



REPORT



High School Students Summit on

World Tsunami Awareness Day

November 25th–26th, 2016



Introduction

The High School Students Summit on “World Tsunami Awareness Day” in Kuroshio was held for two days starting on November 25 of last year in Kuroshio Town, Kochi. It was the first time this type of summit was held in the world, and a total of 739 people, including 361 high school students from 30 countries, Minister in charge of Building National Resilience and Minister of State for Disaster Management, and ambassadors from various countries, participated in the summit. The summit was successfully brought to a close thanks to the support and cooperation of many parties, especially the authorities and organizations involved.

In the summit, the participating high school students were organized into three groups, each with a different area of focus, namely “learning about natural disasters,” “preparing for natural disasters,” and “recovering from natural disasters.” Each group made a presentation on the measures that are being implemented in their respective countries. After the presentations, the students engaged in a discussion.

The students also participated in a tsunami evacuation drill, which involved evacuating to high ground, and visited a tsunami evacuation tower. Through such activities, the students learned about what the Kochi Prefectural Government and the Kuroshio Municipal Government are doing to prepare for a Nankai Trough earthquake. These activities were followed by an active discussion on issues that were brought up in the presentations concerning the wonderful measures that are being implemented in each country. The discussion resulted in the adoption of the Kuroshio Declaration, which was based on the consensus of the participants.

The declaration expressed the determination of the students to do everything in their power to protect the precious lives of as many people as possible from natural disasters, such as a tsunami, while inheriting the responsibility for passing on previous generations’ vision for disaster mitigation and risk reduction to future generations. We believe that the declaration was the greatest achievement of the summit.

During the summit, the high school students were able to meet people from many different countries and regions and share with them the disaster risk reduction measures that are being implemented in their own countries, which we believe was an extremely valuable experience for them. We have great expectations that, as “Youth Ambassadors for World Tsunami Awareness Day”, the students will become successful leaders in their respective countries and regions.

While the High School Students Summit on “World Tsunami Awareness Day” in Kuroshio has come to a close, Kochi Prefecture and Kuroshio Town will make every effort to inherit the spirit of the Kuroshio Declaration by engaging in active efforts to raise more awareness about disaster risk reduction and implement various measures to ensure that progress is made in preparing for the Nankai Trough earthquake, which will undoubtedly occur in the near future.

To conclude, we’d like to express our sincere gratitude to the authorities and organizations involved in this event as well as the residents of Kochi Prefecture, who welcomed the students warmly, for their tremendous support and cooperation in holding the summit. We also hope that word about the achievements of the summit will spread around the world through this report.

Kochi Prefecture
Kochi Prefectural Board of Education
Kuroshio Town
Kuroshio Town Board of Education

CONTENTS

| | |
|---|-----|
| 1. The Kuroshio Declaration | 1 |
| 2. World Tsunami Awareness Day | 2 |
| 3. Documentary Photography | 7 |
| 4. Overview of Summit | 14 |
| 5. Summit Schedule | 16 |
| 6. The List of Participating Schools and Workshop Groups | 17 |
| 7. Message from the Prime Minister of Japan | 19 |
| 8. Message from the Secretary-General of the United Nations | 21 |
| 9. Message from the Advocate of the World Tsunami Awareness Day | 22 |
| 10. Message from the Special Representative of the Secretary-General for Disaster Risk Reduction | 23 |
| 11. Report from Workshops and Presentation Summaries of Participating Schools ... | 24 |
| 12. Fieldworks | 156 |
| 13. Report from the Organisation for Economic Co-operation and Development (OECD) Tohoku School | 162 |
| 14. Report from a Disaster-affected Area of the Great East Japan Earthquake and Tsunami | 164 |
| 15. Participants Questionnaire | 169 |
| 16. Comments from Participants | 173 |
| 17. The Unveiling Ceremony of Stone Monument for Commemorative Tree Planting | 179 |

The Kuroshio Declaration

To commemorate the establishment of “World Tsunami Awareness Day” at the United Nations General Assembly, for the past two days, on 25th and 26th of November 2016, we have gathered at Kuroshio Town, Kochi, which is predicted to suffer from significant damage by a devastating tsunami the Nankai Trough earthquake may cause.

Natural hazards bring severe damage across the world, and many people face having to recovery their communities as a result. Although the diversities in countries and regions we live in may create differences in disasters caused by natural hazards we face and our approaches to disaster risk reduction, we all share the common goal of saving all human lives from disasters.

Today, as high school students from around the world, we have learned about what we should and can do to achieve our goal and to contribute to recovery of disaster affected areas.

We hereby declare that we will continue to make our best effort to understand the risks and effects of tsunamis, to pass onto our predecessors’ experiences and knowledge of disaster mitigation and risk reduction to future generations, and most importantly, to save people’s lives from tsunamis and other hazards.

1 We will learn.

- We will obtain correct knowledge on the mechanisms of natural hazards, and the history of damage and disasters so that we can enhance our understanding of natural hazards and their risks.
- We will learn and study knowledge, skills, and actions that are useful for disaster risk reduction to save people’s lives.
- We will learn how to face hazards and how to live our lives from people who have experienced such disasters.
- We will utilize technology to enhance our learning.

2 We will take actions.

- We will keep reminding people of the risk of disasters caused by natural hazards and constantly carry out educational activities to raise people’s awareness of disaster risk reduction.
- We will recognize ourselves as people who offer help to others instead of people who receive help and we will actively participate in volunteer activities that consider others.
- We will contribute to community development as members of the community through activities such as proposing actions for disaster risk reduction to the local community and national and local governments.

3 We will create.

- By utilizing our acquired knowledge and skills, we will create useful tools and systems for disaster risk reduction for all kinds of people.
- We will create global and regional networks of high school students to learn together and cooperate with each other so that we can live together with our friends in the world.
- We will make use of our wisdom and vitality as future leaders for disaster risk reduction. We will not only revitalize the development of local communities, but also contribute to making our cities and countries more resilient to hazards for the sake of ourselves and children in the future.

While appreciating the blessings of nature and understanding the risks that nature sometimes brings about disasters, we will love and live with nature without fearing those risks.

November 26, 2016

High School Students Summit on “World Tsunami Awareness Day” in Kuroshio

World Tsunami Awareness Day

Concept of

“World Tsunami Awareness Day”

for UN international day

1 Propose to establish the 5th of November of every year as “World Tsunami Awareness Day”

Tsunami are a relatively rare type of natural disaster, but they have also caused devastating damage in many countries around the world. They pose a serious threat which could hinder the achievement of sustainable development. Following the Sendai Framework for Disaster Risk Reduction adopted at the Third UN World Conference on Disaster Risk Reduction (WCDRR) held in March 2015 in Sendai and the 2030 Agenda for Sustainable Development, and with the aim of protecting the precious lives of the people around the world by raising awareness of precautionary measures against tsunami, Japan together with many countries has proposed that the UN designate the 5th of November of every year as “World Tsunami Awareness Day”.

2 The threat of tsunami in many countries around the world

Tsunami triggered by earthquakes mainly occur in the coastal areas. However, people from any country can visit coastal countries for business or vacation. Many foreigners have lost their lives in tsunami that occurred in coastal countries, as witnessed in Indonesia, Thailand, and other countries in the wake of the tsunami off the coast of Sumatra and in the Indian Ocean. When large scale tsunami occur, the damage they inflict crosses borders. The threat of tsunami is a shared concern in many countries of the world. The number of tsunami victims can be reduced if the Member States and the international community cooperate to deepen their understanding of tsunami and raise awareness of the importance of taking precautionary measures against them.

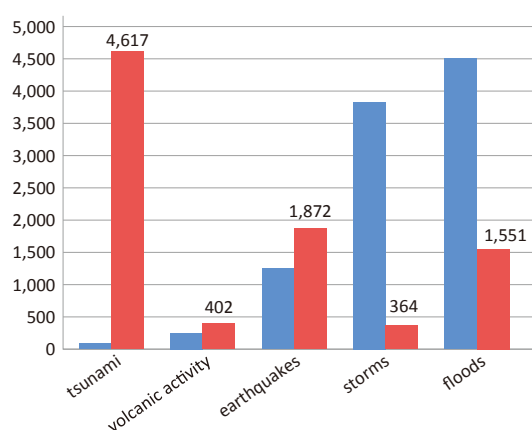
3 Follow-up to the World Conference on Disaster Risk Reduction

The best way to prevent the damage of tsunami is to quickly disseminate and share the necessary information, through “early warning.” The Sendai Framework also incorporates new elements including the importance of *investing in DRR* and “*Build Back Better*.” It is noteworthy that the increasing the availability and access to *multi-hazard early warning systems* was agreed as one of the targets. The Sendai Framework for DRR also points out the importance of ensuring “*the use of traditional, indigenous and local knowledge and practices*.” Japan believes that the number of tsunami victims will be reduced by increasing such awareness among the international community through the establishment of “World Tsunami Awareness Day” as a follow-up to the Sendai Framework as well as the 2030 Agenda, thereby contributing to the achievement of the targets of these agenda.

4 Good practices to protect the precious lives of the people

The proposed date is based on an anecdote and example of a good practice known in Japan as “Inamura-no-hi” (the burning of rice sheaves) which took place on the 5th of November 1854. Japan suggested this date, because “World Tsunami Awareness Day,” is intended to serve to protect the precious lives of people, and thus it should be associated with an example of “traditional, indigenous and local knowledge and practices” such as “Inamura-no-hi.”

The importance of constantly raising awareness of TSUNAMI



Compared to other natural disasters, tsunami are relatively rare natural disasters. However, once they occur, they cause enormous damage. In 100 years, 58 tsunamis have claimed more than 260,000 lives; averaging more than 4,600 deaths per occurrence. This rate is much higher than any other natural disaster including storms (such as tropical cyclones), floods and earthquakes.

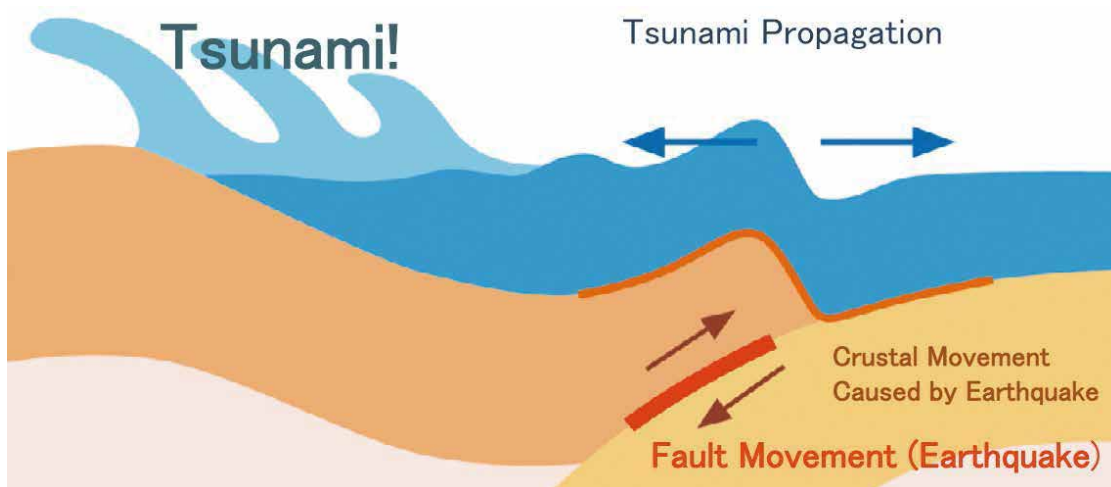
■ Occurrence ■ Deaths per Occurrence

D. Guha-Sapir, R. Below, Ph. Hoyois – EM-DAT: International Disaster Database
– www.emdat.be – Université Catholique de Louvain – Brussels
– Belgium.

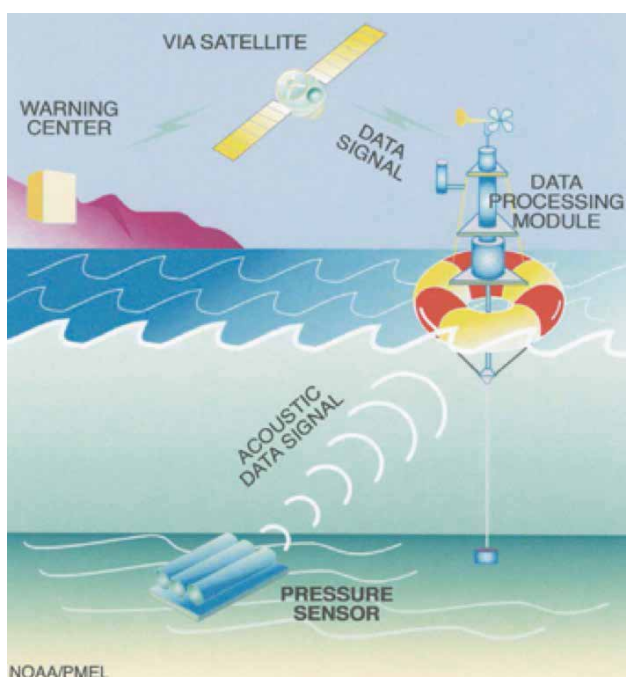
What causes TSUNAMI?

Tsunami are generated by sudden submarine topographic movement, such as:

- Submarine volcanic eruptions;
- Landslides near a coastline or at the bottom of the ocean; and
- Submarine crustal deformations accompanying earthquakes.



An effective tsunami warning system reaches all persons in danger before the tsunami hits



Source: NOAA/PMEL, Sketch of the DART System

As a result of the 2004 Indian Ocean tsunami, tsunami warning systems are now implemented globally.

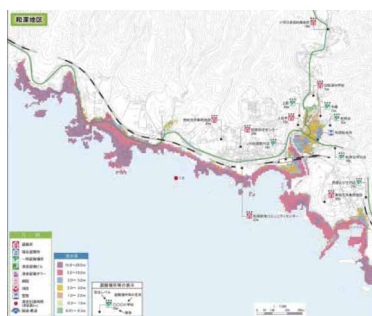
Real-time data from ocean-bottom pressure sensors and offshore GPS wave buoys are now helping tsunami warning centres to issue or cancel warnings and other alerts more quickly and accurately.

For a distant tsunami, real-time earthquake and sea level monitoring to confirm the generation of a destructive tsunami, followed by an immediate warning to the public, is critical.

For a local tsunami where there may not be time for an official warning, people must already know a tsunami's natural warning signals and respond immediately.

World Tsunami Awareness Day

How to prepare for and recover from **TSUNAMI** disasters



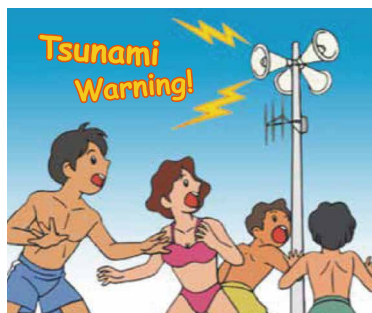
(1) Tsunami Hazard Maps



(2) Signboards Indicating Tsunami Hazard Areas or Evacuation Areas



(3) Evacuation Drills
"Let's Check the Evacuation Route!"



(4) Early Warning Systems



(5) Construction of Breakwaters



(6) Construction of Artificial Hills

The importance of investing in Disaster Risk Reduction

At the time of the Sumatra earthquake, Male Island, the capital and largest island of the Republic of Maldives, was also hit by a tsunami that was estimated to be as high as three meters.

Nonetheless, seawalls and offshore breakwaters which had been built with Japan's assistance protected the island. While the city of Male was flooded, no one was killed and there was no major damage. No houses were swept away. Male Island is only one meter or so above sea level and has a flat landscape, where, in the past, the seacoast was protected simply by off shore coral reefs. These factors caused the island to suffer from periodic flooding due to tidal waves. For example, the cyclone of 1987 flooded one-third of the island, paralyzing the capital city.

After numerous field surveys and technical guidance, Japan decided to provide assistance through a fifteen-year project to establish measures against coastal flooding. As a result, the entire Male Island is now protected by sea walls approximately six-kilometer in circumference.

One local resident reportedly said, "Without Japan's assistance, Male Island would have disappeared." Furthermore, President Gayoom of the Republic of the Maldives also commented, "The seawalls built for Male Island through Japan's assistance saved the people of Male from disaster."

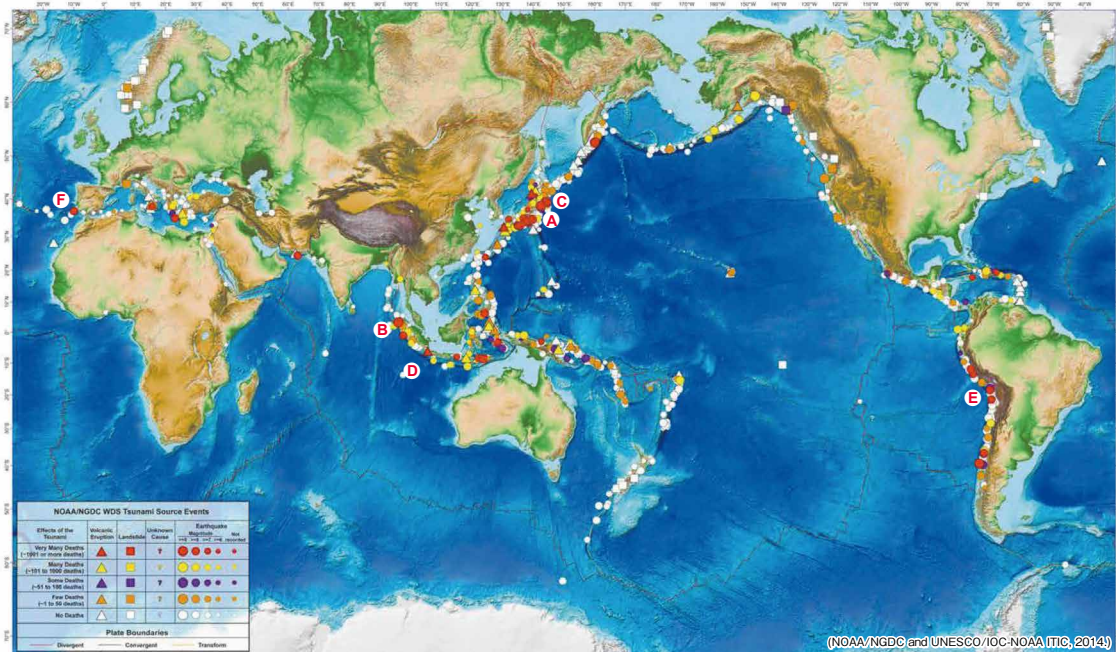


Seawalls built around the Male Island

World Tsunami Awareness Day

TSUNAMI disasters spread all over the World

Tsunami Sources 1610 B.C. to A.D. 2014 from Earthquakes, Volcanic Eruptions, Landslides, and Other Causes



Most destructive tsunami causing 15,000 or more deaths since 1700

A 2011 East Japan: more than 18,000 deaths and missing

B 2004 Indian Ocean: more than 227,000 deaths

C 1896 Sanriku, Japan: 27,000 deaths

D 1883 Krakatoa, Indonesia : 36,000 deaths

E 1868 Northern Chile : 25,000 deaths

F 1755 Lisbon earthquake, Portugal : 50,000 deaths



A town submerged in water after a tsunami
(2004 Indian Ocean Tsunami)



Tsunami sweeping toward a coastal city
(2011 East Japan Tsunami, Miyako City)

World Tsunami Awareness Day

History tells the importance of precautionary measures of **TSUNAMI**

"Inamura-no-hi (the burning of rice sheaves)" is based on a historical event that took place during a massive tsunami disaster, resulting from the Ansei Nankai Earthquake of 1854. The tsunami struck Hiromura, a little village on the Kii Peninsula in western Japan (present Hirokawa town, Wakayama Prefecture).

After feeling the earthquake, a village leader, Hamaguchi Goryo, anticipated that a big tsunami would come when he noticed the lowering of the tide and a rapid decrease in the level of well water.

He guided his fellow villagers to evacuate to higher ground by setting fire to his precious sheaves of rice, his whole year's harvest, as a signal of warning.

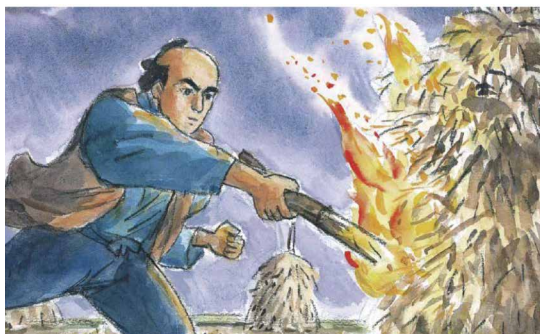
From the hill top, the villagers saw the tsunami destroy their village. They understood that it was the fire that saved them.

Hamaguchi Goryo's deeds and story continued with his efforts to lay the groundwork for disaster preparedness among his community and to build the village back better than before.

He implanted the seeds of prevention and preparedness amongst people to prepare for future disasters. Using his own money, he devoted to build a 5m high 600m long embankment, and to plant trees along the coast to mitigate future tsunami.

This was a 4 year project which united the community, and was a key contributor to providing job opportunities for villagers whose livelihoods and homes were affected by the tsunami.

Today, Hamaguchi Goryo's spirit of disaster preparedness is passed on in efforts such as the accumulation and use of indigenous and local knowledge on disasters, and the construction of seawalls against tsunami.



Goryo setting fire to his rice sheaves



Hiromura Embankment built by Goryo

Lessons from "Inamura-no-hi"

- 1) Importance of early warning
- 2) Use of the traditional, indigenous and local knowledge
- 3) Importance of investing in DRR and "Build Back Better"

➔ These elements are stipulated in the Sendai framework for Disaster Risk Reduction 2015-2030.

An Epic that Saved Islanders from the Indian Ocean Tsunami

There is a small island where only a few out of the 78,000 islanders died in the 2004 Indian Ocean Tsunami, even though it was close to the epicenter of the earthquake, which caused more than 220 thousand deaths and missing persons in total. It is the Island of Simeulue in the Aceh province of Indonesia.

On Simeulue, the islanders have passed down the lessons of a great tsunami they experienced about 100 years ago through an epic song which teaches the wisdom of their ancestors; "if there is an earthquake and the sea water is receding, escape to the mountains."

In 2004, when the earthquake struck and the islanders saw water receding from the shore, they quickly ran to the 30-meter high hill, and managed to save many precious human lives.

Documentary Photography (Opening Ceremony)



1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

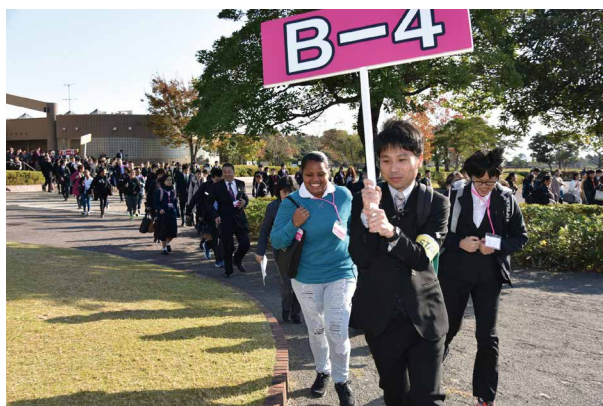
16

17

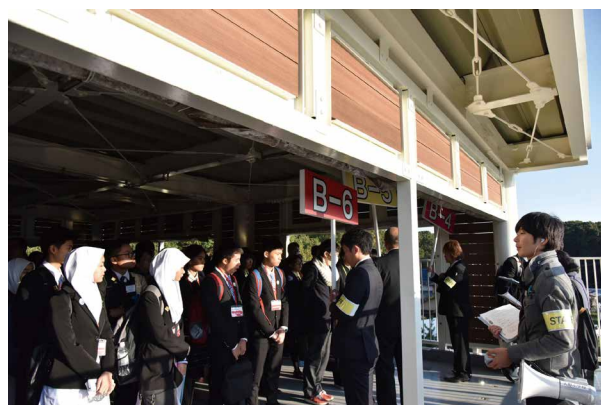
Documentary Photography (Workshops)



Documentary Photography (Evacuation Drills)



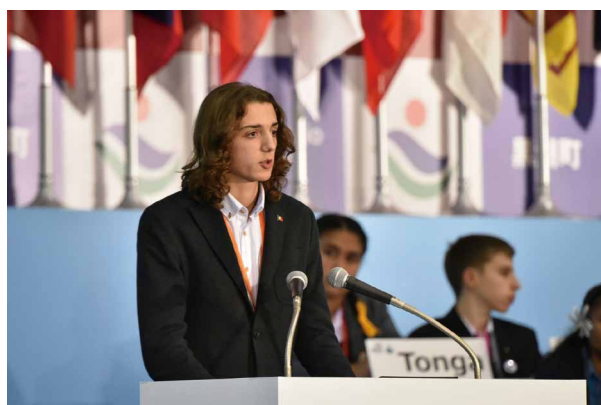
Documentary Photography (The Tsunami Evacuation Tower and the Stone Monument for the Ansei Tsunami)



Documentary Photography (Commemorative Tree Planting)



Documentary Photography (General Meeting)



Documentary Photography (Warm Welcome by Citizens and Farewell Party)



Overview of Summit

1. Concept

Japan, along with 141 countries, proposed the resolution to designate November 5th as “World Tsunami Awareness Day”, with the aim of raising international awareness of the threat of tsunamis and the precautionary measures against them. This was adopted by consensus at the UN General Assembly in December 2015.

In Japan, November 5th was already designated as “Tsunami Disaster Prevention Day”. This originated from an anecdote known as “Inamura-no-hi” (the burning of harvested rice sheaves). On November 5th in 1854, when the Ansei Nankai Earthquake occurred, Goryo Hamaguchi, a local leader in Hirogawa Town, Wakayama Prefecture, set fire to his precious rice sheaves in the fields, and guided his fellow villagers to higher ground, saving them from the tsunami.

This time, as an educational event of “World Tsunami Awareness Day”, we will be holding the High School Students Summit on “World Tsunami Awareness Day” in Kuroshio; an international meeting for young people.

In the event of the Nankai Earthquake, Kuroshio is currently predicted to be most damaged by a tsunami with waves as high as 34 meters. With the philosophy that not a single person should be lost in an earthquake or tsunami, Kuroshio has launched a variety of initiatives, including the maintenance of the infrastructure for disaster risk reduction, disaster risk reduction education, and generating the industries for disaster risk reduction.

Earthquakes and tsunamis are issues faced by many countries, taking many people’s lives, and causing devastating damage.

This time we are holding the High School Students Summit with the purpose of offering expertise on disaster risk reduction and explaining about the threat of earthquakes and tsunamis in order to train future leaders who can protect civilian’s lives and property from these disasters, and minimize the impact of natural disasters on civilian’s everyday lives and economic situations. This can be done through executing comprehensive and systematic measures that contribute to disaster risk reduction, rapid recovery and reconstruction, and international cooperation.

2. Overall Theme

“What we, who are responsible for the next generation, can do to survive natural disasters
- From the perspectives of self-help, mutual assistance and public assistance -”

3. Fields of Workshops

1) Understanding of the risks of natural disasters (For example, proper awareness of tsunami to protect ourselves, dissemination of World Tsunami Awareness Day, handing down lessons learned from disasters, disaster risk in your community, and etc.)

2) Preparations for natural disasters (For example, the proposal of actions that can be undertaken by schools, communities and households to reduce the impact of disasters)

3) Recovery and reconstruction from the damages by natural disasters (The roles of students such as conducting sustainable volunteer activities)

4. Number of Participants

- Overseas: Total 284 people (246 students, 38 teachers and supervisors, 29 countries)
- Japan: Total 164 people (115 students, 49 teachers, 38 schools)

5. Date

November 25th – 26th, 2016

6. Venue

Gymnasium, Tosa Seinan Great Park, Kochi Prefecture

Address: 388 Irino, Kuroshio-cho, Hata-gun, Kochi Prefecture

7. Organizers

Kochi Prefecture / Kochi Prefectural Board of Education / Kuroshio Town / Kuroshio Town Board of Education

8. Co-organizer

United Nations Office for Disaster Risk Reduction (UNISDR) Office in Japan

9. In co-operation with

National Resilience Promotion Office, Cabinet Secretariat / Disaster Management Bureau, Cabinet Office / Ministry of Foreign Affairs / Ministry of Education, Culture, Sports, Science and Technology / Organization for Economic Cooperation and Development (OECD)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Summit Schedule

High School Students Summit on “World Tsunami Awareness Day” in Kuroshio

| | | | |
|----------|------|-------|---|
| November | 25th | 16:30 | Opening Ceremony |
| | 26th | 8:05 | Workshops and Fieldworks |
| | | 13:40 | Commemorative Tree Planting and Group Photo of all participants |
| | | 15:00 | General Meeting |
| | | 18:40 | Farewell Party |

Time Schedule

○November 25th (Friday)

Opening Ceremony (Gymnasium arena)

| | |
|---------------|---|
| 16:20 ~ 16:30 | Opening |
| 16:30 ~ 16:35 | Opening Declaration by Chairpersons |
| 16:35 ~ 16:45 | Opening Speech and Explanation of the purpose of the summit by The Mayor of Kuroshio Town |
| 16:45 ~ 17:00 | Procedure of the summit |
| 17:00 ~ 17:30 | Presentation by OECD Tohoku School |
| 17:30 ~ 17:50 | Orientation for Workshop 1 (Divided into Small Groups) (Self-Introduction) |
| 17:50 ~ 18:15 | Orientation for Workshop 2 (Divided into Small Groups) (Confirmation of the Procedure) |

○November 26th (Saturday)

Workshops (Including Fieldworks) (Ogata Akatsuki Library/Gymnasium arena/Kojin Evacuation area)

| Group A | | Group B | |
|---------------|--|---------------|--|
| 8:20 ~ 10:20 | Workshops | 8:05 ~ 8:35 | Observation of the Tsunami Evacuation Tower and the Stone Monument for the Ansei Tsunami |
| | | 9:15 ~ 10:05 | Fieldwork: Evacuation Drills to the hill |
| 10:35 ~ 11:25 | Fieldwork: Evacuation Drills to the hill | 10:25 ~ 12:25 | Workshops |
| 12:00 ~ 12:30 | Observation of the Tsunami Evacuation Tower and the Stone Monument for the Ansei Tsunami | | |
| 12:40 ~ 13:10 | Lunch | 12:25 ~ 13:10 | Lunch |
| 12:35 ~ 13:35 | Declaration Review Meeting (the chairpersons and workshop moderators of each group) | | |

Commemorative Tree Planting (Ogata Akatsuki Library)

| | |
|---------------|---|
| 13:40 ~ 14:10 | Commemorative Tree Planting and Group Photo of all participants |
|---------------|---|

General Meeting (Gymnasium arena)

| | |
|---------------|---|
| 15:00 ~ 15:05 | Opening Declaration of the General Meeting by Chairpersons |
| 15:05 ~ 15:25 | Opening Speech by the Governor of Kochi Prefecture and Guests |
| 15:27 ~ 15:52 | Report from a Disaster-affected Area of the Great East Japan Earthquake and Tsunami |
| 16:05 ~ 17:05 | Report from Workshops |
| 17:05 ~ 17:10 | Adoption of the Kuroshio Declaration |
| 17:10 ~ 17:20 | Closing Declaration by Chairpersons |

Farewell Party (New Royal Hotel Shimanto)

| | |
|---------------|----------------|
| 18:40 ~ 20:10 | Farewell Party |
|---------------|----------------|

The List of Participating Schools and Workshop Groups

※Moderators at a workshop are gray-colored.

| Workshop | | Participants | | | |
|----------|--|--------------|------------------------|---|---|
| Group | Fiel | No. | Country/ Prefecture | Name of High School | Title of Presentation |
| A-1 | ① Understanding of the risks of natural disasters | 1 | Japan/ Iwate | Morioka Daiichi High School | Effective Ways to Pass on Knowledge about Disasters from the Perspective of Disaster Risk Reduction |
| | | 2 | Japan/ Saitama | Fudooka High School | Flood-related Disaster Risks and Emphasis on Cooperation |
| | | 3 | Japan/ Osaka | Nishinari High School | Evacuation Routes for the Nankai Trough Megathrust Earthquake |
| | | 4 | Maldives | Centre for Higher Secondary Education | Tsunami Risk Reduction at an Individual Level |
| | | 5 | Sri Lanka | Rahula College, Mahinda College Sanghamitta Women's College Sujatha College, Southland College Richmond College | Understanding of the risks of natural disasters |
| | | 6 | Fiji | Marist Brothers High School | Tsunamis in Fiji: A rarity of disaster possibilities |
| | | 7 | Portugal | Rainha Dona Amelia High School | Understanding of the risks of natural disasters (For example, proper, awareness of tsunami, dissemination of World Tsunami Awareness Day, handing down lessons learned from disasters, and disaster risk reduction education) |
| A-2 | ① Understanding of the risks of natural disasters | 8 | Japan/ Miyagi | Sendai First High School | The Story of Tsunami Deposits: An Easy Method for Finding Tsunami Deposits |
| | | 9 | Japan/ Tokyo | Tokyo Gakugei University Senior High School | How to use disaster experience to learn from Great Kanto Earthquake |
| | | 10 | Japan/ Okayama | Tamashima High school | Efforts Aimed at Raising Community Awareness of Disaster Risk Reduction in the Tamashima Region |
| | | 11 | China/ Fujian ⑦ | Quanzhou No.5 Middle School Quanzhou Peiyuan Middle School Quanzhou No.1 Middle School | Quanzhou's natural disasters |
| | | 12 | Philippines | Ateneo De Manila Senior High School | Disaster Risk Management (DRM) Knowledge of Filipino Senior High School Students and Their Perception of the Learning Capabilities of Public Elementary School Students: A Step Towards the Creation of Learning Modules Incorporated in the Tulong Dunong Program of the Ateneo Senior High School |
| | | 13 | Kenya | Moi Girls' High School-Eldoret Lugulu Girls' High School Maseno School Nairobi School Precious Blood Secondary School Friends School Kamusinga | UNDERSTANDING THE RISKS OF NATURAL DISASTERS |
| A-3 | ② Preparations for natural disasters | 14 | Japan/ Miyagi | Tagajo High School | Disaster prevention and reduction in an urban tsunami ~to learn from the activity"setting up tsunami level signs"~ |
| | | 15 | Japan/ Shizuoka | Susono High School | Making of "Digital Map Book" system with iPad, for supporting disaster prevention education on Elementary and middle school. |
| | | 16 | Japan/ Kochi | Susaki High School | "WE ARE SOSSENJA" |
| | | 17 | China/ Fujian ⑧ | Fuzhou No.1 Middle School Fuzhou Foreign Language School | Preparations for natural disasters |
| | | 18 | Micronesia | Kosrae High School | The Roles of Students Conducting Sustainable Volunteer Activities |
| A-4 | ② Preparations for natural disasters | 19 | Papua New Guinea | Port Moresby National High School | PREPARE NOW SAVE LIVES TOMORROW |
| | | 20 | Japan/ Iwate | Miyako Technical High School | Giving Demonstrations of Simulated Tsunamis Using Tsunami Models that Reflect Topographic Features in the Ocean as well as Those on Land |
| | | 21 | Japan/ Fukushima | Iwaki Senior High School | Effectiveness of Hazard Maps for Disaster Mitigation with a Focus on the Coastal Areas of Iwaki City |
| | | 22 | Japan/ Osaka | Kansai Soka High School | |
| | | 23 | Samoa | Aleipata College | Preparing for and surviving Natural Disasters through our Tsunami Experience |
| A-5 | ③Recovery and Reconstruction from the damages by natural disasters | 24 | Greece | I General High School, Lefkada | "Education is the key for disaster preparedness" |
| | | 25 | Viet Nam | Cau Giay High School | Preparations for natural disasters- responsibility of global citizens |
| | | 26 | Japan/ Iwate | Mizusawa High School | Great East Japan Earthquake-High School Students Should Help Recover from Tsunami Damage and Provide Reconstruction Support |
| | | 27 | Japan/ Shizuoka | Shizuoka Gakuen High School | |
| | | 28 | Japan/ Wakayama | Hidaka High School | Disaster Risk Reduction Schools: The Role of High School Students in the Event of a Disaster |
| A-6 | ③Recovery and Reconstruction from the damages by natural disasters | 29 | India | Government Model Senior Secondary School, Port Blair | Recovery and Reconstruction from the damage caused by natural disaster(the roles of students such as conducting sustainable volunteer activities) |
| | | 30 | Chile ② | Caremapu High School | Tsunamis and my Town |
| | | 31 | China/ Fujian ⑥ | Xiamen Foreign Language School | Student force in post disaster reconstruction |
| | | 32 | Japan/ Yamanashi | Koryo High School | Network of High School Students for Disaster Response |
| | | 33 | Japan/ Osaka | Senri International School of Kwansei Gakuin | Reconstruction that Creates Ties between Various Regions of Japan |
| A-7 | ③Recovery and Reconstruction from the damages by natural disasters | 34 | Thailand | Langu Pittayakom School, Kathuwittaya School Hadsamranwittayakom School Takuapa Senanukul School Kapowittaya School, Nongthalaywittaya School | Preparations for natural disasters |
| | | 35 | Indonesia ① | Banda Aceh I National Senior High School | The Roles of Senior High School Students in Conducting Sustainable Volunteer Activities After Recovery and Reconstruction |
| | | 36 | Cambodia | Cambodia-Japan Friendship Middle and High School | Volunteer activities of Cambodian youths after serious floods |
| | | 37 | Palau | Palau High School | Post Natural Disaster: Recovery and Reconstruction |

The List of Participating Schools and Workshop Groups

※Moderators at a workshop are gray-colored.

| Workshop | | Participants | | |
|----------|--|--------------|--------------------------------|---|
| Group | Field | No | Country/ Prefecture | Title of Presentation |
| B-1 | ① Understanding of the risks of natural disasters | 38 | Japan/ Miyagi | Furukawa Reimei High School |
| | | 39 | Japan/ Kanagawa | Yokohama Science Frontier High School |
| | | 40 | Japan/ Tokushima | Jonan High School |
| | | 41 | China/ Hainan ② | Hainan Overseas Chinese Middle School |
| | | 42 | Korea ② | Kumho High School |
| | | 43 | Myanmar | No.2 Basic Education High School, Sittwe No.6 Basic Education High School, Patheingyi No.1 Basic Education High School, Maubin No.2 Basic Education High School, Thant No.6 Basic Education High School, Mawlamyine |
| B-2 | ① Understanding of the risks of natural disasters | 44 | Japan/ Miyagi | Kesennuma High School |
| | | 45 | Japan/ Osaka | Hirano Senior High School Attached to Osaka Kyoiku University |
| | | 46 | Japan/ Kochi | Tosajuku Senior High School |
| | | 47 | China/ Hainan ⑤ | Haikou No.1 Middle School |
| | | 48 | Indonesia ② | Peukan Bada I Aceh Besar National Senior High School |
| | | 49 | United States of America | Waiakaa High School Hilo High School |
| B-3 | ② Preparations for natural disasters | 50 | Japan/ Tokyo | Tokyo Gakugei University International Secondary School |
| | | 51 | Japan/ Nara | Unebi High School |
| | | 52 | Japan/ Kochi | Kochi Ozu High School |
| | | 53 | China/ Hainan ① | Hainan Middle School |
| | | 54 | Korea ① | Kumho High School |
| | | 55 | Laos | Phonesavanh School |
| B-4 | ② Preparations for natural disasters | 56 | Japan/ Kanagawa | Yokosuka Sogo High School |
| | | 57 | Japan/ Okayama | Ibara Senior High School |
| | | 58 | Japan/ Kochi | Susaki Technical High School |
| | | 59 | Japan/ Fukuoka | Meijigakuen Junior and Senior High School |
| | | 60 | China/ Hainan ③ | The High School Affiliated to Hainan Normal University |
| | | 61 | Turkey | Private MEF High School |
| | | 62 | Marshall | Marshall Islands High School |
| B-5 | ③Recovery and Reconstruction from the damages by natural disasters | 63 | Japan/ Miyagi | Shizugawa High School |
| | | 64 | Japan/ Hyogo | Kobe University Secondary School |
| | | 65 | Japan/ Kochi | Kochi Nishi Senior High School |
| | | 66 | Singapore | Temasek Junior College |
| | | 67 | Malaysia | Sultan Mohamad Jiwa Science Secondary School |
| | | 68 | Peru | San Jose Hermanos Maristas School |
| B-6 | ③Recovery and Reconstruction from the damages by natural disasters | 69 | Japan/ Kyoto | Ritsumeikan High School |
| | | 70 | Japan/ Saga | Saga Agricultural Senior High School |
| | | 71 | China/ Hainan ④ | Hainan Guoxing Middle School |
| | | 72 | Brunei | Meragang Sixth Form Centre |
| | | 73 | Tonga | Tonga High School |
| | | 74 | Chile ① | Bicentenario Isidora Ramos High School |

Message from the Prime Minister of Japan

High School Students Summit on World Tsunami Awareness Day Video Message from the Prime Minister of Japan



Hello, everyone, representatives from high schools! Welcome to Japan!

