



# **Outline of Collaborative R&D Project for Disaster Mitigation on Network of Research Institutes**

## **Thematic International Workshop 2007 on Feasible and Affordable Seismic Constructions**

July 18, 2007

World Bank Tokyo Development Learning Center, Tokyo, Japan

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# Off Chuetsu Earthquake in Niigata on July 16,2007

- Sincere condolences and sympathy to people and communities affected by the earthquake

- Bulletin information (as of 4pm, July 17)

Date and time: 10:13 July 16, 2007

Epicenter: off Joetsu district in Niigata prefecture,  
at the depth of 17km

Magnitude (Mj):	6.8
Max. Intensity (JMA):	6- (around MM 10)
Max. Acc. Recorded (K-NET NIG018 N-S):	667.9cm/s/s
Fatalities:	9
Missing:	1
Severely injured:	57
Slightly injured:	1,036
Heavily damaged houses	342
Damaged houses	630

- We re-recognize that mitigation of earthquake disasters is a keen issue common in earthquake prone areas including Japan and we are eager to learn from collaboration with participating institutes

# Background of R&D

- Earthquakes cause serious damages to human societies



# Serious Damages to houses

- Developing countries are more vulnerable because they can not afford to be prepared
- Conventional housing should be focused because it is the main cause of human losses and needs more to be done to be safer



# New R&D in 2006 - 2008

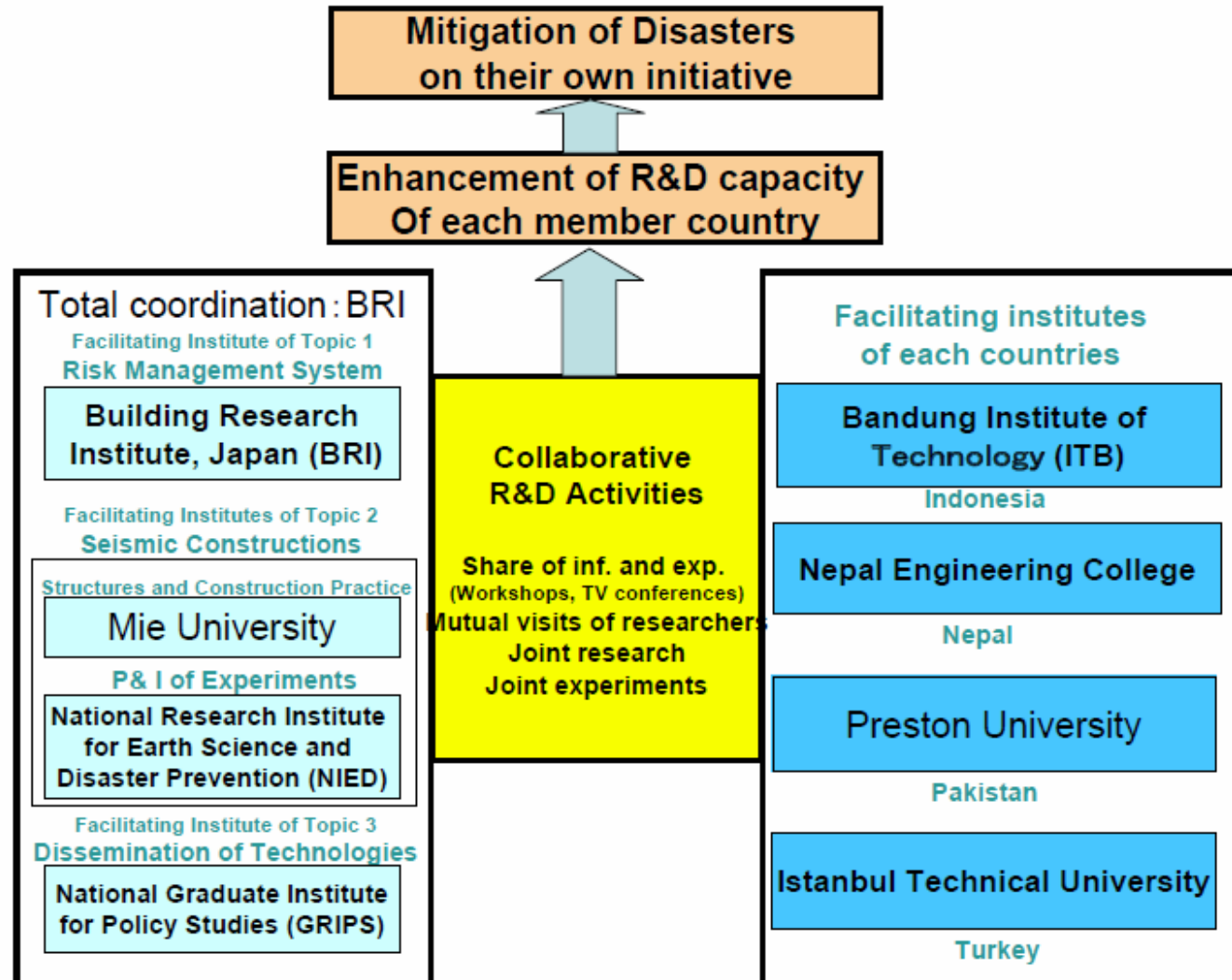
## <Collaborative R&D Project for Disaster Mitigation on Network of Research Institutes in Asia>

