

Report on Real Time Earthquake Location

**From: Earthquake Monitoring Center (EMC) of NCS
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Report of Earthquakes occurred in the month of May 2024

1) Introduction:

National Center for Seismology maintains a National Seismological Network of **160 stations** each having state of art equipment and spreading all across the country (**Figure:1**). Using these stations during the period 01st – 31st May 2024 a total number of 96 earthquakes have

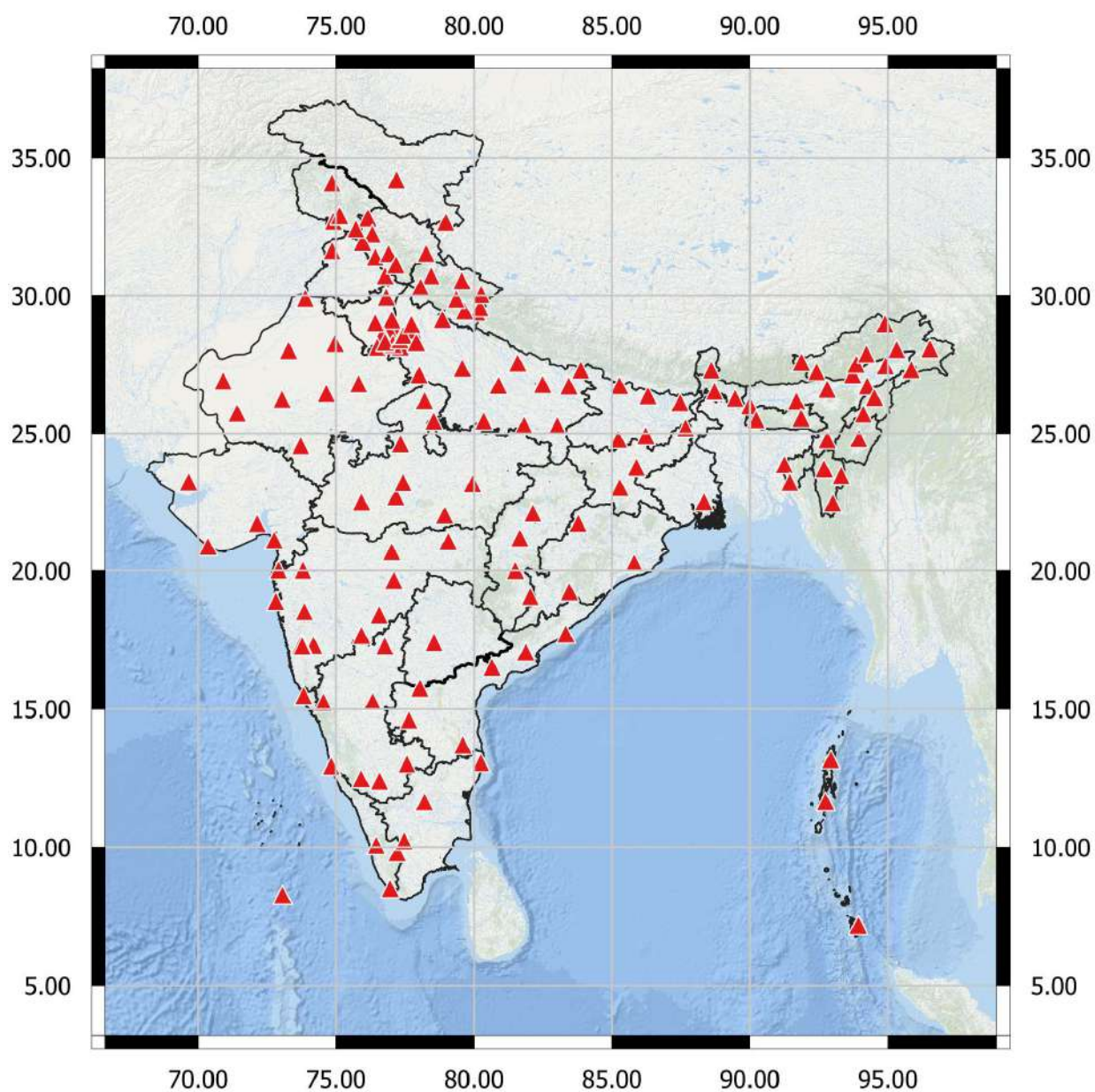


Figure 1: National Seismological Network (NSN) of 160 Stations

been located and disseminated from the center (**Figure:2**), out of which 91 earthquakes has occurred in India and its neighborhood region bounded by the coordinates 0°- 40°N & 60°-100°E (**Figure:3**).

