

TOWARDS INTEGRATION OF NATURE POSITIVE, NET-ZERO GHG EMISSIONS, AND A CIRCULAR ECONOMY

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1 INTERNATIONAL TREND

Outcomes of the G7 and G20

At the G7 Ministers' Meeting on Climate, Energy and Environment held in Turin in April 2024, the G7 ministers reaffirmed the importance of promoting synergies between activities necessary for responding to the triple global crisis of climate change, biodiversity loss and pollution. The G7 ministers committed to submit by the deadline the Nationally Determined Contributions (NDCs), with economy-wide, absolute reduction targets, covering all greenhouse gases (GHGs), aligned with 1.5°C, while tracking the progress of emission reductions. They also called for all countries, including major economies, to submit NDCs in the same manner. Moreover, the G7 ministers reaffirmed their intention to further

promote the circular economy principles, the international recycling of critical minerals, nature positive economies, countermeasures against invasive alien species, and measures to end plastic pollution, which were included among the outcomes of the G7 Hiroshima Summit in May 2023.

As for the G20, which includes emerging countries, at the G20 New Delhi Summit in September 2023, the G20 leaders committed themselves to adopting an integrated approach to environmental and climate problems and reaffirmed their intention to strengthen the full and effective implementation of the Paris Agreement and its temperature goal.

The 28th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28)

The first global stocktake to evaluate the world's collective progress in climate action under the Paris Agreement was conducted at COP28. The need for all countries to take urgent actions in order to achieve the 1.5°C goal, which Japan has advocated at the Annual High-level Ministerial Round Table on pre-2030 Ambition and many bilateral meetings, was emphasized. In addition, decisions were made on the following points: peaking global GHG emissions at the latest before 2025; setting emission reduction targets covering all GHGs; tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements; transitioning away from fossil fuels in energy systems; and transitioning to sustainable lifestyles. The next round of NDCs is scheduled to be developed by 2025 in light of those outcomes.



The then Minister of the Environment Shintaro Ito speaking at the Annual High-Level Ministerial Round Table on pre-2030 ambition

Source: Ministry of the Environment

2 NATURE POSITIVE

Towards achievement of the 30by30 target

The so-called “30by30 Target,” which aims to effectively conserve at least 30% of the earth’s land and 30% of sea as healthy ecosystems, is one of the key targets for realizing “nature-positive”. In Japan, as of January 2023, around 20.5% of the land area and around 13.3% of the sea area were designated as protected areas, such as national parks. In order to enhance the soundness of ecosystems across Japanese territories, it is also important to make use of natural environments that have been maintained through human interventions, such as *satochi-satoyama* (areas

consist of local villages, secondary forests, and mixture of areas of farmlands, reservoirs and grasslands), and areas where sustainable industrial activities giving consideration to biodiversity are ongoing. Therefore, we have designated and are managing the Other Effective area-based Conservation Measures (hereinafter “OECM”) areas, which are areas other than protected areas such as national parks and which contribute to the conservation of biodiversity, and are implementing measures in coordination with private-sector measures.

Example case

Measures Related to Nationally Certified Sustainably Managed Natural Sites

Mobility Resort Motegi, which is owned by Honda Motor Co., Ltd., managed by Honda Mobility Land, and located in Motegi Town, Haga Gun, Tochigi Prefecture, was certified as a Nationally Certified Sustainably Managed Natural Site in October 2023. This site is a *satochi-satoyama* area comprising mosaics of natural features including a secondary forest of deciduous broad-leaved trees, a conifer forest, terraced rice fields, and grassland. For the purpose of conserving native species of animals

and plants, the following activities are conducted there: the control of alien plants, forest maintenance, renewal of terraced rice fields, rice cultivation, wintertime ponding, and environmental education conducted in cooperation with local educational institutions, and animal and plant surveys. At this site, the presence of endangered species listed on the Red List of the Ministry of the Environment, such as the diving beetle and gray-faced buzzard-eagle, has been confirmed.

A new law to promote private-sector activities

In order to further promote voluntary private-sector activities intended to restore or create ecosystems on abandoned land in addition to activities in areas with rich biodiversity, in January 2024, the Central Environment Council submitted a report on measures that should be implemented in the future in order to promote private-sector activities to realize the

nature-positive. In light of that, on April 19, 2024, the Act on Promoting Activities to Enhance Regional Biodiversity was promulgated to provide for a system whereby the government certifies excellent private-sector activities to conserve and create biodiversity.

