

Report on Real Time Earthquake Location

**From: Earthquake Monitoring Center (EMC) of NCS
(R. K. Singh, S. K. Prajapati, Shanker Pal, Prashant Chingtham,
Narendra Pandey and Munish Gors)**

National Center for Seismology
Ministry of Earth Sciences
Government of India

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Report of Earthquakes occurred in the month of June 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 – 30th June 2024 a total number of 97 earthquakes have

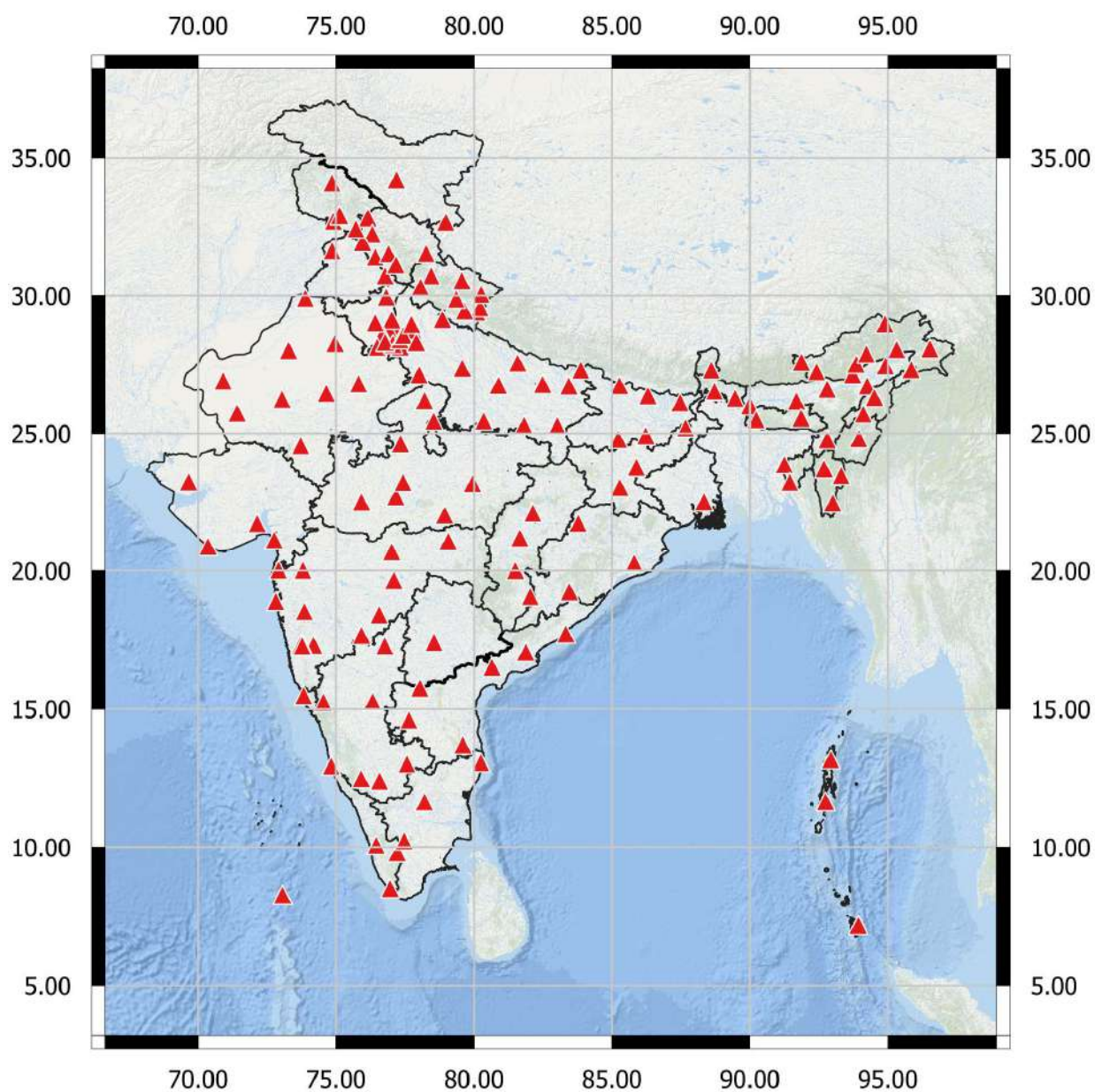


Figure 1: National Seismological Network (NSN) of 160 Stations

been located and disseminated from the center (**Figure:2**), out of which 92 earthquakes has occurred in India and its neighborhood region bounded by the coordinates 0°- 40°N & 60°-100°E (**Figure:3**).

