

(BMKG Press Release)

Tectonic Earthquake M = 7.7 Donggala Regency, Central Sulawesi on Friday, 28 September 2018, Potential Tsunami

Tectonic earthquakes have occurred in Donggala Regency, Central Sulawesi on Friday, September 28, 2018, at 17.02.44 WIB with M 7.7 Location 0.18 LS and 119.85BT and a distance of 26 km from North Donggala Central Sulawesi, with a depth of 10 km.

Based on the results of tsunami modeling with the highest level of alert (0.5m-3m) in Palu and the estimated time of arrival at 17.22 WIB, the BMKG issued a potential tsunami. Tsunami height estimates in Mamuju indicate the wasapada level, which is an estimated tsunami height of less than 0.5m. After checking the observation results of the tide gauge in Mamuju, it was noted that there was a change in sea level rise as high as 6 cm at 17.27 WIB. The distance between Palu and Mamuju is 237 km. Based on the results of the updated earthquake source mechanism with strike type and observation of the height of the tsunami wave, and the estimated time of arrival of the tsunami, the Tsunami Early Warning (PDT) was ended at 17.36.12 WIB.

From the results of BMKG monitoring until 02.55 WIB, there were 76 aftershocks recorded, with the largest magnitude of M6,3; and the smallest M2.9. BMKG continues to monitor the development of aftershocks and the results will be informed to the public through the media.

2. Impact of Earthquakes This earthquake shock was felt in Donggala VII-VIII MMI, Palu, Mapaga VI-VII MMI, Gorontalo and Poso III-IV MMI, Majene and Soroako III MMI, Kendari, Kolaka, Konawe Utara, Bone, Sengkang, Kaltim and Kaltara II - III MMI, Makassar, Gowa, and Toraja II MMI.

Until now there have been reports of the impact of damage caused by the earthquake. Based on temporary data from the BPBD of Donggala Regency, 1 person died, 10 people were injured and dozens of houses were damaged. The victim was hit by a collapsed building.



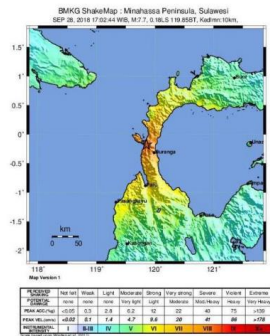


Figure 1. Map of Donggala Earthquake Shakemap, Central Sulawesi

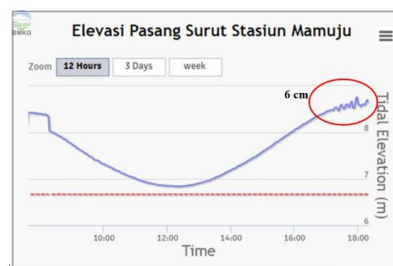


Figure 2. Recordings of Mamuju, West Sulawesi observation tide gauge



Figure 3. Location of earthquake epicenter in Donggala, Central Sulawesi

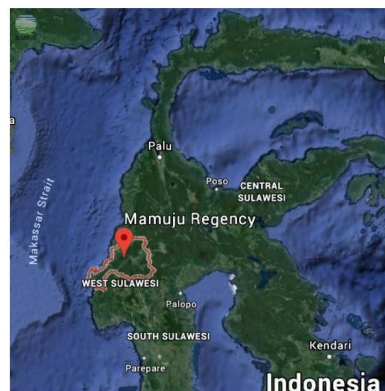


Figure 4. Location of Mamuju's tide gauge, West Sulawesi

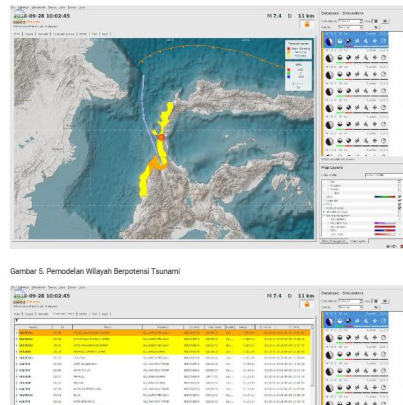


Figure 5. Modeling of Tsunami Potential Areas

3. Causes of Earthquakes By paying attention to the epicenter location and hypocenter depth, the earthquake that occurred was a kind of shallow earthquake due to the Koro Hammer fault activity. The analysis of the source mechanism shows that this earthquake, generated by deformation with the mechanism of movement of the horizontal fault structure (Slake-Slip).

#### 4. Appeals to the community

- To remain calm and follow the direction of the local BPBD, as well as information from BMKG. Don't be provoked by irresponsible issues regarding earthquakes and tsunamis.
- To remain vigilant with the occurrence of aftershocks which generally diminish in strength.

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#### (Other News)

Rahmat Triyono, Head of the BMKG Earthquake and Tsunami Center said after the earthquake in Donggala, Tsunamis occurred in Palu, Donggala and Mamuju. BMKG confirmed and declared the Tsunami was over. There is no clear data related to the height of the Tsunami wave, but BMKG estimates that the height is 1.5 - 3 meters.



Near Palu