



Asia-Pacific
Economic Cooperation

Emergency Preparedness Education:

Learning from Experience, Science of Disasters, and Preparing for the Future

HRD 04/2011A Project: Proposed by Japan and Thailand

Focused on Tsunami and Earthquake: First year for three years planned projects

Managed by University of Tsukuba and Khon Kaen University



The project aims to develop the teaching program against disasters:

- Saving the school children from disasters
- Sharing scientific materials which should be taught in schools

Planning
Meeting in
Tokyo
February
2012

Plan, Do and See
with Lesson Study
Methodology

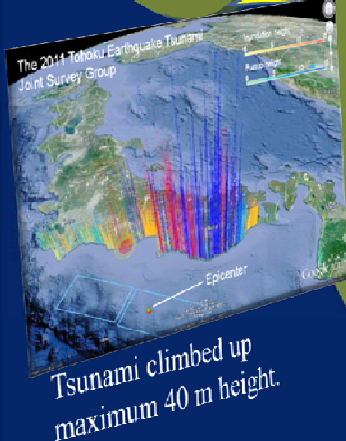
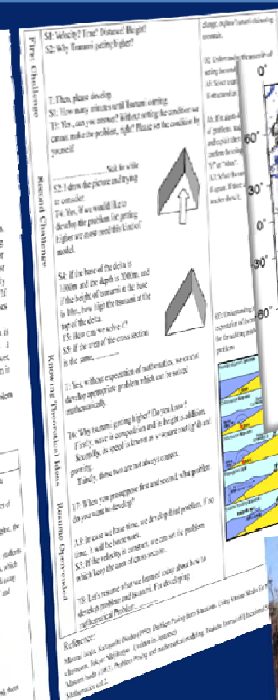
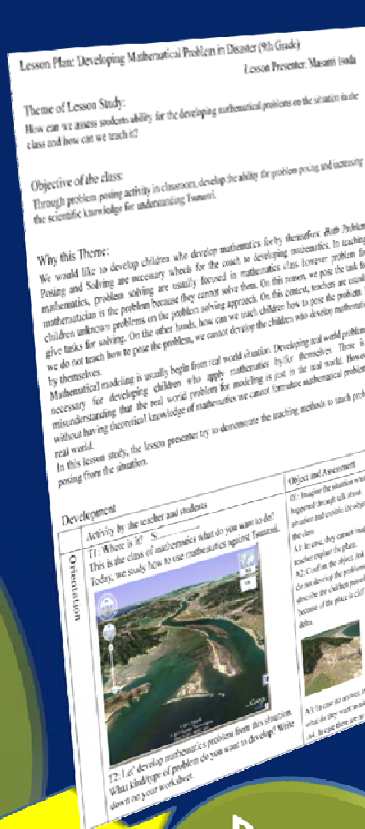
Lesson
Study
In Each
Country
March-Aug.
2012

Report Meeting
Khon Kaen
September, 2012
Finalizing e-
textbook
Tsukuba
Oct.-Dec,
2012

