Social Protection and Natural Disasters

Disasters

Shoichi Tawaki
Director, Crisis Management Department
City of Sendai, Japan
1. About Sendai City: Damage from the Earthquake and Tsunami in 2011
2. National laws and policies on Emergency Social Assistance
3. Institutional Arrangement for Emergency Social Assistance
4. Bolt and nuts for emergency social assistance (Horizontal Expansion)
5. Expanding support for most vulnerable (Vertical Expansion)
6. From lessons learned - Toward Resilient Sendai city-
Sendai City Overview

[1] Sendai city profile
With a population of one million, Sendai is the largest city in the Tohoku region. Constructed by Date Masamune in 1601, the city prospered as the home of a powerful feudal clan’s castle, and grew as the center of government, economy, academia and culture in the Tohoku region.

[2] Demographics (Jan. 1, 2018 estimate)
Population: 1,087,091 persons; 509,617 households
Administrative districts: Five (Aoba-ku, Miyagino-ku, Wakabayashi-ku, Taihaku-ku and Izumi-ku)

• Area: 784 sq. km (roughly 50 km west to east, and 30 km north to south)
• Its western region consists of mountainous terrain at elevations in the 1,000 meter range (mostly mountain forests).
• Its central region consists of hilly terrain, through which the Nanakitagawa River, Hirosegawa River and Natorigawa River flow eastward (mostly urban and residential areas).
• Its eastern region consists of lowlands (mostly agricultural [partly urban] areas).
Sendai City has been taking Disaster Risk Management (DRM) measures based on the lessons of past earthquake disaster.

1978 Earthquake off the Coast of Miyagi

5:14 p.m., June 12, 1978: Earthquake with a magnitude of 7.4

Damage & Loss

- Deaths: 16, Injuries: 10,119
- Residential damage: 4,385 completely or partially destroyed; 86,010 partially damaged

Learning from the past: Countermeasures taken after this earthquake

- Earthquake resistance upgrades for buildings and infrastructures (especially for public buildings – i.e. schools)
- Improving citizen’s awareness of disaster preparedness (volunteer DRM organizations, DRM drills for kids, citizens)
Although the disasters in 2011 was over our expectation, ex-ante measures mitigated loss & promoted recovery.

2011 Great East Japan Earthquake

2:46 p.m., March 11, 2011: Earthquake with a magnitude of 9.0
Tsunami reached 7.1 meters at Sendai Port

Damage & Loss (as of March 1 2017)
• Deaths: 904, Missing: 27
• Serious injuries: 276; Minor injuries: 1,999
• Damage to buildings: 30,034 completely destroyed; 27,016 major parts destroyed; 82,593 partially destroyed; 116,046 partially damaged

Mitigated damage by countermeasures after the past disaster
• Deaths from collapsing cinder block walls: 0
• Deaths of school children under school supervision: 0
• Quick recovery of waterworks in 18 days (full recovery in one month) (excluding districts with tsunami or landslide damage)
• Quick recovery of gas in roughly one month
• Voluntary (mutual aid) actions taken by community residents proved to be highly effective in evacuation shelter operations and neighborhood watches for victims who remained at home.
The National DRM Act draws a framework for all related acts on Disaster Response and Emergency Social Assistance (SA).

- **Ex-ante**
  - Preparedness/Mitigation
    - Framework
      - National DRM Act
    - Disaster Type base
      - Tsunami countermeasures Act
      - Volcanic eruption countermeasures Act
      - Nuclear Accident countermeasures Act
      - Earthquake countermeasures Act
      - River Act
      - Acts related to landslide, Heavy snow, debris flow
      - Acts against specific earthquakes
      - Acts for promoting countermeasures
    - Response Framework
      - Flood countermeasure Act
      - Disaster Relief Act
    - Supporting Arrangement
      - Fire Service Act
      - Police Act
      - Self Defense Forces Act

- **Ex-post**
  - Recovery/Reconstruction
    - Supports to victims
      - National Financial arrangement
        - Act on Special Financial Support to deal with the Designated Disaster of Extreme Severity
      - Instruments for Supporting victims
        - Acts for financial supports for recovery
        - Acts for Instrument programs i.e. Cash transfers, unemployment
      - Insurance
        - Acts for Insurances i.e. earthquake, agriculture, forest
      - Tax waiver
      - Acts for Tax waiver for victims
In-kind support is major for response, while financial support begins for recovery of livelihoods considering the different situation and needs of affected households.

