define the desired future vision and appropriate land management approaches, by conducting comprehensive assessments of current population and land management conditions and forecasting future trends — particularly in hilly and mountainous areas — based on the National Land Management Concept that indicates how to appropriately manage national land under a declining population.
- In coordination with the Green Infrastructure Public-Private Partnership Platform, comprehensively and systematically advance initiatives aimed at the full-scale implementation of green infrastructure through cross-sectoral public-private collaboration. Promote the effective utilization and appropriate management of underutilized and idle land through these initiatives.

6. Green Infrastructure Contributing to Greenhouse-Gas Reduction

The implementation of green infrastructure is intended to increase CO₂ absorption and reduce CO₂ emissions by promoting a shift from car-oriented spaces to people-centered

environments.

【Specific Measures】

<Greenhouse-Gas Sink Measures>

- Promote comprehensive public-private initiatives for the conservation, restoration, creation, and maintenance of green spaces, such as the development of urban parks, the expansion of designated areas including Special Green Space Conservation Districts, the promotion of appropriate management, and the encouragement of private-sector efforts to secure high-quality green areas. Through these initiatives, increase CO₂ absorption.
- Advance considerations for street tree management that contributes to achieving carbon neutrality.
- Making use of blue carbon (carbon coming from carbon dioxide sequestered through ocean ecosystems) through the conservation, restoration and creation of blue infrastructure (seagrass meadows, macroalgal beds, tidal flats and green port structure).
- Support projects and associated activities that promote the wider adoption of medium- and large-scale wooden buildings, which are expected to contribute to carbon sequestration in urban areas, and promote the expanded use of timber.

<Emission Reduction>

- Promote a transition from car-oriented spaces to people-centered environments by enhancing walkability through measures such as the expansion of pedestrian spaces and the greening of public areas with lawn installations, and reduce energy consumption and CO₂ emissions.

7. Green Infrastructure Contributing to Transition to a Circular Economy

As part of green infrastructure initiatives, efforts to utilize resources efficiently and cyclically in a sustainable manner will be advanced.

【Specific Measures】

- Promote the effective and appropriate use of construction-generated soil, including on-site reuse and inter-project utilization, in the implementation of green infrastructure.
- Promote preventive, condition-based infrastructure maintenance in the management of green infrastructure.
- Promote the effective on-site utilization of pruned branches, fallen leaves, and other

plant materials through chipping, composting, and related processes.

- Enhance the dissemination of the Guidelines for Biomass Utilization of Riverine Trees and Dam Driftwood, revised in FY2023, to promote their biomass utilization.
- Implement blue-infrastructure development through the effective utilization of industrial by-products and other materials.
- Advance research, studies, and technological development on the effective use of sewerage biomass at wastewater treatment plants, including energy recovery and fertilizer applications, as well as regional biomass, and promote their wider deployment. In addition, facilitate project formulation by local governments by enhancing initiatives such as the Sewerage Energy Hub Concierge Program.

Chapter 6 Progress Management of the Plan (Roadmap and Follow-up Process)

1. Progress Management of Cross-Sectoral Measures

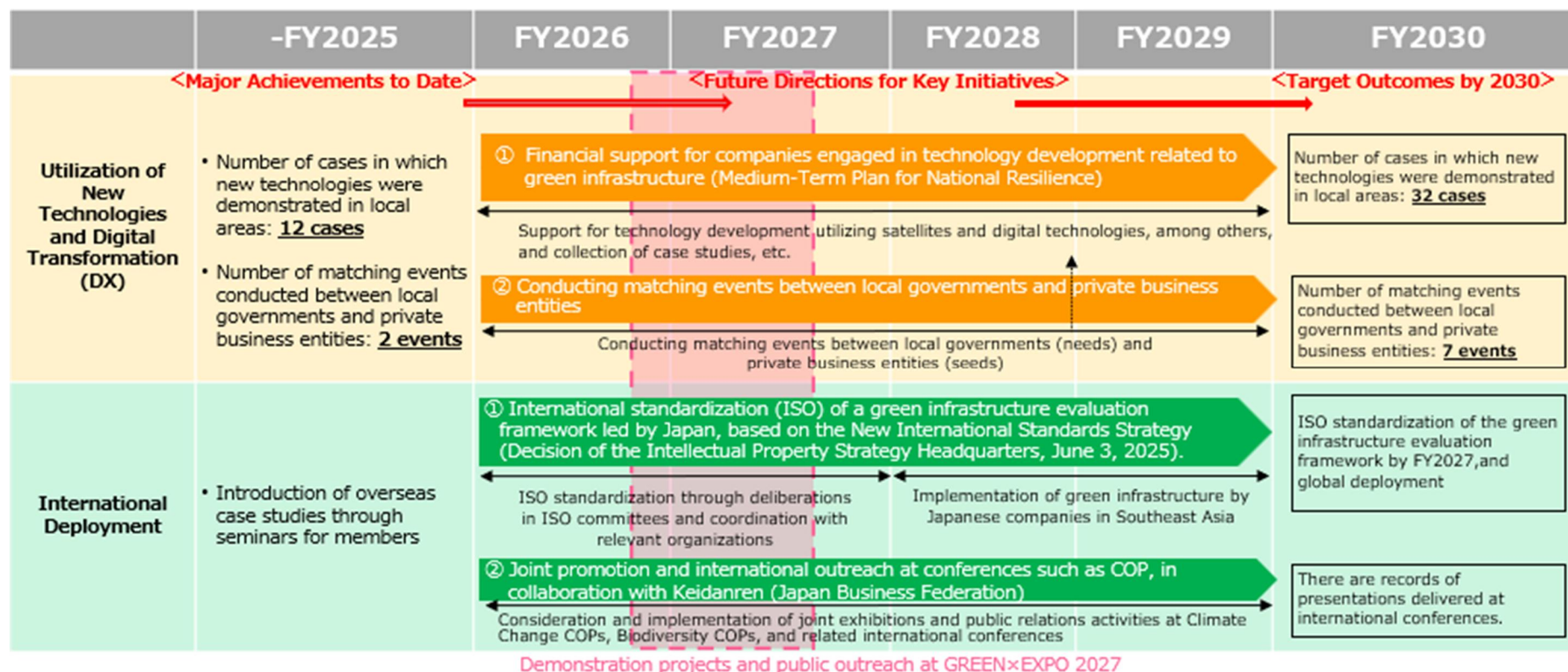
Toward 2030, the final year of the plan period, it is important to steadily advance initiatives under each of the six pillars presented in Chapter 4. Figure 4 shows a roadmap that highlights representative initiatives and presents the outcomes to be achieved by 2030. Progress will be reviewed through an annual follow-up process on the initiatives indicated in the roadmap, and necessary revisions will be made as appropriate. In the follow-up process, in addition to reviewing progress toward the intended outcomes, analyses will be conducted on the content of implemented initiatives and their associated effects, and the results will be reflected in initiatives in subsequent years.

