

Earthquake of Magnitude 5.7 Occurred on 5th February 2022 in Afghanistan-Tajikistan Border Region

1. An earthquake of magnitude M: 5.7 occurred on 5.02.2022 at 09:45:59 IST with epicenter located at Afghanistan-Tajikistan Border Region having epicentral parameters 36.34°N and 71.05°E, focal depth 181 km. The epicenter is about 395 and 1028 km Northwest of Jammu and National Capital region (NCR), Delhi respectively. The map showing the location of earthquake is given at Figure1.
2. The area within 100 km radius of today's earthquake epicenter, has experienced 98 earthquakes of magnitude 4.0 and above during the past one year. The maximum magnitude of M: 6.3 occurred on 20th December 2019 which is about 60 km NE of the today's event.
3. The shaking of the 181 km deeper earthquake (M 5.7) was felt widely due to the propagation of surface waves through various strata of the earth associated with several local and regional seismogenic faults. The map showing the simulated Intensity of this earthquake is given at Figure 2. The felt responses received from Jammu and Kashmir (approx. 390 KM from epicenter), Himachal, Punjab and NCT Delhi (approx. 1050 KM from epicenter) in the range of MMI I to MMI IV as shown in Figure3.
4. No Damage report has been reported from any state of India. However, the earthquake was widely felt mainly in J&K, Ladakh UT, northern states like Punjab, Himachal Pradesh, and in Delhi NCR. As this area is close to the Himalayan Collision zone and marked by active faults, and is subjected to this type of earthquakes from time to time.

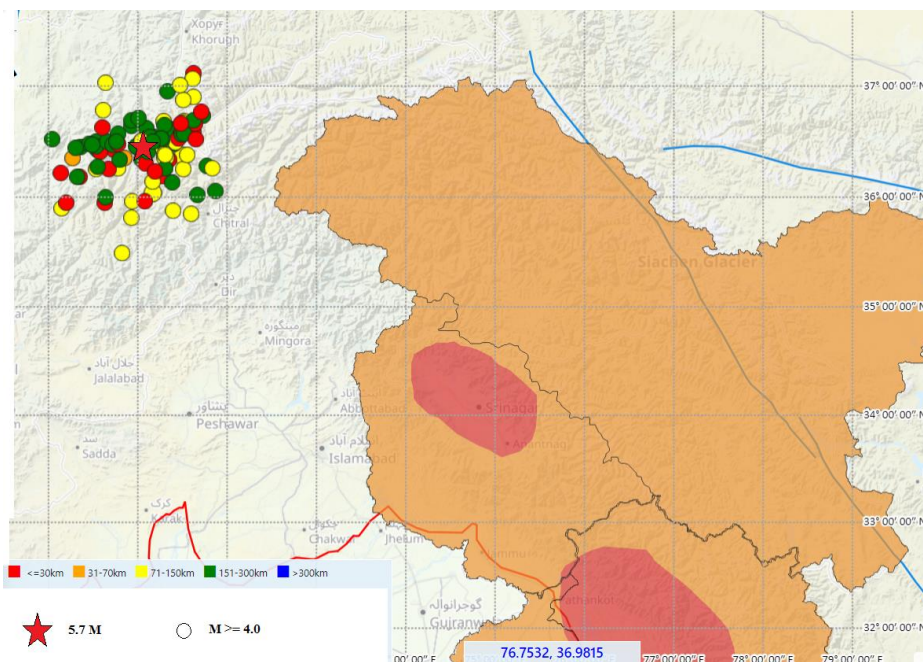


Figure 1. Epicentral map of M: 5.7 (Red Star) with the past one year background seismicity with earthquakes M≥4.0 in the epicentral region.

