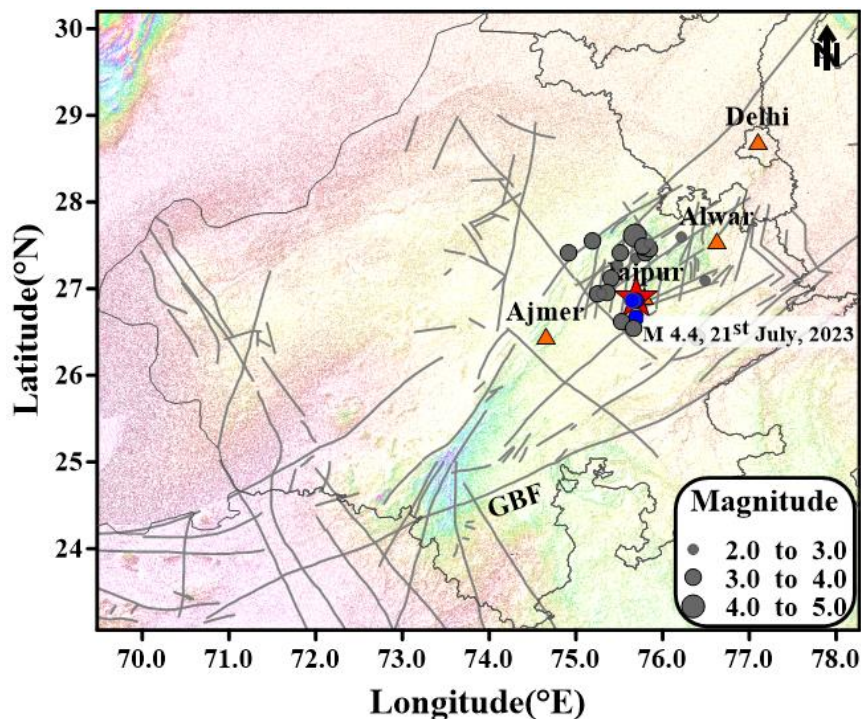
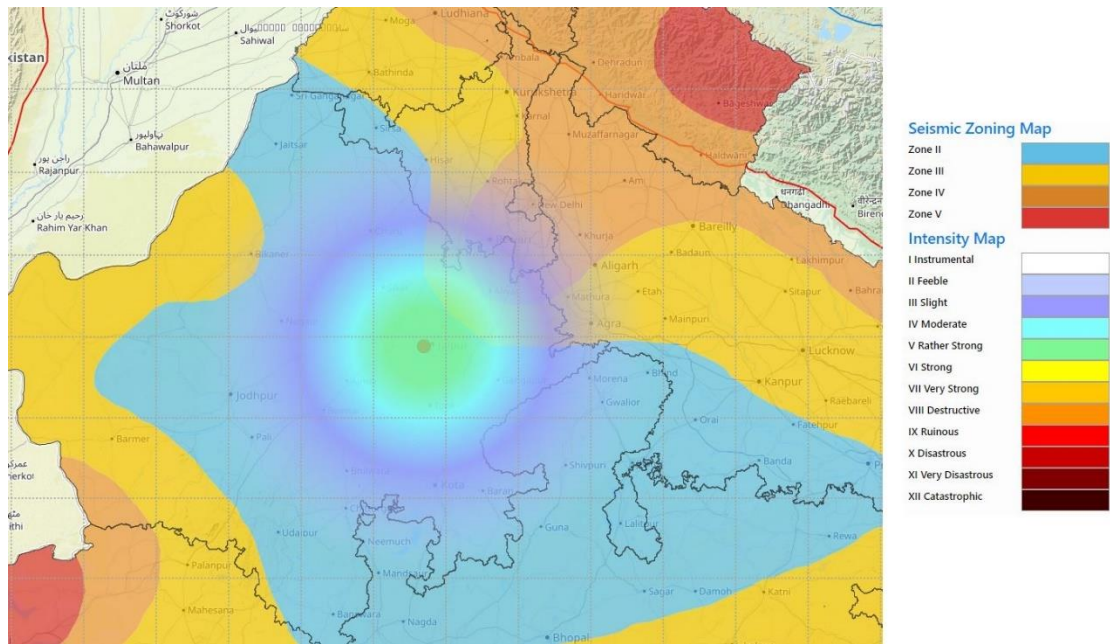


