

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 2021

1) Introduction:

National Center for Seismology maintains National Seismological Network of 115 stations each having state of art equipment and spreading all across the country. Using these stations during the period 01st – 31st May 2021 a total number of 159 earthquakes have been located and disseminated from the center (**Figure:1**), out of which 152 earthquakes has occurred in India and its neighborhood region bounded by the coordinates 0°- 40°N & 60°-100°E (**Figure:2**).

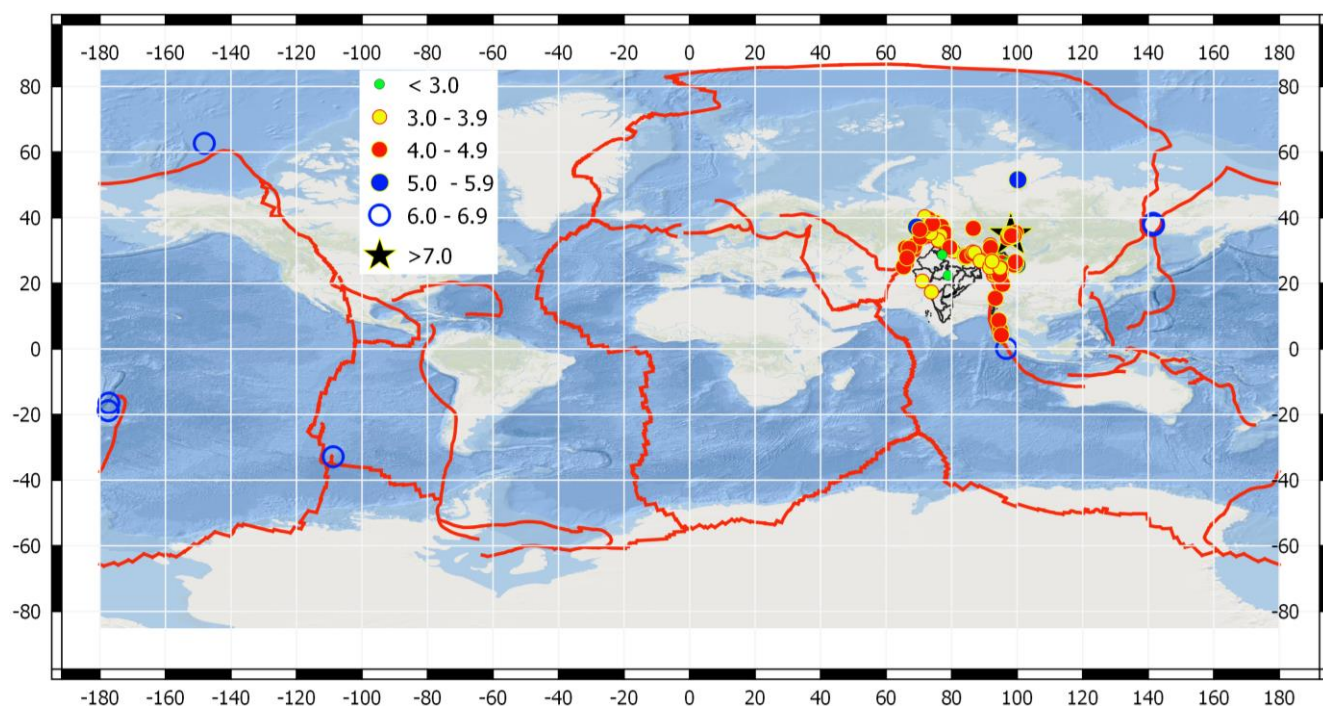


Figure 1: Earthquakes located and disseminated by NCS during 01st – 31st May 2021

2) Seismicity:

During the period, the density of earthquakes in India and its neighborhood region bounded by the coordinates 0- 40°N & 60-100°E; can largely be seen in Hindu Kush region, North Western, North Eastern part of India as shown in **Figure:2**. **Five** earthquakes of magnitude **M:5.0 and above** occurred in during the month in the region and **two** earthquakes of magnitude **M:6.0 and above** as detailed in following table.