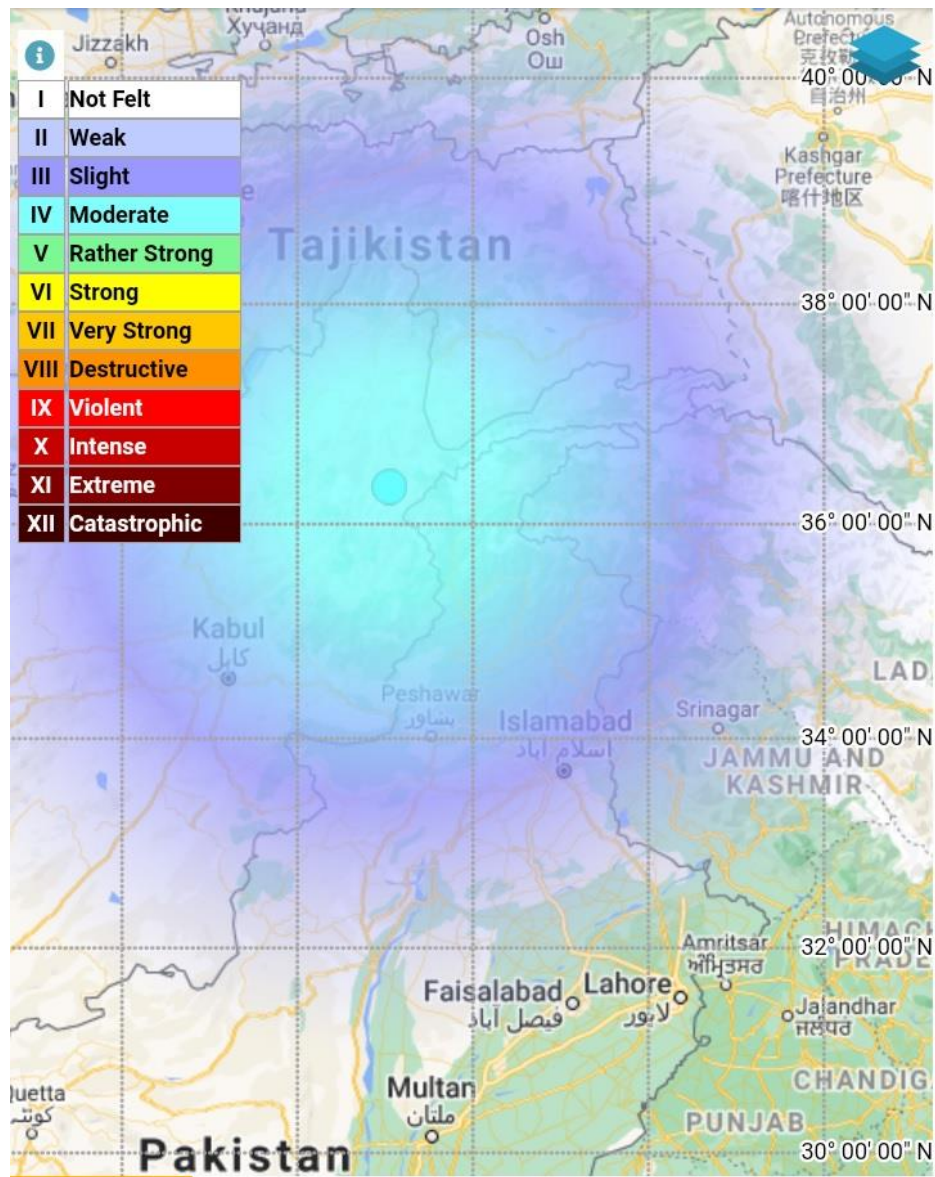


Figure 2. Intensity map of M: 5.7 Earthquake (Circle).

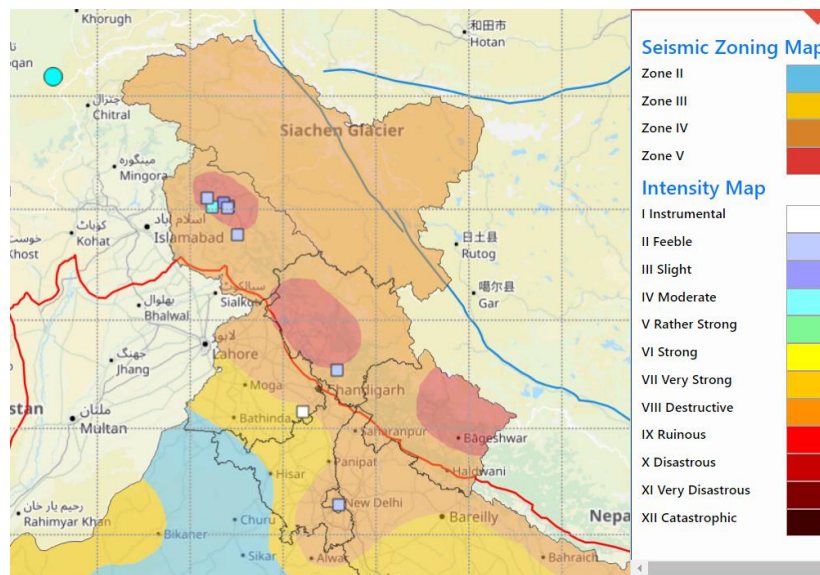


Figure 3. Felt response of M: 5.7 Earthquake (Circle) received from different regions.