



# The Current Situation of Off-site Clean-up in Japan

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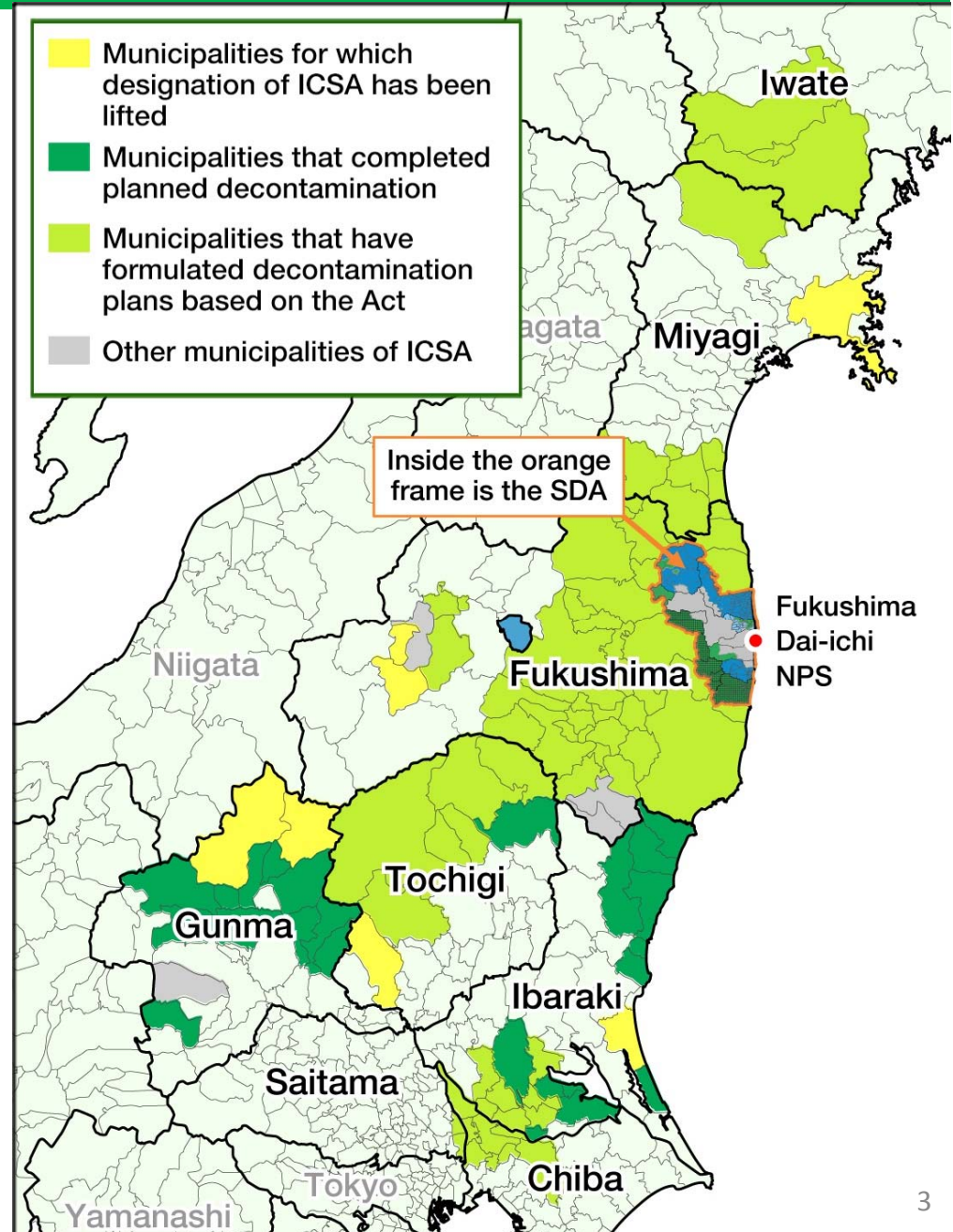
Ministry of the Environment, Japan

