

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 2417
TO BE ANSWERED ON TUESDAY, DECEMBER 10, 2019**

TECHNOLOGY TO FORECAST EARTHQUAKE

2417. SHRI RIPUN BORA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the country has its own method or technology to forecast any intense shaking of Earth's surface apart from the instrument of seismometer, if so, the details thereof;**
- (b) whether it is also a fact that we have no such satellite system and information recorder to get advance report of unnatural earthquake thereof;**
- (c) if so, whether we have any tie up with foreign country/countries to get advance information, time, location and intensity of an earthquake therein; and**
- (d) if so, the details thereof and if not, plan details of Government therefor?**

ANSWER

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

- (a) No Sir. At present, there is no scientific technique available, anywhere in the world, to predict/forecast the occurrence of earthquakes with reasonable degree of accuracy in terms of space, time and magnitude. National Centre for Seismology (NCS), an attached office of Ministry of Earth Sciences (MoES) maintains a seismological network of 115 stations for round the clock continuous monitoring of seismic activity in and around the country.**
- (b) Yes Sir, there is no satellite system to get advanced reports on earthquakes.**
- (c) No Sir.**
- (d) Steps have been taken up to prepare seismic zonation map at large scale based on historical seismicity and site characteristics. Bureau of Indian Standard has published seismic zoning map of India. As per this map, entire country is grouped into four seismic zones viz. Zone II, III, IV and V; out of these Zone V is seismically the most prone region, while Zone II is the least. Also Seismic Microzonation i.e. detailed hazard zonation at small scale of selected urban areas like Delhi, Kolkata, Sikkim, Guwahati and Bengaluru has been completed. The reports of Delhi and Kolkata Microzonation are available on website of MoES. These studies are useful for land use, urban planning, and retrofitting of buildings etc.**
