Overview of the Outcomes from

e-ASIA JRP “Disaster Prevention” Workshop

held on 4 June 2013

Prof. Yoshimori Honkura, Program Officer
of Japan Science and Technology Agency (JST)

Jakarta, Indonesia
（@Sari Pan Pacific Hotel）

Sessions & Speakers

Earthquakes:

- Prof. Taiki Saito, Toyohashi University of Technology, Japan
- Prof. Yuichiro Tanioka, Hokkaido University, Japan
- Dr. Dani Hilman Natawijaya, the Indonesian Institute of Sciences, Indonesia

Volcano Eruption

- Prof. Masato Iguchi, Kyoto University, Japan
- Dr. Gede Suantika, the Ministry of Energy and Mineral Resources, Indonesia
- Dr. Renato U. Solidum Jr., PHIVLCS, the Philippines

Flood/Landslide

- Prof. Hajime Nakagawa, Kyoto University, Japan
- Dr. Theingi Shwe, Yangon Technological University, Myanmar
- Dr. Iwan Tejakusuma, the Agency for the Assessment and Application of Technology (BPPT), Indonesia

Towards Multilateral Collaboration on Earthquakes (1)

● Huge subduction-zone earthquakes can happen along the Pacific and Indian Ocean regions including Indonesia, Japan and the Philippines.

● Tusnamis associated with large subduction-zone earthquakes can be extremely large. Tsunami risk also exists in association with remote subduction-zone earthquakes. For tsunami early warning, the database should be prepared as well as local inundation simulations.

● Active faults distribute in many countries in East Asia, although their activity is lower than subduction-zone earthquakes.

Towards Multilateral Collaboration on Earthquakes (2)

- Following seismic hazard assessments, vulnerability assessment of building should be made.

- Structural testing and analysis are required for retrofitting of building and earthquake resistant design codes.

- Guidelines for constructions of non-engineered buildings should be provided.

Towards Multilateral Collaboration on Volcano Eruption (1)

- The possible cascading scale of eruption is an important issue for further studies of volcanic eruption.

- There are some effective monitoring methods, but appearance of precursory phenomena depends on volcanoes.

- Volcanoes can be classified according to eruption scenarios for respective volcanoes.

Towards Multilateral Collaboration on Volcano Eruption (2)

● For enhanced safety of countries, the following issues should be considered.

(1) Monitoring of volcanoes
(2) Risk assessment
(3) Preparedness and risk reduction, knowing eruption history.

● Volcano database in East Asia should be constructed.

Towards Multilateral Collaboration on Flood/Landslide (1)

- Simulations are useful for modeling of inundation areas and sewage systems in cities.

- Natural dam failure or landslides results in flood with debris flow. Simulations of evacuation of residents in the dangerous areas are now possible.

- Flood and storm-surge in coastal areas are widely encontered in many countries in East Asia.