# **1. Current Situation of Off-site Decontamination**

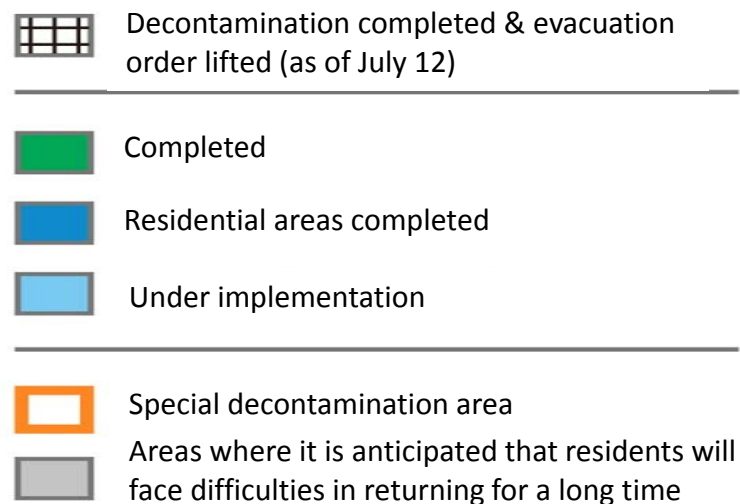
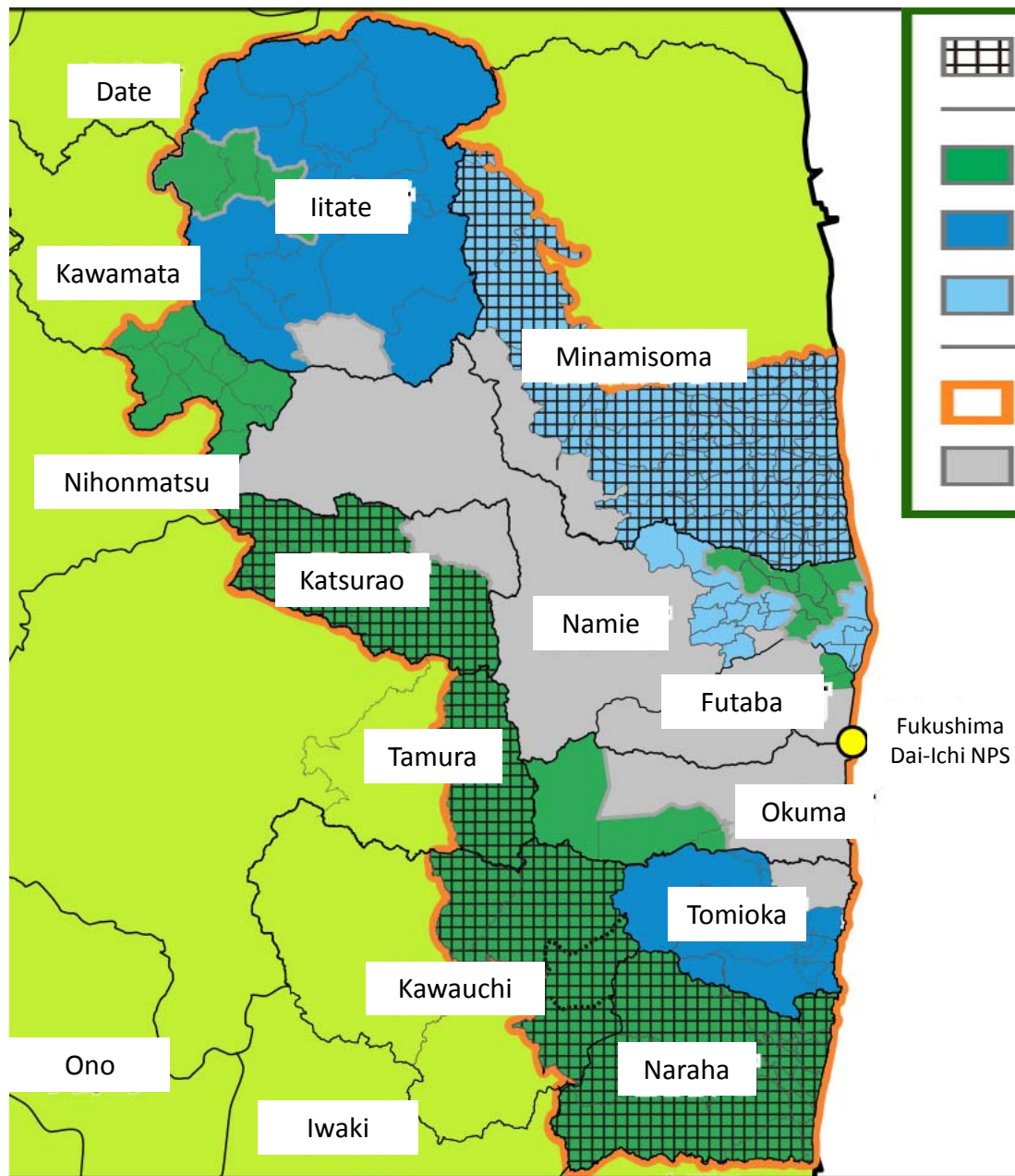
## 2. Interim Storage Facility

