Citizen and company participation in disaster risk reduction

[Background]

The Great East Japan Earthquake taught us the importance of ties between community members in saving lives by means of Self-help and Mutual aid, and the powerful role that good community relations serve in minimizing damage.

[Response]

The City of Sendai puts effort into improving local disaster preparedness by conducting comprehensive disaster drills, cultivating disaster risk reduction leaders, and providing citizens with lectures on the Sendai Framework for Disaster Risk Reduction through government-academia collaboration.

Disaster drill

1 Overview

To protect citizens' lives from earthquakes and tsunami waves by improving their disaster preparedness as a united community, we conduct about the same number of Self-help, Mutual aid, and Public assistance drills throughout the year.



▲ A disaster drill being conducted at an elementary school gymnasium designated as an evacuation center

2 Types of disaster drills

① Citizens Disaster Drill Day (June 12) <budget: approx. 1.3 million yen/year>

In commemoration of the 1978 Miyagi Earthquake, which occurred on June 12, the City of Sendai has designated June 12 as Citizens Disaster Drill Day, on which day workplaces and schools annually conduct shakeout drills by having employees and students practice protecting themselves by ducking under desks. On the same day, the City encourages workplaces and households to take measures to prevent furniture from toppling and also check their emergency supplies.

(2) Disaster Risk Reduction Day (beginning of September) < budget: approx. 2.4 million yen/year>

In commemoration of the 1923 Great Kanto Earthquake, which occurred on September 1, the City of Sendai conducts a stranded commuters' drill at the beginning of September during Disaster Preparedness Week to prepare itself for helping stranded commuters in case of a public transportation suspension by practicing setting up short-term refuge areas in commercial facilities.

3 Tsunami Preparedness Day (November 5) < budget: approx. 0.4 million yen/year>

On Tsunami Preparedness Day (i.e., World Tsunami Awareness Day), which is November 5, we conduct tsunami drills in tsunami hazard zones along the East coast. During the drills, tsunami alerts are issued, and participants practice climbing tsunami evacuation towers, which were built after the Great East Japan Earthquake.

4 Community disaster drills <budget: approx. 1.5 million yen/year>

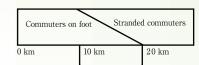
In addition to the disaster drills mentioned above, communities in Sendai City conduct disaster drills in collaboration with schools to enhance community disaster preparedness.

3 Stranded commuters drill <budget: approx. 2.4 million yen/year>

1 Stranded commuters

The term "stranded commuters" refers to people unable to return home because of public transportation suspension due to a disaster, such as long-distance commuters and travelers on business trips or vacation.

According to the central government, the stranded commuter issue arises when the distance between a commuter's home and destination exceeds 10 kilometers, and all commuters become unable to return home when this distance exceeds 20 kilometers.



2 At the time of the Great East Japan Earthquake

At the time of the Great East Japan Earthquake, the City of Sendai had no specific plan for helping stranded commuters, the number of which is estimated to have totaled about 14,000 people in and around transport hubs including Sendai Station. With no other place to go, most of these people sought shelter at designated evacuation centers, which became overcrowded and unable to function properly. In addition, rescue operations were hindered by traffic, which failed to reach home, due to destroyed roads and traffic signal blackouts caused by power failure.

3 After the Great East Japan Earthquake

Sendai City's revised regional disaster risk reduction plan promotes the following three measures.

[Preventing commuters from leaving for home all at once]

Since preventing commuters from leaving for home all at once proves effective in the aftermath of disasters, the City encourages companies/schools to inform employees/students of the need to remain at their workplaces/schools for a certain time before leaving for home.

[Securing short-term refuge areas]

The City of Sendai has an agreement (described below) with private companies on providing temporary evacuees with water and information, the City is grateful for its partner companies' understanding of the importance of our agreement and for the help they provide as community members fulfilling their CSR.

[Helping commuters walk home]

To help commuters walk home in case of a disaster, the City of Sendai has prepared itself by concluding agreements with a large number of convenience stores across the city on providing water, restrooms, and information.

4 Efforts to promote the preceding measures

Stakeholders have established liaison councils around Sendai Station and Nagamachi Station, developed policies on preventing commuters from leaving for home all at once and on assigning disaster response roles, and have been holding disaster preparedness drills regularly.

Disaster response agreements

1 At the time of the Great East Japan Earthquake

At the time of the earthquake, we had 116 agreements with private companies and professional organizations on aiding disaster recovery, supplying goods and fuel, and providing evacuation centers. In the aftermath of the earthquake, representatives from partner companies and organizations came to our aid, honoring our agreements, and greatly helped our city recover and rebuild itself.