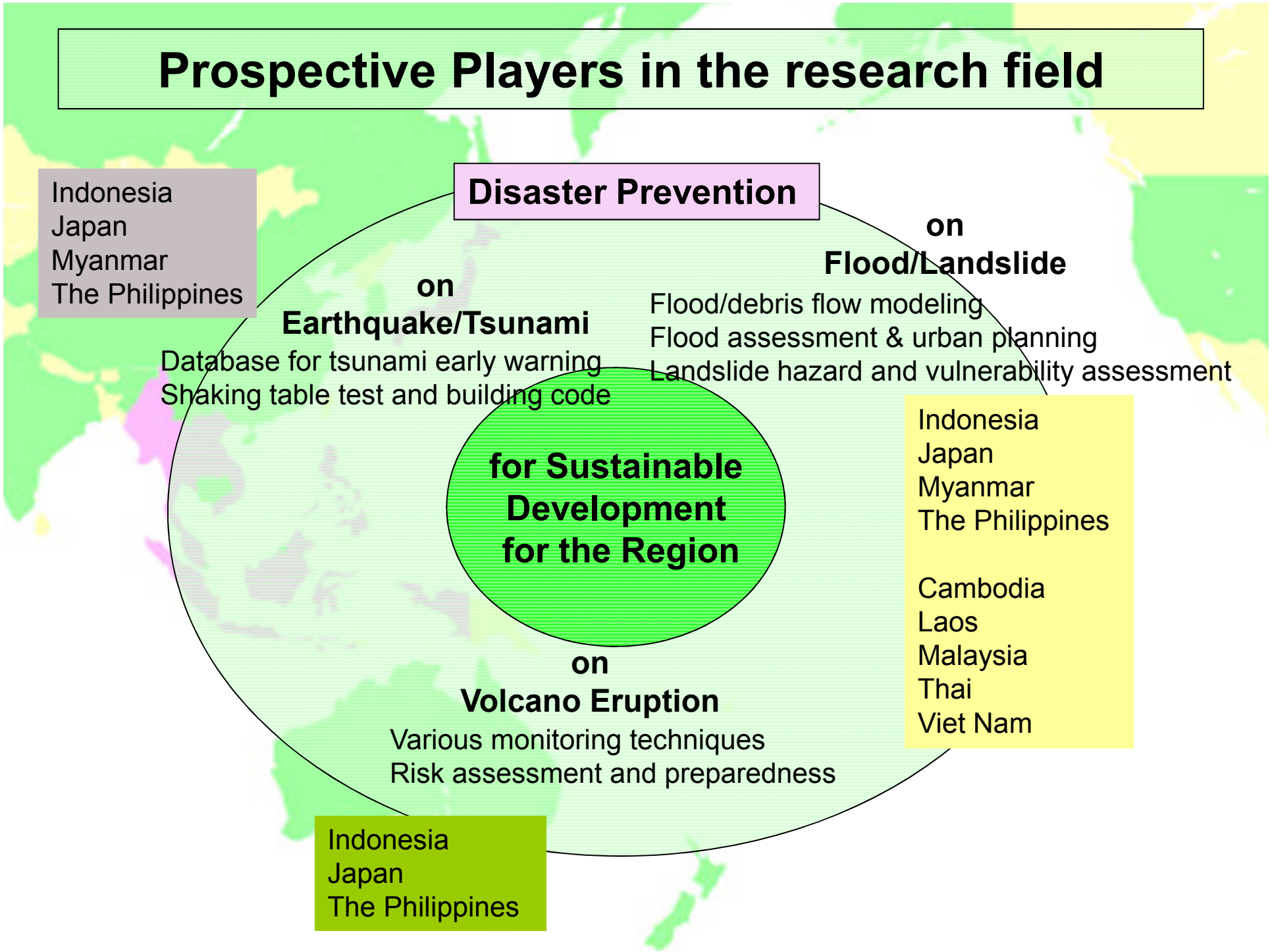
Towards Multilateral Collaboration on Flood/Landslide (2)

- Risk reduction for flash flood, localized flood, cyclone/storm surge is an urgent issue for urban planning. When preparedness is insufficient, hazard assessment is an issue to be considered first.

- In addition to rain-triggered landslides, earthquake-triggered landslides should also be taken into consideration.

- Deep-seated landslide is a difficult issue in both monitoring and simulation. Also simulation for a series of events of rain, landslide and flood is a difficult task at present.

Prospective Players in the research field



Proposed Research Themes and Partners (1)

(1) Flood and Landslide

- Assessment through monitoring and simulation, Forecast and warning
- Indonesia, Japan, Myanmar, The Philippines (Cambodia, Laos, Malaysia, Thai, Viet Nam)

(2) Volcano

- Monitoring of activity, Classification of eruption scenarios, Risk assessment and preparedness
- Indonesia, Japan, The Philippines

Possible Research Themes and Partners (2)

(3) Earthquake and Tsunami

- Database for tsunami early warning
  Shaking table tests and building code
- Indonesia, Japan, The Philippines
  (Myanmar)

What can be expected from e-ASIA JRP Collaboration in Disaster Prevention

- **Multi-lateral collaboration to solve common problems of natural disaster**
- **Exchanges of experiences and sharing advanced knowledge**
- **Genuin partnerships for mutual contribution**
- **Nurturing human resources through research collaboration and researchers' exchange**
- **Sustainable network of researchers in the region**

→ **Safety and Sustainability of the region**

Thank you for your attention