

THREE TRANSITIONS: DECARBONIZED SOCIETY, CIRCULAR ECONOMY, AND DECENTRALIZED SOCIETY

The world's socioeconomic systems are halted or slowed down significantly by the COVID-19 pandemic, and Japan is no exception. While the world struggles to tide over this crisis, climate change and environmental degradation have been advancing. In response, Japan is joining other countries in efforts to reduce GHG emissions to net-zero by 2050 to combat climate change, which is sometimes referred to as the “climate crisis.”

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TRANSITION TO A DECARBONIZED SOCIETY

Toward the realization of GHG net-zero, decarbonized society by 2050

On October 26, 2020, Japanese Prime Minister Yoshihide Suga declared Japan's aim to reduce GHG emissions to net-zero by 2050 in his policy speech to the 203rd Session of the Diet.

In December 2020, the Council for National and Local Decarbonization first met in the Prime Minister's Office. The Council reaffirmed the importance of collaboration and co-creation between the central and local governments to achieve GHG net-zero by 2050 at the local level, particularly in the aspects of people's lives and society, which are closely linked to the responsibilities of the local governments. It was agreed that a roadmap for a decarbonized society for 2050 should be drawn up from the perspectives of citizens, together with the paths for

collaboration among the government agencies concerned and local governments. The "Roadmap for Decarbonization of all local governments by 2050" was released in June 2021.



Prime Minister Yoshihide Suga delivers a policy speech at the 203rd Session of the Diet

Source: Official website of the Prime Minister of Japan and His Cabinet

Mainstreaming renewables for power supply through mobility decarbonization

Electric vehicles (EVs), fuel cell vehicles (FCVs), and mobility tools offer various benefits.

(1) They decarbonize the transportation sector, while mainstreaming renewables for power supply sources as mobile batteries. (2) The batteries can be reused. (3) They can supply electric power in emergency situations and function as a component of a decentralized and self-reliant energy system. The Ministry of the Environment strongly encourages the purchase of renewable energy as well as EVs and like vehicles that are in effect "mobile batteries."

The Ministry of the Environment extends assistance to projects for the construction of decarbonized regional transportation models based on an EV sharing service as a new lifestyle. Likewise, the Ministry assists with the construction of decentralized and self-reliant energy systems that aim to mainstream renewables for power supply by combining regional renewable energy and EVs as mobile batteries simultaneously with the enhancement of the resilience of the system.

The expansion and further promotion of Zero Carbon City

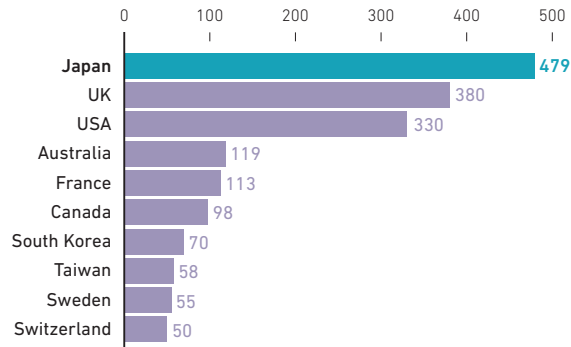
The Ministry of the Environment recognizes a municipality that officially aims to reduce GHG or CO₂ emissions to net-zero by 2050 as the "Zero Carbon City." As of August 31, 2021, 444 municipalities representing a cumulative total population of 114 million were recognized as such. By providing various types of assistance to local

governments aiming to be a Zero Carbon City, the Ministry is working to achieve multiple policy objectives as follows: significant GHG emissions reduction at local levels, growth of the regional circular economy through implementation of renewable energy projects beneficial to the region, and reinforcement of resilient communities.

Task Force on Climate-related Financial Disclosures (TCFD)

The Ministry of the Environment has expressed its official support to the TCFD. The Ministry supports the efforts made by Japanese companies in line with the Recommendations of the Task Force on Climate-related Financial Disclosures of June 2017. As of August 31, 2021, a total of 2,435 organizations worldwide (financial institutions, companies, governments, etc.) have expressed their support. Japan ranks top in terms of the number of supporters, with 479.

