

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 2611
TO BE ANSWERED ON MONDAY, MARCH 19, 2018**

STUDY OF SEISMIC ACTIVITIES IN HIMALAYAN REGION

2611. SHRI NARAYAN LAL PANCHARIYA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (d) whether Government has conducted any study as regards the seismic activity in the Himalayan region in recent times;**
- (e) if so, the details thereof and if not, the reasons therefor;**
- (f) whether Government has assessed the States vulnerable to seismic activity in the Central Seismic Gap;**
- (g) if so, the details thereof and if not, the reasons therefor; and**
- (h) details of the long-term measures being taken to minimize damage due to any probable high intensity seismic activity?**

ANSWER

**MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY
AND MINISTRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

- (a)-(b) Yes Sir. The whole of Himalayan belt is considered as one of the most seismically active intra-continental regions of the world. This region has witnessed several moderate to great magnitude earthquakes and a few very great ($M > 8.0$) earthquakes along its about 2400 km long belt. The seismicity in the region is mainly attributed to the Main Himalayan Thrust along which Indian plate under thrusts beneath the Himalayan wedge. The prominent earthquakes in this region are Shillong Plateau 1897(M:8.1), Kangra 1905 (M:7.8), Bihar-Nepal Border 1934(M:8.3), Arunachal - China border 1950(M:8.5).**
- (c)-(d) The seismic hazard analysis for the whole country has been done. Under the aegis of Bureau of Indian Standard (BIS) [IS 1983 (Part I):2002], seismic hazard vulnerability of the country has been assessed and the seismic zoning map covering whole of India has been prepared. The country is grouped into four seismic zones viz. Zone-II, -III, -IV and -V. Of these, Zone V is seismically the most prone region, while Zone II is the least. The Garwal Kumaun Himalaya region lies in seismic zone IV and V.**

- (e) **Guidelines have been published by the Bureau of Indian Standards (BIS), Building Materials & Technology Promotion Council (BMTPC) and Housing and Urban Development Corporation (HUDCO) etc. for the design and construction of earthquake resistant structures to minimize the loss of life and damage to property caused by earthquakes. These guidelines are in wide circulation amongst the public and the administrative authorities responsible for the design and construction of earthquake resistant structures in earthquake prone areas.**

The National Centre for Seismology (NCS) / Ministry of Earth Sciences (MoES) maintains a National Seismological Network of 102 seismic observatories to monitor earthquake activity in and around the country. On occurrence of earthquake, the information is disseminated to the concern State / Central disaster management authorities for relief and rehabilitation measures. The earthquake information is also made available on IMD website and on mobile App India Quake.