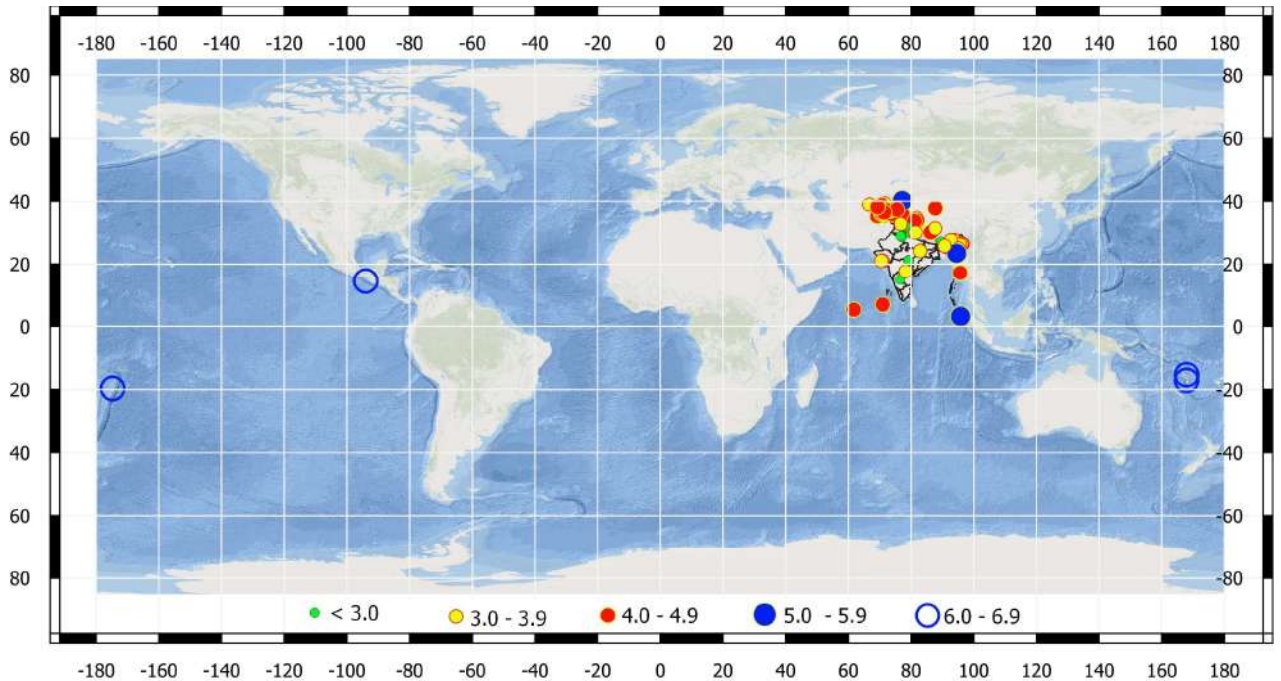


Figure 2: Earthquakes located and disseminated by NCS during 01st – 31st May 2024

2) Seismicity:

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

Few earthquakes of smaller magnitudes were also reported in northern (Rohtak in Haryana; West Delhi and Sonbhadra in Uttar Pradesh), central (Nagpur in Maharashtra), western (Gir Somnath in Gujrat) and southern (Sangareddy in Telangana; Ballari in Karnataka) part of country. **Twenty-One** earthquakes of smaller magnitude (**M < 3.0**) comprising **22%** of all earthquakes occurred during 01st to 31st May 2024. **Three** earthquakes of magnitude **M:5.0 and above** occurred during the month in the region; as detailed in **Table:1**.