Transition Strategies toward Nature Positive Economy

Regarding the many social challenges faced by Japan, adopting an integrated approach—integrating environmental policy with various other governmental policies, and integrating environmental policy measures, including the nature-positive, net-zero GHG emissions, and circular economy—rather than addressing the challenges individually, is an effective way of dealing with them. For example, improving resource efficiency through measures such as promoting recycling may lead to the creation of synergy between the circular economy and the nature-positive initiative in the form of the reduction of the environmental burdens associated with the procurement of new raw materials. There may also be a relationship of trade-off between climate change mitigation measures and the burdens imposed on forests and other natural capital due to the introduction of renewable energy electricity generation equipment.

Therefore, when promoting the transition to nature positive economies, instead of individually addressing those challenges, it is necessary to maximize synergies and minimize trade-offs and

effects harmful for both human society and the natural environment by supporting companies' integrated, comprehensive approaches in consideration of interactions between various measures, such as the realization of net-zero GHG emissions and a circular economy.

In light of international trends related to the transition toward nature positive economies, the Ministry of the Environment will support companies' active initiatives. At the same time, in order to promote the shift to a socio-economic structure that contributes to the realization of the nature-positive while keeping up with international discussions, in March 2024, the Ministry of the Environment, jointly with relevant ministries and agencies, formulated the Transition Strategies toward Nature Positive Economy. We will provide support to companies through governmental measures in order to help them incorporate the concept of natural capital conservation into management, deal with risks related to natural capital and create new business opportunities.

3 NET-ZERO GHG EMISSIONS

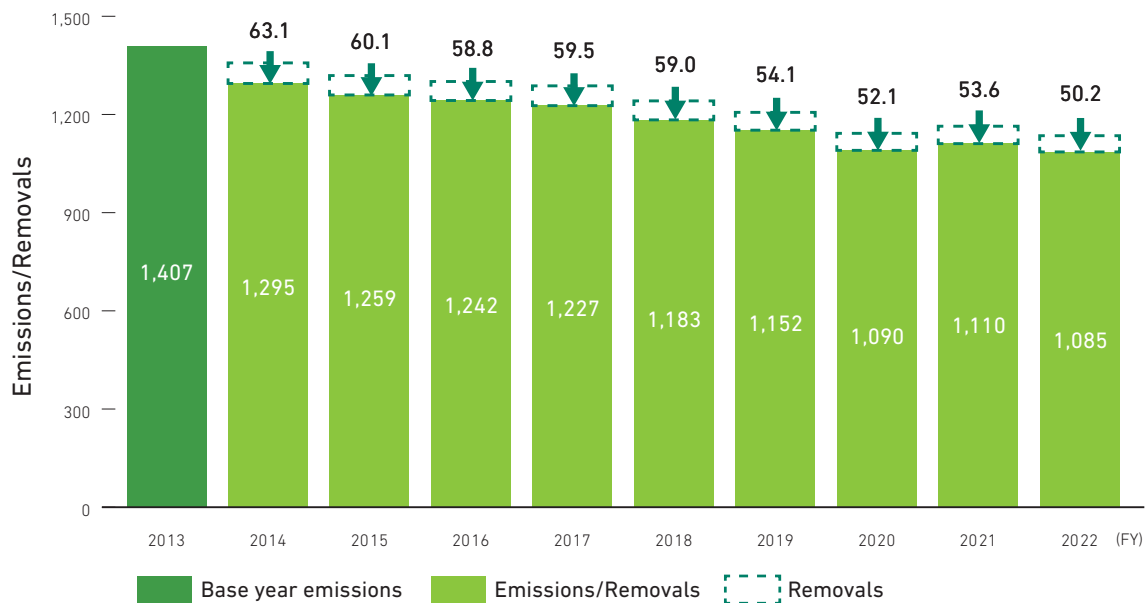
Greenhouse gas emissions and removals in Japan

Japan aims to reduce its GHG emissions by 46% in FY2030 from its FY2013 levels, setting an ambitious target which is aligned with the goal of achieving net-zero GHG emissions by 2050. Furthermore, Japan will continue strenuous efforts in its challenge to meet the lofty goal of cutting its emissions by 50%. Japan's GHG emissions and removals (removals were subtracted from the sum of GHG emissions) in FY 2022 were 1,085 million tonnes of CO₂ equivalent, a decrease of 2.3% (25.1 million tonnes of CO₂ equivalent) from FY 2021. The main

factor behind the decline is a decrease in overall energy consumption volume, which was due to the significant effects of electricity saving and energy efficiency improvement efforts in the industrial sector, the commercial and other sector, and the residential sector. Compared with FY2013, the volume of GHG emissions and removals was down 22.9% (322.1 million tonnes of CO₂ equivalent), so Japan keeps on track for the target (steady decreasing trend toward net-zero GHG emissions by 2050).