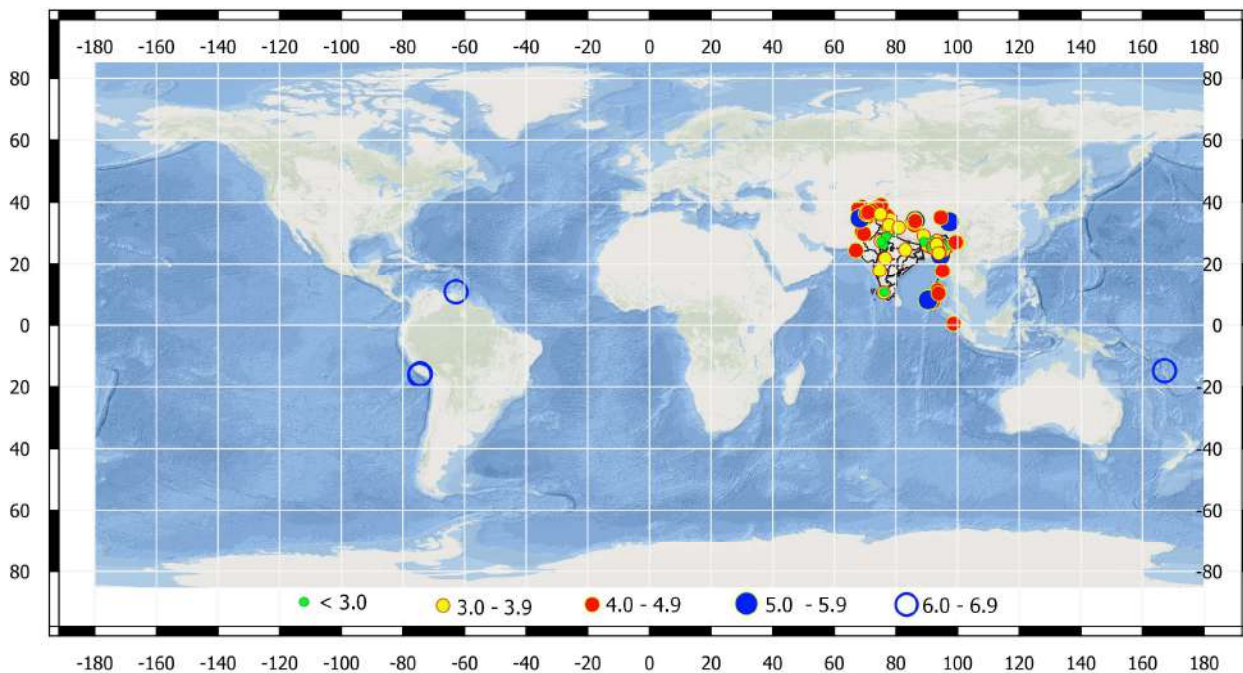


Figure 2: Earthquakes located and disseminated by NCS during 01st – 30th June 2024

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, Himachal Pradesh and Uttarakhand), North East India (Arunachal Pradesh, Assam, Meghalaya, Manipur and Nagaland) as shown in **Figure 3**.

Few earthquakes of smaller magnitudes were also reported in northern (Jhajjar and Sonipat in Haryana; Sikar and Tonk in Rajasthan and Sonbhadra in Uttar Pradesh), central (Khandwa in Madhya Pradesh), western (Solapur in Maharashtra) and southern (Thrissur in Kerala) part of country. **Eighteen** earthquakes of smaller magnitude (**M < 3.0**) comprising **19%** of all earthquakes occurred during 01st to 30th June 2024. **Five** earthquakes of magnitude **M:5.0 and above** occurred during the month in the region; as detailed in **Table:1**.