Table:1 Earthquakes of $M \geq 5.0$ occurred during May 2024 within India and its neighbourhood

SN	Date	Time (IST)	Lat($^{\circ}$ N)	Long($^{\circ}$ E)	D (KM)	M	Region
1	2024-5-20	10:40:25	40.16	77.22	30	5.5	Kyrgystan
2	2024-5-28	17:22:41	03.14	95.85	10	5.5	Indian Ocean
3	2024-5-29	18:43:26	23.46	94.54	110	5.6	Myanmar

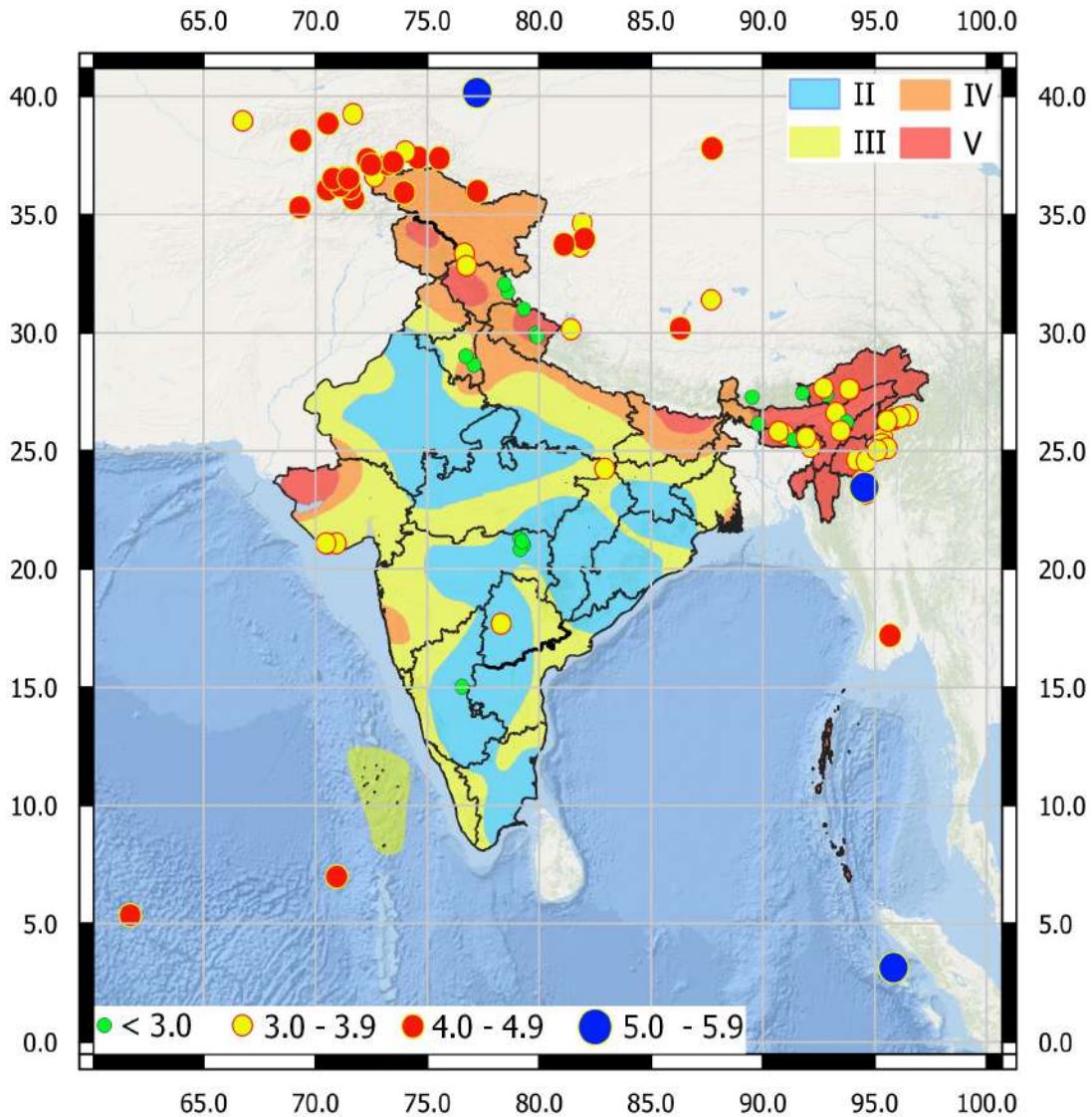


Figure 3: Map showing the seismicity during the period 01st – 31st May 2024 occurred in India and its neighbourhood region along with the seismic zone of India.

