Report on Real Time Earthquake Location

From: Earthquake Monitoring Center (EMC) of NCS
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National Center for Seismology
Ministry of Earth Sciences
Government of India

Month: OCTOBER 2026

Technical Report No: NCS/2026/10

Report of Earthquakes occurred in the month of October 2026

1) Introduction:

National Center for Seismology maintains a National Seismological Network of **183 stations** each having state of art equipment and spreading all across the country **(Figure:1).** Using these stations during the period 01st – 31st October 2026 a total number of **550** earthquakes have been located

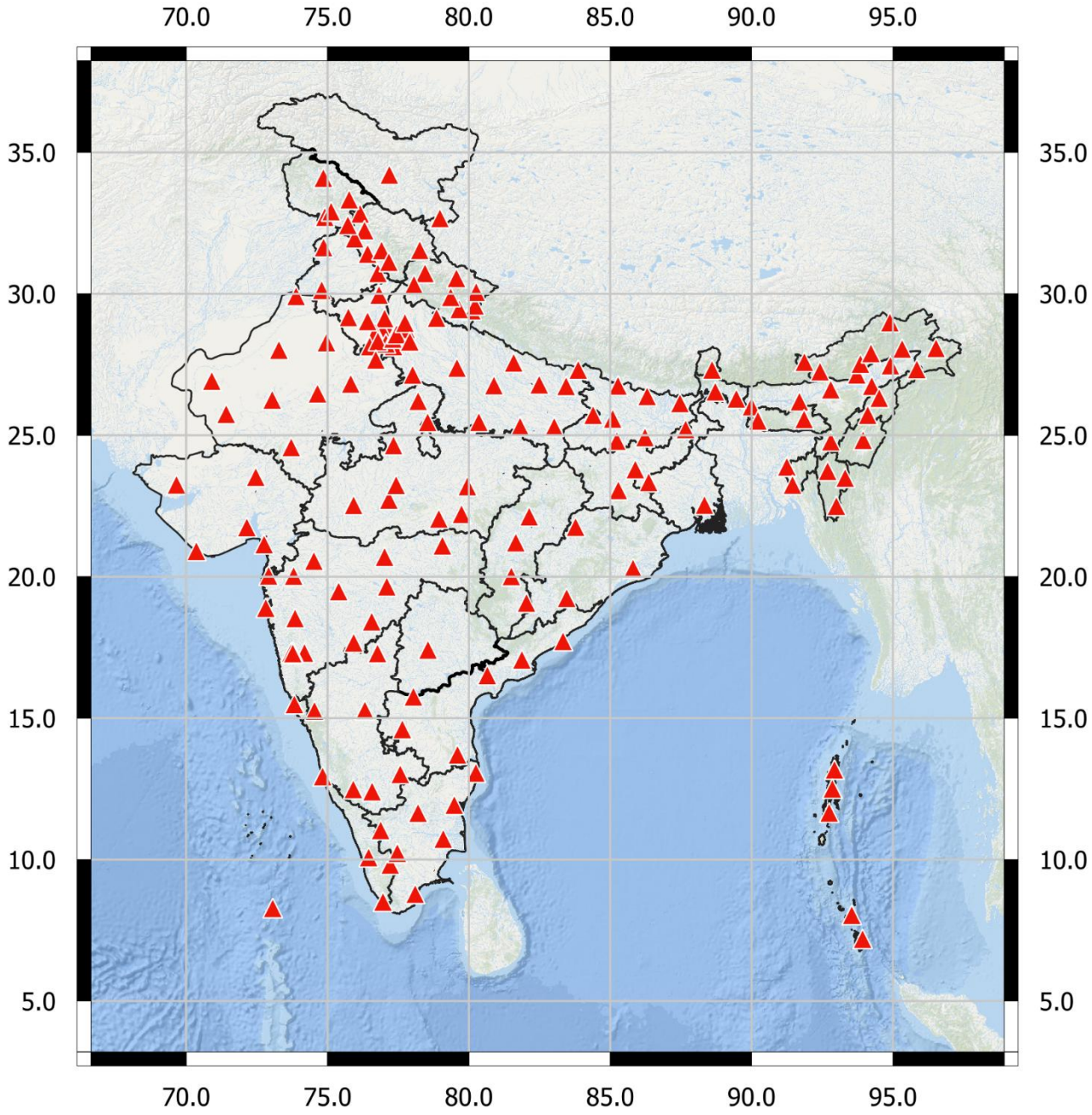


Figure 1: National Seismological Network (NSN) of 177 Stations

and disseminated from the center **(Figure:2)**, out of which **382** earthquakes have occurred in India and its neighborhood region bounded by the coordinates 0˚- 40˚N & 60˚-100˚E **(Figure:3)**.

