Report on Real Time Earthquake Location

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

National Center for Seismology
Ministry of Earth Sciences
Government of India

Month: March 2021

Technical Report No: NCS/2021/03

Report of Earthquakes occurred in the month of March 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 $01^{st} - 31^{st}$ March 2021 a total number of 131 earthquakes have been located and disseminated from the center (Fig:1), out of which 121 earthquakes has occurred in India and its neighborhood region bounded by the coordinates 0°- 40°N & 60°-100°E (Fig:2).

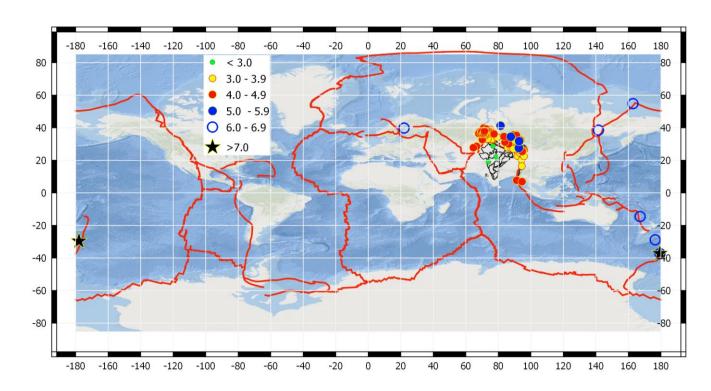


Fig:1 Earthquakes located and disseminated by NCS during 01st -31st March 2021

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 and North Eastern part of India as shown in **Fig:2**. Couple of earthquakes in the magnitude rang from M:4.0 to M:4.9 occurred in Andaman-Nicobar island region. Few smaller magnitude earthquakes of **M:2.4** in Rohtak, Haryana; **M:2.4** in Pune, Maharashtra and **M:2.8** in Chhindwara, Madhya Pradesh were also reported during the month.

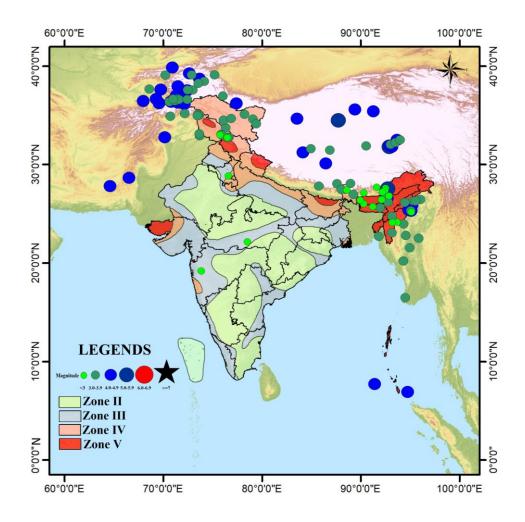


Figure No: 2 Map showing the seismicity during the period $01^{st} - 31^{st}$ March 2021 occurred in India and its neighbourhood region along with the seismic zone of India.

Out of total 131 earthquakes, around 47% and 29% of events occurred in the magnitude range 3.0-3.9 and 4.0 -4.9 respectively, whereas only four, six and three earthquakes occurred in the magnitude range, 5.0-5.9, 6.0-6.9 and ≥7.0 respectively as shown in Fig:3. Detail list of earthquakes occurred during the month is available at www.seismo.gov.in

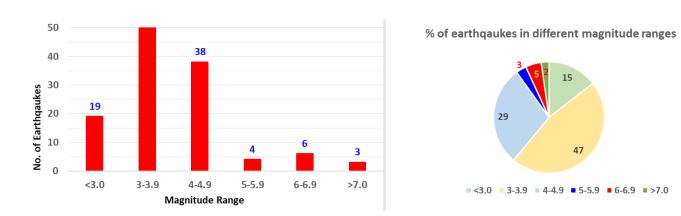


Figure 3: Pie-Chart and Bar-Diagram showing the number of earthquakes occurred in the magnitude range during the period $01^{st} - 31^{st}$ March 2021 that was disseminated.

3) Significant Earthquakes:

During the period 01st -31st March 2021 one earthquake occurred in India **M:5.0**, on 2021-03-26 at 19:02:08(UTC) in Tawang, Arunachal Pradesh. This earthquake was reportedly felt in the region (Fig:4).

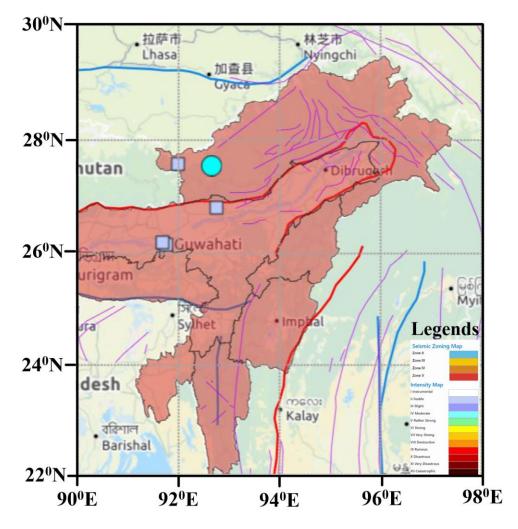


Fig:4 Map showing the epicentre (Blue Circle) and felt responses received from different parts of the country for the M:5.0, on 2021-03-26 at 19:02:08(UTC) in Tawang, Arunachal Pradesh; overlaid on Zonation (zone IV) map of India