

EFFORTS FOR RECONSTRUCTION AND ENVIRONMENTAL RESTORATION FROM THE GREAT EAST JAPAN EARTHQUAKE

On March 11, 2011, a magnitude 9.0 earthquake struck off the coast of Japan. It was the most powerful earthquake ever recorded around Japan. It generated a tsunami that caused massive damage across a wide swath of northeastern Japan, particularly along the Pacific coast. At the same time, accidents at the Tokyo Electric Power Company Fukushima Daiichi Nuclear Power Plant (TEPCO Fukushima Daiichi NPP) released a large volume of radioactive materials into the environment, forcing many residents to evacuate to other areas.

The following sections present the work that is being performed to reconstruct and revitalize the disaster areas.

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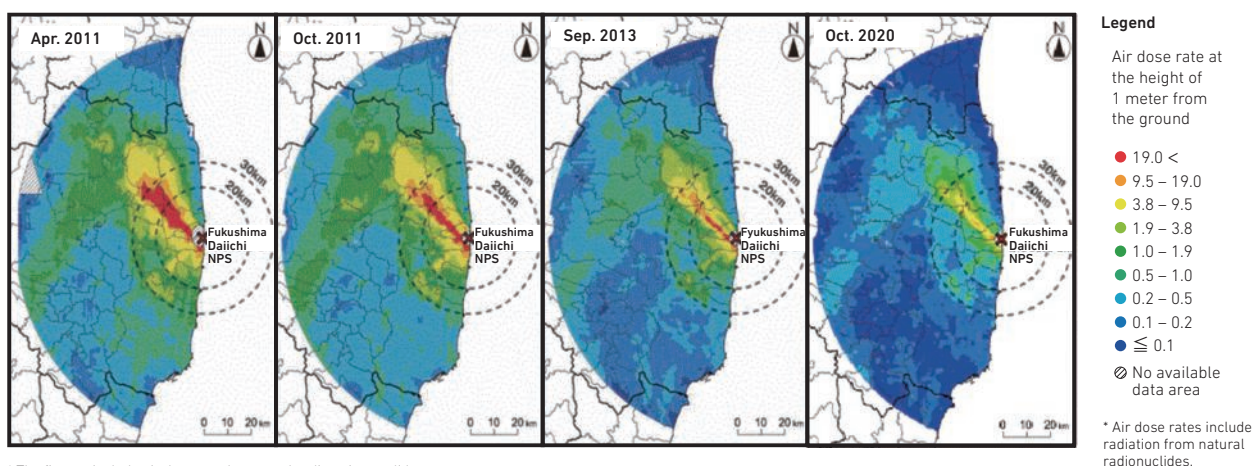
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AIR DOSE RATES

According to airborne monitoring data, as of October 2020, the air dose rate of radioactivity at a height of 1 m above the ground within the 80-km radius around the Fukushima Daiichi Nuclear Power Plant had declined by about 80% vs. the rate in November 2011. The radioactive materials released in the Fukushima Daiichi nuclear disaster included mainly iodine-131, cesium-134, and cesium-137, which have half-lives of about 8 days, about 2 years, and about 30 years, respectively. Considering the physical decay of the radioactive materials and expected attenuation by rainfall and

other natural causes, it was estimated that the amount of radiation vs. August 2011 would decline by about 40% after two years and about 50% after five years. The actual rate of decline in radiation is exceeding these estimates, probably due to decontamination work as well as rainfall and other natural phenomena.

Air dose rate distribution within 80 km radius of TEPCO Fukushima Daiichi Nuclear Power Plant



* The figures include air dose rate by natural radioactive nuclide.
Source: Nuclear Regulation Agency

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INITIATIVES FOR ENVIRONMENTAL RESTORATION OF THE DISASTER STRICKEN AREAS

Measures such as decontamination of soil contaminated by radioactive materials

As mandated by law, by the end of March 2018, the national and local governments completed whole area decontamination of 100 cities, towns, and villages in eight prefectures, with the exception of the restricted area.

Communities in the restricted area have drawn up Plans for Specified Reconstruction and

Revitalization Base (SRRB), in accordance with the provisions of the Act on Special Measures for the Reconstruction and Revitalization of Fukushima, as amended in May 2017. Coordinated work being done under these plans includes the demolition of houses and other buildings, decontamination, and construction of infrastructure.