Out of total 96 earthquakes 40% and 31% earthquakes occurred in the magnitude range 3.0-3.9 and 4.0 - 4.9 respectively; whereas Three earthquakes in the magnitude range 5.0-5.9 occurred during the period were inside the grid of 0- 40 $^{\circ}$ N & 60-100 $^{\circ}$ E as shown in

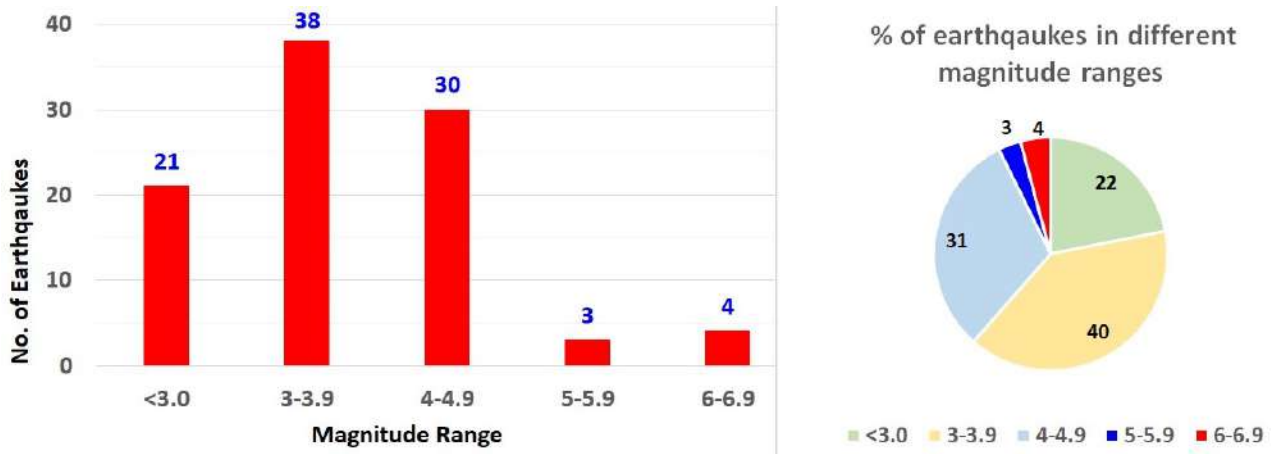


Figure 4: Distribution of earthquakes in the different magnitude range during 01st – 30th May 2024.

:3. All the **four** earthquakes in the magnitude range of **6.0-6.9** were occurred outside the grid of 0- 40⁰N & 60-100⁰E; as shown in **Figure:2** and **Figure:4**. Detail list of earthquakes occurred during the month is available at www.seismo.gov.in .

