

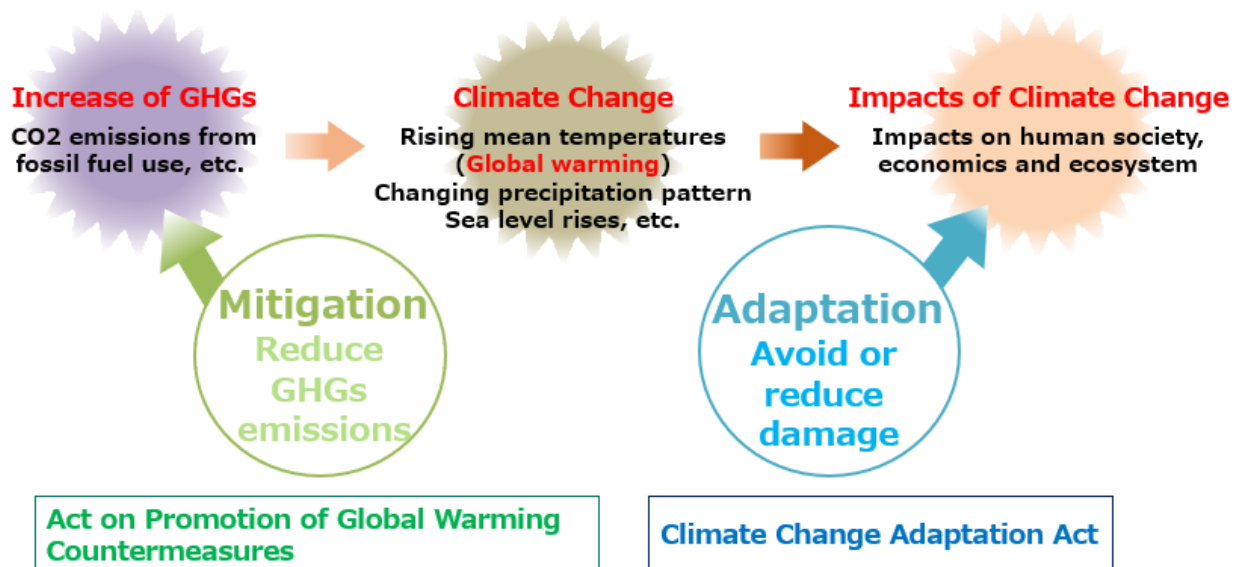
Section 7 Disaster Prevention and Mitigation Measures Based on Climate Change Risks

(1) Mitigation and Adaptation Measures Are Inseparable

Climate change and its impacts, such as rising mean temperatures and more frequent heavy rainfall in recent years, are appearing in many parts of the world. Such negative impacts of climate change are called a “climate crisis” that shakes the foundations of human survival and the survival of all other living things. Although it is not easy to determine how each of these weather events is linked to global warming, the risk of such extreme heat and rainfall is projected to increase as global warming progresses further.

As an ambitious goal consistent with net-zero by 2050, Japan aims to achieve a 46% reduction of greenhouse gas emissions in FY2030 from levels seen in FY2013 and will continue strenuous efforts in its challenge to meet the lofty goal of cutting its emission by 50%. However, even if we steadily promote climate change countermeasures to achieve net-zero by 2050 and limit the temperature increase to about 1.5°C, changes such as extreme heat events (e.g., heat waves) and heavy rains will be unavoidable. Therefore, adaptation efforts are necessary to avoid or reduce observed or projected damage.

Relationship between Adaptation and Mitigation



Source: Ministry of the Environment data

(2) Revision of Climate Change Adaptation Plan

The "Climate Change Adaptation Act" (Act No. 50 of 2018) (hereinafter the "Adaptation Act") was promulgated on June 13, 2018, and came into force on December 1 of the same year to set a legal framework for climate change adaptation and to promote climate change adaptation more extensively. In November 2018, just before the implementation of the Adaptation Act, the "Climate Change Adaptation Plan" (hereinafter r the "Adaptation Plan") was formulated in accordance with the provisions of that law.

Furthermore, in December 2020, the government published an "Assessment Report on Climate Change

Impacts in Japan " based on the latest scientific findings from the observation, monitoring, projection, and assessment of climate change and its impacts in various sectors. Based on scientific findings, this report assessed the impacts of climate change on 71 categories in seven sectors, including natural disasters and coastal areas, from the three perspectives of significance, urgency and confidence.

(Reference: <http://www.env.go.jp/earth/tekiou.html>)

In October 2021, the Adaptation Plan was revised, taking into consideration the latest scientific findings provided in the Climate Change Impact Assessment Report. The Plan incorporates the concept of "climate action and DRR into this action" (see below) and expands adaptation measures in many sectors.