Through the systematic implementation of necessary measures in this manner, the plan will steadily pursue the realization of a “society in which the use of green infrastructure is standard practice.”

	-FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	<Major Achievements to Date>	<Future Directions for Key Initiatives>				<Target Outcomes by 2030>
Fostering Public Momentum and Understanding	Operation of Green Infrastructure Public-Private Partnership Platform • Members: <u>2,150 entities</u> (Oct 2025) • Share of local government members implementing budgeted projects: <u>38.0%</u> (Mar 2025) Green Infrastructure Grand Prize • Cumulative number of awarded projects: <u>76</u> (as of Jan 2025) Green Infrastructure Industry Exhibition • On-site visitors: <u>26,338</u> (Jan 2025) • Exhibitors: <u>87 companies / organizations</u> (Jan 2025)	① Increase in the number of local government members and, among those, members implementing Green Infrastructure projects Implementation of awareness-raising initiatives to increase membership, as well as initiatives that contribute to improving project implementation rates among local governments, etc.				• Members: <u>5,000 entities</u> • Share of local government members implementing budgeted projects: <u>100%</u>
		② Fostering Momentum and Understanding in collaboration with Keidanren (Japan Business Foundation) and industry associations Organization and hosting of events and exchange of views, dissemination of various guidelines, identification of industry needs, and consideration of their reflection in policy measures, etc.				Guidelines for maintenance and management through civic activities formulated and disseminated by FY2027
		③ Support for Community Building through Citizen-Led Activities Surveys, guideline development, and dissemination on maintenance, management, and human resource development through citizen-led activities.				Cumulative number of Green Infrastructure Grand Prize awarded projects: <u>150</u>
		④ Dissemination and Horizontal deployment of good practices from Green Infrastructure Grand Prize and TSUNAG incentive program Implementation of Green Infrastructure Grand Prize and TSUNAG incentive program				• On-site visitors: <u>50,000</u> • Exhibitors: <u>100 companies / organizations</u>
		⑤ Fostering Momentum and Understanding through Green Infrastructure Industry Exhibition Organization and hosting of the Green Infrastructure Industry Exhibition				GREEN×EXPO 2027 Paid visitors: <u>10 million</u>
		⑥ Fostering Momentum and Understanding through hosting GREEN×EXPO 2027 Organization and hosting of GREEN×EXPO 2027 Continued promotion of the use of Green Infrastructure in new parks to be developed on planned event sites				
Visualizing Diverse Benefits	• Concepts and Examples of Evaluating Green Infrastructure Functions (Nov 2023)	① Development of green infrastructure evaluation methods Studies on Green Infrastructure evaluation methods Review and examination of evaluation methods and certification schemes Identification of needs and consensus-building with relevant stakeholders, etc. Basic research under SIP e-1(*)				Practical guidelines for practitioners on green infrastructure evaluation methods formulated and disseminated by FY2029 (*) Strategic Innovation Promotion Program (SIP), Project e-1: An Inter-Ministerial Green Infrastructure Platform for Evaluating Policy Impacts on Attractive Cities, Regions, and National Land

