

**GOVERNMENT OF INDIA**  
**MINISTRY OF EARTH SCIENCES**  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 454**  
**TO BE ANSWERED ON WEDNESDAY, 27<sup>TH</sup> NOVEMBER, 2024**

**STUDY ON FREQUENT EARTHQUAKES**

454. DR. NISHIKANT DUBEY:

Will the Minister of Earth Sciences be pleased to state:

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

**ANSWER**

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR  
MINISTRY OF SCIENCE AND TECHNOLOGY  
AND EARTH SCIENCES  
(DR. JITENDRA SINGH)

(a) and (b) Yes. The National Centre for Seismology (NCS) under the Ministry of Earth Sciences monitors and reports seismic activity nationwide through the National Seismic Network of 166 stations. Details of earthquakes are available on the website of NCS ([seismo.gov.in](http://seismo.gov.in)). Several studies have been conducted to understand the science of frequent earthquakes affecting the country, which include detailed Seismic Microzonation studies conducted in selected urban areas to understand local site effects, trend analysis of earthquake occurrences, etc. So far, such microzonation has been completed for Delhi, Kolkata, Gangtok, Guwahati, Bengaluru, Bhubaneswar, Chennai, Coimbatore and Mangalore.

Besides, continuous data collection and analysis of historical earthquakes is done by NCS-MoES for better understanding of seismic patterns and source processes. Additionally, based on historical seismicity, Bureau of Indian Standards (BIS) has developed a seismic zoning map of India, which classifies regions based on their earthquake risk, a vital aspect for urban planning and construction practices.

(c) and (d) Several measures are taken to mitigate the risks associated with earthquakes which include expansion of Seismic Monitoring Networks to ensure timely detection on earthquakes and dissemination of alerts, assigning the building codes by BIS for earthquake-resistant design and construction, particularly in high-risk zones, conducting awareness and Training Programs to educate the public about earthquake preparedness, including drills and awareness campaigns by National Disaster Management Authority (NDMA) and National Institute of Disaster Management (NIDM) under Ministry of Home Affairs, and developing emergency response and disasters management plans at state and district-level.

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