

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYASABHA
STARRED QUESTION NO. *69
ANSWERED ON 08/02/2024

Study to understand frequent earthquakes in the country

69 Shri Rajeev Shukla:

Will the Minister of **Earth Sciences** be pleased to state:

- (a) whether Government has conducted a study to understand the frequent earthquakes affecting the country lately;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) the details of measures being taken by Government in order to reduce the vulnerability and risk involved in this respect; and
- (d) the proposed measures to be taken thereof?

ANSWER
THE MINISTER OF EARTH SCIENCES
(SHRI KIREN RIJJU)

(a) to (d): A statement is laid on the table of the House.

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF RAJYA SABHA
STARRED QUESTION NO. *69 REGARDING 'STUDY TO UNDERSTAND
FREQUENT EARTHQUAKES IN THE COUNTRY' FOR ANSWER ON 8.2.2024**

- (a) Yes Sir. The National Centre for Seismology (NCS), under the Ministry of Earth Sciences is the nodal agency of Government of India (GoI) for monitoring and studying earthquakes occurrences in and around the country through its National Seismological Network (NSN) consisting of 159 observatories spread across the country.
- (b) Continuous 24/7 monitoring reveals that earthquakes occurrence across the country are common, especially in regions prone to tectonic movements such as the Himalayan collision zone and the subduction zones in Andaman & Nicobar (A&N) Islands. These seismically active areas include parts of Jammu & Kashmir, Himachal Pradesh, the entire north-eastern region, the Kutch area and the A&N Islands, all of which fall under Seismic Zone V, as per the seismic zoning map of India published by the Bureau of Indian Standards. These areas consistently experience earthquakes time to time. The apparent increase in earthquake frequency is attributed to the enhanced capabilities of the National Seismological Network, which now effectively identifies lower magnitude earthquakes, a significant improvement from the detection capabilities a decade ago. Therefore, the background level of seismicity has remained stable over time, indicating no significant increase in the frequency of earthquakes.
- (c and d) The Bureau of Indian Standards (BIS) has provided comprehensive building codes and land-use policies towards earthquake-resistant construction, with a specific focus on the diverse seismic zones of India. Also, National Disaster Management Authority (NDMA) is mandated to lay down the policies, plans and guidelines for Disaster Management; has published detailed Guidelines on Earthquakes, aiming to support the nation's preparedness and response strategies for seismic events. These guidelines are supported by regular training programs and drills organized by the NDMA, involving both officials and the public, especially in high-risk areas, to ensure heightened community resilience and an efficient response mechanism during earthquakes. In parallel, the National Centre for Seismology (NCS) is involved in seismic hazard microzonation studies. These studies involve meticulous on-the-ground assessments and lead to the development of microzonation maps. Such maps provide a detailed representation of the variations in earthquake hazard levels within specific, small geographic regions of cities, offering valuable insights for risk assessment and urban planning.