Demonstration projects and public outreach at GREEN×EXPO 2027

	-FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	<Major Achievements to Date>	<Future Directions for Key Initiatives>				<Target Outcomes by 2030>
Creating an Enabling Environment to Promote Public-Private Initiatives	- Green Infrastructure Case Studies (Updated Mar 2025) - Green Infrastructure Implementation Guide (Oct 2023) - Green Infrastructure Support Programs (May 2024) - Green Infrastructure Technologies (Mar 2025) - Recommendations for Green Infrastructure Projects and Finances (Sep 2024) - Basic Policy for Urban Green Space Conservation (Dec 2024)	① Financial and technical support for local governments engaged in regional revitalization initiatives: Implementation of green infrastructure in local regions based on the Comprehensive Strategy on Regional Revitalization and related national strategies.				Formulation and dissemination of the "Green Infrastructure Guidelines for Realizing Regional Revitalization at the Local Level" (tentative) by FY2026
		② Collection and analysis of knowledge on green infrastructure maintenance and management methods Surveys of challenges and needs related to maintenance and management in public works projects, formulation of guidelines, and dissemination of relevant information, etc.				Formulation and dissemination of Guidelines on efficient maintenance and management of green infrastructure by FY2027
		③ Support for the establishment and activities of intermediary support organizations, and nationwide dissemination of good practices Surveys on the current status of intermediary organizations, examination of organizational structures and operational methods, collection of case studies, and dissemination, etc.				Collection and dissemination of case studies in which green infrastructure has been implemented through public-private partnerships (PPP)
		④ Creation of pilot public-private partnership (PPP) cases through matching between local governments and private companies Creation of pilot public-private partnership (PPP) cases				Percentage of Regional Plans for the Conservation of Urban Green Space and Master Plans for Parks and Open Spaces that incorporate green infrastructure: 40% (FY2023: 25%)
		⑤ Promotion of plan formulation through dissemination of the Master Plans for Parks and Open Spaces in conjunction with the draft Green Infrastructure Guidelines Promotion of plan formulation through dissemination of the Green Master Plan x Green Infrastructure Guidelines (Draft) and related measures.				
Facilitating Access to Financing	- Green Infrastructure Finance Subcommittee Reference Materials (Mar 2021) - Green Infrastructure and Finance for Green Infrastructure (Apr 2022) - Finance Guidelines for Green Infrastructure (Tentative Title) to be published during FY2025	① Dissemination and implementation of the Finance Guidelines for Green Infrastructure (Tentative Title): Dissemination to and implementation by local governments, private business entities, and other stakeholders Additions and revisions in line with the examination and establishment of evaluation methods.				Establishment of financing methods through revision of the Finance Guidelines for Green Infrastructure (tentative title), based on the consideration of social trends and evaluation methods
		② Collection and dissemination of effective financing cases Collection and dissemination of good practices through the call for entries for the Green Infrastructure Grand Prize.				In all prefectures with designated cities, the creation of at least one loan or financial product related to green infrastructure.
		③ Examination of the crediting of environmental value Studies conducted in cooperation with relevant ministries and agencies.				Establishment of markets in Japan for nature credits and the creation of related projects, in cooperation with the Ministry of the Environment
		④ Creation of model cases for private investment utilizing TSUNAG incentive program Strengthening incentives and developing model cases to promote private sector investment through ESG investment				Establishment of mechanisms to facilitate private sector investment utilizing the TSUNAG incentive program
		Demonstration projects and public outreach at GREEN×EXPO 2027				



Note: The timing and other aspects of the implementation of each measure may be subject to change depending on budgetary arrangements and other factors.

Figure 4: Roadmap for Cross-Sectoral Environmental Enabling Measures

2. Progress Management of MLIT's Individual Projects and Other Initiatives for Implement Green Infrastructure

Toward 2030, the final year of the plan period, it is important to steadily advance MLIT's individual projects and other initiatives that implement green infrastructure, positioned under each social issue presented in Chapter 5. Figure 5 shows a roadmap that highlights representative initiatives and presents the outcomes to be achieved by 2030. Progress will be reviewed through an annual follow-up process on the initiatives indicated in the roadmap, and necessary revisions will be made as appropriate. In the follow-up process, in addition to reviewing progress toward the intended outcomes, analyses will be conducted on the content of initiatives implemented and their associated effects, and the results will be reflected in initiatives in subsequent years.

Through the systematic implementation of necessary measures in this manner, the plan will steadily pursue the realization of a “society in which the use of green infrastructure is standard practice.”

	-FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	<Major Achievements to Date>		<Future Directions for Key Initiatives>			<Target Outcomes by 2030>
Common Considerations	Securing urban green spaces through urban park and green space projects	Continuation of financial support for the development and renewal of urban parks				Public spaces with water and greenery in urban areas (natural environments whose permanence is ensured through institutional measures): 15.2 m ² per person (FY2023: 14.2 m ² per person)
	Establishment and implementation of green infrastructure-based urban development support projects	Dissemination of and support for the appropriate management of special green space conservation districts, civic green spaces, and tree planting districts				Promotion of the implementation of green infrastructure by leveraging these projects
	Promotion of road greening	Support for the development of green infrastructure through public-private partnership and cross-sectoral collaboration using grants and specific subsidy programs				Promotion of generational renewal of street trees to ensure CO ₂ absorption capacity
		Promotion of road greening that contributes to carbon neutrality				
Formation of Sustainable and Livable Urban and Living Environments	Creation of playgrounds for children through urban park projects and related initiatives	Promotion of the provision of nature-rich playgrounds and relaxing spaces for child-rearing households by disseminating a collection of reference cases on urban park playgrounds where everyone can play and everyone can foster.				Percentage of Master Plans for Parks and Open Spaces that include measures for the creation of playgrounds for children and spaces for social interaction among parents: 39% (FY2023: 25%)
	Implementation of various initiatives toward walkable city planning	Dissemination of a public-private partnership-based city planning guidebook and street design guidelines				Number of municipalities that have designated comfortable and walkable areas: 200 municipalities (FY2025: 132 municipalities)
	Utilization of the Kawamachi development support program	Promotion of "comfortable and walkable" urban area development nationwide, and awareness-raising through Machimichi (urban streets and places) Conferences				Number of locations with attractive waterside spaces created: 350 locations (FY2024: 286 locations)
		Promotion of Kawamachi (riverside city) development to create attractive waterside spaces				
		Analysis of the components and effects of good practices in Kawamachi (riverside city) development; reflection of the findings in the guidelines for Kawamachi planning; and horizontal dissemination.				
	Promotion of the Minato Oasis facility program	Strengthening initiatives to clarify concepts through classification of Minato (ports) Oasis facilities and to enhance collaboration with other tourism resources				Number of registered Minato Oasis facilities: 190 facilities (FY2025: 170 facilities)
		Horizontal dissemination of best practices and public outreach utilizing social media				

