

# **Earthquake and Tsunami Propagation Scenario in Tawau, Sabah - Evaluation Of The North Sulawesi Fault Parameter**

## **ABSTRACT**

This study integrates analytical earthquake parameters with tsunami simulation application (TUNAMI-N2) and GIS (Geographic Information System). A total of 350 modelling on six earthquake parameters was carried out and a total of 79 observation segments was used to categorize waves height and to classify the level of tsunami threat in Tawau. Slip magnitude is the most sensitive parameter which contributes to the increase in wave height of 0.06m in the case of Northern Sulawesi. Every 1km change in fault width will contribute to a change of 0.05 waves height in the case of Northern Sulawesi. Changes in the value of rake and dip angles, fault length, and focal depth do not show consistent and significant changes in wave heights.