# Progress in the Intensive Contamination Survey Area

- ◇ Number of municipalities designated as the Intensive Contamination Survey Area:  
104 (at the start) → 97 (at present)  
 The designation was lifted in seven municipalities because of the radiation dose decrease, etc.
- ◇ Municipalities that formulated decontamination implementation plans:  
93 municipalities (all that had intended to do)
- ◇ Municipalities that have completed or almost completed their plans (and continued monitoring of air dose rates).  
50 municipalities
- ◇ Municipalities in process of implementing decontamination based on the plans:  
43 municipalities  
 In most of the decontamination plans, ending time period is set between FY2015- FY2016.
- ◇ The progress of decontamination
  - **In Fukushima Pref.** (as of the end of April 2016):  
Public facilities: approx. 90%  
Residential houses: approx. 80%  
Roads: approx. 50%    Forests in living area: approx. 50%
  - **Outside Fukushima Pref.** (as of the end of March 2016):  
Schools & nurseries/ parks, sports facilities / residential houses / Roads: almost completed  
Farmland & meadows/ forests in living area: completed



# Progress in the Special Decontamination Area (as of June 2016)



<Municipalities in which evacuation orders were (will be) lifted>

Municipality	Evacuation order lifted on
Tamura city	April 1, 2014
Kawauchi village (former "Areas to which evacuation orders are ready to be lifted") (former "Areas in which residents are not permitted to live")	October 1, 2014 June 14, 2016
Naraha town	September 5, 2015
Katsurao village	June 12, 2016
Minamisoma city	July 12, 2016(*)
Iitate village	March 31, 2017(**)

\* Decided at Nuclear Emergency Response Headquarters on May 31, 2016.

\*\* Decided at Nuclear Emergency Response Headquarters on June 17, 2016.

# Progress in the Special Decontamination Area (As of July 31, 2016)

- Decontamination in progress with max. 16,000 laborers per day

## 1. Municipalities implementing whole area decontamination

	Securement of TSS <small>Note 1</small>	Consent to decontaminate	Execution rate (%) <small>Note 2, 3</small>			
			Residential area	Farmland	Forest	Road
Iitate	Secured	99.6%	100	85 (74)	97	80 (72)
Minami-Soma	Secured	92%	96 (96) [100]	37 (36)	68 (63)	39
Namie	94%	98%	78 (71)	46 (42)	93 (91)	74 (73)
Tomioka	Secured	Completed	100	99	100	99.9

## 2. Municipalities completed decontamination

	Time of Completion <small>Note 4</small>
Tamura	June 2013
Naraha	March 2014
Kawauchi	March 2014
Okuma	March 2014
Katsurao	December 2015
Kawamata	December 2015 <small>Note 5</small>
Futaba	March 2016

Note 1: The ratio shows: Contracted TSS area / Necessary TSS area. It might change because of increase and decrease of the necessary area depending on the progress of decontamination work.

Note 2: Implementation ratio: Decontamination-completed area / Target decontamination area. They might both be revised with future investigation. "Areas where it is anticipated that residents will face difficulties in returning for a long time" are basically not included.

