Japan Society of Civil Engineers 2006 Annual Meeting

Ritsumeikan University, Biwako Kusatsu Campus, Prism House P01

September 20th Wednesday

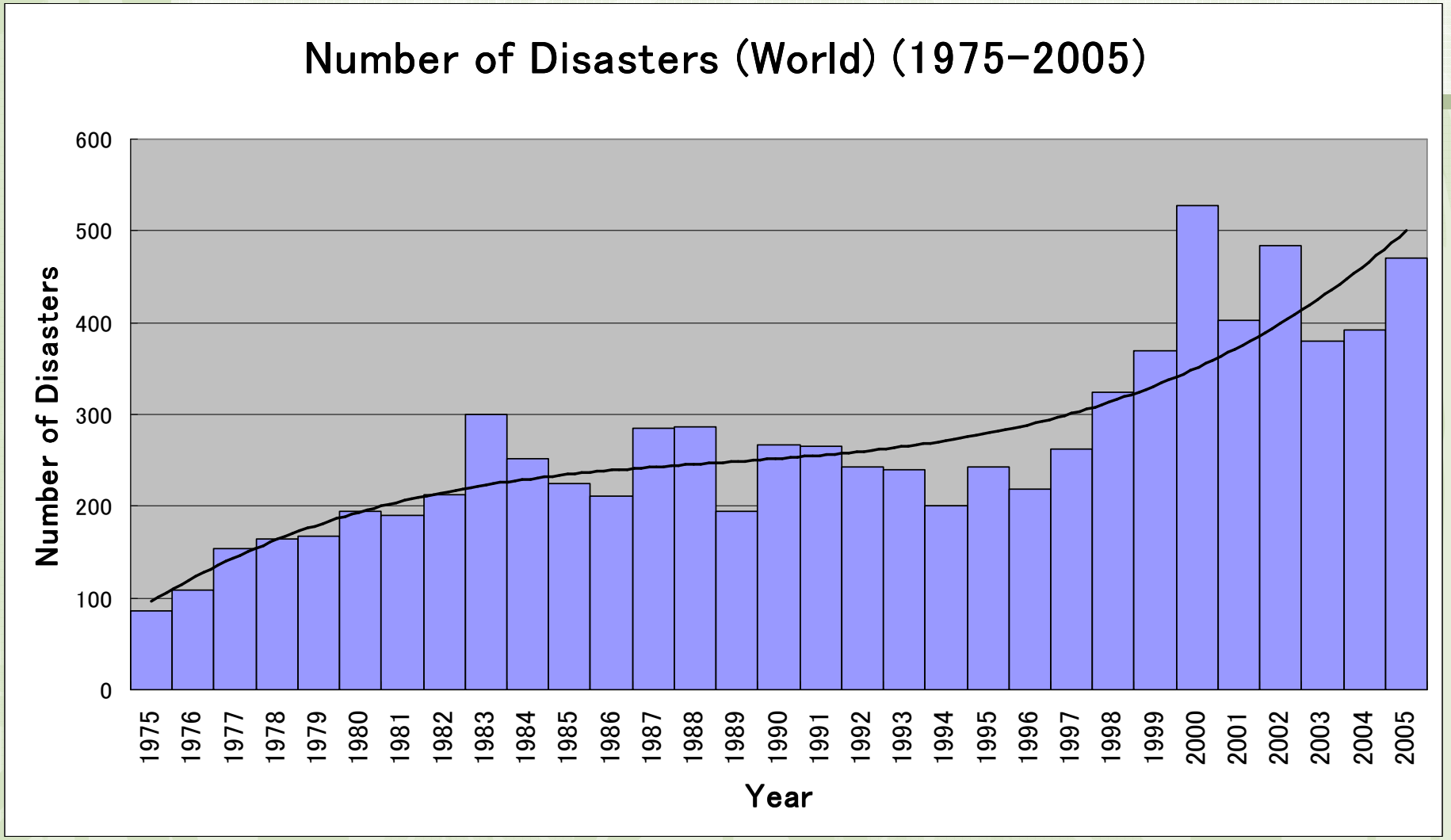
Getting Familiar with "City Risk"

