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Analysis on Propagation and Potentiality of Tsunami in West Coast of Sumatra

Earthquake was frequently occurred in Aceh and in some cases with tsunami potentially. In this research we identify earthquake with tsunami potential. The purpose of this study to analyze the shape and location of ocean bottom earthquake source to observe the pattern of tsunami wave propagation by means of the cross section area bathymetry maps of the study. The research method used well and Coppersmith equations in the input parameters in the software settings tsunami L-2008. these equations can be obtained through extensive section of data information USGS CMT parameter, then performed on the input data software L-2008, until the resulting output from the vertical display position of fault deformation, bathymetry structure and tsunami run-up. The conclusion is the shape of bathymetry of the Sunda trench before reaching the west coast of Sumatra will inhibit propagation run-up the achievement of maximum tsunami wave as it passes through the ridge oceanic plate boundaries around the Sunda trench. Maximum tsunami run-up to external sources of subduction zone earthquakes ranging from 0.8 - 158 m. These results contrast with the historical data for the case of the tsunami in Aceh earthquake different sources.

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