The number in [] at the residential area of Minami-Soma is the ratio of implemented lots to those where decontamination became possible by 2015. The remainder is to be implemented in 2016.

Note 3: Numbers in () are the numbers in a previous month. Numbers without () have not been changed from the previous month.

Note 4: Time of decontamination completion means the time at which decontamination is completed in the area with residents' consents. If the area is not decontaminated, it will be eventually decontaminated once the consent is obtained.

Note 5: The part of farmland struck by heavy rain disaster in September 2015 is not included.

# Effects of Decontamination Work in Kawauchi

【Air dose rate at the height of 1m from the ground at entire Kawauchi village\*】

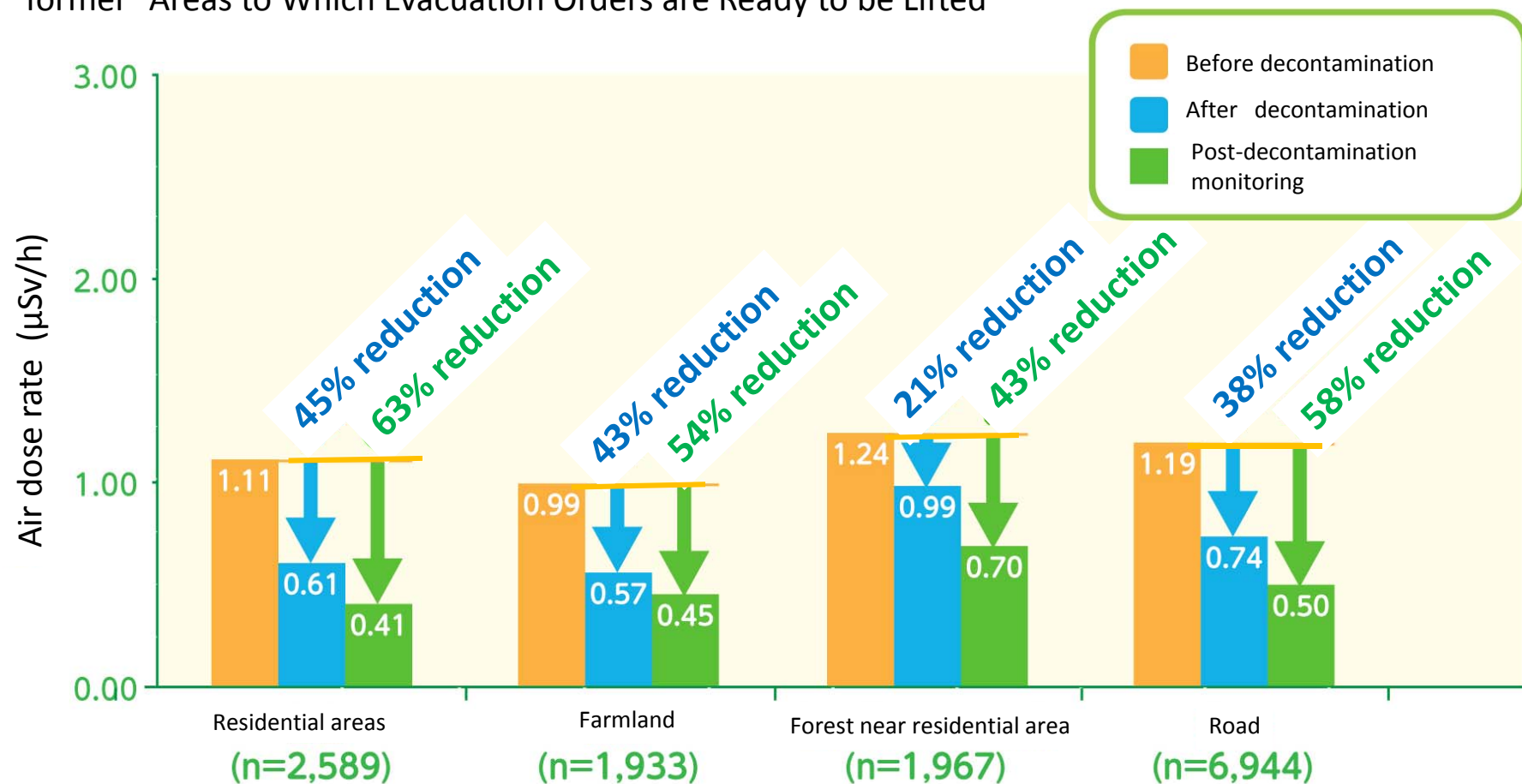
Air dose rates at residential areas :

