



Sendai DRR Newsletter

Towards a Disaster-Resilient
and Environmentally-Friendly City

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From Sendai to the World,
for the Future

Sendai Symposium for Disaster Risk Reduction and the Future Closing speakers

From Left to Right
Second-grade students from Miyagi Prefectural Sendaidaichi High School:
Kaho Watanabe, Rinka Takahashi, Shunsuke Hata, Sayaka Shoji, Mitsuki Matsunaga
Sixth-grade student from Sendai Municipal Minami-yoshinari Elementary School: Yutaro Horiuchi

Our Future Vision of Sendai as a Disaster-Resilient and Environmentally-Friendly City

"We are five second-grade high school students and a sixth-grade elementary school student living in Sendai, Miyagi Prefecture, Japan. Our city, Sendai, is one of the areas most seriously affected by the Great East Japan Earthquake in March 2011.

In November 2019, three Disaster Risk Reduction (DRR)-related events were held in Sendai: the World Bosai Forum where people working on DRR in Japan and around the world got together; the Sendai Symposium for Disaster Risk Reduction and the Future, which aimed to share with the world the experiences of the citizens and the lessons learned from the disaster, and pass them down to the next generation; and the Earthquake Technology Expo Tohoku, which introduced cutting-edge technologies for disaster management.

We attended these events and read out our essays and reviews of the events and on Sendai City's efforts towards achieving a Disaster-Resilient and Environmentally-Friendly City in the closing speeches of the Sendai Symposium for Disaster Risk Reduction and the Future. We were deeply impressed as we learned through the events that people working on DRR activities in Japan and around the world had gotten together in Sendai to discuss the experiences and lessons learned from the Great East Japan Earthquake, DRR and the Sendai Framework, and have been making efforts to share with the world the views advocated at the events.

At the Sendai Symposium for Disaster Risk Reduction and the Future, we toured various stakeholders' exhibitions regarding DRR activities and participated in their workshops. The exhibitions and workshops were full of enthusiasm for improving DRR around the world now and in the future through the utilization of the experiences and lessons learned from the Great East Japan Earthquake, and DRR activities and technologies.

At the World Bosai Forum, we watched a documentary video of tsunami damage caused by the Great East Japan Earthquake. Through the video, we realized again the scale of tremendous damage and misery brought about by the disaster, as we were too young to recognize the

situation at the time of the earthquake.

At the Earthquake Technology Expo Tohoku, we were surprised to see ever-evolving DRR technologies, such as a water creation technology from air and non-perishable food which can be preserved longer than ever and enjoyed even when public utility services are suspended.

We took this opportunity to talk with our families about DRR, review our DRR plans and confirm our refuges and evacuation methods again, referring to the local hazard maps. At these events, we saw young people around the same age as us making efforts at DRR, which also inspired us to take action on DRR. We will share this valuable experience with our friends and other people close to us and cooperate with as many people as possible in raising awareness of DRR.

Shortly after our participation in the events, the five of us who are high school students made PR brochures to be distributed at our school. Yutaro, who is an elementary school student, does not remember anything about the Great East Japan Earthquake, as he was only three years old at the time of the disaster. However, he became deeply interested in the importance of DRR through these events and various other experiences. Since the number of natural hazards has been increasing recently, he is interested also in environmental issues.

We think that DRR activities are like flower seeds. Anyone can plant flower seeds easily. Growing plants from the seeds with good care will lead to glorious blooming. The same is true of DRR activities. Fostering awareness of DRR in everyday life will help us in the future, at a time when we are affected by a disaster and facing hardship. The fruits of DRR activities will console us in deep sorrow and help us recover from painful situations.

With strong awareness of DRR, we will contribute to global and future DRR as a member of the Disaster-Resilient and Environmentally-Friendly City of Sendai, and make an appeal for more young people to participate in these activities."

Miyagi Prefectural Sendaidaichi High School is designated as a **Super Science High School (SSH)***, and its curriculums include lectures on DRR and a DRR Research Seminar. The closing speakers from this high school studied about disasters and DRR and deepened their understanding on the topic. Sixth-grade elementary school student, Mr. Horiuchi, attended a citizen seminar of the Sendai Framework for DRR with his mother. When he was a third-grade student, he participated in a workshop hosted by a newspaper to study about disasters and DRR.

* Super Science High School (SSH)

A Super Science High School (SSH) is a high school that provides advanced science education designated by the Ministry of Education, Culture, Sports, Science and Technology, with the aim of developing human resources who will play an international role in the future in the field of science and technology. To this end, SSHs conduct various programs including classes based on unique curriculums, collaboration with universities and research institutions, and special research with local characteristics.



