

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

2013.5.31 Ministry of the Environment

## 3 most affected prefectures

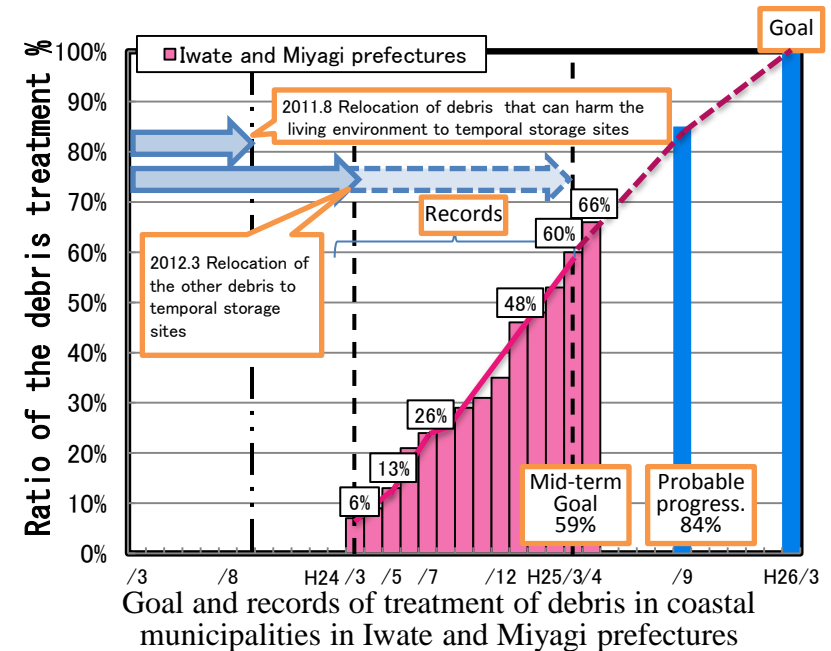
### (1) Debris

- Progress of treatment of debris in coastal municipalities is: 52% (Iwate), 71% (Miyagi), 42% (Fukushima) [63% (3 prefectures)]
- Treatment of debris has progressed steadily, exceeding 10 million tons in quantity of treated debris in three prefectures and exceeding 70% in ratio of treatment in Miyagi prefecture.
- A probable progress ratio of the mid-term of this fiscal year (September, 2013) has been set in Iwate and Miyagi prefecture for progress management. 78% (Iwate), 87% (Miyagi) [84% (2 prefectures)]

### (2) Tsunami deposit

- Progress of treatment of tsunami deposit is: 19% (Iwate), 48% (Miyagi), 9% (Fukushima) [37% (3 prefectures)]
- Having progressed the installation of treatment facilities, treatment of tsunami has progressed steadily. Especially, treatment ratio in Miyagi prefecture has exceeded half of generated tsunami deposit.
- A probable progress ratio of the mid-term of this fiscal year (September, 2013) has been calculated in Iwate and Miyagi prefecture.

56% (Iwate), 76% (Miyagi) [72% (2 prefectures)]



Progress on treatment of debris from coastal municipalities as of the end of April 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	525	380	199(180)	54(47)	78	145	28(24)	19(16)	56	52
Miyagi	1,733	1,046	737(676)	71(65)	87	688	333(292)	48(43)	76	77
Fukushima	357	173	73(68)	42(39)	—	184	16(3)	9(2)	—	33
<b>Total</b>	<b>2,616</b>	<b>1,598</b>	<b>1,010(924)</b>	<b>63(58)</b>	—	<b>1,018</b>	<b>377(319)</b>	<b>37(31)</b>	—	<b>162</b>

※Figures for Fukushima excludes those for the Contaminated Waste Countermeasure Areas, where the national gov. conducts treatment directly.

※Figures in ( ) is the data as of the end of March 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 162 (51% 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.
- Treatment facility for tsunami deposit in Rikuzentakata city started full operation.
- As for the Contaminated Waste Countermeasure Areas of Fukushima prefecture, the debris in Minamisouma city, Naraha town, and Kawauchi village started to be removed to temporary storage sites.
- 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.

## 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 (0.62 million tons). All arrangement of cooperation has finished.
- 77 projects in 17 prefectures have already started and treated 0.34 million tons of debris.
- Local authorities greater Niikawa (Toyama) started to treat debris from May, 2013.



National park reconstruction project in Miyako city, Iwate prefecture (Started on May 23, 2013)

## Recycling etc.

- Recycled tsunami deposit started to use in national park reconstruction project in Miyako city (Iwate) from May, 2013.
- Recycled materials from debris are being used in public works, implemented by the central government, prefectures, and municipalities.



Treatment facility of tsunami deposit in Rikuzentakata city, Iwate prefecture (Test operation from May 7, 2013)

Major public works using recycled material from debris

	Projects	Recycled material	Quantity (including plan)
Iwate	Coastal or river embankment restoration	Concrete debris	34
	Disaster prevention forests restoration	Tsunami deposit Concrete debris	20
	Agricultural field restoration	Tsunami deposit Concrete debris	19
	Park restoration	Tsunami deposit	14
	Fishing port projects	Concrete debris	7
	Others	Tsunami deposit Concrete debris	71
Miyagi	Coastal or river embankment restoration	Tsunami deposit Concrete debris	45
	Disaster prevention forests restoration	Tsunami deposit Concrete debris	82
	Agricultural field restoration	Tsunami deposit Concrete debris	24
	Park restoration	Tsunami deposit Concrete debris	180
	Fishing port projects	Concrete debris	26
	Temporary storage sites	Concrete debris	69
	Others	Tsunami deposit Concrete debris	118
Fukushima	Coastal embankment restoration	Concrete debris	9
	Park restoration	Concrete debris	17

## 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.