

Earthquake In Palu Areas, As An Indication Of Active Faults In Palu-Koro, Central Sulawesi

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SUMMARY

Central Sulawesi is part of active tectonic as a product of subduction, which produce geological phenomena such as volcanism and tectonic activity. Palu-Koro fault section passing through the center of Sulawesi island in Central Sulawesi town of Palu right divides into two parts, east and west. Central Sulawesi is one of the area with a high level of seismicity in Indonesia.

Geographically, the study area lies between 119° 47' 31.891" East Longitude to 120° 1' 46.488" East Longitude and 1° 12' 15.714" South Latitude to 0° 50' 20.922" South Latitude. The research aims to find geomorphological configuration in the study area, Geological structure of study area, relationship between earthquake epicenter with the fault in research area.

Mapping methods that used are measurement of geological data include strike/dip, megascopic rock description, taking photographs and field test of statistical data to prove there is a relation between seismic data and the Fault which is located in research area, and the preparation of the final report and making seismotectonic map.

Palu-Koro fault is one of the horizontal sinistral faults in the island of Sulawesi. Palu-Koro fault is expressed by the geomorphology aspects. The earthquake data and anykind of collected data in the research area show that the kind of faults in the field area are normal and sinistral faults. To support those data, authors used the epicenter of the earthquake record data from the USGS (United States Geological Survey), as well as the earthquake data from BMKG (The Meteorology, Climatology and Geophysics Council). The sliding-fault of Palu-Koro and the minor-fault around Palu-Koro are the indication caused the earthquakes in Palu and area surrounded. Based on the results of the study, Palu-Koro Fault is included the type of an oblique-active fault.