

Scenario-Based Storm Surge Vulnerability Assessment Of Catanduanes

John Kenneth Suarez (1), Christine Ladiero (1), Judd Tablazon (1), Joy Santiago (1), Alfredo Mahar Francisco Lagmay (1,2)

(1) Nationwide Operational Assessment of Hazards, Quezon City, Philippines , (2) National Institute of Geological Sciences, University of the Philippines-Diliman, Quezon City, Philippines

After the devastating storm surge of Typhoon Haiyan, the public recognized the need for improved communication about storm surges and the risks they pose. Hazard and vulnerability maps provide concrete understanding of the risks and vulnerabilities and direction of resources needed for protection. Moreover, those maps are needed if the hazard is to be managed properly. To serve as a concrete model, the storm-surge vulnerability of Catanduanes, a Philippine coastal province, was analyzed in terms of four parameters: demography; built and natural environments; and agriculture. The study relies on existing storm surge inundation maps based on 1-2, 3, 4, and 5-meter surge heights. To determine the total percent affected for each parameter, a GIS overlay analysis was performed. The results of this study will help any other province assess its present condition and adapt strategies to reduce its vulnerabilities.