

# Progress on treatment of debris from the Great East Japan Earthquake

2014.1.24 Ministry of the Environment

## Overall (13 prefectures) progress (as of Dec. 31, 2014)

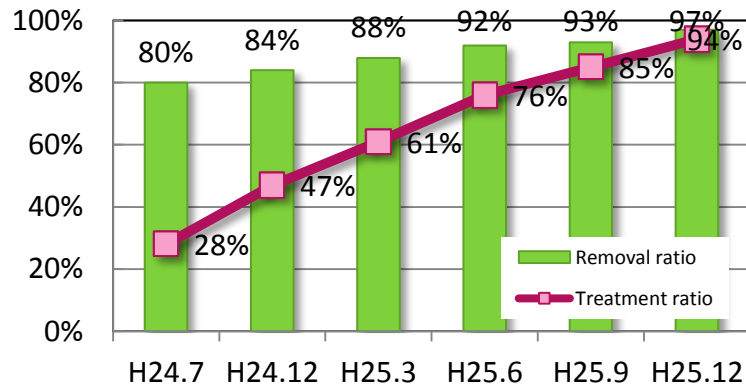
- Treatment has been completed of approximately 94% of the approximately 20 million tons of debris, and approximately 86% of the approximately 10 million tons of tsunami deposits.
- Treatment has been completed at 182 of 239 municipalities in 13 prefectures (approximately 76%).
- Treatment of debris is continuing in Iwate, Miyagi, and Fukushima prefectures, and also in Ibaraki, Tochigi, and Chiba prefectures.

## Overall treatment of debris (13 prefectures)

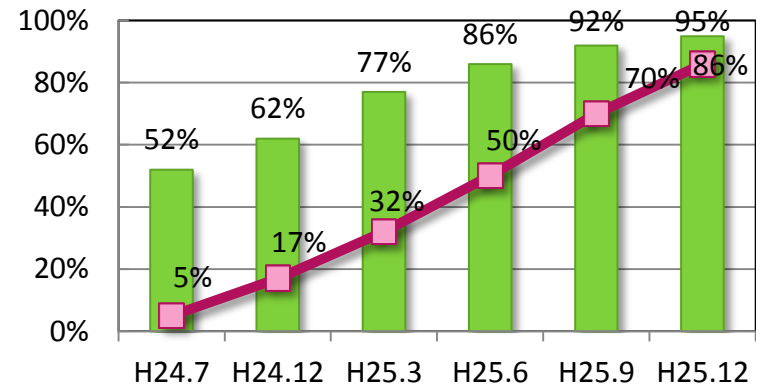
	Prefectures	Municipalities	Estimated amount of debris and tsunami deposits (1000s tons)	Municipalities where treatment is completed	Treated amount (1000s tons)			
					Recycled	Incinerated	Landfill	Total
debris	13	239	19,998	182 (76%)	15,309 [82%]	2,336 [12%]	1,136 [6%]	18,781 (94%)
Tsunami deposits	6	36	10,892	19 (53%)	9,210 [99%]	—	119 [1%]	9,329 (86%)

Note 1: The lower figure (%) for the number of municipalities where treatment is completed and the treated amount total indicates the progress ratio out of the total number of municipalities where debris occurred and total amount of debris/deposits.

Note 2: The lower figure [%] for the breakdown of treated amounts indicates the percentage of the total treated amount.



(a) Progress of debris removal and treatment ratios



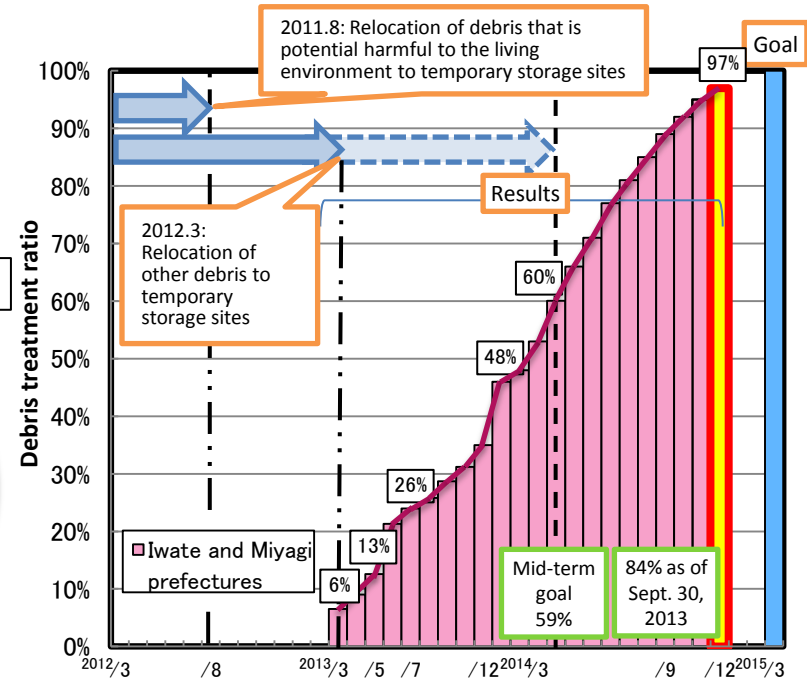
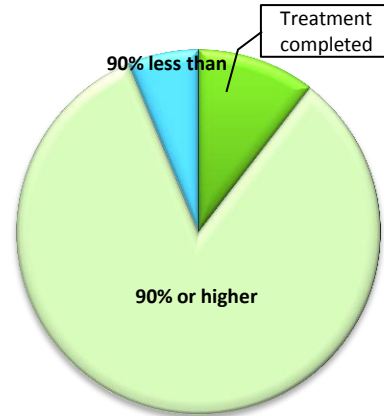
(b) Progress of tsunami deposit removal and treatment ratios