## **Earthquake Report on M 4.4, Jaipur, Rajasthan occurred on 21<sup>st</sup> July 2023**

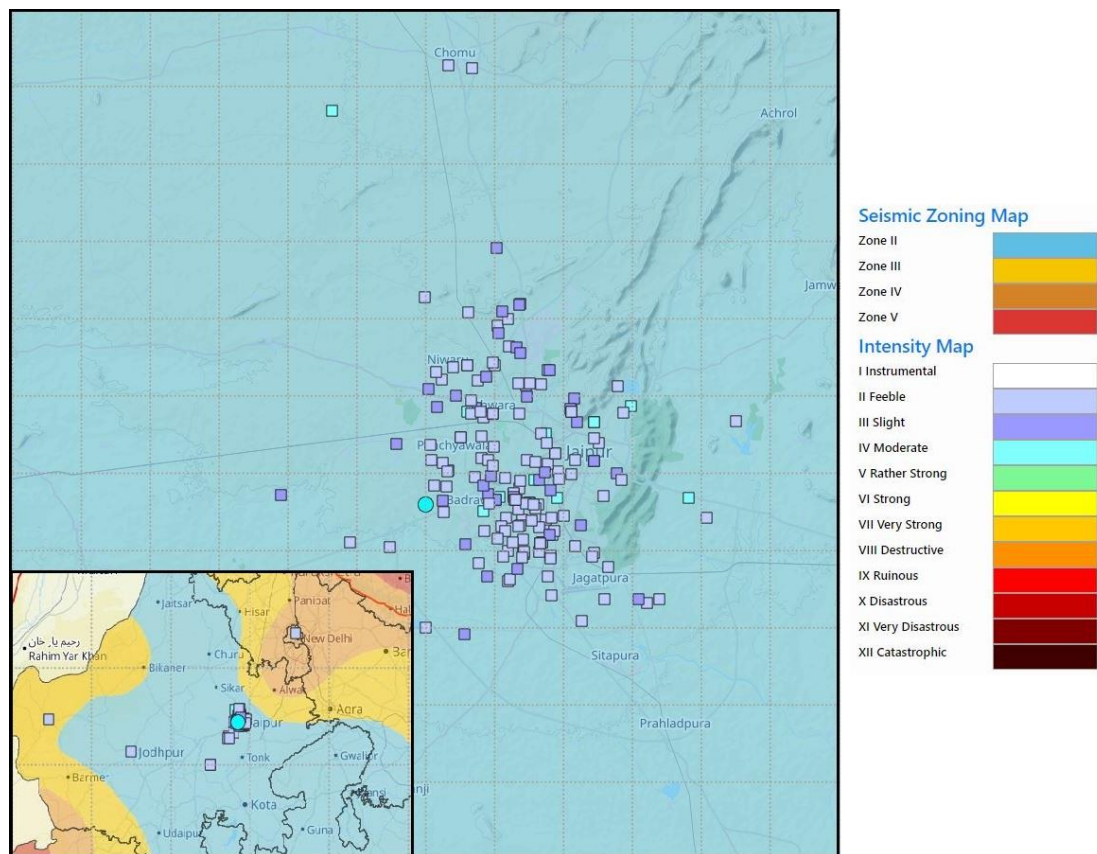
1. An earthquake of magnitude M 4.4 occurred at 04:09:38 IST (local time) in Jaipur district of Rajasthan, India, with epicenter at  $26.88^{\circ}$  N and  $75.70^{\circ}$  E and shallow focal depth of 10 km. The epicenter was about 250 SSW of Delhi, capital of India. The epicenter region lies in Zone-II as per seismic zoning map of India. The four aftershocks of magnitude M 2.5, M 3.1, M 3.4, M 2.5 was also reported within 30 minutes of the mainshocks. The epicenter location and past seismicity of earthquake  $M > 2.5$  occurred within the 100 km of radius from the today's epicenter during the past 10 years (May 2013 to July 2023) is also shown on figure 1.
2. The earthquake was well recorded by seismological network of National Center for Seismology (NCS), New Delhi. Expected intensity of this earthquake is assimilated by NCS, MoES as shown in **Figure 2**.
3. Felt reports of minimum intensity of II (MMI Scale) and maximum Intensity IV (MMI scale) in epicentral region (**Figure 3**) have been reported from around 0 km and 250 km from the epicenter respectively.
4. The earthquake is widely felt in Jaipur city and its neighboring states. More than 80 felt reports due to this earthquake, have been received from Jaipur, Jaisalmer and Delhi through NCS website and Mobile App having intensity ranging from I to IV on Modified Mercalli Intensity (MMI) Scale (**Figure 4**).
5. The epicenter of the earthquake lies in the North of Great Boundary Fault (GBF) which is a major boundary fault. The preliminary fault plane solution obtained from waveform inversion suggest the dominant normal mechanism with strike-slip component for the event.