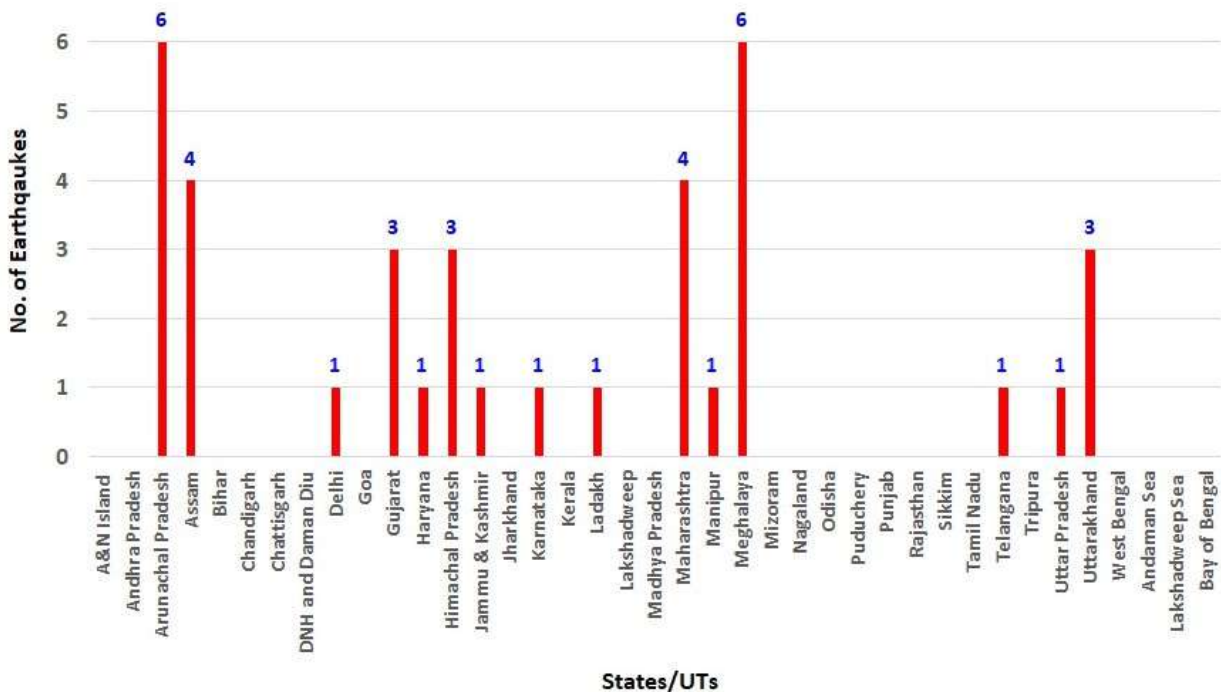


Figure 5: State wise distribution of earthquakes during the period 01st – 31st May 2024.

Total **37** earthquakes occurred within Indian Territory; of which 6 earthquakes occurred each in Arunachal Pradesh and Meghalaya and 4 each in Assam and Maharashtra during the period. Out of 37 earthquakes **11** and **17** earthquakes occurred in **North** and **North-East** region respectively. State/UT and region wise distribution of earthquakes occurred during 01st – 31st May 2024 is shown in **Figure 5** and **Figure 6** respectively.

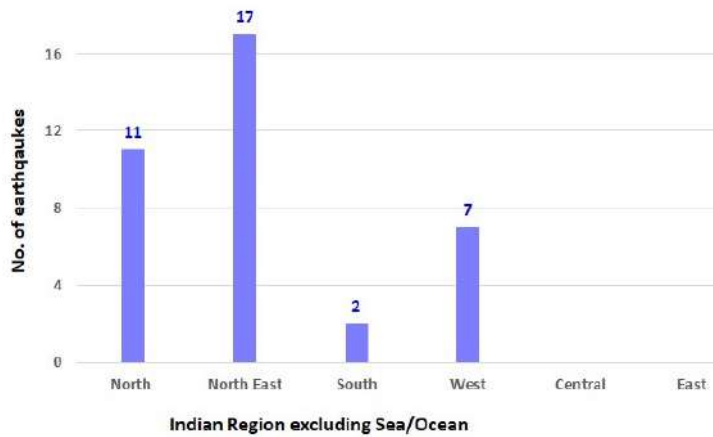


Figure: 6 Region wise distribution

3) Significant Activity:

Myanmar Earthquake: An earthquake of **M:5.6** occurred at **18:43:26 IST** of **29th May 2024** in Myanmar at **23.46°N** and **94.54°E** with focal depth of 110 km. The epicentre is about 160 Km SE of Imphal; 180 Km E of Aizwal; 360 Km SE of Shillong and 415 Km SE of Guwahati. The