Number of TCFD-supporting organizations (top 10 countries and regions)



Note: As of August 31, 2021

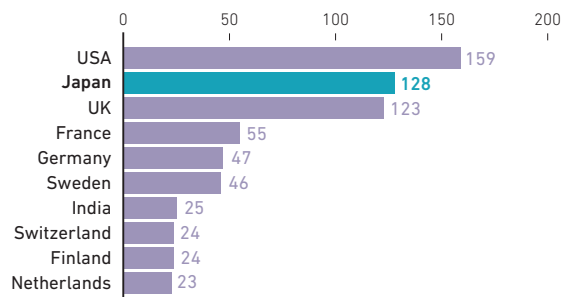
Source: TCFD Website: TCFD Supporters; produced by Ministry of the Environment

Science-based targets in line with the Paris Agreement

An international initiative that certifies companies that set the medium- to long-term science-based target (SBT) on GHG emissions reduction in line with the Paris Agreement is attracting attention worldwide.

As of August 31, 2021, 875 companies worldwide were certified of which 128 were from Japan.

Number of SBT-certified businesses by country (top 10 countries)



Note: As of August 31, 2021

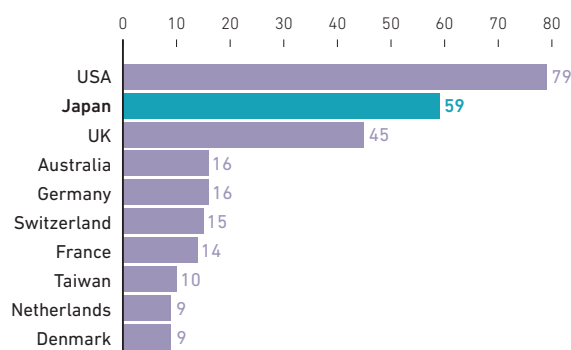
Source: Science Based Targets Website: Companies Take Action; produced by Ministry of the Environment

International initiative RE100

RE100 is an international initiative of corporations committing to secure 100% of their electricity throughout their entire operations from renewable energy sources. As of August 31, 2021, there are 323 RE100 members worldwide, including 59 Japanese companies.

In June 2018, the Ministry of the Environment became the first public entity in the world to sign up as an RE100 Ambassador with a view to spearheading by itself actions to mainstream renewables for power supply. Since the FY2020, all of the power requirements of the Shinjuku Gyoen National Garden have been met by renewables. Likewise, all Regional Environmental Offices throughout Japan procure 100% renewable power.

Number of RE100-participating businesses by country (top 10 countries)



Note: As of August 31, 2021

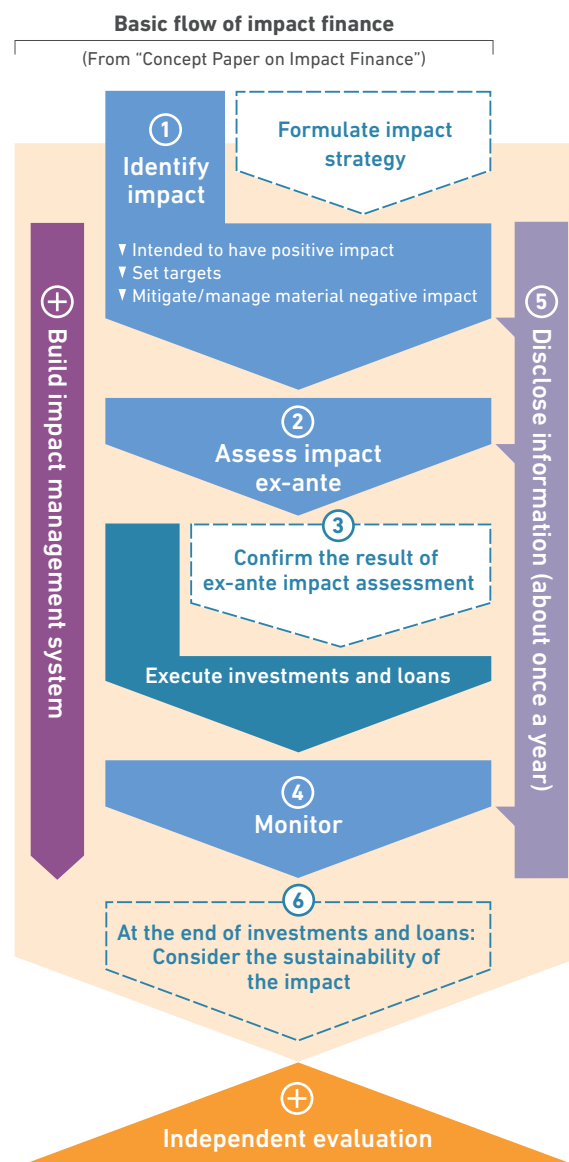
Source: RE100 Website; produced by Ministry of the Environment

Promotion of ESG finance

Japan accounted for only about 2% of the world's total ESG investment balance in 2016, but by 2018, it jumped to about 7%, recording the world's fastest growth. The amount of Japan's ESG investment in 2019 was approximately \$3 trillion (336 trillion yen), which is nearly six times larger than the 3-year period from 2016.

