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## modeling and inundation area from landslide scenario due to the Rokatenda volcano eruption

The peril associated with the eruption of Rokatenda Volcano is not solely attributed to its eruptive products, but it also possesses the capacity to induce a tsunami. This investigation seeks to simulate the timing of tsunami arrival and its height, as well as to model the inundation effects stemming from a landslide estimation that could precipitate a tsunami following an eruption of Rokatenda Volcano. This research employs the COMCOT (Cornell Multi-grid Coupled Tsunami) software for tsunami modeling purposes. Parameters for the landslide scenarios are developed based on an estimation of the total volume of landslide debris that may be generated during an eruption. The volume ranges from 25 million to 100 million cubic meters. This estimation also incorporates the volume of lava discharged during the eruption. Two distinct directions for the landslide scenarios were determined based on the orientation of the lava flow as delineated in the Rokatenda Volcano Hazard Area Map which is issued by PVMBG. The outcomes from the tsunami modeling encompass a model for the propagation of tsunami waves, as well as calculations for arrival time, height, inundation height and a tsunami hazard map corresponding to the most severe scenario.

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