Report on Real Time Earthquake Location

From: Earthquake Monitoring Center (EMC) of NCS (R. K. Singh, Ved Prakesh, Shanker Pal, Narendra Pandey, Shashank Rai and Prashnat Singh Chingthem)

> National Center for Seismology Ministry of Earth Sciences Government of India

Month: Jun 2021 Technical Report No: NCS/2021/06

Report of Earthquakes occurred in the month of Jun 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 (Figure:1). Using these stations

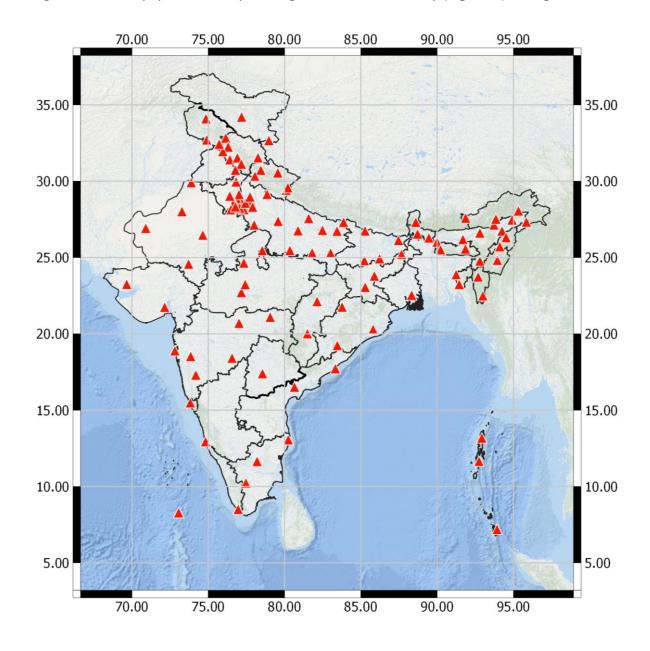


Figure 1: National Seismological Network (NSN) of 115 Stations

during the period $01^{st} - 30^{th}$ June 2021 a total number of 77 earthquakes have been located and disseminated from the center (Figure:2), out of which 74 earthquakes has occurred in India and its neighborhood region bounded by the coordinates 0°- 40°N & 60°-100°E (Figure:3).

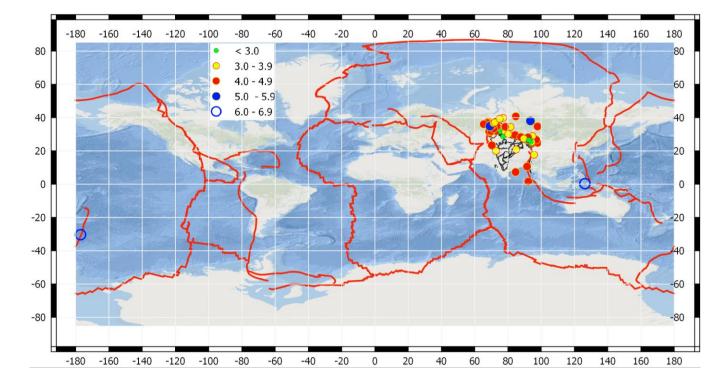


Figure 2: Earthquakes located and disseminated by NCS during 01st – 30th Jun 2021

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 Eastern part of India as shown in **Figure:3**. Few earthquakes of smaller magnitudes were also reported in NCT Delhi central, Himachal Pradesh and western part of country. **Two** earthquakes of magnitude **M:5.0** and above occurred in during the month in the region as detailed in following table.

SN	Date	Time (IST)	Lat(⁰N)	Long(⁰E)	Depth (KM)	М	Region
1	2021-06-16	14:18:59	38.02	93.53	10	5.4	Qinghai, China
2	2021-06-25	04:34:44	34.87	69.15	10	5.3	South Eastern Afghanistan

Out of total 77 earthquakes, around **43%** and **35%** of events occurred in the magnitude range **4.0**-**4.9** and **3.0** - **3.9** respectively, whereas only two earthquakes each occurred in the magnitude range, **5.0-5.9** and **6.0-6.9** as shown in **Figure:4**. Detail list of earthquakes occurred during the month is available at <u>www.seismo.gov.in</u>.