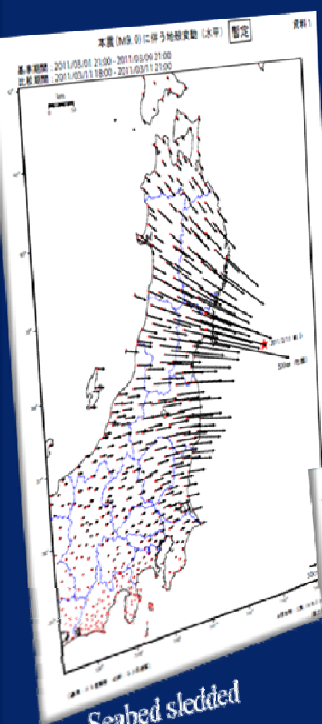
Around the Pacific

Chile
Indonesia

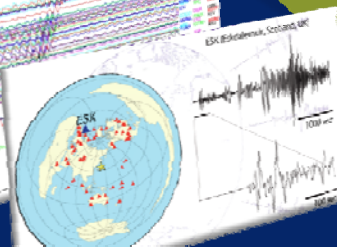
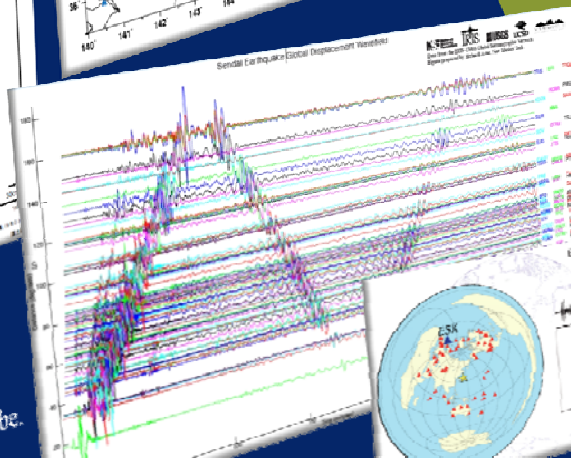
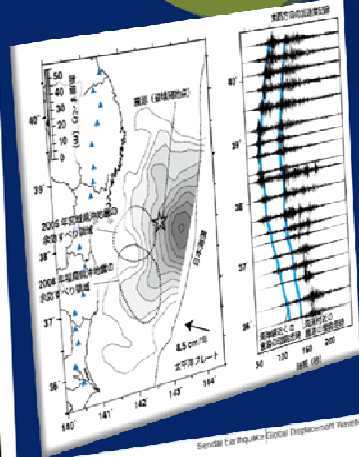
Economies



Tsunami climbed up
maximum 40 m height.



Seabed slided
maximum 50 m.
The web went
around the globe.



4 Parting with mother

I said "Thank you" several times and swam desperately.



"Dearest mother, interesting, tender grandmother. Everyone has gone."

The Sendaiikei High School first grade Saori Endo (sobriquet) visited Europe for the donation activity of "the Ashinaga scholarship association" which supported the child who lost a parent from disasters. She told about the difficulty and sadness in parting with her mother (35) in Paris.

"After finishing the graduation ceremony at my junior high school, I was at my house in Ishinomaki, in Miyagi prefecture, and that's when we felt the huge earthquake. The earthquake was intense but our house was 4 kilometers away from the Kitakamigawa River. I was telling my mother, my grandmother and my great grandparents that, "The tsunami won't come this far." Soon after that, an abnormal back flow of river water drifted out to the house. I was thrown in to black water that smelled like gasoline. My body was stuck between hard objects and there was no way out. "I'm gonna die," I thought. But before I knew it, I had drifted with a heap of rubble and ended up on top of a storage building at the nearby Okawa Primary school.

"Sao," I heard a very familiar but weak voice. I looked into the crevice between the debris. I saw long black hair that reached all the way down her back. It was my mother. She was stuck in a heap of rubble, and her leg was twisted in a distorted position. I tried hard to help her out, but I could not move the debris. I was also severely injured. Some nails were stuck into my legs, and they were ripped and torn, and my back was cut and injured. The heap was surrounded by dirty water and it was freezing cold. I didn't know when the tsunami would hit us again. I told myself, "If I stay here any longer, I might die." I said "goodbye," and "I love you," a million times to my mother, and jumped into the water. I swam for 100 meters and reached the rooftop of an elementary school. I spent the night there, and I was rescued the day after. A few days later, my mother's body was found."

She lost her great-grandmother and a grandmother. And she left her grandfather (60) who was working at Ishinomaki city office and now lives alone in Sendai. On a street of Tokyo, New York, Paris, and at an international conference of China, she told about parting with her mother. It is from one thought that she does not want you to forget this disaster. "If my family lives, I may hate to talk about such a story," she said without giving her name.

(Yomiuri Newspaper: December 25th, 2011, p.35 by Asako Ishizaka)



Readings from Newspaper (Part A) The Tsunami in March 11th, 2011

What can we learn from the disaster beyond the expectation in the case of Japan?