Koji SUZUKI

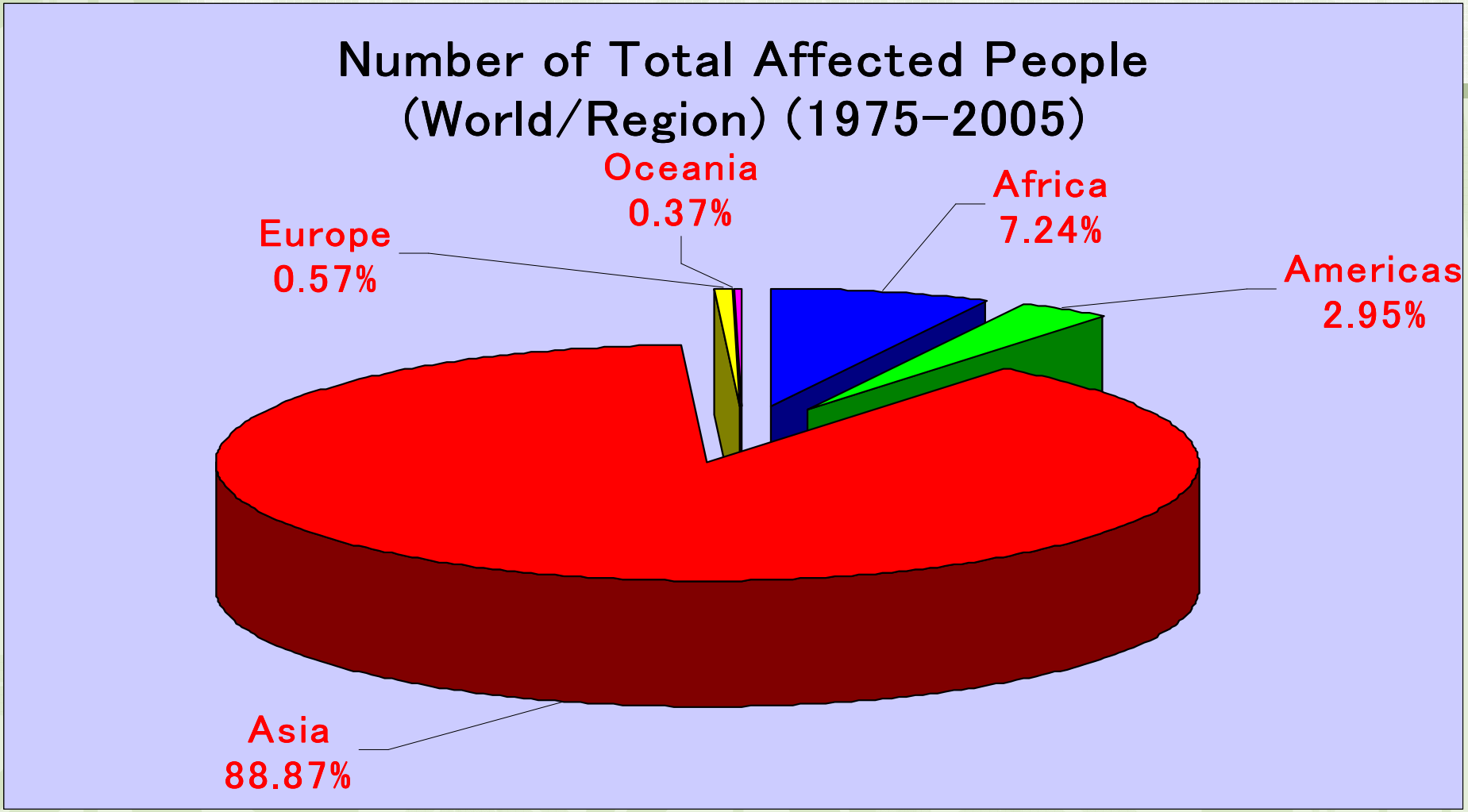
Executive Director

Asian Disaster Reduction Center

Kobe, JAPAN



Source: 2005 Disaster data Book, ADRC, Japan
CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium, 2005



Source: 2005 Disaster data Book, ADRC, Japan
CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium, 2005

Summary of Natural Disasters (1975-2005)

	Number of Disasters	Number of Killed	Number of Total Affected People	Amount of Damage (Bn US$)
Asia	3,107 (37.35%)	1,251,911 (57.19%)	4,47,825,623 (88.87%)	550.6 (44.02%)
World	8,319	2,189,116	5,342,323,780	1,250.8

Source: 2005 Disaster data Book, ADRC, Japan

CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium, 2005

Economic Loss by Natural Disasters in Asia (1960 - 2004)

Country	Year	Disaster Type	Damage (MnUSD)	GDP (MnUSD)	Damage /GDP
Armenia	1988	Earthquake	20,500	2,257	908%
Mongolia	1996	Forest fire	1,713	893	192%
Mongolia	2000	Cold wave	875	907	96%
Maldives	2004	Tsunami	470	753	62%
Lao PDR	1992	Typhoon	302	1,128	27%
Nepal	1987	Flood	728	2,851	26%
Georgia	1990	Earthquake	1,700	7,738	22%

Note1. Source: CRED－EMDAT

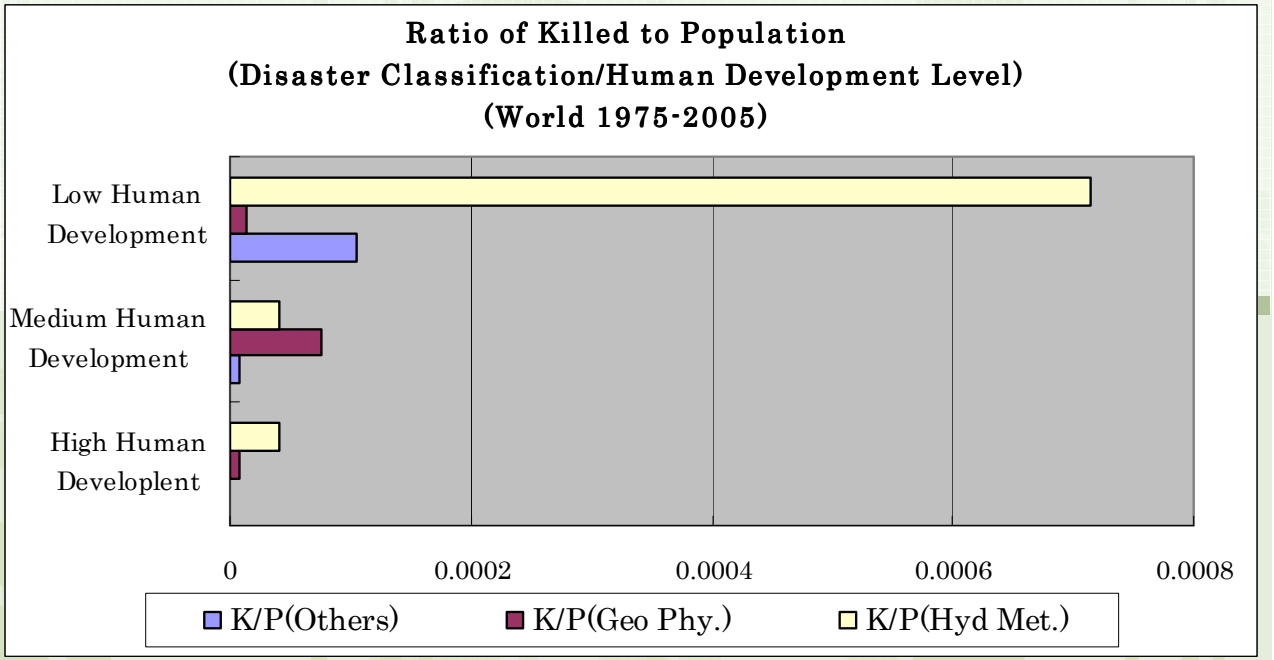
2. GDP is before year of the disaster. But Armenia's GDP is in 1990 after the independence.