- **Term of R&D**

three years  
(2006-2008)

- **Funds**

- The Asia S&T Strategic Cooperation Promotion Program prepared by MEXT
- BRI budget





# Research Topics of Collaborative R&D Project for Disaster Mitigation on Network of Research Institutes in Asia

- R&D focuses on realization of mitigation of disasters
- To concentrate conventional houses which is the main cause of human losses
- To prepare complete proposal of strategies without “missing ring”
- Propose three major topics
  - Feasible and Affordable Seismic Constructions
  - Strategies for Dissemination of Technologies to Communities
  - Risk Management System



# Basic scheme of R&D

- Platform for collaboration among participating institutes
  - mutual visits
  - events for sharing information and discussion
  - communication by IT tools like video conference system, internet
- R&D components for collaborative work
  - proposals by any people/institutes
  - elaboration of work plan
  - implementation with contribution of all the participating countries
  - achievements should be shared through the Platform and other channels

## Platform of R&D activities

# Tokyo International Workshop 2006

### ■ Kick off events for launch of the New R&D Project

- **Plenary Meeting** on Nov. 22
- **Group Discussion** on Nov. 23 on five countries (Indonesia, Nepal, Pakistan, Turkey and Peru)
- connecting **nine sub venues in five countries**

Japan – Tsukuba

Indonesia – Jakarta, Bandung,  
Banda Aceh

Nepal – Kathmaudu

Pakistan – Islamabad

Turkey – Istanbul, Ankara





Platform of R&D activities

## Relevant events (KTT Session 2006) to Workshop

- **Kobe, Tokyo and Tsukuba Session 2006 for Safer Housing (KTT Session 2006)**
  - Thematic workshop on “Aseismic Building Technology Acceptable to Communities”
  - Series of events of special lectures, briefings and discussions
  - Technical visits
  - Thematic discussion on each research topic
  - **Duration of fourteen days (Nov. 15 to Nov. 28)**



Platform of R&D activities

## International Workshop on Seismic Isolation

### ■ Activities for R&D Component 2-3 “Development of Simple and Affordable Seismic Isolation”

■ February 8, 2007

■ World Bank Tokyo  
Development Learning  
Center (TDLC)

- connecting six sub venues in  
four countries

Indonesia – Jakarta, Bandung

Nepal – Kathmaudu

Pakistan – Islamabad

Turkey – Istanbul, Ankara

- Web Streaming Services

- for internet access



# **Seven components (R&D Activities Programs)**

- **Topic 1 Risk Management System**

**Component 1-1**

**Contrivance for Seismic Risk Recognition by Communities**

**Component 1-2**

**Compilation of Available Information/Data on Seismic Risks**

- **Topic 2 Feasible and Affordable Seismic Constructions**

**Component 2-1**

**Study on Feasible and Affordable Seismic Constructions through Full Scale Shaking Table Experiments**

**Component 2-2**

**Bridge between Engineering and Construction Works**

**Component 2-3**

**Development of Simple and Affordable Seismic Isolation**

- **Topic 3 Strategies for Dissemination of Technologies to Communities**

**Component 3-1**

**Comprehensive Study on Strategies for Dissemination of Technologies to Communities**

**Component 3-2**

**Compilation of Manuals/Guidelines/Leaflets for Safer Housing**

# **Thematic International Workshop 2007 on Feasible and Affordable Seismic Constructions on July 18, 2007**

**at World Bank Tokyo Development Learning Center (TDLC)**

- **Discussion on three R&D components**

**under Topic 2 “Feasible and Affordable Seismic Constructions”**

**<Session 1>**

**Component 2-1**

**Study on Feasible and Affordable Seismic Constructions through Full Scale Shaking Table Experiments**

**<Session 2>**

**Component 2-2**

**Bridge between Engineering and Construction Works**

**Component 2-3**

**Development of Simple and Affordable Seismic Isolation**

- **Video Conference connecting seven sub venues in five countries**
- **Web streaming services for internet access**



# Activities of Platform for R&D in FY2007

- **Major activities in FY2007**
  - **Full scale shaking table experiment for Component 2-1**  
**December 2007** at NIED in Tsukuba
  - **Shaking table experiment for seismic isolation for Component 2-3**  
**February 2008** at BRI in Tsukuba
- **Plenary Workshop for all the three topics**  
**January 24, 2008** on VC system connecting five countries
- **Group Discussion on Indonesia, Nepal, Pakistan, Turkey and Peru**  
Coordinator for each country is to arrange the agenda and date on VC system connecting CP country and Japan
- **Thematic Workshop on “Risk Management System” and “Strategies for Dissemination of Technologies”**  
Coordinator for each Topic is to arrange the agenda and date on VC system connecting five countries

# Announcement

- **All the coordinators of Components** welcome comments/proposals for activities programs and active participation for R&D activities
- **All the coordinators of CP countries and Research Topics** also welcome proposal of the agenda and date for Group Discussions and Thematic Workshops on VC system



**BRI and the partners**

**expect**

**active participation and contribution of  
researchers, engineers and people in  
practice in the world  
for safer built environment**

**Thank you**