

ともに、前へ 仙台

Moving Forward As One SENDAI

Developing Sendai into a Disaster –resilient City : through Public-Private Cooperation Based on Experiences and Lessons from the Great East Japan Earthquake

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UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



Overview of Sendai City



JR Sendai Station



Tohoku Shinkansen

1) Overview of Sendai City

- Population: Over one million; the largest city in the Tohoku region
- Established as a castle town in 1601 by feudal lord Date Masamune
- The political, economic, academic, and cultural center of the Tohoku region

2) Population, etc. (as of May 1, 2014)

Population: 1,070,757 Households: 489,481
Administered Wards: 5 (Aoba, Miyagino, Wakabayashi, Taihaku, Izumi)

3) Geography

- Total land area: approx. 785 km² (approx. 50km from east to west; approx. 30km from north to south)
- The west is a mountainous region with an elevation of around 1,000m above sea level (mainly mountain forests).
- In the central area, there is a large hilly area with several rivers running through it, including the Nanakita River, Hirose River and Natori River (mainly urban and residential areas).
- Low-lying areas in the east (mainly agricultural land except the Sendai Port area)

The Great East Japan Earthquake (2011)

Date/Time

March 11, 2011 at 2:46 p.m.

Magnitude

9.0

Tsunami

Height: 7.2m (estimated)

Enormous tsunami damage



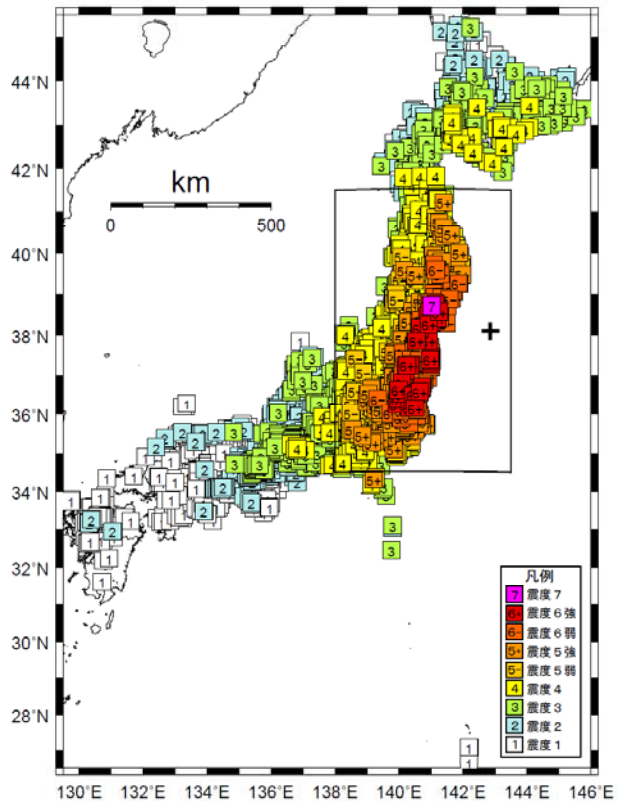
Completely collapsed and partially damaged houses: 139,643
Houses with minor damage: 116,046



Casualties: 913



Injuries: 2,275



Seismic intensity Map

Source: Japan Meteorological Agency



A village swept away by the tsunami (Near Fujita, Wakabayashi Ward)

Through our experiences in the disaster . . .

Our disaster countermeasures meant for an earthquake on the scale of the Miyagi-ken-oki Earthquake proved effective to some extent. However, some new issues were brought to light.

- In particular, the importance of **"Citizen Power"** in overcoming various difficulties in everyday life after the disaster emerged in diverse organizations such as local community organizations, NPOs and businesses.



Cooperation with community organizations such as neighborhood associations

- **Establishment of independent disaster-prevention organizations and implementation of disaster training in local communities**

Sendai has established and promoted independent disaster prevention organizations in local communities for the past 30 years.

There are 1,365 such organizations throughout the city (99% of neighborhood associations in the city have formed them.)

More than 1,100 disaster-prevention trainings are held annually.

- **Operation of evacuation centers immediately after the Great East Japan Earthquake**

Over 100,000 people evacuated to 288 evacuation centers in Sendai after the Great East Japan Earthquake.

Local community groups including neighborhood associations and residents' associations played a leading role in the operation of evacuation centers.

⇒ **An example of successful regular cooperation between city administration and local community organizations such as neighborhood associations**



A training session for operating an evacuation center.



