RECONSTRUCTION AND REVITALIZATION FROM THE GREAT EAST JAPAN EARTHQUAKE

The earthquake that occurred on March 11, 2011, had a magnitude of 9.0, making it the largest earthquake ever recorded in Japan's history of observations.

The tsunami triggered by this earthquake caused extensive and severe damage, primarily along the Pacific coast of the Tohoku region. Additionally, the accident at the Tokyo Electric Power Company (TEPCO) Fukushima Daiichi Nuclear Power Station resulted in the release of a large volume of radioactive materials into the environment. Moreover, many people living near the TEPCO Fukushima Daiichi Nuclear Power Station were forced to evacuate.

The Ministry of the Environment has been engaged in the efforts aimed at the reconstruction and revitalization of the affected areas, including the decontamination and the construction of Interim Storage Facility, the disposal of specified waste, and decontamination and the demolition of houses in the Specified Reconstruction and Revitalization Bases (SRRBs) and in the Specified Living Areas for Returnees in the Restricted Areas.

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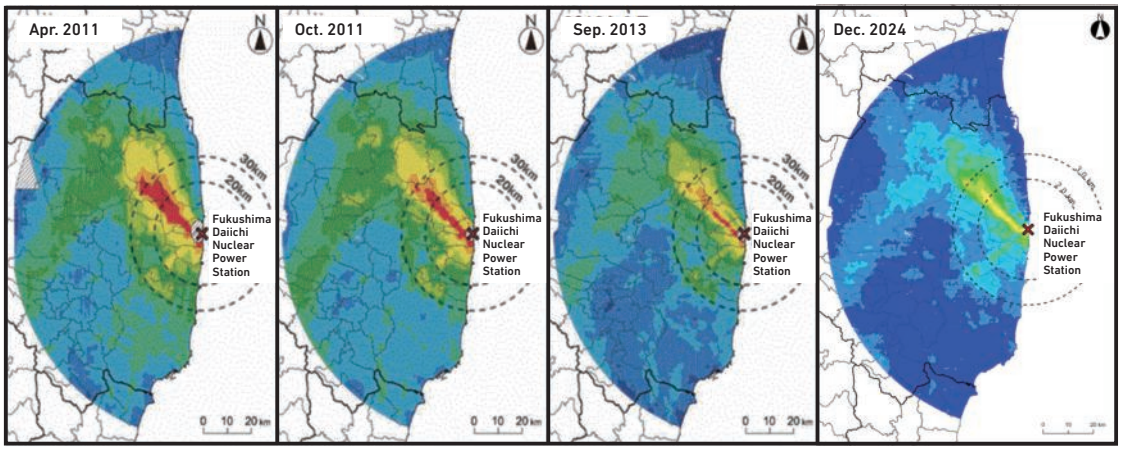
1 STATUS OF ENVIRONMENTAL RESTORATION FROM RADIOACTIVE CONTAMINATION

Regarding the status of environmental restoration from radioactive contamination, the airborne monitoring data collected at the height of 1 meter above ground level within the 80-km zone around the TEPCO Fukushima Daiichi Nuclear Power Station as of December 2024 continues to show a decreasing trend in the air dose rate.

Furthermore, according to monitoring conducted in Fukushima Prefecture and surrounding areas by the Ministry of the Environment, radioactive cesium has not been detected in rivers, coastal waters, or groundwater in recent years. Regarding water quality in lakes and marshes in the same region, radioactive cesium was detected at only 2 out of 164 monitoring points in FY2023.

Distribution of air dose rates within 80 km radius of TEPCO Fukushima Daiichi Nuclear Power Station



Note: The April 2011 chart was mapped using a different method than is used now.
Source: Secretariat of the Nuclear Regulation Authority

2 EFFORTS AIMED AT THE ENVIRONMENTAL REGENERATION OF THE AFFECTED AREAS

By the end of March 2018, the whole area decontamination of 100 cities, towns, and villages in eight prefectures was completed, excluding the Restricted Areas. In addition, decontamination and the demolition of houses and other structures in the SRRBs have been progressing since December 2017. In the SRRBs, decontamination was almost completed, while the progress rate for demolition in relation to the number of applications received was approximately 89% by the end of December 2024.

