

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
RAJYA SABHA  
UNSTARRED QUESTION No. 169  
TO BE ANSWERED ON THURSDAY, FEBRUARY 25, 2016**

**Vulnerability of Delhi to earthquake**

**169. SHRI PARVEZ HASHMI:**

**Will the Minister of EARTH SCIENCES be pleased to state:**

- (a) how vulnerable is Delhi to major earthquake like Nepal and whether Delhi is designated as a category four seismic zone;**
- (b) whether safety awareness campaign is being rendered by Government in preparing citizens to respond to such situations;**
- (c) whether Government is doing enough to ensure compliance by building developers; and**
- (d) whether affordable housing policies by various State Governments have enough checks and balances to address the issue around earthquakes?**

**ANSWER**

**MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND  
MINISTRY OF EARTH SCIENCES  
(SHRI Y. S. CHOWDARY)**

- (a) Yes Sir. As per Bureau of Indian Standards [IS-1893 (Part- 1): 2002], based on the past seismic history, Delhi lies in Zone-IV that has fairly high seismicity where the general occurrence of earthquakes is of 5-6 magnitude and occasionally of higher magnitude. Delhi lies among the high-risk areas.**
- (b) The Government has implemented various programmes to educate and raise awareness amongst school children and general public on various aspects of earthquakes, their impacts and measures to mitigate losses. The Government has implemented various programmes to educate and raise awareness amongst school children and general public on various aspects of earthquakes, their impacts and measures to mitigate losses.**

**Following awareness programmes are organized by the Government in preparing communities to respond the earthquake:**

- Earthquake information located by Earth system science organization-National Centre of Seismology (ESSO- NCS) is put on its website for public in general.**
- School children from different school of NCR region visit the facilities at ESSO-NCS and get first hand information on earthquake monitoring in the country.**

- **School children also visit to the seismological observatories located in different parts of the country.**
- **ESSO-NCS is regularly participating in MoES exhibition stall at India International Trade Fair(IITF), New Delhi and in Indian National Science Congress yearly event by putting a exhibition stall in seismology under MoES banner for visitors.**

**The National Disaster Management Authority (NDMA) has also issued National Disaster Management Guidelines on Management of Earthquakes' which contains roles and responsibilities of all stakeholders for effective management of earthquake disaster risk. NDMA runs awareness campaigns on Earthquake through electronic media Doordarshan, All India Radio, Private TV channels, FM Channels, digital cinemas, 139 - Railway Enquiry and print media. Multi State Mega Mock exercises are conducted at regular intervals for creating awareness. Every year during India International Trade Fair (IITF) in Delhi, awareness is disseminated among general public by displaying panels on Do's and Don'ts on Earthquakes and by holding live demonstrations on earthquake by National Disaster Response Force (NDRF).**

- (c)-(d) Guidelines have been published by the Bureau of Indian Standards (BIS), Building Materials & Technology Promotion Council (BMTPC), Housing and Urban Development Corporation (HUDCO) and National Disaster Management Authority (NDMA) for the design and construction of earthquake resistant structures to minimize the loss of life and damage to property caused by earthquakes. Loss of life and damage of property due to earthquakes could be considerably reduced through proper planning and implementation of pre- and post-disaster preparedness and management strategies by respective State and Central Government agencies in a coordinated manner following the above mentioned guidelines. These studies involving preparation of geological, geomorphological and land use maps followed by drilling, geological logging, standard penetration test and geophysical studies to demarcate the zones of least to most damage prone areas within the urban areas so as to helps the respective town and country planning agencies to formulate perspective planning within the overall earthquake impact minimization efforts.**

**Based on the above steps it is mandatory for all infrastructure/building/ development agencies (Public and Private) to design appropriate earthquake resistant building plans based on the relevant BIS Codes and other guidelines of BMTPC, HUDCO and NDMA for across the country.**