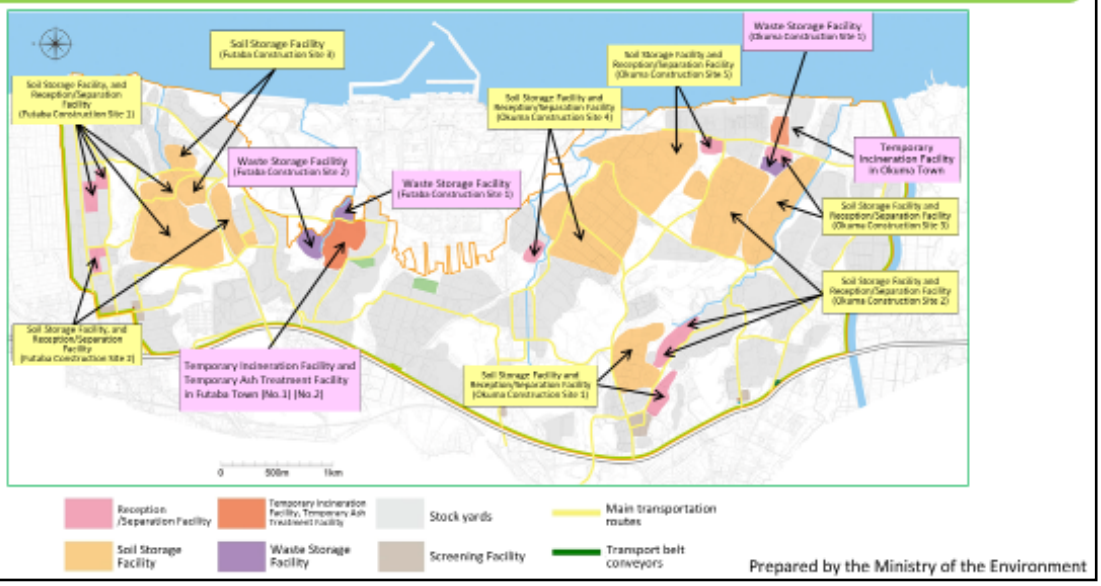
Interim Storage Facility for Removed Soil and Waste

- The Interim Storage Facility (ISF) was built to safely and intensively manage and store removed soil, waste, and incinerated ash (>100,000 Bq/kg) generated by decontamination in Fukushima Prefecture, until final disposal outside the prefecture within 30 years from the start of transportation to the Interim Storage Facility.
- The total area of the planned site for the ISF is approx. 1,600 ha (almost the same as the area of Shibuya City in Tokyo). Okuma Town and Futaba Town agreed to the request to build the facility, which was a very important decision. The Ministry of the Environment will continue to work on the ISF project with a "Safety First" approach.
- A cumulative total of 13.75 million m^3 of removed soil and waste generated due to decontamination work in Fukushima Prefecture (including Restricted Areas) had been transported to the ISF as of the end of December 2023.



At the ISF, the following are to be stored:

