

Preparedness for Tsunami Disaster: A Case Study for Tsunami Ready Community in Glagah Village, Kulon Progo, Yogyakarta - Indonesia

Tuesday, 20 June 2023 09:33 (1 minute)

The activity of the subduction zone in the south of Java island has been generating severe earthquakes and tsunami events in the past. This natural disaster made the southern region of Java, including the Yogyakarta special region (DIY), prone to incoming tsunamis. Kalurahan Glagah, a village in the south part of DIY, is one of 1,013 villages in Indonesia that has a high tsunami vulnerability, so it is necessary to prepare its community for a tsunami that can occur at any time.

We have assisted the local government in increasing the preparedness of its people in dealing with the tsunami. Through the capacity building program such as Earthquake Field School and providing detailed tsunami hazard maps using the worst-case scenario. Based on numerical modeling results, we identify that the Mw8.8 earthquake can generate a tsunami wave as high as 22 m with a wave arrival time of 38 minutes on the coastline of DIY. The existence of Yogyakarta International Airport in Glagah Village as an earthquake-resistant structure means that this airport can be utilized as a vertical evacuation place. The synergy between stakeholders has received national recognition from Indonesia's National Tsunami Ready Board and seeking international recognition by UNESCO Intergovernmental Oceanographic Commission.

E-mail

setyoajie.prayoedhie@bmkgo.go.id

Promotional text

The synergy in mitigation efforts towards zero victims through the Tsunami Ready Community program between stakeholders in Glagah Village, Yogyakarta, and seeking international recognition by UNESCO-IOC.

Oral preference format

in-person

Primary author: Mr PRAYOEDHIE, Setyoajie (Meteorology, Climatology, and Geophysical Agency of Indonesia (BMKG))

Co-authors: Ms EKARSTI, Ayu Krisno (Meteorology, Climatology, and Geophysical Agency of Indonesia (BMKG)); Ms YUDHIASTUTI, Berta (Meteorology, Climatology, and Geophysical Agency of Indonesia (BMKG))

Presenter: Mr PRAYOEDHIE, Setyoajie (Meteorology, Climatology, and Geophysical Agency of Indonesia (BMKG))

Session Classification: Lightning talks: P1.3, P1.4, P5.2

Track Classification: Theme 5. CTBT in a Global Context: T5.2 Synergies with Global Challenges