Out of total 97 earthquakes **31%** and **40%** earthquakes occurred in the magnitude range **3.0-3.9** and **4.0 - 4.9** respectively; whereas Five earthquakes in the magnitude range 5.0-5.9 occurred

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

SN	Date	Time (IST)	Lat($^{\circ}$ N)	Long($^{\circ}$ E)	D (KM)	M	Region
1	2024-06-01	06:1:43	34.07	86.31	10	5.5	Xizang/TAR
2	2024-06-02	14:14:57	22.82	94.48	110	5.5	Myanmar
3	2024-06-12	09:18:17	33.64	97.37	10	5.1	Qinghai, China
4	2024-06-19	08:47:18	34.82	68.38	10	5.7	Afghanistan
5	2024-06-26	06:54:14	08.13	90.46	10	5.3	Bay of Bengal

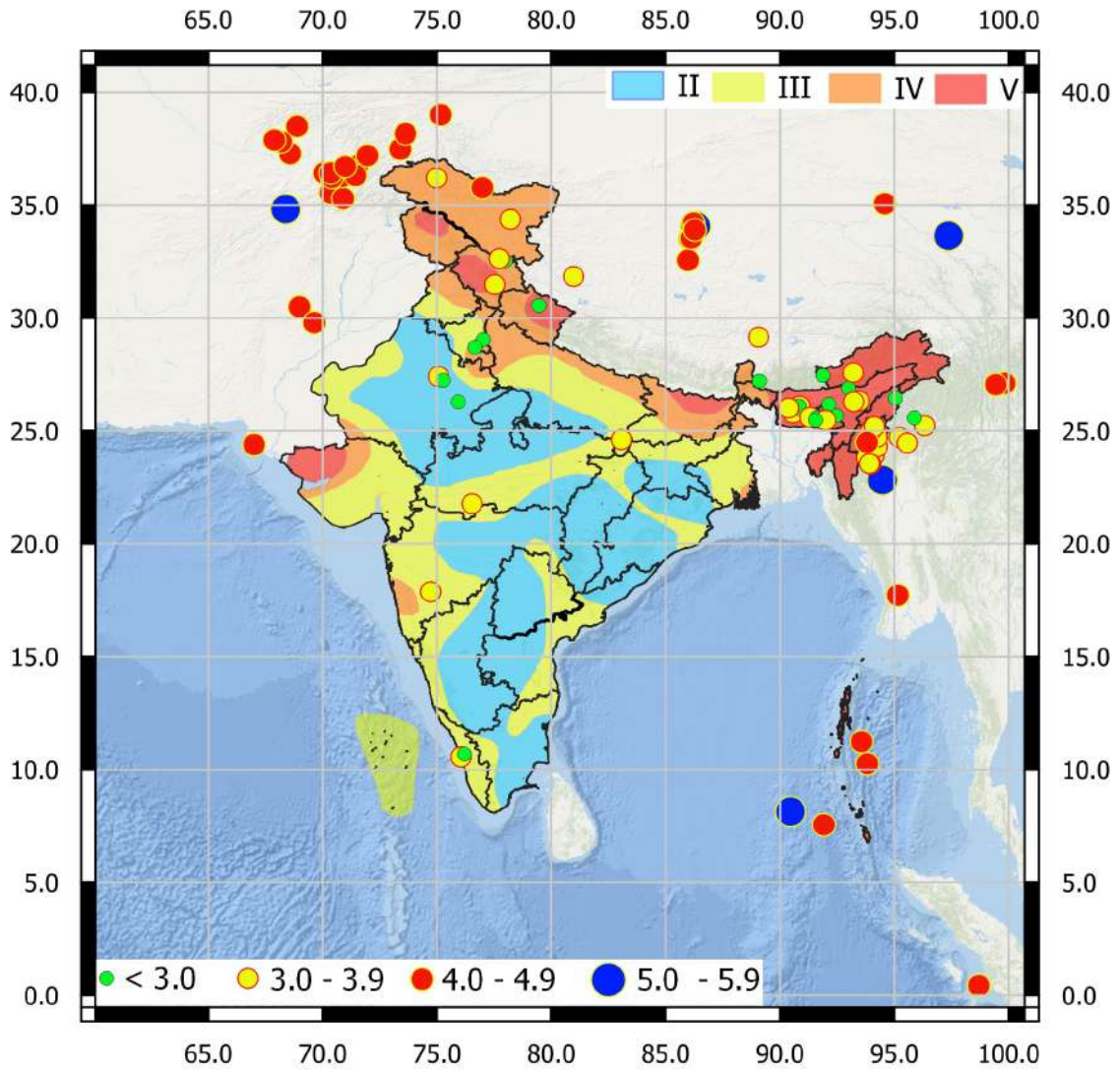


Figure 3: Map showing the seismicity during the period 01st – 30th June 2024 occurred in India and its neighbourhood region along with the seismic zone of India.

during the period were inside the grid of 0- 40 $^{\circ}$ N & 60-100 $^{\circ}$ E as shown in **Figure 3**. All the **five**

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.

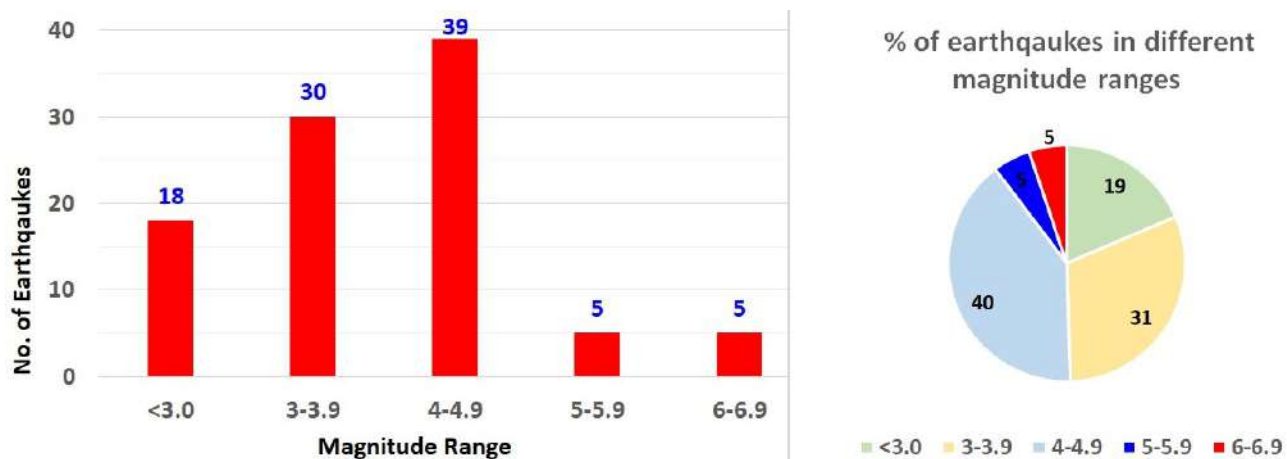


Figure 4: Distribution of earthquakes in the different magnitude range during 01st – 30th June 2024.