decreased approx. 45% comparing before decontamination to after decontamination

decreased approx. 63% comparing before decontamination to post-decontamination monitoring

and the effects of decontamination have been retained

\*entire Kawauchi village: indicates both former “Areas in Which Residents are not Permitted to Live” and former “Areas to Which Evacuation Orders are Ready to be Lifted”



1. Current Situation of Off-site  
Decontamination

**2. Interim Storage Facility**

# What is an Interim Storage Facility (ISF)?

- ◆ In Fukushima Prefecture, large quantities of contaminated soil and waste have been generated from decontamination activities.
- ◆ Currently, it is difficult to clarify methods of final disposal of such soil and waste.
- ◆ Until final disposal becomes available, it is necessary to establish an Interim Storage Facility (ISF) in order to manage and store soil and waste safely.

The following materials generated in Fukushima Prefecture will be stored in the ISF.

1. Soil and waste (such as fallen leaves and branches) generated from decontamination activities, which have been stored at the Temporary Storage Sites.



\* In principle, combustible materials will be incinerated, and incinerated ash will be stored.

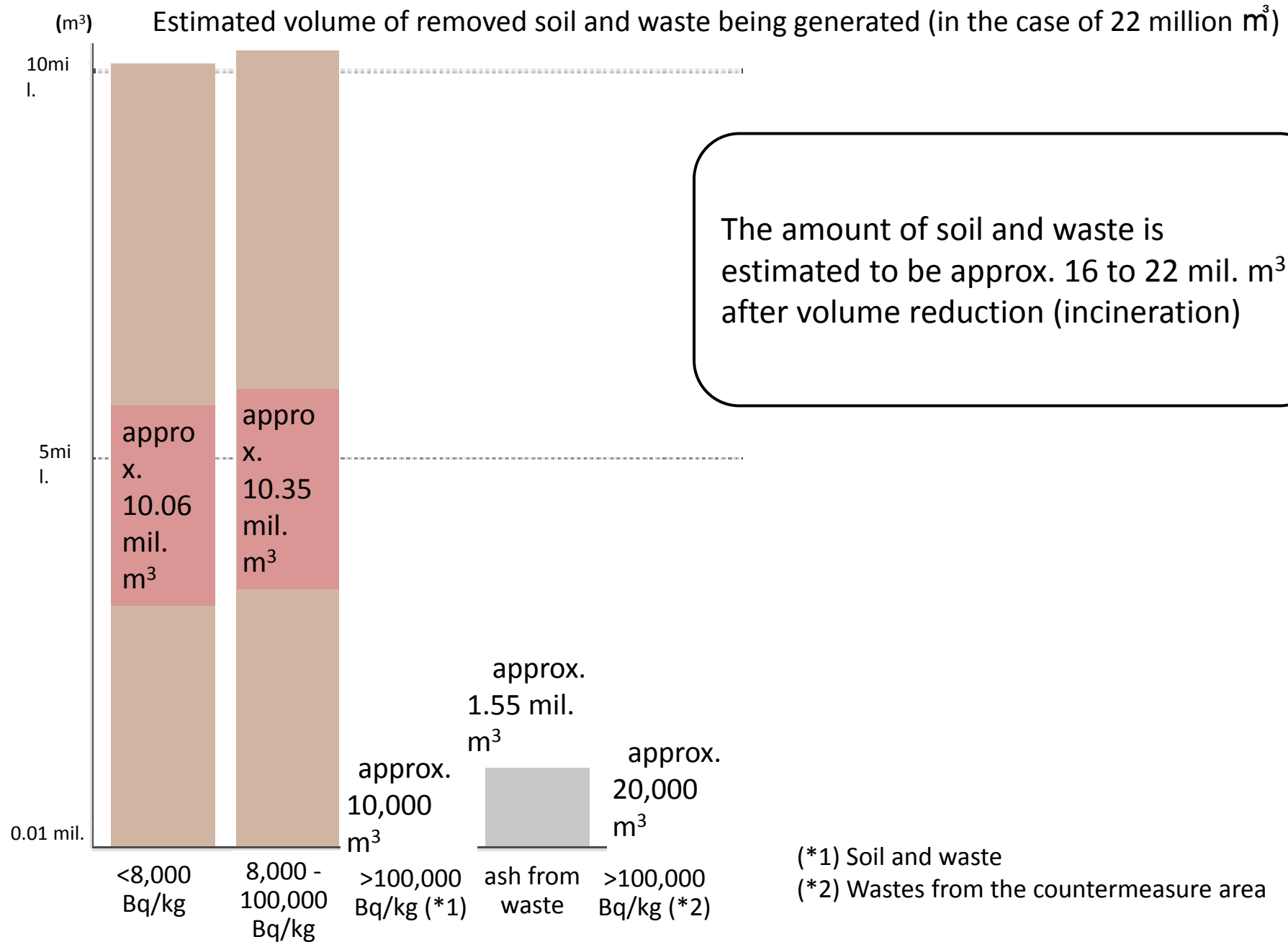
2. Incineration ash with radioactive concentration more than 100,000 Bq/kg.