SN	Date	Time (IST)	Lat(°N)	Long(°E)	Depth (KM)	M	Region
1	2021-05-28	12:53:25	37.15	69.31	30	5.3	Tajikistan
2	2021-05-22	08:08:49	34.53	98.43	10	5	Qinghai, China
3	2021-05-21	23:34:14	34.65	98.06	10	7	Qinghai, China

4	2021-05-21	20:01:22	25.88	99.35	10	5	China
5	2021-05-21	19:18:41	25.67	99.96	100	5.8	China
6	2021-05-19	05:28:56	28.24	84.36	10	5.3	Nepal
7	2021-05-14	12:03:09	0.14	96.75	10	6.6	Off West Coast of Northern Sumatra

Few earthquakes of smaller magnitudes were also reported in NCT Delhi, central and western part of country.

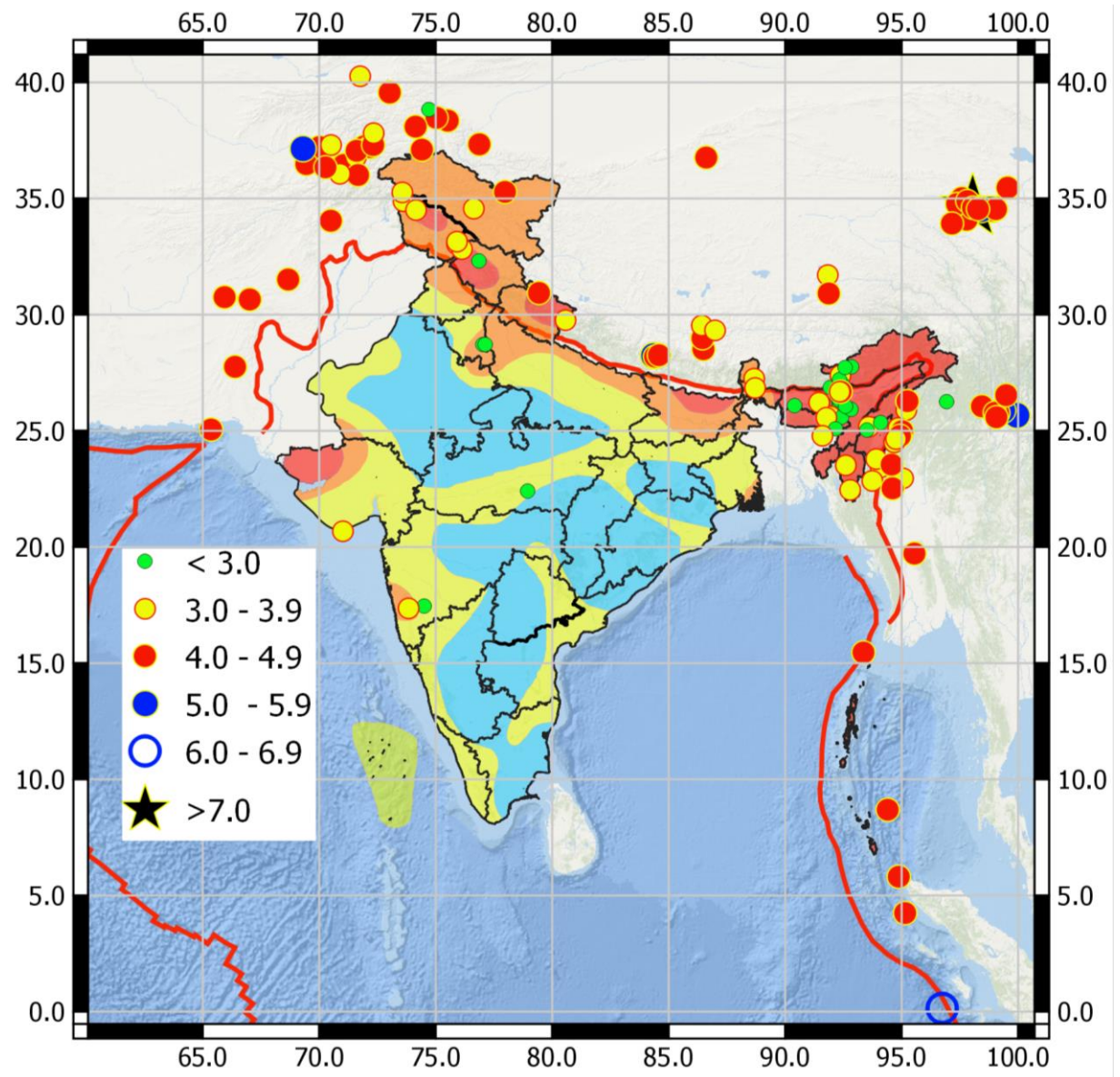


Figure 2: Map showing the seismicity during the period 01st – 31st May 2021 occurred in India and its neighbourhood region along with the seismic zone of India.

