GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 3388
TO BE ANSWERED ON MONDAY, MARCH 26, 2018

MONITORING, MAPPING AND SHARING OF SEISMIC DATA

3388. DR. VIKAS MAHATME:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) the existing facilities for monitoring and mapping seismic activity and management of earthquake released data and sharing it with all the stakeholders in the country;
(b) whether Government proposes to assign seismic hazard risk mapping work at micro level to the Geological Survey of India (GSI);
(c) if so, the details thereof including the zones likely to be covered and the reasons for assigning the task to GSI;
(d) whether any time-frame has been set for this purpose and if so, the details thereof; and
(e) the other steps taken by Government to identify earthquake prone areas by monitoring seismic activities?

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

(a) National Centre for Seismology (NCS), Ministry of Earth Sciences maintains a country wide national seismological network consisting of 102 seismological observatories till date, to detect and locate earthquakes occurring in and around the country in real time mode. The network consists of state-of-art digital broadband seismographs, VSAT based communication systems and latest tools for dissemination of earthquake information to the concerned disaster management authorities and other user agencies in least possible time. The network also includes a 17-station real time seismic monitoring system to monitor and report large magnitude earthquakes capable of generating tsunamis on the Indian coastal regions. A tsunami early warning system is also in place at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad to provide early warning on tsunamis likely to be generated on the Indian Coastal and adjoining areas by large magnitude under sea earthquakes. The earthquake data thus generated is archived for future use in earthquake hazard and other related studies and to share it with other stakeholders.

(b)-(c) **NCS has plan for seismic microzonation of 30 cites lying in seismic zone III, IV and V and having population more than half a million (Annex-1). The project is under implementation. The seismic microzonation of NCT Delhi and Kolkatta has been completed. The base seismological, geophysical and seismotectonics maps of Geological Survey of India and related data is used in the seismic microzonation studies.**

(d) **The present seismic microzonation project for 30 cities is expected to be completed by FY 2021-22.**

(e) **Bureau of Indian Standard (BIS) is the nodal agency in seismic hazard assessment and zoning of the country. Based on various scientific inputs from a number of agencies, the present seismic hazard and zoning map of the country has grouped it 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 [IS 1983 (Part I):2002] (Annex-2).**