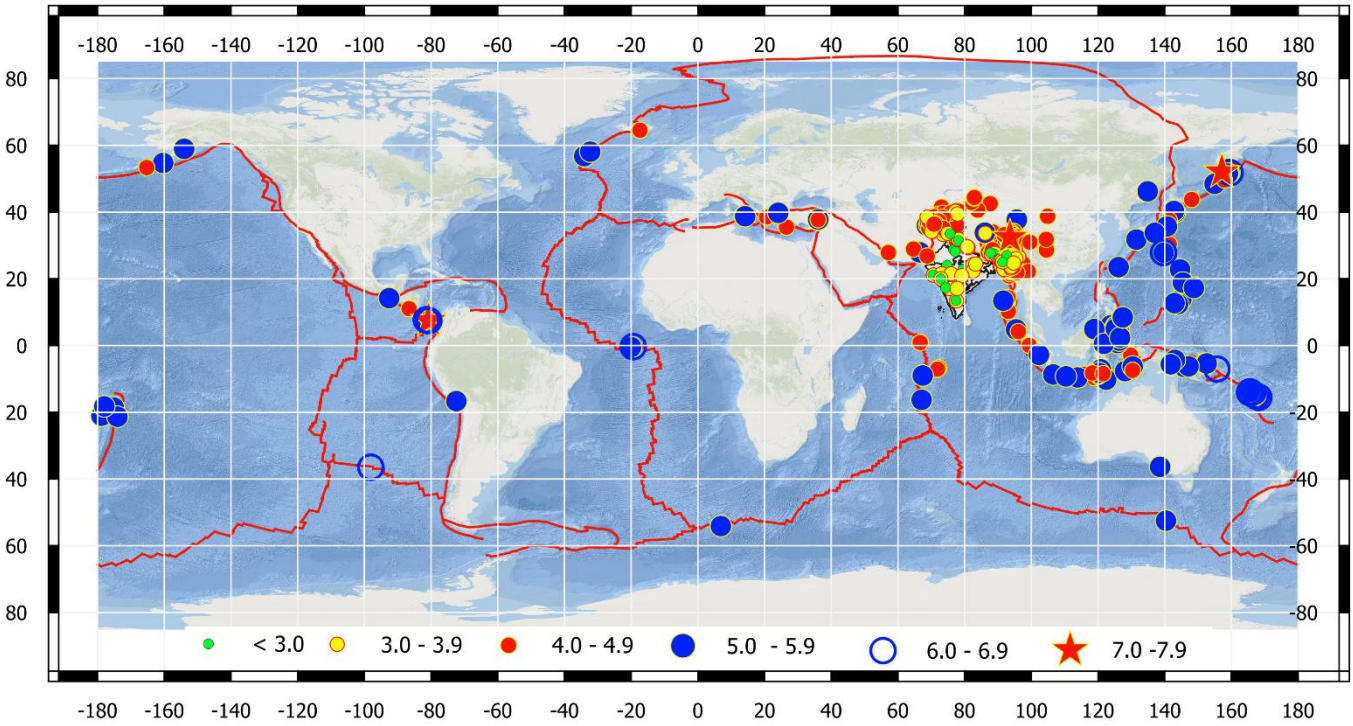


Figure 2: Earthquakes located and disseminated by NCS during 01st –31st October 2026

2) Seismicity:

During the period, the majority of earthquakes within India and its neighbourhood region bounded by the coordinates 0-40^{0}N & 60-100^{0}E; were located in **North-East India** (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura), **North India** (Himachal Pradesh, Uttarakhand, Ladakh, and Jammu-Kashmir) and Hindu Kush region as shown in **Figure 3**.

Other smaller magnitude earthquakes were reported in the **Northern** (Jhajjar, Palwal and Sonipat in Haryana; Sonbhadra in Uttar Pradeshkarna); **Western** (Navsari, Gir Somanath, Bharuch and Valsad in Gujarat; Pratapgarh in Rajasthan; Raigarh, Palghar, Nashik, Hingoli, Sangali, Pune, Chandrapur and Nagpur in Maharashtra); **Central** (Singraulli in Madhya Pradesh; Korba in Chhatisgarh) and **Southern** (Bengaluru Rural and Chikaballpura in Karnatka; Mehbubnagar and Vikarabad in Telengana) part of the country.