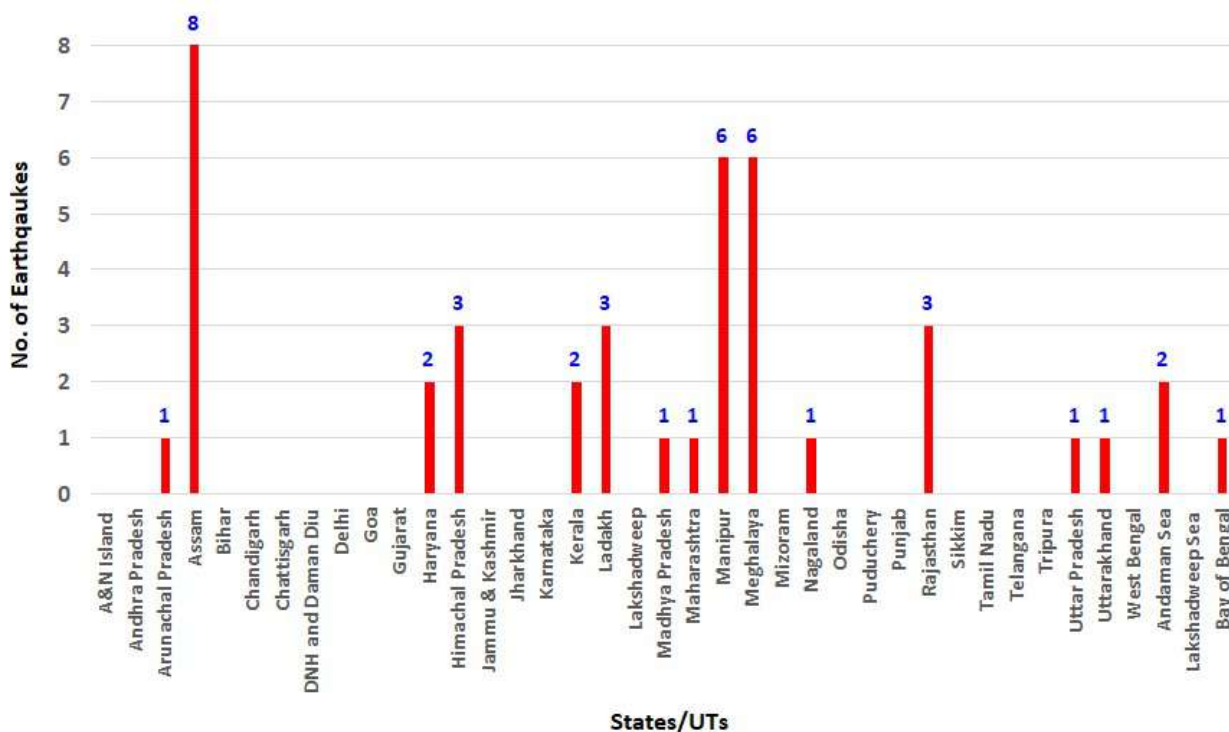


Figure 5: State wise distribution of earthquakes during the period 01st – 30th June 2024.

Total **42** earthquakes occurred within Indian Territory; of which 8 earthquakes occurred in Assam and 6 each in Manipur and Meghalaya during the period. Out of 42 earthquakes **10** and **22** earthquakes occurred in **North** and **North-East** region respectively. State/UT and region wise

distribution of earthquakes occurred during 01st – 30th June 2024 is shown in **Figure 5** and **Figure 6** respectively.

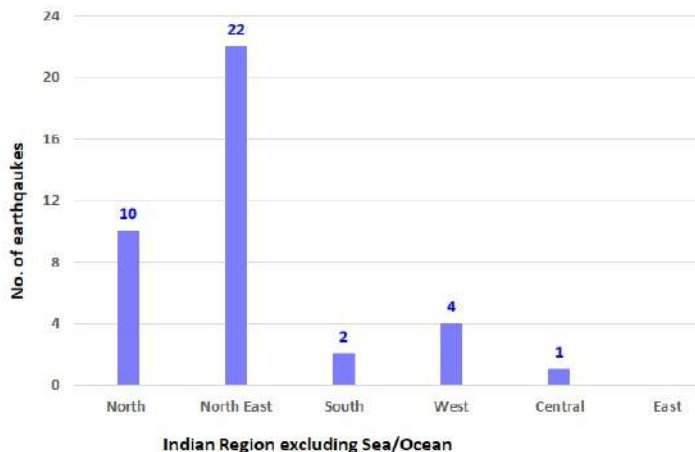


Figure: 6 Region wise distribution

3) Significant Activity:

Myanmar Earthquake: An earthquake of **M:5.5** occurred at **14:14:57 IST** of **02nd June 2024** in Myanmar at **22.82°N** and **94.48°E** with focal depth of 110 km. The epicentre is about 230 Km ESE of Imphal; 195 Km SE of Aizwal; 400 Km SE of Shillong and 200 Km WE of Mogok