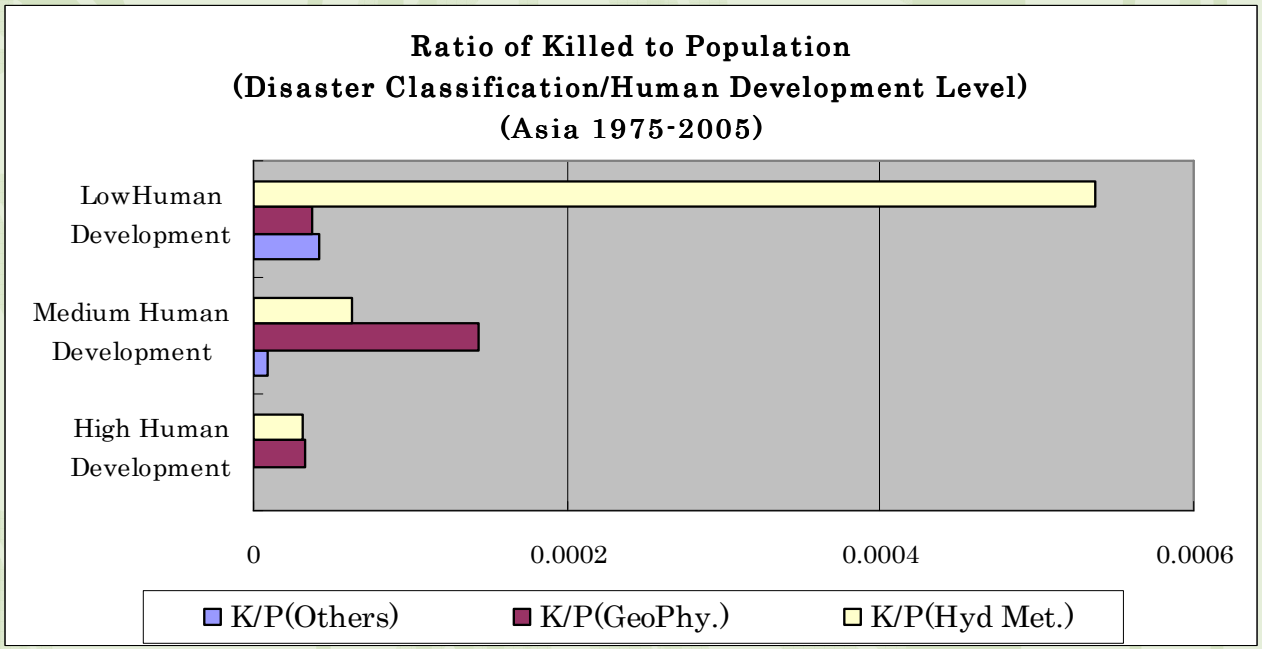
The Challenge We Face with Disaster (1)

- Number of Disaster is Increasing
- Asia is the Most Vulnerable Region to Disasters
- A Single Disaster can Wipe Out Annual GDP of a Country