Japan's Greenhouse Gas Emissions and Removals

(Unit: million tonnes of CO₂ equivalent)



Source: Ministry of the Environment

Column

Blue carbon ecosystems with multiple value

Seaweed and seagrass ecosystems in coastal and offshore seas are capable of sequestering CO₂ through the photosynthesis process, so those ecosystems, known as “blue carbon ecosystems,” are attracting attention as a new key to global warming countermeasures.

Cultivating blue carbon ecosystems not only leads to CO₂ sequestration through seawater but also creates multi-faceted value, including the improvement of water quality, ecosystem conservation, use of ecosystems as sites for

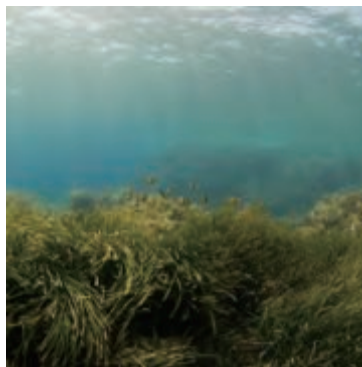
community-wide environmental education, and maintenance and improvement of the fishing ground environment.

As Japan aims for the integrated promotion of three initiatives—the achievement of net zero GHG emissions by 2050, circular economy, and nature-positive—the whole of the government will devote efforts to activities related to blue carbon as very important ones for promoting the three initiatives in an integrated manner.

Blue carbon ecosystem



Mangrove forests



Seagrass meadows/macroalgal beds



Tidal marshes
(salt marshes and tidal flats)

Source: UNEP report, “Blue Carbon: The Role of Healthy Oceans in Binding Carbon,” and Ministry of the Environment

Creation of Decarbonization Leading Areas

In order to achieve net-zero GHG emissions by 2050, Japan is striving to create Decarbonization Leading Areas based on the regional decarbonization roadmap (determined by the National and Regional Decarbonization Realization Committee in June 2021), which is mainly comprised of measures in the “everyday life” and “society” sectors, which are closely related to regional initiatives in particular. Decarbonization Leading Areas refer to areas that are committed to achieving net-zero CO₂ emissions associated with the electric power consumption of the consumer sector (residential, commercial, and other sectors) in line with the national goal of net-zero GHG emissions by 2050. They are also committed to achieving other GHG emission reductions, including in the transport sector and heat use,

according to their own characteristics and are consistent with the overall national target for FY2030. These areas serve as role models for nationwide decarbonization efforts. We plan to select at least 100 areas by FY 2025 to pave the way for implementing pioneering efforts according to regional characteristics toward decarbonization, and complete the program by FY 2030. In this way, we hope to offer simultaneous solutions to the challenges that exist in many local communities, including farming villages, fishing villages, mountain villages, remote islands, and urban areas, and contribute to their revitalization. By the end of FY2023, 73 areas have been selected as Decarbonization Leading Areas through four public solicitations.

Joint Crediting Mechanism and overseas expansion of environmental infrastructure

Japan actively implements the Joint Crediting Mechanism (JCM) to contribute to GHG emission reductions by introducing decarbonization technologies and infrastructure to partner countries. In the Plan for Global Warming Countermeasures (Cabinet decision in October 2021), Japan aims to contribute accumulated emission reductions and removals through public-private collaborations at the level of approximately 100 million ton-CO₂ by FY2030.