	-FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	<Major Achievements to Date>	<Future Directions for Key Initiatives>				<Target Outcomes by 2030>
Disaster Risk Reduction	Development and renewal of disaster prevention parks	Promotion of development and functional enhancement of disaster prevention parks that serve as evacuation sites and bases for rescue and relief activities				Completion rate of disaster prevention park measures to secure disaster response bases and evacuation sites (including the development of evacuation sports facilities, operational plazas for support teams, and emergency storage and power facilities): 100% (FY2023: 48%)
	Positioning the use of green infrastructure within basin-wide flood control projects	Promotion of green infrastructure use under the “River Basin Disaster Resilience and Sustainability by All” framework				Promotion of the use of green infrastructure within basin-wide flood control projects
	Research and development on rain gardens	Development of standard specifications for rain gardens (including installation methods, maintenance and management practices, and visualization of effects)				Number of members of the Green Infrastructure Public-Private Partnership Platform that have undertaken initiatives related to rain gardens: 500 entities
	Creation of pilot rain garden projects	Horizontal deployment of pilot rain garden practices				
Heat-Mitigation Measures	Dissemination of information on heat mitigation through urban greening	Dissemination of pioneering initiatives of rooftop and wall greening initiatives through the MLIT website				Area of rooftop greening implemented: 302.1 ha (FY2023: 227.7 ha)
	Urban development guidelines for mitigating the heat island phenomenon Master Plans for Parks and Open Spaces× Green Infrastructure Guidelines (Draft)	Implementation of measures such as improvement of ground surface coverage through dissemination of relevant guidelines				Promotion of initiatives to improve ground surface coverage based on relevant guidelines

	-FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	<Major Achievements to Date>	<Future Directions for Key Initiatives>				<Target Outcomes by 2030>
Ensuring Biodiversity Conservation	Development of guidelines for formulating Master Plans for Parks and Open Spaces with consideration for biodiversity; and formulation of Basic Policies for Urban Green Space Conservation Promotion of nature-oriented river management and formation of ecosystem networks based on rivers	Promotion of the setting of biodiversity-related goals in Regional Plans for the Conservation of Urban Green Space and Master Plans for Parks and Open Spaces Positioning of quantitative targets for river environments in river improvement plans (nationally managed sections) Promotion of framework building for adaptive management through monitoring Nationwide dissemination of good practices and know-how for ecosystem network formation initiatives				Number of regional green plans and Green Master Plans with targets set based on basic greenery policies: 150 plans (FY2024: 1 plan) Percentage of river improvement plans (nationally managed rivers) that include quantitative targets for river environments: 43% (FY2024: 0%)
Revitalizing Regional Economies	Operation of the Garden Tourism registration system Guidelines on the appropriate management and utilization of vacant land	Dissemination through collaboration with travel agencies and at greenery-related events such as greening fairs Creation of green infrastructure implementation cases based on the guidelines for the appropriate management and utilization of vacant land				Promotion of initiatives under registered Garden Tourism plans and encouragement of registration of new plans Accumulation of knowledge on the use of Green Infrastructure in vacant land
Reducing Greenhouse-Gas Emissions	Carbon sink measures through urban greening Promotion of the Blue Infrastructure Expansion Project for Life-Nurturing Ports	Promotion of carbon sink measures through urban greening and development of urban parks Improvement of the calculation accuracy for CO ₂ absorption through urban greening and related measures Development of systems to accurately and efficiently identify and manage seagrass bed coverage areas for estimating CO ₂ absorption by seagrass beds				Greenhouse gas absorption through urban greening and related measures: 1.24 million t-CO ₂ (FY2023: 1.32 million t-CO ₂) The amount of CO ₂ absorbed and fixed by blue carbon (t-CO ₂) by FY2035: 1.0 million t-CO ₂ (FY2023: 0.34 million t-CO ₂)
Building a Circular Economy	Implementation of the effective use of pruned branches and fallen leaves in selected parks and other sites	Publication of advanced case studies on the effective use of pruned branches and fallen leaves				Increase in the number of cases utilizing pruned branches and fallen leaves effectively

Note: The timing and other aspects of the implementation of each measure may be subject to change depending on budgetary arrangements and other factors.

