Recovery from the 3.11 Great East Japan Earthquake and Tsunami

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Ministry of Internal Affairs and Communications
Government of Japan
3.11 Great East Japan Earthquake

- March 11 15:08 M7.4
- March 7 23:32 M7.2
- March 11 14:46 Mw 9.0
- March 9 11:45 M7.3
- March 11 15:25 M7.5
- March 11 15:15 Mw 7.7
- March 12 4:47 M6.4
- April 11 17:16 M7.1
- March 23 7:12 M6.0
- March 12 3:59 M6.7
- March 15 22:31 M6.4
# Human and Physical Damage

<table>
<thead>
<tr>
<th>Earthquake Magnitude:</th>
<th>Mw 9.0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Casualties:</strong></td>
<td></td>
</tr>
<tr>
<td>Deceased:</td>
<td>15,884</td>
</tr>
<tr>
<td>Unaccounted for:</td>
<td>2,633</td>
</tr>
<tr>
<td>Injured:</td>
<td>6,148</td>
</tr>
<tr>
<td><strong>Building damage</strong></td>
<td></td>
</tr>
<tr>
<td>Totally destructed:</td>
<td>127,302 units</td>
</tr>
<tr>
<td>Severely damaged:</td>
<td>272.849 units</td>
</tr>
<tr>
<td>Partially damaged:</td>
<td>748,777 units</td>
</tr>
<tr>
<td><strong>Economic damage</strong></td>
<td>approx. 16.9 trillion JPY (approx. 199 billion USD)</td>
</tr>
</tbody>
</table>

- The World Bank estimated that the economic cost could reach up to 23.5 billion dollars
Quick recovery of infrastructure

Quake-resistant technology and quick recovery of infrastructure is the key to not only effective response but also long-term recovery:

Source) Reconstruction Agency
The number of evacuees has decreased from 470 k to 267 k approximately.

The number of families housed in temporary housing also has decreased.

Rebuilding permanent houses has been gradually picking up.

Source) Reconstruction Agency
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 11, 2011</td>
<td>Great East Japan Earthquake occurred</td>
</tr>
<tr>
<td></td>
<td>Extreme Disaster Management Headquarters set up</td>
</tr>
<tr>
<td>April 11, 2011</td>
<td>Reconstruction Design Council set up (an advisory panel of intellectual figures)</td>
</tr>
<tr>
<td>May 2, 2011</td>
<td>the 1st supplementary budget totaling 4.01 trillion JPY (42.2 billion USD) passed</td>
</tr>
<tr>
<td>June 24, 2011</td>
<td>Basic Act on Reconstruction went into effect</td>
</tr>
<tr>
<td></td>
<td>Reconstruction HQs in Response to the Great East Japan Earth (headed by PM) was established: also decided to establish the Reconstruction Agency that plays the role of coordination</td>
</tr>
<tr>
<td>June 25, 2011</td>
<td>Reconstruction Design Council’s submitted its recommendations entitled “Towards Reconstruction: Hope beyond the Disaster”</td>
</tr>
</tbody>
</table>
Chronology

July 25, 2011  The 2nd supplementary budget, totaling 1.91 trillion JPY (20.1 billion USD) passed

July 29, 2011  Reconstruction HQs decided “Basic Guidelines for Reconstruction” to provide a blueprint for the overall reconstruction process (10 years for the reconstruction period, 23 trillion yen required over 10 years, etc.)

Nov. 21, 2011  the 3rd supplementary budget totaling 9.24 trillion JPY (97.2 billion USA) passed

Nov. 30  The Reconstruction Funding Act

Dec. 6, 2011  the Act on the Establishment of the Reconstruction Agency was passed in the Diet (Parliament)

Dec. 7, 2011  The Act on Special Zone for Reconstruction

Feb. 10, 2012  Reconstruction Agency established with a 10 year mandate and began operations
Reconstruction agency

✓ The Reconstruction Agency is the principal agency for leading and managing the reconstruction process.

✓ The Agency's main role is to accelerate structural reconstruction and revitalization in the affected areas, by supporting implementation of government policies and managing coordination of reconstruction strategy and initiatives between various branches of government at a national level and with local municipalities.

✓ Headed by the Prime Minister, the Agency is led by Minister for Reconstruction Takumi Nemoto and currently employs more than 330 people.

Source: Reconstruction Agency
Reconstruction Agency and its regional bureaus

Source) Reconstruction Agency
Framework for Reconstruction

TIME FRAME
• A total of 10 years with the first 5 years as the intensive reconstruction period

MEASURSESS TO BE IMPLEMENTED
• For recovery and reconstruction of the disaster-affected areas and restoration of livelihood of people affected by the disaster
• For areas closely connected with those afflicted by the disaster to be taken in coordination with the aforementioned measure
• Nationwide disaster prevention and reduction that require urgent action

BUDGET SCALE (rough estimates)
• Not less than 23 trillion in the next 10 years (19 trillion in the first 5 years)

SUPPORT FOR RECONSTRUCTION
• a system of “Special Zones for Reconstruction”
• easy-to-use grants for reconstruction projects planned by local governments
• Collaboration with the private sector for reconstruction

Source) Reconstruction Agency
Grants for Reconstruction

Objectives: To support town rebuilding undertaken on the basis of the reconstruction plans formulated by local governments and accelerate reconstruction.

Features: The grants are intended to enable swift and flexible implementation by choosing necessary projects for reconstruction. All expenses will be borne by the central government (through additional national subsidy and local allocation tax).

Core Projects:
- Road development
- School facilities development
- Agricultural area development
- Land readjustment
- Earthquake-resistant hospital development
- Fishery village development
- Collective relocation projects for disaster prevention
- Collective relocation for disaster prevention

Associated Projects:
Projects proposed by municipalities in connection with the Core Projects.

