

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

2013.8.30 Ministry of the Environment

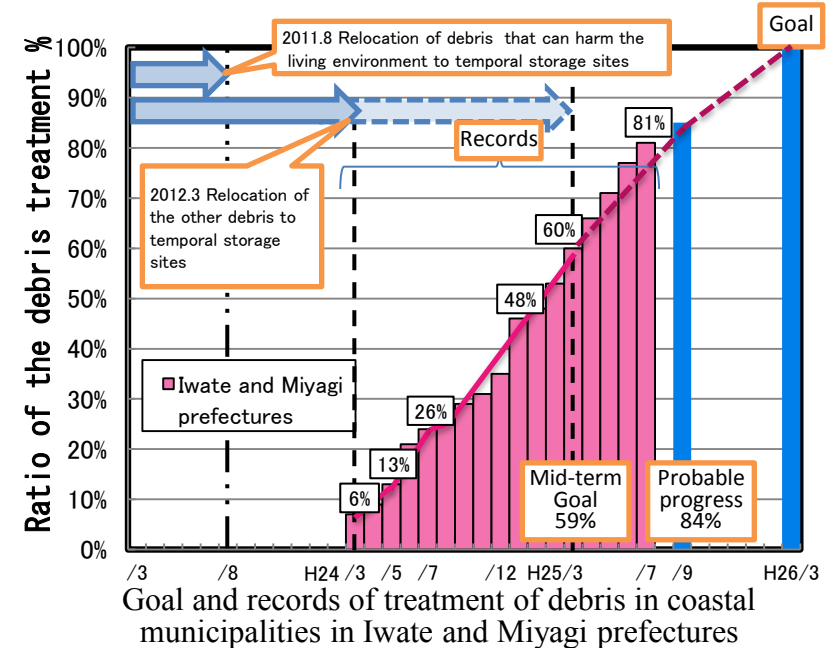
## 3 most affected prefectures (excludes Evacuation Area)

### (1) Debris

- Progress of treatment of debris in coastal municipalities is: 69% (Iwate), 86% (Miyagi), 54% (Fukushima) [79% (3 prefectures)]
- Treatment ratio of debris is over 90% in Hirono-town, Fudai-village, Tanohata-village. And Ishinomaki-block's treatment ratio of debris is over 80%, too.
- Treatment of debris has progressed steadily. For example, treatment ratio of debris is over 80% in coastal municipalities which have about 60% of the estimated quantity.

### (2) Tsunami deposit

- Progress of treatment of tsunami deposit is: 44% (Iwate), 64% (Miyagi), 30% (Fukushima) [55% (3 prefectures)]
- Having progressed the installation of treatment facilities, treatment of tsunami deposit has progressed steadily.



Progress on treatment of debris from coastal municipalities as of the end of July 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                |               | Probable progress (Sep) (%) | Estimated quantity (10 thousand t) | Treatment                |               | Probable progress (Sep) (%) |                                |
|              |  |                                    | Quantity (10 thousand t) | Ratio (%)     |                             |                                    | Quantity (10 thousand t) | Ratio (%)     |                             |                                |
| Iwate        | 527  | 377                                | 261(237)                 | 69(63)        | 78                          | 150                                | 66(52)                   | 44(35)        | 56                          | 41                             |
| Miyagi       | 1,765  | 1,060                              | 910(857)                 | 86(82)        | 87                          | 705                                | 450(408)                 | 64(59)        | 76                          | 58                             |
| Fukushima    | 337  | 171                                | 93(86)                   | 54(50)        | —                           | 166                                | 50(43)                   | 30(23)        | —                           | 29                             |
| <b>Total</b> | <b>2,629</b>   | <b>1,608</b>                       | <b>1,263(1,181)</b>      | <b>79(74)</b> | —                           | <b>1,021</b>                       | <b>566(503)</b>          | <b>55(49)</b> | —                           | <b>128</b>                     |

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

## Treatment in affected areas

- Approx. 93% of debris has been removed to temporary storage sites. 13 municipalities finished removal of debris. The number of temporary storage sites has decreased to 128 (40% 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.
- As a result of having clarified the schedule of treatment in Fukushima, the debris and tsunami deposit is to be removed steadily to temporary storage sites by March, 2013. The treatment after removing to temporary storage sites is also to be promoted as soon as possible by March, 2013 and, regarding some areas where the debris and tsunami deposit has been generated in large quantity, it is to be promoted as early as possible by March, 2014 as the goal.
- Treatment undertaken by national government is to be promoted steady treatment in order to complete as early as possible, depending on situations of location place and agreement about temporary incinerators (treatment in Shinchi town and Soma city is to be treated by March, 2014).

## 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 (0.65 million tons). All arrangement of cooperation has finished.
- 83 projects in 17 prefectures have already started and treated 0.45 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 Shizugawa fishing port south-side breakwater restoration work in Minamisanriku-town (Miyagi).
- Recycled materials from debris are being used in public works, implemented by the central government, prefectures, and municipalities.



Shizugawa fishing port south-side breakwater restoration work

Major public works using recycled material from debris

|           | Projects                                | Recycled material                  | Quantity (including plan) |
|-----------|---|------------------------------------|---------------------------|
| Iwate     | Coastal or river embankment restoration | Concrete debris                    | 20                        |
|           | Disaster prevention forests restoration | Tsunami deposit<br>Concrete debris | 20                        |
|           | Agricultural field restoration          | Tsunami deposit<br>Concrete debris | 67                        |
|           | Park restoration                        | Tsunami deposit                    | 22                        |
|           | Fishing port projects                   | Concrete debris                    | 14                        |
|           | Temporary storage sites                 | Concrete debris                    | 32                        |
|           | Others                                  | Tsunami deposit<br>Concrete debris | 91                        |
| Miyagi    | Coastal or river embankment restoration | Tsunami deposit<br>Concrete debris | 63                        |
|           | Disaster prevention forests restoration | Tsunami deposit<br>Concrete debris | 106                       |
|           | Agricultural field restoration          | Tsunami deposit<br>Concrete debris | 15                        |
|           | Park restoration                        | Tsunami deposit<br>Concrete debris | 219                       |
|           | Fishing port projects                   | Concrete debris                    | 28                        |
|           | Temporary storage sites                 | Concrete debris                    | 81                        |
|           | Others                                  | Tsunami deposit<br>Concrete debris | 127                       |
| Fukushima | Coastal embankment restoration          | Concrete debris                    | 9                         |
|           | Park restoration                        | Tsunami debris                     | 16                        |
|           | Others                                  | Tsunami debris                     | 11                        |

## 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.
- For the debris and tsunami deposit in Fukushima prefecture, strengthen of management of monthly progress and promote steady treatment with referring goal pursuant to a newly set prospect of treatment.
- Secure storage sites of recycled materials and promote detailed arrangement for the usage with authorities of reconstruction projects according to tsunami deposit treatment plan.