

Collaborative Research  
for  
Earthquake Disaster Mitigation  
of Non-engineered Houses

**Topic 1 and 2 Project Status  
in Nepal**

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# The project

- Collaborative Research and Development Project on Network of Research Institutes in Earthquake Prone Area (06-08)
- Collaborative Research for Earthquake Disaster Mitigation of Non-engineered Houses



# Research Topics

- Topic 1: Risk Management System/ Seismic Risk Assessment
- Topic 2: Feasible and affordable seismic construction
- Topic 3: Strategies for Dissemination of Technologies



# Topic 1

- Self evaluation of dwellings by dwellers
- Risk map of dwellings
- Base map using Google earth and place mark
- Use of free GIS software for mapping, indexing and data management

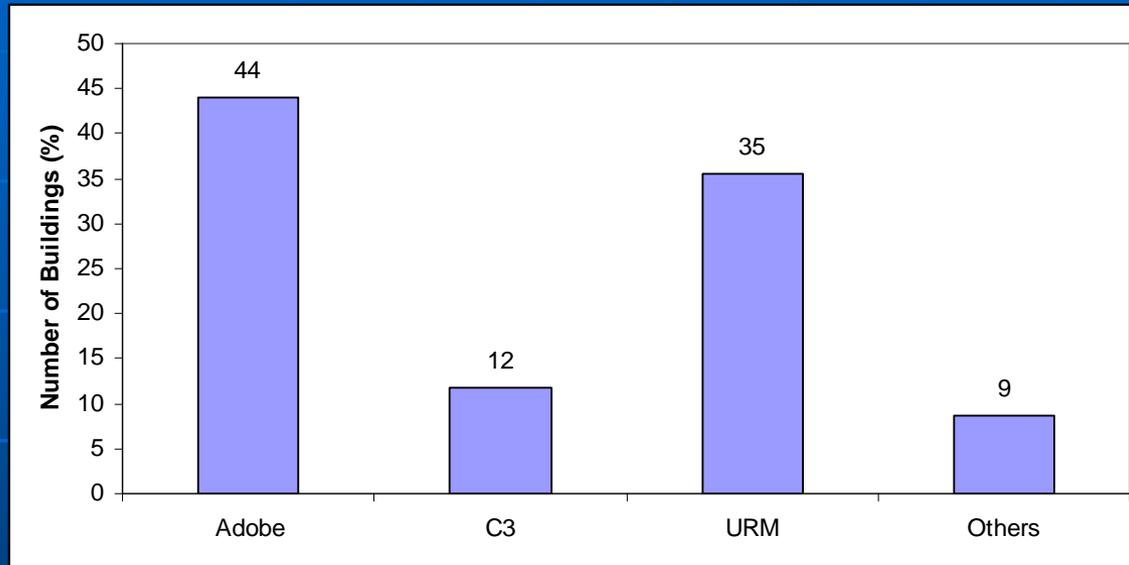


# Topic 1

- Completed activities
  - Report on Study on the Feasibility of a Case Study for Participatory Seismic Risk mapping of Dwelling in Kathmandu Valley, Nepal
  - Inventory of pilot study site



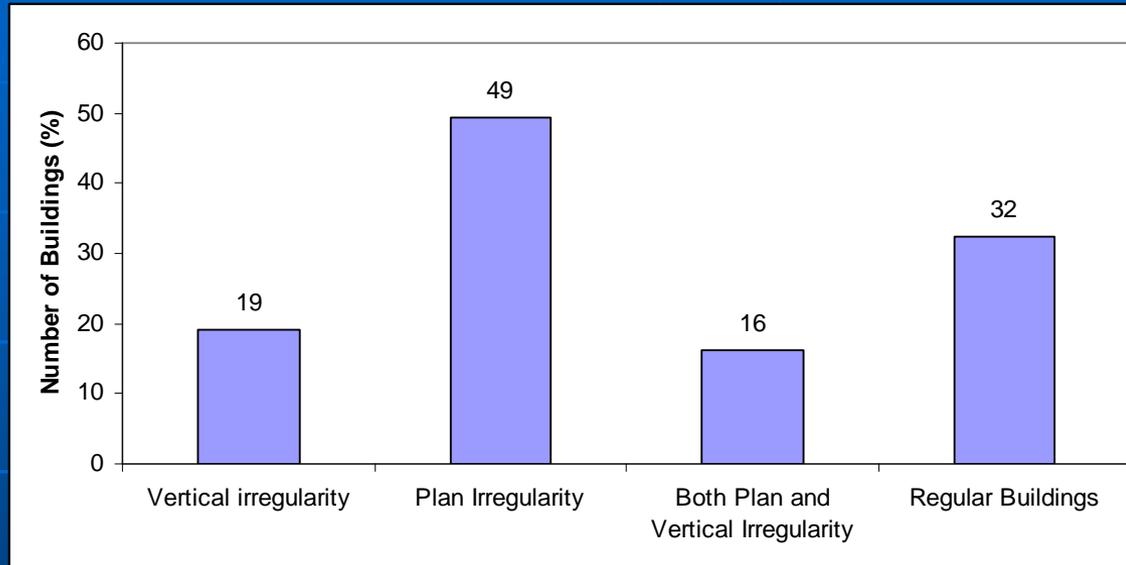
# Inventory from Pilot Study



- Adobe : 44 %
- Unreinforced Masonry: 35 %
- RCC with masonry infill: 12%
- Others: 9%



# Inventory



- Vertical irregularity : 44 %
- Plan irregularity: 35 %
- Both plan and vertical irregularity: 12%
- Regular buildings: 9%



# Completed activities

- Workshop with school students
- Inventory and risk survey by students
- Draft training manual





# Topic 1

- Ongoing activities
  - Linking Google earth map with free GIS software
  - Using attribute data collected by students
  - Prepare vulnerability map for dwellings



# Topic 2

- Feasible and affordable construction
- Ongoing activities
  - Bridging gap between engineering and field
  - Test of strength of brick from old buildings
  - Test of brick samples



# Ongoing activities

- Bridging gap between engineering and field
  - Designed strength and actual strength of concrete
  - Visit of actual construction site
  - Observation of practices
  - Report



# Thank you