Actual scene at an evacuation center.

Cooperation with NPOs and other public interest groups

-Organizing and utilizing disaster relief volunteers

The Sendai City Council of Social Welfare launched the Sendai City Disaster Relief Volunteer Center and utilized volunteers from around the country.

-Operating the Sendai Disaster Multilingual Support Center

The Sendai International Relations Association provided information in foreign languages via radio, website, blog, e-mail magazine and other media.

-Checking in on residents of temporary housing

A program was established to check in on residents of temporary housing. Sendai outsourced the program to the Personal Support Center organized by NPOs in Sendai.

Disaster Volunteer Center in
Wakabayashi Ward



Sendai Disaster Multilingual
Support Center



Checking in on residents of
temporary housing



Cooperation with businesses

-Agreements with private businesses

Sendai has concluded agreements with private businesses regarding measures to help stranded commuters and the provision of energy and supplies including food, clothing, and everyday sundries in times of disaster.

-Active role of small- and medium-sized local businesses

Regarding the provision of supplies, regardless of whether agreements were in place, many small- and medium-sized local businesses continued business using goods in stock and their own supply routes. They contributed to the alleviation of shortages of supplies caused by interruptions in the flow of goods and actively engaged in initial response and first aid including rescue operations and removal of debris.



Citizens lining up at the market (March 16, 2011)



Debris piled up at the Gamo storage site (April 18, 2011)

Public-private cooperation in disaster prevention in Sendai

Cooperation with businesses is an important theme for administration

▪ **Securing tsunami evacuation facilities**



In areas that are projected to flood in a tsunami, Sendai concluded agreements with private businesses to use their buildings as designated evacuation facilities. (The basic policy for tsunami evacuation was settled in March 2013.)

This tsunami evacuation tower owned by Nippon Steel & Sumikin Metal Products will be used as a designated evacuation facility through an agreement.

▪ **Establishing a distribution system for relief supplies**

By utilizing the expertise of private delivery companies, Sendai plans to establish a system for delivering supplies directly to evacuation centers.

Tago-Nishi Eco Model Town Project

(1) Building a community that is secure even in a disaster

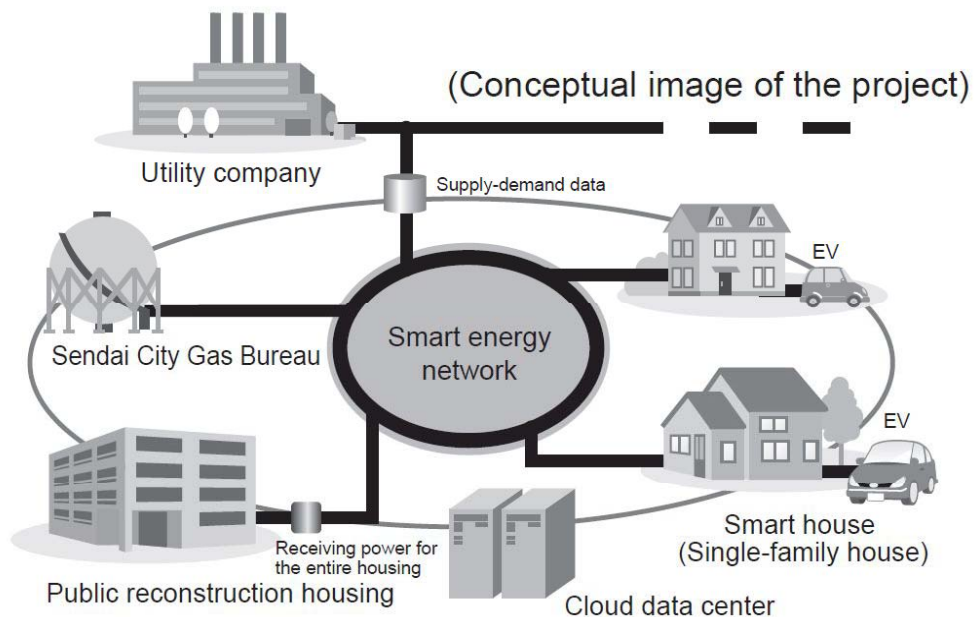
Secure sources of energy necessary during disasters

(2) Implementing the best mix of various types of energy such as sunlight, natural gas and storage batteries

Smart use of energy that doesn't rely on any one energy source

(3) Developing a community with participation from local residents, industry, academia and government