Eighty nine earthquakes of smaller magnitude **(M < 3.0)** comprising **16%** of all earthquakes occurred during 01st to 31st October 2026. **Sixteen earthquakes** of magnitude **M:5.0** and above occurred during the month in the region; as detailed in **Table:1.**

Table:1 Earthquakes of M≥5.0 occurred during October 2026 within India and its neighbourhood

S.N.	Date (IST)	Time (IST)	Lat (°N)	Long (°E)	D (Km)	M	Region
1	2026-10-01	06:59:20	35.981	68.7	126	5.3	Afghanistan
2	2026-10-04	05:07:33	4.843	95.424	50	5.4	Indonesia
3	2026-10-17	10:37:00	27.944	66.532	15	5.8	Pakistan
4	2026-10-20	12:11:26	37.73	95.679	90	5.1	China
5	2026-10-22	20:03:42	32.411	93.621	15	7.0	Tibet
6	2026-10-22	20:29:41	32.592	94.217	15	5.2	China
7	2026-10-22	20:42:33	30.473	92.964	15	5.0	Tibet
8	2026-10-22	21:09:20	31.898	93.595	15	5.0	Tibet
9	2026-10-22	21:15:41	33.807	86.09	35	5.0	Tibet
10	2026-10-22	21:27:56	32.514	94.129	15	5.0	China
11	2026-10-24	14:09:59	32.532	93.723	15	5.4	Tibet
12	2026-10-25	16:54:15	32.568	93.92	10	5.2	China
13	2026-10-25	16:56:00	32.488	93.997	10	5.9	China
14	2026-10-25	23:14:22	36.157	71.24	129	5.5	Afghanistan
15	2026-10-28	00:27:54	32.658	93.917	10	5.0	China
16	2026-10-29	14:19:47	13.439	91.6	10	5.0	Bay of Bengal

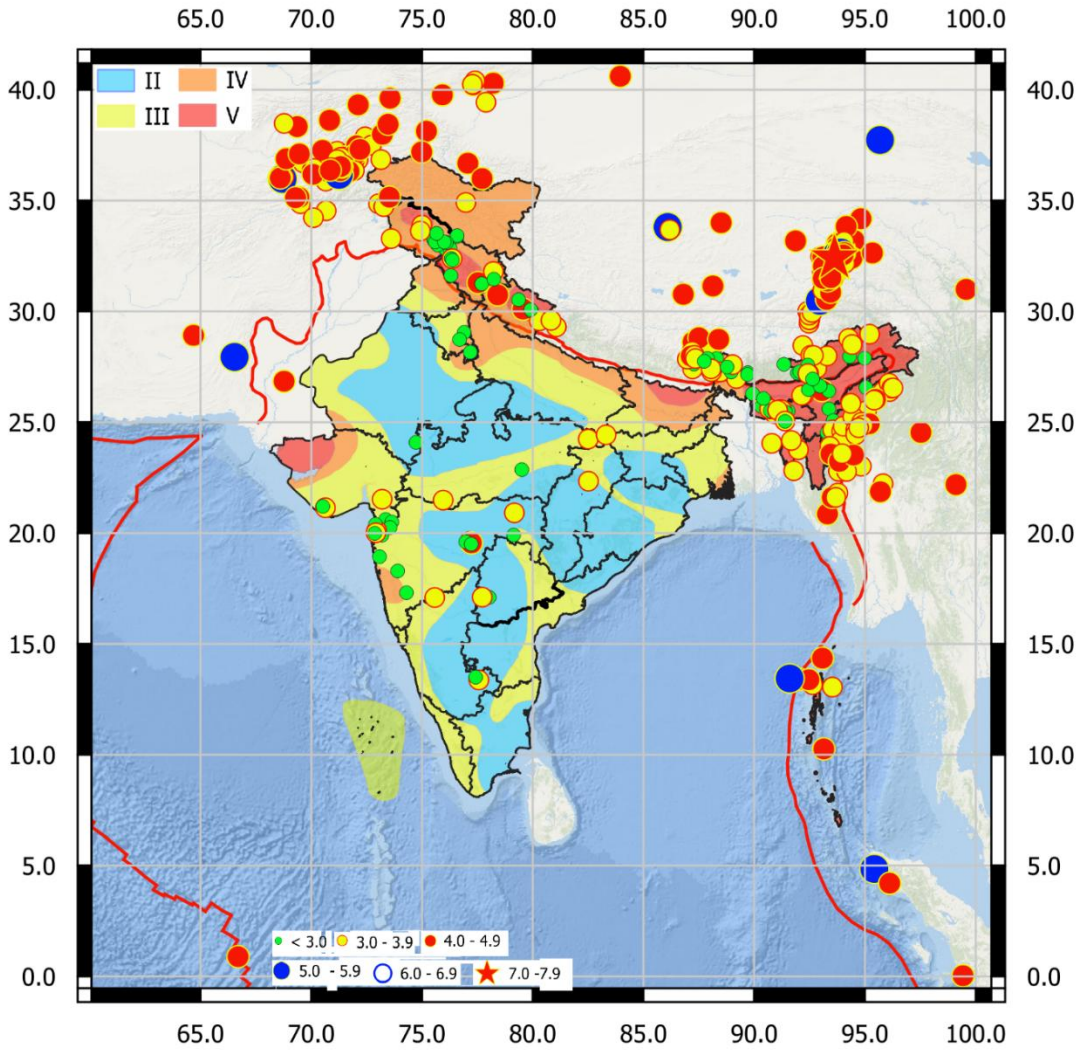


Figure 3: Map showing the seismicity during the period 01st – 31st October 2026 occurred in India and its neighbourhood region along with the seismic zone of India.