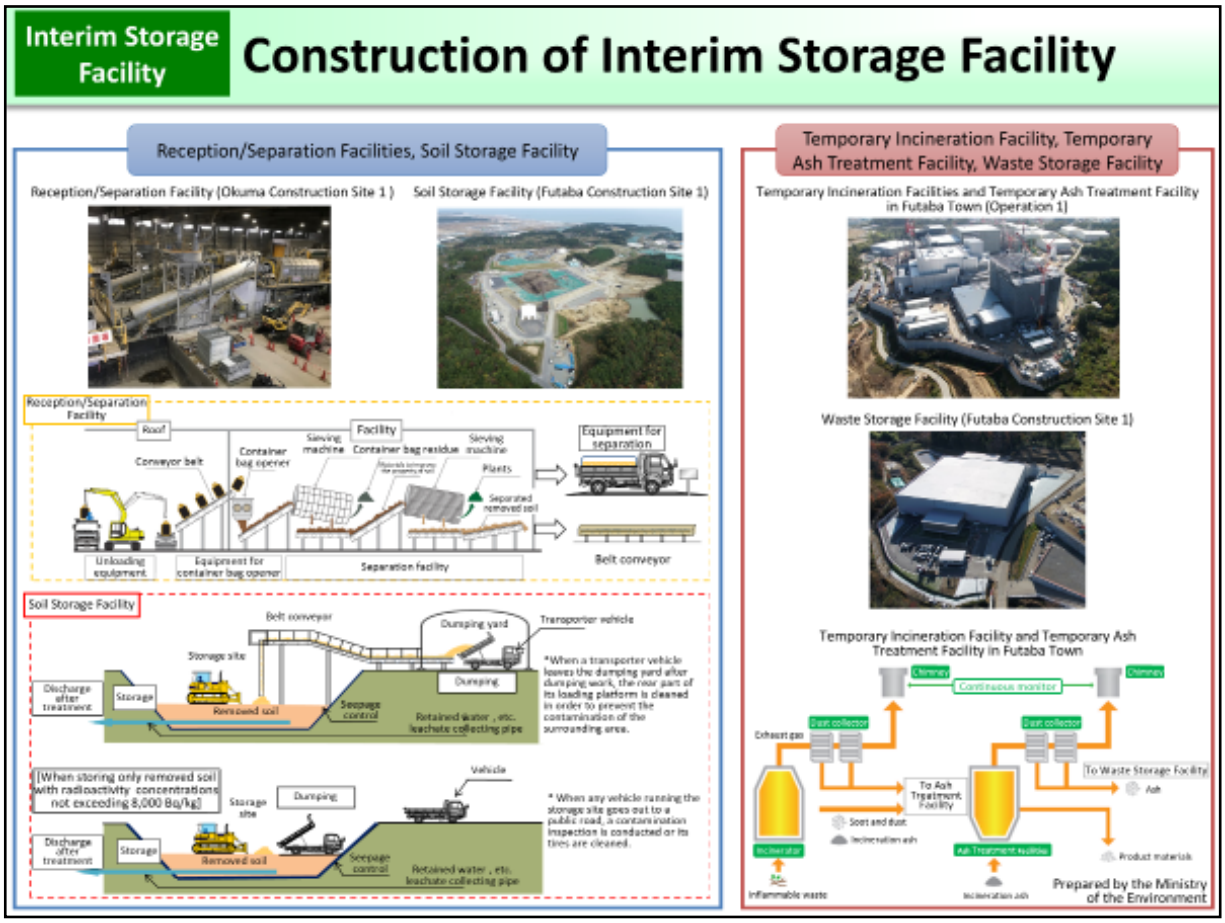
(i) Removed soil and waste (e.g. fallen leaves and branches, etc.) generated due to decontamination work in Fukushima Prefecture;

(ii) Incineration ash with radioactivity concentration exceeding 100,000 Bq/kg.

The ISF is a facility to safely and intensively manage and store the above until final disposal outside the prefecture within 30 years after the commencement of interim storage. It is comprised of Reception/Separation Facilities, Soil Storage Facilities, and Waste Storage Facilities, etc.

Consent to accept the construction of the ISF was obtained from Fukushima Prefecture in September 2014 and from Okuma Town and Futaba Town in January 2015. The total area of the planned site is approx. 1,600 ha, which is almost the same area as Shibuya City in Tokyo. By the end of December 2023, the national government acquired land of approx. 1,296 ha (approx. 81.0% of the total sites). With regard to land acquisition, the national government considers not only a relationship of trust with landowners but also the obtaining of understanding on the ISF project to be of utmost importance, and the national government is committed to continuing efforts while providing sufficient explanations to landowners.

Included in this reference material on January 18, 2016
Updated on March 31, 2024



The Reception/Separation Facilities receive the removed soil and waste which is transported from the Temporary Storage Sites in Fukushima Prefecture to the ISF. The soil and waste are unloaded from trucks, taken out from container bags and separated into combustibles and incombustibles. The Soil Storage Facilities store the soil treated at the Reception/Separation Facilities safely in accordance with their radioactivity concentrations and other properties. As waste-related facilities, Temporary Incineration Facilities, Temporary Ash Treatment Facilities, and Waste Storage Facilities are also constructed. At Temporary Incineration Facilities, decontamination waste, disaster waste, and plants, etc. that are combustible are incinerated to minimize the volume. Generated incineration ash, etc. are melted at Temporary Ash Treatment Facilities to further reduce volume. Ash generated at Temporary Ash Treatment Facilities is encapsulated in square steel containers and stored at Waste Storage Facilities made of reinforced concrete, etc.