Out of total 159 earthquakes, around **39%** and **33%** of events occurred in the magnitude range **3.0-3.9** and **4.0 -4.9** respectively, whereas only six and seven earthquakes occurred in the magnitude range, **5.0-5.9** and **6.0-6.9** respectively as shown in **Figure:3**. Detail list of earthquakes occurred during the month is available at www.seismo.gov.in

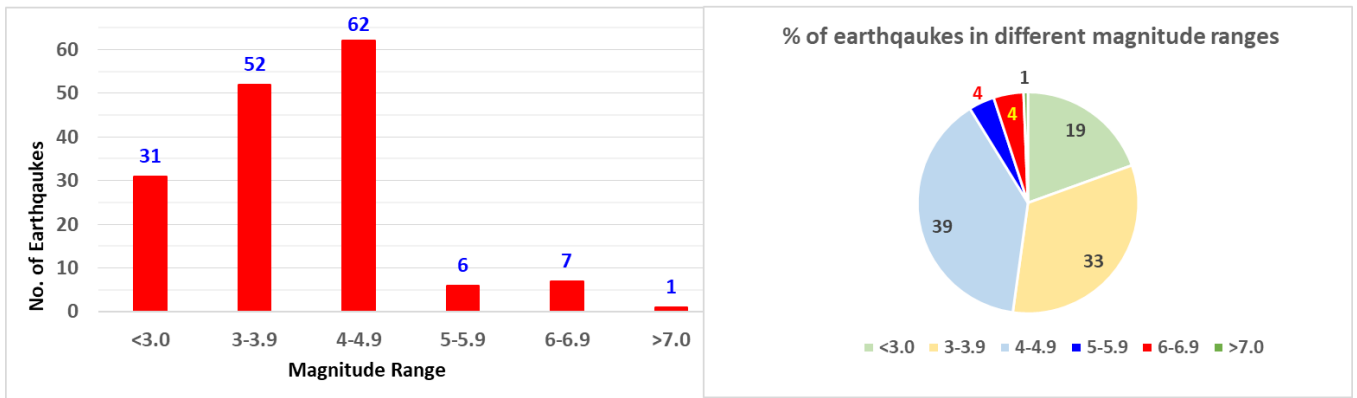


Figure 3: Pie-Chart and Bar-Diagram showing the number of earthquakes occurred in the magnitude range during the period 01st – 31st May 2021 that was disseminated.

3) Significant Earthquakes:

An earthquake of **M:5.3** occurred on **19th May April 2021** at **05:28:56 IST** in Nepal with epicentre at **28.24⁰N** and **84.36⁰ E** at 10 km depth. Earthquake occurred close to Himalayan Frontal Thrust. The epicenter is 33 km E from Pokhran, 100km SW from Kathmandu and 180 km NE from Gorakhpur.

