

JSCE Student Members' Education and Training Workshops on Disaster Preparedness in Sumatra, Indonesia

Sachiko TSUKAZAWA, JSCE Student Member
Graduate Student, Waseda University
Chiaki YOKOI, JSCE Student Member
Graduate Student, Kyoto University

A massive earthquake occurred off the west coast of northern Sumatra, Indonesia on 26 December 2004. The earthquake generated tsunamis that devastated several countries on the coast of the Indian Ocean, and left more than three hundred thousand casualties. In Sumatra were more than one hundred seventy thousand people killed.

We, the members of Waseda Student Organization for Education of Natural Disaster Mitigation (WASEND) and Kyoto University Institution of Disaster Prevention School (KIDS) flew to Indonesia and had education and training workshops on earthquake and tsunami disaster preparedness in the cities of Medan and Sumatra for the three days of 12-14 September 2005 with support of Tobishima Corp, NGO-OISCA International and Japan Society of Civil Engineers (JSCE).

The members consisted of 12 students of WSEND and 5 of KID made 4 teams and visited twenty-two schools in total including elementary, junior-high and high schools. Along with the members, Professor Masanori Hamada of Waseda University, Professor Jyunji Kiyono of Kyoto University and Ms. Nobue Kunisaki a risk-management advisor also visited the schools. Before reporting about

the education and training workshops, we would like to extend our heartfelt appreciation to Mr. Tomoji Suzuki, Senior Advisor, Indonesia Office of Tobishima Corp. and his daughter, Ms. Noriko Suzuki of OISCA-International who assisted the members as guides and also interpreters there.

We devised the education and training workshops to meet the interests of elementary, junior-high and high school student groups. The major topics included Mechanisms of earthquake and tsunami, How to survive an earthquake and tsunami; the film "Fire of Inamura" would be shown, How to create a strong social system against earthquake and tsunami; the Japanese cases of after-disaster rehabilitation and reconstruction would be presented. Visual aids such as videos and posters were often used in classroom, which were helpful tools to communicate with the students beyond language barriers.



Fig.1 : Poster explaining tsunami generation mechanism to elementary school students



Fig.2: Poster explaining earthquake disaster prevention to junior-high school students

Education and Training Workshops on Disaster Preparedness in Local Schools

We carried out education and training workshops on disaster preparedness in local schools: the local language was used in elementary and junior-high school classrooms, and English in high school classroom.

In elementary school classrooms, we conducted the workshops with our original characters of Waseda Bear and Dr. Know-It-All, which were played by our members on costume. The students excitedly welcomed the Waseda Bear, and engrossed the film “Fire of Inamura” when it was played. In the course of the workshops with these tools, we included some ways of conducting the workshops in order to attract the students without losing their attention such as taking some breaks and choosing interesting topics to them seeing their responses. We were convinced that we could involve the students in the workshops: Some listened to our discussions attentively and some took memos carefully.

We employed other teaching methods in order to ensure the students’ accurate understanding about earthquake and tsunami such as playing a quiz on earthquake disaster prevention (Photo 3), making the students read texts in Indonesia one by one and all together as well. These methods were effectively to improve the students’ understanding of the natural disasters.

In junior-high schools, we focused on active exchange with the students: we raised the topic “How to survive earthquake and tsunami” and examined it together with the students (Photo 5). During discussions, we presented the posters drawn by the students (Photo 4), that was helpful to involve them into the discussions.

In high-school classrooms, many advanced technical questions on the mechanisms of earthquake and tsunami were raised by the students and difficult ones by teachers as well, from which we realized that we were requested to acquire substantial knowledge and experience before teaching someone. We were impressed and grateful to the students who listened to us attentively despite our unskilled teaching; meanwhile, we motivated ourselves to reinforce our knowledge as working with specialists in a subject before standing in front of students in the future.



Photos 1-5: Disaster Preparedness Workshop in Local Schools

The Students' Positive Responses

Those students made various questions: "Why was tsunami called tsunami?" "How serious damage was made the most massive earthquake and tsunami in Japan?" "Why had the tsunami been hot?" These questions suggested that the students still had been troubled by the fear of the earthquake and tsunami attacked their houses and neighborhoods.

The students responded to our workshops with these words: "It was our honor to have learned from the Japanese professors, specialists and college students about earthquakes and tsunamis," "We were very impressed with your sincere attitudes of teaching in our local language, which must be unfamiliar to you," "We didn't know how to protect ourselves from earthquakes and tsunamis, but we learned that today. When another earthquake and tsunami hit us, we will know what to do," "I want to tell everybody what we have learned. When my family and I grow up, I hope that we will tell our children and grandchildren about today." As these words implied, we could communicate with the students in our clumsy Indonesian and that they had understood what we were trying to say to them.

Communication with the Young Students

Besides communicating with the students in classrooms, we could build rapport with them by doing origami and games together. The students talked to us how much they were proud of their country and bountiful nature that surrounded them. While we were in Banda Aceh, we understood what they said about the country, seeing it surrounded by the sea and

mountains.

To those students, we talked about our country in return which was rich in nature like theirs, at the same time, was prone to natural disasters, and also asked the students to consider about the rehabilitation and reconstruction of their afflicted city, introducing the Japanese cases.

It was moving to see the students singing the national anthem, which showed how deeply they loved their county. The students taught us a lot. While working with them, we dearly wished that their smiles would brighten up the future of the country.



Photo 6: WSEND members and local students

Present Banda Ache

A terrifying scene spread in front of us when we standing on the seashore of the afflicted area. We were shocked speechless. There was nothing left but exposed surfaces of the mountains shortened to 20 meters high, tops of which had been washed off. Even after ten months since the earthquake and tsunami, destroyed structures remained as they were and nothing was found rehabilitated or reconstructed. Instead, the area was strewn with debris and rubbles of houses and buildings

and driftwoods everywhere like a ruin and looked not inhabitable. In spite of the dreadful conditions, many of the survivors who had lost their house still wished to stay there and hoped to rebuild a house, living in a tent a temporal house (Photo-7).

International Relief Assistance

The survivors were provided the relief goods such as food, water and medial supplies by several countries all over the world, but during the fist week after the earthquake and tsunami attack, the survivors had struggled with hunger due to the shortness of food and water supplies. When we visited, they received the supplies of water, rice, milk and poultry once a month regularly (Photo-8). To our question what was most need, they answered, "A place to live in," then, paved roads, drinking water, electricity and power facilities and jobs. Assistance for rehabilitating school facilities was also wanted for future. Many children had lost their parents: older children were working to earn their tuitions after school, and young children were often placed under the care of their relatives, or adopted.



Photo 7: Survivors are camping out

After the Workshops

Through working with the local students, our members realized again how disastrous nature could be, and reconsidered what we should do to protect people from another attacks of nature. At the same time, we reaffirmed the important of continuing our education and training programs on natural disaster preparedness and would further work for that based on what we learned through the experience in Sumatra.

We sincerely hope that our activities will help people to prepare for future earthquakes and tsunamis.

We would like to conclude the report with our deepest gratitude to Mr Syafwina Sanusi, his family and all of those who rendered us generous cooperation and assistance from the beginning to the end of the workshops, and also to the Institution of Engineers, Indonesia-PII, Cut Nya Dhien University in Medan and Syiah Kuala University in Banda Ache for the warm hospitality and cooperation during our stay in Sumatra. Thank you very much again.



Photo 8: People are receiving food ration