Develop new city planning initiatives that conserve energy



Perspective view of public reconstruction housing



Initiatives from the Sendai City Earthquake Disaster Reconstruction Plan

Model development project for a disaster-resilient Sendai to "learn from past disasters for the future"

● Reviewing the operation and functions of evacuation centers

- Consider the use of facilities other than public schools
- Develop new operation manuals
- Review stockpiles and the distribution of supplies, secure emergency power sources, and strengthen communication functions

● Educate on disaster prevention

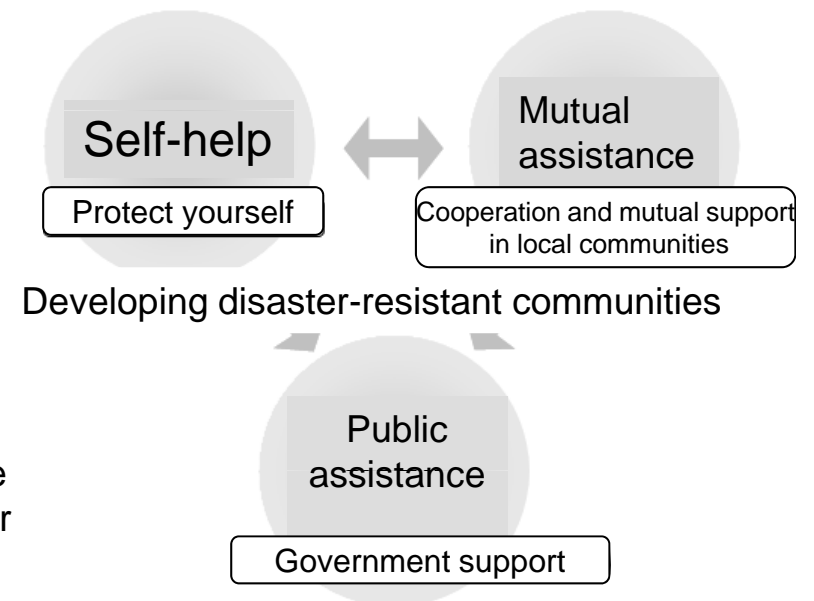
- Spread disaster awareness to promote individual self-help initiatives
- Promote disaster-prevention activities in local communities and cultivate "local disaster-prevention leaders"
- Promote new disaster-prevention education at schools

● Develop ties beyond community borders

- Promote cooperation with diverse organizations beyond community borders

● Accumulate and disseminate knowledge on disaster prevention

- Gather research results on the mechanisms that caused the recent earthquake and tsunami and knowledge on disaster response, recovery and reconstruction efforts



Hosting the 3rd UN World Conference on Disaster Risk Reduction

Decision to hold the 3rd WCDRR in Sendai

The UN General Assembly held on December 21, 2013 (December 20 New York time) decided that the 3rd WCDRR would be held in Sendai.

Dates	March 14 – 18, 2015
Overview	<ul style="list-style-type: none">• Inter-Governmental Segment and Multi-Stakeholder Segment Venue: New convention facility and Sendai International Center• Public Forum General forum, symposia and seminars, exhibitions (disaster risk reduction and recovery), trade displays (disaster risk reduction industry), etc.
	Venue: Tohoku University Centennial Hall (Kawauchi Hagi Hall), Sendai Civic Auditorium, Tokyo Electron Hall Miyagi, Sendai Mediatheque, etc. <ul style="list-style-type: none">• Social Event Welcome receptions, study tours, excursions, etc.

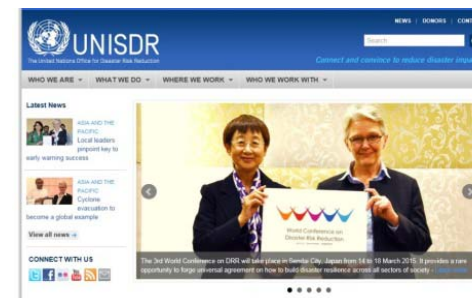


UNISDR WCDRR website
<http://www.preventionweb.net/wcdrr/home>

Sendai as a role model for disaster risk reduction

Sendai was recognized as a Role Model in the 2010-2015 World Disaster Campaign “Making Cities Resilient.” We have a duty to contribute to worldwide disaster risk reduction.

Sendai : A role model in promoting community-based disaster risk reduction and empowering people to act on disaster risk reduction.



UNISDR website
<http://www.unisdr.org/>

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Thank you very much.

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