# Planned Site for the Interim Storage Facility

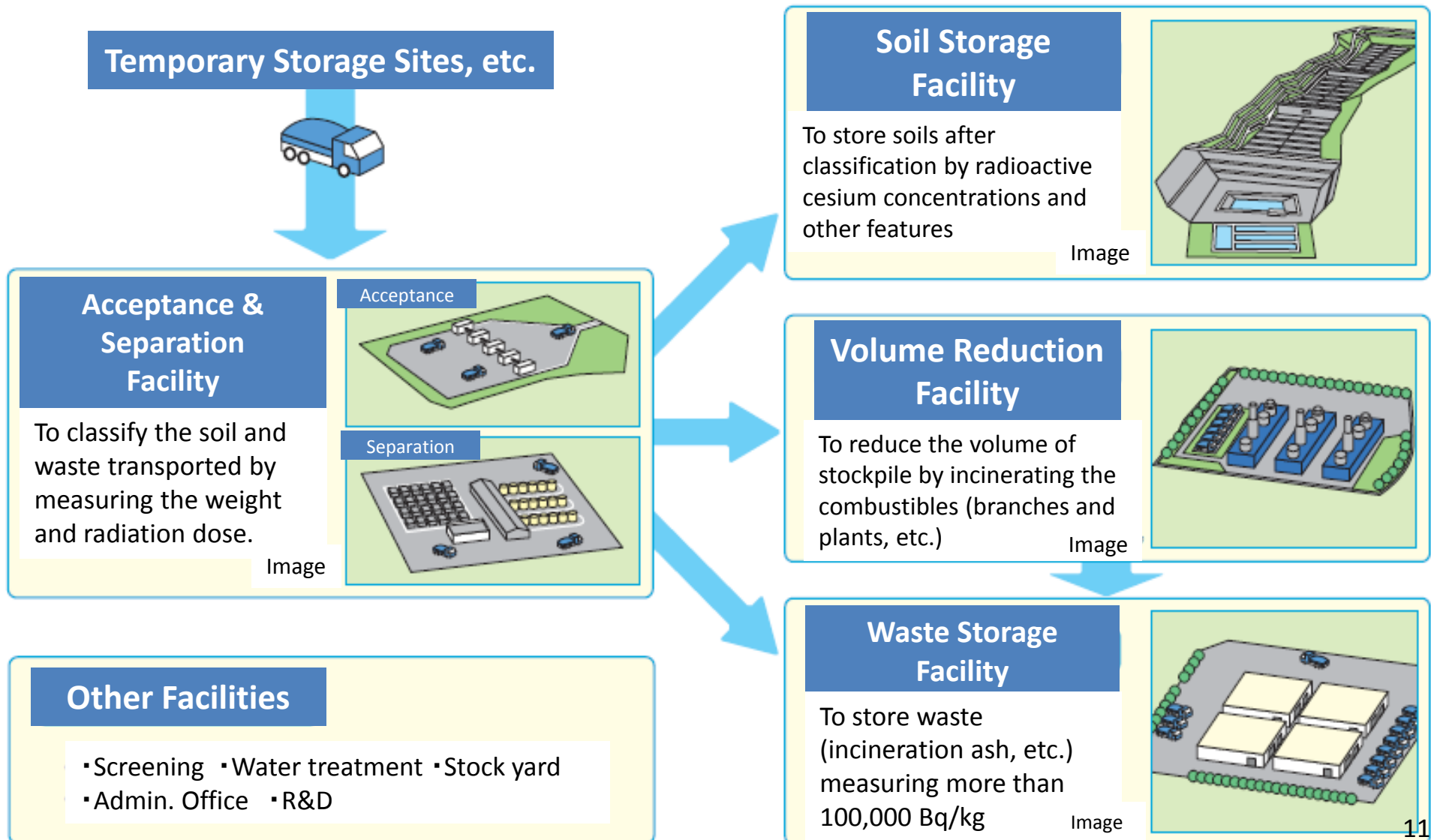


# Estimated Storage Volume in the Interim Storage Facility



# Facilities and Disposal Process at the Interim Storage Facility

○The Interim Storage Facility consists of several facilities with various functions.



# Status of Candidate Site for ISF

As of the end of July 2016

		Area	Ratio to the whole area
	Whole area	Approx. 1,600 ha	—
	Landowners with contact information	Approx. 1,500 ha	Approx. 94%
	Accepted property investigation	Approx. 1,030 ha	Approx. 64%
	Already completed investigation	Approx. 910 ha	Approx. 57%
	Contracted ※	Approx. 78 ha	Approx. 4.9%
Public land	① Land owned by town	Approx. 165ha	Approx. 10.3%
	② National land/Municipality land/ Land without address	Approx. 165ha	Approx. 10.3%

\* In either case, it is a percentage of approx. 1,600ha, the whole area

# Pilot Transportation / Stock Yards

- ◆ In order to confirm safe and secure delivery towards the transportation of a large amount of decontamination soil, MOE implemented pilot transportation approx.  $1,000\text{m}^3$  each from 43 municipalities in Fukushima Prefecture from 2015-2016
- ◆ Pilot transportation period: March 13, 2015 – March 28, 2016

## <Actual achievement of the pilot transportation>

- ◆ **Stored volume:  $45,382\text{m}^3$  in total**

Stock Yards in Okuma:  $23,266\text{ m}^3$

Stock Yards in Futaba:  $22,116\text{ m}^3$

(Incombustibles:  $40,034\text{m}^3$ , Combustibles:  $5,348\text{m}^3$ )

\* Calculated on the assumption that the volume of a large bag is  $1\text{ m}^3$

- ◆ **Total number of trucks used: 7,529 in total**

Stock yards in Okuma: 3,868 trucks

Stockyards in Futaba: 3,661 trucks

- ◆ Results of truck screening

Surface doses of all the trucks from the Stock yards have been screened and proved to be below the standard of 13,000 cpm.