Based on the "Recommendation from the High Level Meeting on ESG Finance" of July 2018, the Ministry of the Environment launched the "ESG Finance High-Level Panel" in February 2019 as a forum for discussion and action by leading finance and investment industry leaders and the government to raise awareness and commitment to ESG finance. The panel meets periodically. In July 2020, the High-Level Panel issued a Concept Paper on Impact Finance, with the intent of mainstream impact finance, with the involvement of large-scale private funds, by positioning impact finance as a developed form of ESG finance to pursue impacts on the environment, society, and economy.

Overview of Impact Finance



Source: Ministry of the Environment

Developing high-quality environmental infrastructures

On September 8, 2020, the Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) was established as a framework to support Japanese companies and other relevant actor's initiatives aimed at developing high-quality environmental infrastructure overseas.

A total of 350 entities (as of March 2021) have joined as members of the platform. Its dedicated website and seminars will provide members looking to develop projects overseas with valuable information

on environment-related funding and good practices from past projects.

With the cooperation of local Japanese governments that have the knowledge and experience of creating a decarbonized society, we have supported foreign cities in designing local systems to promote decarbonized society and to install decarbonization technology, by promoting the City-to-City Collaboration Program between local governments in Japan and abroad.

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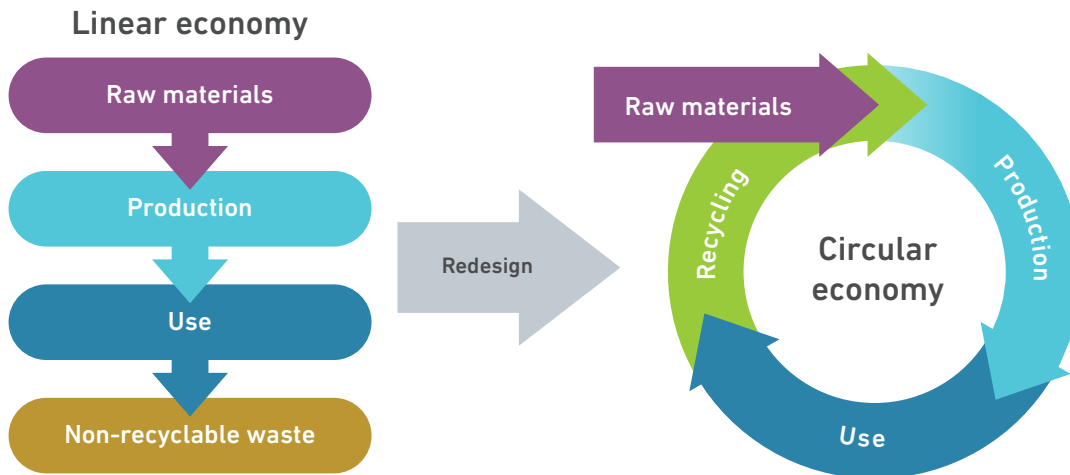
TRANSITION TO A CIRCULAR ECONOMY

Circular economy

In January 2021, the Ministry of the Environment agreed with Keidanren (Japan Business Federation) to launch the “Japan Partnership for Circular Economy (J4CE),” a public–private partnership aimed at accelerating the transition to a circular economy. This partnership was founded in March.

In the same month, the Ministry of the Environment, in collaboration with the World Economic Forum (WEF), hosted a “Japan Circular Economy Roundtable” meeting to disseminate to the world Japanese companies’ best practices related to the circular economy.

Circular Economy



Source: Ministry of the Environment, based on The Government of the Netherlands
 “A Circular Economy in the Netherlands by 2050—Government-wide Program for a Circular Economy” (2016)

Implementation of the resource circulation strategy for plastics

In January 2021, the Central Environment Council presented a recommendation titled “Recommended Future Course of Resource Circulation for Plastics.” In line with this recommendation, the Cabinet approved in March 2021 “Bill for the Plastic Resource Circulation Act.” It was enacted in June 2021 at the 204th session of the Diet.