Construction of these facilities was commenced first for Reception/Separation Facilities and Soil Storage Facilities in November 2016. Then, reception and separation of the removed soil and waste started in June 2017 and storage of the soil sorted out started at the completed Soil Storage Facilities in October 2017. In March 2020, the ISF commenced operations of facilities for all processes of the treatment and storage of removed soil and waste.

At these facilities, safety measures to prevent scattering and leakage of radioactive materials are taken. At the Reception/Separation Facilities, scattering of radioactive materials to outside of the facilities is being prevented by roofs, walls, and double doors and through negative pressure control. Floors are structured not to allow permeation of a liquid for the purpose of preventing contaminated water, etc. from permeating into groundwater. At Soil Storage Facilities, scattering of radioactive materials is prevented by watering, and covering with soil, and permeation into groundwater is prevented by seepage control. Leachate, etc. generated at these facilities is treated properly at a leachate treatment facility and is discharged after water quality management.

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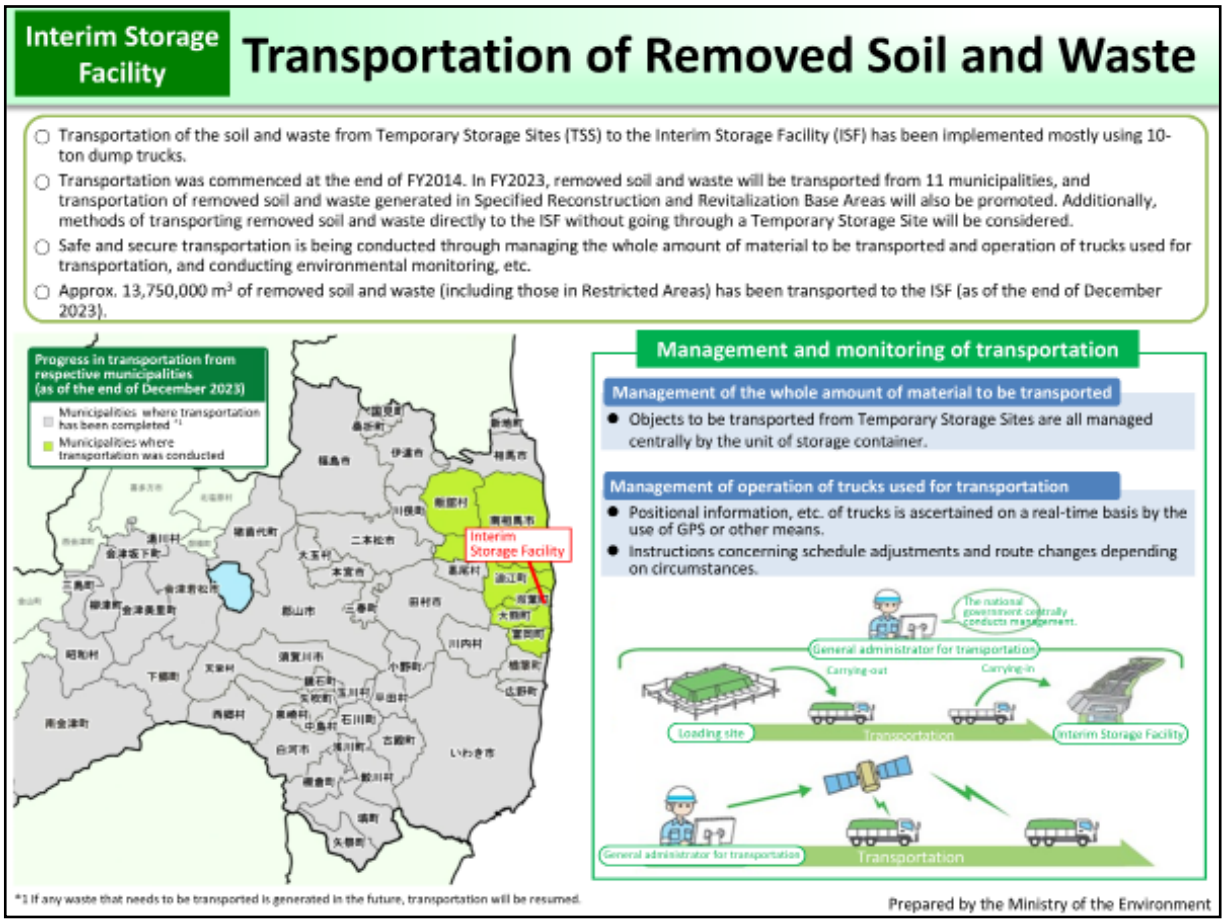

