TUESDAY 10 JAN 2023 1030 HRS UTC +7

M7.5 EARTHQUAKE IN MALUKU INDONESIA FLASH UPDATE #1



BMKG ShakeMap : 136 km BaratLaut MALUKUTENGGARABRT JAN 10, 2023 00:47:33 WIB, M:7.5, 7.37S 130.23E, Depth:130km, ID:20230110034334 -6 -10 km 150 75 128 130 134 126 132 Map Version 1 Processed Mon Jan 9, 2023 20:38:01 WIB

MMI	1	11-111	IV	v	VI	VII	VIII	IX	X+
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very heavy
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme



Disclosure(s): Estimations are based on data reported/confirmed by National Disaster Managemeni Organisations of the respective ASEAN Member State (Badan Nasional Penanggulangan Bencana) and other verified sources



• **OVERVIEW**:

- At 0047 HRS UTC+7 of 10 January 2023, a M7.9 tectonic earthquake, corrected to M7.5 with epicentre at 7.37S, 130.23E and a depth of 130km (located 136 km Northeast of Maluku Tenggara Barat) rocked Maluku, Indonesia (<u>BMKG</u>).
- Considering the location of the epicentre and the depth of the hypocentre, the earthquake is a result of subduction activity in Banda Sea. Analysis of Indonesia's Badan Meteorologi, Klimatologi dan Geofisika (<u>BMKG</u>) shows that the earthquake have a thrust fault mechanism.
- Further, according to <u>BMKG</u>, the shock of this earthquake was felt in Saumlaki Town (Taninbar Islands Regency) MMI V (felt by almost all residents, waking up many people); Dobo Town (Aru Islands Regency) and Tiakur Town(Southwest Maluku Regency) MMI IV (crowds can feel the earthquake from indoors and outdoors. Some pottery could break, windows and doors rattle, and walls produce sound); and Sorong City, Kaimana, Alor, Waingapu, Waijelu, and Lembata Regencies MMI III-IV (many people felt it in the house during the day).
- **PRELIMINARY ANALYSIS**: This is a very strong earthquake. Based on the preliminary data, earthquakes of this depth and magnitude are expected to result in moderate to severe shaking within 95.0 km from the epicenter. It is estimated that 121,540 people, 30,385 households, and \$779 Million (USD) of infrastructure (total replacement value) are concentrated within this radius.
- <u>ANALYSIS</u>: Modeling results show that this earthquake DOES have a TSUNAMI POTENTIAL. At 0343 HRS UTC+7, TSUNAMI WARNING HAS BEEN ENDED by <u>BMKG</u>. Pacific Tsunami Warning Center (<u>PTWC</u>) further assessed this earthquake and mentioned that there is NO TSUNAMI THREAT. However, strong currents and dangerous sea level fluctuations are still possible.
- <u>AFTERSHOCKS</u>: <u>BMKG</u> monitoring results show that there are FOUR (4) aftershocks as of 0400 HRS UTC+7, with a maximum magnitude of M5.1 and minimum magnitude of M4.1.

• IMPACTS AND DAMAGES:

- According to Badan Nasional Penanggulangan Bencana (BNPB), the earthquake is felt strongly in Southwest and Southeast Maluku, Ambon City, Tanibar Islands, Tual City, and Western Seram Regency.
- According to the report from the <u>BNPB</u>, as of 10 Jan at 1030 HRS UTC+7, this earthquake have caused **1 person injured** and **44 households affected**. Reports of damages includes **33 houses** (19 slightly, 3 moderately, 11 heavily) and **4 schools**.



Reported damages in the affected areas (Source: BNPB)

PREPAREDNESS AND RESPONSE:

- Local Disaster Management Authority (BPBD) in Southwest and Southeast Maluku, Ambon City, Tanibar Islands, Tual City, and Western Seram Regency continue to coordinate with relevant agencies and conducts monitoring. Impact and damage assessments are ongoing by relevant authorities.
- <u>BMKG</u> advised people on the coast of the affected cities / regencies are advised to do normal activity as well as advised communities in all affected areas to remain calm and ensure the building condition before entering the building.
- The AHA Centre will continue to monitor for further developments and issue necessary updates.

DATA SOURCES

SEAN Disaster Monitoring & Response System (DMRS); Pacific Disaster Center (PDC Global); Pacific Tsunami Warning enter (PTWC); whonesia: RNPR RMKG:

Verified news media agencies

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