Figure 5: Roadmap for MLIT's Individual Projects and Related Initiatives for Implementing Green Infrastructure

Appendix: Green Infrastructure Promoted by Other Ministries

Green infrastructure is not only important in the field of land and transportation, but also plays a crucial role in the environmental and agriculture, forestry, and fisheries sectors. Here, we outline the major green infrastructure initiatives under the jurisdiction of the Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries.

Initiatives by the Ministry of the Environment

Circular and Ecological Economy

—Related Section: Cross-Sectoral Measures (③Establishing an Enabling Environment to Promote Public–Private Initiatives)

The Circular and Ecological Economy is a concept of “self-reliant and decentralized society” where each local community resolves its own issues by continuously creating enterprises (local SDGs enterprises) that utilize local resources sustainably to improve the environment, economy, and society, while making best use of its unique characteristics to network with other communities and help each other. For example, the natural blessings of renewable energy and biomass from Satoyama landscapes solve social issues such as improving the region’s disaster prevention capabilities and strengthening the region’s economic cycle improve the local employment and income. As the Circular and Ecological Economy represents an approach to resolve local environmental, social, and economic issues in an integrated manner through partnerships, it is also referred to as Local SDGs.

[Promotion of the Circular and Ecological Economy]

From 2019 to 2023, the Ministry of the Environment implemented the Platform Project for Building Circular and Ecological Economy that Revitalize Communities through the Environment, providing support for the organization of stakeholders and the development of project concepts. From FY2024, it launched the Project for Establishing Support Systems for Circular and Ecological Economy, which aims not only to support each region but also to support and develop personnel capable of facilitating their formation.

Furthermore, under this initiative, a portal site related to the Circular and Ecological Economy is being operated. By providing opportunities to “learn,” “study,” “create,” and “connect,” it is further accelerating the implementation of Local SDGs initiatives across the country.

Green Finance Promotional Policies

—Related Section: Cross-Sectoral Initiatives to Create Enabling Environment for Green

Financing (④Facilitation of Financing)

Green finance is one of the effective means of mobilizing funding for green projects, including the development of green infrastructure. Green finance generally refers to all types of investment and financing that contribute to solving environmental issues, and the financing can be broadly categorized into two main approaches.

The first is use-of-proceeds instruments such as Green Bonds (GB) and Green Loans (GL), in which funds are raised specifically for green projects.

The second is general-purpose instruments such as Sustainability-Linked Bonds (SLB) and Sustainability-Linked Loans (SLL), in which the financial conditions such as interest rates change depending on the borrower's achievement of pre-defined sustainability performance targets (SPTs).

Among these, GB, the most representative method, had a total domestic issuance of 2.2 trillion yen in 2024, with a wide range of issuers including financial institutions, construction companies, and local governments. To promote and expand the use of green finance such as GB, the Ministry of the Environment has implemented the following measures:

- ① Development of guidelines: In alignment with international principles, guidelines for GB, SLB, GL, and SLL have been published to support domestic fundraising. In particular, Appendix of Annex 1 (the “Green List”) in the GB/GL Guidelines is the list of eligible green projects, key performance indicators (KPIs) for evaluating environmental benefits, and associated negative environmental impacts. In order to expand green finance into new areas, attract new market participants, and enhance market transparency, the list is regularly updated to reflect emerging financing needs.
- ② Green Finance Grant Program: In green finance such as GB, additional costs are incurred to ensure transparency and credibility, including expenses for external reviews and consultancy services for framework development. To defray these costs, the grant (covering approximately 30–60% of eligible expenses) is provided.

Guidelines for Heat countermeasures in Urban Areas

– Related Section: Implementation for Addressing Social Challenges (③ Heat Countermeasures)

[Purpose of Heat countermeasures]

Summers in Japan have been becoming increasingly severe year by year, with FY2025 recording the hottest summer on record. According to Climate Change in Japan 2025, further temperature increases are projected in the future, suggesting that urban heat conditions may become even more severe. Urban heat is influenced not only by air

temperature but also by surrounding environmental factors such as solar radiation and wind conditions. Therefore, it is important to understand the causes of heat and implement appropriate countermeasures accordingly.

This guideline describes evaluation methods based on the Wet Bulb Globe Temperature (WBGT) , which is calculated using factors such as temperature, humidity, solar and radiant heat, and wind.

[Key Points for Heat countermeasures]

This guideline classifies urban heat countermeasures into four categories: Blocking strong solar radiation (“above”), Cooling heated ground surfaces (“below”), Cooling building walls (“side”), and cooling the air and the human body (“center”).

It recommends combining these measures in an integrated manner to create cool spots (places for relief from heat) in urban areas.

[Heat countermeasures Technologies (Related to Green Infrastructure)]

Green infrastructure-related measures include creating continuous shaded areas through street trees and other vegetation, as well as greening ground surfaces and building walls. When developing cool spots, it is also important to ensure that airflow is not obstructed and to take advantage of natural features such as rivers. For example, river surfaces cool down in the evening as solar radiation decreases, and when combined with river breezes, this can help reduce perceived heat.

[Heat countermeasures Technologies (Non-Green Infrastructure)]

In addition, it is effective to combine green infrastructure measures with other technologies such as cooling louvers, fine mist systems, ventilation fans, cooling benches, and parasols.