### Situation/Needs

<table>
<thead>
<tr>
<th>Response</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent needs for temporarily assure lives</td>
<td>Building damage, Human Loss</td>
</tr>
<tr>
<td>Become physically impaired (Disability)</td>
<td>Need support for kids</td>
</tr>
<tr>
<td>Lost jobs</td>
<td>Not affordable to pay taxes</td>
</tr>
<tr>
<td>Cannot maintain an own life (New chronic poverty)</td>
<td>Need temporary budget for living and recovery</td>
</tr>
</tbody>
</table>

### Supporting instruments

<table>
<thead>
<tr>
<th>Supporting instruments</th>
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</thead>
<tbody>
<tr>
<td>In-kind transfers for all victims</td>
</tr>
<tr>
<td>Unconditional Cash transfer</td>
</tr>
<tr>
<td>Unconditional Cash transfer</td>
</tr>
<tr>
<td>Conditional Cash transfer for enrollment and necessary items, Interest-free loan options</td>
</tr>
<tr>
<td>Unconditional/Conditional Cash transfer, Cash for Work with trainings</td>
</tr>
<tr>
<td>Tax reduction and exemption</td>
</tr>
<tr>
<td>Conditional Cash transfer</td>
</tr>
<tr>
<td>Interest-free loan options</td>
</tr>
</tbody>
</table>
To identify eligible households, implemented damage survey effectively using aerial photos and field survey.

• This is to promptly expand the coverage of beneficiaries after a disaster.

Sendai city took steps to expedite the process of damage survey by utilizing aerial photography and simplifying the survey items.

• The certificate of damage will be the base for post-disaster support.

• Survey criteria are based on Cabinet Office guidelines and other guidelines.

Earthquake damage

- Inland urban areas
  - Mixture of completely and partially destroyed properties
  - Most properties completely destroyed

- Regions with damage sustained (solely) from the earthquake

- Coasts
  - Sendai Tobu Road
    - Regions with mixture of earthquake and tsunami damage
    - (Regions with damage other than from the earthquake, such as flooding)
  - Shiogama-Watari prefectural road
    - Regions primarily with tsunami damage
      - (Regions with catastrophic tsunami damage)

Survey method

- Primary: Visual
- Secondary: On-site survey (Disaster information, degree of immediate danger, Teage [self-nomination] method)
- Self-diagnostic method

- Overall visual surveys by district
- On-site interior survey of individual sites
- Using aerial photography and GIS

Survey method

- Overall visual surveys (overview study)
- Using aerial photography and GIS

8 March 2018
Developed unified management system with GIS to link existing information (i.e. building /land ownerships) and damage & loss data

- A system was developed for managing information on damaged buildings, including results from building damage certification surveys, and this system was implemented in all districts and the central branch to expedite the issuance of disaster victim certificates.
- GIS data from the real estate tax section was utilized in building damage certification surveys.
- The entire process from reception and survey to certificate issuance was vertically managed on this system to accommodate fluctuations in demand.

Applications (per week)

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000</td>
<td>60,000</td>
<td>10,000</td>
<td>4,500</td>
<td>2,500</td>
<td>90,000</td>
</tr>
</tbody>
</table>

Applications processed over time

Disaster strikes

Phase I

- General affairs sections at regional Disaster Control HQs
- With support from the tax affairs and tax payment section

Phase II

- Tax affairs and tax payment section
- Urban development department
- Other departments
- Other municipalities
- National and prefectural governments

Phase III

- Tax affairs and tax payment section
- Urban development department
- Other municipalities
- National and prefectural governments

Preparations by general affairs sections at regional Disaster Control HQs

With support from the tax affairs and tax payment section

Preparations and seminars held by the tax affairs and tax payment section

General affairs sections at regional Disaster Control HQs

Preparations and seminars held by the tax affairs and tax payment section

General affairs sections at regional Disaster Control HQs

Issuance
Following up after recovery assistances: Targeting vulnerable households left from recovery

Households still living in the emergency temporary housing

<table>
<thead>
<tr>
<th>Category</th>
<th>Jan. 1, 2016</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefab temporary housing</td>
<td>402 households</td>
<td>9.4%</td>
</tr>
<tr>
<td>Leased private rental housing</td>
<td>3,746 households</td>
<td>87.1%</td>
</tr>
<tr>
<td>Leased public rental housing</td>
<td>192 households</td>
<td>4.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,340 households</strong></td>
<td></td>
</tr>
</tbody>
</table>