Ratio of Killed to Population

Low Human Development is one of the Potential Risk for More Human Losses

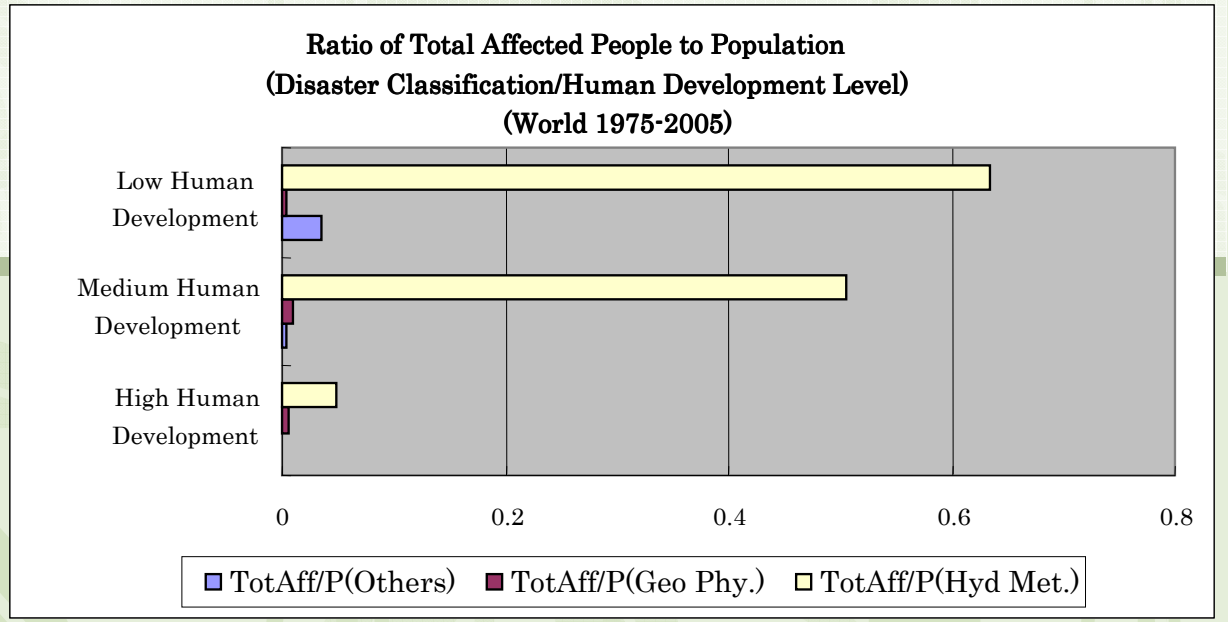


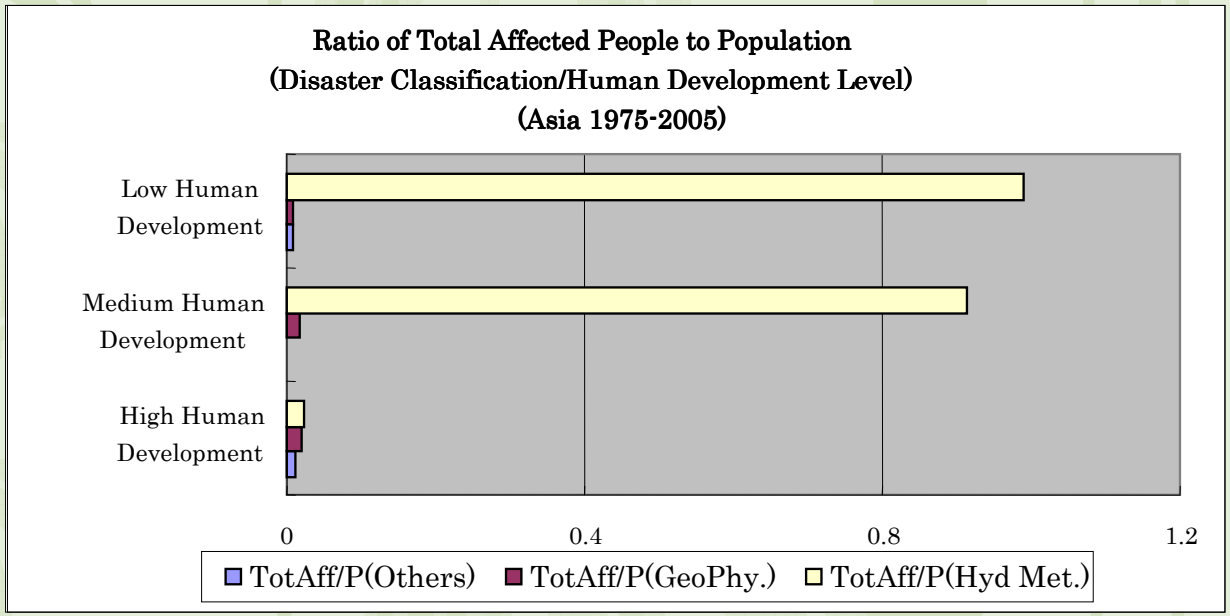


Source: EM-DAT, CRED, Belgium and WDI, World Bank 2005

Ratio of Total Affected People to Population

Low Human Development is one of the Potential Risk for More Human Sufferings

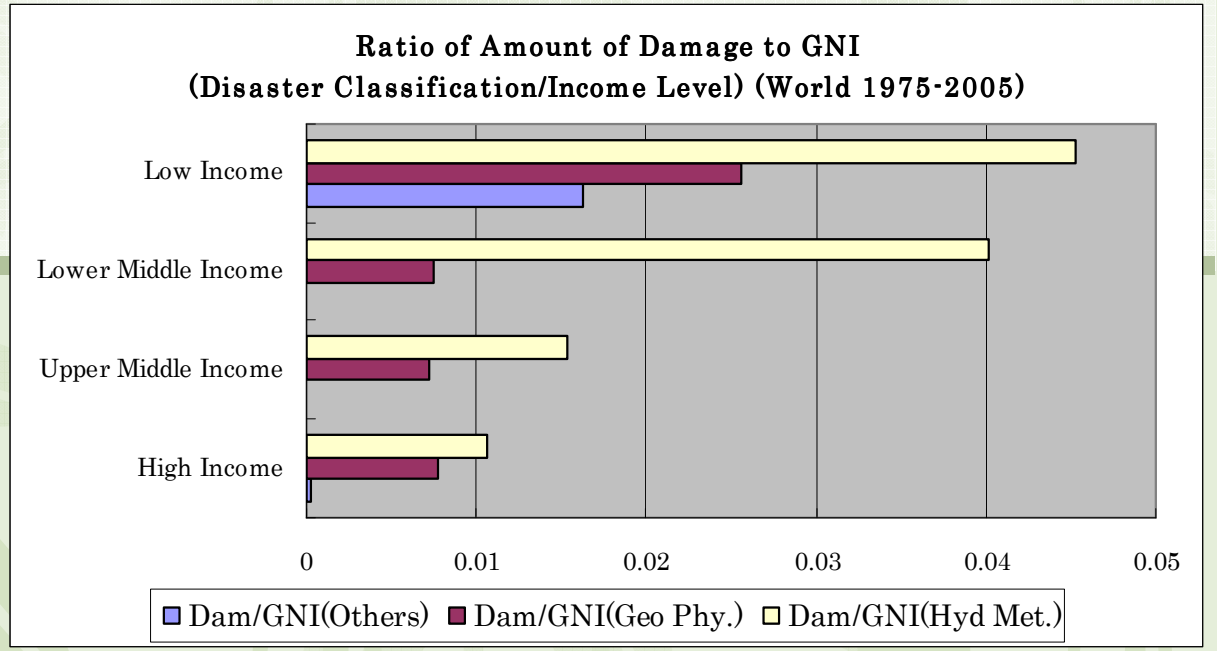


