

Preliminary Earthquake Report on M:7.5 in Flore Sea, Indonesia, on 15 August 2026

An earthquake of magnitude M:7.5 occurred on 15th August 2026 at 03:28:24 IST (2026-08-14 21:58:24 UTC), on the northern coast of flores sea in East Nusa Tenggara, Indonesia, with an epicenter at 08.490°S, 121.319°E, and a focal depth of 38 km. The epicenter lies approximately 500 km west of Timore-Leste and 1700 km east of Jakarta; 3489 km ESE of Campbell Bay (A&N Islands) and 3870 km SE of Sri Vijaya Puram (PortBlair). The location of the epicenter, along with past earthquakes and major tectonic features, is depicted in Figure-1.

The National Centre for Seismology (NCS), Ministry of Earth Sciences (MoES), in New Delhi, thoroughly monitored the main earthquake event and its aftershocks. Total of 8 aftershocks of $M \geq 5.0$ are reported by the NCS network within 10 hours having maximum of M:6.3 which occurred within 15 minutes after the mainshock.

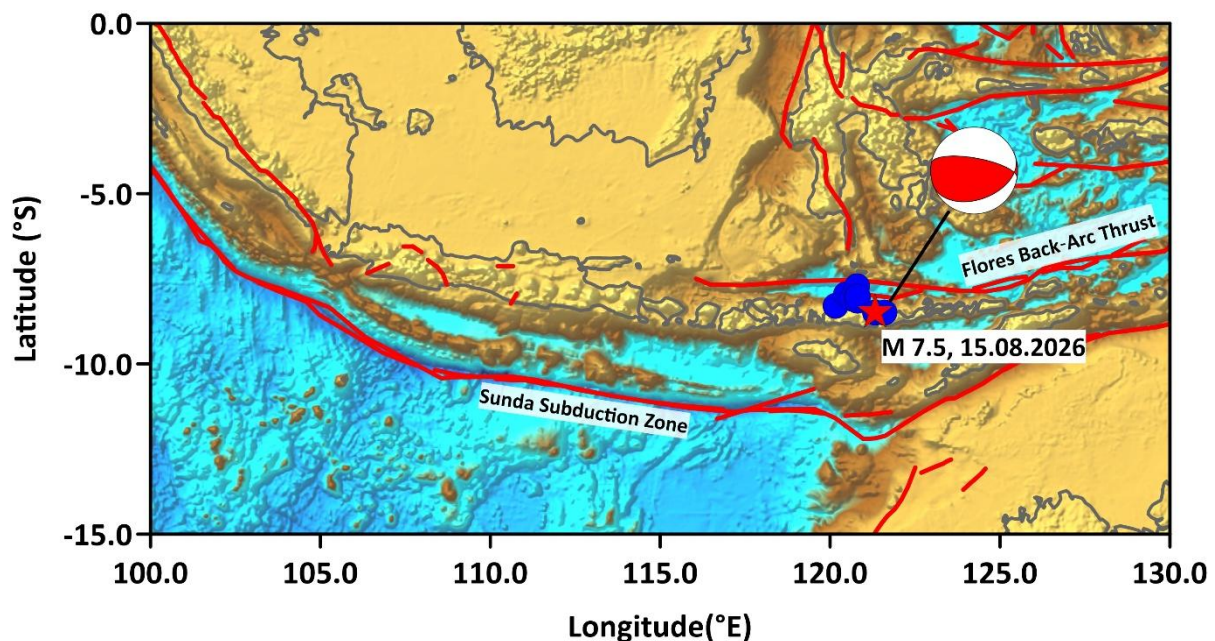


Figure 1. Epicentral location of the Mw 7.5 earthquake of 15 August 2026 in the northern Flores Sea, East Nusa Tenggara, Indonesia. The red star represents the epicentre of the mainshock, and blue circles represents the aftershocks.

The waveform inversion of seismic data suggested a dominant thrust mechanism, which may be associated with the Flores Back-Arc Thrust Fault, a major thrust system north of the Lesser Sunda Islands.

The region around Flores Island, Indonesia, is highly complex and tectonically dynamic, characterized by active volcanism, rapid tectonic uplift, and significant seismic hazard. It lies within the Sunda-Banda Volcanic Arc transition zone, one of the most tectonically active areas on Earth. Strong ground motions were reported across eastern Indonesia, particularly in Mbay (~33 km south of the epicentre), Sikka (~97 km east), and Bajawa (~50 km south-west), with tremors felt as far as Denpasar (~674

km west). The epicentre was located approximately 2–5 km offshore from the northern coastline of East Nusa Tenggara. A tsunami warning was initially issued by the Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG) for the provinces of East Nusa Tenggara, South Sulawesi, and West Nusa Tenggara; however, no tsunami was subsequently observed.

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