Number of households in temporary housing

<table>
<thead>
<tr>
<th>Date</th>
<th>Prefab temporary housing</th>
<th>Leased private rental housing</th>
<th>Leased public rental housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of March 2012</td>
<td>825</td>
<td>9,838</td>
<td>1346</td>
</tr>
<tr>
<td>Oct. 2012</td>
<td>789</td>
<td>9,140</td>
<td>1,263</td>
</tr>
<tr>
<td>April 2013</td>
<td>737</td>
<td>8,476</td>
<td>1,170</td>
</tr>
<tr>
<td>Oct. 2013</td>
<td>711</td>
<td>7,714</td>
<td>1,086</td>
</tr>
<tr>
<td>April 2014</td>
<td>680</td>
<td>7,201</td>
<td>1,020</td>
</tr>
<tr>
<td>Oct. 2014</td>
<td>390</td>
<td>6,264</td>
<td>843</td>
</tr>
<tr>
<td>April 2015</td>
<td>350</td>
<td>5,815</td>
<td>771</td>
</tr>
<tr>
<td>Oct. 2015</td>
<td>251</td>
<td>4,214</td>
<td>544</td>
</tr>
<tr>
<td>Jan. 2016</td>
<td>192</td>
<td>3,746</td>
<td>402</td>
</tr>
</tbody>
</table>

Individual visits to understand living situation at each household

- **Survey was conducted throughout the city** by city office employees and livelihood rehabilitation support staff
- **Consultation visits** performed by livelihood rehabilitation support staff, which initially began as visits to collect survey forms and for follow up, were upgraded to full-fledged operations in fiscal 2012, and **individual visits to households living in temporary housing** in the city began in October the same year.
Continued recovery support in align with regular social welfare support to targeted vulnerable households

- **Home rebuilding is a common issue** for households living in temporary housing, and in all cases, this **must be achieved within the limited terms of provision**.

- Meanwhile, **households that require day-to-day support**, including health and welfare related support, **must be given support based on a long-term perspective, regardless of progress with home rebuilding**.

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Highlighted were the qualitative differences between

- **support for home rebuilding**
- **day-to-day support**.

With the disaster victim livelihood support section taking primary charge of home rebuilding support, the ward office and other organizations were able to focus on **day-to-day support**, community support and other areas of support.
Categorization-based support promoted recovery of affected households

Four categories of households based on Capacity of recovery & Needs for regular supports

- Category 1: Households able to rebuild their livelihoods
  - Low Needs for regular supports
  - High Capacity of home rebuilding
  - Support common to all households including those who are able to rebuild their livelihoods
  - Survey and verification
  - Information dissemination
  - Support for taking residence in public housing
  - Counseling and support for home rebuilding

- Category 2: Households receiving day-to-day support
  - Low Capacity of home rebuilding
  - High Needs for regular supports
  - Individual visits
  - Healthcare support
  - Watch-over and day-to-day counseling
  - Utilization of regional healthcare and welfare services

- Category 3: Households receiving home rebuilding support
  - High Capacity of home rebuilding
  - Low Needs for regular supports
  - Individual visits by livelihood rehabilitation support staff
  - Healthcare support by a public health nurse
  - Watch-over and day-to-day counseling
  - Utilization of regional healthcare and welfare services
  - Accompaniment support for taking residence in private rental housing
  - Counseling and support in collaboration with an attorney

- Category 4: Households receiving day-to-day support and home rebuilding support
  - High Capacity of home rebuilding
  - High Needs for regular supports
  - Accompaniment support for taking residence in private rental housing
  - Employment support
  - Survey and verification
  - Information dissemination
  - Support for taking residence in public housing
  - Counseling and support for home rebuilding

Support slanted for individual support

Roughly 96% of the households have rebuilt after starting continuous support.

- Apr. 2014: 8,507 households
  - 5,589 households (Category 1)
  - 24 households (Category 4)

- Dec. 2017: 380 households
  - 319 households (Category 2)
  - 33 households (Category 3)

Table:

<table>
<thead>
<tr>
<th>Date</th>
<th>Total Households</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
</tr>
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<tbody>
<tr>
<td>Apr. 2014</td>
<td>8,507</td>
<td>5,589</td>
<td>24</td>
<td>319</td>
<td>24</td>
</tr>
<tr>
<td>Dec. 2017</td>
<td>380</td>
<td>319</td>
<td>33</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
From lessons learned  
-Toward Resilient Sendai City-

• Be Ready for Collaboration: Devastating disasters would exceed the capacity of well-prepared local governments  
  – Formulated wide-range support and support reception plans  
  – Supported other prefectures utilizing experiences

• Strengthen Support System for Vulnerable: The loss of the elderly and people with disabilities was enormous  
  – Revised the People Requiring Assistance Registration System

• Promote Community Resilience: Community-based Mutual aid played an important role in damage mitigation.  
  – Shared the list of above information with the communities and enhanced their activities

• Prepare with Gender Perspectives

• Promote Continuous Efforts - toward making Sendai a “Disaster-Resilient and Environmentally-Friendly City”