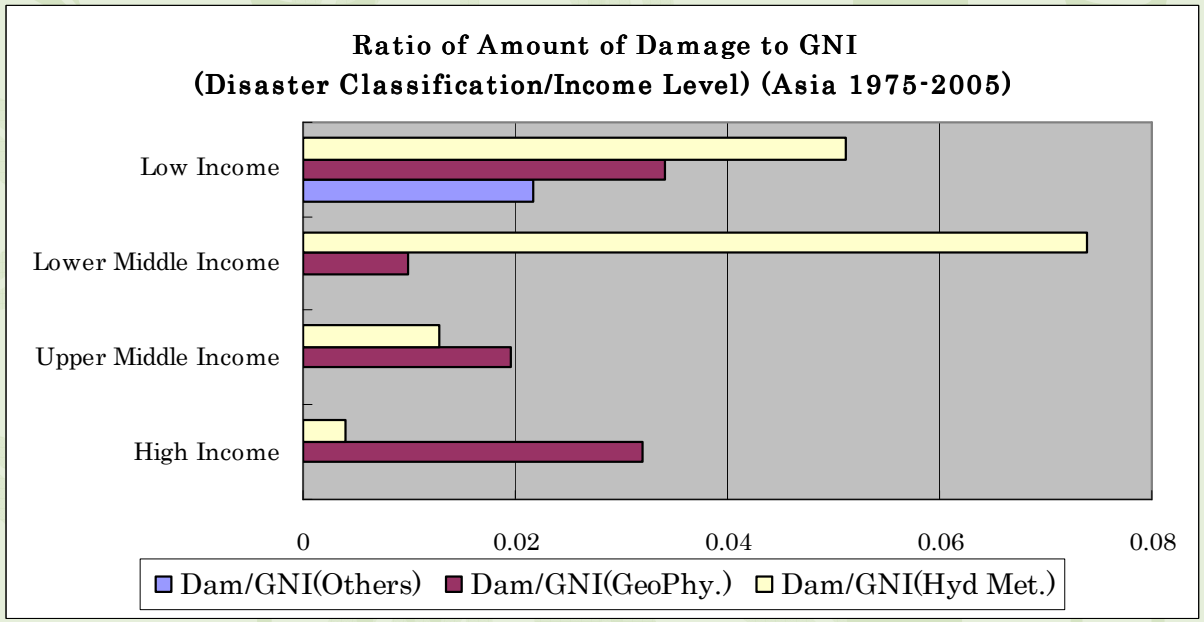


Source: EM-DAT, CRED, Belgium and WDI, World Bank 2005

Ratio of Amount of Damage to GNI

Low Economic Development is one of the Potential Risk for More Economic Losses and Quicker Recovery





Source: EM-DAT, CRED, Belgium and WDI, World Bank 2005

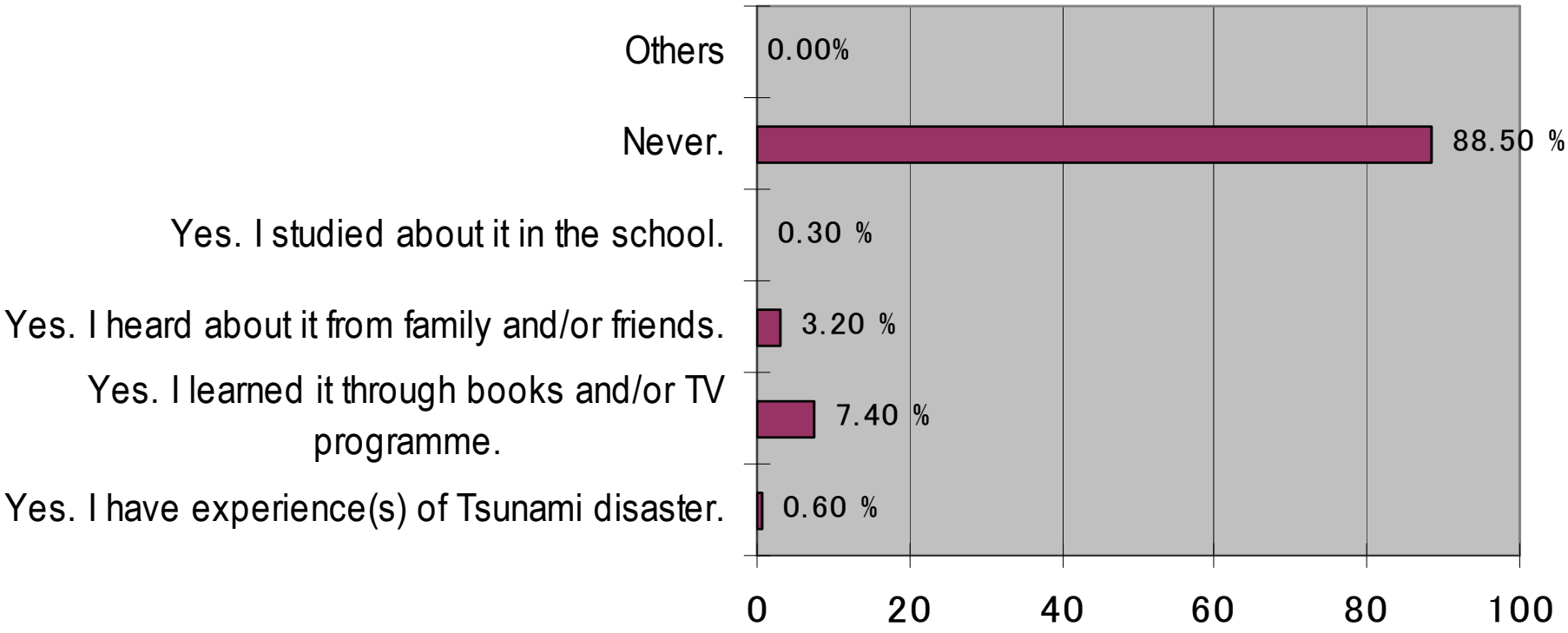
The Challenge We Face with Disaster (2)