30 by 30 Target

– Related Section: Implementation for Addressing Social Challenges (④Biodiversity Conservation)

In response to the continued global loss of biodiversity, the concept of “Nature Positive” has gained increasing attention. In Japan’s National Biodiversity Strategy 2023–2030, which serves as the fundamental plan for biodiversity conservation and sustainable use, “Nature Positive” is defined as “halting and reversing biodiversity loss in order to place nature on a path to recovery.” Rather than focusing solely on conventional nature conservation, this approach promotes systemic transformation so that society and the economy as a whole contribute to biodiversity conservation, in coordination with policies

in areas such as climate change mitigation and resource circulation.

The “30 by 30 Target,” a key component for achieving a Nature Positive outcome, aims to effectively conserve more than 30% of land and sea areas as healthy ecosystems by 2030. To achieve this goal, it is important not only to expand protected areas such as national parks, but also to designate and manage OECMs (Other Effective Area-Based Conservation Measures), which are areas outside traditional protected zones that contribute to biodiversity conservation.

In Japan, as part of the OECM framework, a certification system was launched in FY2023 under which the government designates areas where biodiversity conservation is being achieved through private-sector and other initiatives as “Nationally Certified Sustainably Managed Natural Sites”, or in short “Kyosei sites.” These include locations not traditionally designated as protected areas, such as corporate water source forests, urban green spaces, Satoyama landscapes, and Satoumi coastal areas. This framework was institutionalized through the Act on the Promotion of Activities for Enhancing Biodiversity in Local Areas, which came into force in April 2025 and is jointly administered by the Ministry of the Environment, the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Land, Infrastructure, Transport and Tourism.

As of the end of September 2025, 448 sites have been certified as Kyosei sites. In addition, a system is in place under which the government issues “Certificates of Support for Kyosei sites” to companies and other entities that support conservation activities at these sites. Through these mechanisms, it is expected that efforts toward achieving the 30 by 30 Target will be further accelerated.

Satoyama Initiative

– Related Section: Implementation for Addressing Social Challenges (④Biodiversity Conservation)

[Importance of Secondary Natural Environments]

Secondary natural environments such as Satoyama and Satoumi play a variety of roles, including national land conservation, water resource recharge, the supply of natural resources such as food and timber, the formation of attractive landscapes, the provision of opportunities for people to interact with nature in their daily lives, and the transmission of culture. In addition, because they encompass diverse ecosystems such as farmland, irrigation ponds, forests, and grasslands, they are also important from the perspective of biodiversity conservation. However, these environments are facing social and economic challenges and are at risk of decline in many regions, including Japan.

[What Is the Satoyama Initiative?]

Japan has a long history of sustainably utilizing secondary natural environments as places for producing food, fuel, and other resources. Based on this experience, Japan jointly proposed the Satoyama Initiative with the United Nations University in 2007 to promote the conservation and sustainable use of such environments globally. Furthermore, taking COP10 as an opportunity, the International Partnership for the Satoyama Initiative (IPSI) was established to put the concept into practice in collaboration with diverse stakeholders. Currently, IPSI includes 346 organizations from 80 countries and regions.

[Activities of IPSI and Japan's Support]

IPSI carries out four main activities: ①Information sharing and the development of information platforms, ②Networking, ③Support for on-the-ground activities and the promotion of capacity building, and ④Contributions to research and policy.

Japan supports the IPSI Secretariat hosted by the United Nations University Institute for the Advanced Study of Sustainability. In addition, through the Community Development and Knowledge Management for the Satoyama Initiative Programme (COMDEKS), implemented by the United Nations Development Programme (UNDP), Japan supports local activities led by community organizations in developing countries for the maintenance and restoration of secondary natural environments, while also collecting and disseminating knowledge and lessons learned from these efforts.

Initiatives by the Ministry of Agriculture, Forestry and Fisheries

Promotion of the MIDORI Strategy

- Related Section: Implementation for Addressing Social Challenges (①Formation of Sustainable and Comfortable Urban and Living Spaces)

[Establishment of Sustainable Food Systems]

Japan's food, agriculture, forestry, and fisheries sectors are facing challenges such as the increasing frequency of large-scale natural disasters caused by climate change and the destabilization of food production. In addition, growing domestic and international emphasis on the SDGs and environmental considerations is accelerating and spreading across all industries. In response, it has become necessary for Japan to establish environmentally harmonized food systems. Based on these circumstances, the Ministry of Agriculture, Forestry and Fisheries formulated the MIDORI Strategy for Sustainable Food Systems in May 2021.

[Enhancing Both Productivity Potential and Sustainability in Food, Agriculture, Forestry and Fisheries Industries with Innovation]

The MIDORI Strategy is a policy framework that takes a strategic, medium-long term approach to enhance both productivity potential and sustainability in the food, agriculture, forestry, and fisheries industries with innovation.

The strategy sets out 14 key performance indicators (KPIs) as targets to be achieved by 2050, including: Achieving zero CO₂ emissions in the agriculture, forestry, and fisheries sectors; Reducing the use of chemical pesticides (risk-weighted) by 50%; Reducing the use of chemical fertilizers derived from imported raw materials and fossil fuels by 30%; and Expanding the share of farmland under organic farming to 25% (1 million hectares).