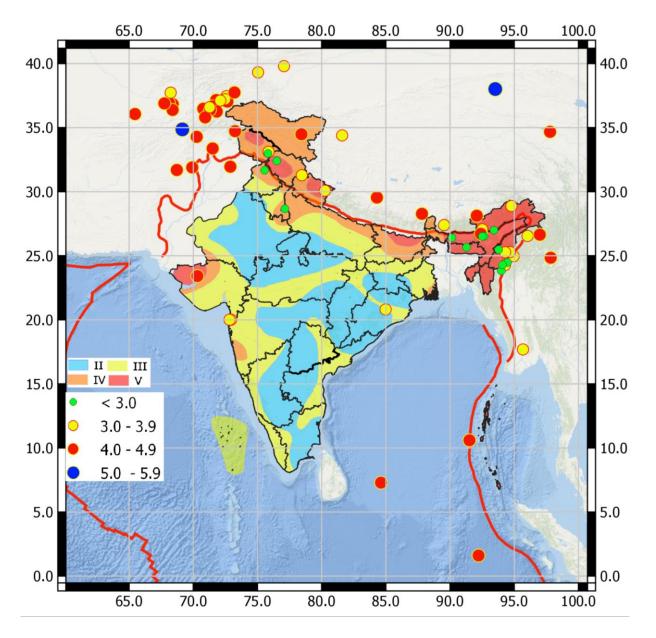


Figure 3: Map showing the seismicity during the period $01^{st} - 30^{th}$ Jun 2021 occurred in India and its neighbourhood region along with the seismic zone of India.

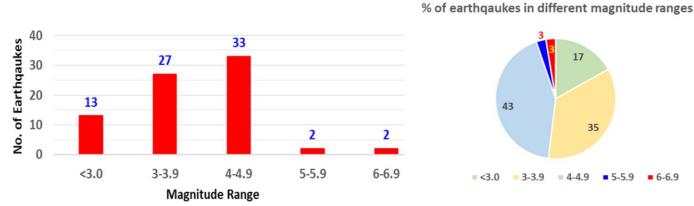


Figure 4: Pie-Chart and Bar-Diagram showing the number of earthquakes occurred in the magnitude range during the period $01^{st} - 30^{th}$ Jun 2021 that was disseminated.

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3) Significant Activity:

- During the month aftershock activity near the source zone of Sonitpur earthquake of M:6.4 of 28th April 2021 still continue and earthquake of M:4.2 was occurred in the same source region on 19th Jun 2021 at 01:07:32 IST this earthquake was reportedly felt in the region (Figure:5).
- Two earthquakes of M: 6.0 and M:6.4 occurred on **03rd Jun 2021** at **15:39:57 IST** and 20th Jun 2021 at 22:35:43 IST in Molucca Sea and Kermadec Islands New Zealand respectively.

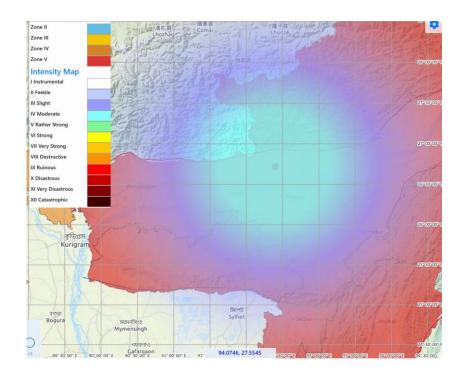


Figure 5: Map showing the epicentre (circle) and intensity of Nepal earthquake of of the M:4.2, on 2021-06-19 at 01:07:32(IST) overlaid on Zonation (zone V) map of India.