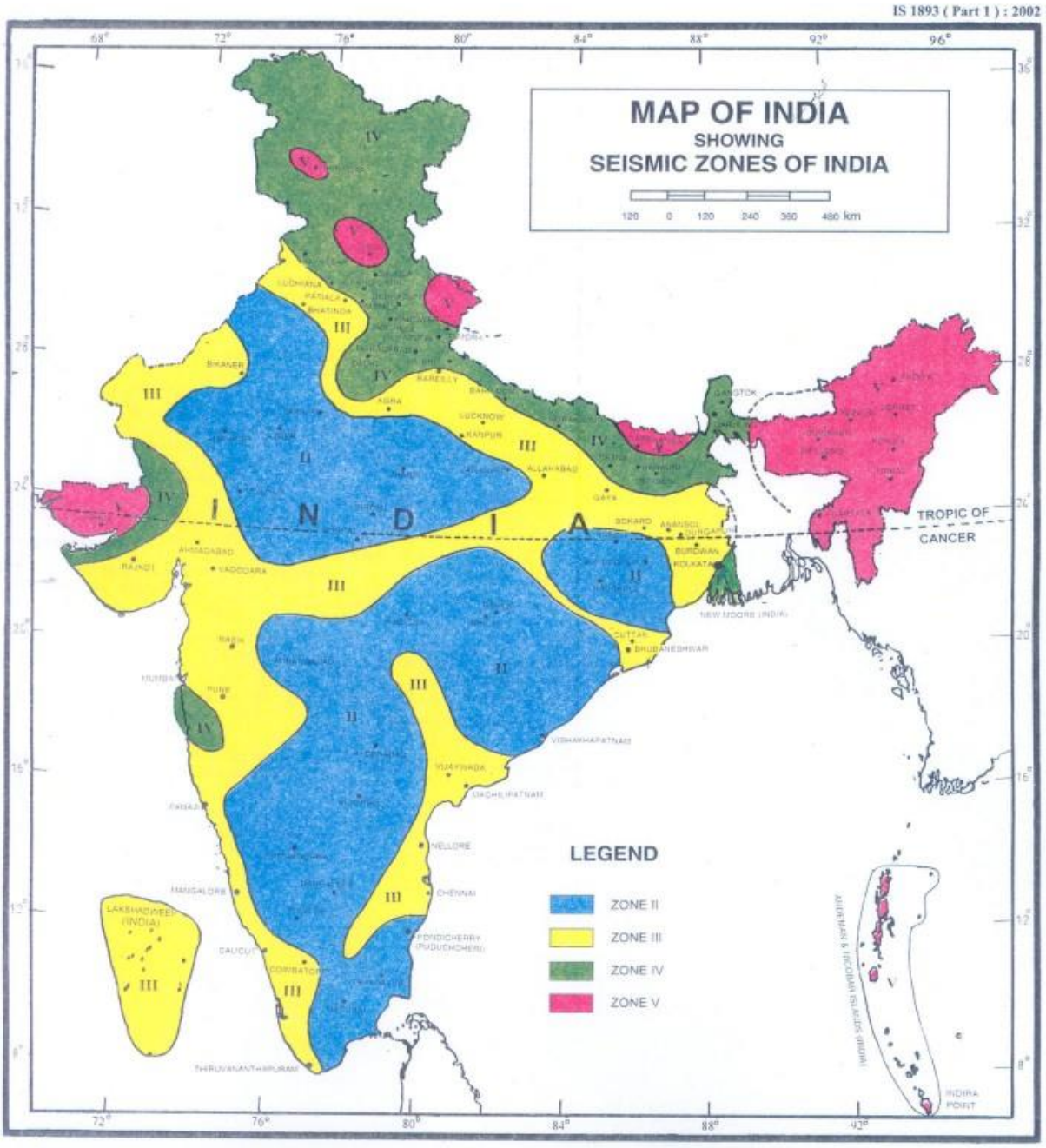
Annex-1

List of cities planned for Seismic Microzonation

Sr.No.	City	State	Seismic zone
1.	Srinagar	Jammu & Kashmir	V, IV
2.	Patna	Bihar	IV, III
3.	Meerut	Uttar Pradesh	IV
4.	Jammu	Jammu & Kashmir	IV
5.	Amritsar	Punjab	IV
6.	Jallandhar	Punjab	IV
7.	Bhavnagar	Gujarat	III
8.	Surat	Gujarat	III
9.	Bhiwandi	Maharashtra	III
10.	Nashik	Maharashtra	III
11.	Pune	Maharashtra	IV, III
12.	Bhubaneshwar	Orissa	III
13.	Cuttack	Orissa	III, II
14.	Chennai	Tamil Nadu	III
15.	Asansol	West Bengal	III
16.	Vadodara	Gujarat	III
17.	Coimbatore	Tamilnadu	III, II
18.	Agra	Uttar Pradesh	III
19.	Varanasi	Uttar Pradesh	III
20.	Bareilly	Uttar Pradesh	III
21.	Lucknow	Uttar Pradesh	III
22.	Kanpur	Uttar Pradesh	III
23.	Indore	Madhya Pradesh	III, II
24.	Vijayawada	Andhra Pradesh	III
25.	Dhanbad	Jharkhand	III
26.	Mangalore	Karnataka	III
27.	Kochi	Kerala	III
28.	Kozhikode	Kerala	III
29.	Thiruvanathpuram	Kerala	III
30.	Kolkata (completed)	West Bengal	III, [IV (border)]

Annex-2

Seismic Zone Map of India



NOTE : Towns falling at the boundary of zones demarcation line between two zones shall be considered in High Zone.