

1.5-P46. The Numerical Tsunami Inundation Modeling in Ujung Kulon, Indonesia for Potential Earthquake Mw 8.7 in Southwest of Sunda Strait

Ujung Kulon is located at westernmost of Java Island, Indonesia. In this area there is the national park that have important role to protect the habitat of the Javan rhinoceros. Based on historical of the significant earthquake have occurred in Sunda Trench, there is seismic gap in southwest of Sunda strait. By scalling law calculation, this seismic gap potentially causes the large earthquake with moment magnitude (Mw) 8.7 and can generate tsunami. To anticipate the impact of tsunami, we perform a tsunami numerical inundation modeling in Ujung Kulon. We using modified of TUNAMI-N2 (Tohoku University's Numerical Analysis Model for Investigation of Near Field Tsunami, No.2) to make the numerical inundation modeling. We applied the non linear shallow water theory with bottom friction and four different spatial grid size (nested grid system) in spherical coordinate system for the computation. The results shows that the first tsunami wave was arrived in Ujung Kulon 13.33 minutes after earthquake with maximum tsunami height of 9.8 meter and tsunami run up of 11.6 meter. These results prove that Ujung Kulon have a high tsunami risk threat from earthquake that occur in around of Sunda strait.

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