

4th International Conference on **Earth Science & Climate Change**

June 16-18, 2015 Alicante, Spain

Tsunami hazard assessment along the coast of Lingayen Gulf, Pangasinan, Philippines

Julius Galdiano

University of the Philippines Diliman Campus, Philippines

This study discusses the tsunami simulation performed in Lingayen Gulf using two different earthquake scenarios. Three bathymetry datasets (GEBCO 1 arc-min, GEBCO 30 arc-sec, and GEBCO 30 arc-sec updated with digitized bathymetry points) were used and the resulting tsunami heights and travel time calculation were compared. The results further complement the objective of the existing tsunami sensor installed in Lingayen Gulf, which aims at giving timely warning when a tsunami strikes the coastal communities. The simulation results demonstrated that the two earthquake scenarios produced different tsunami heights and travel times. Also, the uses of GEBCO 1 arc-min and GEBCO 30 arc-sec bathymetry datasets have remarkable differences on the resulting tsunami heights and travel times. Whereas, the uses of GEBCO 30 arc-sec and GEBCO 30 arc-sec updated with digitized bathymetry points have negligible differences. The existing tsunami sensor is effective as an alarm system in the inner bay, while it is ineffective in the outer bay. A combination of the existing and a proposed site of tsunami sensor along the Lingayen Gulf would advance to a robust tsunami early warning system to the affected coastal communities.

Biography

Julius Galdiano has completed his Masters Degree from National Graduate Institute of Policy Studies in Tokyo, Japan. He has completed his Graduate Diploma in Urban and Regional Planning from the University of the Philippines and Graduate Diploma in Tsunami Disaster Mitigation from the International Institute of Seismology and Earthquake Engineering in Tsukuba, Japan. He is the officer-in-charge of Sinaït Seismic Station-PHIVOLCS. He is involved in researches on earthquake disaster mitigation. He co-authored several paper presented in scientific conferences.

JULZ508@yahoo.com

Notes: