World Student Environmental Network 2018 Disaster Measures G

Disaster Measures and Resilience

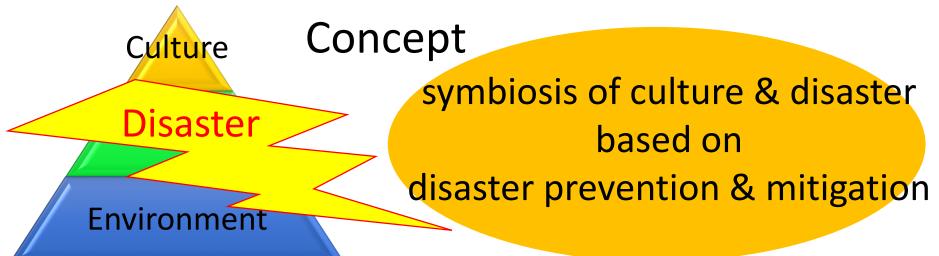
- 1. The purpose and concept of committee
- 2. Background
- 3. Determining theme for committee
- 4. Guidelines of committee
 - 1. Setting sub-theme of debate
 - 2. Committee schedule

- The purpose and concept of committee
- 2. Background
- 3. Determining theme for committee
- 4. Guidelines of committee
 - 1. Setting sub-theme of debate
 - 2. Committee schedule

The purpose and concept of committee

Committee "Disaster Measures and Resilience"

Concept: symbiosis of culture & disaster based on disaster prevention & mitigation Japan is one of the world's natural disasters-prone country including the earthquake, and has been "symbiotic" in the disaster and the culture such as the life of each person. In the world, there are countries without earthquakes, countries with unique natural disasters, and so on. Your own culture includes responding to such disasters and they're in "symbiotic" relations. In this committee, we consider the natural disasters that can never be avoided as "something sure to happen". Then, we will think about the way to protect the culture of each country from natural disaster and to develop a "symbiotic" relationship between culture and disaster, based on the idea of disaster prevention and mitigation, with presentations and discussions.



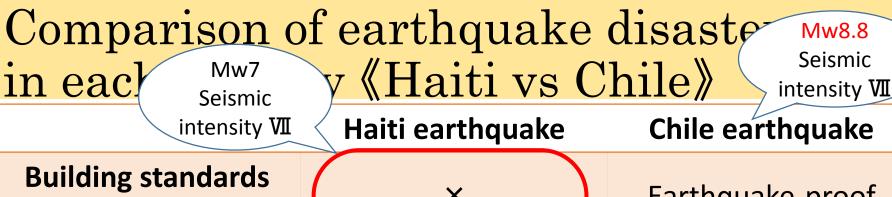
- The purpose and concept of committee
- 2. Background
- 3. Determining theme for committee
- 4. Guidelines of committee
 - 1. Setting sub-theme of debate
 - 2. Committee schedule

Earthquake size and its damage

2011.3.11 Great East Japan Earthquake



Mw	seismic intensity	death toll
9.0	IX(?)	16,000



(Prepare for the building)

Disaster education (Citizen's preparation)

Disaster prevention system (Prepare for the administration)

Death toll

X (handmade)

X

X

Earthquake-proof design obligation

Mw8.8

Seismic

Habitual practice

Disaster response Success in discovery & rescue

 $\times 650$

310,000~320,000

485

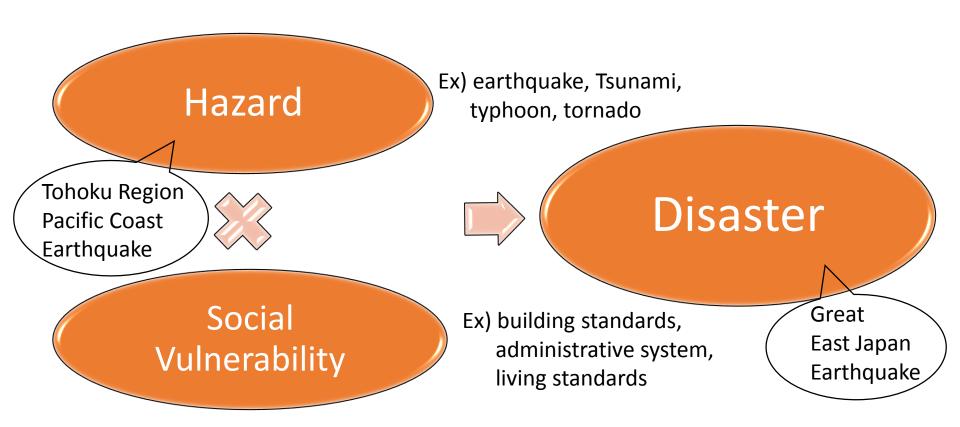
Death toll determining factor ①

Social Vulnerability

- The purpose and concept of committee
- 2. Background
- 3. Determining theme for committee
- 4. Guidelines of committee
 - 1. Setting sub-theme of debate
 - 2. Committee schedule

What is the disaster

Hazard & Social Vulnerability



Hazards hit the social vulnerable factor ⇒ Disaster occurs

What is the disaster

Main perspective of committee

Disaster damage is "social product"



We can reduce the damage by working on society!

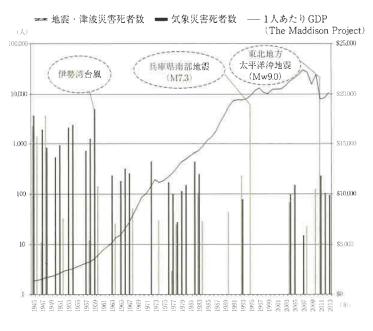
Disaster prevention

Disaster mitigation

The idea of "disaster prevention"

Since Japan's period of high-growth economy

➤ Disaster prevention = the direct target is hazard



Tsunami, storm surge → breakwater flood → levee, flood control basin

Structural mitigation

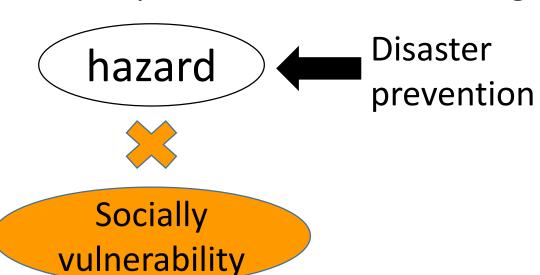
- (注) 1.1人あたりGDPは、1990年国際ドル基準。2. 兵庫県南部地震は気象庁マグニチュード、東北地方太平洋沖地震はモーメントマグニチュード。
- (出典) 国立天文台『理科年表』平成26年版 (2014). The Maddison-Project 2013 versional

図1-8 戦後日本における主な自然災害死者と1人あたりGDPの推移



Limitations of "disaster prevention"

Disaster prevention = "Attenuating energy of hazard"





The Great Hanshin-Awaji Earthquake



It is helpless to unexpected hazards

Ex)Christchurch earthquake

The idea of "disaster mitigation"

After the Great Hanshin-Awaji Earthquake

➤ Disaster mitigation = Shrinking the society's vulnerability



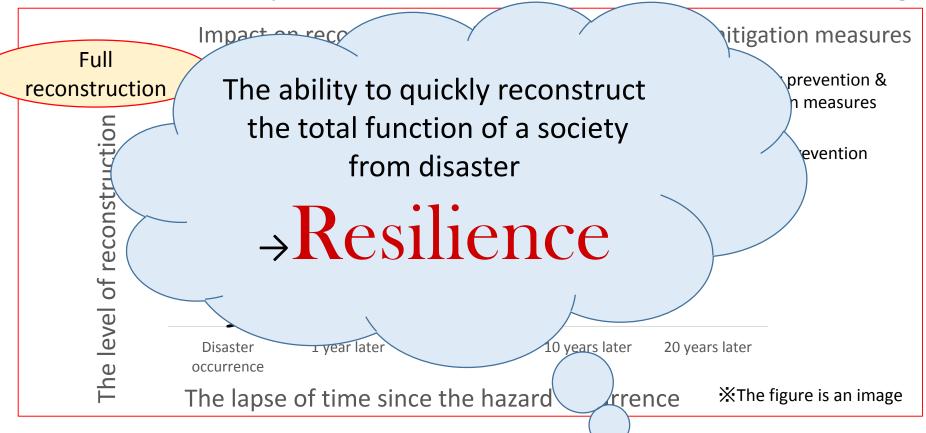
The theme of our committee

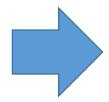
Vulnerability

Through social process, we can mitigate and reduce the damage!

Resilience against disaster

Think about social process to reduce and control the disaster damage



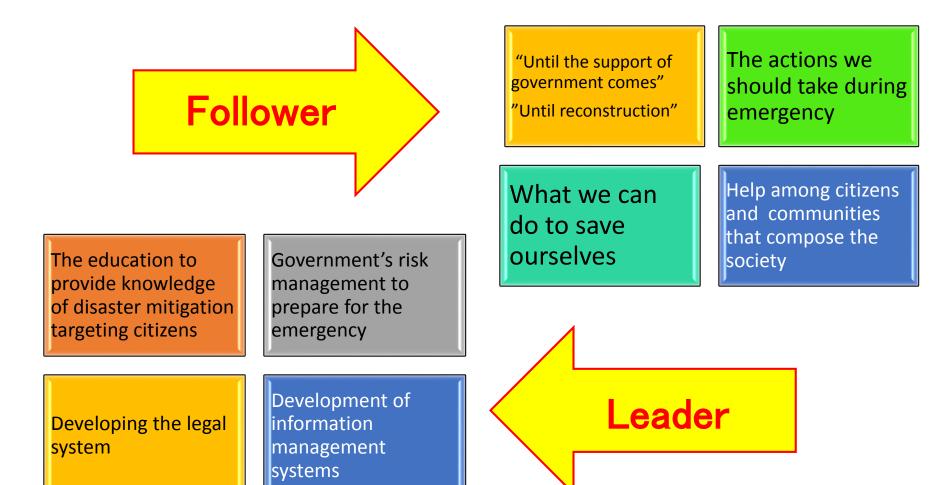


Improving it can quickly reconstruct the total function of society from disaster!

- The purpose and concept of committee
- 2. Background
- 3. Determining theme for committee
- 4. Guidelines of committee
 - 1. Setting sub-theme of debate
 - 2. Committee schedule

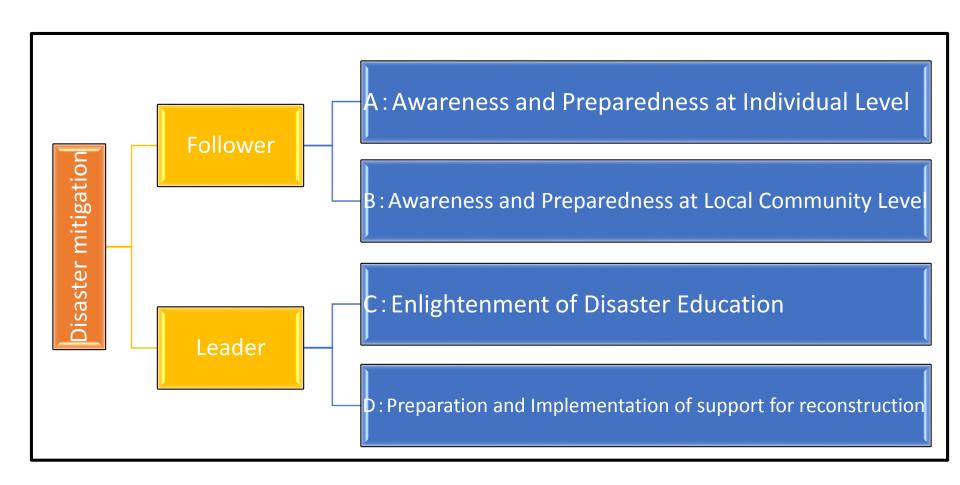
Perspective and sub-theme of committee

➤ Thinking about "Social Vulnerability" • • •



Perspective and sub-theme of committee

➤ Thinking about "Social Vulnerability" · · ·



Sub-theme of committee: Follower

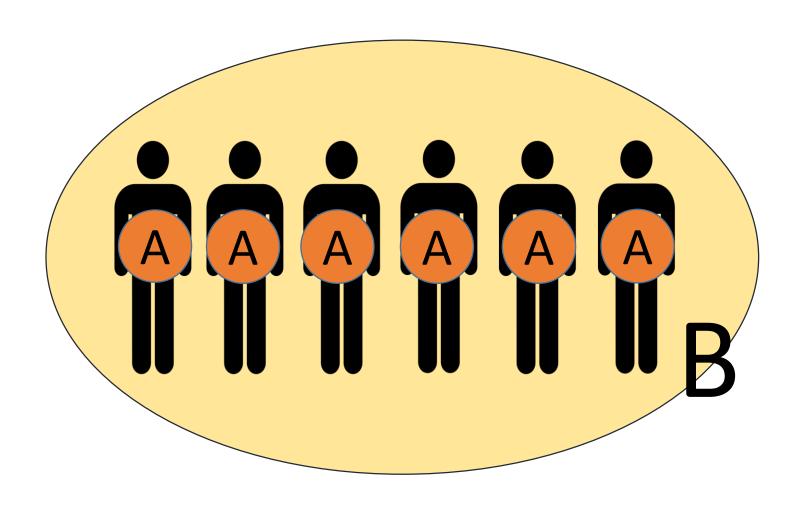
A. Awareness and Preparedness at Individual Level

Each individual must have high consciousness toward hazards and need to take spontaneous actions without being dependent on government during emergencies. We will exchange opinions about how individuals should be aware and prepare for future hazards and seek to reach essential common guidelines among all countries. Moreover, we will try to find a solution about how people can stay aware that the occurring of a hazard is not only about someone else being damaged but it's about yourself too.

B. Awareness and Preparedness at Community

When hazards occur, each individual must not be isolated to survive. We need to be recognized within the local communities in our daily lives. By getting the hold of the different styles of communities around the world, we will try to find the most effective state of communities against hazards.

Sub-theme of committee: Follower



Sub-theme of committee: Leader

C. Enlightenment of Disaster Education

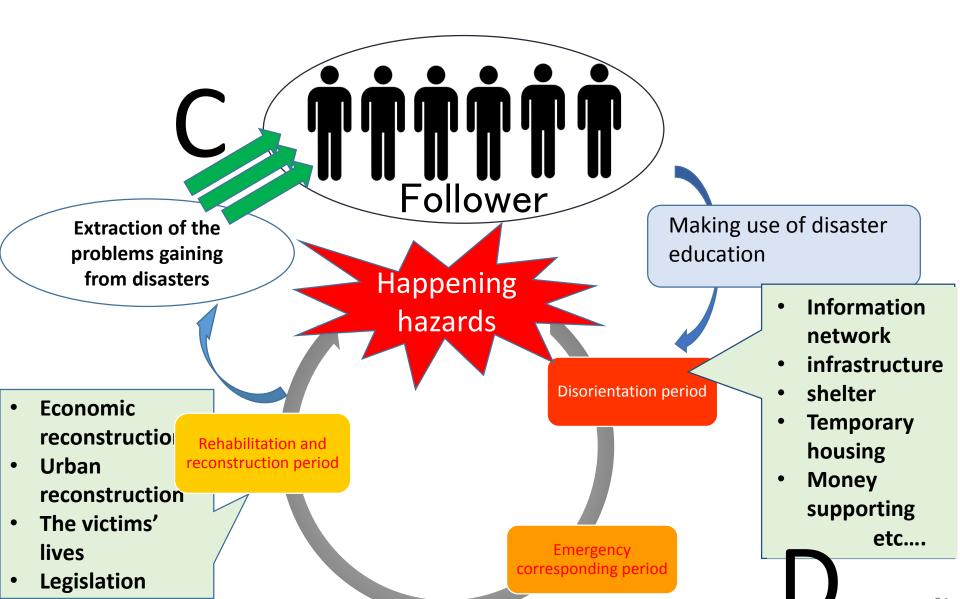
The administration should tell us the knowledge so that each individual properly deals with the hazard. We'll look for a better way of disaster education by discussing present disaster educations' strengths and weaknesses or whether they succeeded or failed around the world. Also, we 'll have to rethink what the government should be for the citizens so that they can acquire a lot of knowledge concerning hazard.

D. Preparation and Implementation of support for reconstruction

When a hazard occurs, the administration needs to prepare a better system working rapidly inside the country, especially in the disaster area confused. Also, it must provide a system assisting the victims to come back to their daily lives and the entire community to reconstruct. The administrations around the world actually cope with occurrence of a hazard. Through various disaster experience, we should consider a problem caused in the past again and introduce a new good method. Doing so, we'll be able to consider the ideal administration system recovering from disaster.

20

Sub-theme of Committee: Leader



Summary of committee's sub-theme

Follower

The time lapse from earthquake occurrence to reconstruction, and the change of the victims

Leader

Phase 0 "Disorientation period"

The victims must survive by themselves. The administration can't support them.

Disaster occurrence ~ 10hours

corresponding Emergency

period

Phase1"making disaster community period"

The main point is to rescue victims' lives.

We can get any information about disaster.

The administration can support systematically.

10hours~ 100hours

Phase 2 "disaster utopia period"

A spirit of cooperation become marked.

The society reconstruct and the lives of the victims improve by little and little.

100hours~ 1000hours

Rehabilitation and reconstruction period

Phase3"rehabilitation and reconstruction period"

The victims' lives reconstruct. The town broken by disaster and economy reconstruct from disaster.

Committee schedule

➤ Sectional Meetings Day 1st: Lecture & Workshop

9:30-10:30 Lecture by Prof. Naoyuki KATO,

Earthquake Research Institute ,The University of Tokyo

10:30-12:00 Workshop: Earthquake Simulation

13:30-14:30 Discussion about lecture & workshop



Committee schedule

➤ Sectional Meetings Day 1st & 2nd: Poster Session & Discussion

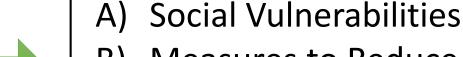
14:30-15:00 Introduction for poster session

15:30-17:30 Poster session & summary of sub-themes

9:00-11:30 Discussion with all sectional meetings members

Target "Build up Resilience for Disasters"

With Three Perspectives Led by Occurred Disasters





- B) Measures to Reduce Social Vulnerabilities
- C) Success Stories and Pending Issues for these Measures