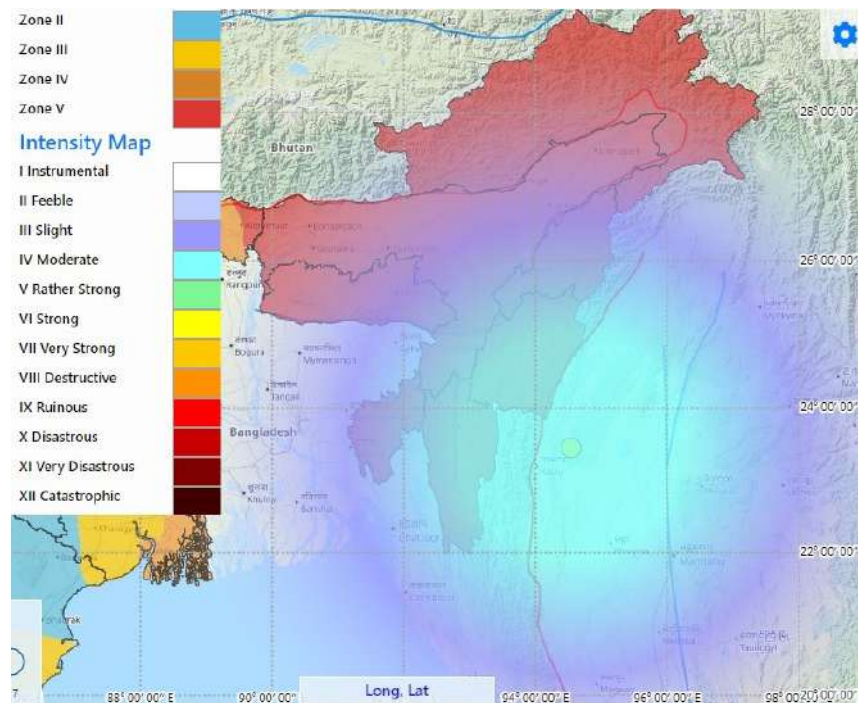


Figure 7: Intensity map of M: 5.6 Myanmar Earthquake occurred on 29th May 2024

epicenter of the earthquake lies along the boundary within the collision zone of Indian plate. **Figure 7** depicts the expected intensity of this earthquake around the source zone. This earthquake was widely felt in West Bengal, North Eastern part of India and Bangladesh. The URL

<https://riseq.seismo.gov.in/riseq/earthquake/event/TnFGajZGVzFrNUZCwVNTeS82WnlQUT09/Reviewed> may be visited for more details about this earthquake.

4) Dissemination Performance:

More than **80%** earthquakes of **M<5.0** and of **M \geq 5.0** occurred within India and its neighbourhood region bounded by the coordinates 0-40°N & 60-100°E were disseminated within 10 and 15 minutes respectively as shown in **Figure 8**.

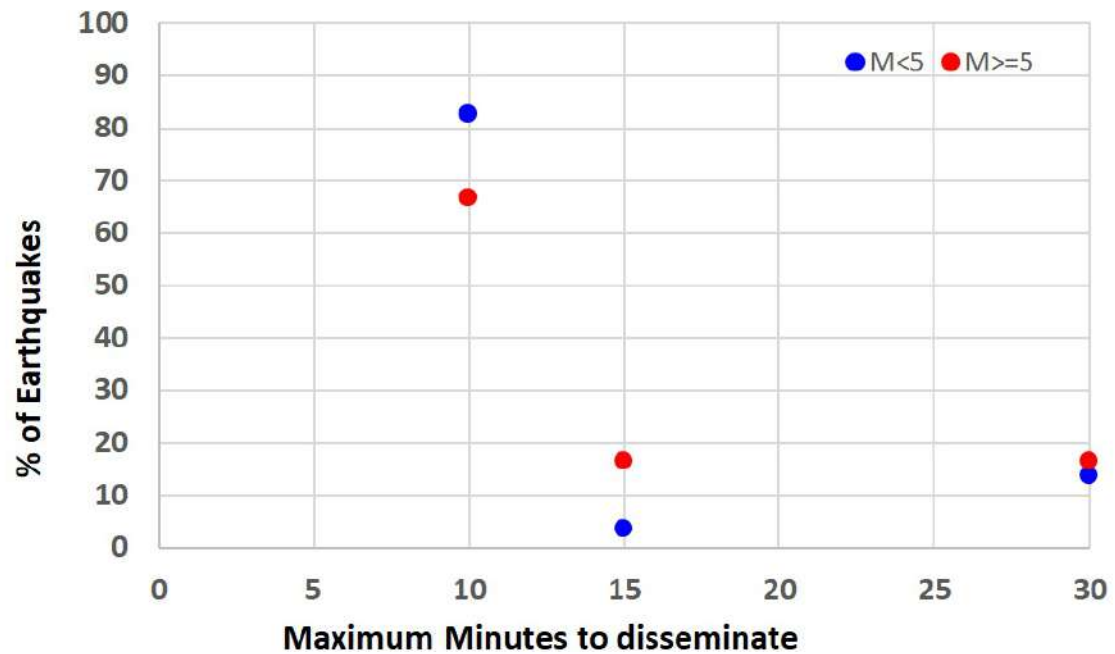


Figure 8: Dissemination of earthquakes within different time ranges during 01st–31st May 2024.