Out of total **550** earthquakes **28%**; **31%** and **22%** earthquakes occurred within the magnitude range of **3.0-3.9, 4.0-4.9**, and **5.0-5.9,** respectively**. Sixteen** earthquakes in the magnitude range between **6.0–6.9** occurred**;** were outside the grid **0–40°N** and **60–100°E** and **Three** earthquakes in the magnitude range between **7.0–7.5** occurred**;** were outside the grid **0–40°N** and **60–100°E ;** except Tibet earthquake of **M:7.0** as shown in **Figures 2** and **4(a).** The details of earthquakes occurred during the month is available at www.seismo.gov.in .

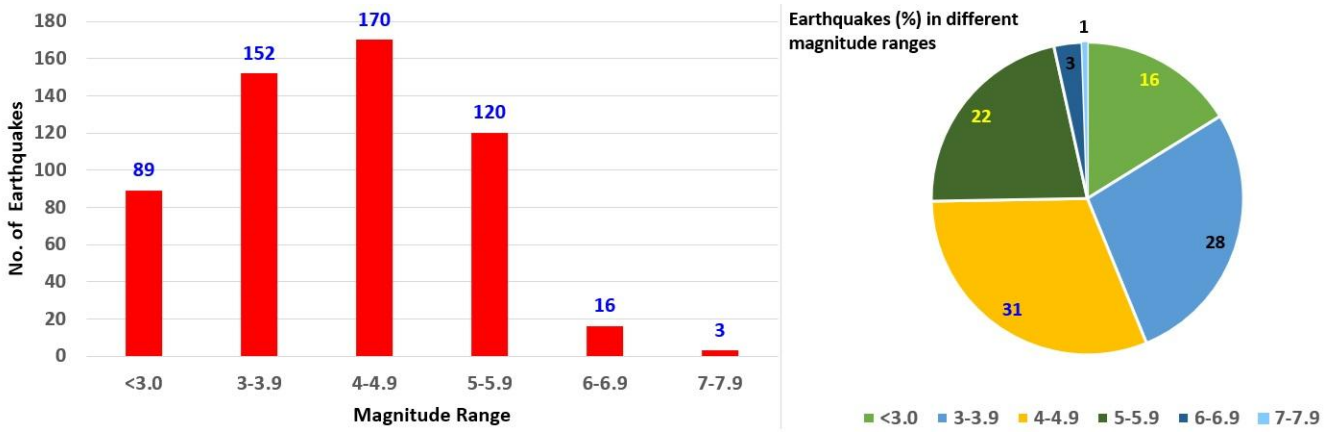


Figure 4 (a): Distribution of earthquakes in the different magnitude range during 01st – 31st October 2026.

There is **positive change** in number of earthquakes in the each magnitude ranges. The change in earthquake occurrence for each magnitude range relative to the previous month is shown in **Figure 4(b)**.

