

**GOVERNMENT OF INDIA
HOUSING AND URBAN POVERTY ALLEVIATION
LOK SABHA**

UNSTARRED QUESTION NO:5150
ANSWERED ON:08.05.2012
RESEARCH ON EARTHQUAKE RESISTANT BUILDINGS
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Will the Minister of HOUSING AND URBAN POVERTY ALLEVIATION be pleased to state:

- (a) whether any studies/researches pertaining to build earthquake resistant buildings have been made by various research laboratories/ institutions;
- (b) if so, the progress made in this regard so far;
- (c) the action taken by the Government on the basis of these findings;
- (d) whether the Government has used anti seismic technology in Government buildings in the country; and
- (e) if so, the details thereof and if not, the reasons therefor?

Answer

THE MINISTER OF HOUSING & URBAN POVERTY ALLEVIATION (KUMARI SELJA)

(a): The following research laboratories / institutions undertake studies/researches pertaining to build earthquake resistant buildings:
Department of Earthquake Engineering in Indian Institute of Technology (IIT)Roorkee.

IITs at Kanpur, Mumbai, Madras

Central Building Research Institute (CBRI), Roorkee

Structural Engineering Research Centre (SERC), Chennai.

WadiaInstitute of Himalayan Geology, Dehradun.

National Geophysical Research Institute, Hyderabad

Geological Survey of Indian (GSI), Kolkata

Ministry of Earth Sciences.

(b) This Ministry does not have latest information about the progress by various institutions in this regard.

(c): Findings of R&D work related to Earthquake Resistant Buildings is reflected in various National Building Codes/ Indian Standard Codes brought out by Bureau of Indian Standards. Indian codes, developed by Bureau of India Standards (BIS)however are not mandatory.

'Land' and 'colonisation', being state subjects, mandatory adoption of anti seismic technology in buildings is governed by Town & County Planning Act, Development Control Rules and Building Byelaws of respective states.

However, Ministry of Home Affairs had setup in 2004, an expert Group to prepare model Building Byelaws and Zoning regulations for safety against natural hazard with special emphasis to earthquake hazard. These amendments, inter-alia, suggested mandatory use of codes related to earthquake resistant construction for design and construction of buildings. It was advocated that States bring in necessary amendments in their Acts, Rules and Byelaws to make these mandatory.

Subsequently Workshops were organized by Building Materials and Technology Promotion Council (BMTPC) on the behalf of Ministry of Home Affairs, in States / UTs to disseminate the information contained in the above recommendations.

With the enactment of Disaster Management Act in 2005, National Disaster Management authority headed by Hon'ble Prime Minister was set up by Government to spearhead and implement a holistic and integrated approach to Disaster Management in India. The National Disaster Management Authority (NDMA) has issued Earthquake Guidelines envisaging State Governments to review and revise the Town & country Planning Act, land use zoning regulations, Building Bye-laws and Development Control Rules.

(d) & (e): Generally the Government buildings are designed and constructed by government agencies like Central Public Works Department / State Public Works Departments etc. It is expected that these agencies follow relevant Indian Standard Codes including Codes related to earthquake resistant construction for design and construction of buildings.