- Countries of Low Human & Economic Development are More Vulnerable to Disasters

Perception Study in Indonesia (General Public)

Tsunami Awareness (before Tsunami disaster 2004)

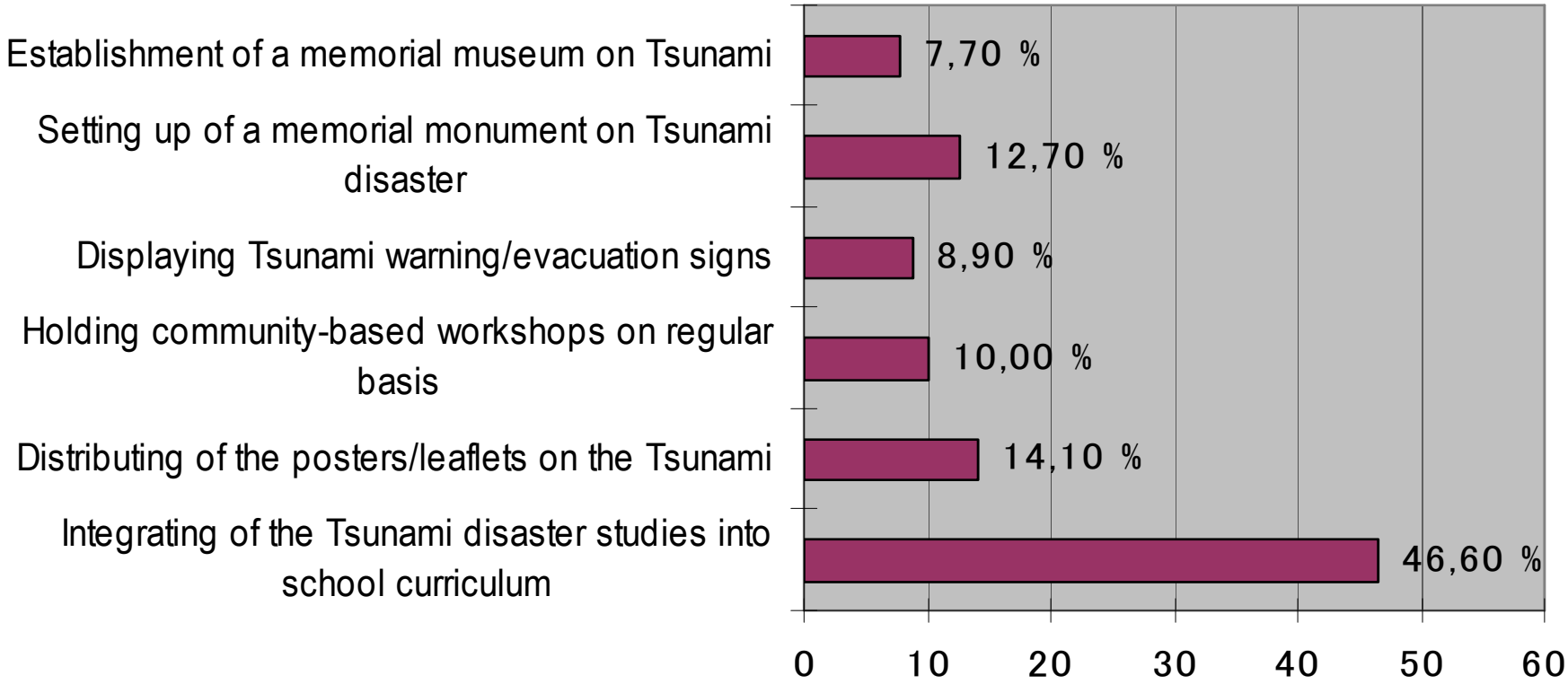
Q14. Have you heard about Tsunami before the disaster?
(N=1000)



Perception Study in Indonesia (General Public)

