

# Sendai DRR Newsletter

Towards a Disaster-Resilient  
and Environmentally-Friendly City

November 2016 / Vol. 1  
To Future Generations and the World

Firefighting drill using a fire extinguisher  
(Minami-Gamo, Sendai, Japan)

## Sharing experiences and lessons learned from the tsunami and our Disaster Risk Reduction (DRR) efforts with future generations



**Kazuo Matsuoka**  
Head of the Minami-Gamo  
Neighborhood Association,  
Sendai, Japan

During the Great East Japan Earthquake, Minami-Gamo, a coastal area in Sendai, was struck by a tsunami over 4 meters high. Most houses were either swept away or flooded by tsunami, resulting in a loss of many lives. However, some residents were able to flee to the roofs of elementary schools which were designated as evacuation centers, saving their lives.

"If you feel a large earthquake near the coast, escape to an elevated location in order to survive." This is an important lesson learned from our experience.

We have carried out tsunami disaster drills at the neighborhood association every year since the earthquake. This year we held a drill where we issued a tsunami warning, and 120 local residents fled to the roof of Okada Elementary School, which is a designated evacuation center. From there they checked the number of evacuees and conducted a roll call for each area. We also practiced vital disaster skills, such as learning first-aid for injuries, doing firefighting drills using fire extinguishers, and preparing and trying emergency rations. Local residents from children to the elderly proactively participated in the drills, and female disaster preparedness leaders

from the neighborhood association also played a vital part.

As well as "self-help," the idea of making sure that you keep yourself safe, another important factor in preventing disasters and reducing their impact is "mutual aid," where people work together to respond to disasters.

Sendai City is continuing to make improvements along the coast from elevating roads to building coastal and river embankments. We created a Minami-Gamo reconstruction department in our neighborhood association, which is working to reconstruct and create the area that harmonizes with our natural environment, under the concept of "Build Back Better."

November 5 is World Tsunami Awareness Day designated by the UN General Assembly in 2015. Many different disasters occur frequently all over the world, and we hope that we will be able to help prepare for these disasters and reduce their impact by sharing our experiences of the Great East Japan Earthquake, the lessons we have learned, and our disaster prevention efforts with the world.



▲ Evacuation stairs at Okada Elementary School

## The World Bosai Forum/IDRC 2017 in Sendai



▲ Prof. Ono (left) and Mr. Ito (right) with  
Dr. Ammann, Chairman of IDRC (center)

At the International Disaster and Risk Conference (IDRC) organized by the Global Risk Forum (GRF) Davos, which is held biannually in Davos, Switzerland, it was announced that the World Bosai Forum/IDRC 2017 in Sendai, Japan will be held in November next year.

The Sendai conference will be hosted by Tohoku University and Sendai City in cooperation with GRF. The conference will discuss how to promote the Sendai Framework for Disaster Risk Reduction 2015–2030, which was adopted at the Third UN World Conference on Disaster Risk Reduction (WCDDR) in 2015.

Yukimoto Ito, Vice Mayor of Sendai, and Yuichi Ono, Professor at the Tohoku University International Research Institute of Disaster Science (IRIDeS) attended the closing session of the IDRC on August 31. Mr. Ito invited attendees to join the Sendai conference, saying, "While attending the forum you will be able to see firsthand the various reconstruction, disaster prevention and disaster risk reduction efforts taking place in Sendai. I also hope you can experience the wonders of Sendai and the Tohoku region."



# Sharing our tsunami research and disaster risk reduction education with the world

Class on tsunami-related information (Thailand)



## Anawat Suppasri

Associate Professor

Tsunami Engineering Research Field,  
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Supplementary reading material for DRR education, ▶  
"From 3.11 to the Future" (Sendai City Board of Education)

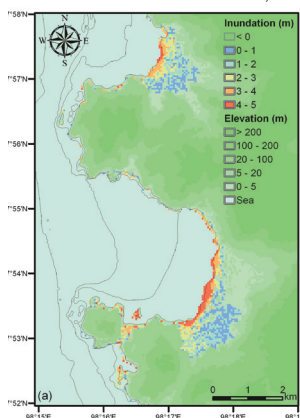


The IRIDeS conducts world-leading research on natural disaster science and disaster mitigation. Its mission is to use the experiences of and lessons learned from the 2011 Great East Japan Earthquake to contribute to international disaster prevention, disaster risk reduction and early recovery, through studying and researching the mechanisms that cause large-scale earthquakes and tsunami, and associated disaster risks.

I saw the damage done by the 2004 Indian Ocean earthquake and tsunami with my own eyes while I was studying at Chulalongkorn University. It showed me the importance and necessity of counter-measures against tsunami and other disasters in Thailand, and led me to start research on tsunami hazard and risk assessment at Tohoku University's Tsunami Engineering Laboratory in 2007. Our laboratory is the only one in the world that is adopting an engineering-based approach to tsunami research. We are working to make the tsunami hazard and disaster risk evaluations that have resulted from our research available globally, and to develop a practical tsunami risk reduction mobile app.

We are also focusing on disaster risk reduction education, and try to give disaster risk reduction lessons to children around the world. One of the greatest results of our work is that teachers in Thailand have begun to create disaster risk reduction books and materials

for children. These are based on Sendai's supplementary reading material for DRR education, "From 3.11 to the Future," which I introduced to the Thai Ministry of Education. We want to show children all across the world the importance of disaster prevention and disaster risk reduction, so they can build a brighter future.



The World Bosai Forum/IDRC 2017 in Sendai will be held continuously in Sendai from November next year. I hope that we will be able to share our work on disaster prevention and disaster risk reduction based on our experiences and lessons learned from the Great East Japan Earthquake here in Sendai, and that we can also show you the results of our research at IRIDeS.

◀ The estimated maximum flood depth of the 2004 Indian Ocean tsunami (Patong Beach, Thailand)

## Tohoku University International Research Institute of Disaster Science (IRIDeS)

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## Tsunami Evacuation Facilities in Sendai Tsunami Evacuation Tower at Nakano 5-chome



◀ Evacuation tower being inspected by JICA trainees

Based on the lessons learned from the Great East Japan Earthquake, Sendai city is building 13 tsunami evacuation facilities (towers, buildings, etc.) in the eastern areas, which are susceptible to tsunami floods.

The evacuation tower at Nakano 5-chome is a two-storey building with a steel-framed structure that was built to be strong enough to withstand a tsunami. It includes an indoor evacuation space built 7 meters above ground, and can accommodate around 300 people. As well as providing protection from the cold and having measures to handle power outages, it has components unique to Sendai that are based on what we learned in the Great East Japan Earthquake. It includes stores of emergency rations, drinking water, blankets and portable toilets, as well as ramps for evacuees in wheelchairs. This facility is not only an emergency evacuation center for local residents, it also serves as a visitation site for foreign visitors involved in disaster prevention, and is helping to contribute to international disaster risk reduction.

<b>Address</b>	5-2 Nakano, Miyagino-ku, Sendai, Japan
<b>Construction</b>	Steel-framed structure (2 floors) with an external staircase and ramp
<b>Total area</b>	398㎡
<b>Capacity</b>	Around 300 people
<b>Height</b>	6.6 m (evacuation space on the second floor), 9.9 m (highest evacuation space)

## Disaster-Resilient and Environmentally-Friendly City Promotion Office

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