

# **NATIONAL DISASTER MANAGEMENT AUTHORITY**

Government of India

NDMA Bhawan

A-1 Safdarjung Enclave, New Delhi – 110029

## **PRESS RELEASE**

### **Seismic Retrofitting Policy for India and Unsafe Open Ground Storey RC Buildings**

#### **Brainstorming Session at NDMA**

Shri M. Shashidhar Reddy, Vice Chairman, National Disaster Management Authority chaired a day-long Brainstorming Session on 22<sup>nd</sup> June with technical experts on drafting of a Seismic Retrofitting Policy for the Country. The meeting which lasted nearly 7 hours also focused on the current trend in construction of open ground storey RC buildings in India, which are unsafe during earthquakes. Members of NDMA Shri B. Bhattacharjee, Dr. Muzaffar Ahmad and Secretary, NDMA Shri Noor Mahmud also participated in the meeting.

This initiative is a follow up to the recent special meeting of NDMA chaired by the Hon'ble Prime Minister to discuss about India's preparedness in the wake of recent triple disasters in Japan.

In the meeting, Shri Reddy highlighted that there is almost no practice of seismic retrofitting in the country. He said that there are perhaps lakhs of 5 storeyed buildings in cities and towns in seismic zone IV and V. 7 out of 17 metros in the cities are in these zones may not have the requisite seismic resistance. Collapse of many buildings including lifeline buildings such as Hospitals during past earthquakes in moderately vulnerable seismic zone, though considered to be relatively safer, reveals the vulnerability of existing building stock of the country. Therefore, there is a need for a policy and guidelines for retrofitting in the country, he said. The day-long discussion by IIT's technical experts for such a policy

mainly focused on vision for such a policy, implementing strategy and guidelines. The technical experts decided to come out with the zero draft on the issue by 15<sup>th</sup> July 2011.

In the second half of the session, experts discussed about rolling out a special strategy for earthquake risk mitigation in Open Ground Storey RC Buildings being rampantly built in India, which are vulnerable during earthquakes. Shri Reddy, while expressing his concern, informed the technical experts that a special class of multi-storied buildings has been constructed in recent times across the country, and still being constructed, which have special features of open ground storey for the purpose of parking and other conveniences of flat owners with narrow columns and prescriptive construction. Construction of these buildings do not often comply with existing BIS codes for earthquake safety, incurring huge risk during earthquakes. Vice Chairman, Shri Reddy urged the technical experts to come out with simple technical solutions for remedial measures that should be propagated for addressing the vulnerability of such vulnerable building stock in the country. While this may take some time, he suggested that the technical experts should prescribe do's and don'ts in simplified & illustrative manner for future construction of such buildings. These solutions will be further disseminated by NDMA country-wide to reduce earthquake vulnerability of open-ground storied buildings, besides asking the States to ensure that building construction plans are in conformity with earthquake resistant features. Shri Reddy also suggested that separate section must be introduced in IS:1893 to address these concerns.

During this day-long discussion, technical experts of IIT Madras, IIT-Delhi, IIT-Bombay, IIT-Roorkee, Central Building Research Institute, Roorkee, Structural Engineering Research Centre, Chennai, Building Material Technology Promotion Council, Central Public Works Department, hospital design expert of Ministry of Health & Family Welfare and experts of leading builders, developers, NGOs participated. At the end of the meeting Joint Secretary (Mitigation), Mr. P.K. Thripathi gave a vote of thanks to the participants.