Up to 35% of the funds allocated for the Core Projects.

Source: Reconstruction Agency
A package of special measures relevant to regulations/procedures, taxation, financial and fiscal assistance and land-use restructuring are available upon the approval of the Plan for Special Zones for Reconstruction developed by local governments.

**Regulations and Procedures**
- Reduced requirements to be eligible for public housings
- Special measures in agricultural land conservation for development of facilities for food/forestry/fishery processing and sales

**Tax breaks**
- Special depreciation/Tax credit
- Tax credit equivalent to 10% of the combined amount of salaries and other payments for employees from severely damaged areas
- Exemption from corporate tax for 5 fiscal years for new enterprises and so forth

**Financial and fiscal assistance**
- Grants for Reconstruction
- Interest Rate Compensation for reconstruction projects

**Land use restructuring**
- Special arrangements for land use restructuring beyond existing land use frameworks (urban area, farming area, forests, etc.)
- Relaxed requirements for floor area ratio for buildings construction aimed at evacuation from tsunami

Source: Reconstruction Agency
Approved Plans on Tax Breaks for Special Zones for Reconstruction

© Aomori
1. Tax breaks and relaxation of green belt regulations for manufacturers
© Iwate
2. Tax breaks for manufactures
© Kamaishi
3. Tax breaks for commerce, tourism and service industries
© Miyagi
4. Tax breaks for manufactures
5. Tax breaks for agricultural industries
6. Tax breaks for information technologies
© Ishinomaki
8. Tax breaks for service industries
9. Tax breaks for tourism etc.
10. Tax breaks high-quality residences.
© Shiogama
11. Tax breaks and financial incentives for tourism industries
© Sendai
13. Tax breaks for agricultural industries
14. Tax breaks for aquarium and commerce
© Fukushima
15. Tax breaks for manufactures
© Iwaki
17. Tax breaks for tourism etc.
© Ibaraki
18. Tax breaks for manufactures

Source) Reconstruction Agency
Rebuilding measures

Collective household relocation

Land readjustment

Public housing development

24 municipalities
245 districts

20 municipalities
58 districts

26,000 houses
Over 20,000 houses

3 municipalities
3 districts

5 municipalities
20 districts

Great Hanshin-Awaji Earthquake (average project term: 8 years)
Great East Japan Earthquake

Great Hanshin-Awaji Earthquake (project term: 6 years)
Great East Japan Earthquake

Unprecedented scale of devastation results in a massive amount of projects

Source) Reconstruction Agency
Progress of Reconstruction

**Rebuilding of houses and reconstruction of towns and communities**

- **Clearing of debris / finished:** 34% (Nov. 2012) to 94% (Oct. 2013)
- **Relocation / Consent obtained:** 81% (Dec. 2012) to 100% (Nov. 2013) / Commenced: 64% (Nov. 2013)
- **Land readjustment / project developed:** 27% (Dec. 2012) to 94% (Nov. 2013) / Commenced: 65% (Nov. 2013)

Source: Reconstruction Agency
Progress of Reconstruction

Regeneration of industries and livelihoods

- Agricultural land recovered: 38% (Dec. 2012) to 63% (Dec. 2013)
- Fish processing facilities recovered: 69% (Dec. 2012) to 78% (Sep. 2013)
- Temporary stores/factories: 868 stores/factories were built (Nov. 2013)

Source) Reconstruction Agency
Collective Relocation Projects in coastal areas of Sendai City

Newly developed sites for relocation

Relocation Promotion sites

Source) Reconstruction Agency
Source) Reconstruction Agency
Evacuation from Restricted Areas

Evacuees in Fukushima
- Approx. 154,000 persons in total
  - (1) Inside Fukushima: Approx. 97,000 persons
  - (2) Outside Fukushima: Approx. 57,000 persons

Other areas such as Yamagata Prefecture have also evacuees.

Evacuees from Evacuation Order Area
- Approx. 107,000 persons in total
  - Areas with no restrictions on new business or entry: Evacuation order ready to be lifted: Approx. 33,000 persons
  - Areas with restrictions still in place:
    - Deliberate Evacuation Area: Approx. 1,000 persons
    - Residents are not allowed to live in: Approx. 25,000 persons
    - Long-term evacuation inevitable: Approx. 25,000 persons

It is to be noted that the status of the aforementioned evacuation order area is expected to be downgraded to the one with fewer or no restrictions, thereby enabling new businesses to be operated.

Review of zoning for all the municipalities except Kawamata-Machi has been completed.

Area where estimated radiation level is less than 20 mSv/y
Area where continued evacuation is required in the interests of minimized radiation exposure on the grounds that estimated annual radiation may exceed 20 mSv/y
Area with the current radiation exceeding 50 mSv/y, thus it is anticipated that estimated annual radiation five years later may exceed 20 mSv/y.

Source) Reconstruction Agency
Conclusion

• “Acceleration of reconstruction is one of the top priorities of the current administration, together with economic revitalization and crisis management” said Takumi NEMOTO, Minister of Reconstruction;

• Clearing debris and rebuilding infrastructures have been in good progress while rebuilding public houses to accommodate those who lost their homes and relocation of residential areas to safer places (often higher ground) are taking longer time than envisaged due to various reasons, most notably the difficulty of securing appropriate land, but gradually moving forward;

• Regenerating indigenous industries and maintaining community’s socio-economic vitality are a challenge particularly for small coastal communities that had faced population decline and ageing even before the 2011 disaster;

• Massive evacuees from the areas affected by the crippled nuclear power plant in Fukushima Prefecture represent a special challenge as the evacuation of some areas is likely to continue long.

For more details, please go to the website of the Reconstruction Agency http://www.reconstruction.go.jp/english/