In line with the FY2023 Policies for the Interim Storage Facility (ISF) Project published on March 1, 2023, transportation of removed soil and waste generated in Specified Reconstruction and Revitalization Base Areas, etc. will be promoted. Additionally, methods of transporting removed soil and waste directly to ISF without using a Temporary Storage Site will be discussed. As of the end of December 2023, an accumulative total volume of approx. 13,750,000 m^3 of the removed soil and waste had been transported to the ISF.

Transportation is being conducted on a safety-first policy. Main traffic safety measures are as follows.

1. Training for new and current employees: Training on transportation of removed soil and waste to the ISF is provided to drivers of transport vehicles and other workers newly employed. In addition, current employees who are already engaging in transportation must also take refresher training every fiscal year.
2. Pre-driving of transportation routes: All drivers drive the transportation routes in advance to mutually check high-risk spots and things to be noted.
3. On-site checking of driving status: At spots where attention should be paid for speeding or heavily trafficked spots, etc., driving status of trucks transporting removed soil and waste is checked (including on their way back).
4. Commendation of superior drivers: With the aim of improving and maintaining drivers' motivation and safety awareness, superior driver certificates (displayed on helmets and dashboards) are given to drivers who conducted transportation safely for 100 days or longer via contractors.

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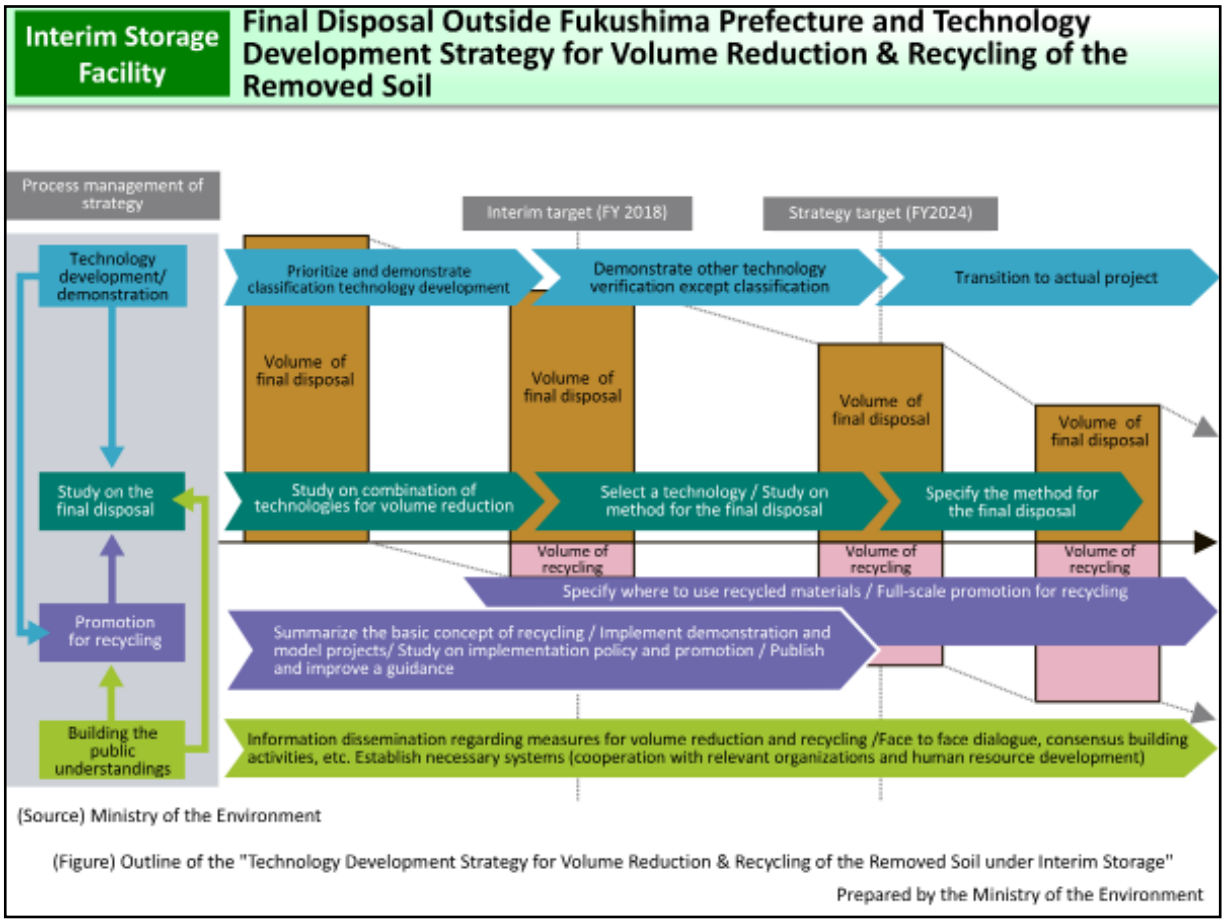

