

Progress on treatment of debris by the Great East Japan Earthquake

2013.7.26 Ministry of the Environment

**All affected prefectures
(13 prefectures)**

- 76 % out of 20 million tons of generated debris and 50% out of 10 million tons of tsunami deposit have been treated.
- 70% of the affected municipalities (167 out of 239) have completed treatment.

**3 most affected prefectures
(excludes Evacuation Area)**

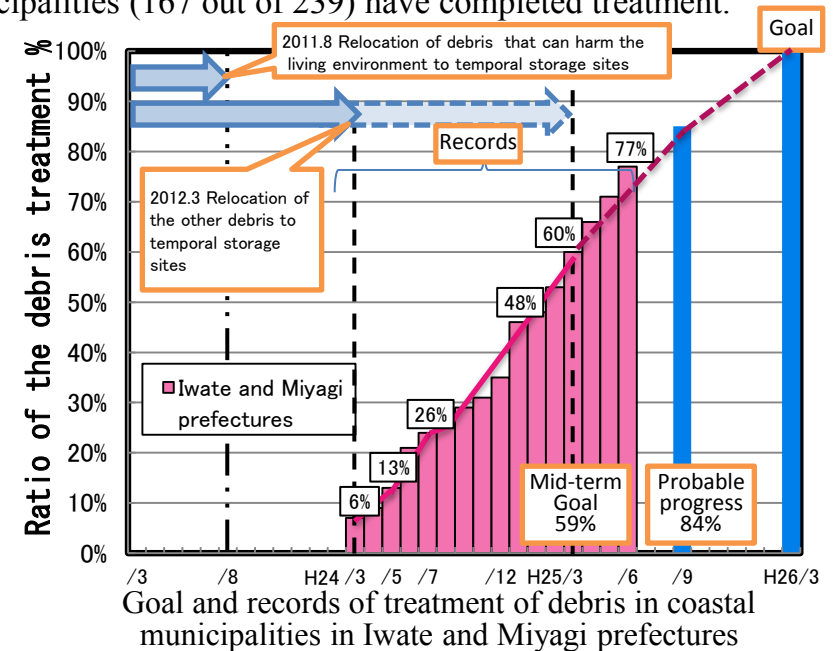
(1) Debris

- Progress of treatment of debris in coastal municipalities is: 63% (Iwate), 82% (Miyagi), 50% (Fukushima) [74% (3 prefectures)]
- Treatment ratio of debris is over 90% in Sendai-city and Watari-Natori block (Natori-city, Iwanuma-city, Watari-town, Yamamoto-town). And Miyagi-prefecture's treatment ratio of debris is over 80%, too.
- Treatment progresses steadily to reach the mid-term percentage of this fiscal year (September, 2013)

(2) Tsunami deposit

- Progress of treatment of tsunami deposit is: 35% (Iwate), 59% (Miyagi), 23% (Fukushima) [49% (3 prefectures)]

- Having progressed the installation of treatment facilities, treatment of tsunami has progressed steadily.



Progress on treatment of debris from coastal municipalities as of the end of June 2013

Prefecture	Estimated quantity of debris and tsunami deposit (10 thousand t)	Debris				Tsunami deposit				No. of temporary storage sites
		Estimated quantity (10 thousand t)	Treatment			Estimated quantity (10 thousand t)	Treatment			
			Quantity (10 thousand t)	Ratio (%)	Probable progress (Sep) (%)		Quantity (10 thousand t)	Ratio (%)	Probable progress (Sep) (%)	
Iwate	527	378	237(218)	63(57)	78	149	52(36)	35(25)	56	43
Miyagi	1,734	1,046	857(791)	82(76)	87	689	408(366)	59(53)	76	71
Fukushima	357	173	86(80)	50(47)	—	184	43(17)	23(9)	—	30
Total	2,618	1,596	1,181(1,089)	74(68)	—	1,022	503(419)	49(41)	—	144

※Figures in () is the data as of the end of May 2013.

Treatment in affected areas

- Approx. 93% of debris has been removed to temporary storage sites. 11 municipalities finished removal of debris. The number of temporary storage sites has decreased to 144 (45% of maximum sites once set up). The remaining removal and demolition work is being implemented in order that the treatment is completed by March, 2014.
- In Iwate, Miyagi, and Fukushima prefectures, 34 temporary incinerators and 23 sorting and shredding facilities are being in operation.
- Overall treatment is being implemented corresponding to the changing conditions such as the increase of non-combustible debris and change of debris characteristics, identified through progress of treatment.

Approaches toward the goal

- For the debris and tsunami deposit in Iwate and Miyagi prefectures, promote steady treatment in order to complete as early as possible before March, 2014 (goal). Also, manage monthly progress carefully with referring to a newly set probable progress ratio of the mid-term of this fiscal year.
- In some parts of Fukushima prefecture, the completion of treatment by March, 2014 is difficult. Therefore, clarify the schedule of treatment this summer, through acceleration of treatment by the national government.
- Secure storage sites of recycled materials and promote detailed arrangement for the usage with authorities of reconstruction projects according to tsunami deposit treatment plan.

Cooperation from non-affected areas on debris treatment

- Iwate and Miyagi prefectures have requested other prefectures to cooperate in the disposal of a part of their debris (0.61 million tons). All arrangement of cooperation has finished.
- 81 projects in 17 prefectures have already started and treated 0.41 million tons of debris.
- Misawa-city (Aomori) started to treat debris from the end of July, 2013.

Recycling etc.

- Using recycled concrete debris is started in Ofunato-Ayasato-Sanriku line road improvement work in Ofunato-city(Iwate).
- Recycled materials from debris are being used in public works, implemented by the central government, prefectures, and municipalities.



Ofunato-Ayasato-Sanriku line road improvement work

Major public works using recycled material from debris

	Projects	Recycled material	Quantity (including plan)
Iwate	Coastal or river embankment restoration	Concrete debris	25
	Disaster prevention forests restoration	Tsunami deposit	20
		Concrete debris	
	Agricultural field restoration	Tsunami deposit	68
		Concrete debris	
	Park restoration	Tsunami deposit	19
	Fishing port projects	Concrete debris	13
Temporary storage sites	Concrete debris	32	
Others	Tsunami deposit	104	
	Concrete debris		
Miyagi	Coastal or river embankment restoration	Tsunami deposit	56
		Concrete debris	
	Disaster prevention forests restoration	Tsunami deposit	106
		Concrete debris	
	Agricultural field restoration	Tsunami deposit	15
		Concrete debris	
	Park restoration	Tsunami deposit	204
	Concrete debris		
Fishing port projects	Concrete debris	28	
Temporary storage sites	Concrete debris	69	
Others	Tsunami deposit	143	
	Concrete debris		
Fukushima	Coastal embankment restoration	Concrete debris	9
	Park restoration	Tsunami debris	16
	Others	Tsunami debris	9