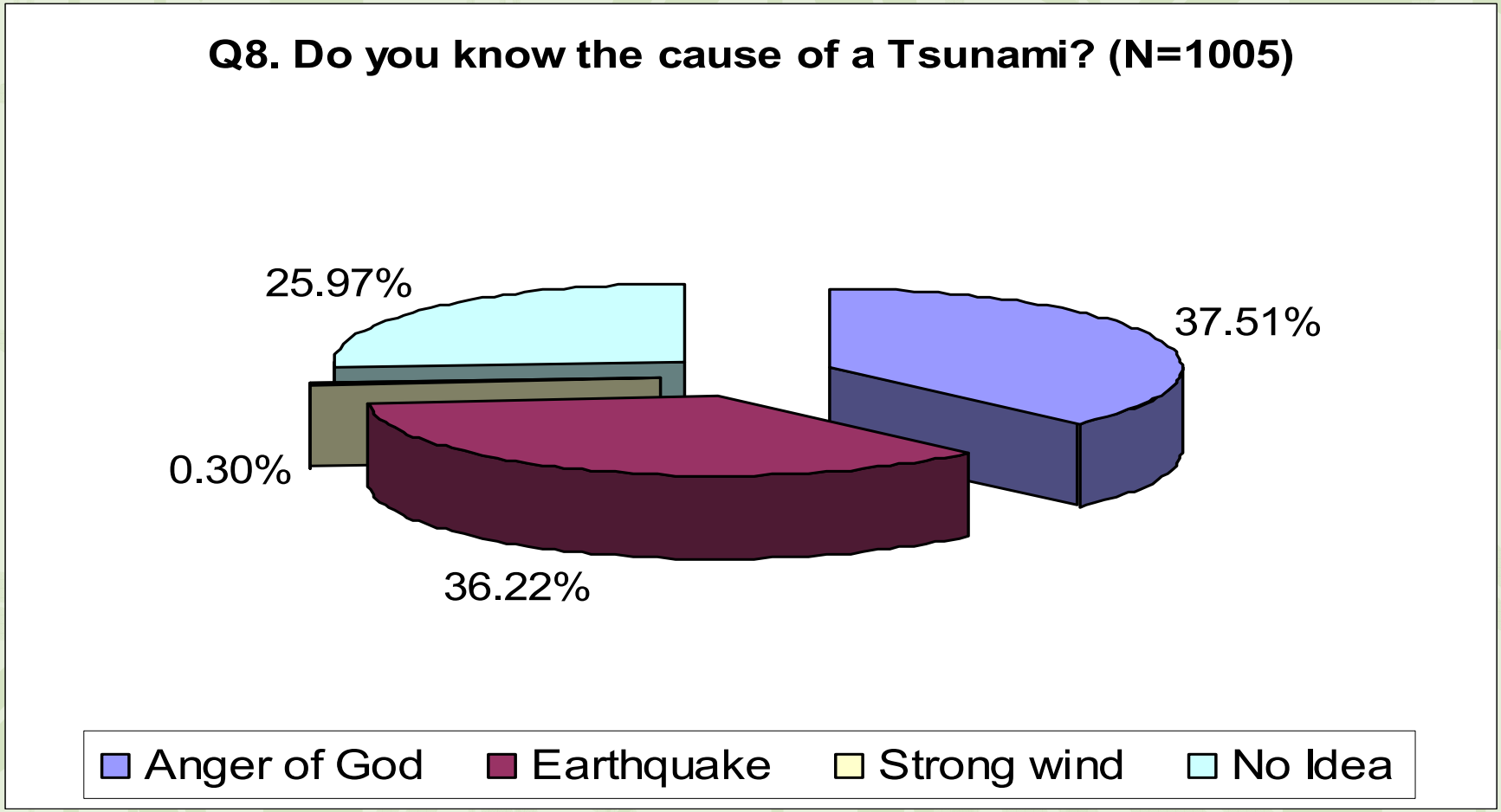
Most Effective Way to Utilize Lessons

Q17. What is most effective way to utilize the lessons for preventing/mitigating a tragedy from recurring? (N=1000)



Perception Study in Indonesia, School Children (Grade 4th-6th)

Cause of Tsunami



The Challenge We Face with Disaster (3)

- Lack of Knowledge of Disasters and Disaster Risk Management

How to Reduce Risks

Getting Familiar with Disaster Risk in Community and School

Getting Familiar with Disaster Risk at Community

Community Based Hazard Mapping

Town Watching Method

~Effective tool for raising public awareness~

Town Watching Method

Step 1 *Field Survey*

Residents, Officers in Local Govt. and Experts survey the positive and negative features relating to the disaster risk by walking around in the town.

Step 2 *Develop a Map*

Visualize the observations and findings on the map. Enhance the awareness and cooperation through the task.