I am Shinzo Abe, the Prime Minister of Japan.

Last December, the resolution to establish November 5th as World Tsunami Awareness Day was adopted by consensus at the United Nations General Assembly.

This year, 2016, is the first year of observation for World Tsunami Awareness Day. It is a great pleasure that the youth that will lead the future have gathered from all over the world to Kuroshio Town, which is known for its advanced tsunami countermeasures, to hold the High School Students Summit on World Tsunami Awareness Day in this commemorative year.

Five years have passed since the Great East Japan Earthquake, which caused severe damage to the Tohoku region, coupled with the loss of approximately 20,000 human lives. The deep affection of the people for their hometown has turned into a great force leading to the steady and step by step restoration of the region. I would like to take this opportunity to reiterate my deep gratitude for the warm support from many countries, including yours.

This Summit offers a valuable opportunity for high school students from 30 countries to interact with each other, and to learn about their common issues, such as the threats of earthquakes and tsunamis, as well as the importance of Disaster Risk Reduction (DRR).

The Great East Japan Earthquake taught us the importance of disaster education and also the preciousness of overcoming the tragedy to create a future full of hope. To share this experience is a form of gratitude that Japan can offer in return for the support. It is also one of the purposes of this Summit.

Here in Kuroshio Town, Kochi Prefecture, it is assumed that a maximum 34 meters high tsunami might arrive if an earthquake on the Nankai Trough occurs. Under the major principle of saving the lives of the local residents, a variety of measures are being implemented, such as the development of DRR infrastructure, including a tsunami evacuation tower, enhancing education on tsunamis, and fostering and supporting DRR-related industries.

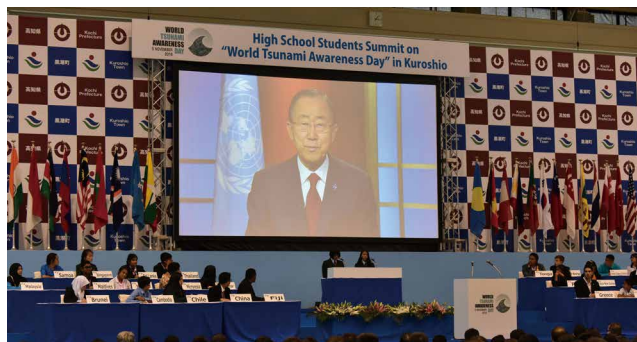
I hope all of you can share the wisdom being practiced in Kuroshio Town to overcome disaster caused by natural hazards, where people face and address earthquakes and tsunamis squarely to create a resilient community in their unique way.

1 More than 150 years ago, a leader of a village in Wakayama saved the lives of many villagers from
2 a tsunami with his quick wit and action. He set fire to his precious sheaves of rice stacked on a hill
3 to guide the villagers to evacuation. World Tsunami Awareness Day arises from this anecdote.
4 I hope all of you will play an active role as future leaders toward DRR from a global perspective. It
5 will eventually lead to a wave of saving precious lives of many people for generations to come.
6 I hereby conclude by pledging to work together with the leaders who have gathered here today as
7 Youth Ambassadors for World Tsunami Awareness Day to build communities and nations in the
8 future which are resilient to disasters caused by natural hazards. Thank you very much for your
9 attention.

Message from the Secretary-General of the United Nations

THE SECRETARY-GENERAL -- VIDEO MESSAGE TO HIGH SCHOOL STUDENT SUMMIT ON WORLD TSUNAMI AWARENESS DAY IN KUROSHIO

26 November 2016



Dear students,

I am pleased to send greetings to your important gathering.

November 5th marked the first observance of World Tsunami Awareness Day.

This date commemorates the famous Japanese story of “Inamura-no-hi”, when a wise local leader acted to save many lives from an approaching tsunami.

You show similar wisdom by bringing together more than 350 students from 30 countries.

Tsunamis are rare, but deadly.

The 2004 Indian Ocean Tsunami claimed 227,000 lives.

More than 15,000 people died in the Great East Japan Earthquake and Tsunami, which seriously damaged the Tohoku Region in 2011.

That August, I visited the tsunami stricken areas. I was deeply moved and inspired to meet many students at Fukushima Minami High School. They were not fully over the shock, but they showed a sole sense of community.

Being aware and prepared is key to survival. In that regard, I highly commend the vision of the Japanese government for organizing the Sendai Conference on Disaster Risk Reduction and adapting its framework.

It is important to observe World Tsunami Awareness Day.

Each of you should take home the lessons you learn today.

Your communities will thank you.

I count on you to be leaders who can reduce the risk of future disasters.

Thank you. Arigatou gozaimasu.

Message from the Advocate of the World Tsunami Awareness Day

Tokyo, 13 December 2016

Dear Youth Ambassadors for the World Tsunami Awareness Day,

I hope everything is fine with you.

Let me first acknowledge your great efforts over a past few months in preparation for High School Students Summit on “World Tsunami Awareness Day” in Kuroshio, and commend your successful participation, overcoming differences in culture, custom, and language.

I was especially impressed by your active participation in the disaster evacuation drill on the day of the summit which was carried out in Kuroshio town, Kochi prefecture and the field trip to a tsunami evacuation tower, as well as your presentations and declaration which was agreed through discussion among students.

I have been promoting initiatives for building national resilience to protect the nation’s precious lives from natural disasters. Last year I proposed to the international community establishing “World Tsunami Awareness Day” given that saving lives from natural disasters cannot be achieved without global support and efforts, and finally “World Tsunami Awareness Day” was established unanimously at the United Nations General Assembly.

As you learned in Japan, the anecdote of “Inamura-no-hi”, an accomplishment by Goryo Hamaguchi, has been passed down in Japan for generations. Without doubt, the past efforts to address tsunami risks are useful for succeeding generations, who will bear the responsibility for the future.

I felt assured that High School Students Summit in Kuroshio was a great success as I found the importance of tsunami risk reduction being passed down beyond borders and generations and I saw students deepening their understanding on natural disasters.

With experiences and friendship you gained in Kuroshio, I hope you will further strengthen your determination to save as many lives as possible from natural disasters and deepen your friendship in your country and region.



Opening speech in General Meeting by Mr. Nikai

Sincerely yours,
Toshiiro Nikai
Secretary-General of Liberal Democratic Party
Member of the House of Representatives

Message from the Special Representative of the Secretary-General for Disaster Risk Reduction

29 November 2016

Dear Youth Ambassadors for the World Tsunami Awareness Day,

Thank you for your active participation in the High School Student Summit on the World Tsunami Awareness Day in Kuroshio, held on 25–26 November 2016 in Kochi Prefecture, Japan.

On behalf of the United Nations Office for Disaster Risk Reduction (UNISDR) that co-organized this Summit, I would like to congratulate you on the success of the Summit and the adoption of the Kuroshio Declaration. I am encouraged by the Kuroshio Declaration's three pillars: "We will learn; We will take actions; We will create".

Through field visits as well as active discussions in the workshops, I believe that the Summit provided you with a great opportunity to learn and discuss with each other what students can do for their communities to be prepared for and be resilient against disasters.

This gathering of high school students from 30 countries was an important contribution toward the celebration of the World Tsunami Awareness Day which was adopted by the United Nations General Assembly in 2015. Passing the experiences and lessons on disaster risk reduction on to the next generation is critical to foster a culture of prevention and to enhance resilience among societies.

Tsunamis are rare. But they can be extremely deadly. The 2004 Indian Ocean Tsunami that took 227,000 lives reminded us that tsunamis are the deadliest natural hazards. As highlighted by the message sent by the Secretary-General of the United Nations for your event, "being aware and prepared is key to survival". We count on you to be leaders in your communities who can reduce the risk of future disaster losses.

Yours Sincerely,
Robert Glasser
Special Representative of the Secretary-General
for Disaster Risk Reduction

Report from Workshop, Group A-1



| Country | Name of High School | Title of Presentation |
|-----------|--|---|
| Japan | Morioka Daiichi High School | Effective Ways to Pass on Knowledge about Disasters from the Perspective of Disaster Risk Reduction |
| | Fudooka High School | Flood-related Disaster Risks and Emphasis on Cooperation |
| | Nishinari High School | Evacuation Routes for the Nankai Trough Megathrust Earthquake |
| Maldives | Centre for Higher Secondary Education | Tsunami Risk Reduction at an Individual Level |
| Sri Lanka | Rahula College Mahinda College Sanghamitta Women's College Sujatha College Southland College Richmond College | Understanding of the risks of natural disasters |
| Fiji | Marist Brothers High School | Tsunamis in Fiji: A rarity of disaster possibilities |
| Portugal | Rainha Dona Amelia High School | Understanding of the risks of natural disasters (For example, proper, awareness of tsunami, dissemination of World Tsunami Awareness Day, handing down lessons learned from disasters, and disaster risk reduction education) |

Report from Workshop, Group A-1



Mr. David Miranda Ribeiro Moreira

Rainha Dona Amelia High School

Portugal

Thank you every one. David, and I are the presenters for the AI group. During our workshop discussion, we came up with four measures that represent our own action plan. Our group consists of Maldives, Sri Lanka, Fiji, Portugal and, of course, Japan. Our first measure is the education for the masses throughout the use of technological means that are available towards the 21st century. But this has to be done in a way that they are learned before the actual event happens so that they do not need technology during the seismic event and tsunami. Now, there is a very important challenge that appears when we talk about this is the countries do not have the same access to technology as the country like Japan do. But the goal of these is so that everyone knows what may happen in the event of a catastrophe and what needs to be done in case it happens. For second measure, this can be especially towards students who attend this summit. Because three days ago, Japan has been in some earthquake and most of us got a phone call and we did not really understand what is going on. The one in Japan is amazing but they do not really help the tourists. And this is why there is need for the internationalization of the automatic warning systems. In a way that every tourist and every country can understand what the warning means to them and what they need to do. The biggest challenge of these is that there needs to be international and universal symbols and languages so that everyone can understand the same thing. But the main goal of these is every tourist may feel safe and my neighbor's safe at their home and wherever country they are. Also, topic comes specifically from Maldives because they are the country with the natural height with the maximum 1.2 meters and the soils are not hard enough to build rescue towers from tsunamis. And therefore they have no ways to run in an event of natural tsunami coming. Solution comes from the representative of Fiji Islands who themselves have planted mangroves in a way to tighten the soil and create natural barrier to the tsunamis and this is something has to be done in a country and it's incredibly important for countries where they have nowhere to escape to. And therefore the only solution for tsunamis is to mitigate damage that they might cause. And the solution comes from, as I said, Fiji who themselves have planted and showed us in the workshop themselves the planted trees that will help mitigate the damage. Finally, I think the

most important topic is the promotion of communication between countries that have experienced tsunami and disasters and the countries that have not in ages. And I think the talks we had from the story tellers, they are incredibly important because it means that every country and everyone attending this could learn some personal experience from them and this incredible touching stories. As they are what we learned, we are the one who will help the country, we are the one who will do everything we can and listening to these stories for the first time is very important for us to understand what exactly happens. And this is why we believe that myself and everyone standing here is incredibly grateful to be in such an honor to be here, standing here in the first summit. Thank you very much.

Content and Results of Advanced Surveys:

The coastal areas of Iwate Prefecture, where our high school is located, suffered extensive tsunami damage in the Great East Japan Earthquake of March 11, 2011. Three of our members are from Iwate's coastal areas, and we each conducted fieldwork in these coastal areas where we once lived. The aim of the fieldwork was to propose ways to pass on knowledge about disasters to future generations in a way that will truly help people prepare for future tsunami disasters. The results of the fieldwork were as follows: (1) We learned from interviews that in Yamada Town, Iwate Prefecture, those who were born in the 1970s (our mothers' generation) were able to evacuate smoothly because the habit of evacuating to safety if there is an earthquake had been more or less ingrained in people's minds. (2) On the other hand, in Otsuchi Town, Iwate Prefecture, which suffered town-wide catastrophic damage, some returned to their homes and fell victim to the tsunami, even though they had evacuated to safety once. This happened because there was some time between the earthquake and the arrival of the tsunami. (3) Although the Osaki district in Kamaishi City, Iwate Prefecture, has a tsunami monument in the residential area, it was not something that high school students were able to understand at a glance by any stretch of the imagination. It also became clear from the interviews that the monument was not widely recognized by the local residents.

Analysis of Problems and Issues:

- (1) It is believed that one of the best ways to avoid human casualties in a tsunami is to, although this may seem simple, quickly evacuate to high ground if there is an earthquake. Some of the elderly residing in the coastal areas we interviewed said they used to fold their clothes and place them next to their pillows before they went to bed so they could evacuate at any time. Such practices, however, tend to create more anxiety in people and are disappearing today due to the development of breakwaters and means of transmitting information.
- (2) Even if such practices are effectively ingrained in people's minds, predicting disasters accurately can be difficult until they actually happen and there is still a possibility that the damage cannot be avoided. Such was the case with the Great East Japan Earthquake, which was described as an unprecedented disaster. Furthermore, Japan has a rich natural environment, and natural disasters can threaten us in a variety of ways. Because of this we need to gain as much accurate knowledge as possible on the history of past disasters, pass that knowledge on to future generations, and develop the ability to envision various possibilities for the next unprecedented disaster while also remaining cognizant of societal changes.
- (3) Opportunities and channels that allow us to come into contact with the memories of past disasters in our daily lives are far from plentiful. We need to reach out to the various different channels of communication (e.g., tsunami monuments, sharing information through word of mouth) which already exist in our living environment as well as understand, utilize, and share them.

Action Plan:

- As the generation that experienced the Great East Japan Earthquake, we will strive to gain an accurate understanding of the recurrent damage from tsunami disasters which have occurred to date, engage in unending efforts to pass on the lessons learned from these disasters to future generations who have never experienced an earthquake disaster, and serve as the bridge for passing on such knowledge.
- We will also take advantage of the various opportunities to disseminate this information and invite as many people as possible to areas affected by the Great East Japan Earthquake in an effort to help people develop the ability to envision and predict the next unprecedented disaster, which can happen anywhere and anytime.
- In the Sanriku region, we will strive to develop communities based on the spirit of cooperation that will embrace those who are unable to escape on their own from unforeseen circumstances (which are expected to increase in the coming years along with the arrival of the aging society).
- Specifically, we will propose and implement disaster risk reduction programs in which high schools play the leading role. The programs will involve deepening intergenerational exchanges, passing on the lessons learned from past disasters, and developing communities in which people help one another through activities such as practical emergency drills led by high schools and conducted in cooperation with nursery schools and nursing homes.

Content and Results of Advanced Surveys:

Conducted surveys at Kazo City Hall, Miyashiro Town Office, and Koto Ward Office

- Each of these communities have a high risk of flooding.
- Each of these municipalities value the importance of self-reliant efforts, public assistance, and cooperation with respect to measures against disasters. Yet no concrete measures for flood control in particular have been put in place.
- Despite the high risk of flooding, the local residents have a low level of awareness about flood disasters.
- The sense of community, which is an important element of cooperation during a disaster, is dying out.

Analysis of Problems and Issues:

- The lack of major flood control measures may create congestion or confusion during an evacuation process.
- The low level of awareness among the local residents and municipalities of disaster measures that value independent efforts, public assistance, and cooperation, with a particular emphasis on cooperation, is an issue that needs to be addressed.

Action Plan:

- In an effort to raise the community awareness of disaster preparedness with an emphasis on cooperation, we will carry out flood simulation drills with the cooperation of elderly community residents, people from nursing and personal care facilities, and nursery schools. The drills will take place during combined assemblies for junior high school and high school students and other similar time slots. We will also hold cooking gatherings to make dishes using emergency food rations hosted by high school students. (This event will help reduce the stress felt by those staying in evacuation shelters (who will be experiencing circumstances they are not accustomed to), as they will be without essential utilities for about two weeks following a flood disaster.)
- To avoid road congestion caused by an excessive number of cars on the road during an evacuation, a driver will drive around each community district or section and pick up only those who are unable to evacuate on their own and drive them to the evacuation areas. In preparation for this, we will gather information such as the structure of families, whether they are permitted to ride in a car, and the amount of time they are permitted to ride in a car by using circular notices and other methods. Based on this information, high school students will carry out the following activities in cooperation with public agencies.
 - : Designate one person who will drive a car within a community (group) during an evacuation process.
 - : Only those who are unable to evacuate on foot such as the elderly, children, and pregnant women will be picked up and taken to the evacuation area
 → Reduce the number of cars on the road, everyone else is to evacuate on foot.
- We will also develop a disaster simulation app designed for elementary school students to take advantage of the popularity of tablets and other similar devices.

Content and Results of Advanced Surveys:

In Osaka prefecture, the Nankai Trough Megathrust Earthquake (estimated magnitude: 9.1) will be followed by a tsunami with waves as high as about 5 m. Given that Nishinari High School is located about 5 km inland from the coast and along the Kizugawa river, there is a possibility that our school will suffer extensive tsunami damage. Records show that in the 1854 Nankai earthquake, tsunami waves rushed up the Kizugawa river. The estimated amount of time it takes for tsunami waves to reach Nishinari High School is about two hours, so we will need to evacuate to safety within that time span. To the east of Nishinari High School is Uemachi Plateau, which is a suitable place for evacuation.

Analysis of Problems and Issues:

Uemachi Plateau is about a 1-hour walk from Nishinari High School. However, if there is an earthquake, there is a possibility that the roads will be blocked off by collapsed buildings. It also may take a long time to evacuate due to the large number of people evacuating. The area near Nishinari High School has many shopping districts, small alleys, wooden buildings, and factories. When deciding on an evacuation route, we need to find one that allows people to evacuate safely and quickly.

Action Plan:

In order to come up with a suitable evacuation route, we walked down potential routes as part of our fieldwork in cooperation with the agencies in charge of disaster risk reduction in Nishinari Ward, Osaka City. In the fieldwork, we walked the potential routes while pushing a wheelchair, under the assumption that among those evacuating would be the elderly or persons with disabilities. We deliberated on how safe the routes would be for evacuation purposes and considered the best means of evacuation (including the use of tsunami refuge buildings) based on information such as the amount of time it took to evacuate and any hazardous areas along the routes. We plan to organize the conclusions we drew from our discussions into a map, report them to the agencies in charge of disaster risk reduction in Nishinari Ward, and present them to the elementary school students as well as neighborhood residents in disaster risk reduction events held at the local elementary schools.

Content and Results of Advanced Surveys:

- 1) If a Tsunami strikes, which area should you go to?
52% High floor of a building
- 2) When caught in a Tsunami, which object should you hang on to?
50% A floating log
50% A plated tree
- 3) Which skill would come in most handy during a Tsunami?
79% Swimming
- 4) What is a sure sign of Tsunami? (Choose two)
49.5% A noticeable rapid rise or fall in coastal water
29% Loud "roaring" sound
- 5) How do you guide a child in a case of a Tsunami?
99% By giving clear and simple instructions that will be easy to remember
- 6) What are the two main causes of death in a Tsunami?
81% Drowning and being crushed by falling debris
- 7) What does the earthquake and Tsunami alert level Yellow mean?
57% Earth quake with a magnitude of >7.0 has occurred and there's a strong possibility of a regional Tsunami
- 8) What does the earthquake and Tsunami alert level Red mean?
48% Earth quake with a magnitude of 9.0 has occurred and there's a strong possibility of a regional Tsunami
- 9) What is the priority order of the level of emergency colour codes from highest to lowest?
95% Red, Yellow, White

Analysis of Problems and Issues:

Analysis of the results showed that

- 1) Lack of proper awareness and misconceptions regarding immediate responses to a Tsunami
- 2) Lack of proper information regarding "Earth Quake and Tsunami Warning and Alerts" released from the Maldives Meteorological Service.

Why these problems arise

- 1) Maldives has not experienced neither major nor frequent natural disaster such as Tsunami due to the geographical location.
- 2) Maldives is under-equipped and not prepared for Tsunami's. There are also no evacuation plans made as of yet. Tsunami resistant infrastructure has not been used in a large scale.
- 3) There has not been sufficient outreach of proper education regarding Tsunami. Community Based Disaster Risk Management (CBDRM) has only been conducted in 40-50 habited islands.

Action Plan:

1) Exco to Exco

Conduct joint awareness sessions regarding Tsunami Risk Reduction on an Individual scale, in cooperation with other school EXCO's(Prefects' Executive Committees) as it would be much easier to delegate.

Content: Immediate Responses to a Tsunami

Explaining the magnitude of a Tsunami, and their warning signs

2) Collaborate with the Disaster Management and conduct training and education sessions for the youth.

Main aim: To start a chain of awareness in which information will not be diluted as the chain progresses.

Why?: Because we believe that peer educating is an untapped wealth of resource which needs to be utilized to its maximum ability.

Evacuation methods — a CBDRM in a smaller scale.

Make the sessions thorough enough for the youth to convey it to their families.

Understanding of the risks of natural disasters

Content and Results of Advanced Surveys:

• What is natural Disaster

A natural disaster is a major adverse event resulting from natural processes of the Earth; examples include floods, hurricanes, tornadoes, volcanic eruptions, earthquakes, tsunamis, and other geologic processes. A natural disaster can cause loss of life or property damage,[1] and typically leaves some economic damage in its wake, the severity of which depends on the affected population's resilience, or ability to recover and also on the infrastructure available.

- Hurricanes
- Earthquakes
- Landslides
- Tornadoes
- Tsunamis
- Floods
- Draughts

Are some of the major disasters around the globe

• About humanitarian Aid

Humanitarian aid is material and logistic assistance to people in need. It is usually short-term help until the long-term help by government and other institutions replaces it. Among the people in need belong homeless, refugees, victims of natural disasters, wars and famines. The primary purpose of humanitarian aid is to save lives, reduce suffering and respect to human dignity. Humanitarian aid is material or logistical assistance provided for humanitarian purposes, typically in response to humanitarian crises including natural disasters and man-made disaster. The primary objective of humanitarian aid is to save lives, alleviate suffering, and maintain human dignity. It may therefore be distinguished from development aid, which seeks to address the underlying socioeconomic factors which may have led to a crisis or emergency.

• How to re-enforced people to take immediate action

Assessing risk is one thing, acting on the basis of such assessments is another. A pervasive misconception is that ordinary citizens typically fail to protect themselves from hazards because they are ignorant of 'the facts', irrational in how they interpret information, or both. Citizens may not always respond (as authorities hope) to risk warnings, not because they are 'irrational', but because they feel severely constrained in terms of the options open to them (as when evacuation in the face of a less-than-certain hazard will result in a loss of livelihood and means of supporting one's family). These constraints must be understood and anticipated in any plans for disaster prevention and risk mitigation. When conceptualising preparedness, it is important not to see it as an all or none process. Some people decide not to prepare. Others may be interested but need more guidance. These starting points are different and informed by different interpretive and decision processes and intervention must acknowledge this. At the other end of the preparedness spectrum are those who have acted and whose continuing to do so may require engaging with them in different ways. Other things being equal, we would expect people to choose actions that enhance or protect their health and well-being and avoid

actions that put themselves and their families at risk. So why is there a gap between risk interpretation and action? For a start, other things very often are *not* equal. Knowing the risk and knowing how to or being able to respond to the risk are not the same. The *same* activities can have the potential for both enhanced well-being and/or harm. Profitable activities can be relatively dangerous, as with farming on fertile slopes of volcanoes or flood-prone river valleys. Choices which optimize benefit while minimizing risk may simply not be available, or affordable, for people in many real-life situations. There is another vital distinction that is often overlooked. Beliefs or expectations concerning *hazards* (e.g. a hurricane or earthquake) differ from attitudes towards *acts* to be undertaken in the face of such hazards (e.g. evacuation, or making one's home more secure). A lot of this boils down to whether people think such acts will be effective and/or within their own control anyway. Research on individual health behaviour (e.g. smoking, alcohol use, dietary behaviour) contains several examples where unhealthy habits are supported by a whole set of pessimistic self-beliefs, based on personal experience, that changing one's habits is very difficult and *trying* to do so is likely to end in failure. Research on natural hazards has found that people's expectations about the efficacy of preparedness measures influences actions

Analysis of Problems and Issues:

Managing Disasters to reducing risk

Disaster risks can be reduced. This process is known as Disaster Risk Reduction (DRR). Disaster reduction is always about the choices we make. A disaster's severity is measured according to how much damage it has done to the community. And this damage can be reduced according to the choices we make. These choices include the food production, habitation, education and even the government situation. For examples you can reduce the impact from a Tsunami by building houses away from the sea. Each decision and action makes us more vulnerable to the disaster or more resilient to them. Reducing exposure to hazard, lessening vulnerability of people and property, wise management of land are examples of disaster risk reduction.

How can Science play a bigger part in reducing disaster

Today, more than ever, it is vital that science and technology are put at the service of reducing disaster risk in a world where the death toll from a single disaster event such as the Indian Ocean tsunami or the Haitian earthquake can exceed 200,000 people. Drought, floods, storms, heat waves, epidemics and technological disasters directly affected the lives of an average of 174 million people annually between 2004 and 2014. The idea that humankind could alter regional climates through development and technology was first aired by scientists and philosophers in the 18th century. The French physicist Jean-Baptiste Joseph Fourier presented an essay to the Academie Royale des Sciences in Paris in 1824 which explained what today we know as "the greenhouse effect." Almost 200 years later, anthropogenic climate change is a disaster risk affecting us every day in all corners of the globe, in ways that scientists, especially those involved in the Intergovernmental Panel on Climate Change, are helping us to understand and prepare for. Many of the advances which have been made in disaster risk reduction rely heavily on science and technology. Satellites have revolutionized weather forecasting and the communication of early warnings to coastal populations in advance of cyclones. An effective early warning system for tsunamis is now in place across the Indian Ocean.

Investment in disaster risk insurance gives fast

On April 1, the Sri Lankan government paid 300 million rupees (\$2 million) as a premium to buy its first national natural disaster cover from the country's National Insurance Trust Fund. Just six weeks later, as drenching rains swamped the country and a major landslide ripped through Aranayake region, in Kegalle District, the government made its first insurance claim, for nearly a million dollars, to provide meals and other immediate assistance to over 300,000 people hit by the disaster. Soon the cover will also provide financial help for those left with damaged or destroyed houses and small businesses, as well as paying compensation for deaths, said Manjula de Silva, chairman of the insurance trust, known as NIFT. “This is the first time a Sri Lanka government had bought such a cover and the flood disaster showed how vital such precautions can be,” he said. Around the world, insurance is increasingly being looked at as an effective way to curb the blow of more frequent or powerful disasters brought on by climate shifts. Policies ranging from regional-level risk pools, involving groups of countries, to single-farmer policies aimed to helping growers get going again after a total loss, are taking off in regions from the Caribbean to sub-Saharan Africa. In Sri Lanka, Finance Ministry Ravi Karunanayake said his country’s new insurance cover had eased the burden on the government to provide emergency assistance and long term recovery efforts after May’s crisis. The May disaster left 89 dead, while 102 are listed as missing by the Disaster Management Center (DMC). That authority also calculates that 691 houses were destroyed, while about 4,900 sustained damage during a week of heavy rain and landslides. But Karunanayake said that the government expects the estimate of houses damaged to rise to about 128,000. About a sixth of those are likely to need complete rebuilding, he said. “They were under water for seven days. That is no joke,” he said. The Sri Lanka Red Cross warned that the death toll could also rise. It estimated that less than a tenth of the 220 families living in the massive landslide area in the country’s central Arananayake region have been so far traced. Karunanayake said the insurance payout had made compensating families for deaths much easier. “We are ready, willing and able, due to the fact that we have insurance,” he said. NIFT head de Silva said that the compensation could be as high as 2.5 million rupees (\$17,000) for individual homes and small businesses, and fatalities would be compensated with 100,000 rupees (\$670). NIFT, a public body under the Ministry of Finance, is able to provide payouts of up to 10 billion rupees (\$68 million) to policyholders by obtaining reinsurance from global providers.

Action Plan:

1.Determine the risk

At first we should identify what kind of risk can occur in our region.
 Eg: Tsunami, Flood, Drought, Tornado, Cyclone and we should find what are the reasons for them? During the past 10 years.

2.Activities prior to a disaster

People get awareness about different types of disasters,how it happens,its magnitude.etc. We must to take prior actions to a disasters.
 Eg: The speed and power of the tsunami tide sets decreased if coral reefs are there. So as a defense against tsunami we can conduct a programme to protect coral reefs. Constructing drainiry system to drain out rain water in urban areas is also a precaution against floods. Nevertheless. Do rehearsal by gathering together is another prior avtivity.

3.Activities during a disaster

First of all we should insure refugees and get action to minimize disaster immediately
Eg: Providing medical aid to casualties from a disaster.

4.Activities following a disaster

We should take immediate actions to give basic needs at least at the refugee camps.
Eg: sanitary needs essential commodities and also conducting programmes to build up their mental fitness is another important thing. Another important thing is time we should take an immediate action to convert their lives to their routines evacuate refugees from the camps and back to their homes.

5.Activities that reduce the effects of disasters

“Awareness” of people is the main tactic that reduces the effects of disasters.

Content and Results of Advanced Surveys:

- Fiji's location in relation to the world
- Tectonic Location of Fiji
- Fiji in General

Analysis of Problems and Issues:

- Focus area of survey: Suva Peninsula
- Survey Methods
- Analysis of Findings
- Challenges and Recommendations

Action Plan:

- Dissemination of Tsunami Information
- Mangrove Replanting Programme
- Encouraging students' social responsibility
- Effectively using Technology
- Education for Life Programmes

Content and Results of Advanced Surveys:

To date, 143 members of our school (students, teachers, workers and adults responsible for the students at home) and inhabitants and workers of the surrounding area have taken our survey. In it, we assessed the level of knowledge the population possesses about our presentation theme. Here is a brief summary of its results.

The *1755 Lisbon Earthquake* is acknowledged as the biggest catastrophe to have ever hit Lisbon, and its most important facts are known to the inquired population. However, Lisbon's 1969 Earthquake and the floods that hit the city in 1967 are less acknowledged.

Even though the population is aware of the implicit risks of an earthquake or tsunami hitting the city, most of it admits not being prepared. Most also claim that there haven't been enough measures taken by the official administrative entities to soften the potential damage caused by such natural disasters.

Despite there being awareness regarding our theme of presentation, the celebration of "World Tsunami Awareness Day" is unknown to the majority of the inquired population, which maybe due to the fact that 2016 is the first year this day is celebrated.

As for the inquired members of our school, they have shown to know the correct way to act in the event of a disaster when inside our school, according to the self-protection measures present in the educational establishment. However, a notable minority has revealed insufficient knowledge about the tsunami risk in our school's area.

Analysis of Problems and Issues:

The inquired population, half of which are members of our educational community, is aware of the risks of living/working in Lisbon, a high seismic risk area. This is due to the awareness raising efforts of the public entities to these natural disasters through educational information and simulacra performed. The big challenge is to use this knowledge to prepare people at individual, family and community levels. In short: "There is awareness but the action plan isn't sufficiently shown to the general population".

Action Plan:

- 1.- Acquire information from the proper entities regarding an action plan which should be put in practice when natural disasters occur.
- 2.- Promote annually an earthquake drill in ESRDA, similar to the one realized last school year which was named "A Terra Treme". Also, the students who participate in project "High School Students Summit on World Tsunami Awareness Day" will have the responsibility of spreading the knowledge they have obtained.
- 3.- Advise the local administrative entity to carry out the distribution of a flyer targeting all the population named "how to reduce earthquake/tsunami damages and how to help others."