5 Local wisdom a lifesaver for kids



The wisdom known on the Sanriku coast--the Pacific side of the Tohoku region--as "Tsunami Tendo" saved the lives of many children in Kamaishi, Iwate Prefecture, when the earthquake and tsunami struck on March 11.

Of 2,900 primary and secondary school students in Kamaishi where more than 1,200 people died or are missing only five children who left school early or were off sick on March 11 were confirmed dead. However, nearly all the other students were confirmed safe.

Since 2005, the Kamaishi city government has invited disaster management education experts to offer advice, and among the lessons' important points was "tendo". This word was coined from the city's trying history of being hit by tsunami again and again. The word means to "go uphill independently at the time of tsunami coming, not thinking of anyone else, even your family."

Due to a shortened schedule toward the end of the term, about 80 percent of the 184 students went back home from Kamaishi Elementary School. The tsunami hit many school zones except on the mountainous side, but all of the students were safe.

"I was worried about my house and family, but I ran up to a higher place without thinking," said sixth-grader Haruki Matsuda R(subriquet). He was playing with his friends in a residential area near the school when the earthquake hit the city. After that, he was reunited with his family in a shelter.

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Prof. Katada of Gunma University Graduate School, a disaster social engineering expert, said "Tendo" is the wisdom based on strong family ties. It has a very deep meaning."

According to Katada, at the time of the 1896 Sanriku earthquake, family members tried to help each other but they failed to escape from tsunami that destroyed the entire region. In the Taro District (then Tarocho) of Miyako, Iwate Prefecture, 1,859 people died and only 39 people survived. The word "tendo" was developed in Sanriku as a lesson from such disasters.

Katada has taught tendo's importance since 2005 in Kamaishi, offering a special class at 14 elementary and secondary schools in the city. "You might feel bad escaping the tsunami alone. However, trying to confirm families' safety and whereabouts is the most dangerous thing in such a situation. It's important that you believe that 'They must have evacuated somewhere'." Katada advocates Kamaishi schools conduct disaster drills to go uphill, teach tsunami velocity calculation methods in math class and discuss tsunami experiences during ethics lessons. The schools also encourage students to look for higher ground where they can evacuate on foot, and include evacuation routes in a disaster management map.

Mutual help

The point of tendo is to stop looking for family members who are geographically far from each other at the time of a tsunami. However, the concept fosters a spirit of mutual aid among the people who are nearby. Katada's instruction helped elementary and secondary school students cooperate with each other to escape the disaster. The tsunami hit the Unosumaichō district in Kamaishi, with floodwaters reaching the third floor of Kamaishi-Higashi Secondary School and the nearby Unosumai Elementary School. Before the latest earthquake, the two schools had conducted disaster exercises together.

At the secondary school, the announcement system had broken down right after the earthquake and was unable to broadcast evacuation calls. However, students were able to quickly

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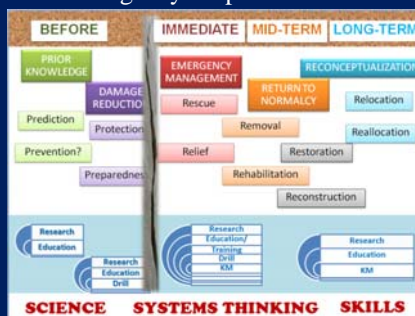
leave the building and gym as they had practiced, and grabbed the hands of elementary school students who were also on the verge of escaping from the building and together ran up to higher ground.

One Secondary school first-grader Daisuke Komori (subriquet), held the hands of two third-grade elementary school girls. One of the girls cried and started hyperventilating, while the other could not speak. "It's OK," he encouraged the girls and they ran to the top of the hill, more than two kilometers from their schools. When the girls knew about the safety of all their friends, they were relieved.

Said Katada: "I've repeatedly told children in class that we might experience tsunamis larger than we expected. It's almost a miracle that such a lot of children were saved. I'm proud of the children for making decisions by themselves."

(Yomiuri Newspaper, Evening, 28th Mar. 2011, p12)

For Emergency Preparedness: Before



(Sawakon Ratanawijitrasin, SEAMEO RIHED, 2012)



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