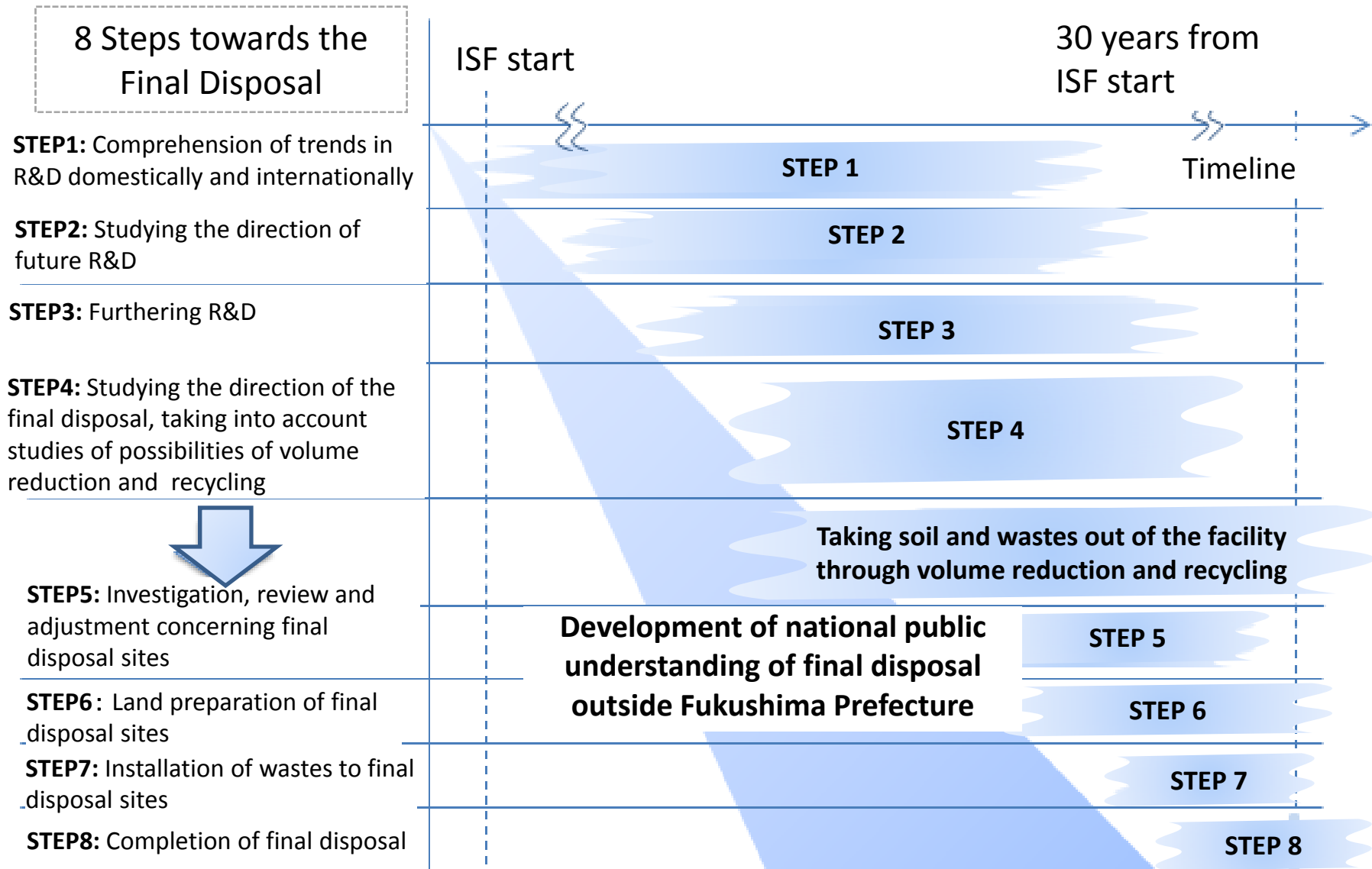


Facilitation of bags at Stock Yards



Operation of a truck screening

# Measures towards the Final Disposal of Decontamination Soil outside Fukushima Pref.



# Public Communication

## Decontamination Information Plaza (Information hub run by MOE and Fukushima Pref.)

### ■ Providing interactive communications with people and municipalities

- Interactive exhibition and workshops
- Dispatch of experts to municipalities, communities, schools, etc.

## Support Center for Social Workers Engaged in Recovery from the Nuclear Disaster

### ■ Hub facility responding to the anxiety about radiation exposure through social workers who are engaged in supporting the care of residents in affected municipalities

- Established in Iwaki



# Public Communication



## KURUMAZA Café “Sit-in-Circle Café”

--Finding Fukushima's way --

Interaction forum with people who have been working on the recovery of daily lives, facing the anxiety for radiation at many places in Fukushima prefecture





## Public Communication

Communication forum between various sectors (e.g., municipalities, schools, institutes)

Projects including decontamination should be addressed appropriately through various kinds of communication with local people in Fukushima and other parties concerned.