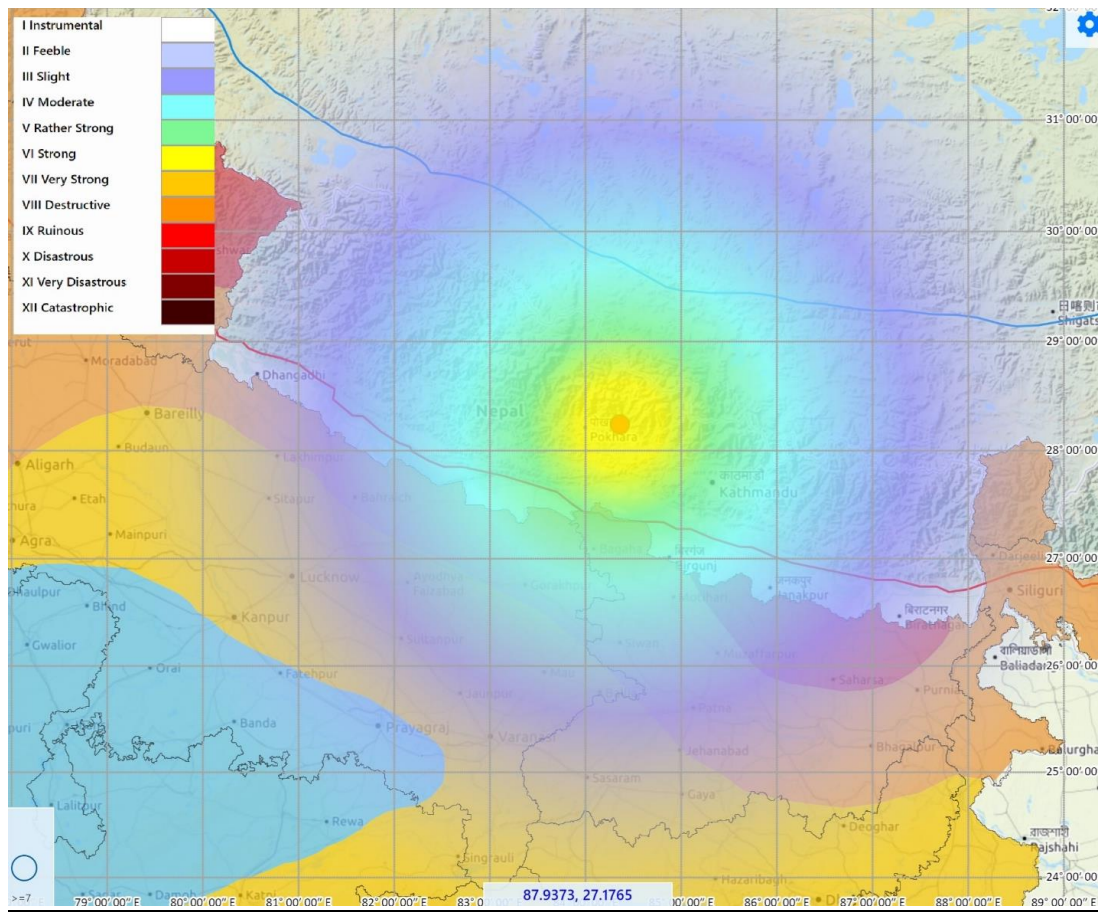


Figure 4: Map showing the epicentre (circle) and intensity of Nepal earthquake of of the M:5.3, on 2021-05-19 at 05:28:56(IST) overlaid on Zonation (zone IV) map of India.

Another significant earthquake of magnitude **M:7.0** occurred on **21st May 2021** at **23:34:14 IST** in **Qinghai, china** with epicentre at 34.65° N and 98.06° E, focal depth of 10 Km. The epicentre is located at about 850 Km NNE of Dibrugarh, India and 1700 Km SW of Beijing, China. Total 11 aftershocks were recorded and disseminated in the magnitude range of M: 4.1 to M:5.0 within 24 hours of M:7.0 earthquake.