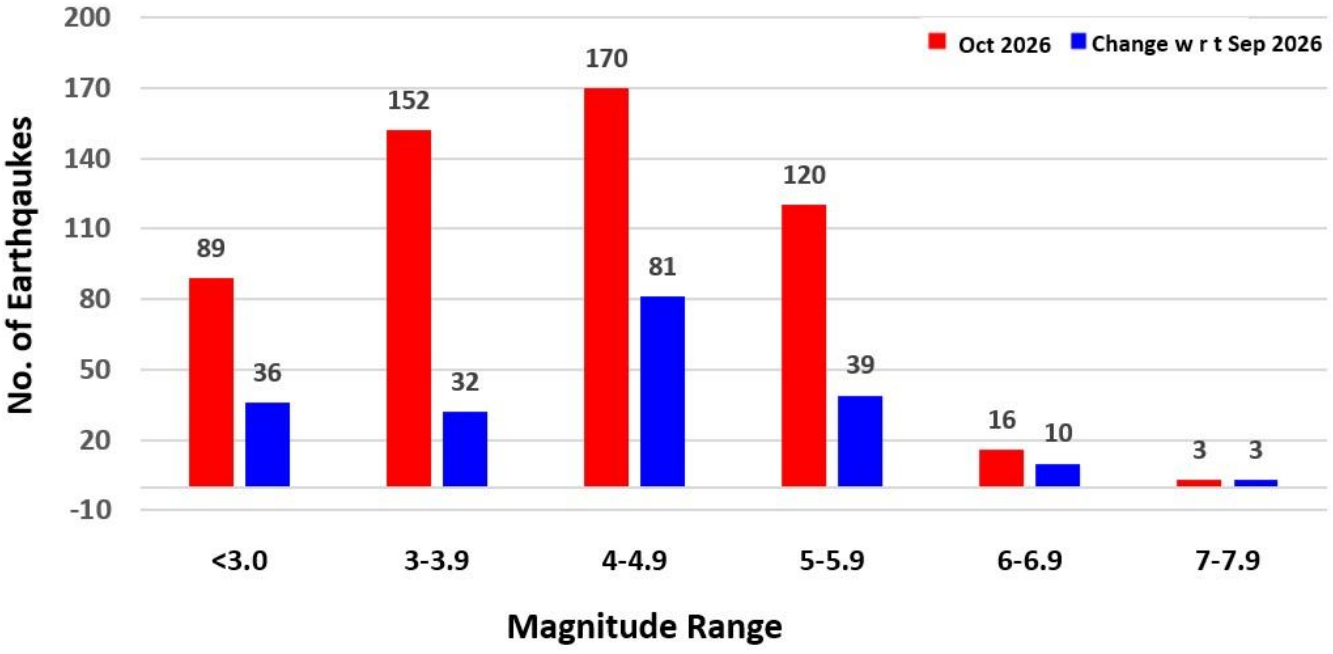


Figure 4 (b): Change of occurrence of earthquakes in different magnitude ranges w.r.t previous month.

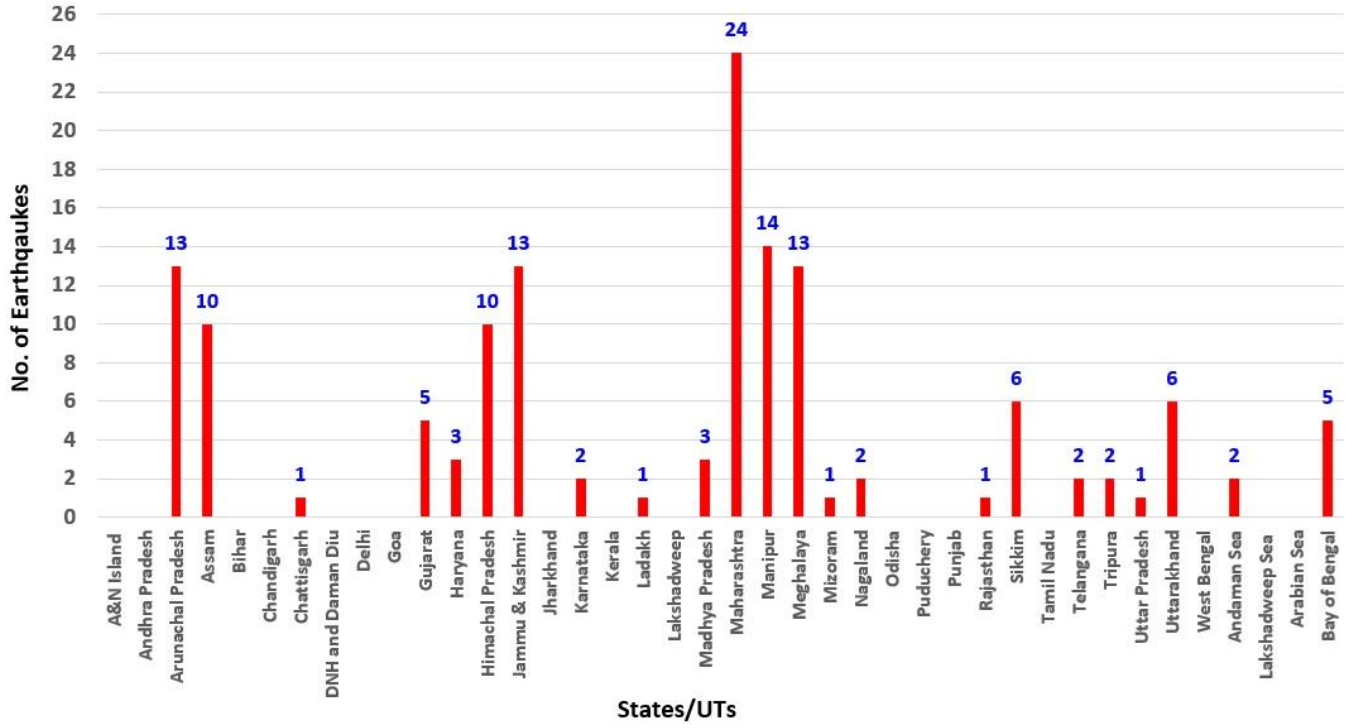


Figure 5: State wise distribution of earthquakes during the period 01st – 31st October 2026.