2 After the Great East Japan Earthquake

Applying what it learned from the earthquake, the City of Sendai reinforced its disaster preparedness by concluding more agreements on tsunami evacuation buildings, evacuation centers for people with disabilities, and emergency supplies. The City has also concluded new types of agreements, including ones on helping stranded commuters, transporting and storing supplies, and helping provide consultation services in case of a disaster. The number of disaster response agreements has totaled 200 or more as of January 2020, ensuring help from companies with large-scale disaster recovery and restoration.



























Sendai City Community Disaster Preparedness Leader (SBL: Sendai *Bosai* [disaster prevention] Leader)
 | Leader | L

1 Overview

With the aim of improving the entire city's standards of disaster preparedness, the City of Sendai administers original training programs designed to cultivate SBLs, i.e., people who can serve key roles in voluntary disaster response activities.

2 Background

The City has had a high rate of voluntary disaster-response team creation (at about 95% as of April 2010). However, some issues have surfaced, including differences in activities performed by each team and members becoming tired of repeating the same training, which led to the need for cultivating leaders who can take charge of promoting their community's disaster response activities.

3 Beginning of the SBL system

The system began in FY 2012 (it was originally planned to begin in FY 2011; however, a need to reexamine tsunami evacuation methods arose, following the earthquake)

4 Number of leaders

About five for each evacuation center (i.e., union neighborhood association $^{\circ}$) with a goal of maintaining about 600 in total

*Each elementary school district usually has one neighborhood association (i.e., voluntary resident self-governance organization)

5 Certification

The training program comprises lectures, drills, and group discussions and is administered over two days to minimize the participants' burden. Completers are awarded a certificate and lent helmets and vests to wear during disaster response activities.

6 Activities

[Under normal circumstances] Developing their community's disaster risk reduction manual with attention to their community's circumstances, and designing and conducting drills

[During disasters] Guiding evacuees to safety, providing first-aid, and operating evacuation centers

7 Support

Ward and city-level backup training sessions are provided to help SBLs enhance their knowledge on disaster response, build networks with other SBLs, promote the SBL system to other community members, and encourage more women and younger people to become SBLs.



▲ A lecture on the basics of disaster response



▲ A drill on how to rescue a person trapped under a toppled building

Lectures on the Sendai Framework for Disaster Risk Reduction < budget: approx.1 million yen/year>

1 Overview

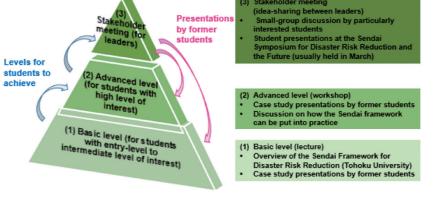
To help citizens improve their disaster preparedness by familiarizing themselves with the Sendai Framework for Disaster Risk Reduction 2015-2030 and to also accelerate our disaster risk reduction efforts, in FY 2016, Tohoku University's International Research Institute of Disaster Science and City of Sendai began collaborating in offering lectures targeting citizens.

2 Aim

Every year, to attract more stakeholders and help existing stakeholders steadily improve their knowledge and skills, the City of Sendai offers both basic and advanced level lectures designed to suit various interests. In addition, with the aim of encouraging citizens to develop a closeness with the Sendai Framework for Disaster Risk Reduction, the City creates opportunities for them to teach one another about the Framework by having former participants give presentations on their own experience. Furthermore, to help citizens enrich their activities concerning the Framework, the City invites people who serve active roles in their community's disaster response activities to stakeholder meetings and also offers delivery lectures on the Framework.

3 Images

Scheme for Offering a Lecture Series on the Sendai Framework for Disaster Risk Reduction





▲ A basic level lecture being held



▲ A advanced level lecture being held

4 Compiling a collection of case studies

Over the years since the City of Sendai began offering its lectures, a number of former participants have put what they learned to practice and passed their experience on to others. Subsequently, the City has held a number of meetings with them, with the aim of organizing their disaster risk reduction practices into a collection of case studies, which is currently being compiled in both English and Japanese under the title "Our BOSAI for the future—case studies of Sendai citizen's learnings from the Sendai Framework."

5 Sendai Framework Voluntary Commitments

In March 2019, our City's Lecture Series on the Sendai Framework for Disaster Risk Reduction was adopted by the UN Office for Disaster Risk Reduction as one of the Sendai Framework Voluntary Commitments. The City of Sendai will continue updating and making the information it offers on its lecture series available worldwide.