



# ADRC Highlights

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DRR Policy Peer Review (Pilot Project)

### Asian Disaster Reduction Center

Hitomiraikan 5F, 1-5-2  
Wakinohamakaigan-dori,  
Chuo-ku, Kobe  
651-0073 Japan

Tel: 078-262-5540  
Fax: 078-262-5546  
editor@adrc.asia  
http://www.adrc.asia

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## ● Promoting Cooperation with Affiliated Institutions ERRP Pull-Down Experiment

Asian Disaster Reduction Center (ADRC) conducted the "Pull-Down Tests" on 15 October and 2-3 November 2009 in Nepal as part of the "Earthquake Risk Reduction and Recovery Preparedness Program for the South Asian Region (ERRP)." These tests aimed at verifying the effectiveness of retrofitting existing buildings to withstand earthquakes.

The first "Pull-Down Test" of an existing non-retrofitted building was conducted on 15 October in Kathmandu, Nepal. In this test, a 40-year-old building was pulled on until it fell. The main purpose of the first experiment was to raise awareness of the threats posed by earthquakes by allowing observers to watch how an actual masonry building which was typical in Nepal would collapse in the event of a major earthquake, and to examine the strength of old houses. Many participants from the government of Nepal, the United Nations, ERRP member countries, and local communities observed the experiment with strong interest. As the intensity was carefully increased, the cracks in the wall of the house grew larger until the structure finally collapsed. This event made the participants keenly aware of how vulnerable existing buildings would be in a major earthquake. Local newspapers gave extensive coverage to the event, helping to raise public disaster awareness.



[First Test: An unreinforced building]

ADRC conducted its second "Pull-Down Test" on 2-3 November to confirm the effectiveness of the jacketing method of retrofitting as compared with non-retrofitted buildings, based on the results of the first pull-down test. The non-retrofitted building used in the first pull-down test completely collapsed at an intensity of 16.3 tons, whereas the retrofitted building used in the second test did not even crack when the intensity was raised to as high as 26 tons.



[Second Test:  
A seismically reinforced building]

This comparison clearly demonstrates that the earthquake resistance of a building can be strengthened by applying the proposed retrofitting method (jacketing method, steel wire mesh plus mortar coating). After further examining the test results, we will produce a poster to promote the use of this retrofitting method as a useful and cost-effective tool for enhancing the earthquake resistance of masonry buildings.

## ● Promoting Cooperation with Member Countries

### DRR Policy Peer Review (Pilot Project)

This year, ADRC launched the Disaster Risk Reduction (DRR) Policy Peer Review, a pilot project to develop the DRR capacity of ADRC member countries through information sharing and strengthening the relationships between member countries. The topic selected for the year's review was "disaster education and public awareness," and Bhutan and Thailand were selected as countries to be reviewed.

After country reports were submitted by the two target countries, reviewer teams consisting of a member country representative, an expert from Japan, and an ADRC representative visited Bhutan and Thailand respectively as explained below.

#### Thailand

On 17-18 November 2009, the ADRC reviewer team comprised of Mr. Naoki Shiratsuchi of the Japanese Red Cross, Dr. Alvaro Antonyan of the Armenian National Survey for Seismic Protection Agency, and Ms. Maki Yoshida of the ADRC visited Thailand. During the two day survey, the team visited various ministries and institutions, including the Department of Disaster Prevention and Mitigation (DDPM, ADRC's counterpart in Thailand), the Ministry of Education, the National Disaster Warning Center, and the Thai Red Cross Society to examine how disaster education and public awareness have been promoted by both governmental and non-governmental organizations in Thailand.



[Survey in Thailand]

#### Bhutan

Another reviewer team comprised of Dr. Koichi Shiwaku of the Earthquake Disaster Mitigation Research Center of the National Research Institute for Earth Science and Disaster Prevention (EDM-NIED), Mr. Arshad Nawaz Chheena from Pakistan's National Disaster Management Authority (NDMA), and Ms. Maki Yoshida of ADRC visited Bhutan on 25-26 November 2009. They learned about ongoing efforts in the field of disaster education and public awareness by visiting the Department of Disaster Management (ADRC's counterpart in Bhutan), the Department of School Education, the Department of Geology and Mines, the Standard Quality and Control Authority, and the UNDP office.



[Survey in Bhutan]

This project aims to promote mutual information sharing and learning between ADRC member countries instead of one-way learning, as well as to strengthen the ADRC member network. After the survey missions, survey reports will be compiled by the reviewer teams and sent to the countries reviewed as well as other ADRC member countries to facilitate information sharing.

ADRC would like to express its sincerest gratitude to all of those who have made valuable contribution to this year's project.

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