To realize these goals, the strategy promotes behavioral change, the dissemination of existing technologies, and the development and social implementation of innovative technologies and production systems at all stages of the food systems, from inputs to production, processing, distribution, and consumption.

Enhancement of Forest Water Resource Conservation Functions Through Forest Management and Conservation

- Related Section: Implementation for Addressing Social Challenges (①Formation of Sustainable and Comfortable Urban and Living Spaces, ② Disaster Prevention and Mitigation)

[Forest Management and Conservation Measures]

Forests, which cover approximately two-thirds of Japan's land area, contribute to the

stability and improvement of people's lives and the sound development of the national economy through a wide range of functions. These are collectively referred to as the "multiple functions of forests." Among these functions is the "water resource conservation function," which includes flood mitigation water resource recharge, and water purification through forest soils. To ensure the full realization of this function, it is essential to maintain healthy forests through proper management practices such as thinning and reforestation after final harvesting.

In addition, forests that are particularly important for public benefits, such as water resource conservation, are designated as protection forests. Forest conservation projects are also implemented in these forests, including slope stabilization and the restoration and improvement of degraded mountain streams. By advancing these forest management and conservation measures, the enhancement of the multiple functions of forests, including their water resource conservation function, is promoted.

[Coordination with Basin-Wide Flood Management]

Forest management and conservation measures are incorporated into basin-wide flood management initiatives, with national forest regional offices and prefectural forestry departments participating in basin flood control councils across the country.

Specifically, measures include the installation of drainage works (such as contour trenches) and the implementation of thinning to maintain and enhance the water retention capacity of forests, as well as efforts to prevent the outflow of sediment and driftwood in coordination with sabo (erosion control) projects.

Osaki Kado's Traditional Water Management System for Sustainable Paddy Agriculture

— Related Section: Implementation for Addressing Social Challenges (①Formation of Sustainable and Comfortable Urban and Living Spaces)

[GIAHS: "Osaki Kado's Traditional Water Management System for Sustainable Paddy Agriculture"]

The Osaki region in Miyagi Prefecture has long suffered from meteorological disasters such as cold-weather damage caused by the "yamase" (a cold and humid seasonal wind characteristic of the Pacific side of the Tohoku region) as well as floods and droughts due to its topographical conditions. Under such harsh natural conditions, the region has developed paddy agriculture centered on rice cultivation by accumulating extensive knowledge, ingenuity, and effort in managing water to sustain food production and livelihoods. This traditional water management system, which skillfully utilizes water resources, was recognized as a Globally Important Agricultural Heritage System (GIAHS)

in 2017.

[Formation of Disaster-Resilient Agriculture and Rural Communities Through Skillful Water Management and Homestead Woodlands (“Igune”)]

To secure irrigation water necessary for agriculture under these challenging environmental conditions, efforts have been made to develop infrastructure such as tunnels, irrigation ponds, and irrigation and drainage networks, as well as to implement measures against the “yamase,” including deep-water management techniques.

In addition, traditional homestead woodlands known as igune, which surround farmhouses with various types of trees, protect homes from floods and strong northwesterly winds in winter while also providing habitats for diverse flora and fauna and forming a distinctive landscape. These igune woodlands are interconnected with surrounding paddy fields and water networks, shaping a characteristic wetland-associated ecosystem and landscape, and contributing to the formation of disaster-resilient agriculture and rural communities.

Disaster Prevention and Mitigation Through Coastal Disaster-Prevention Forests

– **Related Section: Implementation for Addressing Social Challenges (② Disaster Prevention and Mitigation)**

[What Are Coastal Disaster-Prevention Forests?]

Coastal disaster-prevention forests refer to wooded areas that have been artificially established through conservation and tree planting efforts along coastlines for disaster prevention purposes, such as protecting against sea winds, drifting sand, and dense fog.

[Multiple Benefits of Coastal Disaster-Prevention Forests]

By providing a range of functions, coastal disaster-prevention forests play an important role in protecting the lives and property of people living in coastal areas. These functions include suppressing the generation of drifting sand, preventing damage from sea winds, and mitigating tsunamis damage. In addition, they contribute to fisheries development, provide spaces for scenic enjoyment and recreation, support biodiversity conservation, and serve as navigation landmarks.

[Lessons from Coastal Disaster-Prevention Forests in the Great East Japan Earthquake]

During tsunami disasters, although many coastal disaster-prevention forests themselves were damaged, they demonstrated certain effects, such as mitigating the tsunami energy and preventing the inflow of drifting materials. Based on these lessons, efforts are being

made to develop and enhance coastal disaster-prevention forests in various regions as one component of multi-layered tsunami defense measures.

Promotion of the “Paddy Field Dam” in Basin-Wide Flood Management

– Related Section: Implementation for Addressing Social Challenges (② Disaster Prevention and Mitigation)

[Utilization of the “Paddy Field Dam”]

The “paddy field dam” is an initiative in which a small outlet control plate with a hole is installed at the drainage outlet of rice paddies to restrict outflow. This allows rainwater falling on the paddies to be discharged slowly over time, thereby preventing rapid rises in water levels in drainage channels and rivers and reducing both the volume and extent of overflow. As a result, this initiative helps lower the risk of inundation damage in areas implementing the “paddy field dam” approach as well as its downstream regions.