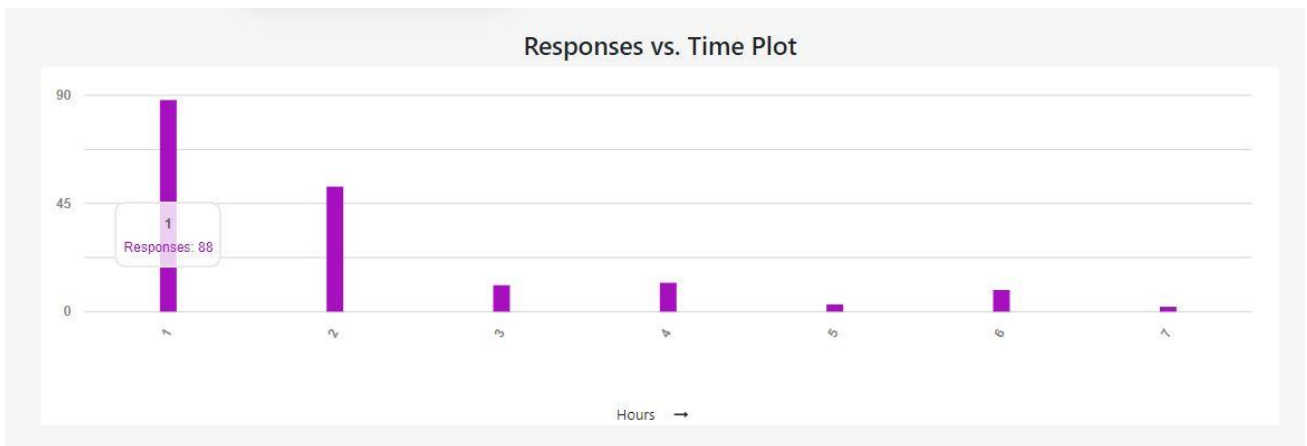
**Fig. 1:** The location of major earthquake of M 4.4 (Red Star) and its aftershocks (Blue circle) occurred on 21<sup>st</sup> July 2023 at Jaipur District, Rajasthan, India. The continuous thick grey lines are the geological features in and around the epicentral region.



**Fig. 2:** The intensity map of M 4.4 earthquake occurred on 21<sup>st</sup> July 2023 at Jaipur District, Rajasthan, India.



**Fig. 3:** Felt responses (purple squares) of the 21<sup>st</sup> July 2023 earthquake M:4.4 (circle) from different users reported on website ([www.seismo.gov.in](http://www.seismo.gov.in)) and BhooKamp mobile-app. More than 80 responses were received within One hours from the time of occurrence of earthquake.



**Fig. 4:** Number of felt responses with respect to time lapses.