In FY2023, the number of JCM partner countries increased to 29 with the addition of four new countries. To date, more than 250 decarbonization projects have been implemented, including the introduction of renewable energy and energy-saving technologies. In a joint statement adopted at the Asia Zero Emission Community (AZEC) Leaders Meeting held in Tokyo in December 2023, the importance of promoting and implementing high-integrity carbon markets and crediting schemes, including the JCM, was mentioned. Meanwhile, a bill to partially amend the Act on Promotion of Global Warming Countermeasures was approved upon a cabinet decision in March 2024 and was submitted to the 213th session of the Diet in order to strengthen the



The then Prime Minister Fumio Kishida and Parliamentary Vice-Minister of the Environment Kentaro Asahi participating in the AZEC Summit

Source: Cabinet Public Relations Office

implementation structure of the JCM in Japan, to coordinate with the increasing number of partner countries and projects, and to achieve Japan's NDCs. Japan will contribute to global decarbonization by continuing to expand the JCM and also promote the overseas expansion of superior decarbonization technologies involving Japanese companies by creating the decarbonization market.

4 CIRCULAR ECONOMY

Key Points of the formulation of the Fifth Fundamental Plan for Establishing a Sound Material-Cycle Society

Thorough resource circulation throughout the whole product life cycle through cooperation among businesses

Arteriovenous cooperation, which creates new value in the market by making more effective use of high-level technological expertise so far cultivated through cooperation between arterial industries, such as manufacturing and retail trade, and venous industries, such as waste processing and recycling, is the key to Japan's new avenues for growth.

In order to enable manufacturing and retail trade companies and waste processing and recycling companies to cooperate in securing the supply of recycled materials of the required levels in terms of both quality and quantity, we will promote the

Design for Environment (DfE) concept, the improvement of recycled material utilization rates, and the sophistication of recycling processes, including the disassembly, crushing and sorting of used products. At the same time, we will steadily promote initiatives based on various recycling laws. We thereby promote thorough resource circulation throughout the whole product lifecycle in accordance with the future directions of recycling by type of material and product that are indicated in the Circular Economy Roadmap.

Realization of diverse regional circulation systems and regional revitalization

Local governments, as coordinators, will promote cooperation and collaboration between regional agents, including citizens, companies, NPOs and NGOs, and encourage the "Reduce" initiative by raising awareness. Local governments will also develop systems that efficiently circulate local resources on an optimal scale suited to each type of resource and promote activities such as reuse, recycling, repair, maintenance, sharing, and subscription. Through those activities, they will invigorate regional economies by creating new value and jobs in regions by using local circular and renewable resources as raw materials for new

products, fertilizers and feeds and contribute to the reduction of expenditures by reducing the volume of resources disposed as waste.

In addition, local governments will promote a lifestyle shift and realize high-quality life so that consumers can have a higher level of awareness of resource circulation and turn the awareness into practical actions by promoting the provision of diverse options of products and services accompanied by labeling concerning environmental value, including reused products, repair service, and products using circular and renewable resources produced through local resource circulation activity.

Construction of appropriate circular resource systems and promotion of overseas expansion of the circular industry

Japan will promote resource circulation measures integrating domestic and international approaches by playing the leading role in forging international agreements on measures related to a circular economy and resource efficiency, including the 3Rs initiative and in holding international discussions on

appropriate exports and imports of renewable waste and plastic pollution and also by cooperating with international organizations and private-sector companies to develop international rules. Japan will construct international circular resource systems based on agreements on the strengthening of

domestic and international recovery and recycling of critical minerals that were reached under the Japan-ASEAN partnership and at the G7. Moreover, Japan will ensure appropriate waste management, strengthen resource circulation, contribute to the

reduction of environmental pollution, and ease global resource constraints by spreading a package of excellent Japanese schemes, systems, technologies and personnel training to developing countries, including ASEAN.

Promotion of plastics resource circulation

Formulation of a legally binding international instrument (treaty) on plastic pollution, including in the marine environment

At a UN Environmental Assembly session held in February-March in 2022, a resolution was adopted to establish the Intergovernmental Negotiating Committee (INC) to develop an international legally binding instrument (treaty) on plastic pollution, including in the marine environment. This resolution called for the start of negotiations at the INC in the second half of 2022 with the ambition to complete its work by the end of 2024. The first session of the INC was held in Uruguay in November-December 2022, marking the official launch of negotiations on the instrument.

Japan has actively engaged in measures to address plastic pollution. For example, at the G20 Osaka Summit in 2019, Japan proposed the Osaka Blue Ocean Vision, and at the G7 Hiroshima Summit in 2023, it played the leading role in forging an agreement on the ambition to reduce plastic pollution. Japan will continue to make active contributions to discussions with a view to developing an effective and progressive international framework involving many countries, including major producers and consumers.