Total **140** earthquakes occurred within Indian territory; out of which **24** earthquakes occurred in Maharashtra, **14** in Manipur and **13** each in Arunachal Pradesh, Jammu & Kashmir and Meghalaya during the period. Out of 140 earthquakes **34** and **61** earthquakes occurred in **North** and **North-East** region respectively. State/UT and region wise distribution of earthquakes occurred during 01st – 31st October 2026 is shown in **Figure 5** and **Figure 7** respectively**.** There was no activity in eastern part of the country during 01st – 31st October 2026 **(Figure 3** and **Figure 6**).

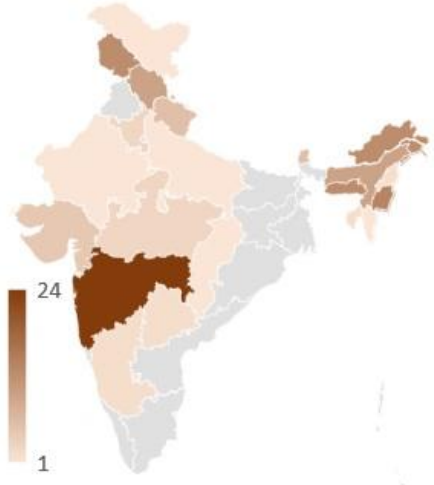


Figure: 6 Earthquake Density map

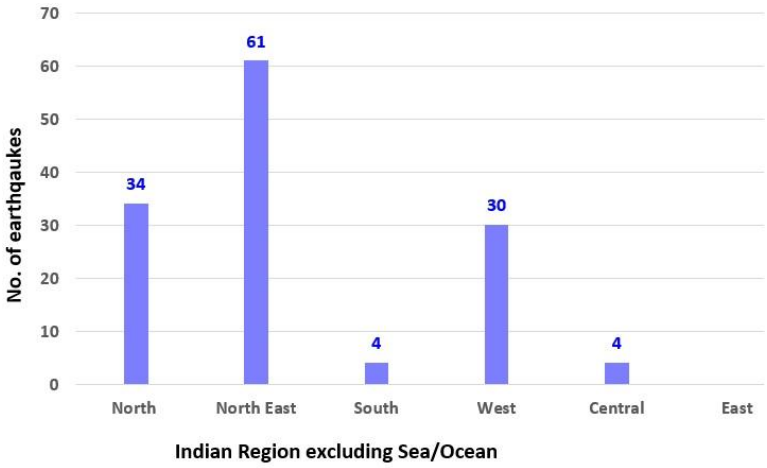


Figure: 7 Region wise distribution

3) Significant Activity:

A. **Tibet Earthquake:** An earthquake of magnitude **M:7.0** occurred on **22nd October 2026** at **20:03:42 IST** in **Tibet,** with the epicentre at **32.411 °N**, and **93.621 °E** at a focal depth of **15 km**. The epicentre was about 540 km N of Ziro and 725 km NE of Guwahati. This earthquake occurred in the collision zone of Indian and Eurasian plate. This earthquake was widely felt in the region. **Figure 8** depicts the expected intensity of this earthquake around the source zone.https://riseq.seismo.gov.in/riseq/earthquake/event/REZibjY2U29LbDNrKzFPQ3krV2RBQT09/Reviewed URL may be visited for more details.