The Ministry of the Environment is carrying out decontamination and demolition work, in all SRRB: Futaba, Okuma, Namie, Tomioka, Iitate, and Katsurao. In March 2020, the evacuation

order was lifted for some areas of Futaba, Okuma, and Tomioka, close to the JR railroad station in the SRRB.

Establishment of the Interim Storage Facility

The Interim Storage Facility (ISF) has been built to safely and intensively store and manage until final disposal, both soil and waste removed in off-site decontamination work, as well as specified waste (radioactive waste that exceeds 100,000 Bq/kg*) in Fukushima Prefecture. A cumulative total volume of the soil and waste that had been transported to the ISF by the end of FY2020 was approximately 10.55 million m³. In continuation of this work, in accordance with the “Policy on the Interim Storage Facility Project in FY2021” announced in December 2020, the transportation of the removed soil and waste temporarily stored in Fukushima

Prefecture (except the restricted area) is expected to be mostly completed by the end of FY2021. At the same time, the transportation of the removed soil and waste from the SRRB has been carried out.

The necessary measures are to be taken so that the removed soil and waste in Fukushima Prefecture will be finally disposed of outside the prefecture within 30 years from the start of transfer to the ISF. The Ministry is promoting the development of volume reduction technologies and demonstration projects of removed soil recycling with the aim of reducing the final disposal volume of the removed soil.

Future-oriented initiatives directed toward the next stage of reconstruction

The Ministry of the Environment has launched the “Fukushima Regeneration/Future-oriented Project,” which aims to create and rediscover the strengths of the area from an environmental policy perspective. Based on a cooperation agreement with the prefectural government of Fukushima, the ministry is promoting an effective and

innovative package of measures, including industrial creation supported by recycling and other environmental protection technologies, upgraded utilization of natural parks and other natural resources, and decarbonized town development.

A row of cherry trees in Yonomori, Tomioka Town

The entire town of Tomioka, Fukushima Prefecture, was subjected to the evacuation order following the TEPCO Fukushima Daiichi NPP accident. Strenuous decontamination work led to the lifting of the evacuation order in 2017 for a large part of the town, but the northeastern part remained a restricted area.

A row of cherry trees in Yonomori has long been a symbol of Tomioka Town. Every spring before the disaster, people used to gather under the cherry trees for the Tomioka Town Cherry Blossoms Festival.

Thanks to the decontamination work, a gathering of the residents who were forced to evacuate to other areas was organized in 2017. Yosakoi dance was performed on the street for the first time in 7 years in 2017. In the following year, the Tomioka Town Cherry Blossoms Festival was resumed. The JR Yonomori Station was reopened on March 10, 2020,

and the evacuation order was lifted for some of the adjacent streets. From December 2020 to January 2021, an illumination event “YONOMORI Town Lights 2020” was held, and the street was illuminated by brightly colored lights.



Tomioka Town Cherry Blossom Festival

Source: Ministry of the Environment

Farming resumes in Kariyado area, Namie Town

The Ministry of the Environment has decontaminated approximately 8,700 ha of farmland. The Ministry of Agriculture, Forestry and Fisheries plays the central role in assisting farmers to resume agriculture in the decontaminated farmland. Resuming agricultural activity, however, is not easy after being away from it for so many years—the progress of resumption in communities formerly designated as Areas under Evacuation Orders is still at the halfway point.

The entire Namie Town was under “Evacuation Orders.” The about 350 residents of Kariyado area in the central part of Namie were forced to leave, and rice cultivation was abandoned for a long time.

As decontamination efforts for Namie progressed, the Evacuation Orders were lifted in March 2017 for Kariyado and other areas not designated as Restricted Areas. That year, some paddy rice seedlings were planted. In 2019, farmers in the neighborhood formed a farming management organization—“Kariyado Fureai Farm.” The entire community worked together to grow rice, managing to plant it in 3 ha of farmland in 2020.

The harvest was good, and radioactive cesium was not detected in total inspection of rice bags. A member of the organization says: “We would like to increase the cultivation area gradually, and in the future, change our status to an agricultural corporation to play a pivotal role in rice cultivation in this area.”



Harvesting rice in Kariyado area, Namie Town.

Source: Ministry of the Environment