Sendai City's DRR Practices



◀ Tsunami evacuation tower mentioned in the case study on "tsunami evacuation"

▲ Scene from an inclusive DRR-related event

In 1978, the City of Sendai was struck by a 7.4-magnitude earthquake off the Miyagi coast. Propelled by this experience, the City has carried out various measures against natural hazards. When the Great East Japan Earthquake hit the City in 2011, these measures had some effect in mitigating the damage from the earthquake. However, various issues were revealed such as the necessity of additional measures to deal with a larger tsunami than expected and the vulnerability of large-scale and centralized energy systems. Based on these lessons, it is promoting initiatives to build a "Disaster-Resilient and Environmentally-Friendly City," aiming to make Sendai a resilient city that is fully prepared for future disasters, the risks of climate change, and other threats.

On the foundation of the rich natural environment of Sendai—the City of Trees—the city has established three key pillars of action: "City Planning" to improve the disaster resilience of infrastructure and energy supplies; "Human Capacity Building" to facilitate DRR activities in local communities; and "Passing Down Experiences and Lessons" to future generations and to other countries and regions in the world.

As a "City Planning" effort, the city incorporated the concept of "Build Back Better" in the restoration work of the Minami-Gamo Wastewater Treatment Plant, making the facility better than before in preparation for future disasters, rather than just restoring it to its former state. The City has also strengthened countermeasures against tsunamis so that it can ensure safety and security even when a once-in-several-centuries tsunami takes place by combining (1) a multiple-defense system that utilizes various facilities to prevent damage from a tsunami, (2) evacuation measures to help residents escape from a tsunami, and (3) relocation of households.

For "Human Capacity Building," the city is making efforts for enhancing the DRR capacity of the local community, such as the formulation of an evacuation center operation manual that reflects the opinions of local residents and a training program to develop Sendai City Community Disaster Preparedness Leaders (SBL) aimed at invigorating voluntary DRR organizations. In addition, it encourages the participation of multi stakeholders in DRR activities through the development of women SBLs and the promotion of Sendai's DRR Education for children to cultivate their ability to respond to disasters, thereby enabling them to think, decide and act for themselves, as well as take actions for the sake of

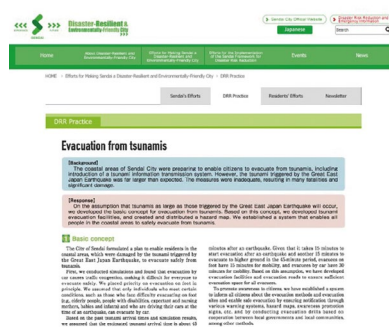
both themselves and others when a disaster occurs.

Memories and experiences of the Great East Japan Earthquake fade away with time unless something is done. Therefore, by running memorial facilities in cooperation with local residents and organizations, and building an archive of disaster-related materials including videos and photographs, the City aims at "passing down experiences and lessons" learned from disaster to future generations and to other countries and regions in the world.

The background, effects of, and budgets for these initiatives related to the development of a "Disaster-Resilient and Environmentally-Friendly City" will be posted on our website along with information associated with the priorities for action, and targets set by the Sendai Framework then summarized by practice.

As the host city of the Third United Nations World Conference on Disaster Risk Reduction, at which the Sendai Framework was adopted, the City of Sendai will contribute to promoting DRR in various countries and regions around the world by sharing our disaster recovery efforts and DRR activities.

Various examples of tangible and intangible measures are introduced on the website.



<https://sendai-resilience.jp/en/>

● DRR Practice



<https://sendai-resilience.jp/en/efforts/practice/>

Sendai City Welcomes Observation Tours from Abroad

The City of Sendai welcomes trainees, government officers and other people involved in DRR from abroad to communicate its experience and lessons from the Great East Japan Earthquake and DRR activities.

Personnel from the respective departments of the City offer educational explanations of its wide-ranging efforts, including establishment of a multiple-defense system to save lives from tsunamis, DRR activities by local communities, and DRR education for the future generations.

The City also offers tours to observe inside a school building damaged by the tsunami and remnants of residence foundations with on-site lectures on the destructive power and threat of tsunamis, and the change in the lives of those affected by the disaster.

The City of Sendai can propose a tour route at your request according to the purpose of the training/observation. Both individual and group tours are available.

Feel free to contact us by email to inquire about training/observation tours.



▲ Visit to Minami-Gamo for training



▲ Visit to Sendai 3/11 Memorial Community Center for training

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