GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOKSABHA
UNSTARRED QUESTION NO. 2340
TO BE ANSWERED ON WEDNESDAY, 21st DECEMBER, 2022

AREAS PRONE TO EARTHQUAKES

2340. SHRI GNANATHIRAVIAM S.:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether it is a fact that the coastal areas of the country is prone to earthquakes, if so, the details thereof;
(b) whether the previous records proves this fact, if so, the details in this regard;
(c) whether the Government is considering to set up a research centre in one of the coastal locations for the same; and
(d) if so, the details thereof?

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

(a) Yes Sir, the coastal areas of India are prone to earthquakes of varying degrees of intensities. The coastal areas of India are also vulnerable to the effects of tsunamis that are likely to be triggered by large magnitude under-sea earthquakes from the two potential earthquake sources viz., the Andaman-Nicobar-Sumatra arc region and the Makran coast in the north Arabian sea region.

(b) Based on past records of earthquakes and various other scientific inputs from a number of agencies, Bureau of Indian Standards [**IS-1893 (Part-1): 2002**], has grouped the country into four seismic zones viz. Zone-II, -III, -IV and –V, of varying degrees of expected seismic intensities. Of these, Zone V is the most seismically prone region, while zone II is the least. As per this seismic zoning, the various coastal areas fall in different seismic zones as per details given below:

Coastal Areas	**Seismic zones**
Entire coastal areas of Andaman and Nicobar Islands	V
Coastal areas of Gujarat	V, IV & III
Entire coastal areas of Daman & Diu	III
Coastal areas of Maharashtra	IV & III
Entire coastal areas of Goa, Karnataka, Kerala & Lakshadweep	III

Coastal areas of Tamil Nadu	III & II
Entire coastal areas of Pondicherry	II
Coastal areas of Andhra Pradesh	III & II
Coastal areas of Odisha	III & II
Coastal areas West Bengal	IV & III

(c) & (d) In the aftermath of the Great Sumatra earthquake of 26th December, 2004, Ministry of Earth Sciences had already set up a state-of-the-art Early Warning System for Tsunamis in the Indian Ocean region at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, to deal with all the issues related to tsunami disasters. Also,National Centre for Seismology (NCS) under Ministry of Earth Sciences is mandated to monitor earthquakes occurring in and around the country. For this purpose, NCS maintains a National Seismological Network (NSN) consisting of 152 observatories spread across the country. The information of earthquakes reported by NCS is disseminated to the concerned central and state disaster authorities in least possible time to initiate the adequate mitigation measures through its website and other social media platforms. The detailed information of the earthquakes is also available on the website of NCS (seismo.gov.in).Ministry of Earth Sciences (MoES) is also supporting a number of R&D related projects through various research and academic institutions in the country, for better understanding of earthquake and tsunami generation related processes, towards better preparedness and planning measures in future.

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