Operational intelligence brief #33

M7.8, 64 km NNW of Ende, Indonesia

BRIEF NUMBER	OIB-033
DATE AND TIME	13 Sep 2026 21:58Z
OPERATIONAL PERIOD	14 Aug 2026 21:58Z to 13 Sep 2026 21:58Z
CLASSIFICATION	operational use
PREPARED BY	Watchfloor Seismic Watch

HIGH CONFIDENCE

USGS PAGER holds Orange for this earthquake. The operational picture 30 days after the event rests on that estimate, with 388,811 people under MMI 8+ shaking and 210 fatalities estimated (USGS PAGER on ShakeMap v10, as of 10 Sep 2026 14:23 UTC). Every figure below is stated as of its own source date, not as a change since brief #32.

IN BRIEF

STATUS	USGS PAGER Orange, peak intensity MMI 9, 210 fatalities estimated (USGS PAGER on ShakeMap v10, 10 Sep 2026)
SCALE	388,811 people under MMI 8+ shaking, about a fifth of the MMI 6+ exposure (USGS PAGER, 10 Sep 2026)
WHERE	Ruteng (MMI 7.6), Maumere (7.1), Ende (7.0), by PAGER city intensity (USGS PAGER, 10 Sep 2026)
DO NOW	**The operations lead should decide the reporting item above, planning on 388,811 people in the MMI 8+ band (USGS PAGER, 10 Sep 2026)**
NEXT	Operational intelligence brief #34 at 14 Sep 2026 21:58Z (+31 d)

> This brief carries the published USGS PAGER exposure and fatality estimate, the aftershocks located so far, and USGS's ground-failure alert. Shelter and site figures come from the shelter cluster's site reporting, facility status and health figures from the health authorities, WASH conditions from the WASH (water, sanitation and hygiene) cluster, the food-security phase from the national statistics office and the national food-security assessments, response activity from the responding organisations through OCHA 3W, access and operational constraints from OCHA access reporting and the logistics cluster, search-and-rescue operations status from the responding USAR teams through the on-site operations coordination centre, critical-facility status from the health and education authorities and the utilities, and observed damage from Copernicus EMS rapid mapping and the national disaster-management authority; each reaches this series as it is published.

Population impact

Source: USGS PAGER on ShakeMap v10, automatic (not yet reviewed by USGS analysts), as of 10 Sep 2026 14:23 UTC; PAGER revises as data arrives.

USGS PAGER holds Orange for this earthquake, with peak intensity MMI 9 (USGS PAGER, ShakeMap v10, as of 10 Sep 2026 14:23 UTC). The Watchfloor rapid shaking model read Red before PAGER was published. The epicentre lies 64 km NNW of Ende, Indonesia at 10 km depth, magnitude 7.8 (USGS, revised 11 Sep 2026).

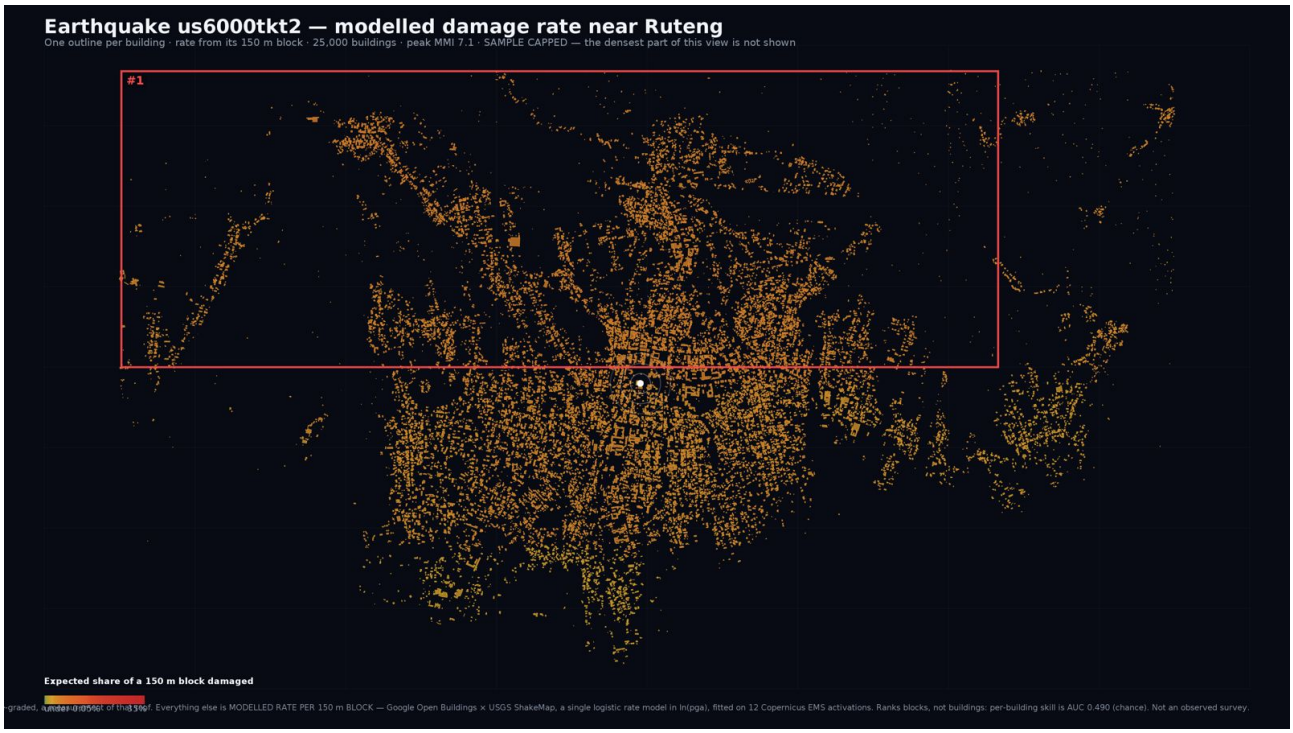
SHAKING BAND	PEOPLE EXPOSED	AGAINST THE MMI 6+ EXPOSURE
MMI 6+	1,762,629	the whole footprint
MMI 7+	1,476,749	about 84% of the MMI 6+ exposure
MMI 8+	388,811	about a fifth of the MMI 6+ exposure