As a result of these efforts, by November 2023, evacuation orders for the entire SRRBs in six towns and villages (Katsurao Village, Okuma Town, Futaba Town, Namie Town, Tomioka Town, and Iitate Village) were lifted. Furthermore, for areas outside the SRRBs, the Nuclear Emergency Response Headquarters and the Reconstruction Promotion Council decided in August 2021 on the "Consideration on the Lifting of Evacuation Orders to Facilitate Return to and Residence in Areas Outside Specified Reconstruction and Revitalization Bases," which states that over the course of the 2020s, efforts will be made to decontaminate areas necessary for return so that residents who wish to return can do so, and to lift evacuation orders. To implement this government policy, the "Act on Special Measures for the Reconstruction and Revitalization of Fukushima" was amended in June 2023 to establish a system

allowing mayors of municipalities within the Specified Areas under Evacuation Orders to designate the "Specified Living Areas for Returnees," which aim to facilitate the return of residents following the lifting of evacuation orders and to rebuild the lives of those residents after their return. The Ministry of the Environment has been advancing decontamination and the demolition of houses and other structures in the Specified Living Areas for Returnees since December 2023.

3 EFFORTS TOWARD THE FINAL DISPOSAL OF REMOVED SOIL AND WASTE GENERATED WITHIN FUKUSHIMA PREFECTURE

Regarding the final disposal of the removed soil and waste arising from decontamination activities within Fukushima Prefecture, it is stipulated that necessary measures shall be taken to complete the final disposal outside Fukushima Prefecture within 30 years from the start of transfer to the Interim Storage Facility. Reducing the volume of final disposal is key to realizing the final disposal outside Fukushima Prefecture, and efforts such as the managed recycling of removed soil* are important.

In March 2025, based on the results of efforts such as demonstration projects for managed recycling such as environmental restoration project in Nagadoro and road embankment, the final report of the International Atomic Energy Agency (IAEA) expert meeting, and advice from domestic experts, the Ministry of the Environment formulated standards and guidelines for the managed recycling and landfill disposal of removed soil, and also outlined Approaches beyond FY2025 toward final disposal outside the Fukushima Prefecture, including multiple options for the structure and required area of the final disposal site.

To realize the final disposal outside Fukushima Prefecture for removed soil and waste and to promote the managed recycling of removed soil, various activities are being carried out to foster public understanding and trust regarding the necessity and safety of this project, including the use of social media, hosting site tours for the general public to the Nagadoro District of Iitate Village and Interim Storage Facility, and providing lectures on the environmental restoration project for university students and other participants, as well as site tours.

In December 2024, the Council for Promotion of Managed Recycling, etc. for Realization of Final Disposal of Removed Soil and Waste outside Fukushima Prefecture was established to advance measures such as strategies for reducing the volume of final disposal through the managed recycling of removed soil and countermeasures against reputational damage, with the entire government working together. In May 2025, Basic Policy was formulated at this Council. Under this Council, all ministries and agencies will work together to advance efforts aimed at creating managed recycling cases.

*The managed recycling of removed soil: The use (including operation and maintenance) of removed soil processed into recycled materials (which means the treatment of removed soil to enable its use as materials for embankment, landfill or filling by means of the necessary treatment according to the use of the soil) for the purpose of contributing to the revitalization from the disaster caused by the accident at the TEPCO Fukushima Daiichi Nuclear Power Station, under appropriate management.

4 MONITORING OF SEA AREAS RELATED TO ALPS TREATED WATER

In August 2023, the discharge of water treated by Advanced Liquid Processing System (hereinafter referred to as "ALPS treated water") into the ocean started. When discharging the ALPS treated water into the ocean, it must be confirmed that all radioactive materials other than tritium have been sufficiently purified to levels below safety standards. Tritium, which is difficult to remove, must be significantly diluted with seawater to a concentration that fully meets safety standards (below 1,500 becquerels per liter) before disposal.

In order to grasp the situation in the environment, the Ministry of the Environment measures the concentration levels of tritium and other radionuclides contained in seawater, fish, and seaweed based on the Comprehensive Radiation Monitoring Plan (decided by the Monitoring Coordination Meeting in August 2011 and revised in March 2025) Since the start of the discharge in particular, we have strengthened and expanded monitoring and conducted an analysis intended to obtain results over a short period of time (rapid analysis), approximately one week or so, at a high frequency, in addition to an existing analysis intended to obtain precise results over an extended period of time (precise analysis). The results of these analyses have confirmed that there is no impact on the human body or the environment.

When examining these monitoring methods and evaluating their results, scientific validity is confirmed by reviews and advice from experts at the "The Experts Meeting on sea-area monitoring rgarding ALPS treated water."

We will continue to rigorously implement the monitoring of sea areas with a high level of objectivity, transparency, and credibility, as well as disseminating information on the results domestically and internationally in an easy-to-understand manner.

A scene from monitoring of sea areas

Source: Ministry of the Environment