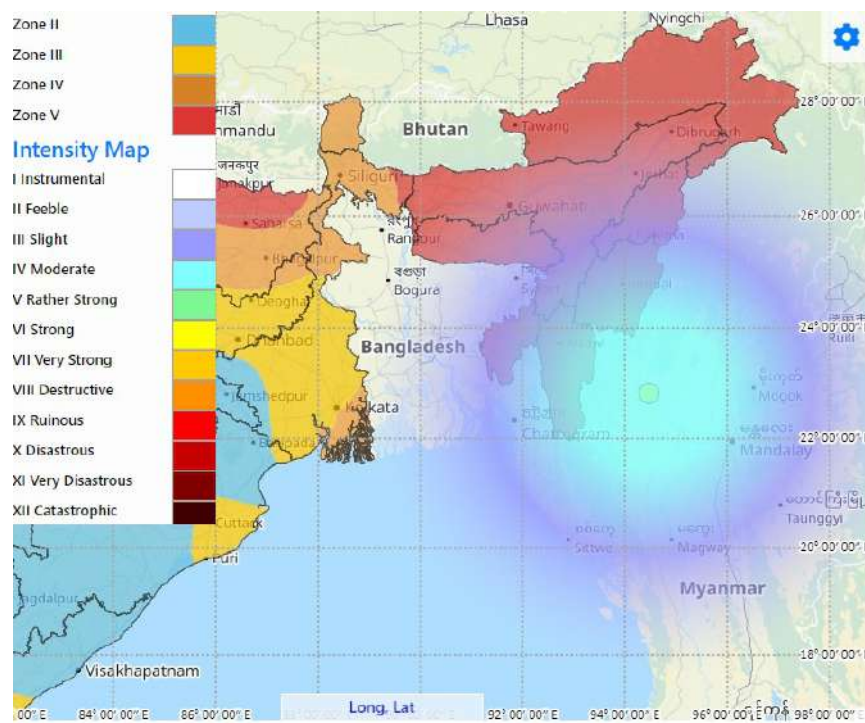


Figure 7: Intensity map of M: 5.5 Myanmar Earthquake occurred on 02nd June 2024

(Myanmar). 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 North Eastern part of India. More information is available at URL <https://riseq.seismo.gov.in/riseq/earthquake/event/YiF0S01rek1vdjV6S2dKZytnbXVoUT09/Reviewe> [d.](#)

4) Dissemination Performance:

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 and all the 5 (100%) earthquakes of **M_≥5.0** were disseminated within 10 minutes as shown in **Figure 8**.

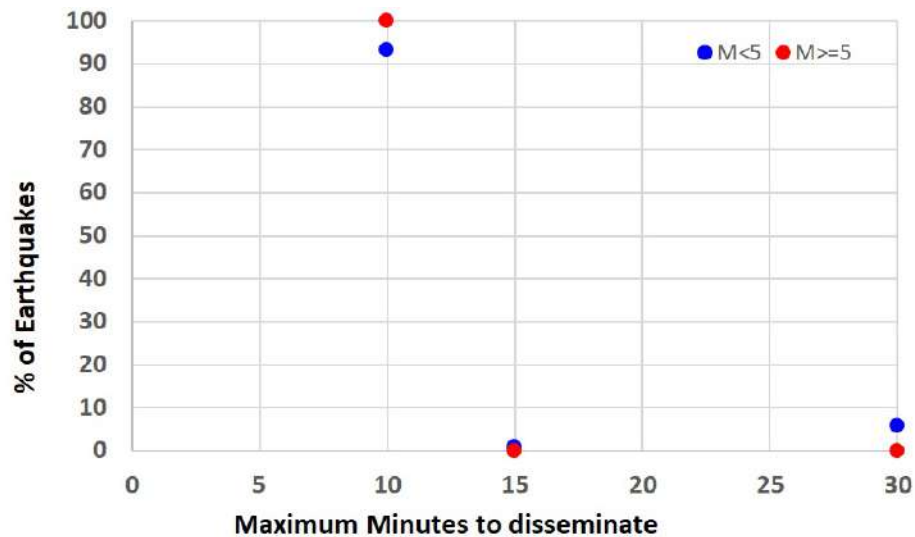


Figure 8: Dissemination of earthquakes within different time ranges during 01st–30th June 2024.