(Source) Ministry of the Environment

(Figure) Outline of the "Technology Development Strategy for Volume Reduction & Recycling of the Removed Soil under Interim Storage"
Prepared by the Ministry of the Environment

The Interim Storage Facility (ISF) was established based on a very difficult decision made by the local people of Fukushima Prefecture. Fukushima Prefecture was most seriously damaged due to the nuclear accident and people of the prefecture have been forced to bear heavy burdens. In consideration of the fact that the people of Fukushima Prefecture are already bearing a very heavy burden, the national government set up a basic policy to achieve the “final disposal of removed soil and waste outside Fukushima Prefecture within 30 years from the start of the interim storage,” and on this premise, the people of Fukushima Prefecture accepted the construction of the ISF in the prefecture. The final disposal outside Fukushima Prefecture is the national government’s obligation and commitment to be fulfilled without fail as clearly stipulated by law.

For achieving the final disposal outside Fukushima Prefecture, it is important to reduce the total amount for final disposal through volume reduction and managed recycling of removed soil and incinerated ash. For that purpose, initiatives have been taken steadily to develop technologies concerning volume reduction, carry out demonstration projects for promoting recycling, and foster understanding nationwide, in line with the “Technology Development Strategy for Volume Reduction & Recycling of the Removed Soil and Waste under Interim Storage,” which the Ministry of the Environment released in April 2016, with the aim of presenting several feasible options for the structure, required area, etc. regarding the Final Disposal Site by FY2024.

