## GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES LOK SABHA

### UNSTARRED QUESTION No. 1191 TO BE ANSWERED ON WEDNESDAY, NOVEMBER 23, 2016

#### **SEISMIC MICROZONATION**

#### 1191. SHRI BAIJAYANT JAY PANDA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government has recently released a report on Seismic Microzonation for Delhi and Kolkata;
- (b) if so, the details thereof;
- (c) whether the Government proposes to release the Seismic Microzonation report for other Eastern States like Odisha;
- (d) if so, the details thereof and if not, the reasons therefor; and
- (e) the instructions issued or likely to be issued for construction of houses/ buildings in high seismic zone areas?

#### **ANSWER**

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

- (a) Yes Madam. The government has released detailed report on Seismic microzonation of National Capital Territory (NCT) Delhi and Kolkata in February 2016.
- (b) The Seismic hazard microzonation of Delhi and Kolkata has been completed at 1:10,000 and 1:25,000 scale, respectively. A number of parameters, e.g., soil liquefaction, geology, geomorphology, engineering bed rock, depth of basement, shear wave speed, depth of ground water table, peak ground acceleration, etc. have been considered. The two report are available at <a href="http://moes.gov.in/latestnewspage">http://moes.gov.in/latestnewspage</a>.

Based on above study, the two urban areas are divided into four hazard zones, namely; Least, Moderate, High and Very High.

(c-d) National Centre of Seismology (NCS) has proposal to carry out seismic microzonation of thirty more cities in the country which includes Cuttack and Bhubaneshwar city of Odisha.

(e) Bureau of Indian Standards (BIS) has published several guidelines and building codes for construction of earthquake resistant structures and for retrofitting of existing buildings. These guidelines are widely used by various administrative regulatory authorities responsible for ensuring the design and construction of earthquake resistant structures in various states.

National Disaster Management Authority (NDMA), Ministry of Home Affairs (MHA), Ministry of Earth Sciences and other state Disaster Management Authorities, have also taken up various initiatives to educate and enhance awareness amongst general public and school children on the general aspects of earthquakes, their impacts and measures to mitigate losses caused by them. A National Disaster Response Force (NDRF) is also functional under the general superintendence, direction and control of the NDMA for the purpose of specialized response to natural and man-made disasters.

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