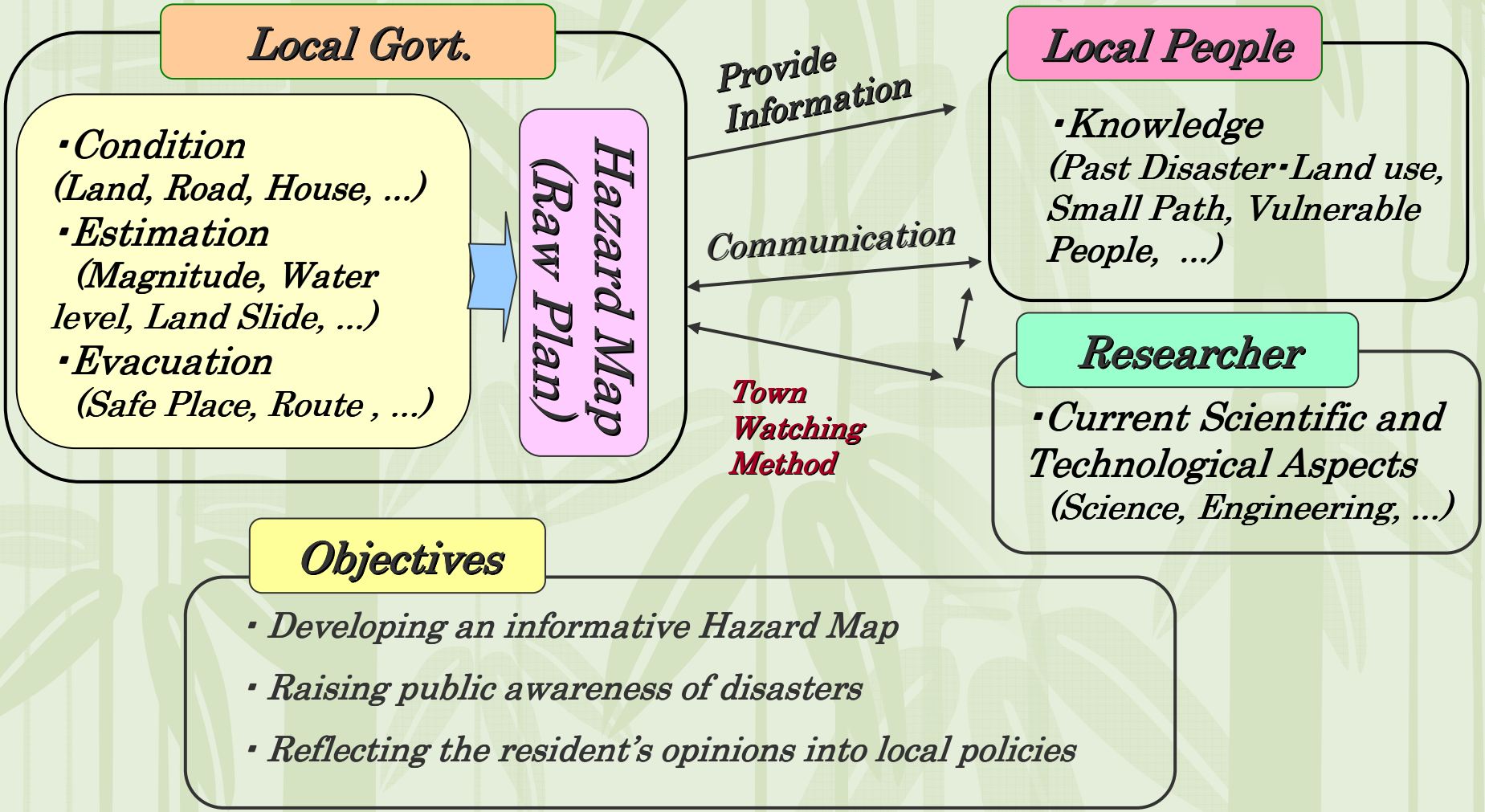
Step 3 *Discussion and Presentation*

What are the problems? Who is responsible?

What are the countermeasures?

Share the information.

Community Based Hazard Mapping



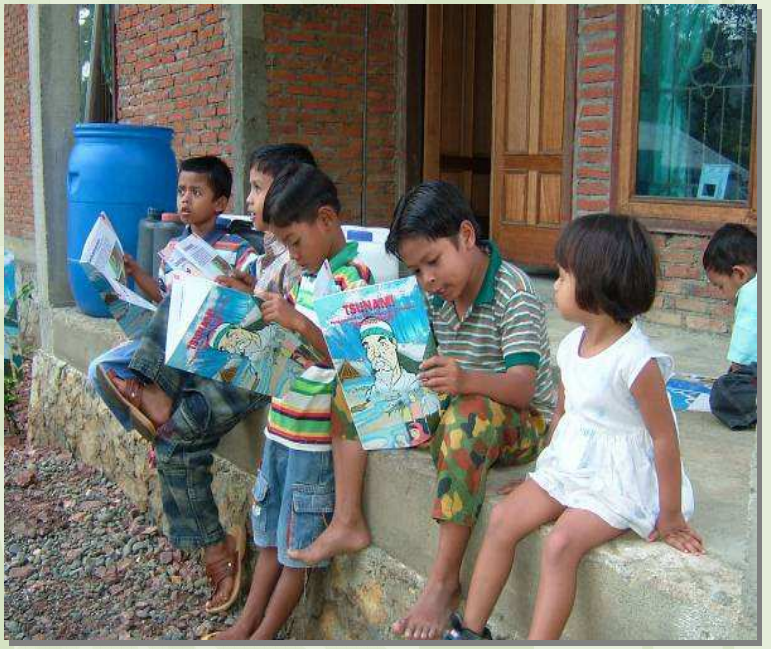
Enhancing Communication for Effective Disaster Risk Management in Sri Lanka

- *Objectives*
  - *Raise awareness of citizens on disaster reduction*
  - *Achieve a comprehensive and sustainable disaster risk reduction through communication among all the stakeholders at community level*
- *Activities*
  - *Hold a workshop as a trainers' training for the local officials to have an opportunity of learning the "Town Watching" methodology**
  - *Conduct 200 community level workshops for the "Town Watching" program*

Organized by the Government of Sri Lanka and ADRC / With support of Ministry of Foreign Affairs of Japan

Tsunami Awareness Booklet for Education on Tsunami Disaster

- *"Inamura-no-hi" booklets are prepared in 8 countries*
- *Bangladesh, India, Indonesia, Malaysia, Nepal, Singapore, Sri-Lanka, Philippines*



These booklets are practically used at schools in each country.

What is "Inamura no Hi" ?

- *A story of a man who notice a precursor of a large tsunami and led villagers to a high ground by burning harvested rice sheaves.*
- *Based on a true event at the time of Ansei-Nankai Tsunami (1854).*

Inclusion of DRR into School Curricula and Education

A Pilot Project for Promoting School Education for Disaster Preparedness in Thailand

- Objectives
  - Strengthen disaster preparedness in primary schools
  - Build teachers' capacity on disaster education
  - Disseminate the correct knowledge about tsunami

- Activities
  - Compiling and analyzing existing materials for disaster education
  - Developing a side-reader and a teachers' guide through 1) Consultative committee meeting and 2) Pilot lessons in 2 schools
  - Holding a seminar to be participated in 100 teachers and local government officials

Organized by Ministry of Education and Ministry of Interior of the Thai Government, and ADRC / With support of UNESCO/IOC and UN/ISDR

Thank You for Your Attention