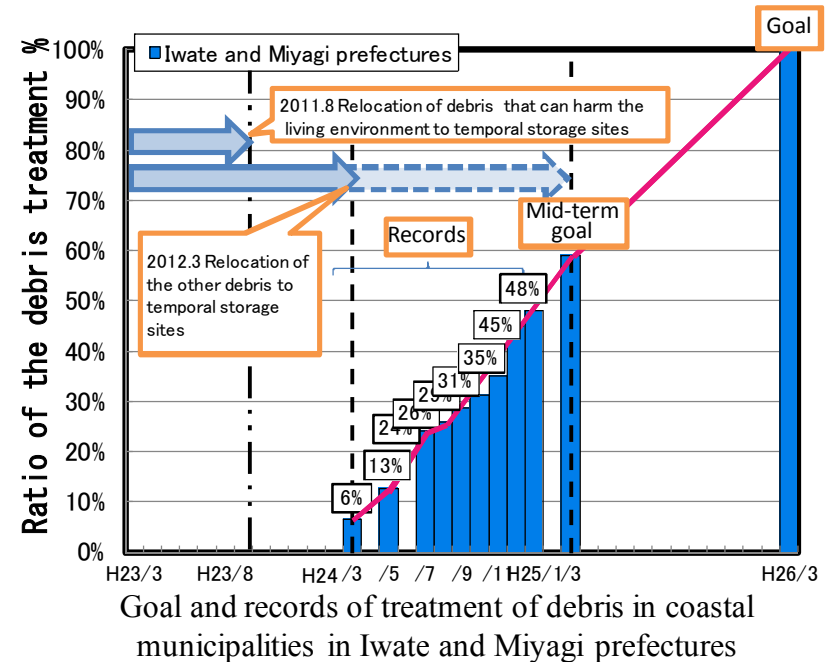


Progress on treatment of debris by the Great East Japan Earthquake (in coastal municipalities of the three most affected prefectures)

2013.2.22 Ministry of the Environment

Treatment of debris and tsunami deposit

- Progress of treatment of debris in coastal municipalities of the three most affected prefectures is:
39% (Iwate), 51% (Miyagi), 31% (Fukushima).
- In Miyagi prefecture, more than half of the generated debris has been treated. Rifu-town finished the treatment.
- In Iwate prefecture, the progress of treatment was limited due to severe weather conditions, and the progress will continue to be limited until spring.
- Both prefectures have already established treatment facilities and advanced the arrangement of cooperation from non-affected areas. Therefore, the treatment of debris is likely to be completed by the end of March, 2014.
- The treatment of tsunami deposit was limited due to the delay of installation of facilities and the arrangement of use of recycled materials as well as the influence of severe weather conditions.



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

- Although the progress will continue to be limited until spring, the treatment of tsunami deposit is likely to be finished using the established facilities by the end of March, 2014

| 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 (%) | Midterm goal (%) | | Quantity (10 thousand t) | Ratio (%) | Midterm goal (%) | |
| Iwate | 525 | 366 | 142(129) | 39(35) | 58 | 159 | 14(13) | 9(8) | 50 | 63 |
| Miyagi | 1,830 | 1,103 | 563(530) | 51(48) | 59 | 728 | 171(157) | 24(22) | 40 | 105 |
| Fukushima | 313 | 160 | 49(46) | 31(29) | — | 153 | 3(3) | 2(2) | — | 31 |
| Total | 2,669 | 1,628 | 754(705) | 46(43) | — | 1,040 | 189(173) | 18(17) | — | 199 |

※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 December, 2012.

Treatment in affected areas

- Approx. 90% of debris has been removed to temporary storage sites. Each municipality is implementing the removal based on the request of demolition of houses and groundworks from owners. The removal is to be finished by March, 2013.
- In Iwate and Miyagi prefectures, all the 31 temporary incinerators have been installed by the end of January, 2013.
- Treatment facilities for tsunami deposit, which have been delayed so far, have already started operation. Three additional facilities will be established in near future.
- In Fukushima prefecture, the operation of three temporary incinerators have been started in late February, 2013 by the central government as the alternate implementer of the treatment.



Temporary incinerators in Soma city, Fukushima
(Operation started on Feb.20, 2013)

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 (0.69 million tons). The arrangement of cooperation has finished 0.62 million tons.
- 65 projects in 15 prefectures have already started and treated 0.25 million tons of debris.
- Hachioji city (Tokyo), Osaka city (Osaka), and Sanjo city, etc (Niigata) started treatment in early January, late January, in mid February, respectively.



Ishinomaki Port embankment project
(Landfill started on Feb.20, 2013)

Recycling etc.

- Recycled materials started to use in road restoration project in Miyako city (Iwate) from late January. Ishinomaki Port Embankment project has started the treatment by landfill of debris, etc. from late February.
- Recycled materials from debris are being used in public works implemented by the central government, prefectures, and municipalities.

Approaches toward the goal

- Complete arrangement of all debris treatment including cooperation from non-affected areas by March, 2013.
- Promote the arrangement of the use of recycled materials in reconstruction projects.

Major public works using recycled material from debris

| | Projects | Recycled material | Quantity (including plan) |
|-----------|-----------------------------------------|------------------------------------|---------------------------|
| Iwate | Disaster prevention forests restoration | Tsunami deposit | 21 |
| | Coastal embankment restoration | Concrete debris | 21 |
| | Agricultural field restoration | Tsunami deposit Concrete debris | 10 |
| Miyagi | Coastal embankment restoration | Tsunami deposit Concrete debris | 43 |
| | Disaster prevention forests restoration | Tsunami deposit Concrete debris | 33 |
| | National park restoration | Tsunami deposit Concrete debris | 7 |
| | Fishery port projects | Concrete debris | 14 |
| | Memorial park project | Tsunami deposit Concrete debris | 36 |
| Fukushima | Coastal embankment restoration | Concrete debris | 9 |

Conversion factor(t/m³) : Concrete debris (2.35), Tsunami deposit (1.8) Unit: 10 thousand t