Report from Workshop, Group A-2



| Country | Name of High School | Title of Presentation |
|-------------|---|---|
| Japan | Sendai First High School | The Story of Tsunami Deposits: An Easy Method for Finding Tsunami Deposits |
| | Tokyo Gakugei University Senior High School | How to use disaster experience to learn from Great Kanto Earthquake |
| | Tamashima High school | Efforts Aimed at Raising Community Awareness of Disaster Risk Reduction in the Tamashima Region |
| China | Quanzhou No.5 Middle School Quanzhou Peiyuan Middle School Quanzhou No.1 Middle School | Quanzhou's natural disasters |
| Philippines | Ateneo De Manila Senior High School | Disaster Risk Management (DRM) Knowledge of Filipino Senior High School Students and Their Perception of the Learning Capabilities of Public Elementary School Students: A Step Towards the Creation of Learning Modules Incorporated in the Tulong Dunong Program of the Ateneo Senior High School |
| Kenya | Moi Girls' High School-Eldoret Lugulu Girls' High School Maseno School Nairobi School Precious Blood Secondary School Friends School Kamusinga | UNDERSTANDING THE RISKS OF NATURAL DISASTERS |

Report from Workshop, Group A-2



Ms. Hana Yokoyama

Tokyo Gakugei University Senior High School

Japan

Hello, I'm Hana from Japan, I'm going to come here to represent the group A2. What will we do if tsunami and earthquake came at this time, right here, right now. I know that I should get to the ground, protect my head, and after the shaking finishes, to run as fast as I can to higher grounds. Because it is the drill today, I know what to do. But how about people who don't know what to do? How can we help them? This is our main thing. And our group, one thing that we found common between participants from different countries and different provinces is that student participation for country awareness is the key. My Philippine friends, we heard that they can go teach smaller children from different schools more about natural disasters and preparedness. Our friends from Okayama, Japan, had an action plan for making newsletters and alert system to the community. Our friends from Quanzhou in China, said that having drills for natural disasters and school speeches, and homework related to disaster and risk reduction can help people become more prepared for these events. And from Kenya, we learned the threats of all kind of natural disasters. We also learned that there are ways to do researches for natural disasters by us high school students from our friends of Sendai. From these suggestions, we made our group's action plan. Our action plan is to make a community that has schools at the center for disaster and risk reduction education. Schools first educate their children the risks. And for the communities, schools can keep supplies for emergencies, and students can create handout for the community to teach what to do when an earthquake or some kind of natural disaster comes. I think that it is important to make good relationships between high school students and the community because it will play a very important role at the time of emergencies. I hope that high school students can get together to help each of our countries and someday make the world a stronger place against natural emergencies and disasters. Thank you very much.

Content and Results of Advanced Surveys:

(1) Survey Site

Approx. 2 km inland from the coast in the Nagatoro district, Watari Town in Watari County, Miyagi Prefecture

(2) Features of the Survey Site

The survey will take place on land that used to be rice paddies. It was flooded by the tsunami in the 2011 Earthquake off the Pacific Coast of Tohoku (March 11, 2011). The salt removal has not been completed yet, and the fields have not yet been cultivated.

(3) Survey Methods

Cut a PVC pipe (inside diameter: 70 mm) down to 30 cm in length and then in half longitudinally. Then, insert a simple geoslicer (known as a “slice-kun”), which has a semicircular shaped cross-section, into the survey site through the soil, and collect the deposited material (the core). After that, remove the pieces of deposited material that appears to be the same as the material which you observed with your naked eye, one at a time starting at the bottom, and pass them from top to bottom on sieves with net sizes of 4 mm, 2 mm, and 0.25 mm. Then, examine the deposited material, which was sorted into the different size sieves: over 4 mm, 2 mm to 4 mm, 0.25 mm to 2 mm, and 0.25 mm or smaller (remaining on the sieves) with the naked eye, a magnifying lens, and a stereo microscope.

(4) Survey Results

From bottom to top (oldest to most recent), a gray medium sand layer containing artificial materials such as glass and plastics, a brown medium sand layer, a fine-grained sand layer containing vegetative pieces, and a grayish-brown mud layer in which laminae had started to form were observed.

Analysis of Problems and Issues:

(1) Analysis of Survey Results

The gray medium sand layer we observed at the bottom of the core contained artificial materials such as plastic and glass. Therefore, we believe this is highly likely to be a tsunami deposit from the 2011 Earthquake off the Pacific Coast of Tohoku.

(2) Analysis of Problems and Issues:

Since the core was not reached below the gray medium sand layer, we were unable to make a direct comparison with the geological layer that formed prior to what we believe is a tsunami deposit (before the 2011 Earthquake off the Pacific Coast of Tohoku). In addition, examining the deposited materials with the naked eye, a magnifying lens, or stereo microscope was not adequate to determine the environment in which each layer was deposited. Furthermore, it has been reported that tsunami deposits from the 869 Sanriku earthquake also exist near the survey site, approximately 1 km inland from the existing coast line. We will aim to come up with a method not only to identify whether a layer of soil is a tsunami deposit, but also whether it is a deposit from the 869 Sanriku earthquake or the 2011 Earthquake off the Pacific Coast of Tohoku.

Action Plan:

- (1) Prepare a “slice-kun,” a simple geoslicer ranging in length from 30 cm (slice-kun 30) to 50 cm (slice-kun 50) and 1 m (slice-kun 100). These will be used to collect deposited material from deeper (older) layers.
- (2) Examine whether the layer of soil contains microfossils such as forams and diatoms to determine the origin of the deposited material.
- (3) Observe the deposited material in each layer through a stereo microscope and consider the origin of the clastics in each layer by analyzing the mineral components and the groups of microfossils such as forams and diatoms to test the hypothesis that the deposited materials containing artificial materials are tsunami deposits.

■ Japan ■ Tokyo

■ Tokyo Gakugei University Senior High School

How to use disaster experience to learn from Great Kanto Earthquake.

Content of preliminary survey and result:

Great Kanto Earthquake... As the epicenter was in Sagami Bay, over 12 m tsunami occurred at Sagami Bay area and the southern tip of the Boso Peninsula. Disaster experience with the tsunamis of Genroku earthquake and Ansei Tokai earthquake has been alive in some areas. By appropriate evacuation action immediately after the earthquake, in Usami and Shimoda(Shizuoka Pref.), human casualties were kept to the minimum.

Consideration of problems and issues:

The dwellers in some areas benefited from past disaster experience, in other areas didn't. In order to eliminate the difference, what can we do?

- Parents carry down their experience to children.
- They tell the history of the disaster in the region to the children in the future.
- Even when disaster occurs in a distant place, everyone must feel a sense of crisis.

Action Plan:

- They have to draw a lesson from the disasters in the past and raise crisis awareness, for example in a school assembly regularly.
- Discuss how to deal with disasters with your family.
- Organize an event to know disasters in the region.
- When you listen to the report of a disaster in a distant place, you have to pay attention to the report as it may happen in your place.
- Make a stone monument or tree monument about disasters.
- Promote activities of storytellers about disasters.
- Produce characters for disaster prevention.
- Produce a video about the disaster prevention.
- Give some exhibitions about the disasters.
- Get reliable information, do not act on hearsay or rumors.

Content and Results of Advanced Surveys:

Tamashima is made up of land that was reclaimed during the Edo period under the order of the Matsuyama domain. The region has experienced relatively few disasters, suffering nothing more than flooding and landslides caused by heavy rain, and storm surges caused by typhoons. Damage from earthquakes has been minimal. While conducting door-to-door surveys, we learned that no lessons learned from past disasters have been inherited. Therefore, we predict that the level of risk awareness of disasters is extremely low compared with other regions, and many households are not adequately prepared for a disaster.

Analysis of Problems and Issues:

Since this is a region that has only experienced few disasters, the level of disaster preparedness (self-reliant efforts) among individual families is less than adequate, which is a major issue that needs to be addressed. We believe that resolving this issue will lead to a higher level of awareness of disaster risk reduction in the Tamashima region. Furthermore, the lack of inheritance of lessons learned from past disasters has resulted in a low level of community awareness of disasters (cooperation), with many local residents believing that the tsunami inundation height after a Nankai megathrust earthquake will be low due to the existence of Shikoku. For these reasons, we believe that the local government needs to disseminate information on disasters (e.g., distribute hazard maps) (public assistance).

Action Plan:

The first and most important step to take to raise the level of awareness of disaster risk reduction is to learn about disasters. To accomplish this, we came up with the following three plans which we shared with the community through the *Disaster Risk Reduction Newsletter*, which is issued by a local committee.

- (1) We will disseminate information on disasters through the *Disaster Risk Reduction Newsletter*. It will include information on predicted disasters (e.g., earthquakes and flooding in Okayama), disaster risk reduction kits, as well as disaster risk reduction in other regions of Japan. We will also distribute evacuation backpacks and engage in efforts to raise the level of community awareness of disaster risk reduction so that community residents will not need to rely completely on public assistance when evacuating.
- (2) Through the *Disaster Risk Reduction Newsletter*, we will encourage every family to take disaster risk reduction measures. Examples of such measures include creating opportunities to discuss where family members will meet up in the event of a major earthquake and securing furniture in the home. Our aim is to get the community residents to think about disaster risk reduction starting with their own living environment.

- (3) We will provide information on community events (e.g., Sports Day, emergency drills, etc.) and also recruit volunteers through the *Disaster Risk Reduction Newsletter* while encouraging people to participate. We will create opportunities for community residents to talk about disasters at those events in an effort to expand community engagement. High school students must make contributions to the community by acting as rescuers and lifesavers in the event of an earthquake. Knowing the faces of the people in the community will surely be beneficial during the rescue efforts.

We then came up with a new plan that goes beyond the dissemination of information on hazard maps, and places the emphasis on public assistance.

- (1) In the Tamashima region, elevation signs have been placed on telephone poles. Our plan though, is to also display the inundation height on those signs and move them to places that will catch people's eyes. We hope these measures will raise the community awareness of disaster risk reduction.

- (2) We will develop an evacuation guidance app that utilizes a GPS system. The medium that provides the easiest access to information during a disaster is social media. We believe an app that enables people to share information through an online network on the conditions of evacuation routes, keep track of the number of people who are staying in an evacuation shelter, as well as checking whether their family members were able to safely evacuate, would be extremely useful.

Lastly, we hope that the fruits of this program will not be temporary and that it will continue to raise the level of community awareness of disaster risk reduction through activities such as finding out about the lessons learned from past disasters that have been inherited in other regions with similar geographical conditions, as well as conducting surveys on the number of households in the Tamashima region that have already taken disaster preparedness measures.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Quanzhou's natural disasters

Content and Results of Advanced Surveys:

1. The differences between the tsunami and the Storm Tide
2. The general situations of the natural disasters in Quanzhou
3. The general situations of typhoons in Quanzhou
4. Instances of typhoons in Quanzhou in 2016

Analysis of Problems and Issues:

1. The probability analysis of the tsunami in Quanzhou
2. Strategy analysis of the typhoons in Quanzhou

Action Plan:

1. Collect information about the natural disasters in Quanzhou and analyze the causes, the influences of them and figure out how to reduce the loss.
2. Visit those areas that were once stricken by the disasters, such as Huian, Quangan. Talk with the local people, collecting information about the influences of those disasters.

Content and Results of Advanced Surveys:

Grade 11 (n = 82) and 12 (n = 90) students were asked to answer a two-part survey. The first part measures the disaster risk management knowledge of the students. The second part measures their perception of the learning capabilities of their public elementary school students they tutor.

The first part of the survey shows that the students in both levels scored relatively low, with mean scores of around 11 out of 20. While the second shows tutors perceived their tutees in public school, to have a difficulty comprehending English and preferred to be taught in their mother language. To add, it was also found that tutees were perceived to learn better when visual aids are used.

Analysis of Problems and Issues:

The Philippines regularly experiences typhoons, with around 20 typhoons hitting the country every year (reference 4). These typhoons cause fatalities, injuries, and displacement among the local population (reference 4). Because of this, it is imperative to teach and promote DRM as it would possibly lessen the said effects of typhoons. The problem lies in that most if not all public schools, subjects are taught in English, and in the survey the researchers found that students were perceived to prefer being taught in Filipino. Much more than preference, it was also found that they are perceived to be better in comprehending in Filipino than in English.

Another challenge, as reflected in the survey, is that many Filipino students are not knowledgeable when it comes to DRM. Also, even if some grade 11 students are taking Earth Science and DRM subjects, there is still no statistical difference between the mean scores of both grade 11 and grade 12 students.

Action Plan:

The Ateneo de Manila Senior High School (ASHS) engages in a weekly tutoring program for Public Elementary School (PES) students called *Tulong-Dunong* (TD). During these tutoring sessions, the ASHS students teach the PES students Math and English in order to aid the PES students in their studies. Initially, the idea was to incorporate DRM in teaching English and Math to the PES students but since the survey results show that English may not be the best medium of instruction to teach DRM, another proposal is being given. There is the possibility of creating an additional subject into the *Tulong-Dunong* curriculum in order to teach the students the basic knowledge in DRM, as well as giving the students the required knowledge to get to safety if ever they get exposed to a hazard.

In order for the plan to be successful, the ASHS students must be able to adapt their current teaching strategies and systems in order to accommodate an additional course into their TD sessions. The students must also be able to teach the required terms and ideas into Filipino, as well as prepare additional materials such as visual aids and exercises in order to promote mastery of the subject.

Viewing this from the perspective of Public Help, the government and other educational institutions should make use of the Filipino language when they are trying to teach students, especially when these are related to DRM. The survey results imply that the use of images when teaching about DRM may be an effective approach. They may also adopt the approach by which the ASHS students will teach DRM to their tutees.

Kenya Iwate

Friends School Kamusinga, Moi Girls' School- Eldoret, Maseno School, Nairobi School, Precious Blood Secondary School, Lugulu Girls' High School

UNDERSTANDING THE RISKS OF NATURAL DISASTERS

Common Disasters in Kenya

•Hailstorms, Lightning, Drought and River flooding

Content and Results of Advanced Surveys:

FLOODING IN KENYA

The worst floods in Kenya were recorded in 1961-62 and 1997-98.

Causes

- Human manipulation of watersheds, drainage basins and flood plains.
- Torrential rainfall common in Kenya.
- Settlement of floodplain areas.
- Destruction of natural levees along river channels.

Risks

- Thousands of people living in the lowlands have been to move to higher grounds for safety.
- In Budalang'i, People have often lost their lives in this area and products destroyed.
- In May 2016, a building collapsed in Huruma Estate in Nairobi killing 26 people.
- More than 2,500 families in Tana Delta marooned after Tana River burst its banks in 2016.
- The most affected areas are Konemasa and Chara locations.
- In Kipini West, floods washed away more than 1,000 acres of maize and water melon crops.
- Pastoralists were forced to graze their animals in flood water, which is a recipe for disease.

Effects of flooding;

Floods have got so many negative impacts that tend to affect the economy of a country, and in this case, the Kenyan economy.

- Loss of human life, damage of property, destruction of crops and loss of livestock.
- Communication links and infrastructure such as power plants, roads and bridges are damaged.
- Disruption to industry can lead to loss of livelihoods.
- Floods traumatize victims and their families for long periods of time.
- Flooding in key agricultural production areas leads to widespread damage to crops.
- The tourism sector is also greatly affected by floods.
- Flooding of urban areas can result in significant damage property

Action Plan:

UTILIZING THE LESSONS LEARNED FROM THE COMMON DISASTERS IN KENYA

Report from Workshop, Group A-3



| Country | Name of High School | Title of Presentation |
|------------------|---|---|
| Japan | Tagajo High School | Disaster prevention and reduction in an urban tsunami ~to learn from the activity “setting up tsunami level signs” ~ |
| | Susono High School | Making of “Digital Map Book” system with iPad, for supporting disaster prevention education on Elementary and middle school |
| | Susaki High School | “WE ARE SOSSENJA” |
| China | Fuzhou No.1 Middle School Fuzhou Foreign Language School | Preparations for natural disasters |
| Micronesia | Kosrae High School | The Roles of Students Conducting Sustainable Volunteer Activities |
| Papua New Guinea | Port Moresby National High School | PREPARE NOW SAVE LIVES TOMORROW |

Report from Workshop, Group A-3



Ms. Ruth Tholman Alik

Kosrae High School

Micronesia

Konnichiwa, watashi no namae wa Ruth desu. I'm from Micronesia representing the A 3 group with the students of China, Japan and Papua New Guinea, known as "Sossenja". First of all, I would like to take this opportunity to thank you all for everything we had so far, for every knowledge we get and for every beautiful place we visited.

Before I commence my presentation, I would like to say that it's such an honor to be a part of this special event. Our topic is about preparation for natural disaster. Well, there are always ways that could be undertaken or carried out by schools, individuals, government, communities, companies and ourselves. As individuals, or as students, you should conduct or teach younger kids and others about tsunamis and also put up signs. We should create a class about tsunami in school so that students will know more and more about tsunamis and what to do during that time. We, with experience of tsunami, must be in the field to gather information and share with others. We should create and download evacuation map for it is the easiest way to all of us during the first warning of tsunami. Setting similar system is also a very productive way to warn people. All you know, there is a system called CRISP. C stands for cash, R for resource, I for insurance, S for standards and P for plans. CRISP. Some are able to plan to fit it in our discussion and we believe that it will prepare us for our future life. Thank you very much.

Japan Miyagi

Tagajo High School

Disaster prevention and reduction in an urban tsunami
 ~ to learn from the activity “setting up tsunami level signs” ~

The contents and results of preliminary survey:

On March 11th, the Great East Japan Earthquake caused tsunami. About 30% of the Tagajo City area (662ha) was affected by the tsunami, which rushed in from three different directions ; from a sea through Sendai Port, from a bank of the Sunaoshi River and from a bank of the Teizan Canal. Main streets in Tagajo City turned into waterways. This kind of tsunami is called 'an urban tsunami.' 188 people passed away and about 5,000 houses were damaged.

We think it possible to prevent disasters and to reduce damage by handing down the traces of tsunami.

At first we investigated and measured the height of tsunami by finding its traces on the walls or poles on the street. Based on that height we set up about 110 tsunami level signs. It required permissions from owners of telephone poles (some companies, Miyagi prefecture, Tagajo city). We also had to gain the understanding from the local residents.

Problems and consideration:

5 years have passed since we started to set up signs. Now we have three problems to be solved.

①Many traces of tsunami are disappearing. ②Signs have been damaged. ③We have to decide how this activity should be implemented in our school system.

Action Plan:

①We are going to start to interview people who experienced tsunami at their houses or workplaces. It enables us to set up more signs. It also could be a chance to cooperate with local companies.

②We are going to make new signs to replace. New signs must be easy to understand for children or foreigners. By replacing signs, our school can continue having this activity.

③We are going to develop an activity in which we guide people and tell them about disasters using signs on the streets. In addition we should guide people to historical places or tourist spots.

The students' council and students' committee of preventing disasters are doing these activities. And we want to cooperate with public research centers and universities such as International Research Institute for Disaster Science. Disaster Science Course was opened in our school last April. We are planning to do the activity with an international point of view.

Japan Shizuoka

Susono high school

Making of "Digital Map Book" system with iPad, for supporting disaster prevention education on Elementary and middle school.

Content and Results of Advanced Surveys:

We made an application for studying about Tsunami disasters with topographical maps and "hazard maps". First, we have provided map data that gives the position's information. Second, we have installed it to the iPad with free mapping software. With the application, we will be able to confirm the location, to see pictures, historical article from newspaper and so on. When we made a prototype version, we asked the vice principal of the local primary and middle school for cooperation.

Analysis of Problems and Issues:

"Shizuura Elementary and middle school" is located at southern Numazu city. The area is fraught with risk of being attacked by a giant tsunami. We interviewed the assistant principal teacher. He suggested that the teachers want to know how long it takes for children to escape, and worry if they can disseminate their decisions to all students when the tsunami comes.

At the moment, they are learning about the hazards of the area through the "Comprehensive Learning" Lesson. However, the school will not share it with outside entities due to a lack of time and proper teaching method.

Since the application is digitized, it can be shared easily, benefiting the school as well as local residents.

Action Plan:

The advantage of the "Digital Map Book" system is to carry a lot of the map at once. In addition, students can integrally manage a variety of information on the map. We would like to promote a comprehensive learning and disaster drills.

The free software we were using, "PDF Maps", will work with Android, and even iOS. You can also use it offline. In addition, you can set up a similar system in your country, as it can be used in multiple languages including English.

With this app, you can do a field work to put the hazard map made by themselves. You can also get people of the region to evaluate it. But Elementary and junior high school students cannot make the app immediately. We, high school students, can contribute to the community by helping the elementary and junior high school teacher.

Nishiura Elementary and junior high school introduced the Android tablet terminal from autumn 2016. First, we will make a sample, and create a mechanism to support the students with an activity to know the feature of the region and how to evacuate before tsunamis come.

Content and Results of Advanced Surveys:

- (1) Developed evacuation routes around the school
- (2) Installed signboards along the evacuation routes
- (3) Tsunami evacuation drills for all students
- (4) Emergency treatment and lifesaving lectures for all students
- (5) Prepared bags to immediately carry belongings out of each school classroom
- (6) Fixed furniture in households around the school (Okamoto area) consisting of an elderly person living alone
- (7) Prepared made-to-order evacuation route maps for households around the school (Okamoto area) consisting of the elderly
- (8) Sossenja's campaign to enhance disaster risk reduction awareness (produced disaster risk reduction TV commercials, etc.)

Analysis of Problems and Issues:

- (1) Maintenance and management of evacuation routes
- (2) Deterioration of signage
- (3) Allowing all students to reach a point 20 meters high within 10 minutes of an earthquake occurring
- (4) Acquisition of emergency treatment and life-saving techniques
- (5) Distributing all classrooms and each teachers' room with a bag to carry out the class's belongings (with the cooperation of the home economics course)
- (6) Difficulty in understanding the current furniture fixing needs
- (7) Difficulty in understanding the present situation of the elderly in the area
- (8) Public relations activities to enhance disaster risk reduction awareness

Action Plan:

- (1) Continue to clean evacuation routes (twice a year)
- (2) Make new signage using different materials
- (3) Continue evacuation drills to maintain the ability to reach a point 20 meters high within 10 minutes of an earthquake occurring
- (4) Enhance emergency treatment and lifesaving techniques (give advanced life-saving lectures to third-year students who wish to attend; this year, 33 students passed the test)
- (5) Emergency bags for individuals to carry out their belongings are being made with the cooperation of the home economics course
- (6) Distribute information leaflets to households in the area and identify which families can work with members of the voluntary disaster risk reduction organization to help distribute the leaflets
- (7) Continue to make furniture-fixing instruction sheets and evacuation route maps
- (8) Continue to hold disaster risk reduction classes at neighboring junior high schools on demand and perform the disaster risk reduction play “Sossenja” at neighboring elementary schools

Preparations for natural disasters

Content and Results of Advanced Surveys:

A tsunami, also known as a seismic sea wave, is a series of waves in a water body caused by the displacement of a large volume of water, generally in an ocean or a large lake. Earthquakes, volcanic eruptions and other underwater explosions including detonations of underwater nuclear devices, landslides, glacier calving, meteorite impacts and other disturbances above or below water all have the potential to generate a tsunami. Unlike normal ocean waves which are generated by wind or tides which are generated by the gravitational pull of the Moon and Sun, a tsunami is generated by the displacement of water. Which can cause severe consequence by destroying the life and properties of the local residents who are involved in tsunami.

Analysis of Problems and Issues:

According to the different circumstances of tsunami formation, scientists divided the Tsunami into four types. Including the earthquake and tsunami triggered by an undersea earthquake, storm surge caused by the changes in the weather, volcanic eruptions volcanic tsunami induced landslide tsunami submarine landslides brought The destruction of the tsunami is extremely serious, humans could not control it, but it can be prevented. Issued the forecast in advance, you can win the time of early withdrawal to minimize casualties and property losses. Faster transmission speed of seismic waves along the earth's crust than the earthquake and tsunami wave propagation, seismic waves recorded tsunami monitoring network to get to be able to make a tsunami warning for the region in a short period of time to win the time The precursory phenomena tsunami triggered by the earthquake before the landing, there will be some obvious macro - seawater abnormal Inconsistent time with the usual low tide and high tide, the sea retreat up speed much faster than usual, and the water retirement, the magnitude of the rise, often retreated to the lowest tide line below or rose above the highest tide line. Shallow area not far from the coast, the deep blue sea suddenly become white, and a long bright in its front wall of water Vessels in the shallow area sudden severe bumps up and down; suddenly came from the sea, a huge, amazing, terrible abnormal sounds alarming, especially at night.

Action Plan:

Carry out disaster risk assessment.

It is essential to know the possible disasters in our surroundings. Carrying out a variety of disaster risk investigation in the community does a favor to draw up the community disaster risk map.

Develop the education and training activities of disaster reduction and prevention.

Taking advantage of public places or facilities, set up the column of disaster prevention and reduction, put up the promotional materials, and so on.

Make the fundamental facilities of disaster reduction and prevention completed.

To take the emergency into account, the community disaster emergency shelter needs to be established, of which the location and the proper number of persons, as well as the managerial staff, should be confirmed.

Promote the inhabitants’ awareness of disaster reduction and skills of disaster avoidance and self-rescue.

To be both a “survivor” and a “saver”, one is required to get the hung of a variety of disasters’ risk and distribution, and exactly know the location of the disaster emergency shelter and the walking routes in the community. In addition, the fundamental measures of self-aid and mutual aid must be impresses on the inhabitants’ mind, including such skills on different occasions such as houses and campuses.

Preparations for tsunami

BEFORE

Find out if your home is in a danger area. Know the height of your street above sea level and the distance of your street from the coast. Evacuation orders may be based on these numbers.

Be familiar with the tsunami warning signs. Because tsunamis can be caused by an underwater disturbance or an earthquake, people living along the coast should consider an earthquake or a sizable ground rumbling as a warning signal. A noticeable rapid rise or fall in coastal waters is also a sign that a tsunami is approaching.

Make sure all family members know how to respond to a tsunami.

Make evacuation plans. Pick an inland location that is elevated. After an earthquake or other natural disaster, roads in and out of the vicinity may be blocked, so pick more than one evacuation route.

Teach family members how and when to turn off gas, electricity, and water.

Teach children how and when to call 9-1-1, police or fire department, and which radio station to listen for official information.

DURING

Listen to a radio or television to get the latest emergency information, and be ready to evacuate if asked to do so.

If you hear an official tsunami warning or detect signs of a tsunami, evacuate at once. Climb to higher ground. A tsunami warning is issued when authorities are certain that a tsunami threat exists.

Stay away from the beach.

Never go down to the beach to watch a tsunami come in. If you can see the wave you are too close to escape it.

Return home only after authorities advise it is safe to do so. A tsunami is a series of waves. Do not assume that one wave means that the danger over. The next wave may be larger than the first one. Stay out of the area.

AFTER

Stay tuned to a battery-operated radio for the latest emergency information.

Help injured or trapped persons.

1 Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.

2 Remember to help your neighbors who may require special assistance--infants, elderly people, and people with disabilities.

3 Stay out of damaged buildings. Return home only when authorities say it is safe.

4 Enter your home with caution.

5 Use a flashlight when entering damaged buildings. Check for electrical shorts and live wires. Do not use appliances or lights until an electrician has checked the electrical system.

6 Open windows and doors to help dry the building.

7 Shovel mud while it is still moist to give walls and floors an opportunity to dry.

8 Check food supplies and test drinking water.

9 Fresh food that has come in contact with flood waters may be contaminated and should be thrown out. Have tap water tested by the local health department.

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

First, if needed, a road clearing team to take out any obstacles in the road. Medical team comes second, but after they are approved to. Then assessment team, they come in and review the damaged areas in order to catalog the areas of most needed to least needed in recovery. The role of an individual is to first get to a known designated area and enlist his/her name before executing any rescuing attempts. For searching teams, appointed individuals will be assorted into groups to carry out search and rescue operations.

Analysis of Problems and Issues:**Medical assistance**

- people will be in need of medical assistance but medics cannot get there until the road is cleared.

Food supplies

- rescuing will take a long time, for this reason people will be in need of food and drinking water.

Hazard and Damages

- people might be trapped under piles of debris.
- electrical wiring can be a big problem
- people could also be carried out to sea by the waves.
- damaged properties

Financial issues

- recovery of houses or buildings(both personal and government)
- resetting electrical poles and lines
- road cleanup
- shortage of medical supplies and equipments

Action Plan:

- Continue listening to the (weather) radio or any source for emergency information
- assist people who are injured, ill, trapped, or need help to locate emergency centers
- stay out of building or houses that still have remaining water
- check for food sources that is not contaminated from the disaster
- work on providing fresh water to victims to prevent further medical problems
- shovel mud, open windows and doors for an opportunity to dry
- look for electrical system damaged and report them to proper authorities
- look for fire hazards
- gain/prepare funds for recovery

*** RECOVERY OF THE PEOPLE:** All at once, water searching teams, land searching team, medical team and readiness clearing team to be sent out as soon as possible. At the same time electricity lines have to be shut-down until further notice. Everybody should move to the designated area where it is still safe. Community has to provide food and needs.

*** RECOVERY OF THE HOMES:** Assessment team, go and judge the damages, get the public building fixed first, for those with completely destroyed houses. working together, gather everything that can still be used and slowly recovering little by little until life is back to normal.

Note: monitory assistance from FEMA(federal emergency management agency) are to facilitate both the recovery of the people and their homes.

Papua New Guinea National Capital District (NCD)
Port Moresby National High School

PREPARE NOW SAVE LIVES TOMORROW

Content and Results of Advanced Surveys:

Newspaper articles
National Disaster Centre
Resource booklets
Posters & pamphlets from National Disaster Centre

Analysis of Problems and Issues:

Three (3) main problems identified are;

1. Fundings/lack of finance
2. Uneducated people (high illiterate population)
3. Lack of communication & infrastructure especially in rural parts

Action Plan:

What you can do as students?

- Organize inter school meetings with local school to form or be engaged in awareness campaigns.
- distribute posters
- establish evacuation drills
- Do drought awareness in school amongst their peers.
- fundraise money to upgrade warning systems in nearby areas prone to tsunami

What messages you can deliver?

1. Prevention is better than cure
2. Better to be safe than sorry
3. Action now can save tomorrow

How you can act for disaster risk reduction as high school students?

1. Do awareness
2. Practice what you preach i.e. follow 'what to do, before, during and after tsunami'.

Report from Workshop, Group A-4



| Country | Name of High School | Title of Presentation |
|----------|--------------------------------|--|
| Japan | Miyako Technical High School | Giving Demonstrations of Simulated Tsunamis Using Tsunami Models that Reflect Topographic Features in the Ocean as well as Those on Land |
| | Iwaki Senior High School | Effectiveness of Hazard Maps for Disaster Mitigation with a Focus on the Coastal Areas of Iwaki City |
| | Kansai Soka High School | |
| Samoa | Aleipata College | Preparing for and surviving Natural Disasters through our Tsunami Experience |
| Greece | 1 General High School, Lefkada | "Education is the key for disaster preparedness" |
| Viet Nam | Cau Giay High School | Preparations for natural disasters- responsibility of global citizens |

Report from Workshop, Group A-4



Ms. Hana Yamabe

Kansai Soka High School

Japan

Hello, I'm Hana, A4, and, in our workshop, following six action plans were presented. Iwate, by using tsunami models they want to raise the level of crisis awareness by getting schools all over Japan to carry out activities and raising awareness of disaster risk reduction and tsunamis and to protect our own communities. Fukushima, they want to distribute hazard maps to local residents. Osaka wants to listen to experiences of people who actually survives. Samoa, they want to talk about experience that they did. Greece, they want to establish a school disaster safety team. And Viet Nam, they want to organize an international summit to share experience in making preparation and coping with natural disasters. We decided our following four points as our shared matters in implementing each action plan. The first plan is making models, and we want to do demonstration of the tsunami. Second, we need to make a safety team to conduct awareness activities and prepare evacuation exercise. Three, conducting fundraising for small village. Four, we global citizen should promote critical thinking, problem solving and have social and emotional life skills to deal with natural disasters and support other people in the communities. Thank you.

Japan Iwate

Miyako Technical High School

Giving Demonstrations of Simulated Tsunamis Using Tsunami Models that Reflect Topographic Features in the Ocean as well as Those on Land

Content and Results of Advanced Surveys:

Our team (the Miyako Technical High School Tsunami Model Team) was formed in 2005 and are now in our 12th year. We have made 12 tsunami models and 4 tsunami generators, and have given 140 demonstrations to date. We created this year's model based on the results of questionnaires we gave out when we traveled around the Kansai and Shikoku regions two years ago giving demonstrations.

| Topic | Result |
|---|--|
| 1. Activities of the Tsunami Model Team | 97.9% were interested in our activities. |
| 2. Should activities be carried out throughout Japan? | 97.1% answered yes. |
| 3. Evacuation areas | 97.6% now have a solid understanding about evacuation areas. |
| 4. Disaster preparedness | 42.6% are prepared, 49.7% are not. |
| 5. Whether they like to engage in activities to raise awareness about tsunami disasters | 92.0% answered yes. |

Furthermore, there were many who answered in the questionnaires that they were able to gain an understanding of the dangers of tsunamis, that they would like us to raise awareness about this activity, and that our explanations using the tsunami models were easy to understand.

Based on these results, we have decided to continue our activities and aim to come up with more creative ideas.

Analysis of Problems and Issues:

Last year, we began building a model of the area near Susaki City, Kochi Prefecture, which is near the hypocenter of the Nankai Trough earthquakes and presented it as a gift to Susaki Technical High School. Our aim was to raise the level of crisis awareness by getting schools all over Japan to carry out activities aimed at raising awareness of disaster risk reduction and tsunamis, and to protect their communities. We hope that the model can be used to conduct experiments, create enlarged models of the hazard zones, and will be useful when carrying out disaster risk reduction activities in the community. One issue that needs to be addressed moving forward is to come up with ways to provide technical support until the enlarged models are completed, which will then be used for such activities.

We have also provided demonstrations at elementary and junior high schools in the Miyako region in an effort to raise awareness about disasters. One issue that needs to be addressed is that while we have received many requests from schools in coastal areas, we have not received any requests from schools in non-coastal areas.

Action Plan:

I.Preparing Post-Disaster Models based on Pre-Disaster Models

The 2011 tsunami caused extensive damage along the coastal areas. In the disaster aftermath, plans for each community were put together during reconstruction conferences. Now, construction is taking place. We plan to reflect these plans in our models and give demonstrations of our post-disaster models.

2.Requests for Tsunami Demonstrations

At the start of each academic year, we send letters with a format of request to elementary and junior high schools to ask us to provide tsunami demonstrations. Most of the schools that request demonstrations are located in coastal areas, and some students have enrolled in our school to study tsunamis. We hope to raise awareness about the importance of our demonstrations and get more schools involved.

3.Continued Efforts to Build Tsunami Models and Give Demonstrations

Through our demonstrations, we hope to continue our activities that involve teaching people about the horrors of tsunamis and earthquakes, the importance of evacuating to a safe and secure building, past tsunami disasters (through presentations), and the mechanisms of tsunamis and earthquakes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

Content: We felt that controlling the tsunami damage completely would be difficult and so decided to examine our urban structure by placing an emphasis on controlling the number of human casualties so that people are able to evacuate safely and quickly. First, we (members of the Astronomical Geology Club, Iwaki Senior High School) conducted a survey on flood damage from the tsunami generated on March 11, 2011. From early May, 2011 to May, 2012, we walked around the coastal areas of Iwaki City for about 60 km (interviewing community residents, surveying traces of the tsunami) and created a hazard map of Yotsukura district in Iwaki City, Fukushima Prefecture, based on the results of our survey on the damage along the coast of Yotsukura, Iwaki City. To create the map, we examined the following four data, which we gathered during our field work: (1) Evacuation range, (2) Division of evacuation zones according to size of tsunami, (3) Roads that the tsunami is likely to rush over (4) Communities where the tsunami is likely to remain.

Results: (1) When comparing the high level maps which show data such as flood lines and topography (which we gathered as part of our survey), the flood levels were as high as 4 m above sea level. (2) Flood damage along the coastal areas was caused by strong tsunami waves and damage in inland areas was caused by tsunami waves that rushed up irrigation channels and roads. Based on this information, we created a hazard map that will allow people in coastal areas to evacuate quickly.

Analysis of Problems and Issues:

Although the hazard maps have been created, they have not yet been distributed to community residents.

Emergency drills that use these hazard maps need to take place.

Action Plan:

[Ways to Distribute Hazard Maps to Local Residents]

Students ask public halls and town halls to set up the hazard maps.

Students engage in efforts to distribute the hazard maps to each home through a circular notice or other method.

Distribute the hazard maps to local schools (elementary, junior high, and high schools) as well as encourage people to raise their own level of awareness about disaster risk reduction.

[Emergency Drills]

Students take a leading role in getting the local residents to participate in emergency drills through cooperation with fire brigades in the district.

[Activities to Raise Awareness]

Students make presentations at various different events on the theme: “Mentally Preparing Community Residents.” Students and community residents will also have discussions on the importance of hazard maps at public halls and assembly halls in order to raise community awareness about disaster risk reduction.

Advanced Surveys:

As an advanced survey, we visited Tsunami/Storm Surge Disaster Prevention Station and Osaka City Abeno Life Safety Learning Center to learn about tsunami, earthquakes, and measures for disaster risk reduction. We also conducted a disaster awareness survey on 356 students on the same grade as us.

Analysis of Problems and Issues:

As the results of visiting the two facilities and conducting the survey on the students, the following problems become visible.

- **Normalcy bias** -- People underestimate a scale of a disaster and its negative impacts they possibly suffer.
- **Instant judgement** -- Required at the time of an emergency state
- **Low ratio of households that store emergency stockpile**

Action Plan:

In order to solve the problems, we made the following action plan targeting senior high school students. We, as high school students, would like to take a leadership in putting the plan in practice.

- **Learning disaster history and listening to experiences of the disaster victims.**
 - Listening to the experiences of actual disaster victims enables us to consider a disaster as the one that may really happen to us.
- **Visiting facilities where we can get information on disasters**
 - It is expected that we can effectively learn about disasters through hands-on exhibitions.
 - All students should be given opportunities to visit them. (It is also beneficial if the visit is conducted as a school activity)
- **Learning how to use Disaster Emergency Message Dial (171 in Japan)**
 - In Kansai Soka Gakuen, we already learnt this when we were Junior High School students.
 - You can make free trial calls on the 1st and 15th days every month
 - After actually trying using the dial, you will find it very easy to use the call.
- **Emergency stockpile**
 - The stockpile enough to last for at least one week is necessary.

Content and Results of Advanced Surveys:

Conduct of research:

- Personal experience from the 2009 Earthquake and Tsunami in Samoa
- Questionnaires to the Village Council, Faifeau (Church Reverend) and student body
- Research and interview with the Disaster Management Office (DMO)

Results:

- Increased awareness about natural disasters amongst vulnerable groups (women and children) is needed, so people can better prepare for when disasters happen
- Tsunami's are a rare occurrence but when they do occur, are very quick and have devastating consequences. The 2009 Tsunami was the first time Samoa experienced this natural disaster and not many people knew what to do and were not prepared. Therefore, more needs to be done to raise awareness especially at the grassroots level and in the most vulnerable coastal areas to prepare for this natural disaster
- Regular Tsunami drills should be undertaken in schools so students are aware of the escape routes/roads to higher ground
- Local infrastructure needs to be improved such as ensuring the evacuation roads are clear at all times
- Families in the rural villages do not have basic items when disaster hits because they do not have the money. There is no emergency fund to prepare for natural disasters.

Analysis of Problems and Issues:

From self-help, mutual assistance and public assistance

- Teach our younger siblings, parents about tsunamis and earthquakes and what to do when they occur. Familiarize ourselves with evacuation routes to higher ground = be a 'disaster warden' in my family
- Currently there are no regular drills done in our schools or villages
- We have a strong village 'matai' (chiefly) system and our church leaders play a pivotal role in society thus Tsunami drills should run be through them
- Though there are signs installed, students are not familiar with evacuation routes
- Our school building only has one point of entry/exit gate which is directly opposite the ocean and thus will be hard to evacuate at time of tsunami

Action Plan:

Objective: Increase awareness about Tsunamis and preparedness strategies for all natural disasters

Tasks:

- Share our 2009 tsunami experiences with other students in Samoa so they can learn and be prepared
- Observe Tsunami Awareness Day at school
 - Create map of evacuation routes and School Prefects conduct mock tsunami drills

- Share/teach Observance Day activities to neighbouring schools
- Teach others how to be 'disaster wardens'
- Conduct fundraising drives for Village Emergency Fund to purchase emergency items i.e. flash lights, batteries, candles, First Aid Kits, towels for displaced.

Success criteria:

- 1.Decrease number of fatalities in our village in a future Tsunami event in Samoa
- 2.Conduct a successful Tsunami drill carried out by Prefects/students of Aleipata College
- 3.Observe Tsunami Awareness Day at Aleipata College and all schools within our district (one of the coastal areas in Samoa most vulnerable to Tsunami's)

Time frame: 1 school year

Resources: Principal and teachers support, village council support, stationary, resource materials on natural disasters, cell phones, flash lights

"Education is the key for disaster preparedness"

Content and Results of Advanced Surveys:

Type of Survey: Questionnaire, given to 100 people (mostly students of our school, after the earthquake of 17 November 2015) Key results of our questionnaire: ~71% reacted in a state of panic during the earthquake, 16% they ran towards the nearest exit, 13% they took cover under their desk.

"Do you know the correct actions in case of an earthquake?" 79% answered yes and 21% no. "What is your main source of information?" 58% answered my school. In how many evacuation drills have you participated during the past nine months? 80% answered in one and 20% answered that they haven't.

Analysis of Problems and Issues:

According to the results of our survey (only a few of the questions are presented here) the role of our school in knowlence and preparation is crucial since it is main source of information. The majority of the students has participated in only one evacuation drill. The reaction of the students during the earthquake varied. Students aren't fully prepared and therefore not adequately alert about possible hazards in the environment of their school. Education is considered to be the best way for making a safe and disaster resilient society.

Action Plan:

1. A hazards assessment should be carried out by students of our school under the guidance of the teacher and an architect within the school premises and outside. Students should take notes of things that might become hazards during an earthquake in glass windows or accidents from sports equipment.
2. A discussion in the class on how the hazards could be reduced.
The discussion in the class will include identifying coping mechanisms. The teachers and a group of arcitects should note the necessary measures to be incorporated. A table which will include types of hazards (in case of our school earthquakes). Places and Solution Identified should be created.
3. An establishment of a school disaster safety team. This team should meet at least 4 times a year, to conduct awareness activities and prepare drill evacuation exersices. This disaster safety team should also be divided into sub teams with different responsibilities:
Evacuation and mock drills (according to the result of our survey only one is performed within an academic year in Lefkada an island which us characterized by strong seismicity). First Aid Team: This team will be responsible to keep the supplies of the school Medical kit up to date. Further the team should be adequately trained and aware of special medical requiremently. Search and Rescue Team: This team should be aware of the number of students and classes and teams or Local Police in case of a severe natural disaster.

4. The creation of a school disaster safety plan which should ensure:

A list of members of the Disaster Safety Team and their Responsibilities.

-Information about the do's and don't's before and during an earthquake (in case of our school) or another natural disaster.

-An exact program for mock-drills and first-aid training.

-Construction of a school map that should be posted at various points in the school with clearly marked exits and second map which should include the school environment of the community where the school belongs to.

We are looking forward to present the Above Action Plan to the summit in Japan and we would also like to inform you that we have already presented it to our school community. Many countries in the world already have or will face the threat of a natural disaster and our key point is that education of the younger generation is the answer to disaster preparedness.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

- Check students' understanding of different types of natural disasters
- Test students' awareness of proper preparations for natural disasters as an individual, an active member of community and international organizations

Analysis of Problems and Issues:

- Students do not understand thoroughly about natural disasters, especially the ones which are not common in Vietnam (tsunami, volcano....)
- They are not taught necessary life skills at schools to cope with natural disasters, therefore it may be difficult for them to keep calm in case of emergency.
- There are not many community disaster risk reduction programs in Vietnam. As a result, some students do not realize the necessity of making preparations on a large scale (international cooperation...)

Action Plan:

1. Self-help

- Students need to understand thoroughly about natural disasters, learn the wisdom and techniques required to be a survivor through daily disaster risk reduction lessons and evacuation drills as well as raise the awareness of other people in the community.
- Be well-prepared for an emergency by making the right judgements and taking the correct actions.
- Actively study and participate in school safety measures and join voluntary activities towards minimizing disaster risks.

2. Mutual assistance (local community)

- Local communities should join hands and quickly disseminate, share necessary information through early warning.
- Organize national workshop on how to cope with natural disasters, guidelines on the management of building safe schools, offices to deal with natural disasters.
- Integrate safety education into the national curriculum to prepare everyone with knowledge, skills, attitude to cope with and find solutions in the event of natural disasters, support natural disaster preparedness.
- Promote the development of multimedia programs on disaster prediction, prevention, readiness and response to natural disasters.

3. Public assistance

- Every country need to cooperate to deepen their understanding of tsunami, raise awareness of the importance of taking precautionary measures against them.
- Organize international summits to share experience in making preparations and coping with natural disasters, training future leaders through executing comprehensive measures to minimize the impacts of natural disasters.

In conclusion, we- high school students-need to play an active role in disseminating the necessity of preparations for natural disasters to other people. Apart from that, we-global citizens- should promote critical thinking, problem-solving, enhance social and emotional life skills to deal with natural disasters and support other people in the community.

Report from Workshop, Group A-5



| Country | Name of High School | Title of Presentation |
|---------|--|---|
| Japan | Mizusawa High School | Great East Japan Earthquake—High School Students Should Help Recover from Tsunami Damage and Provide Reconstruction Support |
| | Shizuoka Gakuen High School | |
| | Hidaka High School | Disaster Risk Reduction Schools: The Role of High School Students in the Event of a Disaster |
| India | Government Model Senior Secondary School, Port Blair | Recovery and Reconstruction from the damage caused by natural disaster(the roles of students such as conducting sustainable volunteer activities) |
| Chile | Carelmapu High School | Tsunamis and my Town |
| China | Xiamen Foreign Language School | Student force in post disaster reconstruction |

Report from Workshop, Group A-5



Ms. Tamara Alejandra Meza Garcia

Carelmapu High School

Chile

Good afternoon my name is Tamara Meza and I'm from Chile, I represent the group A5. During our workshop each country person introduced ideas about recovery and reconstruction after a disaster. After that, we discuss with them many ideas and feel like raising public awareness, psychological recovery for survivors, implement reconstruction, for examples. First, setting up a project. In order to prevent the weakening of people's memory and to mourn victims, students can organize a memorial ceremony of life of Goryo on November 5th. Second, card game. This is a game that simulate the experience of our side and evacuation shelters following a disaster. The game role of the player is to consider how to respond to various instances that arise in evacuation. Third, participation and communities. It contains giving lecture in communities and summer camp for children, etc. Four, leaflet. It delivers disaster information, and the newsletter warns every two weeks in an effort to raise awareness of disaster risk reduction. We plan to publish articles which provide our answer to question collected from students and also create suggestion for general public. Fifth, cleaning up. A student can participate in cleaning up guided by the students on your local communities. We think this idea can help our common ideas, improve emergency plans, and save more lives in case of a disaster. That's why we decided to carry them out in the near future as our responsibility to work for future generation. And this is what was concluded in our group. We are one. Thank you.

Content and Results of Advanced Surveys:

Content: Survey of the situation five years later in the Taro area of Miyako City, Iwate Prefecture, which suffered tremendous damage due to the Great East Japan Earthquake

Results: The Taro area of Miyako City, Iwate Prefecture, which lost half of the town due to massive tsunami damage in the Meiji and early Showa periods, had built the world's largest X-shaped tide embankment and was known as a "disaster risk reduction town." But the tsunami caused by the Great East Japan Earthquake destroyed the 2,600 meter long and 10 meter high seawall, and washed away most of the town. Today, five years after the tremendous damage, the city is proceeding with town development while following its policy for the area. At present, no progress has been made in building a new seawall, but preparations are being made to relocate the houses to high ground and build a housing complex for the elderly by scraping away the mountain. An expressway running through the coastal area has also been completed, providing better access to other areas. Factories to process marine products, baseball stadiums, shopping arcades have all been completed with support from various different areas and the structure of the town is steadily improving.

Analysis of Problems and Issues:

Two major problems have emerged as the area's infrastructure is being rebuilt.

1. Outflow of local residents (outflow of youth and the aging population)

In the Taro area, over 1,600 buildings were totally destroyed by the tsunami, and the area's population, which stood at around 4,500 before the earthquake, was substantially reduced to about 3,000 five years later. By age group, people in their 30s to 40s left the area, which also caused the drain of their children's generation. This resulted in the population in the area aging.

2. Employment

This is related to the problem mentioned above. Many residents in the area had been engaged in fisheries and the processing of marine products, but many fishermen saw their vessels washed away, and the processing factories were totally destroyed, making it impossible for them to work in Taro. This situation is further accelerating the population drain.

Action Plan:

Plan 1: Disaster risk reduction tours sponsored by the Miyako City tourist board "Learning Disaster Risk Reduction" and cooperation between high school students

The Taro area is organizing disaster risk reduction eco-tours for many visitors such as students on school excursions almost every day. The organizers of "Learning Disaster Risk Reduction" work with high school students to communicate information on these tours to overseas markets (and cities in Japan) and promote inbound tourism by combining disaster risk reduction tours, shopping for local specialties, gourmet cuisine featuring marine products, and other plans. This is expected to invigorate the local community and help employment of the elderly.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Plan 2: Continuation and development of the Mizusawa High School Candle Project

At Mizusawa High School, in order to prevent the weakening of people's memory of 3/11 and to mourn its victims, students have lit candles and carried out a fund-raising campaign since last year. Last year, many local residents provided their cooperation even though the event was the first of its series. The students plan to develop this project, and this year's candle project event is scheduled for November 5. They will cooperate with local people mainly by selling specialties of the Taro area at the event site.

Plan 3: Evolution of the Connecting the Dots Project (CD Project)

This year, Mizusawa High School already launched a project aimed at cooperating with high school students in earthquake- and tsunami-stricken areas in various different ways and holding discussions with them about the same themes. In this way, the school will strive for disaster risk reduction by creating a network of high school students from various areas in order to minimize tsunami damage in Japan and the rest of the world.

Content and Results of Advanced Surveys:

In August 2016, we held a volunteer training program in Iwate Prefecture. The reconstruction process in the affected areas had been slower than we expected. We felt that the biggest challenge was to reach consensus with the community residents. In addition, the disaster victims strongly hoped that the memories of the disaster would not gradually fade away.

Analysis of Problems and Issues:

Creating a realistic mental image of a disaster before it occurs is also useful for the reconstruction process.

Action Plan:

- Make a proposal to establish rules for community reconstruction plans to reach consensus.

Manage land utilization; e.g., have the municipalities purchase private property in areas where the inundation height was 5.0 m or higher when the tsunami arrived and utilize that land to create parks. Then, come up with a plan to relocate the residents as part of the above measures. A consensus has not been reached on the detailed process for this proposal.

- We will play HUG (a game for overseeing evacuation shelters) at our school's cultural festival, to be held in June.

HUG is a game that simulates the experience of overseeing an evacuation shelter following a disaster. The game allows players to learn about the issues that are involved when overseeing an evacuation shelter. Players consider how appropriately evacuees can be arranged into a plan view of an actual evacuation shelter and how to respond to the various circumstances that arise in an evacuation shelter while also keeping in mind the age of the evacuees, whether they are male or female, the tools they have, and the circumstances of each person.

The game is played with cards which have information on the evacuees written on them and a sketch map of the evacuation shelter.

—How the game is played—

- 1.Designate a person who will read what is written on the cards out loud.
- 2.Decide on the circumstances for the game (e.g., size of the earthquake and the date, available facilities at the evacuation shelter, etc.).
- 3.Players introduce themselves.
- 4.Evacuee card numbers 1 through 15 are read out loud and placed in the playing area and players discuss how they should be arranged in the evacuation shelter.
- 5.Each card is then read out loud in sequence.
- 6.The game ends 5 minutes after the above 5.
- 7.Review.

- Engage in efforts to have the areas affected by the Great East Japan Earthquake recognized as a Legacy of Tragedy.

Since Legacies of Tragedy are selected from World Heritage Sites we will first establish an organization that will focus on getting the relics of the disaster designated as World Heritage. This organization will engage in activities such as collecting signatures and submitting a petition to the speakers of both houses for inscription on the World Heritage List in an effort to get the government to recommend its designation. It will then make media requests, and engage in promotional efforts via the Internet.

Content and Results of Advanced Surveys:

Hidaka High School has been designated as a disaster evacuation shelter for the community. Therefore, our school is engaged in many activities aimed at serving as a base for community disaster risk reduction. Some of our activities include delivering talks on disaster risk reduction, conducting research projects on earthquakes and tsunamis, and organizing Disaster Preparedness Schools.

For Disaster Risk Reduction Schools in particular, activities include not only emergency drills but making portable toilets for use at evacuation shelters, and workshops on such topics as cooking and distributing meals to evacuees.

The activities enable the participants to check evacuation routes, recognize any inadequacies of the evacuation shelters and relief supplies, and acquire necessary skills to stay at an evacuation shelter.

Analysis of Problems and Issues:

1. Very few local residents participate in the emergency drills.
(Possible reason) → The emergency drills take place around lunchtime on weekdays, meaning that those who work during the day are unable to participate.
2. The level of motivation of high school students varies. Some, for instance, just chat with their friends while walking slowly during the drills.
(Possible reasons) → They think “it’s just a drill,” they do not understand the horrors of an earthquake or tsunami, nor do they have any overall understanding of the aims of a Disaster Risk Reduction School.

Action Plan:

We have two action plans in mind.

Our first plan is to put up evacuation route signs within the school grounds. The purpose of this plan is to allow local residents who were unable to participate in the emergency drills evacuate quickly and safely even if they do not know the locations of the school buildings. Community residents are to evacuate to the 4th floor of the school building furthest away from the school entrance. However, there are currently no signs around the building, which creates confusion. We will use luminous paint to make the signs easy to see in the event that a disaster occurs at night. We will ask local businesses to make the signs, and we will also ask them to recycle the plastic bottles collected at our school.

Our second plan is to issue the *Disaster Risk Reduction Newsletter* once every two weeks. In past emergency drills, while some high school students took it seriously, others did not demonstrate a sense of urgency or responsibility, as they were using their smartphones while evacuating or were waving to the nursery school children who were participating in the drill. In light of such circumstances, we will issue the *Disaster Risk Reduction Newsletter* in an effort to raise awareness of disaster risk reduction. In the newsletter, we plan to provide an overview of Disaster Risk Reduction Schools and also publish articles which provide answers to questions on disaster risk reduction collected from students. We also created a version of the *Disaster Risk Reduction Newsletter* for the general public which contains a map of the school grounds and information on emergency drills. We distributed the newsletter at our school's cultural festival.

Introduction:

Particularly the Andaman & Nicobar Islands falls under seismic zone-5 and always situation remain vulnerable as at any point of time one can experience tsunami, cyclone and land slide. Mother nature always helps us in order to survive in a good condition and this is not controlled by the human being but the respect and care that a human being give to the nature is always lacked. As a result we face the anger of the nature in a form of disaster and this disaster always show its maximum limits and cause a major damage. The level of maximum damage is always seen by the human being but the maximum damage caused by the human being for the mother nature is never seen. In order to overcome this main point we should keep in our mind that we have to respect the nature, to safeguard and to protect. After natural disaster it comes under everyone's mind that "How to settle the life"? From the beginning of the day of disaster, every victim comes under trauma and how to make them overcome from the trauma is a great challenge for everyone. And how can we live normal life and overcome from the stressful situation.

Meaning of sustainable Development:

It refers that development that meets the need of the present without compromising the ability of future generations to meet their needs i.e without stripping the natural world of resources future generations would need.

Role of student as sustainable volunteers:

After trauma counseling and seeing the present situation of Andaman & Nicobar Islands, volunteer activities are needed strongly. School students are assigned the duty to make survey of their own localities and find out the human loss, livelihood loss. A group should be formed for the volunteers, and to develop a leader ship quality in them to become a role model. The role of the student as a sustainable volunteer is to set up his mind to resettle, reconstruct, recover, rearrange, rehabilitate, reorient the whole society again, but sustainable condition should be there, otherwise we have to face another tragic moment. The student of our school Sarvanan and teacher Chanchal Dey have developed a kit with a name "Disaster Saver"- 'a life saving kits' which will help the people to save the life during tsunami and to remain alive in sea for more than six to ten days. This kit has been tested in the sea and we have find out a good result, as the materials (cane and bamboo) are easily available in Andaman & Nicobar Islands and it is also cost effective. This kit is tested by scientist of Thrupathi University under the guidance of IRIS in India, which will save the lives in future.

Content and Results of Advanced Surveys:

After this devastating tsunami, the government has formed a disaster management cell, they form union territory disaster management executive committees. They use the advance survey method in finding out the earthquake prone zone. They mark some vulnerable localities and low line area. They have developed various shelters where the people can save their lives. There should be training camp, regular counselling camp; socio psycho therapy should be given to the affected person. A mutual assistance should be obtained from the local community, Panchayat, local clubs self help groups. Everyone should have the knowledge of psycho-graphic division of that locality.

Analysis of Problems and Issues:

After 26th Dec, 2004 devastating tsunami following problems are faced by every victim; shelter problem; food problem; basic amenities; loss of nearest and dearest; loss of life long saving assets, everyone come under socio psycho problem. The volunteers should take up the challenges they should conduct socio psycho therapy, counselling, formation of camps, there should be religious message, prayer, meditation, drama, street show, drawing, mimicry acting, with the help of above said activity they will overcome from the problem not fully but they will live a normal life along with the family.

Action Plan:

The main thought is to develop humanitarian assistance tendency in each people. The volunteer take up the challenges and at first they should point out the vulnerable situation, give emphasis to save the lives of ladies, patient, senior citizen, children, mentally retarded person and all the hospitalized person. They should develop a leader quality in themselves to overcome this situation. Help camps should be introduced, they should make a plan, road map should be made so that they can shift quickly to a safe place. They are trained to help the people through socio psycho therapy, introducing a children developing programme and counselling will also help in future to overcome the tragic situation like tsunami.

Content and Results of Advanced Surveys:

This is a closed survey that collects data on physical concepts of tsunamis, prevention measures and how this information has been collected throughout the years. The results indicate that from a group of 101 students, most students comprehend conceptual, technical and preventive information about tsunamis. Such information has been obtained from television programs and social networks regarding the 2010 earthquake. Before that year, it was obtained from experiences lived by their parents and grandparents who experienced the earthquake in 1960.

Analysis of Problems and Issues:

We can tell there is still a problem due to lack of knowledge, improper attitude and prevention measures that must be taken during a tsunami. So it is necessary to work and teach about these topics.

Action Plan:

As a result of the survey, the following measures will be taken:

- a) Encourage parents to take part in activities that improve emergency actions taken when a natural disaster occurs.
- b) Improve the School's evacuation plans and perform them more often. Organize students in school teams trained to work in specific roles after an emergency.
- c) Increase community participation in the prevention activities by spreading information about them.
- d) Teach students about the roles they must take after a tsunami especially with regard to reconstruction and recovery efforts in their town.

China

Xiamen Foreign Language School

Student force in post disaster reconstruction

Content and Results of Advanced Surveys:

Surveys are not yet conducted

Analysis of Problems and Issues:

1. Existing problems:

- ★ In what aspects can we students contribute to the recoveries after typhoon and hurricane disasters?
- ★ What aspects prevent students from participating in the process and what are the possible solutions?

2. Cases: Nepartak, Ramasoon, Morak and Larry

3. Emphases in the process of reconstructions:

Medical treatment and public health, resumption of transportation, economical assistance, resumption of infrastructure, resumption of agricultural activities, reduce of environmental pollution, psychological recovery etc. And we students can try our best to do something we can. We can donate some money and articles for daily use, care people from disaster-stricken areas, publicize first aid knowledge and so on.

Action Plan:

1. Ordinary procedures:

Stabilize the current situation and prevent possible secondary disasters;
Ensure the basic supplies (water, food, medical care, electricity, transportation, etc.), arrange temporary shelters, raise fundings

2. In the meantime:

Provide psychological recoveries, encourage citizens to participate in all the resumption processes; Follow-up reconstructions (beautify the environment, resume agricultural activities)

3. Improvements:

Increase the participation of ordinary citizens, especially students.

4. Supplement

We can publicize the knowledge of natural disasters in order to improve people's ability to escape. It's our duty to care people who become disabled or lose relatives due to natural disasters. And we ought to carry out escape drills regularly and hold some relevant lectures.

Report from Workshop, Group A-6



| Country | Name of High School | Title of Presentation |
|-----------|---|---|
| Japan | Koryo High School | Network of High School Students for Disaster Response |
| | Senri International School of Kwansei Gakuin | Reconstruction that Creates Ties between Various Regions of Japan |
| Thailand | Langu Pittayakom School Kathuwittaya School Hadsamranwittayakom School Takuapa Senanukul School Kapoewittaya School Nongthalaywittaya School | Preparations for natural disasters |
| Indonesia | Banda Aceh 1 National Senior High School | The Roles of Senior High School Students in Conducting Sustainable Volunteer Activities After Recovery and Reconstruction |
| Cambodia | Cambodia-Japan Friendship Middle and High School | Volunteer activities of Cambodian youths after serious floods |
| Palau | Palau High School | Post Natural Disaster: Recovery and Reconstruction |

Report from Workshop, Group A-6



Mr. Kotaro Minamiguchi

Senri International School of Kwansei Gakuin

Japan

Hello everyone, my name is Kotaro Minamiguchi and I will be representing the group A6. In our workshop, following six action plans were presented. Firstly, Koryo high school proposed to create a nationwide organization of high schools for disaster relief as well as a system of national secretariat and prefectural offices can communicate and cooperate to make sure that quick and correct decisions can be made after disaster. Senri International School proposed to make a town for the victims prior to the disaster so that they do not have to wait in the uncomfortable stressful environment before getting to the new home. Thailand has presented importance of raising public awareness to disasters and the significance of making a workable prediction and warning system to prepare for the tsunami. Indonesia has proposed an idea to simulate and learn from the past so that we have an idea on how to react after the tsunami. They have also discussed about the importance of international cooperation in case of a disaster. Cambodia has presented a plan that gathers and creates the volunteer team for shelter providing and food and water providing, etc. Palau has proposed an idea which the students and youth clubs can take a big role in recovery by volunteering and also a plan where the government will be responsible of assisting groups and organizations for recovery. Out of these ideas we decided the following three points as our shared matters. First, we have come to an agreement that although our topic is recovery from the disaster it is really important to make a guideline beforehand and how to react and recover from the disaster. Second of all, we said that it is really important that the governments and other associations have the ability to follow those guidelines made. And our last but not least, we all had in common. The contributions from the high school students are inevitable. Whether representing other people's idea or contributing to the society through volunteer works, we have decided that it is important, and those three points were what we came up as our shared matters to make a better future as the next generation. Thank you very much.

Overview

We had the privilege of interviewing a first-hand survivor of the disaster that hit Yamanashi Prefecture. Through the interview, we learned that there is only little that high school students can do in the event of a disaster. But if we can get high school students and their families to take organized action with the aim of reconstruction, it will make an enormous difference. Here we propose creating a nationwide network of high school students and a system that would allow schools across Japan to cooperate with one another and improve the efficiency of efforts such as making donations and sending relief supplies.

1. Aims

Yamanashi Prefecture has no coastline and is a place where tsunamis cannot occur. That's why if a tsunami does occur somewhere else, we can play a leading role in making a difference. We carried out a research investigation to consider what we could do if such a disaster occurred.

2. Methods

- (1) Look up information online on disasters which have occurred in Yamanashi Prefecture, and interview those who experienced the disasters first hand.
- (2) Based on the interviews, brainstorm ideas on what can be done.

3. Results

Findings in the interviews

- Once I was faced with a disaster, all I could think about was ensuring my own safety.
- I was unable to confirm the safety of my family.
- I did not have any access to accurate information.
- Everything happened so fast, I was unable to do anything.
- Some people lost their lives due to their misjudgment.
- People who were not victims of the disaster carried out relief efforts. I am very thankful for that.
- We received a lot of relief supplies, but there was not enough of the supplies that we really needed.

4. Discussion

In the aftermath of an earthquake, much of the relief efforts are carried out by the Japan Self-Defense Forces, fire brigades, police officers, and medical personnel, all of which have received emergency training. These are not activities in which high school students can participate.

⇒ What high school students can do is to engage in relief efforts in the aftermath of a disaster.

5. Issues

- (1) Currently, when a disaster occurs, each school collects and provides relief supplies independently. But these efforts are not efficient, as each school carries out their efforts without any information on the supplies or the quantities that are required in the affected areas.
⇒ By coming up with a relief plan, an appropriate quantity of the required supplies can be provided in an organized manner from schools all over Japan through the use of accurate information on the affected areas.
- (2) Each school tends to send similar supplies or supplies that the evacuees have little need for, and finding storage space for these supplies becomes an issue.
⇒ Various burdens caused by sending unnecessary supplies such as the management and distribution of relief supplies should be avoided.
- (3) Once the schools send the supplies, it is not clear what happens to them. Because of this, students do not feel like they are really participating in disaster relief efforts.
⇒ Create an organization that integrates the relief efforts.

6. Conclusion

- (1) Create a nationwide organization of high school students for disaster relief. Create an organization and system that allows high schools across Japan to cooperate with each other. The core of the organization will be the head student council organizations at each school that are playing a leading role in carrying out relief efforts.
- (2) The organization will have a national secretariat and a prefectural secretariat and will hold regular meetings so that it can respond quickly in the event of a disaster. The organization will also integrate the donation efforts carried out by high school students on a daily basis and report in detail how the donations are being spent.

Content and Results of Advanced Surveys:

We conducted research by mainly referring to documents on issues concerning reconstruction measures that were specified in the aftermath of the Great Hanshin-Awaji Earthquake released by the Cabinet Office. From the documents, we identified past issues involving measures for helping the elderly live independently and examined specific examples as a starting point. But midway through these efforts, issues were brought up such as whether the elderly were living independently before the earthquake in the first place and what the term reconstruction actually means, which slowed down the investigation. In these circumstances, we assembled a group of students from our school and investigated the challenges involved in yielding positive results as volunteers using the Kumamoto Relief Project, which the Senri International School of Kwansei Gakuin is implementing, as a reference point. In the end, we came to the conclusion that having plenty of volunteers is what will lead to reconstruction.

Analysis of Problems and Issues:

Following an earthquake, there is a need for physical support such as community protection to ensure the safety of the evacuees who were living on their own prior to the earthquake. Many young people try to move out of temporary housing as soon as they can so they can go back to work. But for the evacuees who have become fatigued both mentally and physically, and have possibly lost the will to live, it is important for them to recover their vitality by interacting with other people. This is what the direct volunteer program in the affected areas is involved with. The problem though, is the shortage of volunteers in the affected areas. Since the Great East Japan Earthquake occurred, the number of volunteers has shown a gradual downward trend. This has created a greater shortage of volunteers, who play a vital role in interacting directly with disaster victims. Another reason for the shortage is that the affected areas receive less media coverage as time passes. Some people who would like to volunteer have said that they are unable to visit the affected areas because they do not have the time or the money to make the trip due to the distance.

Action Plan:

The Smile Encourage Center is a center established for helping the disaster victims who is leading a difficult life due to major disasters such as tsunami and earthquakes. Tsunami and other major disasters break down not only their houses but also school buildings and other physical objects we are able to see. Furthermore, the disaster victims' whole life can be destroyed. The evacuees become able to get a job and obtain a profit while living in this town. When the Center is open to the public, people who wanted to carry out volunteer activities but they could not due to time and financial constraints will become able to carry out their volunteer activities easily. In order to make it easier to accept volunteer workers, the town places and opens a room called "skype room," where the evacuees can communicate with volunteer workers. As there are only two such towns in one region, some people may feel the Center is far from where they live. However, what people can get from communicating with each other is the fact that bitterness and pains the evacuees suffer can be minimized even if major disaster will happen in the future. Through communicating with each other, people learn what they should do responding to a disaster. Further, when a disaster really occurs, they can actually use the knowledge they have obtained.

Preparations for natural disasters

Content and Results of Advanced Surveys:

1. Awareness and education
2. Prediction and warning
3. Preparedness for emergency response, recovery, and reconstruction
4. International cooperation

Analysis of Problems and Issues:

The lack of basic knowledge about tsunami and its effects will result in negligence and unawareness of the disaster. Then it is not an easy work to build awareness of tsunami risk reduction. Moreover, the communities do not seem to have consistent, sustainable cooperation in raising the awareness of tsunami risk reduction among their members. When it comes to public assistance, very few measures to sustainably develop tsunami risk reduction awareness are provided by the local government. The communities are in need of experienced trainers and academics and specialists in this field. The Financial supports on effective tsunami awareness campaign are not sufficiently provided. And the shortage of international cooperation is always faced by the communities.

Action Plan:

- 1. Awareness and education:** Widespread public awareness and education is fundamental to reducing loss of life, personal injuries, and property damage from natural disasters. Yet people in many sectors of society remain unaware of the natural hazards they face and the actions they can take to protect themselves and their property. Special efforts should be made to reach sectors of the population that may not have access to traditional education and information media — small children, the elderly, people with disabilities, and those who do not speak English. Because public officials and the news media have crucial responsibilities for disseminating information during a disaster, procedures for their cooperation need to be established in advance of an event.
- 2. Prediction and warning:** have been a major factor in the decline of natural disasters particularly those resulting from severe weather, wildfires, and floods. The installation of the warning systems such as siren, text alerts on cell phone and email on their computers or setting evacuation routes are needed. Nevertheless, significant gaps still exist in the capability to predict certain hazards and to deliver warnings to those who are asleep, away from communication sources or non-English speakers. Some technological challenges also remain, particularly that of ensuring communications in the event of power failure.
- 3. Preparedness for emergency response, recovery, and reconstruction:** can reduce immediate losses caused by natural disasters and minimize the long-term social, economic, and environmental damages they cause. Emergency response can mean the difference between life and death. Well-defined strategies for recovery and reconstruction can reduce human suffering and financial losses by providing for rapid return to normal community

functions. The most effective preparedness plans emphasize intergovernmental coordination, use all available human and material resources, and are exercised regularly. All too often, however, response and recovery actions are improvised and uncoordinated.

- 4. International cooperation:** International cooperation is essential to the success of natural disaster prevention. All nations can both contribute to and benefit from such cooperation to reduce the impacts of natural disasters in developing nations like the ways Japanese government try to contribute for all here.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Indonesia Aceh

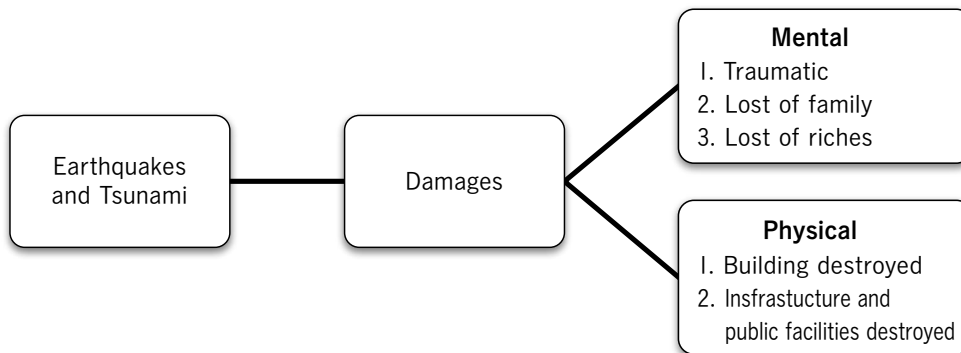
SMA Negeri 1 Banda Aceh (Senior High School 1 Banda Aceh)

The Roles of Senior High School Students in Conducting Sustainable Volunteer Activities After Recovery and Reconstruction

Content and Results of Advanced Surveys:

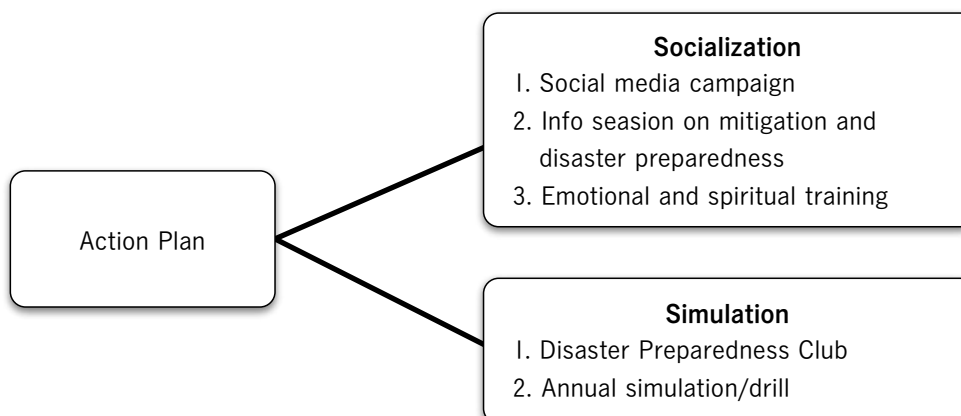
On December 26th 2004 a series of earthquakes and tsunami destroyed some part of Aceh Province, Indonesia. It caused 129,775 people were death and also many infrastucture and various facilities were collapsed. The natural disaster brought people to be more concious about the meaning of life and about their creator. As young generation we have big responsibility in disaster risk reduction to protect the precious lives of people around the world.

Analysis of Problems and Issues:



Action Plan:

In order to broaden the knowledge of Senior High School's student in disaster prevention and raise their awareness by using various interesting activities. We make two programs in our action plans, they are socialization and simulation.



I. Introduction

II. Natural Hazards in Cambodia

2. 1. Flooding
2. 2. Drought
2. 3. Lightning Strikes
2. 4. Storms

III. Floods are particular danger

- a. Annual distribution of human life loss, and damaged and destroyed housing by flood
- b. Seasonal Distribution of Human Life Loss and Damaged and Destroyed housing by flood
- c. Spatial Distribution of Human Life Loss by Flood
- d. Spatial Distribution of Damaged and Destroyed Housing by Flood

IV. Action Plans

- + Gather and create volunteer team and decide targets such as:
 - Shelter providing team
 - Food and water providing team
 - The medical team
 - Transport the injured to the hospital
- + Investigate situation with
 - Elderly
 - People who live alone
 - Special need people(handicapped)
 - Babies and very little children
- + Plan the Recovery
 - Clear all those rubbish from local environment
 - Join in flood control project
 - Inform charities organization to help flood victims

V. Conclusion

- + Risk Reduction
- + Preparedness
- + Plan the recovery

Content and Results of Advanced Surveys:

- 1) Many families affected by the typhoons didn't receive assistance.
- 2) Some state governments and hamlets organized to assist those people whose homes were severely damaged by the typhoons.
- 3) Youth groups from several hamlets in Koror and the other states organized and cleaned their areas.
- 4) There were programs and other assistance from the president's office but some families didn't know where and how to request for assistance.

Analysis of Problems and Issues:

- 1) Several families expressed their frustration as they had to face recovery and reconstruction period without any assistance from their government which means that the challenge was not knowing where or who to seek assistance from.
- 2) Governors and Legislators representing each state had to ask the president's office for assistance in the recovery and reconstruction as they found it difficult to work on their own.
- 3) Administration's (president's office) challenge was figuring out who needed immediate assistance the most and how to reach them.

Action Plan:

- 1) Students can propose to the office of the president to form a "Public Information Committee" to help the public overcome issues with the recovery after natural disasters.
 - One of the committee's main tasks is to educate the public on what to do after natural disasters.
 - The committee should inform the public, before a natural disaster occurs, of the responsibility of the committee and of how to reach them. Provide steps to follow when requesting for assistance from the administration.
 - President's office should establish an account with enough funding saved in preparation for future natural disasters.
- 2) Students from Palau High School represent all the 16 states in Palau so they can use their PHS student body association to communicate with their state governors and legislators to form their own state committee who's responsible for making sure the people get the immediate assistance needed after natural disasters.

- 3) As youth and members of the communities, students can request the Community leaders or youth leaders to organize before a natural disaster occurs then prepare for the recovery and reconstruction after. (youth and community to plan for clean-up after)
-Students will take part in the recovery planning with members of their communities.
- 4) Students can participate in the coastal clean-up.
- 5) Students can also form a Natural Disaster Recovery Club (NDR Club) who can run activities to help support their island after disasters.
- 6) Agricultural activities- planting trees, bush-cutting, clearing the invasive plants

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Report from Workshop, Group B-1



| Country | Name of High School | Title of Presentation |
|---------|---|---|
| Japan | Furukawa Reimei High School | Thinking of Tsunami-Resistant Houses |
| | Yokohama Science Frontier High School | Understanding Natural Disaster Risks (Correct Knowledge of Tsunamis) |
| | Jonan High School | A Study of Tsunami Risk Using Geological Samples and Historical Documents |
| China | Hainan Overseas Chinese Middle School | Analysis of The Potential Danger of The South China Sea Tsunami |
| Korea | Kumho High School | 'Inevitable disaster, Tsunami' |
| Myanmar | No.2 Basic Education High School, Sittwe No.6 Basic Education High School, Pathein No.1 Basic Education High School, Maubin No.2 Basic Education High School, Thaton No.6 Basic Education High School, Mawlamyine | UNDERSTANDING OF THE RISKS OF NATURAL DISASTERS |

Report from Workshop, Group B-1



Mr. Changseok Chae

Kumho High School

Korea

Hello everyone, I'm Changseok from Korea, the presenter of BI from Malaysia, Myanmar, China, Japan and the Republic of Korea. Before I present, it is great honor for me to present in front of all these talented students from all over the world. I want to show my appreciation towards the head of these events. We understand your efforts toward this day. Then, let me begin my presentation from now on. The main concept of my team, group was the basic understanding of natural disasters. So we came up with some creative ideas to be prepared for the natural disasters. Through the group meeting, we found some ways to prepare for tsunami properly. So, let me introduce our ideas. First Kumho high school students from Korea did some experiments to find out some scientific evidence of characteristics of tsunami. We did some experiments to find out relation between the frequency of the wave and the length of the wave. And we also had some experiments to find out that tsunami has a long wave length and a large amount of water flows, so it is why tsunami is really dangerous. And Furukawa Reimei High School student from Japan, they experiment to reducing the damage of tsunami to the buildings. They change the position of the building so that the pressure of tsunami to the building would be reduced. And other students from other nations do some creation of action plan that students can take. First, Hainan Overseas Chinese Middle School students from China suggested the knowledge of tsunami prevention and mitigation should be popularized among the communities and schools. And the students from Myanmar suggested to disseminate information regarding needs of protection, preparedness and mitigation and they also suggests to organize drawing essay, writing cartoons, and article competition in partnership with community-based organizations. And Jonan High School students from Japan suggested to learn the knowledge from ancestors. And Yokohama Science Frontier High School students from Japan suggested people should be equipped with some proper knowledge of tsunami to be prepared for it. And students from Furukawa Reimei High School students from Japan suggest to build more evacuation towers so that people will be able to escape right after the tsunami being occurred. So we students have to be equipped with some adequate knowledge of tsunami to be prepared for it properly. Knowledge is power. Thank you.

Thinking of Tsunami-Resistant Houses

Content and Results of Advanced Surveys:

Lessons learned from the Great East Japan Earthquake (tsunami countermeasures in particular)

(1) Multiple defenses: In flat lowlands like the southern coast along Sendai Bay, it is necessary to arrange facilities in a way that enables disaster reduction in the hinterland of the bay through multiple defenses, which combine coastal dykes, elevated roads, evacuation plans, etc.

→ Develop tide embankments and multiple-defense facilities as part of the tsunami countermeasures

(2) Relocate to high ground: In areas with coastal rias such as the Sanriku area, it is necessary to build houses on elevated ground where they will not be inundated even if a tsunami comes because multiple defenses are difficult.

→ Lay earth on the ground in coastal areas when housing lots are developed

(3) Roads: It is necessary to reinforce the coastal road networks, including the Sanriku Expressway, which constitutes a lifeline in the region as well as establish closer wide-area, east-west cooperation.

→ Prevent port cargo from flowing out in order to preclude secondary disasters due to debris and other types of driftage in areas adjacent to ports by taking measures such as elevating parts of the harbor roads and securing evacuation or rescue roads for port workers and roads used to transport emergency supplies

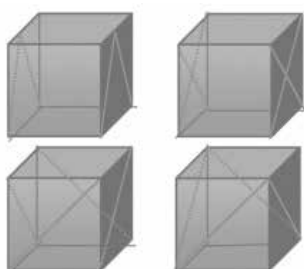
Analysis of Problems and Issues:

As part of its plan to build disaster-resistant towns, the prefectural government is taking various different measures from various different perspectives based on the lessons learned from the tsunami after the Great East Japan Earthquake. Among these measures, we paid attention to the collective relocation to high ground, and the laying of earth on the ground in coastal areas. It is true that if houses are relocated to high ground and earth is laid on the ground in coastal areas, tsunami damage would be reduced significantly. A look at past examples, however, indicates that after the Sanriku Earthquake in the Meiji period, houses were relocated to high ground but that later they tended to return to lowland areas. This is probably because people in coastal areas were strongly aware that they lived with the sea. If there are people who wish to live close to the sea even if they know that their houses would not be livable any longer once they were damaged by a tsunami, we want to develop a structure for houses that would prevent them from being destroyed or washed away by a tsunami as much as possible.

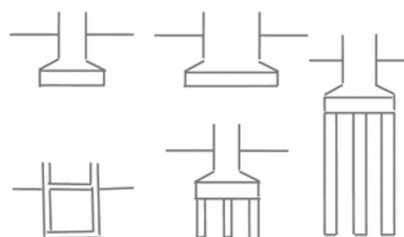
Action Plan:

In this plan, we will pay attention to the way diagonal beams are assembled and the shape of the piles that connect the house to the ground, and will carry out experiments to examine which assembly method, and which shape of piles, prevents the houses from being destroyed or washed away by a tsunami.

We will use globe-shaped expandable polystyrene and pasta noodles to reproduce the four major types of diagonal beam assembly methods and the five types of shapes of piles, all of which are used for housing in Japan today. We will also manufacture a system to generate a tsunami, and compare the beams and piles to determine which structure is most tsunami-resistant. In addition, based on our obtained results, we will conduct further experiments by combining the most durable method and shape, with the least durable method and shape in order to draw our final conclusion.



<Types of diagonal beam assembly methods>



<Types of piles>

Japan Yokohama City, Kanagawa Prefecture

Yokohama Science Frontier High School

Understanding Natural Disaster Risks (Correct Knowledge of Tsunamis)

Content and Results of Advanced Surveys:

Tsunamis are not necessarily caused by earthquakes.

- Serious events in Shimabara caused problems in Higo

Some Around 200 years ago, in 1792, Mt. Unzen Fugen erupted. After the eruption ended, Mt. Mayu, which rose behind the urban district of Shimabara, collapsed extensively due to a massive earthquake, and the avalanche of rocks buried nearly half of the castle city before then flowing into the Ariake Sea, causing a massive tsunami. The disaster, which became Japan's largest volcanic disaster took the lives of around 15,000 people, including those in Higo (Kumamoto), located on the other side of the sea.

- The Fire of Rice Sheaves

This story puts together events related to the tsunami which occurred after the Ansei Nankai Earthquake of 1854. Written by Yakumo Koizumi, the narrative was used as a Japanese textbook for ten years from 1937. It describes the need to watch out for tsunamis and the importance of early evacuation among others.

- Tsunami tendenko

This slogan urges people to individually run to a high place as soon as possible and protect their life by themselves without even worrying about their parents because a tsunami will come if an earthquake occurs. The term "tenden" means "individually" in the dialect of the Tohoku region.

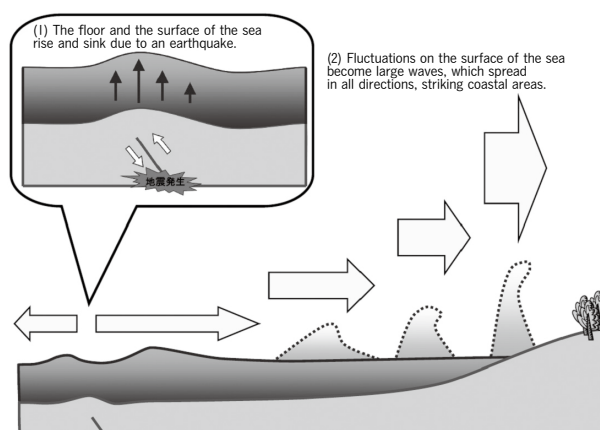
Analysis of Problems and Issues:

Many people believe that most tsunamis are caused by earthquakes that occur close by, but in fact, there have been reports of tsunamis caused by earthquakes that occurred due to the collapse of mountains or ones that traveled from a distant place across the Pacific.

Tsunamis can be caused by various different events, so it is necessary to fully understand them and have the correct knowledge. The following is a general explanation of how tsunamis are caused (quoted from the Japan Meteorological Agency's website):

If a massive earthquake occurs under the seabed, the seabed rises or sinks due to fault movement. This causes the surface of the sea to fluctuate, spreading tidal waves in all directions, and these waves are known as a "tsunami."

There is an old saying that the tide always goes out before a tsunami, but this is not necessarily true. Depending on the inclination and direction of the underground fault that caused the earthquake or the relationship between the location of the place where the tsunami occurs and that of the coast, large waves may sweep toward the coast first without the ebbing of the tide. **A tsunami does not always begin with the ebbing of the tide.**



(Quoted from <http://www.data.jma.go.jp/svd/eqev/data/tsunami/generation.html> on October 1, 2016)

A tsunami spreads in various different ways, and its height varies greatly depending on landforms near the coast. Furthermore, a tsunami will sometimes rush over the land (go upstream along rivers). In particular, it is necessary to pay attention to a tsunami because waves can converge in places with special geographical features such as the tip of a cape or the innermost part of a V-shaped bay. Sometimes a tsunami occurs repeatedly and advances on the coast many times, or several tidal waves can sometimes combine to form extremely high waves. For this reason, the first wave is not always the largest, and subsequent waves may be higher. Somebody should fulfill the role of telling others about these various characteristics of tsunamis.

Action Plan:

Conduct research on earthquakes and tsunamis, and create opportunities for high school students to then impart the correct knowledge of earthquakes and tsunamis, providing this knowledge to as many people as possible. Also, invite many people from overseas to annual international conferences to promote a deeper understanding of the TSUNAMI.

(Example) It should be remembered that when a tsunami does come, the first wave will then be followed by a second wave and then a third wave, and that damage can be caused by any of these. All people should also understand that breakwaters are not designed to prevent a tsunami but to delay its arrival, and that they are only built to reduce the damage. People should not assume that since there are breakwaters they do not need to evacuate; breakwaters are only intended to help you remain calm and composed while you evacuate.

What the students at Yokohama Science Frontier High School can do, as high school students who are studying in a country that is advanced in earthquake research, is to properly provide their counterparts in other countries with correct information on the tsunami's mechanism and risks.

Content and Results of Advanced Surveys:

We investigated geological samples collected when the school's gymnasium was built in order to determine whether there were any traces of tsunami in the samples.

As a result, we found volcanic glass in some of the samples from several test and investigative holes that were dug (at a depth of around 13 m), and from their shape and other features, we estimated that they were part of the Kikai-Ah ash-fall deposits from about 7,300 years ago. In addition, we found *Cerithidea djadjariensis*, a member of the *Batillariidae Thiele* family (snail), and *Anomia chinensis* (bivalvia) in samples collected at almost the same depth. The layer at this depth is considered to have been formed in shallow sea when the seawater made its way into the Tokushima plain during the Jomon transgression, which peaked some 6,000 years ago (not tsunami deposits). As a result of further search for shellfish fossils and the like, we discovered fossils of a diverse range of shallow-sea and intertidal life at a depth of 5–6 m. Given their shape, the discovered fossils seem not to have been locally produced but to have been carried by the waves. However, it could not be determined whether this was the result of the fossils being carried by a tsunami or by the seawater making its way into the plain again during the Heian transgression (Rottneest transgression) in the 8th to 12th century.

But despite the location of the school, which is situated at the foot of Mt. Bizan, located about 4 km away from the coastline, a number of fossils of shallow-sea and brackish-water life can be found in the underground layers below the school, and from this fact, we can realize that in Tokushima City's hazard map, the area around the school is included in the area that would be inundated by a tsunami of up to 2–3 m above the ground.

Analysis of Problems and Issues:

We cannot easily imagine in concrete terms using the inundation map alone the damage that our school and its vicinities would suffer if they were inundated up to 2–3 m above the ground as expected. In Tokushima Prefecture, the height above sea level is indicated on electric poles and buildings in various different places in order to prepare the residents for a tsunami disaster. We will visualize the expected damage through a comparison with the tsunami hazard map so that people will have a keener awareness of disaster risk reduction.

One characteristic of the expected huge Nankai Trough earthquake is that even by global standards, our predecessors have left behind a wealth of historical documents, and these documents clarify the periodicity of such an earthquake and provide the basis for predicting that one may occur during the first half of this century. It is difficult to prove its periodicity by analyzing geological samples from the school alone, but we will investigate the tsunami monuments in Tokushima Prefecture and present our predecessors' thoughts that are inscribed on these monuments, and the way that the Nankai Trough earthquakes occurred in the past so that people will have a keener awareness of disaster risk reduction when the next huge earthquake occurs.

Action Plan:

Based on the advance surveys and field work, we will demonstrate the tsunami damage expected in areas around the school in concrete terms and emphasize the need to take measures to cope with a massive Nankai Trough earthquake as suggested by historical documents. Our school has many different presentation opportunities through the SSH initiatives. We will use such opportunities effectively to communicate the relevant information both inside and outside the school together with what we experienced and learned from the high school students' summit on World Tsunami Awareness Day.

Specifically, we will communicate the relevant information inside the school mainly through disaster risk reduction drills and presentations on SSH assignment researches, to other high schools mainly through joint research presentations by SSH students in Tokushima Prefecture, and to elementary and junior high school students as well as the general public mainly through school festivals, open classes, science experiment classes for elementary and junior high school students, and SSH research result presentations.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

On March 11, 2011, a 9.0 magnitude earthquake happened in the northeast region of Japan. The Japanese meteorological agency issued the tsunami warning. People couldn't help remembering the Indonesian tsunami happened in December 2004. In that tsunami, the number of victims from all over the world was more than 30 thousand.

From there to here, with a long coastline, where will receive the most seriously threat from tsunami in China.

The area of Chinese ocean is located in the western Pacific ocean, border on the northwestern Pacific seismic belt. According to historical records, only 10 earthquakes and tsunamis that happened in China, it means that the frequency is nearly once two hundred years. It suggests that it's unlikely that the earthquake or tsunami happen along the coast of China. The reason is the area of Chinese ocean is in the wide continental shelf and the depth of water mostly within 200 meters. It's not conducive to the formation and communication of the earthquake or tsunami. However, the average depth of south China sea is 1200 meters. Therefore, the most of China's waters are unlikely to form the local tsunami when the earthquake happened. But in the south China sea, the occurrence of tsunami is still possible.

Analysis of Problems and Issues:

Manila Trench of the South China Sea has been commented as the most active trench which tsunami and earthquake are most likely to strike by a bureau of United States. The expert said it could result in a devastating earthquake and a large-scale tsunami. If so, over five meters high waves will attack Hainan, Fujian ect. If the government fail to make an effective tsunami warning in time, it will probably cause more than 100,000 deaths.

Action Plan:

1. Building a tsunami warning and defense system to detect and warn the tsunami to avoid death on the beach. 2. To establish the sandy coastal of shelterbelts to reduce the loss caused by the tsunami. 3. When you feel a strong earthquake for a long period of time, you need to immediately leave the coast, quickly to the high ground and other safe areas. 4. Take a variety of ways for tsunami disaster mitigation of universal education, and gradually develop and tsunami disaster mitigation supporting the relevant laws and regulations, and in the tsunami hit areas of tsunami disaster relief exercise, to reduce the losses caused by the tsunami. 5. We should ensure that the assistance is highly efficient, organized and sustainable. we must solve the problems about the water treatment, food safety and other pressing issues. 6. We ought to combine the short-term emergency assistance and the long-term disaster reconstruction to help victims rebuild their homes and economic. 7. It's our duty to pay special attention to the interests of the vulnerable groups of women, children and indigenous people to help them solve their practical difficulties. 8. We should give full play to the leading and coordinating role of the United Nations. The United Nations has obvious advantages in disaster prevention, disaster relief, disaster preparedness. It also has other aspects of experience in policy formulation, program design and implementation.

‘Inevitable disaster, Tsunami’**Content and Results of Advanced Surveys:**

1. Asking students about ‘Basic Understanding of Tsunami’ in advance.
2. Proving the students’ unawareness of the characteristics and seriousness of tsunami.

Analysis of Problems and Issues:

1. Suggesting that Korea is no longer to be considered a safe haven from tsunami.
2. Finding out the possibility of the tsunami occurrence in Korea.
3. Examples of tsunami that had been recorded in Korea.
4. Changes of tsunami waves according to the different periods.
5. Studying details of earthquake occurred in Korea in 2016 .

Action Plan:

1. Learning about the basic characteristics of tsunami by watching documentaries.
2. Studying the characteristics of tsunami through an experiment using model tsunami wave with 4 different speeds.
3. Doing the experiment of measuring the velocity of tsunami wave using an analyzing device to figure out the dangers of long period waves.
4. Estimating the amount of damage according to the scale of the tsunami assuming that tsunami would occur in Korea.
5. Holding a writing contest in school inviting the students to learn about tsunami awareness day.

Myanmar Rakhine, Ayeyarwaddy, Mon, Taninthayi Basic Education High School

UNDERSTANDING OF THE RISKS OF NATURAL DISASTERS

Content and Results of Advanced Surveys:

The local people –

- Have less knowledge in connection with natural hazards, their nature and the possible consequences of their impact
- Have less Knowledge as regards practical preparedness and mitigation measures
- Have less knowledge concerned with the warning system that will be employed and what they should do after receiving the information
- Have less knowledge on how to respond to an emergency situation

Analysis of Problems and Issues:

The following are the challenges we are going to face

- poverty : vulnerable rural livelihood : destroying ecosystem
- The extensive poverty inevitably leads to increased vulnerability in the face of various natural hazards. people with economic instability are more prone to suffer impacts of hazard incidences than the better – off ones
- Livelihood of rural communities relies heavily on weather and climate of the region and rural communities are more exposed to weather related hazards such as tropical cyclone, flood and drought
- Many disasters are either caused or exacerbated by environmental degradation

Action Plan:

- Helping communities understand the need to prepare themselves for future hazards and ways to decrease their vulnerability
- Dissemination of information regarding means of protection, means of preparedness, means of mitigation and responses to threats to come to understand that they live in areas of risks; to realize the specific dangers that they are exposed; to understand the warning that are issued and to know the appropriate actions to take to protect their lives and minimize property damage
- Organizing drawing, essay writing, cartoons and article competitions in partnership community based organizations (cbos)

Report from Workshop, Group B-2



| Country | Name of High School | Title of Presentation |
|--------------------------|---|--|
| Japan | Kesennuma High School | How people react and feel when tsunami arrives |
| | Hirano Senior High School Attached to Osaka Kyoiku University | We Will Run Away from the Tsunami |
| | Tosajuku Senior High School | Daily Safety Awareness Takes Effect in the Event of an Emergency |
| China | Haikou No.1 Middle School | What can we do to survive in natural disasters |
| Indonesia | Peukan Bada 1 Aceh Besar National Senior High School | Recovery & Reconstruction After Earthquake and Tsunami of Aceh |
| United States of America | Waiakea High School Hilo High School | <i>Kai a Pele</i> : Addressing Natural Disaster Risk for Hawaii |

Report from Workshop, Group B-2



Mr. Benjamin Kas Moana Poppas

Waiakea High School

United States of America

Hello, my name is Benjamin Poppas and I am from the United States, representing the group B2. Our group includes Kesennuma, Osaka and Tosajuku high school of Japan, China, Indonesia and the United States. Kesennuma High School spoke about minimizing damage from tsunamis and educating people to react to tsunamis. Osaka High School talked about creating a joint tourist map that shows evacuation routes and creating ads for tourists. Tosajuku High School in Kochi talked about preparing beforehand identifying locations securing furniture and acting accordingly. China talked about tsunami plan, to pay attention to media, strengthen ties with countries, and establish mangrove forest and unite together as a human race. Indonesia talked about two-step action plan: simulation of tsunamis and earthquakes and socialization. The United States talked about educating senior citizens alongside recreational activities and utilizing NGSS, next generation science standards, to implement education about natural disasters and its risks. Looking at all these presentations, we have come to the conclusion that around the world natural disasters are unavoidable. Together we must unite as countries to strengthen connections to raise awareness, communication and knowledge of natural disasters. Educating people, creating maps of evacuation sites and simulating evacuations would better help to prepare people and decrease the amount of damage and loss. Through government action and cooperation of all people we can be better prepared for future that is unknown. Thank you.

Content and Results of Advanced Surveys:

1. Contents

- ① We asked our school students, teachers and parents how they felt when a “large tsunami warning” by “the Great East Japan Earthquake” was issued.
- ② We surveyed people’s state of mind on the Internet and books.

2. Result

When a “large tsunami warning” was issued, many people had ideas and actions that might risk their lives.

- ① People wanted to see the big tsunami.
- ② People didn’t believe that tsunami would come here.
- ③ Some people didn’t run away because people around them didn’t run away.
- ④ People had time before tsunami arrived so they went back to their house to bring important things.
- ⑤ Because people worried about their family, they went back to their house.
- ⑥ People thought using cars was good to run away faster.
- ⑦ People ran away to shelters which had been used in evacuation drills.

Analysis of Problems and Issues:

Problem 1

We must improve the situation that people never think seriously without their own experience.

Many dangerous actions were taken, for example ① to ⑦ above, in the area that had been attacked by tsunamis many times and where people knew “tsunamis come after an earthquake”. Judging from this, people living in areas that will be attacked by a tsunami are likely to have similar ideas. After “the Great East Japan Earthquake”, “people’s action after the earthquake” has been researched a lot. We need capacity to communicate information so that people can learn from experiences in the disaster-stricken area.

Problem 2

People should not depend on the media and should decide to evacuate spontaneously.

In 1993, Okushiri-cho suffered serious damages as tsunamis arrived before tsunami warning was issued. We should have the idea of “tsunamis come after an earthquake” take root and encourage people to evacuate immediately.

Action Plan:

Tsunami is a natural disaster that can attain zero casualty

We don’t have to have professional knowledge and high technology to minimize people’s death. If people have the idea that “tsunamis come after an earthquake” and run away immediately, it will come true. We want people to understand psychological biases that hinder running away. We use the past examples and real examples of disaster-affected areas, and we want to tell people how important running away is !

We Will Run Away from the Tsunami

Content and Results of Advanced Surveys:

Thinking that Osaka City does not provide tourists with sufficient information on tsunami disaster risk reduction, we actually visited the Toba area in Toba City, Mie Prefecture, and Nakatosa Town in Takaoka County, Kochi Prefecture, in order to investigate the situation in other areas. Assuming that we were tourists who did not know the area at all and that a tsunami came, we conducted an experiment to determine whether we could reach an evacuation center smoothly. A tsunami is expected to reach both areas about 20 minutes after the occurrence of an earthquake. We assumed that the first 10 minutes should be spent ensuring our safety; that we would start to evacuate 10 minutes later; and that we would consider evacuation as successful if we could reach an evacuation site within 10 minutes of starting the evacuation. The result was that we started evacuation from two locations where people are usually expected to gather and that in both areas, evacuation from one location was successful while evacuation from the other failed. It cannot be said that both areas have an environment that allows tourists to evacuate without fail using the existing signs and tourist maps alone.

In addition, after our experiments in the two areas, we confirmed the hazard maps for the areas, identified some problematic points, and tried to find solutions to the problems.

Analysis of Problems and Issues:

Problems in Nakatosa Town include an insufficient number of signs, which are small and difficult to see, poorly developed evacuation routes, and tsunami towers built on the seaside. One good point is that there are two tsunami towers.

There are two major problems in the Toba area. One is that even though the signage is easy to understand, the evacuation center is located far away with a long evacuation route up the hill consisting mainly of steps rather than slopes. The other is that many of the roads are difficult for wheelchairs to use. One good point is that there are more evacuation signs than in Nakatosa.

The problems with the hazard maps can be summarized into two major points. One is that they are difficult to read. The other is that they are used less often than tourist maps. We thought that the second was a more fatal problem and that it would be better if one map served as both a tourist map and a hazard map.

Action Plan:

The major goal is to propose town development that takes the two areas' problems into account so that in the future, even tourists and those who do not know the town can enjoy it with a sense of security.

One way to achieve this goal is to create a new type of hazard map. Specifically, we plan to make a new type of hazard map by including information on tsunami disaster risk reduction in an ordinary tourist map, thus solving the problem with the existing hazard maps: they are used by

tourists less often. The reason is that we thought that such a hazard map could be distributed to all tourists. We actually created a new hazard map for the Toba area on a trial basis.

In the future, paying attention to the fact that in both areas signs can only be seen from one direction, we will put forward an action plan to create signs that can be seen from all directions. In this way, we will ensure that people are prevented from evacuating in the wrong direction.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

Japan is a beautiful island country blessed with varied natural settings, but on the other hand, it is a country of many natural disasters. This project explores the preparations that we can make and the drills we can carry out on a daily basis as it is believed that a massive Nankai Trough earthquake is highly likely to occur.

What should we do and what can we do first if we actually feel the shaking? How much time will we have between the occurrence of an earthquake and the arrival of a tsunami in Kochi City and the surrounding vicinities where we live? And what can we do in this interval? We will answer these questions while citing examples from areas where the school's students actually live.

Analysis of Problems and Issues:

This year marks the 70th anniversary of the Showa Nankai Earthquake of 1946. In the 10 years from 2005 to 2015, Miyagi Prefecture had 6,028 earthquakes which registered 1 or more on the Japanese seismic scale, Tokyo had 2,431 while Kochi Prefecture had 305. It cannot be said that we are fully ready for massive earthquakes because we have not yet experienced them, and therefore, it is more important than anything else to make preparations and take countermeasures against them on a daily basis.

Action Plan:

We will confirm actions we should take when we receive an emergency earthquake alert or before the S-waves come, after we experience the P-wave shaking. We will also examine what earthquake preparations we can make on a daily basis. Examples include making buildings earthquake-resistant, reinforcing glass windows, creating disaster risk reduction maps, and making the most of the collections of example responses to earthquakes.

We will investigate the time when the tsunami is expected to reach Kochi City and examine what we can and must do before the arrival of the tsunami. We will also consider preparations we can make on a daily basis by visiting places where the students live.

■ China ■ Haikou, Hainan Province

■ Haikou No.1 Middle School

What can we do to survive in natural disasters

Content and Results of Advanced Surveys:

1. Understanding of the risks of natural disasters
2. Preparation for natural disasters
3. Recovery and reconstruction from the damage by natural disasters

Analysis of Problems and Issues:

1. Proper awareness of tsunami, dissemination of World Tsunami Awareness Day and hand down lessons learned from disaster, and disaster risk reduction education
2. The proposal of action that can be undertaken by schools, regions and households to reduce the impact of disasters
3. The roles of students such as conducting sustainable volunteer activities

Action Plan:

1. Awareness of natural disasters and related risks reduction education
2. What should we do in a natural disaster
3. What should we, the students, conduct sustainable volunteer activities
 - A. Escaping from a tsunami
 - B. After an earthquake, how to rescue people who are trapped under the wreckage
 - C. Seeking help from the Self-Defense Forces

Content and Results of Advanced Surveys:

DAMAGE OF TSUNAMI

- People displaced: 192.055
- Houses that need improvement: 78.000
- The house should be built: 128.000
- School Damage: 2.087
- Damaged the health service: 106
- Points of damaged water supply sources: 10.124

Analysis of Problems and Issues:

The earthquake and tsunami in Aceh on Sunday, December 26 2004 at 08:00 pm, The victim around 129.775 People, and 36,786 missing person, The earthquake strongest 9,3 RS for 10 minutes.

Action Plan:

1. Red cross activity in our school
2. Scout activity in our school
3. Counseling (Consultation and guidance by the teacher Muslim religion)
4. Training of Preparedness School Disaster
5. Training/Seminar activities
6. Peer Educator
7. Simulation drill of earthquake and tsunami

Content and Results of Advanced Surveys:

Surveys prompting volunteers to identify their understanding of natural disasters were completed by individuals between the ages of 10-80 around the Hawaii Island community. Through the survey results, it was noted that many individuals who were born and raised in Hawaii had direct or near-direct experience with natural disasters, including but not limited to tsunami, hurricanes, and lava flows (volcanoes). Questions regarding the specificity of natural disaster location risk and knowledge of risk reduction education were notable because of the lack of information throughout a wide age range.

Analysis of Problems and Issues:

School-aged students must be equally knowledgeable about the risks and dangers as elderly individuals. Older or elderly individuals in our community have more experience with the devastation of natural disasters, including the 1946 and 1960 tsunami and the Kalapana lava flow. However, they are not as tech savvy as the younger generations and are not as aware of social media campaigns to warn citizens about the impending and current natural disaster risks. Younger individuals cannot immediately recall the devastation of natural disasters because they have not experienced tsunami or hurricane direct impact. Often, these natural disasters happen to isolated environments or communities and younger generations may feel disconnected to the devastation. Seeing images on a phone screen or via Twitter do not elicit the same empathy or reaction as do from individuals who have directly experienced loss.

Action Plan:

We propose a development of natural disaster awareness curricula for our school-aged students as well as continuing education classes for our senior population. The Next Generation Science Standards (NGSS) that have been adopted by most United States education departments have Earth Systems as a curricular need in most elementary grade levels. In third grade, while students learn about weather patterns, a mini-unit on hurricanes' development and risk will be taught. In fourth grade, while students learn about plate tectonics, a mini-unit on earthquake's development and risk will be taught. In fifth grade, while students learn about geosystems and ocean patterns, mini-units on lava flows and tsunami development and risk will be taught. Three years of natural disaster risk education will solidify students' knowledge before they become middle and high school aged when they will be expected to support disaster relief efforts. At the senior level, continuing education classes will be provided to interested senior citizens. Offering low-risk learning opportunities for senior individuals may increase their interest in the scientific and technological updates to disaster recognition and prevention, as well as offer additional opportunities to dialogue with peers and share memories.

Report from Workshop, Group B-3



| Country | Name of High School | Title of Presentation |
|---------|---|---|
| Japan | Tokyo Gakugei University International Secondary School | What can students do to minimize disaster damage? |
| | Unebi High School | Ensuring the Smooth Evacuation of Non-Japanese People |
| | Kochi Ozu High School | Food Problems after an Earthquake Occurs |
| China | Hainan Middle School | Preparations for natural disasters |
| Korea | Kumho High School | Bring it, tsunami! |
| Laos | Phonesavanh School | FLOOD IN LAOS |

Report from Workshop, Group B-3



Mr. Seonghyun Je

Kumho High School

Korea

Hello everyone, my name is Je Seonghyun and I'm from Kumho high school, the Republic of Korea. I'm the presenter of Group B3. It is a great honor to be a part of this summit on behalf of my country. I hope that we could make a difference by the end of the summit. Let me tell you what we discussed during our group presentation. We focused on what we could do as students against these natural disasters, not just tsunami waves but including typhoons, floods and lot of other natural disasters they can harm people all around the world. We decided to divide the role of students into three ways. The first one is what we could do as student before natural disasters happen and the second is what we could do as students during natural disasters actually happening. The last one is what roles should students play after the natural disasters has struck the land. Before the natural disasters happen, we students can come up with creative ideas that can help reduce the damage of the natural disasters. Japan has come up with a creative idea of seasoning the disasters or preparation foods in order for nutrition and tastes. And our country, Korea, has come up with scientific method of enhancing the effectiveness of our tetra pods by increasing the friction of it and thus reducing the damage of tsunami waves itself. Other nations have also come up with lots of useful ideas. One of them was creating smartphone application to provide people about information of evacuation sites. During the natural disasters actually happening, we students can devote by creating funds to give the nations for the people in need, and we can also help the people evacuate from the dangerous areas especially the disabled and the elderly. After the natural disasters actually happening, we can conduct field trips to the areas where the disasters have actually struck, and we can also inform the social media to constantly mind the people of the danger of natural disasters. This may seem like a very small step because we are just high school students, but if we actively take part in society into helping us become more prepared against these natural disasters, this smart step would be a huge leap and for our generation and for future generation, as well. Hoping that our world would be a much more safer place from these natural disasters, I end the presentation. Thank you very much.

Content and Results of Advanced Surveys:

1. Preparing for situation-specific cases – Awareness of the importance of evacuation and knowledge of risks to reduce disaster in coastal areas
 - When in coastal areas, people must evacuate to higher areas, quickly.
 - "Orange flags" are used in some seaboard areas to signal evacuation to people offshore. (#beorange/URL <http://beorange.jp/about/>)
2. Preparing for condition-specific cases – Risks that people with hearing difficulties face
 - People with hearing difficulties cannot collect auditory information.
 - At schools for the deaf, signs are used to communicate information. This means that without understanding and support from people around them, people with hearing difficulties cannot attain necessary information.

Analysis of Problems and Issues:

1. Sea levels are low and evacuation facilities are limited in many coastal areas of Tokyo. Means of evacuation is also limited. To solve this problem, prefectures and towns are building evacuation towers and breakwaters on its coasts, but the numbers are far from enough. Building breakwaters is also controversial because it makes activities such as surfing and fishing impossible at that area of the coast and destroys the scenery. When a disaster occurs, many roads will be blocked and/or be dangerous to use. This may delay evacuation and transportation of supply to evacuation stations.
2. Communicating enough information visually to people with hearing difficulties is difficult. Building networks with surroundings is very important for smooth communication. Able-bodied people and disabled people need to act in cooperation for survival. There is no specific information regarding people with hearing difficulties on Tokyo's disaster manual books, Tokyo Bousai, or Disaster Preparedness Tokyo.
3. While high schoolers are capable of helping and are willing to do so, their social position as minors often leads to distrust from adults. However, during and after the 2011 Tōhoku earthquake and tsunami, high schoolers have played a large role in helping local people. There must be things that high schoolers can do but others cannot.

Action Plan:

Our action plan consists of three main ideas.

First, disaster preparation in coastal areas must be improved. We would like to suggest the development of a smartphone app that locates high places to evacuate using sea level data and shows its shortest route using up-to-date mapping information collected by drones. We would also like to suggest "Be a sign, for the sign." We should think of a system in which evacuating people are recognized as a sign for evacuation for others.

Second, communication methods with people with hearing difficulties must also be improved. Tools of communication such as pointing cards and apps should be made and improved to provide deaf people with enough information, quickly. Smartphone lights may also be useful as visual signs for evacuation.

Third, high schoolers must get more involved. We must gain more knowledge and share them. Through activities such as participating in study tours, we could learn the importance of knowledge, and pass on the lessons of the disaster as students. Through activities like this, we could also earn trust from adults. At a time of disaster, we high schoolers should exercise our abilities to the maximum. As the digital native generation, high schoolers can collect, filter, and spread information efficiently. Our positive attitude, physical strength, stamina, and flexibility with time would also be of great value.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

We investigated how many evacuation route maps there were in tourist resorts.

As a result, we found that there were almost no evacuation route maps in the tourist spots in Nara Prefecture.

In addition, all the evacuation route maps in urban districts were written only in Chinese characters.

Analysis of Problems and Issues:

If tourists are hit by a disaster in a tourist spot, they would be confused because they do not know where the evacuations centers are located.

In addition, since evacuation route maps are written only in Chinese characters, the evacuation of any non-Japanese and little children would be delayed because they cannot read them.

Local tourist information leaflets do not include disaster risk reduction information.

Action Plan:

- Add pages with disaster evacuation routes to the existing tourist information leaflets.
- Post QR codes on tourist information boards to distribute evacuation information.
- Develop and promote smartphone applications to communicate evacuation information.
- Use hiragana and other easy-to-read symbols for evacuation route maps in urban districts and hazard maps so that even elementary school children and any non-Japanese living in Japan can read them easily.
- Provide disaster risk reduction education, including evacuation drills, at companies where many non-Japanese work and in the areas where many of them live.

Content and Results of Advanced Surveys:

Initiatives in Ozu

- Research at OZU Science regarding reducing disaster risk
→ Conduct scientific tests and research on disaster risk reduction.
- Research on food at the Home Economics Club
→ Learn the importance of thinking about disaster risk reduction including emergency food in a multifaceted way from the viewpoint of sanitation.
- Storing emergency food and drink at the school
→ Ensure that the food not only provides well-balanced nutrition but also provides feelings of happiness.
- Spring and autumn disaster risk reduction drills
→ Create a keener awareness of the need for disaster risk reduction among students so that they can act on their own initiative.

Analysis of Problems and Issues:

- (1) Lack of nutrition in stored emergency food
→ Evacuees are likely to suffer from malnutrition.
- (2) The amount of stored food and drink is no longer sufficient because the school has become an evacuation center.
→ Not all evacuees will be able to eat sufficiently.
- (3) Unbalanced and unsatisfactory diet
→ Instant rice is not satisfactory.

Action Plan:

- (1) Staple foods and drinking water only → Lacking in vitamin, mineral, and protein
 - Develop menus that emphasize well-balanced nutrition and propose them to schools (prefectural government).
 - Avoid repetitive serving of similar food by developing various different menus (to provide feelings of happiness).
- (2) The current amount of stored emergency food and drink is supposed to support the students for three days.
If an earthquake occurs, many people will evacuate to the school from outside. Therefore, we will need to estimate how many people will come and ask the school to take these people into consideration when storing emergency food and drink.

1 (3)During the Great East Japan Earthquake, people felt that stress built up because they could not eat what they wanted to eat.

2 (E.g.) Vegetables, fruit, fish, meat, sweets, warm soup, rice, etc.

3 →It is difficult to prepare everything, and so therefore, as many different kinds of emergency food as possible should be stored.

4 →What we felt when we actually ate instant rice (the versatility and importance of salt)

5 • People do not easily get tired of salt because it changes taste of food.

6 • Salt is well matched with a diverse range of food ingredients.

7 • Salt can be stored for a long period of time.

8 • Salt can be used to prevent heatstroke. It also supplies minerals and potassium.

9 • Salt can be easily obtained because it is sold in many stores.

Preparations for natural disasters

Content and Results of Advanced Surveys:

We made a survey about natural disasters prevention in Hainan province, China.

We found the following precautions: To disseminate disaster risk reduction awareness, to carry out the disaster risk survey, to formulate plans, to establish emergency linkage mechanism.

Analysis of Problems and Issues:

The biggest problem is how to make people realize what to do when the disasters occur and effectively organize people to evacuate.

Action Plan:

(1) Master the Knowledge of Natural Disasters

(2) Preparation for Natural Disasters

(3) Prevention Exercise of Natural Disasters

Content and Results of Advanced Surveys:

1. Asking students about how much they know about the fundamentals of tetra-pods.
2. Proving the students' unawareness about the scientific purpose of tetra-pods.
3. Finding out the awareness of methods used against the tsunami in schools and households.

Analysis of Problems and Issues:

1. Improvements needed in current tetra-pods.
2. Analysis of the most effective shape of tetra-pods.
3. The possibility of incorporating the coral reefs' shapes in new types of tetra-pods.
4. The most effective way of placing the new types of tetra-pods on the shoreline.
5. Useful methods that can be used in schools and households.

Action Plan:

1. Designing new types of tetra-pods with different designs.
2. Discovering more effective ways to place the new tetra-pod designs on the shoreline by using the tsunami simulation tank.
3. Testing the effectiveness of the new tetra-pod designs by using the Lego NXT wave generator in the tsunami simulation tank.
4. Studying the benefits of applying the surface shape of coral reefs on the new types of tetra-pods.
5. Discovering the ideal shape for more efficient tetra-pods.
6. Introducing the new type of tetra-pods to other students.

THE SCHOOL FOR GIFTED AND ETHNIC STUDENTS FLOOD IN LAOS

Content and Results of Advanced Surveys:

Lao PDR is prone to a number of natural hazards which have worsened with the impact of climate change. In the last decade, storms and floods (including flash floods) have occurred on a greater scale and more frequently, leading to an increasing number of casualties and further compromising food security and livelihood in rural communities. A large scale flooding has occurred in Lao PDR in 2000, 2002, 2005, 2008, 2009, 2011 and 2013.

During the months of July–August 2013, the country experienced continuous heavy rains affecting villages and crops at various levels. In the North these rains were further exacerbated by the influence of Typhoons JEBI-13 and MANGKHUT-13

Analysis of Problems and Issues:

The force of the water took several human lives, caused damage to village infrastructure, housing, and affected agricultural land located on the river banks in the valleys. All the 5 Southern provinces together account for approximately 80% of the agricultural losses occurred. A total of 50,247 ha of cultivated agricultural land are reported to be lost for the 2013 harvest. A total of 1,145 villages reported having their village infrastructure (incl. buildings, irrigation schemes, roads) affected to some extent. Disaggregated again by extent of damage, 17 villages reported severe damage, 115 villages reported moderate damage, and 1,013 villages reported light damage occurred to their infrastructure. For the Northern provinces accessibility is poorer than in the South due to damaged and/or poorly developed road infrastructure. The northern and central provinces are further characterized by fewer markets, lower economic dynamism, and often combined with a lower productivity due to the steep slopes and fewer plains. These regions qualify often as rice deficit regions.

Action Plan:

From the onset of the crisis, the central and provincial governments of Lao PDR, led by the National Disaster Management Office (NDMO) under the Ministry of Labor and Social Welfare (MLSW), took the lead in the response. Initial findings were presented to the Humanitarian Country Team under the Inter Agency Standing Committee (IASC).

From the idea of high students, the action plan should be as the following:

- 1) Follow to monitor weather forecast and News report continuously : from radio, TV,
- 2) We should study the migration of people. The way to move people to the safety place in case emergency.
- 3) Move appliances needed in every day life to the high place as possible. To prevent short cut of the electrical circuit
- 4) Prepare sand bag to prevent the flood.
- 5) Always to prepare the dam to prevent water leakage and breakage.

Report from Workshop, Group B-4



| Country | Name of High School | Title of Presentation |
|----------|--|---|
| Japan | Yokosuka Sogo High School | Actions to raise our awareness for natural disasters prevention |
| | Ibara Senior High School | To protect our hometown from disasters ~What we can do |
| | Susaki Technical High School | Manufacturing to Reduce Disaster Risks |
| | Meijigakuen Junior and Senior High School | Research and Studies on Disaster Preparation and Response |
| China | The High School Affiliated to Hainan Normal University | the awareness of typhoon |
| Turkey | Private MEF High School | “Scientific Approach on Disaster Risk Reduction” |
| Marshall | Marshall Islands High School | Preparation for Natural Disaster |

Report from Workshop, Group B-4



Mr. Tolga Mutusoglu

Private MEF High School

Turkey

Hello everyone, my name is Tolga Mutusoglu. I'm the speaker of B4 which include China, Japan, Turkey, and Marshal Islands. I am going to be talking what we concluded in our discussion earlier today. We took a look at preparation for natural disasters and what we could do to avoid casualties of natural disasters. Faced with present issues, we helped them by suggesting solutions for ongoing problems in many different countries. Presentations focused on their own problems with solutions that are unique to each presentation. Some of these unique solutions were for example, chairs used as emergency toilets using a bag, or organizing events that spread awareness which aim to attract teenagers. There are lots of action plans so I want to summarize their most important point that stood out. One of the action plans suggested, again as I just stated, is making events with famous musicians as a way to attract teenagers to be more aware of natural disasters. These unique solutions I just talked about are all in one umbrella spreading awareness or having equipment ready for a natural disaster. We came to conclude that these solutions are all leading to the same thing. We can conclude that these solutions are all acceptable and we should work on taking the most efficient one. Thank you for listening.

Content and Results of Advanced Surveys:

Contents of Investigations :

No.1 : What are the countermeasures for the natural disasters in our city?

No.2 : How much awareness do high school students have for natural disasters prevention?

Results of Investigations :

No.1 : Many local governments create hazard maps and disclose them to public. However, in Yokosuka city the government doesn't designate evacuation places or shelters for citizens. Because, although Yokosuka is facing the pacific ocean, our city is surrounded by the mountains. So even if big Tsunami occurs, citizens can escape easily. Furthermore, by not designating evacuation places or shelters, citizens are supposed to locate where they can escape to on their own.

No.2 : In order to know the answer of No.2 question, we sent out questionnaires to Yokosuka Sogo High School students. According to their answers, we found that most of them have a little interest in natural disasters prevention and don't know the government countermeasures for it, although the local government has prepared enough for natural disasters.

Analysis of Problems and Issues:

As a result, if natural disaster occurs, people are not likely to be able to escape because of their less interest in countermeasures for natural disasters. So we need to do some actions to raise people's awareness for it.

In general, high school students are always "recipients" of information and education of disaster prevention. That's why we are inactive in it. So it is necessary for young generations like us to disseminate information and education of disaster prevention.

Action Plan:

So we suggest an action plan to the problem, in which ideas to improve the interest of people about natural disasters are solicited in the forms of posters, video clips, leaflets etc. Through this action, the people who apply will also improve their awareness of natural disasters prevention. And if young generations like us disseminate their ideas, people in the same generations will be more interested in natural disaster prevention.

As a project to prove whether our action plan to the problem is effective, we gathered ideas from students in our school.

If the project in our school succeeds, this result can be reflected in a wider scope, such as our community, the city, the prefecture and the nation. Through this project, more people can be involved in transmitting information about natural disasters and interested in it.

We think the most important thing is that people should be active, not passive, toward disaster prevention.

Content and Results of Advanced Surveys:

Measures to prevent disasters in Ibara City

1 Information network to prevent disasters

- 1) Oshirase-kun (terminal for emergency contact) is set up at each household in Ibara City to inform its citizens promptly.
- 2) Ibara City has a list of vulnerable people to help them evacuate to a safer place immediately.

2 Encourage citizens to become local leaders to prevent disasters

- 1) Ibara City offers its citizens subsidy to acquire a qualification of a disaster prevention expert.

3 Annual Training to prevent disasters

- 1) Ibara City holds a simultaneous training for the whole area once a year.
- 2) Ibara City holds a regional training to solve problems peculiar to each region once a year. The regions take turns.

Analysis of Problems and Issues:

Problems in measures to prevent disasters in Ibara City

1 Problems in information network

- 1) After informing of an emergency, Ibara City has no way to deliver additional information. Oshirase-kun works on battery. It functions only for two hours.
- 2) The list of vulnerable people covers only the elderly and handicapped.

2 Problems in notification

- 1) People do not know they can get subsidy to acquire a qualification of a disaster prevention expert.
Although Ibara City puts up notice on both its PR magazines and HP, few people are aware of the information.

3 Problems in awareness of disasters=the lack of a sense of crisis

- 1) Since Ibara City is seldom hit by disasters, its citizens do not see disasters as serious problems.
- 2) Not many people take part in emergency drills.
- 3) Many of the participants in the drills are the elderly.

Action Plan:

What we can do as high school students

1 We can suggest to Ibara City some possible solutions to the problems above.

1) About notification:

We can suggest possible ways to deliver information to those who need it.

2) About an information network in emergencies:

We can suggest possible ways to deliver information continuously.

We can suggest possible ways to ensure power supply.

2 We should hold a sense of ownership.

1) We should know more about disasters and how to prevent them so that we can play a role to notify local people.

2) We should take responsibility as local leaders to prevent disasters and play a role in local events.

Content and Results of Advanced Surveys:

- Since Susaki Technical High School is situated on a hill, it is designated as one of Susaki City's evacuation centers, and it is assumed that up to about 2,000 people will evacuate to the school if a disaster occurs. In 1946, the city, where our school is located, suffered tremendous damage in the Showa Nankai Earthquake.
- In the past, when the school became an evacuation center, we technical high school students manufactured things that would be useful if they were available at the school. First, in order to confirm what was currently available at the school, we investigated the disaster risk reduction goods that have already been produced in classes and club activities. Examples included drum-based portable cooking stoves, solar-panel floodlights, and sets of picture cards used for storytelling.
- When we looked at the tsunami model donated by Iwate Prefecture's Miyako Technical High School, with which our school exchanged as part of the Bosai Koshien project two years ago, the model evoked the image of our school becoming an evacuation center, and at that time, a sense of crisis grew in our minds. Through our exchange with Miyako Technical High School, we have recognized anew that it is important how we interact with people in other areas on a daily basis.

Analysis of Problems and Issues:

- (1) In fact, disaster risk reduction goods cannot be produced in large quantities because it is difficult to find places to store them all. Can't we use creative ideas to produce some disaster risk reduction goods using materials that are already available at the school?
- (2) In the event that we are struck by a disaster, we will have to spend several days with people we do not know while helping one another. To that end, we realized that we should interact with people in the local community on a daily basis.

Action Plan:

- (1) In order to ensure the smooth operation of evacuation centers, we are developing ideas to manufacture toilets using classroom chairs as material and to make hot water using the paper available at the school.
- (2) In order to promote interactions with residents in areas around the school, we will distribute safety tags while educating them about disaster risk reduction.

We will share information on these initiatives on a school-wide basis and create a greater awareness of the need for disaster risk reduction in all students while deepening our interactions with people in the local community.

Content and Results of Advanced Surveys:

We conducted a questionnaire survey of the school's students to investigate their awareness of the need to prepare for disasters and how to respond to them. Furthermore, using the example of efforts made by Meijigakuen's sister high school in Fukushima Prefecture to care about the emotional aspects of people after the earthquake, we collected information on the suffering and sorrow of disaster victims, and the warmth of people's hearts; information that cannot easily be obtained from questionnaire-based numerical data alone.

Analysis of Problems and Issues:

We analyzed the results of the questionnaire survey and added various different kinds of knowledge to the results to consider how to prepare for and respond to a disaster. As a result, we concluded that we need to further improve disaster risk reduction education both at schools and in the local community, and that each and every one of us needs to correctly understand natural disasters, and take action to reduce disaster risks by making appropriate decisions.

Action Plan:

Based on our research and studies, we set the following action goals:

1. Understand the danger of disasters from various different aspects of our own daily lives so that we can take safe actions.
2. Understand the danger of disasters by reviewing experiences of disasters in the local community and other areas, so that we can prepare for disasters on a daily basis and take appropriate actions when evacuating.
3. Have the attitude of not only ensuring one's own safety but also contributing to the safety of one's family and friends as well as other people in the local community. Become aware of one's role in society and actively participate in the disaster risk reduction activities of the local community and volunteer activities when disasters occur.
4. Specific countermeasures may be drawn from lessons that have been learned from local disasters. Therefore, learn more about these disasters while obtaining the cooperation of residents who know a lot about these local disasters and the people concerned with disaster risk reduction.
5. Make those initiatives which are intended to stimulate interest in disaster risk reduction more widely known, mainly by using out-of-school hands-on activities and disaster risk reduction lectures provided by organizations related to disaster risk reduction.
6. Receive disaster risk reduction education so as to contribute to enhancing the local community's ability to reduce disaster risks and become a leader of disaster risk reduction-oriented culture when reaching adulthood.

The Awareness of Typhoon

Content and Results of Advanced Surveys:

Typhoon is a terrible disaster in Hainan, every year there are more than 10 typhoons landing on hainan island, which faced the south China Sea, leaving a large quantities of losses, including trees falling down, the bridges damaged, the crops floods and so on

Analysis of Problems and Issues:

Because hainan faces the south china sea, and every year there are a lot of typhoons coming into being in the pacific ocean, which travel across the ocean , across the Philippines and finally blow through hainan island

Action Plan:

Make the public Know the reason of typhoons forming, get the public know the possible damaged brought by the typhoon, get the public know how to do the protection work, and get the public know how to survive in the disaster of typhoon

Tips for preparation for natural disasters(typhoons)

Preparations before the coming of typhoon

- (1)The local people who live in the old brick houses or lower places should be organized to move to higher and safer places.
- (2)Meanwhile, in order to decrease the loss brought by typhoons, the branches of trees should be cut off.
- (3)Some emergency necessities are needed, such as torches, whistles, candles.
- (4)Make preparation for life necessities, such as enough food, water.

Preparations during the typhoons

- (1)The local people are warned not to go out, just stay at home.

Preparations after typhoon

- (1)The government organize the rescuers to move the obstacles in the street, on the road, to rebuild the houses which have been destroyed in the typhoon.

Content and Results of Advanced Surveys:

1. Disaster definition
2. Classifications of disasters
3. Risk of disasters
4. Managing disasters
5. Prevention and risk reduction
6. Education and Awareness

Analysis of Problems and Issues:

Turkey had a big earthquake in 1999. The numbers of the casualties and economical losses had reached to its top. According to many authorities, the reasons were,

1. Insufficient disaster education,
2. Being unreadiness,
3. Unplanned urbanization and big population density at big city centers (such as, Istanbul, Bursa...)
4. No precautions for various damage levels.

Action Plan:

1. To develop and enhance national and local risk assessments
2. Education of people in big cities for Disaster Risk Management
3. To Increase the awareness of Disaster Risk Management among the people
4. To increase the emergency preparedness capacity
5. To Reduce the effects of disaster using decision making
6. To build early warning systems for disasters
7. To work with the UN
8. To support national and local public budgets for Disaster Risk Management
9. To build disaster risk reduction authorities
10. To increase the capacity of recover after a disaster

Content and Results of Advanced Surveys:**Content:**

- Targeting seniors preparedness, their knowledge
- 10 questions
- Preparation for typhoon

Results:

- 68 papers got back from the survey
- What is the problem within the seniors. Did they set their mind on the preparedness.

Analysis of Problems and Issues:

In our school, we do not have radios. Most of our bathrooms are not working. Our school is surrounded by a lot of trees, which the students might get injured during that disaster. Most of all, our school is between the lagoon and ocean sides. If some disaster happens, we all will be harm.

Action Plan:

- As a student we need to have foods and drinks supplies in every building on campus.
- As a student we should provide our own radio.
- As a student we should ask the school to provide signals in order for the student to know when typhoon arrives.
- As a student we need to acknowledge other students of how they must be prepare when typhoon come.
- As a student we need to clean our campus so that we can't get any diseases during, before and after the typhoon.

Report from Workshop, Group B-5



| Country | Name of High School | Title of Presentation |
|-----------|--|--|
| Japan | Shizugawa High School | Disaster risk reduction education at the school and results and challenges toward recovery |
| | Kobe University Secondary School | Reconstruction after the Great East Japan Earthquake and Temporary Housing |
| | Kochi Nishi Senior High School | Food Continuity Plan in order to Survive after Tsunamis |
| Singapore | Temasek Junior College | Haze Recovery and Preparatory Efforts |
| Malaysia | Sultan Mohamad Jiwa Science Secondary School | Recovery with 3R (Relief, Rehabilitate & Rebuild) |
| Peru | San Jose Hermanos Maristas School | LEARNING HOW TO FACE A TSUNAMI |

Report from Workshop, Group B-5



Mr. Chikara Yoshioka

Kochi Nishi Senior High School

Japan

Hello, I'm Yoshioka Chikara, presenter of group B5. I'm really enjoying listening to other groups' summaries and stories. Now, let me explain ours. Shizukawa Senior high school, Japan introduced what they do at school as disaster education and the problem in that is it's three times every year and they have to change, and they have to change awareness of disaster. That means, we should think to protect not only ourselves but also others. Kobe University Secondly School, they do exchange with local schools. And most importantly, the major basis for building a community to promote reconstruction after the disaster. And our school, Kochi Nishi Senior High School, we explained the importance of food self-sufficiency after tsunami and proposed a plan which utilizes abundant farmland in elevated location. And a team from Peru had a suggestion. Lack of education about each region and the education is the most important in their civil defense plan. Team from Malaysia, earthquake rarely occurs in Malaysia. They have a few things to worry about; what should we do? Where should we escape? So they propose three R: relief, rehabilitating and rebuilding, for many people to survive. Team from Singapore, their presentation was about measures against the haze. Now many of people misunderstand about air pollution. So through education we can lead people correctly. This engages youth to take more initiative in providing efficient response. We have learned about what we can do or we can do as a high school student to achieve our goals and to contribute to the reconstruction of affected disaster areas. We shared four action plans. No. 1: sound alarm to escape; No. 2: action card game which educate school children; No. 3: importance of the power of education; No. 4: SNS group for sharing. We have already built some SNS like twitters, facebook, and Instagram. We will invite all of you to participate our groups to make strong bond and long lasting relationship. Thank you very much.

Disaster risk reduction education at the school
(provided three times a year in each class's long homeroom)

First session (1st week of June)

- Confirm the significance of disaster risk reduction education and learn the temporary evacuation methods and evacuation routes.
- Learn about the characteristics of a tsunami and the principles of evacuation from it in order to raise disaster risk reduction awareness and the ability to respond to a tsunami.
- Confirm how to respond to a tsunami and which evacuation route to take both when going to or coming home from school and while at home so as to be able to take appropriate action when a disaster occurs.

Second session (1st week of October)

Ensure, based on the disaster risk reduction drills conducted in June, that all students can take appropriate action for secondary evacuation to high ground when a tsunami is coming. Students in each class actually carry out evacuation drills from the school to a nearby hill.

Third session (3rd week of January)

Acquire basic knowledge to establish and operate an evacuation center and improve practical skills.

(Students carry out drills to install simple lavatories, take countermeasures against the cold using newspapers, and establish evacuation centers on a class-by-class basis)

○ Other major initiatives to reduce disaster risks

- Share the pictures (slides) and the experiences gained when the Great East Japan Earthquake occurred at exchange meetings with students from other schools.

Achievements (○) and Challenges (△)

○ Probably because students experienced the Great East Japan Earthquake, their attitude toward these various activities is serious, and it is felt that their level of disaster risk reduction awareness has been raised through the activities.

△ Since the occurrence of the Great East Japan Earthquake, students' memories of the disaster have weakened significantly each year.

○ The approach of student volunteers and external organizations such as NPOs to the affected areas enables the students to discover good aspects of the local community that they did not know about before (△ However, this is a passive discovery.)

△ High school students play a major role as narrators, but their memories are somewhat unreliable because they experienced the disaster when they were much younger.

Action Plan:

- Change one's awareness from protecting oneself to protecting others
- It is required to widely pass experiences of the Great East Japan Earthquake down to posterity and take leadership in preparation for occurrence of similar natural disasters.

- Accept as many exchange programs as possible in order to discover Minamisanriku Town's effective efforts for the town recovery and deliver information on them.
- Although Minamisanriku Town's recovery is progressing at a rapid rate, the town population decreased by approximately 5,000 people after the Earthquake. Under such situation, the school has been providing exchange programs in order to support disaster risk reduction education of the other regions and of the state government. Many of the schools that participated in such exchange programs came to Minamisanriku Town and our school more than twice, which we highly feel grateful for. We would like to share the strengths of our town as much as possible with those who visit Minamisanriku Town and our school on a school excursion under the theme of disaster risk reduction or on home-stay program, and we hope they feel they would like to come to Minamisanriku Town again in the future. For this end, we, as an only senior high school in the town, should play a significant role. We expect that we are able to continue taking part in the exchange programs with other regions as much as possible by renewing our awareness and recognizing that the local items we have taken for granted (e.g. marine products, Moai statues) are the ones we can be proud of in the world.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

The number of evacuees after the Great East Japan Earthquake reached about 470,000, and as a result, over 50,000 temporary houses were built.

In March 2015, we visited the temporary housing in front of Ono Station in Higashimatsushima City, Miyagi Prefecture. At the Ono temporary housing, the evacuees manually made stuffed toy monkeys using socks which were called “Mendokushe Ono-kun” and started selling them, hoping that their customers would get to know Higashimatsushima and come and see the city, and that Okumatsushima, their home, would be reconstructed.

The residents put their thoughts into Ono-kun as they strove daily to proactively build a new future by themselves in the post-earthquake situation with uncertainty while fighting against various difficulties and grumbling, “Mendokushe! (how troublesome!).”

Ono-kun was talked about among the volunteers who visited the Ono temporary housing and became known to many people through its appearance at events and the like. The temporary houses at Ono came to be known as the “Ono-kun houses,” which made both the earthquake victims and the volunteers smile. Gradually, even people who visited the Ono temporary housing only to purchase Ono-kun started to appear. Those who bought Ono-kun became its foster parent and loved it like their own child, and in addition, they also considered it their mission to allow the doll to visit its old home, which gave them an opportunity to visit Higashimatsushima again.

These activities, which provide an opportunity to visit Higashimatsushima repeatedly, are establishing closer relationships between the local residents and visitors from outside.

Analysis of Problems and Issues:

In 2014, three years after the earthquake, the government decided to close the Ono temporary housing. With this decision, the residents were forced to leave their temporary houses.

One problem is that the relationships between people came to an end. At the Ono temporary houses, known as “Ono-kun houses,” the residents had built relationships not only with those who lived there but also with people from all over the country by making the Ono-kun dolls and selling them to the people who visited there. These relationships provided emotional support to the residents and gave them the strength to live. Therefore, the closure of the Ono temporary housing means that not only are the relationships between people severed but also that the residents may lose a major source of emotional support.

Action Plan:

The foregoing means that after a local community has been struck by a disaster, its collapse deprives its residents of many opportunities to meet one another. The collapse of a local

community presents a major hindrance to reconstruction. If you live in Japan, however, you do not know when a massive earthquake is going to occur. It's believed that a Nankai Trough earthquake is most likely to occur in the near future. Therefore, we propose two major action plans. One is exchanges with local schools. We believe that if a disaster occurs, we can cooperate with neighboring schools by providing opportunities to discuss disasters and disaster risk reduction with them, and share the same awareness of disaster risk reduction. Through the disaster reduction action card game which aims at urging the participants to think what action they should take first when a disaster occurs, we will stimulate the interest of elementary and junior high school students in disaster risk reduction, and in addition, by providing disaster risk reduction education, which will long remain in their memory, we will encourage them to build closer relationships with the local community. The other is to interact with local residents. Specific plans include carrying out joint evacuation drills and creating disaster risk reduction maps. We believe that it is important to establish relationships of trust with the local residents and a system that enables us to cooperate with them when a disaster occurs by sharing the awareness of dangerous places with local residents through joint evacuation drills and creating disaster risk reduction maps while promoting better communication with them during these processes. Establishing relationships of cooperation with local schools and residents through the above-mentioned two initiatives will not only allow us to help each other when a disaster occurs but will also provide the major basis for building a community to promote reconstruction after the disaster.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Content and Results of Advanced Surveys:

- (1) Research in the Tohoku region
 - It became clear from interviews in Kesennuma City and the Hirota Peninsula that immediately after a disaster, problems such as food shortages and employment become serious. It was also recommended that people should evacuate to high ground and that buildings should be relocated to elevated ground.
- (2) Survey of Hazeyama and the Nishiyama Plateau
 - Tsunami damage can be minimized in Hazeyama and the Nishiyama Plateau because they are located on high ground.

Analysis of Problems and Issues:

- (1) Problems after the Great East Japan Earthquake
 - Industrial output remained lower than the pre-earthquake level because labor force could not be maintained due to the effects of population drain mainly brought about by the delay in the reconstruction of houses.
 - Food shortages (it took time before people were able to obtain food that they had usually eaten)
 - Farming could not be resumed in one-quarter of the 21,480 ha of agricultural land hit by the tsunami.
- (2) Due to destruction of agricultural land in the coastal area of Kochi Prefecture, it is expected that food shortages will become prevalent.
 - It is expected that the entire prefecture will experience a strong earthquake registering 6 or more on the Japanese seismic scale and that in its 19 municipalities, agricultural land will be destroyed by a 10-meter or higher tsunami (maximum height: 34 m).
 - National roads and expressways in the low uplands will be made impassable or be buried due to landslides caused by the earthquake, with seaports and airports being completely buried under drifting logs, garbage, and the like. Recovery from the disaster will take a long time, making it extremely difficult to maintain ground, marine, and air transport. It will be difficult for the towns (local communities) exposed to a risk of isolation to rely on public assistance for food, and the key to survive for those who live in small towns (local communities) is how, and how far, they can reconstruct by themselves using their own strength.

Action Plan:

- (1) Investigate and analyze expected tsunami damage from a Nankai Trough earthquake
 - Estimate expected tsunami damage to agricultural land in Kochi Prefecture using damage predicted by disaster response headquarters in the Cabinet Office and the Kochi prefectural government.
- (2) Explore possibilities of farming, making the most of abandoned farmland, plateaus, and the like taking regional characteristics into consideration

- Investigate abandoned farmland and the like in the low uplands of Kochi Prefecture and other areas that are not expected to suffer tsunami damage. Also look into depopulation, one of the problems behind the abandonment of farmland. Then, we will examine what type of management should be adopted to make farming possible.
- (3) Study the examples of initiatives by the farming union in Miyagi Prefecture's Hirota Peninsula and reconstruction of fisheries in Kesenuma City and clarify common elements required, and explore the possibilities of applying them in Kochi Prefecture
- Use records of interviews to examine what actually worked as people strove for reconstruction, and how. Possible items of analysis include personnel, equipment, capital, information, and time, but we will focus on the people who were driving the reconstruction efforts.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Haze Recovery and Preparatory Efforts

Content and Results of Advanced Surveys:

Singapore is relatively free from natural disasters as our island is protected by surrounding landmass. Despite this, Singapore has put in place physical structures, monitoring, preparedness and response systems (e.g. Civil Defence Shelters, Public Warning System, Community Emergency Preparedness Programme offered by the Singapore Civil Defence Force (SCDF), School Emergency Preparedness Programme, People's Association Grassroots Volunteers, Whole-Of-Government Contingency Plans) to cope with any potential natural disasters.

The Singapore government also provides technical assistance, and humanitarian aid to countries affected (e.g. Changi Regional Humanitarian Assistance and Disaster Relief Coordination Centre). The local community also conducts fund-raising efforts to help in recovery efforts for disasters that occur overseas (e.g. Red Cross actions).

However, the pertinent perennial issue that recurs in Singapore is the transboundary haze that adversely affects numerous people in Singapore as well as neighbouring countries. Even though casualties or loss of lives were rarely reported, it is a complex issue caused by spontaneous forest fires during the dry season exacerbated by unsustainable agricultural practices. It is an issue which requires international efforts and cooperation. However, since the 'disaster' that we have identified is not the same as earthquakes or tsunamis, there will be a greater focus on recovery of health and well-being rather than the focus on rebuilding of damaged physical structures, etc.