(Reference: <https://www.env.go.jp/press/110115.html>)

(3) "Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction" and "Adaptation Recovery" Initiatives

In June 2020, the Ministry of the Environment and the Cabinet Office publicly announced the "Strategy for Enhancing the Synergy between 'Climate Action and Disaster Risk Reduction' in the Era of Climate Crisis," a strategy to effectively coordinate climate change adaptation, and disaster prevention and mitigation measures. The contents of this Strategy are as follows.

- The Strategy is based on the concept of synergy between climate action and DRR into this action, which refers to the state where every actor in every sector comprehensively takes climate change measures and DRR measures.
- Rather than simply restoring the affected areas to its pre-disaster state, Japan aims to build a society that can skillfully deal with disaster and recover quickly. This is reflected in the concept called "Adaptive Recovery," which involves adaptation to climate change by implementing resilient measures including land-use controls while learning from traditional wisdom that has taken advantage of nature's characteristics to cope with natural disasters. To this end, the Ministry of the Environment will promote pre-disaster recovery planning to "build back better" which specifically refers to an approach in which communities discuss and share the vision for a post-disaster society or town, even before a disaster occurs, from forward-looking perspectives to be better prepared to quickly act after a disaster.

The Ministry of the Environment is promoting efforts to effectively link climate change adaptation and DRR measures, including the preparation of a manual for local governments to help them mainstream the concept of the synergy between climate action and DRR and accelerate their efforts toward "Adaptive Recovery" into policies in various fields and make it a mainstream policy.

**Overview of Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction
in the Era of Climate Crisis (Joint message) on June 30, 2020**

[Natural factors]

- The frequency and severity of climate-related disasters have intensified due to climate change. It is predicted that the frequency of heavy rains and floods will continue to increase.
- We have entered an era in which unprecedented climate-related disasters occur frequently.

[Social factors]

- More people require assistance during disasters, but fewer people can lend their support due to a declining population, declining birthrate, and an aging population.
- Population concentration in cities is aggravating disaster risks in these areas.
- There is the combined risk of infectious diseases and natural disasters.

- Drastic DRR measures considering climate change risks are required.
- We present our strategy for effectively promoting coordinated measures for climate change and DRR, envisioning achievement of the SDGs.

Mainstreaming the synergy between climate action and DRR

- Climate action and DRR are cross-cutting challenges and should be addressed on all fronts.
- We will also take mitigation measures to reduce greenhouse gas emissions in order to minimize the risk of climate change.
- We will strive to incorporate and mainstream the synergy between climate action and DRR in the policymaking process.

Challenge	Direction	Examples of our future efforts
Promoting comprehensive measures for a decarbonized and highly disaster-resilient society	<ul style="list-style-type: none"> • All stakeholders must act on climate change and DRR on all fronts in an integrated manner deploying various approaches. • Establishing a society that “deals skillfully (<i>inasu</i>) with disasters and recovers immediately” • Managing disasters with the idea of “Adaptive Recovery” by implementing resilient measures, including the control of land use to promote adaptation to climate change 	<ul style="list-style-type: none"> • Promoting decentralization of the urban population and industry, such as in Tokyo • Improving infrastructure based on standards and plans that factor in climate change • Land use to prevent people from living in high risk areas, and lifestyles that adapt to disaster risks • Full-fledged promotion of “green infrastructure” and “Eco-DRR” to reduce disaster risk by learning from historical wisdom and utilizing diverse ecosystem services • Effective use of social change (e.g., teleworking) in the digital era • Responding to the risk of infectious diseases and heat stroke at evacuation centers • Transition to a decarbonized society, including accelerated installation of renewable energy systems
Transforming awareness, facilitating behavior change and promoting collaboration among citizens, businesses, and communities	<ul style="list-style-type: none"> • Fostering a sense of self-help (<i>ji-jo</i>), “protecting our own lives by ourselves” and mutual-assistance (<i>kyo-jo</i>), “everyone helping each other to survive,” appropriate actions for disaster prevention, and a disaster response in which all stakeholders must collaborate 	<ul style="list-style-type: none"> • Initiatives to transform awareness and facilitate behavior change to foster actions with regard to evacuation activities • Promoting the development of a community disaster management plan, tailored plans for individuals who need special assistance for evacuation during a disaster, and a corporate business continuity plan, with intensified severity of climate-related disasters in mind • Creating an environment in which all generations can learn about climate change and disaster prevention at the community level and prepare for disasters • Collaboration for flood control, evacuation sites provided to residents by local businesses, cooperation among many stakeholders in the public and private sector for the support of affected people, including collection and transportation of disaster waste
Promoting international cooperation	<ul style="list-style-type: none"> • Simultaneously achieving the three pillars of the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the SDGs 	<ul style="list-style-type: none"> • Sharing Japan's DRR technologies and practices to enhance DRR capacity in other countries • Enhancing international adaptation efforts through the Asian Disaster Reduction Center and the Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT) and promoting collaboration among such platforms

Source: Materials from Cabinet Office and Ministry of the Environment

(https://www.bousai.go.jp/pdf/0630_kikohendo.pdf)