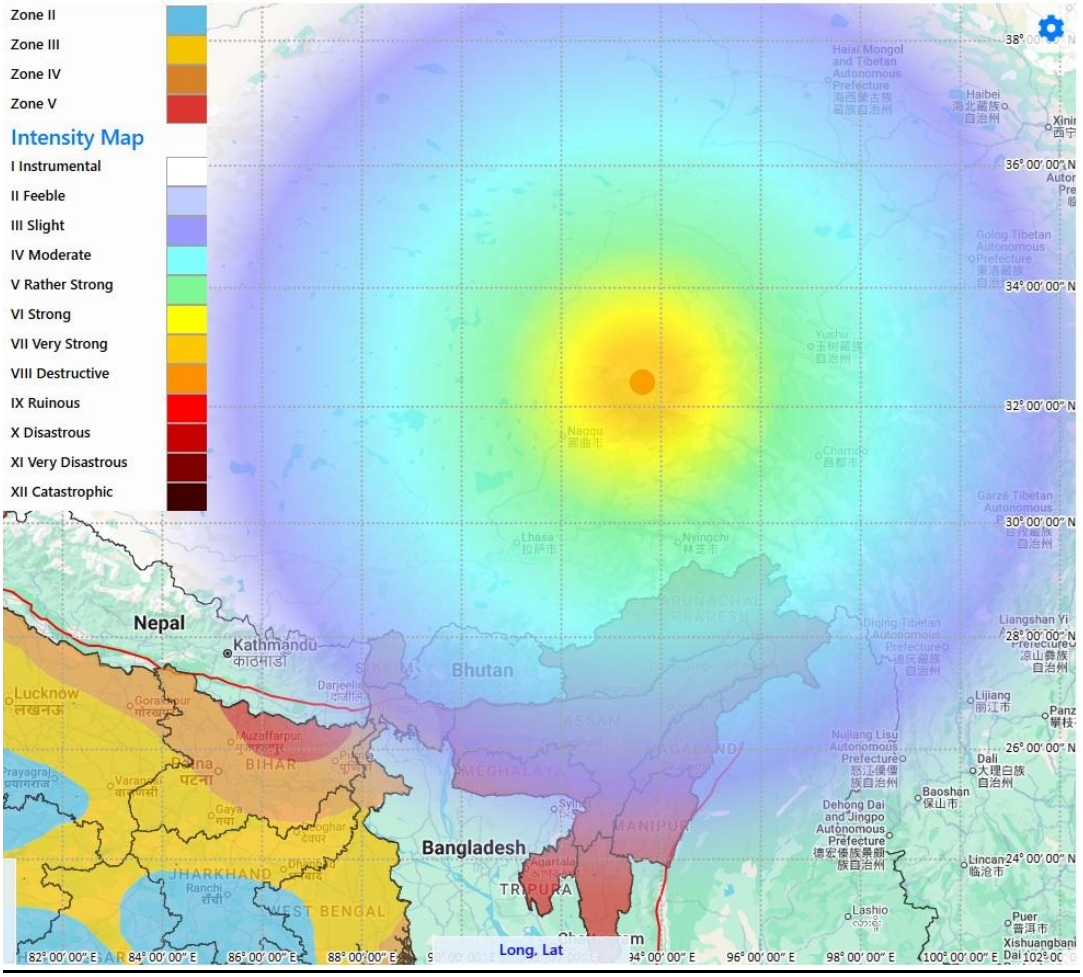


Figure 8: Intensity map of earthquake of M:7.0 occurred on 22nd October 2026 in Tibet .

B. **Chamoli Earthquake:** An earthquake of magnitude **M:4.9** occurred on **06th October 2026** at **22:23:13 IST** in **Chamoli, Uttarakhand,** with the epicentre at **30.103 °N**, and **79.561 °E** at a focal depth of **13 km**. The epicentre was about 80 km NW of Pithoragarh,100 Km N of Haldwani, 128 km SE from Uttarkashi, 150 km E of Dehradun and 280 km NE of NCT Delhi.

This earthquake occurred in the tectonically active region controlled by the Main Central Thrust (MCT), the Munsiari Thrust (MCT-I), the Main Boundary Thrust (MBT), and the Main Frontal Thrust (MFT). The epicentral location corresponds to the active segment of the MCT and MBT, where stress accumulation frequently generates moderate earthquakes. This earthquake was widely felt in the region and surroundings upto NCT Delhi. **Figure 9** depicts the expected intensity of this earthquake around the source zone. URL https://riseq.seismo.gov.in/riseq/earthquake/event/Zi84MkNLMU5Mc3dDNmwyeUVES1R5Zz09/Reviewed may be visited for more details. **Figure 10** depicts the felt responses received upto 300 km away from the epicenter.