Analysis of Problems and Issues:

[A] Awareness, Detection & Mitigation efforts [R] Response & Recovery efforts

| | Haze |
|--|--|
| Individuals and families & Local communities | <ul style="list-style-type: none"> • [A] Grassroots volunteers trained in haze awareness programmes • [R] Community Centres distribute free N95 masks (max 2 per person) |
| Administration (Government) | <ul style="list-style-type: none"> • [A] Information on haze (haze PSI condition, advisory) is disseminated by National Environment Agency (NEA) through NEA Haze website, NEA app, news tickers on TV screens, radio • [R] Ministry of Health provides Haze Subsidy Scheme • [R] Ministry of Education provides guidelines for outdoor activities in Haze Management Programme, air purifiers |
| International cooperation | <ul style="list-style-type: none"> • [A, R] Association of SouthEast Asian Nations (ASEAN) members work together on ASEAN Transboundary Haze Agreement • [A] NEA provides satellite images on hotspots for the public and international community |
| Evaluation & Challenges | <ul style="list-style-type: none"> • [A] The public is generally well-informed of the haze conditions as they encounter the haze themselves and haze updates are readily available. Most know what to do with advisories given by different authorities (e.g., schools). They will choose to stay indoors with windows and doors closed (and air purifier/ air-con switched on). However, they may not be aware of the presence of the hazardous PM2.5 pollutant especially when the skies are clear. • [R] There is a tendency for the public to over-purchase and diminish stockpiles for N95 masks, leading to a shortage of N95 masks in the market. |

Action Plan:

As students, we will be able to educate the public on:

1. Suggesting resources for the public to cope with disaster (including haze)
 - Devising a checklist to educate the public on the nearest areas that they can seek refuge from disaster
 - Encouraging the public to adopt Ready Bags in their homes to prepare for any disaster
2. Understanding response system
 - Knowing how to interpret the PSI readings and how to modify activities accordingly (eg. exercise, leisure/ tourism)
3. Correcting misconceptions
 - Understanding Pollutant Standards Index (PSI) readings (i.e. PSI reading is not based on visibility but based on several pollutant indicators; reading the new PM2.5 reading; understanding that even when the skies are clear, PM2.5 levels may be high)
 - Understanding the correct use of masks (i.e. only N95 masks are effective; N95 masks have expiry date)

■ Malaysia ■ Kedah

■ Sultan Mohamad Jiwa Science Secondary School

Recovery with 3R (Relief, Rehabilitate & Rebuild)

Action Plan:

Recovery With 3r'S

Relief

Disaster Scene Management

•Red Zone

•Yellow Zone

•Green Zone

Burial

Waste Management

Basic Needs Supply

Rehabilitate

•Definition

•Victims' Counselling Service

Relocation

Rebuilding

General Tsunami Evacuation Zone'S Signage Features

Earthquake Resistance Buildings

Evacuation Drill

Reducing Impact

Education System

Enforcement of Law

Learning How to Face A Tsunami

Content and Results of Advanced Surveys:

By the pass of the years, there have been a wide range of tsunamis and other disasters that have caused many damages and the loss of a big number of lives. The closest example is the big earthquake in Pisco in 2007 in which most of the people was unprepared. In this way, a new focus of the problem is necessary.

Analysis of Problems and Issues:

The first problem is the loss of lives; most of the lives could have been saved if we had a well-organized plan. The second problem is the damaged structures, which could have been prevented if the buildings were built thinking in a disaster, risks and using the convenient material. In addition, the main problem here that involves the previous ones is the lack of education and awareness in local institutions.

Action Plan:

With all this information and with the help of the Civil Defense Institution, we need to have an action plan of sensitization and education related to disaster risk management. This plan consists in the three main topics:

- Preparation: Group of planning actions and trainings in local institutions to anticipate and respond in an efficient way in case of a disaster, as well as the whole population. This includes campaigns, drills, informative talks, new politics in education plans, etc.
- Answer: Group of actions and activities to execute at an emergency or disaster at the time it happens, as the imminence of itself.
- Rehabilitation: Is the set of actions leading to temporary actions of the basic indispensable services and the start of repairing damages in the affected zone by an emergency or disaster.

On the other hand, in our school we have our own disaster risk management that involves the following actions and plans:

- We have a special group of student that are in charge of the first aid actions and the evacuation areas.
- We make drills and organize campaigns in which we teach little students how to react in case of a natural disaster.
- We have an evacuation plan and all necessary signalization.
- We have a good infrastructure, that is why we are considered a refuge for all the local people in case of a tsunami.

Analyzing our politic, economic and cultural issues, we can conclude that the educations is the most important topic in the disaster risk management; because it would create more conscience in people about the risks they are actually exposed to.

Report from Workshop, Group B-6



| Country | Name of High School | Title of Presentation |
|---------|--|---|
| Japan | Ritsumeikan High School | How we can contribute to reconstruction ～ Taking the Great East Japan Earthquake as an example ～ |
| | Saga Agricultural Senior High School | Let's Protect Each Individual Life from Floods! |
| China | Hainan Guoxing Middle School | Recovery and reconstruction from the damages by natural disasters |
| Brunei | Meragang Sixth Form Centre | Natural Disasters in Brunei |
| Tonga | Tonga High School | Resilience to Natural Disasters: "Tonga – battling nature's wrath" |
| Chile | Bicentenario Isidora Ramos High School | Tsunami Aftermath Reconstruction: Suggested Actions For Students |

Report from Workshop, Group B-6



Ms. Nanami Nakamura

Ritsumeikan High School

Japan

Hello, I'm Nanami Nakamura from Ritsumeikan High School, and a presenter of group B6. First, I'd like to introduce some action plans we shared in our discussion. From Japan, we shared the importance of environment engineering. Also, we noticed we can support people's mental health in the affected area by visiting and having communication with them. From China, they mentioned learning skills to help people with physical injuries is the most important. From Brunei, they introduced the activities of their natural disaster relief club. From Tonga, they mentioned about the importance of our leadership for enforcing public awareness. From Chile they focused on sustainable volunteering work. Next, we discussed about what we can do as high school students. At last, we put the priority to these three things. First, to enforce public awareness, it is important to share our opinions through social network service. And we have an idea of competition of creating videos. Second, we need knowledge about natural disasters and about how to save lives or help injured people. It is important to have the knowledge not only individually but also as the community. If we have the knowledge, we can be aware of the disasters more. Third, psychological support is really important. After the disasters, people are so depressed and stressed out that they can't achieve reconstruction or recovery. For psychological support, the first thing we have to do is self-recovery. We have to stay calm, then we need to contact with people damaged. We can use SNS to do it. And we can participate in counseling activities to give happiness by our smile or communication. To achieve this, we have to cooperate with NGOs, other people, schools, and countries. That's all. Thank you very much.

■ Japan ■ Kyoto

■ Ritsumeikan High School

How we can contribute to reconstruction
～ Taking the Great East Japan Earthquake as an example ～

Details and results of our research:

After the Great East Japan Earthquake, “Reconstruction Agency” was established by the Japanese Government. It continues to work on rebuilding infrastructure and supporting recovery efforts in the affected areas. Also there are organizations called “International Year of Volunteers +10” and “Expanding the Circle of Volunteers”. They are conveying the value or the importance of volunteering and promoting it.

As examples of actions in Kyoto, Kyoto Prefecture has “Volunteering Center of Disaster” which mainly trains and sends staff to the areas which are being rebuilt. In our school, there are some fieldwork groups visiting Tohoku, the Philippines or other places to learn about preventing disasters and disaster recovery. And there has also been an ongoing campaign to raise funds, voluntarily done by students. Meanwhile, Ritsumeikan university students do volunteering such as helping out in farming or building some buildings for the residents’ assembly.

As other examples of volunteering actions, we can do so many things such as going sightseeing in devastated areas, buying goods from such places, building temporary housings, debris disposal, and promoting industries.

Problems remaining:

1. Problems just after the earthquake

There was an excessive number of volunteers and supporting supplies. Also, fieldwork and campaigns such as fund raising are done by specific people, so they don’t increase awareness of disaster prevention and reconstruction supports among the general public.

2. Continuing problems

There are supports to help such recovering areas. However, it is a problem that there is little or no support for mental wellness of residents there. To improve such a circumstance, we have to help each person, especially the elderly, find or maintain the will to live.

Action Plans:

There are a lot of opportunities to participate in volunteer activities and fieldwork, so we should take part in those activities, see the reality of circumstances in devastated areas and communicate with people who live there. Then, we have to share what we have learned with people all over the world through international exchanges.

Specific things that we can do are supporting people there for their mental wellness and, through advertising, improving the image of such places. After participating in such activities, we should share our ideas to other people by presenting at our schools and other public venues.

Content and Results of Advanced Surveys:

In Saga Prefecture, located in the Kyushu region, where we live, massive floods have occurred many times during the rainy season and during typhoons, threatening the peaceful lives of the people. These days, many sudden torrential downpours also occur nationwide, as abnormal weather is often observed. Therefore, we collected information on past disasters from the local office of the Ministry of Land, Infrastructure, Transport and Tourism and the Saga prefectural government. Paying attention to the geographical features of the prefecture, we used such information to investigate the damage caused by the floods of 1953 and those of 1990. As a result, it became clear that the landform “lowland” was the cause the floods.

Analysis of Problems and Issues:

The key industry of the Saga plain in Saga Prefecture is agriculture, and it's one of the largest agricultural areas in Japan. One major characteristic of the plain, which faces the Ariake Sea with the country's largest tidal range of 6 m in the south, is that it has been expanded as farmland through reclamation and that its lowland is so low that some of its areas are at zero elevation. For this reason, the plain easily suffers floods. Rainwater flows from the mountainous areas to the plain and then into the sea. At high tide, however, the sea has a higher tide level than the river, which prevents rainwater from flowing into the sea. The intercepted river water continues to flow back into rivers upstream, inundating the plain and causing tremendous damage to farmers. Based on this fact, we examined the disaster risk reduction measures that have been taken up to the present day.

Action Plan:

1. Investigation of the massive floods of 1953 and 1990

- (1) First we want to hear stories directly from the farmers. We will interview farmers and their families about their experiences of massive floods in order to visualize what happened when the plain was flooded.
- (2) We will collect data on precipitation and the number of locations where the river banks collapsed from the local office of the Ministry of Land, Infrastructure, Transport and Tourism as well as prefectural and municipal governments, and analyze them as students who study civil engineering knowledge and technology.
- (3) We will investigate the geographical features back in those days, including the shape of the river banks.
- (4) We will study what measures were taken to cope with disasters in those days.
- (5) We will examine the post-disaster recovery efforts and subsequent policy to take countermeasures against disasters.

2. Investigation of measures taken to reduce disaster risks from the floods of 1953 to the present day

- (1) We will investigate any changes in the shape of the river banks (mainly their height).

- (2) We will investigate important points when taking measures to reduce disaster risks in lowlands.
- (3) We will examine hazard maps.

3. Aiming to become civil engineers who can protect the life and property of local residents

We are acquiring the knowledge and skills needed to create a safe, secure, and comfortable living environment in rural and urban areas. It is extremely difficult to predict natural disasters, and disasters occur unexpectedly. We want to work for national or prefectural government agencies, so we will lead a productive school life every day with the aim of becoming civil engineers who provide security and safety to local residents.

Content and Results of Advanced Surveys:

After a major disaster occurs, public buildings including schools will serve as “evacuation centers” and everyone will be restricted as an evacuee. People cannot continue with their past normal life. Essential utilities including electricity, gas and water supply will stop and some people will lose their houses. Some people will suffer from the physical injuries after natural disasters, the loss of life, and the psychological harm.

Analysis of Problems and Issues:

When a disaster occurs, the helping hands of high school students will be indispensable. We have to act while thinking about what we should or can do at that moment. After first protecting ourselves and ensuring the safety of our families, what can we do next? There are probably people around us who need our help. So on a regular basis, learn the knowledge and skills to be able to help people around us, and do something as a member of the community at that moment. Evacuation centers are places to live temporarily until resuming our normal life. Everyone has to help and cooperate with each other to get through this inconvenient life. Every high school student will become a person who thinks “What I can do?” and act as a member of the community.

For this purpose, it is important to work on disaster risk reduction activities together with other local people on a regular basis. If we become able to play an active role as a member of our own community, we will be of great help in disaster risk reduction.

Action Plan:

1. Do something as a member of the community at that moment.
For example, after a strong typhoon, the once beautiful community will usually turned into a chaotic place with fallen trees, broken electric poles and cars scattered everywhere. Together with other people, we move broken branches to roadside, remove obstacles on the road and restore the road traffic near the buildings.
2. Learn the skills to be able to help people with physical injuries.
Knowledge and skills such as Initial fire fighting, Carrying the injured, First aid and Cardiopulmonary resuscitation will be indispensable.
3. Learn the knowledge to be able to help people with psychological harm.
On the surface, after people clean up and everything appears to be fine. Several disorders, such as depression, post traumatic stress disorder and anxiety may persist. For example, those who lost their relatives are still mourning. Those who were crippled are struggling to live a better life. Those who even remotely involved are still experience stress symptoms such as nightmares, anxiety and fear of the suddenness of earthquake and aftershocks. As high school students, we will make use of our knowledge, wisdom and vitality to help people with psychological harm.

Content and Results of Advanced Surveys:

- More than half are aware of the risks associated with natural disasters but are not prepared in the event of natural disasters
- To find out whether respondents are part of any volunteering groups
- Discovering respondents' willingness to volunteer in recovering campaign
- To find out what volunteering activities respondents most preferred

Analysis of Problems and Issues:

- Most respondents have poor knowledge about the safety drills of the natural disaster
- Majority of students are not in any volunteering group (NGOs)
- Most of the respondents don't have emergency bags prepared at home (86%) and have not considered taking disaster risk insurance (74%)

Action Plan:

- Create a Natural Disaster Relief Club that focuses on helping those affected by disasters.

What the club does:-

- Recruit a lot of members to volunteer especially during disaster events (e.g. post-disaster cleaning campaigns at affected areas)
- Acts as a focal point between students and school
- Conduct awareness talks/ safety procedures in case of emergencies during assemblies
- Organize Fundraising events (e.g., fun run, family day fair with small businesses) and at the same time promotes awareness about natural disasters
- Providing donation boxes where people can put -food, clothes, money (essentials)
- Throughout the year, have awareness talks from relevant authorities and NGOs
- Conduct sharing sessions with affected families of past disaster events
- Promote peer counseling for psychological support
- Educate on the importance of emergency bags and risk insurance
- Conduct safety drills at least once per year
- Sharing and promoting practice of Islamic religious prayers in daily activities for protection and blessings
- Volunteer can expand to include those who are less beneficial (the poor, the disabled etc)
- Clean ups-protect the environment (the beach, school areas etc)

Network:

- Get other schools to also have this club with the same aims and objectives (collaboration to do bigger outreach programmes (e.g. educational camps, video competitions, etc)
- Collaborate with villages nearby the school and Parents' Teachers Association for support when conducting awareness programmes.
- To get the club well known-telling others about the club through social media.
- Networking is important: schools from other districts can be contacted to help during a disaster event

Tonga

Tongatapu

Tonga High School

Resilience to Natural Disasters: “Tonga - battling nature's wrath”

Content and Results of Advanced Surveys:

These results are from participants in Years 7 and 13, acquired through questionnaire and small focus group discussions at school. We focused on 2 major areas in the post disaster recovery activities, 1) Priority needs and 2) Key- stakeholders.

| Year | Participants | Residence | Participants |
|-------|--------------|------------------|--------------|
| 7 | 31 | Capital District | 34 |
| 13 | 31 | Central District | 14 |
| Total | 62 | Eastern District | 6 |
| | | Western District | 8 |
| | | Total | 62 |

Table 1: Participants' Data

| Priority Needs | | |
|--|-------------------------------|---------------------------------------|
| I.Emergency Stage | 2.Transition Stage | 3.Medium / Long-term Recovery |
| Family / Community immediate relief activities | Rebuilding and Rehabilitation | Foreign Aid and Government Assistance |

Table 2: Priority needs after a Natural Disaster

| Rank | Key-Stakeholders |
|------|--------------------------------------|
| 1 | Medical Assistance |
| 2 | Town Officer |
| 3 | District Officer |
| 4 | Police Department |
| 5 | National Emergency Management Office |
| 6 | Local Church Leader |
| 7 | Media |
| 8 | Parliamentary Representative |
| 9 | Government Officials |
| 10 | Donor Countries |

Table 3: Key-stakeholders

Table 1 displays the data for the participants; age and place of residence. Tables 2 and 3 outline the responses of the participants to our two major areas of focus. Table 2 presents the priority needs after a Natural Disaster (cyclones, heavy rain, flooding, earthquakes, tsunami). Table 3 shows the main key-stakeholders after a Natural Disaster ranked from the most importance to the least importance.

Analysis of Problems and Issues:

From the survey, we found that the participants' perspectives of the recovery processes show lack of experiences and awareness of natural disasters. Participants categorized the priority needs after natural disasters into 3 stages. The first stage is the Emergency stage where immediate relief activities are carried out by individuals, families and the community to help relieve the shock and anxiety after a natural disaster. The second stage is the transitional period whereby the stakeholders identified can work together to rebuild damages caused. The last stage is Medium/Long-term recovery, where coordinated plans of the government and donor partners can help restore what people had lost during the natural disaster.

Action Plan:

What can we do? As identified in our survey, disaster recovery is the least understood stage when natural disasters happen in Tonga. We identified 3 critical components that could help raise awareness on disaster recovery. First, is the need for strong leadership to act and coordinate

relief activities during times of panic and chaos. Secondly, enforce public awareness programs. Schools should be the major driving force in educating communities about the impact of natural disasters and how best to utilize the resources available. Lastly, to practice drills in schools and communities more often. The more experiences and exposures they will encounter, the more awareness they will have about the severity of the disasters. As the going goes, practice makes perfect. As participants, we would like to send the message of preparedness for any emergency. Being prepared for a natural disaster will lessen the problems schools, workplaces and communities will encounter. This will surely enforce community resilience especially in small isolated country like Tonga which is vulnerable to the effects of natural disasters.

Content and Results of Advanced Surveys:

The content of our advanced survey (applied to 406 students) is about the participation of teenagers on volunteering activities, so we can know how prepared for tsunami risks in the aftermath students from our community are and what they consider important to be ready for and so keep record of how many students are willing to serve during the reconstruction process after a tsunami catastrophe. According to our results 87% of students are willing to take part in volunteering activities; 70% of them considers student volunteering relevant however, only 40% of all students surveyed consider to be informed enough about tsunami risks in order to take preventive actions.

Analysis of Problems and Issues:

Most problems that people have to deal with in post-earthquake and tsunami situations are the lack of food, clean running water, difficulties in communication networks, post-traumatic stress, missing people and lack of enough shelter where survivors can sleep during the reconstruction period. As a result, it is paramount to reestablish basic services as people's lives can go back to normal as soon as possible with help of different entities including students volunteering actions dealing with self-help, mutual help and public help to reconstruct not only infrastructure but essentially people's daily way of life.

Action Plan:

First of all, our action plan is based on students' assistance who are given suggestions on how they can organize and cooperate in sustainable voluntary work, in case of earthquake and tsunami.

Secondly, we start by proposing ideas on how, as high school students, we can cooperate and accelerate the reconstruction process after investigating the critical problems that people face due to tsunami aftermath considering self-help, mutual and public assistance point of view. Then, we plan to carry out a survey for the whole school community to find out what students know about tsunami risks, aftermath and their attitude towards taking on volunteering work.

Finally, we are planning to organize workshops where students can be informed about the volunteering actions they can assume and develop a reconstruction assistance protocol for volunteer students which can assure the sustainability of this initiative and encourage students' representatives to participate in the school and city emergency committees.

Fieldworks

The field work was carried out with the cooperation of Kochi Meteorological Office, a local fire company, voluntary disaster prevention organizations, primary schools, etc., and included (1) ShakeOut Earthquake Drills using emergency earthquake warning, (2) evacuation drills to high ground from Gymnasium, Tosa Seinan Great Park, the site of High School Students Summit, to Mt. Kojin, (3) visit to a tsunami evacuation tower serving as a disaster prevention facility, and (4) visit to the stone monument for the Ansei tsunami in Kamo Shrine in Kuroshio Town as an example of handing down knowledge on natural disasters.

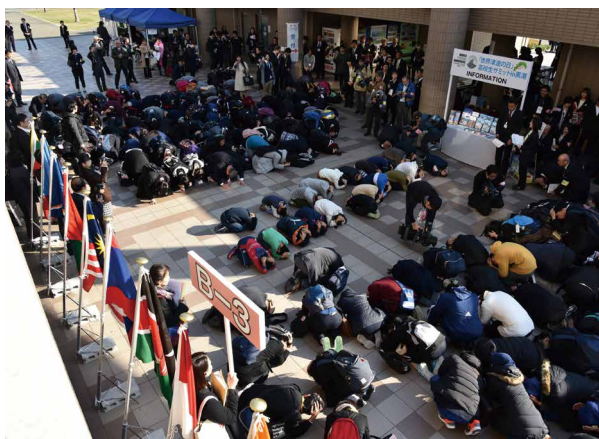
ShakeOut Earthquake Drills / Evacuation Drills to High Ground

Junichi Enomoto,
Kochi Meteorological Office

About 10% of all the earthquakes in the world happened in the vicinity of Japan. Approximately 120,000 earthquakes which people do not feel and 2,000 which they do feel occur annually in Japan. A large number of precious lives have been lost by repeated earthquakes and tsunamis there.

In Japan the 'emergency earthquake warning' system commenced operation nine years ago in October, 2007, which announces occurrence of an earthquake before its 'strong shaking' arrives. The Japan Meteorological Agency has set up about 1,000 seismographs across the country to detect seismic waves immediately and analyze them instantly with computer systems on occasion of occurrence of earthquakes. When an earthquake is analyzed as being a strong one, the Meteorological Agency transmits an emergency earthquake warning in several to more than ten seconds. The warning is conveyed to the public instantly via the disaster prevention systems (disaster prevention community radio system) of municipal governments by TV / radio stations around the nation, various cell-phone companies, and national satellite systems. In a global perspective, such a system of information supply to the public at a national level can be seen only in Japan.

Emergency earthquake warnings are conveyed through various media with sounds and images. Today most of the Japanese people have cell phones, which are extremely useful tools to deliver the warnings. The cell-phone sound that



indicates an emergency earthquake warning is unified in all cell-phone companies.

As there is only a few seconds between a warning and strong shaking, it is important to act at once when we see or hear a warning. Today we conduct a drill of defending ourselves from strong shaking with an actual sound of warning and then evacuating from a tsunami.



Action to defend ourselves from strong shaking differs largely depending on the situation, such as whether we are indoors or outdoors, awake or asleep, etc. The basic action in case of seeing or hearing a warning is to move to a safer place where ‘nothing will drop,’ ‘nothing will fall,’ and ‘nothing will move’ toward us. In addition, it is necessary to squat down so as not to fall over and protect our head in a place where something might drop in order to defend ourselves from strong shaking. In the event of the anticipated Nankai Trough Earthquake of Magnitude 9-class, strong shaking will continue for about 3 minutes and be followed by mega-tsunamis. Therefore, when an emergency earthquake warning is issued, it is extremely important to act to defend ourselves from strong shaking at once and evacuate to high ground from tsunamis instantly once the tremors stop.

Today we do the drill of defending ourselves first from strong shaking and moving to high ground after the tremors stop. At first, an emergency earthquake warning is sounded, assuming that an earthquake has occurred. This is the sound that you heard shortly before. There is only a few seconds until strong shaking begins after you hear it. Please remember this sound first, as you need to act as soon as you hear it. The following drill is starting with this sound as a signal.

Actions to be taken on seeing and hearing an emergency earthquake warning differ depending on the situation. You should act to defend yourself on the spot in today’s drill. To protect your head and squat down is the principle. You should curl up in a ball with knees and elbows on the ground and cover your head with your hands like this. Please keep this posture while tremors continue.

When the tremors stop, I would tell you “Tremors have stopped. Let’s start to evacuate to high ground.” Then you should move to the parking area on the right to go to high ground.

Explanation at High-Ground Evacuation Place (Mt. Kojin) - A Case of Evacuation Drill of a Local Primary School -

Hirofumi Maeda, Principal
of Kami-kawaguchi Primary
School, Kuroshio Town

On March 11 in 2011 the unprecedented Great East Japan Earthquake occurred and a large number of precious lives were lost. I did not have enough psychological capacity to accept the fact. It was so devastating.

Then I got to acknowledge a fact that suggested me it is likely to happen in our place as well. According to a prediction of tsunami inundation to be caused by the Nankai Trough Earthquake issued as the primary report by Cabinet Office on March 31 in 2012, 'the maximum seismic intensity will be 7 and the largest tsunami will be as high as 34.4 meters' in Kuroshio Town. These were unimaginable, shocking figures.

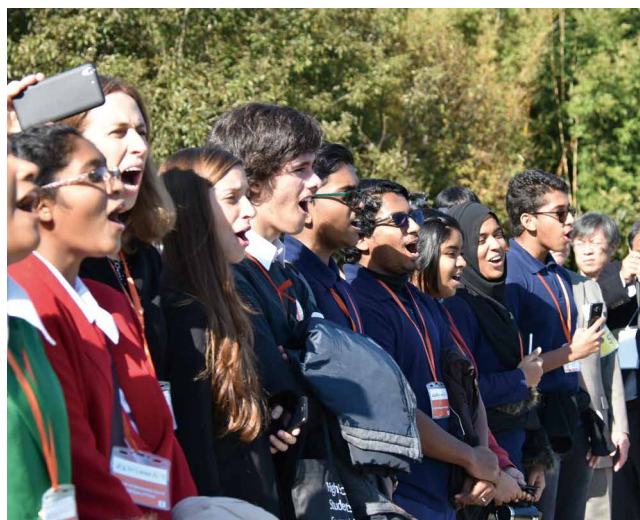


At that time I worked as a Principal of Ida Primary School (currently closed). It was necessary to build measures and systems immediately in preparation for the Nankai Trough Earthquake, which is supposed to occur in the near future. The school is located at 5.1 meters above sea level and 65 meters of direct distance from the sea, having the highest risks of being attacked by tsunami potentially among all the primary and junior high schools in Kuroshio Town.

In order to save the lives of all the children, it was necessary to evacuate promptly and secure an evacuation place. Fortunately, the top of the hill behind the school is about 36 meters high, which is high enough to save our lives from anticipated tsunamis.

Then the government of Kuroshio Town built an evacuation bridge between the school building and the hill and developed an evacuation path to the top. Accordingly, all that should be done is regular evacuation drills. Our school had held evacuation drills a few times a year; however, we decided to hold them once a week, driven by the occurrence of the Great East Japan Earthquake. One slot of time for the morning marathon exercises held at 8 am every morning was devoted to an evacuation drill.

Every Friday at 8 am with an announcement of evacuation instruction, the children put on helmets and life jackets and ran to evacuate along the balcony from the third floor of the school building



to the hill. It takes about 5 minutes to get to the top, which is about 36 meters high. The teachers spurred children who were getting discouraged while running up the steep slope. After children got to the evacuation place I called over their names and commented on their evacuation behavior. I spoke to them about how to protect our own lives from nature's awfulness and the importance and necessity of drills and checked the

time for actual evacuation behavior every week, as the hideous image of the Great East Japan Earthquake was deeply engraved in my mind.

One day when I turned my attention to the sea unintentionally after confirming that the last child had reached the evacuation place and called over their names as usual, the amazing view of the Pacific Ocean gleaming in the morning light caught my eyes. At the moment one emotion came up to me, as I was touched beyond words.

“How many times have I spoken to children that earthquakes are scary and tsunamis are terrifying? It is true that nature’s force is horrific; however, at the same time, the nature is so beautiful. Don’t I deny the homeland of the children who live here? Furthermore, does it mean denying their personalities which have been developed in this nature?” I felt such an emotion and decided to change my comments from that day.

“The open sea in front of you always offers us great blessings and nurtures us. However, the nature sometimes wreaks havoc on us. It is the natural providence and the evidence of the fact that the nature is alive. We must live together with the nature in both calmness and rage. It is certain that the day will come in the near future when an earthquake occurs and the sea blusters. We conduct drills so as not to lose our lives at that time.” I stressed that evacuation drills were one of the ways to coexist with the nature.

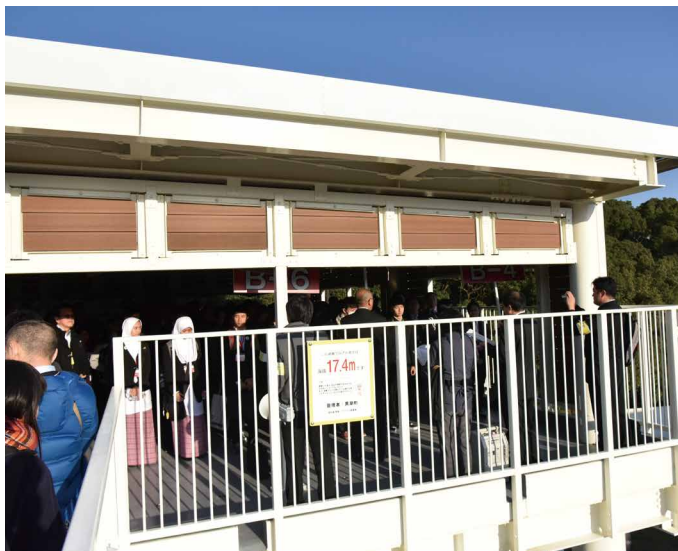
In the past, I lived in an urban area feeling nostalgia toward my homeland. Even when the children leave this place in the future, I wish they will continue to hold their gratitude to the beautiful nature and people in their homeland. Having this in mind, I decided to make it a habit that we all yell out at the sea together.

Visit to a Tsunami Evacuation Tower (Hamano-miya District)

In case of tsunami occurrence due to a large earthquake, it is necessary to evacuate to a high place promptly before the tsunami arrives. Nevertheless, for those who live near the sea or visit the sea it is difficult to evacuate to a high place before tsunami comes due to the distance to any high evacuation place. The tsunami evacuation towers were built to accommodate those evacuating people before tsunami comes.

The depth of water immersion by tsunami in Kuroshio Town, published by the national government, is estimated to be about 10 – 20 meters. The depth at the point of the tsunami evacuation tower is estimated to be about





5 meters, as the ground is a little higher than the surrounding areas.

The height from the ground to the evacuation floor is about 9 meters, which consists of 5 meters of the mentioned water immersion depth and 4 meters as an extra. In addition, the elevation of the evacuation floor is about 18 meters, as the elevation of this ground is about 9 meters.

The capacity of the tower is about 100 people, calculated with the floor area of about 100 square meters divided by a general unit of space of 1 square meter per person. The roof terrace of the next building 'Akatsuki-kan' can be also used as an evacuation place, which enables evacuation of about 265 residents and visitors in total.

Tsunami evacuation towers built in each area are open to public, so that people can climb them up anytime. They are also used for evacuation drills in the communities.

Visit to the Stone Monument for the Ansei Tsunami

"In the afternoon of November 4, 1854 (the 7th year of Kaei or the 1st year of Ansei), there was a small earthquake. The tide was becoming high on the beach. This is commonly called suzunami and is a predictor of a tsunami. Nothing happened and the people returned to their normal lives the next day. But a giant earthquake occurred at around 4 o'clock in the afternoon. Houses, both



tilled and thatched roofed, collapsed. There was no single house left intact in sight. In a cloud of dust the residents desperately headed for the top of the mountain. The tsunami ran up the Kakise River and the Fukiage River. The tsunami hit. Waves hit the area seven times before the night fell, with the fourth wave being the most powerful. The gardens and paddy fields were all submerged under water. We heard that a similar disaster occurred on October 4, 1707 (the 4th year of Hoei), 147 years ago. We used the stone at the Kakise River to make a monument to warn the people

of later generations. Suzunami is a predictor of tsunami. Those living 100 years or so after this earthquake should be aware of this warning.”

This tells us that the Ansei Earthquake caused houses to collapse as far as the eye could see, and the whole area was submerged under water due to the tsunami waves that hit 7 times. They noted that the previous earthquake had taken place 147 years before and predicted that a similar disaster would happen again in 100 years or so. Therefore, they left a warning to their descendants who would live around that time.



They called a small tsunami caused by the Ansei Tokai Earthquake that occurred on the previous day a suzunami and thought that it would portend the arrival of a full-scale tsunami. This is not correct from our knowledge today. However, we should take seriously the warning that has been left by our ancestors and be prepared for the next Nankai Earthquake.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17



The Power of Youth

Yoko Tsurimaki

Former OECD Tohoku School member
Doshisha University

On March 11th, 2011, 2:46 pm, with a maximum seismic intensity of 7 and a magnitude of 9.0, the Tohoku Earthquake struck—cruelly taking the lives of approximately twenty thousand people (including disaster-related deaths).

A year later from this devastating disaster, in answer to the OECD initiative, one hundred junior-high/high school students gathered from Iwate, Miyagi, and Fukushima prefecture. This was the formation of the “OECD Tohoku School”. Two main tasks were assigned to us “Tohoku School” students: to organize events that aim to inform the region of Tohoku, and to accumulate the necessary leadership, critical thinking, and other essential skills for cooperation that are necessary for the 21st century.

Despite our overall inexperience, we departed off a platform that essayed to hold an event aimed to apprise Tohoku people’s Restoration Process at Parc du Champ-de-Mars. The limit was set to two years, but the process of organizing an international event amongst people was no easy task. We faced many obstacles and encountered some hardships. Yet it is because of these experiences that allowed all 100 of us to become “*nakama*” (**meaning ‘friends’, but with more sense of belonging to that company**). We named ourselves “Team *Wa*”. “*Wa*” is the Japanese word for a circular, intimate connection, and it is the word that represents our bond.

During the two days of August 30th and 31st in 2014, our event had started in Paris. Approximately fifteen thousand people, a large number hard to imagine, participated in our event. It was the moment where the team’s effort had reached the stage of sublimity. Yet this achievement lies not only in ourselves. The existence of those who worked behind the scenes and others who encouraged us was essential in the making. Out of the many voices of encouragement, one particular quote left a great impression. “Accept diversity, be tolerant, and reflect upon yourselves from an objective standpoint.”

Merely relaying our experiences onto others will not be enough to reach the hearts of other people. Our two years have indubitably existed; though these are all matters of the past. You are

the ones that will have to create tomorrow.

In the case of the Nankai Trough Earthquake, it is expected that a tsunami with the height of 34.3 meters, will hit *Kuroshio-chou*. Unfortunately, we cannot win against nature, but we can decide on how we face it. If and whenever the day comes, please do not leave with mere pity. With your energy and your knowledge, stand up in your own way. There may be difficult times, and plans may not succeed as expected. However, I hope that by overcoming these hurdles you will be able to indulge in the difficulties and pleasures of facing the real world.

The power of youth. Ponder and clash against various things, and find your own virtues. If this episode of OECD Tohoku School inspired any of you today, I could not be any happier.

| |
|----|
| 1 |
| 2 |
| 3 |
| 4 |
| 5 |
| 6 |
| 7 |
| 8 |
| 9 |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |

Report from a Disaster-affected Area of the Great East Japan Earthquake and Tsunami



Report from a Disaster-affected Area of the Great East Japan Earthquake and Tsunami

Nayuta Gambe, Ishinomaki High School, Miyagi

Honoka Tsuda, Ishinomaki High School, Miyagi

Akane Aizawa, Ishinomaki West High School, Miyagi

Hello everyone. Today, we three storytellers will report about the East Japan Great Earthquake disaster. Based on our experiences of the disaster and our emotions at that time, I will touch what I learned from the disaster and what we should do to prevent disasters.

First of all, I will briefly introduce the city where we live and ourselves.

We're living in Higashimatsushima City, Miyagi prefecture. In Higashimatsushima City, 1109 people died, still 25 people are missing because of the disaster. Among the houses built in the city, 97% of them were damaged or totally destroyed.

When the earthquake occurred, we were in the fifth grade of elementary school. Now we ARE a storyteller ... but in fact we kept trying to forget the earthquake disaster until 2 years ago.

Because the sight we saw in the earthquake and what we experienced were flashbacks, sometimes we suffered from hyperventilation and sometimes we didn't understand the meaning of our life. The reason we started storytelling is that when we participated in the symposium held in 2015, we could finally face the disaster and be able to grasp it positively.

Look at this sentence.

To give important information that could save people's lives by telling our disaster experiences.

This is what a high school student we met said then. This word let three of us decide to become a storyteller.

Now, we'd like to tell you a few stories about our experiences. The topics of our three are a little bit different from each other. My topic is "a witness of tsunami". Honoka's topic is her actions. And, Akane's topic is her feelings.

We will talk about our tsunami experience and our school life after that one by one.

Nayuta Gambe

First of all, I will tell you about my experience of the disaster.