## Progress in coastal municipalities (as of Dec. 31, 2013)

### (1) Debris

- Progress in treatment of debris is as follows.  
Iwate: 96%, Miyagi: 98%, Fukushima: 64% (Total for 3 prefectures: 94%)
- The treatment ratio is more than 90% in Kuji City, Yamada town, Rikuzentakada city. And the treatment ratio of all municipalities in Iwate and Miyagi Prefecture are more than 90%.
- Treatment is progressing steadily. The treatment ratio is more than 90% in coastal municipalities which account for approximately 90% of the total debris.

Progress	Municipality or other unit
Treatment completed	Rifu town, Matsushima town, the Watari-Natori Block(Natori city, Iwanuma city, Watari town)
90% or higher	Hirono town, Kuji city, Noda village, Fudai village, Tanohata village, Iwaizumi town, Miyako city, Yamada town, ootsuchi town, Kamaishi city, Ofunato city, Rikuzentakada city, the Kesenuma Block, the Ishinomaki Block, the Eastern Miyagi Block, Sendai city, the Watari-Natori Block, Iwaki city



### (2) Tsunami deposits

- Progress in treatment of tsunami deposits is as follows.  
Iwate: 90%, Miyagi: 95%, Fukushima: 42% (Total for 3 prefectures: 86%)

Goals and results for treatment of debris in coastal municipalities of Iwate and Miyagi prefectures

### Treatment progress in coastal municipalities (as of Dec. 31, 2013)

	Estimated amount of debris and tsunami deposits (10000s tons)	Debris			Tsunami deposits			No. of temporary storage sites
		Estimated amount (10000s tons)	Treated		Estimated amount (10000s tons)	Treated		
			Amount (10000s tons)	Ratio (%)		Amount (10000s tons)	Ratio (%)	
Iwate	539	385	368(348)	96(90)	154	138(128)	90(84)	22
Miyagi	1,881	1,128	1,103(1,060)	98(96)	753	715(699)	95(91)	27
Fukushima	349	174	111(106)	64(62)	175	73(67)	42(40)	28
<b>Total</b>	<b>2,769</b>	<b>1,686</b>	<b>1,582(1,515)</b>	<b>94(91)</b>	<b>1,082</b>	<b>926(894)</b>	<b>86(82)</b>	<b>77</b>

\* Figures in ( ) are the results from November 30, 2013.

## Treatment in the disaster-affected areas

- 97% of debris has been removed to temporary storage sites, and removal has been completed at 18 municipalities (out of 32 coastal municipalities). The number of temporary storage sites has decreased to 77 (24% of the peak number). The remaining demolition and removal work is being carried out so that treatment will be completed by March 2014.
- 5 temporary incinerators and 11 sorting and shredding facilities are now operating in Iwate, Miyagi, and Fukushima prefectures. Treatment has finished at 29 temporary incinerators and 13 sorting and shredding facilities.
- In Miyagi Prefecture, with the completion of treatment of temporary incinerator of Ishinomaki block of January 18, the treatment of disaster debris by temporary incinerator in the prefecture is completed.
- In Sendai city, the treatment of disaster debris in temporary storage sites completion on December 27, 2013.

## Cooperation with debris treatment in areas not affected by the disaster

- Of the approximately 650,000 tons which requires treatment outside the disaster-affected area, treatment of approximately 610,000 tons (93%) has been completed.
- The number of treatment projects is 91 in 18 prefectures. Of these, 76 projects have completed treatment.

## Recycling

- Approximately 85% of debris and nearly all of the tsunami deposits can be recycled.
- The use of concrete debris in restoration work in Kesenuma city, Miyagi Prefecture began in December, 2013.
- Materials recycled from debris are being used in public works projects by the national government and by the prefectural and municipal governments in disaster-affected areas.

## Approaches to achieving the goal

- For debris and tsunami deposits in Iwate and Miyagi prefectures, continue to carry out steady treatment, aiming to complete treatment as early as possible prior to the goal of March 2014.
- For debris and tsunami deposits in Fukushima Prefecture, complete removal to temporary storage sites by the end of March 2014, aiming to complete treatment as early as possible prior to the goal of the end of March 2015.



Incineration completion ceremony (Jan.18, 2014)



Transition of the temporary storage site in Sendai city