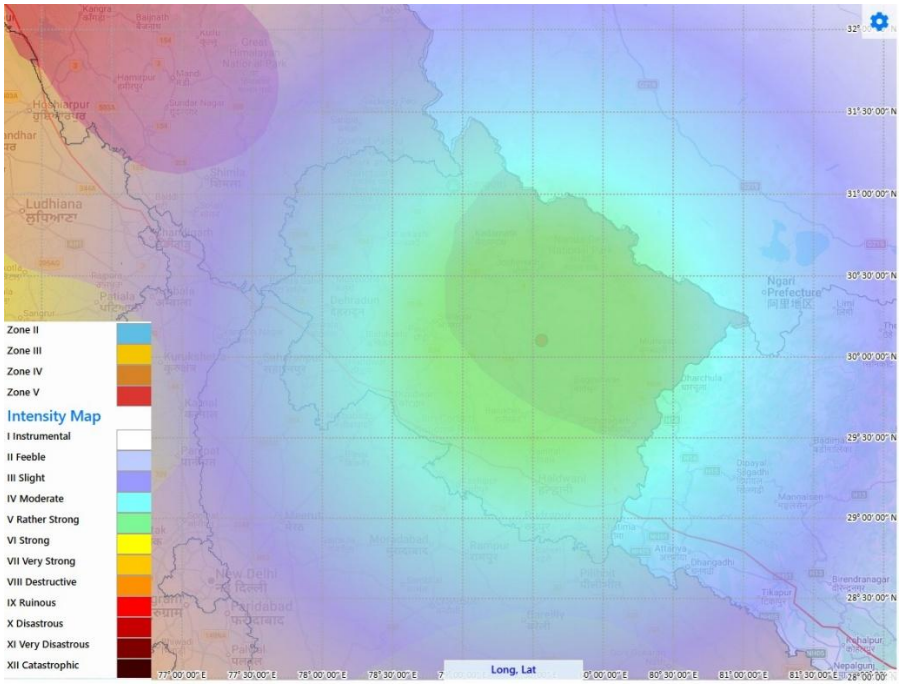


Figure 9: Intensity map of earthquake of M:4.9 occurred on 06th October 2026 in Chamoli.

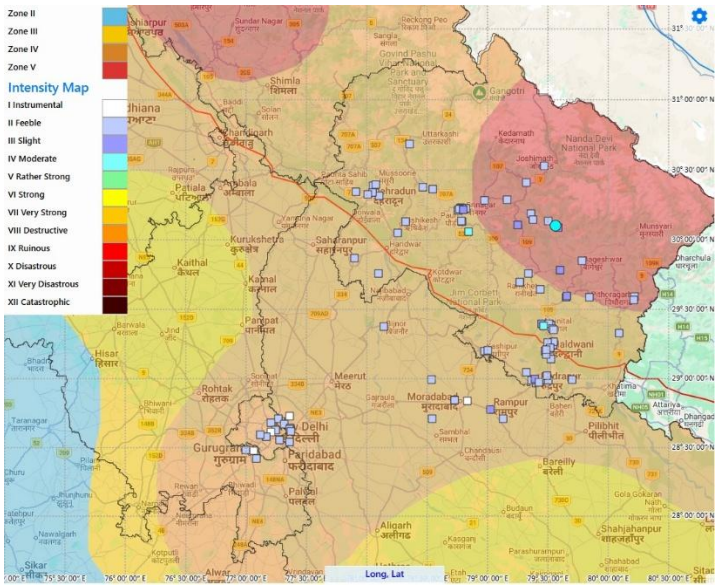
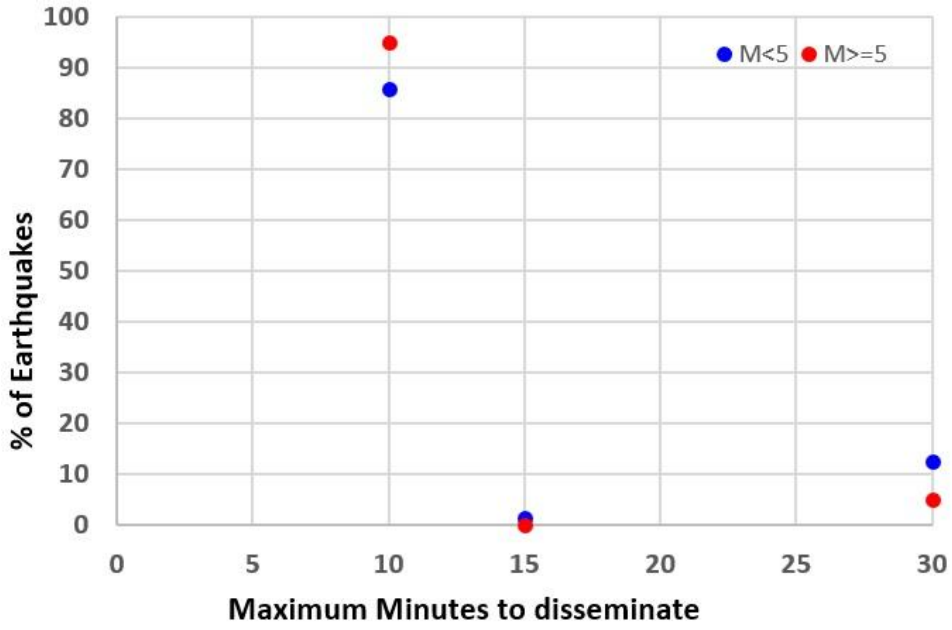


Figure 10: Felt responses of M:4.9 earthquake of Chamoli occurred on 06th October 2026

4) Dissemination Performance:



More than **80%** earthquakes of **M<5.0** and more than **90%** earthquakes of **M≥5.0** occurred within India and its neighbourhood region bounded by the coordinates 0-40°N & 60-100°E were disseminated within **10 minutes** as shown in **Figure 11.**

Figure 11: Dissemination of earthquakes within different time ranges during 01st – 31st October 2026.