

Preliminary Results of Continuous Monitoring and Surface Condition of An Active Fault In The Southeast Aceh

Southeast Aceh is one of the most seismically region, because the existence of the subduction zone and Great Sumateran Fault. Some historical devastating earthquake with magnitude range 5 – 7 occurred in 1965, 1980, 1997, 2008 and 2010, and could make intensity 4 – 7 MMI. To know the seismic activity, we have been deploy 7 seismometers, 3 short periods and 4 broadband, with adding some station from BMKG and CTBTO network for 6 months from August 2018 until March 2019, which every 2 month we download the data. After 4 months recording, to get the preliminary results, we downloaded, investigated and analysed the waveform and found 900 event after did automatic locate with using STA/LTA method. From the result, the hypocentre distribution more occurred and spreaded in the southern part than northern part. Because of that, we rotate 3 sensor closed to the southern part, to minimalize the azimuth coverage and get a tigh raypath. We also conduct the microtremor survey to know the surface condition which standing on the basin. We take 25 point and analyse the H/V to get the dominant parameter. From H/V results, the surface condition can be inhabited, and not too influenced by microwave.

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Track Classification: Theme 1. The Earth as a Complex System