To fully harness the benefits of the “paddy field dam,” it is essential that agriculture is sustainably maintained, farmland is properly maintained, and the initiative is continuously implemented. Through these efforts, greater understanding of agriculture and disaster prevention and mitigation is fostered, and stronger connections are built among local residents and various stakeholders, thereby enhancing regional resilience and capacity for collaboration.

Disaster Prevention Cooperative Farmland

– Related Section: Implementation for Addressing Social Challenges (② Disaster Prevention and Mitigation)

[What Are Disaster Prevention Cooperative Farmlands?]

Disaster Prevention cooperative farmlands are agricultural lands owned by farmers for which voluntary agreements have been concluded, by the farmers themselves or by organizations such as agricultural cooperatives (JA) with the farmers’ consent, with local governments. These agreements stipulate that the land may be used, in the event of a disaster, as evacuation spaces, sites for temporary housing, and for other emergency purposes.

[Roles of Disaster Prevention Cooperative Farmlands]

These farmlands serve multiple roles in times of disasters such as earthquakes, including: Temporary evacuation sites; Supply sources for domestic water and agricultural products; Land for the construction of temporary housing; and Storage areas for materials needed

for recovery and reconstruction.

Forests as Greenhouse Gas Sinks

– Related Section: Implementation for Addressing Social Challenges (⑥Reduction of Greenhouse Gas Emissions)

[Forest Management and Conservation, and Promotion of Timber Utilization]

Forests contribute significantly to climate change mitigation by absorbing carbon dioxide from the atmosphere through photosynthesis and storing carbon in trunks, branches, and other biomass. In addition, the use of timber can contribute to climate change mitigation in three ways: carbon storage, substitution of energy-intensive materials, and substitution of fossil fuels.

To contribute to achieving net-zero emissions by 2050, efforts are being made to promote appropriate forest management, including the steady implementation of reforestation, proper management and conservation of forests through measures such as the protection forest system, and the utilization of timber that stores carbon over the long term.

[Forest-Derived J-Credits]

Due to the growing interest in achieving net-zero emissions in recent years, along with improvements in systems and operations, the volume of certified forest-derived J-Credits reached a record increase in FY2024.

By promoting forest management through the utilization of forest-derived J-Credits, various benefits beyond carbon dioxide absorption are expected, including water resource conservation, prevention of sediment-related disasters, biodiversity conservation, and contributions to local economies. These are referred to as “non-carbon premium values.”

Background and Historical Development of Green Infrastructure

Year	Trends Related to Green Infrastructure	Measures for Promoting Green Infrastructure
2015	• Cabinet decision on the <i>Second National Spatial Strategy</i> • Cabinet decision on the <i>4th Priority Plan for Social Infrastructure Development</i>	
2016		
2017		
2018		
2019		• Publication of the <i>Green Infrastructure Promotion Strategy</i> (MLIT)
2020		• Establishment of the <i>Public-Private Partnership Platform for Green Infrastructure</i> • Launch of the <i>Green Infrastructure Awards</i>
2021	• Enactment of laws related to basin-wide flood management	
2022	• COP15: Adoption of the <i>Kunming-Montreal Global Biodiversity Framework</i>, etc. • Formulation of the <i>SDGs Action Plan 2020</i> (SDGs Promotion Headquarters of the Cabinet)	
2023	• Formulation of the <i>National Biodiversity Strategy 2023–2030</i> (approved by the Cabinet) • Release of the final recommendations of the TNFD	• Formulation of the <i>Green Infrastructure Promotion Strategy 2023</i> (comprehensive revision) • Publication of the <i>Green Infrastructure Practical Guide</i> (MLIT) • Launch of the <i>Green Infrastructure Industry Exhibition</i>
2024	• Cabinet decision on the <i>Sixth Basic Environment Plan</i> • Cabinet decision on the <i>Basic Land Policy</i> • Formulation of the <i>Transition Strategies toward Nature Positive Economy</i> (Ministry of the Environment, MAFF, METI, MLIT) • Enactment of the <i>Act Partially Amending the Urban Green Space Act</i> ✓ Formulation of the <i>Basic Policy for Greenery</i> (MLIT) based on the Act ✓ Launch of the <i>Certification System for Plans to Secure High-Quality Green Spaces</i> (TSUNAG) • Publication of the <i>Recommendations on</i>	• Publication of the <i>Basic Green Plan × Green Infrastructure Guidelines (Draft)</i> (MLIT) • Publication of <i>Recommendations for Green Infrastructure Projects and Investments</i> (Study Group on Economic Value)

	<i>River Development Suitable as Habitats for Flora and Fauna and Ecosystem Network Development at the Basin Scale</i> (Study Group on River Development and Basin-wide Ecosystem Networks)	
2025	• Cabinet decision on the <i>Plan for Global Warming Countermeasures</i> • Cabinet decision on the <i>First Medium-term Plan for National Resilience Implementation</i> • Cabinet decision on the <i>Comprehensive Strategy for Regional Revitalization</i> • Enactment of the <i>Act Partially Amending the Road Act, etc.</i> ✓ Introduction of a framework requiring road administrators to formulate Road Decarbonization Promotion Plans based on national policy	
2026		• Formulation of the <i>Green Infrastructure Promotion Strategy 2030</i>

Green Infrastructure Promotion Strategy 2030

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