PAGER's empirical estimate is 210 fatalities and about USD 323 million in economic loss — an estimate from shaking and country lethality, not a count of the dead. Headline read: the plannable quantity is the MMI 8+ band, 388,811 people, about a fifth of everyone under damaging shaking.

The most exposed towns, by PAGER's city intensity, are listed highest first.

TOWN	INTENSITY (MMI)	POPULATION
Ruteng	7.6	~53,976
Maumere	7.1	~104,285
Ende	7.0	~87,269
Lungar	7.0	~1,219
Jaong	6.9	~2,162
Pajo	6.7	~12,545
Maunura	6.5	~5,000

Cartography



Modelled damage-rate map (Watchfloor rapid shaking model, modelled, not observed). A building absent from the map is not drawn, not undamaged; boxes rank the worst-hit areas by modelled shaking.

Operational picture

Priority areas follow the rapid model's district ranking. By modelled peak shaking (MMI), highest first: Ende (MMI 8.3) · Nagekeo (MMI 8.1) · Ngada (MMI 7.6) · Sikka (MMI 7.1) · Manggarai Timur (MMI 6.8). 198 further districts are inside the footprint at lower intensity and are not listed (Watchfloor rapid shaking model). The district ranking is by shaking, not by need: a strongly shaken district with sound construction can need less than a weakly shaken one without it.

Population centres of 50,000 people or more within 250 km, by distance from the epicentre; smaller settlements closer to the epicentre exist and are not listed (GeoNames cities1000 gazetteer, source of the populations).

POPULATION CENTRE	DISTANCE FROM THE EPICENTRE	POPULATION (GEONAMES)
Ende	68 km	~87,000
Bajawa	96 km	~62,000
Maumere	142 km	~70,000

The centres are ranked by distance from the epicentre and population, not by observed damage; distance is not need.

Operational implications

(Medium confidence) 388,811 people inside the MMI 8+ band imply a shelter caseload before any damage report exists, because people leave damaged houses whether or not those houses fell (USGS PAGER, as of 10 Sep 2026 14:23 UTC). **(Medium confidence)** The aftershock sequence implies that re-entry and shelter-siting decisions must assume more shaking, not less. These are implications of measurements, not observations; nothing here reports what is happening on the ground.

Operational risks

347 aftershocks of M2.5 or larger have been located within 224 km of the epicentre since the mainshock, the largest M6.1 (USGS catalogue, read 13 Sep 2026 21:58 UTC). USGS's operational aftershock forecast gives an M5 or larger a chance of 13% within 24 hours, 60% within a week, 95% within a month (USGS, as of 11 Sep 2026 20:10 UTC); it is a forecast of the ground, not of humanitarian need. The USGS tsunami flag is not set on this event (USGS, revised 11 Sep 2026); the tsunami warning centres remain the authority for any coastal clearance. Landslide alert Red, ~14,000 people exposed; liquefaction alert Yellow, ~9,800 people exposed (USGS ground-failure product, as of 11 Sep 2026 17:26 UTC). On steep or saturated terrain ground failure is often the difference between a road that exists on the map and a road that exists; the alert says where blockage is likely, not what is blocked.

Priority decisions

- Short term: whether to direct field reporting to the MMI 8+ districts, where displacement registration has not yet been published.

Verification

(Medium confidence) Every exposure and casualty figure here is PAGER's estimate on the published ShakeMap and revises as data arrives; national assessment supersedes it. The district count comes from a modelled shaking footprint, not from any report of damage in those districts. The population centres are ranked by distance, and distance is not need.

Scheduled publications

These are the scheduled publications of this series, counted from the event time; what responders plan to do in the next operational period is reported by the responders themselves.

- Operational intelligence brief #34 — 14 Sep 2026 21:58Z (+31 d)
- Humanitarian snapshot #21 — 16 Sep 2026 21:58Z (+33 d)
- Operational intelligence brief #35 — 17 Sep 2026 21:58Z (+34 d)
- Humanitarian snapshot #22 — 19 Sep 2026 21:58Z (+36 d)
- Operational intelligence brief #36 — 20 Sep 2026 21:58Z (+37 d)

Planning instruction

Planning instruction: The operations lead should decide the reporting item above within this operational period, planning on 388,811 people in the MMI 8+ band (USGS PAGER, as of 10 Sep 2026 14:23 UTC), and treat every figure here as PAGER's estimate until national assessment is published.