The Ministry has formulated a roadmap for bioplastic introduction and an ESG guidance on the resource circulation of plastics. The Ministry will continue to consider and launch additional budget, finance, and institutional measures to implement the Resource Circulation Strategy for Plastics in a comprehensive manner.

Deepening the Osaka Blue Ocean Vision

The leaders of the G20 Osaka Summit of June 2019 shared the “Osaka Blue Ocean Vision,” which aims to reduce additional pollution by marine plastic litter to zero by 2050. Worldwide engagement, including that of emerging and developing Asian countries that supposedly allow

large amounts of plastic to flow into the ocean, is required to solve the issue of marine plastic litter. Japan has been calling on non-G20 countries to share the Vision, and 87 countries and regions have already joined as of August 2021.

Engaging all stakeholders to address marine plastic waste problem (PILOT Corporation)

The Ministry of the Environment runs the “Plastics Smart” campaign to encourage and enhance “wise use of plastics.” The Plastics Smart website showcases more than 2,300 best practices for a wide range of stakeholders.

For example, PILOT Corporation released in December 2020 the “Super Grip G Ocean Plastic” oil-based ballpoint pen, which uses reclaimed resin from marine plastic waste. TerraCycle Japan, a collaborating partner of PILOT Corporation, produces reclaimed resin from marine plastic waste collected in Japan. PILOT Corporation was the first Japanese company to use such materials for writing instruments. By expanding the use and distribution of recycled materials derived from marine plastic waste, PILOT is promoting the collection and reduction of such waste.



Super Grip G Ocean Plastic

Source: PILOT Corporation

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TRANSITION TO A DECENTRALIZED SOCIETY

Synergy between climate action and disaster risk reduction —Adaptive recovery

We live in a time when climate change can be called a “climate crisis.” Drastic disaster risk reduction (DRR) measures based on climate change risks are necessary. In June 2020, the Ministry and the Cabinet Office announced the “Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction in the Era of Climate Crisis” to effectively promote coordinated measures for climate change and DRR.

This message clearly states: that when recovering from a disaster, we must not be confined to simply restoring the affected area to the way it was before the disaster struck; rather, we must respond to disasters conveying the idea of “Adaptive Recovery” by implementing resilient measures including the control of land use where communities can ensure adaptation to climate change.

Promotion of green infrastructure and Eco-DRR

Japan is facing environmental changes, such as the intensification of disasters due to climate change. It is also experiencing changes in social conditions, such as declining and aging populations, and obsolete social capital. It is an urgent task to promote green infrastructure and Eco-DRR efforts by re-examining current land use and learning from the ancient wisdom in community building, in order to take advantage of the diverse functions of nature for disaster risk reduction purposes. With a view to promoting creation of communities resistant against disasters and harmony with nature, the Ministry of the Environment is formulating methods and putting together technical knowledge to draw up “ecosystem functions potential maps”

that would demonstrate the water-retaining capacity and biodiversity conservation effects of a basin if former wetlands and floodplains were restored for reinforcement of the basin’s overall flood control function.



The Kushiro Marsh helps control the flow rate of Kushiro River during heavy rainfall.

Source: Ministry of the Environment

Toward a virtuous cycle of protection and utilization of national parks

Japan has 34 national parks, designated for their outstanding natural beauty. They present a rich diversity of landscapes and biota because of Japan’s volcanic land formation, long latitudinal extension, and multiple climate zones. Accordingly, they are the cradles of different lifestyles and cultures of people living in harmony with nature. To make the most of these blessings, the Ministry of the Environment has been promoting the “Project to Fully Enjoy National Parks.” It aims to enhance the branding of the national parks and attract more domestic and international visitors by implementing measures to facilitate the utilization

of national parks while protecting what needs to be protected and conserved.

In addition, Japan is promoting the “Zero Carbon Park” campaign for the decarbonization of national parks. In March 2021, the Norikura Kogen Highlands (Matsumoto City) in Chubusangaku National Park was registered as the first Zero Carbon Park. Through this campaign, Japan is challenging to establish sustainable tourist destinations in national parks and to offer an opportunity for national park visitors to have first-hand experience of decarbonization and plastic waste reduction as sustainable lifestyle.