Please look at this photo. Five years ago, I was an elementary school student and I went to Omagari Elementary School with a blue circle. It is approximately 2.3 km away from the sea. This school was pretty near the sea.

March 11, 2011, 2:46 pm

I was hit by an unbelievable shake during the class at the gym. At this time, the ceiling of the

gym broke, ceiling plates and big metal fittings came down to me and my classmates. But it is difficult to stand in the shake and I could not move from that place by myself. The shake of the strong seismic intensity lasted for about 5 minutes.

All my classmates shook and everyone started to cry. There is no choice in fear. However, including me, more than half of the children laughed out loudly in the middle of shaking. I still do not know why. Since the shaking began to settle down, we went outside the gym and evacuated individually.

I returned home, but I evacuated to my primary school again, because I heard the tsunami information from the radio when I got home.

And when I evacuated to my school again, the gym where I had been before turned into a shelter. However, information on the tsunami entered the school, and we decided to evacuate to our school building.

I evacuated to this green circle part. However, here I made some action. Glass pieces and iron nails stuck to my shoes, and my feet were full of blood. So, I decided to change them into new ones that I had just bought, and headed for the entrance alone.

There I saw five people swept away. In fact, I just stood by, rather than witnessed them.

When I took the new outside shoes, I saw five people heading for me. However, the entrance was locked and they couldn't enter from the outside. I opened the key and waited for them. A very small tsunami was coming behind them. It had small momentum, like water from a faucet.

"Now they are safe" I thought. When I was relieved, a stream of water like flash flood struck them from the left side of the screen. It happened in a blink of an eye. They were carried off their feet and tumbled by the tsunami. I could not forget that they continued to extend their hands to me until they were swept by the waves and could not be seen.

As for me, thanks to this faucet wall and the step of just 30 cm height, I was able to enter the school again while immersing in the tsunami to my ankle; I survived. The tsunami finally increased its depth to nearly 2 meters.

I will skip a little time and continue talking. Three days later, when the waves came to calm down, I went to the entrance where they were swept away. Then I found their bodies lying on a hinge road 50 meters away. I saw their last figures before they disappeared, and it was I that first found them after they disappeared. I will not be able to forget this experience for the rest of my life. Moreover, around them, there were quite a few bodies, some of which had only arms and legs

Now we will move on to the next episode and let Honoka talk about her school life.

Honoka Tsuda

On that day, I quickly fled to inner areas. So I didn't see tsunami coming. But there was nothing left of my house after the tsunami swept everything away. I realized things would never go back to normal. Our school started on April 21st 2011, but the situation of our school was not improving but rather getting worse day by day. That was because many students were stressed out because of the earthquake, and perhaps, the only place where we could blow off our frustration was our school.

One day one of my classmates was talking about the disaster jokingly. I got really upset about

1 it and I threw a desk in our classroom toward him. I was surprised that I myself did such a
2 thing. I couldn't tell this to my friends nor my parents because I knew that would make them
3 sad. So I wrote this experience down and sent it to one of my favorite manga artists. Then,
4 he sent a card back to me which said "Don't give in to your situation, Honoka!", as well as
5 some of manga goods I had been collecting. This miracle helped me recover from the hard
6 situation.

7 After I became a 9th grader, I had a chance to listen to Nayuta and other people story-telling
8 about the disaster. Then, I decided to be a storyteller too, in order to let many people know
9 about my experience.

10 It has been 5 years since I lost my friends, my house and my daily life. Now I can't clearly
11 remember the house I had lived in for over ten years. I feel very sad and lonely. I noticed
12 that I hadn't realized how important my daily life was. But I didn't know how to remember it
13 because my pictures and video tapes were lost in the tsunami.

14 I can only live my life because I can't take back the past. So I have talked about my
15 experience with my friends at many places. By talking to many people, I hope I can help
16 others with their regrets. I think we are quite dependent on recording media. Please imagine.
17 What would you do if your recording media were lost? I want to tell you. Please keep in mind
how precious your daily lives are and your face-to-face communication is with people around
you. So, I want you to record your memories in your mind. That's what I should have done
before the disaster.

Next, Akane will talk about how she recovered from the disaster mentally.

Akane Aizawa

I sometimes laugh when I tell my experience. You may feel uncomfortable. But, if I try to put
up with laughing, I can't help crying and I can't say anything. I want you to know that and
listen to my speech.

I lost a lot because of tsunami: my house, my memories and my best friend. After I knew
about my best friend's death, I had begun to mope little by little. In addition, I came to think
about all things negatively, and I had been thinking so for a long time.

In the latter half of junior high school days, I changed much and started to think positively. In
summer vacation, when I was a ninth grader, I had a chance to communicate with junior high
school students in Mie prefecture. I casually joined it. I met a girl who lived near the sea. She
anxiously asked me, "Are you scared of the sea?" I answered "No" and she seemed to feel
relieved. Some people feel anxious about the disaster of earthquakes and tsunami. I thought
I might be able to make them relieved by telling them my experience. My best friend's death
could help a lot of lives. I was able to regard the earthquake as a positive thing. I could find
the way to change her death into a meaningful thing. I said I had come to control myself
when I was in the latter half of junior high school days. I might have needed time simply. I
was able to control myself by talking with friends and by joining some events for prevention
of disaster. But, I am on my way to do it. I think there are a lot of people that live with
troubles and can't talk about it, like what I used to be.

Our daily lives are recovering little by little. But the revival of our hearts needs more time. I
think it needs more time than the revival of our daily lives. I will never say "our revival has

completed” until the revival of our hearts completes. I’m telling a story to recover my heart now. I can control myself and my best friend’s death is not meaningless.

Finally, I’ll tell you what I want you to remember forever. I want to tell it to you, particularly, to people of the same generation.

“We must live however hard our situation is.”

It is natural for us to want to die like me when what we can’t imagine happens. In our daily lives, we have many problems. It is hard to live with problems. But I could experience many things. I could get a lot of good things. We can’t do anything if we die. Our lives are not only hard.

I will live with my best friend in my heart.

So, from now on, three of us will summarize what we want you to know.

We will point out three things about what to know and countermeasures.

Maybe everyone has already noticed, but in our experiences, there are some situations we could have prevented.

If we had known the danger of tsunami, would we have come back home?

Had we stayed there when we saw tsunami coming?

No.

So what should we have done?

The first summary is disaster prevention education.

What kind of areas do you live in? What kind of disasters have happened in the past? What kind of disasters are expected in the future? How can you protect yourself? Learning these kinds of things is disaster prevention education. Actually, in the case of the Great East Japan Earthquake, many people survived where they had already practiced disaster education before the earthquake.

The second summary is to live between one disaster to the next.

We live our daily lives peacefully now but actually we are heading for the next disaster. A period between one disaster to the next is very important. For example, we can think of such a cycle. A disaster occurs, and we rebuild our towns, and then we carry out disaster prevention education to prepare for the next disaster. We can take in what we learned from the past disasters during the safe period, and learn to protect our lives.

I will present a concrete example. This is a plate that shows the height at which the tsunami came. By visually showing it all the time, even those who do not know the former disaster can have a consciousness of “we are in a dangerous place.”

The third summary is that every place considered not to be a disaster area IS “a disaster area”.

There are no safe places absolutely free from disasters all over the world. In other words, a disaster hasn’t come yet, but one day it will surely come. You should always keep in mind that the place you are living in now will be a disaster area.

Well, what have we learned from the Great East Japan Earthquake?

Building high embankments? Construction of the evacuation towers?

Wrong.

After all, no matter how good the evacuation facilities may be made, and no matter how splendid embankments may be built, if we do not have the consciousness to survive, disaster prevention does not hold. Disaster prevention is a matter of our consciousness, and our consciousness is directly connected to our lives.

Here is a message from us, storytellers, to you, youth ambassadors.

I would like you to tell our experiences and ways of thinking to people in your home country. And I want you to consider once again. What disaster risks are there in your home country? How can you avoid the damage? If our experiences and ways of thinking are a good help to you in the future, nothing else would make us happier.

Finally, here is what we will like to tell you.

Here in Japan, big disasters happen almost every year. And every time they do, we receive kind supports from other countries as we did five years ago. This includes supports for recovery of hospitals and schools, and our daily lives as well as heartwarming encouragements. We will never forget this. We will like to thank all of you and people around world. We really appreciate it. We promise, when disaster happens in your home country, we will do whatever we can to help you. Now we are friends, “Nakama”.

We can learn from past disasters and make a better future. And now is the time when our generation must play a major role in supporting our country and people there.

Talking about that day means talking about our future.

That’s all for our presentation. Thank you for listening.



Participants Questionnaire

The questionnaire was given to 284 overseas participants (246 students / 38 teachers) and 156 domestic participants (110 students / 46 teachers), 440 in total, and responses were received from 415 of them (response rate: 94.3%)

Table I – Summary of questionnaire lists the questions, which are divided into ‘Outcomes of participating in High School Students Summit’ and ‘Activities after the summit.’

1. Outcomes of Participating in High School Students Summit

In terms of knowledge about disaster prevention, the responses to the questions on whether they deepened knowledge about ‘damages which are expected in the area where you live’ and ‘disaster prevention measures in the area where you live’ (question (2) and (3)) show that 96.1% answered ‘Yes’ on knowledge about damages and 97.6% on disaster prevention measures by adding ‘Yes, very much’ and ‘Yes, to a certain degree’.

Furthermore, the responses to the questions on whether they deepened knowledge about disasters and disaster prevention measures of other regions and countries (question (4) and (5)) show that 97.3% answered ‘Yes’ on disasters and 95.6% on disaster prevention measures by adding ‘Yes, very much’ and ‘Yes, to a certain degree’. There were some comments such as “It was very helpful to know opinions on and actual examples of other countries. Especially I was very impressed to learn that disaster prevention teams are organized at schools and the members learn about medical treatment to serve for self-help and mutual-help.”

To the question on whether they have any discoveries or findings, 96.3% answered either ‘Yes, very much’ or ‘Yes, to a certain degree’.

To the question about the importance of disaster prevention (Question (7)) 89.7% answered ‘Yes, very much’ and 9.6% answered ‘Yes, to a certain degree.’ The positive effect can be seen in their psychological aspect, as expressed in some comments such as “I feel we have to be a leader at home, school and in the community to protect people.”

In terms of developing global networks, 100% of the response by teachers to Question (8) ‘Do you think interaction with students of other schools and countries was useful one for your students?’ answered ‘Yes’ by adding ‘Yes, very much’ and ‘Yes, to a certain degree’. Actually, 69.5% of student participants answered they exchanged e-mail addresses or other contact information with 7 or more students. Such a comment as “In Japan, we don’t have chances to review matters which we take for granted, so active communication with overseas people can be good.” shows that they could deepen exchanges to build networks.

2. Activities after the Summit

The participants’ active attitude can be seen in their responses to the questions about concrete activities after the summit. In terms of continuance of learning, 99.4% show their will to continue (Question (1)), and 92.7% show their will to call for the implementation of evacuation drills at their own school or area (Question (5)). In addition, 97% are positive to participate in awareness-building activities regarding disaster prevention (Question (6)) and 98.2% are positive to participate in reconstruction activities for the area affected by disaster (Question (7)).

Concerning the action plans which each school presented at the summit (Question (8)), 23.2% answered ‘to be implemented within 3 months.’ 21.4% ‘to be implemented within a half year,’ and 28.9% ‘to be implemented within 1 year.’ This means that the aggregated ratio of 73.6% express

their will to implement them within 1 year. Also in regard to cooperation with other schools or countries (Question (9)), 94.8% answered positively by adding 'Yes, very much' and 'Yes, to a certain degree', which shows their high motivation to cooperate with other schools or countries. Comments by participants include "In the future earthquakes and disasters will surely occur all over the world. Whether they occur domestically or overseas, we, the Youth Ambassadors for World Tsunami Awareness Day, are expected to build people's awareness in the world in order to save as many lives as possible." This expresses that the participating students are highly conscious of acting as Youth Ambassadors for World Tsunami Awareness Day.

The summary of the questionnaire suggests that the summit successfully accomplished its objective of fostering leaders of disaster prevention in the next generation from the viewpoint of enhancement of knowledge and motivation, network development, and promotion of activities. It is concluded that a series of programs of the summit have significantly improved awareness of disaster prevention and sense of responsibility for the society among the high school students.

Summary of questionnaire

| | | | Total | | | | | | | | | |
|-------------|---|---|-----------------------------------|----------|-----------------------------------|----------|-----------------------------|----------|--------------------------------|--------|-------|--|
| | | | Subtotal of domestic participants | | Subtotal of overseas participants | | Total of teachers/ students | | Grand total | | | |
| | | | Teachers | Students | Teachers | Students | Teachers | Students | Total of teachers and students | | | |
| 1. Outcomes | (1) | What were the most useful activities? Please select five answers. | | | | | | | | | | |
| | | 1. Previous learning for presentation | 27 | 45 | 18 | 63 | 45 | 108 | 153 | 8th | 34.8% | |
| | | 2. Presentation of OECD Tohoku School | 3 | 5 | 6 | 68 | 9 | 73 | 82 | 10th | 18.6% | |
| | | 3. What they presented at the workshop | 37 | 68 | 13 | 110 | 50 | 178 | 228 | 4th | 51.8% | |
| | | 4. What they heard presentation of other schools at the workshop | 28 | 76 | 28 | 118 | 56 | 194 | 250 | 3rd | 56.8% | |
| | | 5. What they discussed at the workshop | 27 | 69 | 22 | 146 | 49 | 215 | 264 | 1st | 60.0% | |
| | | 6. Fieldwork (drills for an evacuation to higher ground) | 9 | 38 | 29 | 175 | 38 | 213 | 251 | 2ed | 57.0% | |
| | | 7. Go and observe the tsunami evacuation tower | 4 | 17 | 11 | 113 | 15 | 130 | 145 | 9th | 33.0% | |
| | | 8. Go and visit the stone monument for the Ansei tsunami | 1 | 7 | 6 | 53 | 7 | 60 | 67 | 11st | 15.2% | |
| | | 9. Report from areas affected by the East Japan Earthquake and Tsunami | 13 | 45 | 21 | 135 | 34 | 180 | 214 | 5th | 48.6% | |
| | | 10. Report from the workshop | 15 | 44 | 12 | 117 | 27 | 161 | 188 | 7th | 42.7% | |
| | | 11. Declaration was made toward the world as the High School Students Summit | 14 | 41 | 21 | 136 | 35 | 177 | 212 | 6th | 48.2% | |
| | | 12. Others-Please specify : | 4 | 13 | 1 | 7 | 5 | 20 | 25 | 12ed | 5.7% | |
| | (2) | Through advance learning, did you(students) deepen knowledge about damages which are expected in the area where you live? | | | | | | | | | | |
| | | Yes, very much | 23 | 52 | 29 | 155 | 52 | 207 | 259 | 63.0% | 96.1% | |
| | | Yes, to a certain degree | 14 | 41 | 7 | 74 | 21 | 115 | 136 | 33.1% | | |
| | | Not so much | 0 | 3 | 1 | 12 | 1 | 15 | 16 | 3.9% | 3.9% | |
| | | Not at all | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | |
| | (3) | Through advance learning, did you(students) deepen knowledge about disaster prevention measures in the area where you live? | | | | | | | | | | |
| | | Yes, very much | 23 | 57 | 32 | 154 | 55 | 211 | 266 | 65.0% | 97.6% | |
| | | Yes, to a certain degree | 13 | 36 | 3 | 81 | 16 | 117 | 133 | 32.5% | | |
| | | Not so much | 0 | 3 | 2 | 5 | 2 | 8 | 10 | 2.4% | 2.4% | |
| | | Not at all | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | |
| | (4) | Did you(students) deepen knowledge about disasters of other regions and countries? | | | | | | | | | | |
| | | Yes, very much | 15 | 52 | 28 | 160 | 43 | 212 | 255 | 62.2% | 97.3% | |
| | | Yes, to a certain degree | 19 | 43 | 9 | 73 | 28 | 116 | 144 | 35.1% | | |
| | | Not so much | 4 | 1 | 0 | 6 | 4 | 7 | 11 | 2.7% | 2.7% | |
| | | Not at all | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | |
| | (5) | Did you(students) deepen knowledge about disaster prevention measures of other regions and countries? | | | | | | | | | | |
| | | Yes, very much | 11 | 45 | 23 | 146 | 34 | 191 | 225 | 54.9% | 95.6% | |
| | | Yes, to a certain degree | 20 | 49 | 13 | 85 | 33 | 134 | 167 | 40.7% | | |
| | | Not so much | 7 | 2 | 1 | 8 | 8 | 10 | 18 | 4.4% | 4.4% | |
| | | Not at all | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | |
| (6) | Did you(students) have any discoveries or findings in presentations by other schools and action plans? | | | | | | | | | | | |
| | Yes, very much | 21 | 61 | 29 | 158 | 50 | 219 | 269 | 65.6% | 96.3% | | |
| | Yes, to a certain degree | 14 | 32 | 8 | 72 | 22 | 104 | 126 | 30.7% | | | |
| | Not so much | 3 | 3 | 0 | 9 | 3 | 12 | 15 | 3.7% | 3.7% | | |
| | Not at all | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | |
| (7) | Do you(students) begin to feel the importance of disaster prevention stronger? | | | | | | | | | | | |
| | Yes, very much | 30 | 87 | 36 | 211 | 66 | 298 | 364 | 89.7% | 99.3% | | |
| | Yes, to a certain degree | 6 | 7 | 1 | 25 | 7 | 32 | 39 | 9.6% | | | |
| | Not so much | 1 | 1 | 0 | 1 | 1 | 2 | 3 | 0.7% | 0.7% | | |
| | Not at all | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | | | |
| (8) | Do you think interaction with students of other schools and countries was useful one for your students? | | | | | | | | | | | |
| | Yes, very much | 35 | | 37 | | 72 | | 72 | 96.0% | 100.0% | | |
| | Yes, to a certain degree | 2 | | 1 | | 3 | | 3 | 4.0% | | | |
| | Not so much | 0 | | 0 | | 0 | | 0 | 0.0% | 0.0% | | |
| | Not at all | 0 | | 0 | | 0 | | 0 | 0.0% | | | |
| (9) | Did you exchange e-mail addresses or other contact information with other school students you met? | | | | | | | | | | | |
| | 10 persons or more | | 44 | | 119 | | 163 | 163 | 48.8% | 69.5% | | |
| | 7 persons or more | | 16 | | 53 | | 69 | 69 | 20.7% | | | |
| | 3 persons or more | | 28 | | 53 | | 81 | 81 | 24.3% | 30.5% | | |
| | Didn't exchange at all | | 10 | | 11 | | 21 | 21 | 6.3% | | | |

1

2

3

4

5

6

7

8

9

10

11

12

13

14





15

16

17

| | | | Total | | | | | | | | | |
|--------------------------------|------|---|-----------------------------------|----------|-----------------------------------|----------|-----------------------------|----------|--------------------------------|-----|-------|-------|
| | | | Subtotal of domestic participants | | Subtotal of overseas participants | | Total of teachers/ students | | Grand total | | | |
| | | | Teachers | Students | Teachers | Students | Teachers | Students | Total of teachers and students | | | |
| 2. Activities after the Summit | (1) | Would you like to learn more about disaster prevention? | | | | | | | | | | |
| | | Yes, very much | | | 69 | | 210 | | 279 | 279 | 83.3% | 99.4% |
| | | Yes, to a certain degree | | | 25 | | 29 | | 54 | 54 | 16.1% | |
| | | Not so much | | | 2 | | 0 | | 2 | 2 | 0.6% | |
| | | Not at all | | | 0 | | 0 | | 0 | 0 | 0.0% | |
| | (2) | Do you think you will review the preparedness of your own home? | | | | | | | | | | |
| | | Yes, I will | | | 49 | | 159 | | 208 | 208 | 62.3% | 97.3% |
| | | Yes, probably | | | 40 | | 77 | | 117 | 117 | 35.0% | |
| | | I don't think so | | | 6 | | 2 | | 8 | 8 | 2.4% | |
| | | No, I will not | | | 1 | | 0 | | 1 | 1 | 0.3% | |
| | (3) | Do you have evacuation drills at the area you live or your school? | | | | | | | | | | |
| | | Yes | | | 92 | | 180 | | 272 | 272 | 46.4% | 46.4% |
| | | No | | | 3 | | 58 | | 61 | 61 | 16.2% | 16.2% |
| | (4) | If there are evacuation drills at the area you live or your school, will you participate them actively? | | | | | | | | | | |
| | | Yes, very much | | | 59 | | 194 | | 253 | 253 | 78.8% | 98.4% |
| | | Yes, to a certain degree | | | 28 | | 35 | | 63 | 63 | 19.6% | |
| | | Not so much | | | 3 | | 1 | | 4 | 4 | 1.2% | |
| | | Not at all | | | 1 | | 0 | | 1 | 1 | 0.3% | |
| | (5) | If there aren't evacuation drills at the area you live or your school, do you think you will call for the implementation of evacuation drills? | | | | | | | | | | |
| | | Yes, I will | | | 36 | | 139 | | 175 | 175 | 60.6% | 92.7% |
| | | Yes, probably | | | 30 | | 63 | | 93 | 93 | 32.2% | |
| | | I don't think so | | | 10 | | 9 | | 19 | 19 | 6.6% | |
| | | No, I will not | | | 1 | | 1 | | 2 | 2 | 0.7% | |
| | (6) | Would you like to participate in awareness-building activities regarding disaster prevention? | | | | | | | | | | |
| | | Yes, very much | | | 42 | | 192 | | 234 | 234 | 70.5% | 97.0% |
| | | Yes, to a certain degree | | | 45 | | 43 | | 88 | 88 | 26.5% | |
| | | Not so much | | | 8 | | 1 | | 9 | 9 | 2.7% | |
| | | Not at all | | | 1 | | 0 | | 1 | 1 | 0.3% | |
| | (7) | Would you like to participate in reconstruction activities for the area affected by disaster? | | | | | | | | | | |
| | | Yes, very much | | | 68 | | 184 | | 252 | 252 | 75.4% | 98.2% |
| | | Yes, to a certain degree | | | 25 | | 51 | | 76 | 76 | 22.8% | |
| | | Not so much | | | 2 | | 3 | | 5 | 5 | 1.5% | |
| | | Not at all | | | 1 | | 0 | | 1 | 1 | 0.3% | |
| | (8) | Do you think the action plan you(students) presented could be implemented? | | | | | | | | | | |
| | | To be implemented within 3 months | | 8 | 17 | 8 | 60 | 16 | 77 | 93 | 23.2% | 73.6% |
| | | To be implemented within a half year | | 8 | 24 | 8 | 46 | 16 | 70 | 86 | 21.4% | |
| | | To be implemented within 1 year | | 13 | 21 | 14 | 68 | 27 | 89 | 116 | 28.9% | |
| | | To be implemented in next year or thereafter | | 7 | 31 | 7 | 61 | 14 | 92 | 106 | 26.4% | |
| | (9) | Would you like to be engaged in activities through cooperation with other schools or countries? | | | | | | | | | | |
| | | Yes, very much | | 20 | 62 | 32 | 194 | 52 | 256 | 308 | 75.9% | 94.8% |
| | | Yes, to a certain degree | | 16 | 27 | 4 | 30 | 20 | 57 | 77 | 19.0% | |
| | | Not so much | | 1 | 4 | 1 | 14 | 2 | 18 | 20 | 4.9% | |
| | | Not at all | | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0.2% | |
| | (10) | After returning to your school, will you make a participation report or presentation on "High School Students Summit on "World Tsunami Awareness Day" in Kuroshio"? | | | | | | | | | | |
| | | Already scheduled | | 24 | 41 | 14 | 92 | 38 | 133 | 171 | 42.0% | 96.6% |
| | | Not scheduled yet, but to be done definitely | | 5 | 6 | 17 | 88 | 22 | 94 | 116 | 28.5% | |
| | | Want to do if possible | | 6 | 36 | 6 | 58 | 12 | 94 | 106 | 26.0% | |
| | | No, we will not | | 2 | 10 | 1 | 1 | 3 | 11 | 14 | 3.4% | |
| | | | | | | | | | | | | 3.4% |


Comments from Participants


-  Samoan students talked about their experience of disaster. Listening to them, I realized I hadn't had a right understanding on (tsunami) disaster. Some other members in my group experienced the Great East Japan Earthquake, and I noticed that we, who have never affected by any disaster, could never really understand their suffering, sorrow or pain. That is why, I thought we had to do our best effort to know more about disasters. (Japan)
-  I was impressed by an idea of "simulation of tsunami" which students from Iwate introduced as a topic in their pre-study, as it enables people to understand tsunami and its damage very easily. It may be difficult, but I wish we can make such a model to demonstrate people about tsunami, as our community is located in a low area. (Japan)
-  This program made me realize the importance of international cooperation. Some of participating countries have never experienced major natural disasters, not to mention tsunami, so degree of awareness varied from country to country. This summit gave me an opportunity to know attitudes toward disasters of other countries and actual cases of disasters. I was especially impressed by an idea of setting up a team to deal with disasters, in which people can learn first aid care to help self-help and mutual help. We tend to think how to mitigate damage at the time of disaster. However, to protect ourselves from the secondary disaster is also very important. That is why we should introduce such an idea in the future. In addition, as representatives of Iwaki High School, we are responsible for disseminating new knowledge we gained in the summit to as many people as possible. We will try to enhance people's awareness in a scheduled study presentation session, and by distributing hazard maps to local citizens. (Japan)
-  Through communication with overseas students, we could look at our society from viewpoint of overseas and find how to overcome our shortcomings. One example is an iPhone; many Japanese students own them, and I was surprised to know it's too expensive to buy in some other countries. Thanks to the important finding, I could join discussions based on the idea that not everyone is similar to me, owning similar things and leading a similar life. We can never have such a perspective in Japan. In the global community in which we will have to survive, exchanging candid message can prevent mutual misunderstanding, and contribute to establishing deeper relations. And if we can deliver our experience to other people who have no such an experience, I believe it can make a good experience for them. In Japan, we don't have chances to review matters which we take for granted, so active communication with overseas people can be a good self-investment. I realized in this summit that it's fun to communicate with various people who are not like me. So I want to continue such active communication not only as volunteers, but also in the fields of politics and my future job. (Japan)


- 1 All participating schools intend to mitigate risk of disaster. After returning my school, I will call for improving awareness for disaster prevention to the students based on my experience in the summit, and make a manual for evacuation from tsunami during our school-bus ride. Also, the student council may have a new section for disaster prevention. (Japan)
- 2
- 3
- 4 I would like to set up a reporting session back to my school to convey what we experienced, studied and disasters faced by other countries. Much of information presented in the summit was new to us, and I hope it encourages some people to take actions. We want to implement our action plan. Some groups presented very sophisticated ideas, but our school wants to focus on feasible plans. Our plan consists of three sections; before disasters, we try to come up with ideas such as utilizing SNS to let people know about preparedness and active participation in drills. At the time of disaster, we can help physical support. We wish we face no disasters, but it is also true that we cannot control the nature. So we, high school students want to do what we can do, such as assisting senior and challenged people, or making positive atmosphere in shelters. And after disasters, we will try to visit stricken areas, experiencing, and asking survivors to tell their experience, so that people will not forget the disaster. These are fields we, high school students can take actions. (Japan)
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12 I feel we have to be a leader at home, school and in the community to protect people. I still don't have complete knowledge about earthquake or disasters, but I will talk what I learned and experienced in the summit to friends and families, and study more about disasters. In this way, I will gain knowledge and energy to be a disaster-management leader not only in Japan but also in the world in three years at the longest. The summit was a very precious opportunity for me. I will keep learning about disasters to identify what I can do and participate actively to local disaster management activities with a motto of "From the one to be helped to the one to help". (Japan)
- 13
- 14
- 15
- 16
- 17 What I want to do when I go back to my country is sharing this experience to Bruneians. I want to hold a talking session in my school, published my experience in Japan to the local newspapers and organized an event to increase awareness amongst the local people. I will need a lot of help, but I will try to make this happen. (Brunei)
- I'll share my knowledge that I have to another people in my school or communities, especially how to protect from the natural disaster. And if I can, I want to bring this experience to another country and share it with them so we can learn about natural disaster each other. And I give this idea to develop my school or my communities. (Cambodia)
- Things that I need to implement at my school.
- New drills to evacuate
 - Infrastructure upgrades


- Meet resilience
- Organization and volunteer plans for young people


Those kinds of things I'd realize are strongly important to bear in mind because they are effective in awareness raising. (Chile)


 As a normal senior high school student, what we can do for reducing the damage of disaster isn't too much. But I think the "awareness" is important. Because not only this summit is named High School Students Summit on "World Tsunami Awareness Day", also today our measures which can warn the disaster or reduce the died are more completed than before, so we must see the importance of awareness. How to wake up awareness in our country's people's heart is a challenge that must be faced. (China)


 Teaching from people who have gone through the disasters to teach us about the effect and what we should do. (Fiji)









 What I want to inform to my school are the workshops and the field work around the areas that are hit by natural disasters. (Greece)








 The tsunami sign which was displayed in the wall was very new to us and interesting, which we will definitely apply in our country. (India)

 I knew about disaster prevention and disaster management after joining this summit. After I come back to Aceh, Indonesia, I would like to share my new knowledge and experiences during this summit to other senior high school students, community, and my family. Basically, as young generation we have a big responsibility in Disaster Risk Reduction (DRR). So we can do something to our community regarding disaster risk reduction. In our action plans, we have several programs to broaden the knowledge of high school students such as social media campaign, info session on mitigation and disaster preparedness, emotional and spiritual training, drill and disaster preparedness club. We hope we can realize this program in Aceh. (Indonesia)

 The evacuation drill is a very memorable experience that I would by all means inform my country and encourage its implementation towards effective disaster risk reduction. For the slight earth tremor that occurred on the second day of our arrival, warning system remains memorable and very essential to me. I really think it will be so appropriate to inform and encourage my country to develop an effective warning system to alert the citizens for efficient disaster risk reduction and prevention. (Kenya)

 I swear I will share the knowledge and new information that I have learned from this trip to people in my region. I hope it will be useful to develop my country and improve the knowledge for everyone. (Laos)

- 1  I had learned many useful knowledge about what we need to do if there is disaster, so I will not easily panic as I had practiced it. (Malaysia)
- 2
- 3  I would like to create and conduct more awareness sessions in my home country (Maldives) and start implementing the action plan that we proposed together at this summit, as deemed appropriate for the country. I believe it's time all of us start to work towards achieving our course. Together, we can surely make a difference. (Maldives)
- 4
- 5
- 6  I highly agree with all the knowledge and ideas that have been presented from each country. We have learned a lot to get through this natural disaster. We wouldn't have come this far if we wouldn't stand together as one and help one and other finding a solution to this situation we have. Bear in mind that "Together we stand, divided we fall". (Marshall)
- 7
- 8
- 9  At first I didn't really know much about tsunami and how destructive it is but then somehow I've learned a lot during the summit. I'll never forget the people and the places I've visited where it brought a very deep sympathy. I feel sorry for those who lost their loved one during the devastated tsunami. (Micronesia)
- 10
- 11
- 12  When I arrive back to my country, I promise to share the knowledge I have got to my friends, my school and my society. I will let my friends know how to evacuate from tsunami and how to live with nature without any fear of natural disasters. Prevention is better than cure. (Myanmar)
- 13
- 14
- 15  The most important and memorable thing is when we had our summit. Listening to people and understanding each other's ideas were great and helpful. I learnt a lot of useful advices and I will gather all these information and spread the things I've learned when I return back to Palau. (Palau)
- 16
- 17  What I am most interested about is the mitigating systems of each participating country. I am impressed with the use of mangroves by the Fijians to strengthen from erosion and amazed at the advanced technology used by the Japanese to reduce disaster risks. All in all I have learned that we cannot prevent a natural disaster from occurring, rather we can have systems in place to keep us safe during a natural disaster. Nature is beautiful at the same time dangerous so together let's work to enjoy its beauty and be safe from its fury. (Papua New Guinea)
-  Taking into consideration of all what we have learned in the summit, we promise we are going to be the new voice of the next generation in order to save more lives and to increase awareness everywhere. (Peru)

-  As a youth ambassador for the world tsunami awareness day, I believe that I am called to network my ideas and plans to others, as I start in my country, Philippines. I will do my best to uphold my promise, and become a great ambassador for the world tsunami awareness day. With this summit, it helped everyone in the world to connect, share, and collaborate in order for this generation and future generations to be a good future. (Philippines)
-  Hearing survivors accounts at my school, in a presentation, within my community and if possible, to the administrative authorities of my city and country.
The action plans of my own and other countries will make their way through the notes we've taken to the eyes and ears of my friends, family, colleagues and fellow citizens of the world who are concerned. I have a special interest in the renewal of the natural ways of disaster risk reduction (for example, afforestation). (Portugal)
-  I made a lot of friends. I think it will be helpful for me. So all about this summit is a good opportunity. Through this summit, each of nations will cooperate with each other. So, the global society will be intensified. (Korea)
-  The summit is an unforgettable event for me because there are a lot of memories I have gotten from this program. When I returned to my home country I'd like to promote in my school some drills, and share with them some of the action plans from some of the schools that we share and talk about it. Also experiences from different countries, they have provided some new ideas of how to better prepare for natural disasters. (Samoa)
-  After hearing the inspirational & motivational story of Japan's tsunami prevention hero Yamaguchi, I am certainly motivated and strongly believe that if all of us are willing to be involved and put in our best efforts for tsunami awareness and prevention, we can achieve the ambitious but hopeful aim of 'no casualties at all' when tsunami/natural disasters would to strike. (Singapore)
-  As there is no evacuation tower or place in my area, I want to encourage the mayor to make an evacuation tower. The evacuation drill was great but I hope was should learn practical things more than listening to awareness speeches. Time for evacuation drill was too short. I want to implement what is the practical risk of natural disasters and how they act to the rescue. In Sri Lanka, we hold practice camp once a year but I have to hold 2 times a year and awareness programs too. We should include the learning period to teach school students how to reduce risk of natural disasters. (Sri Lanka)
-  After returning to my school, I will present action plan for students in my school and people in my country to exchange experience from High School Students Summit in my school and my country. (Thailand)

1

2

3

4

5

6

7

8

9

10

11

12





13

14

15

16

17

- 1  In my country, I have never participated in a drill and this experience taught me a lot on
2 how to be safe during an earthquake, how to follow an evacuation route, and where to
3 evacuate. Not only that, I can use those ideas in our country on how to evacuate. After this,
4 we developed a teamwork spirit with other countries in supporting each other in reducing risk
5 and recovery. (Tonga)
- 6  The farewell party at Kochi was one of the most memorable nights for me. Although it was
7 in a cocktail party, I still got to talk to a lot of people and go to hang out with Japanese
8 students on last time. I felt like that night was the end of the entire program until I was
9 swiftly reminded that we had to go to Tokyo the very next day. (Turkey)
- 10  I plan to advocate in my home town Hilo, Hawaii, to implement visible evacuation map routes
11 as well as pushing for improved sea barriers in case of a devastating tsunami disasters. (United
12 States of America)
- 13  Now I'm a youth ambassador and I feel like I have a responsibility to change the world, to
14 help it become a better place. I think everything in the summit was very memorable to me. (Viet
15 Nam)

The Unveiling Ceremony of Stone Monument for Commemorative Tree Planting

The stone monument was built at Ogata Akatsuki-kan, the place of the memorial tree planting, commemorating the High School Students Summit on 'World Tsunami Awareness Day' in Kuroshio Town in Kochi Prefecture.

The unveiling ceremony of the stone monument was held on Sunday, January 29, 2017.



The name plate of participants and the Kuroshio Declaration, etc. shown at Ogata Akatsuki-kan



REPORT

High School Students Summit on “World Tsunami Awareness Day” in Kuroshio

Date of issue: March, 2017

Publication office: Kuroshio Town Board of Education

1092-1, Saga, Kuroshio town, Hata county, Kochi 789-1795, Japan

TEL: +81-880-55-3190

Nankai Trough Earthquake Policy Division

Department of Disaster Management

Kochi Prefectural Office

1-2-20, Marunouchi, Kochi city, Kochi 780-8570, Japan

TEL: +81-88-823-9798



Kochi Prefecture



Kuroshio Town