Included in this reference material on March 31, 2019
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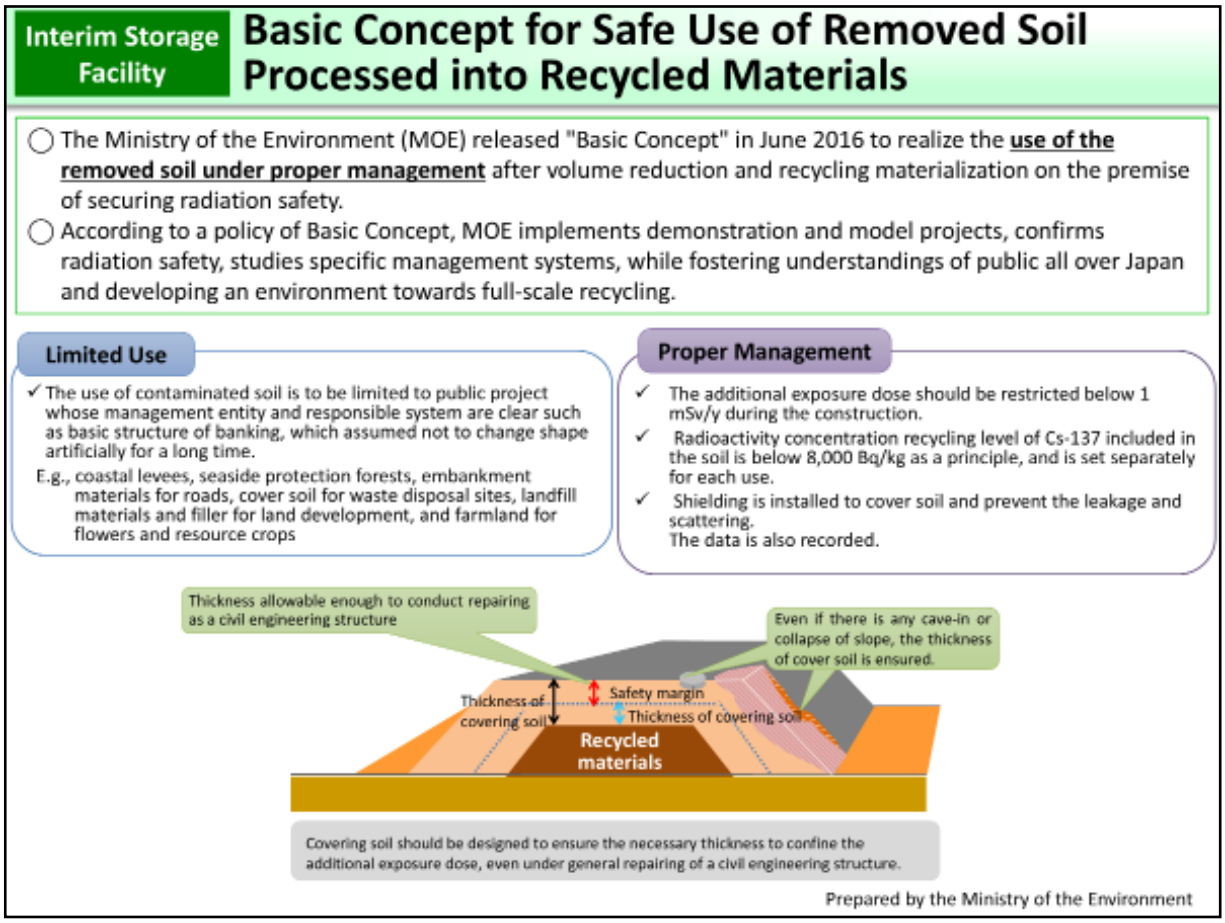

To achieve the final disposal outside Fukushima Prefecture of the removed soil arising from decontamination work within the prefecture, it is important to reduce the total amount for final disposal through managed recycling.

In June 2016, the Ministry of the Environment (MOE) compiled the “Basic Concept for Safe Use of Removed Soil Processed into Recycled Materials” in order to promote the safe use of removed soil converted into recycled materials in an appropriate manner, while fostering understanding and confidence among the public and local residents. The Basic Concept envisages that the use of recycled soil should be limited only in public works, for which management entities and responsibility-related systems are clarified. It also sets the upper limit for radioactivity concentrations of recycled materials to limit additional effective dose, with the assumption that they are used under proper management, by such means as shielding with cover soil.

Based on this Basic Concept, the MOE is implementing demonstration projects for the creation of an embankment in Minamisoma City, for the development of farmland in the Nagadoro District of Iitate Village, and for the creation of embankments for roads in the Interim Storage Facility. Through these projects, the MOE found that ambient dose rates did not change before and after the creation of embankments and that radioactivity concentrations in the air and rainwater seepage, etc. were below the standard limit. Thus, it was confirmed that processed removed soil can be recycled safely. Furthermore, measured concentrations of radioactive cesium in rice and vegetables grown in developed farmland in the Nagadoro District of Iitate Village were confirmed to be far below the standard limit for general foods (100 Bq/kg). From now on, based on the results of these demonstration projects for recycling, the MOE will formulate the standards and guidelines and will proceed with the efforts for full-scale managed recycling in FY2025 onward.

At the aforementioned demonstration sites, the MOE organizes site tours for the general public, as well as tours and visits for a wide range of people, including students, local governments, and overseas organizations, with the aim of obtaining public understanding concerning final disposal and the managed recycling of removed soil and waste.

MOE’s website, “Recycling of Removed Soil”
http://josen.env.go.jp/chukanchozou/facility/recycling/ (in Japanese)

Included in this reference material on March 31, 2019
Updated on March 31, 2024