

This is the portal to download storm surge maps generated under the DOST-Project NOAH program with main office at the National Institute of Geological Sciences (NIGS), University of the Philippines. The sub-program entitled “**System to Identify, Quantify and Map the Storm Surge Threat to Philippine Coasts**” was implemented by PAGASA in cooperation with research scientists from NIGS as the principal developers of the hazard maps.

The project is a DOST Grant-In-Aid project under Project NOAH implemented by PAGASA. The project aims to enhance the disaster-forecasting capabilities of PAGASA by beginning to generate detailed maps of storm surge and inundation susceptibilities by using Japan Meteorological Agency storm surge model in simulating 721 tropical cyclones that entered the Philippine Area of Responsibility from 1951-2013. Maximum tide levels from the WXTide software were added to the result of storm surge simulation. The storm tide levels were categorized into four groups based on their peak height to create the SSA – SSA 1 (2.01m to 3m), SSA 2 (3.01m to 4m), SSA 3 (4.01m to 5m), and SSA 4 (5m and above). The time series for each advisory level was used in inundation modeling using FLO-2D, a two-dimensional flood modeling software that uses continuity and dynamic wave momentum equation. The project completed all 67 coastal provinces in the country using a 1:20,000 scale Digital Terrain Model from NAMRIA as basemap for the storm surge hazard simulations.

All maps are released for the benefit of the Filipino people, taking into consideration that the storm surge hazard maps are needed for the formulation of disaster risk reduction plans of local government units. These maps are delivered free of charge to public according to the data sharing policy (Open Data) enshrined in the General Appropriations Act of 2015, which states that “all government entities to adopt a policy of openness for all datasets created, collected, processed, disseminated, or disposed through the use of public funds to the extent permitted by applicable laws and subject to individual privacy, confidentiality, national security, or other legally-mandated restrictions. Openness means that datasets published by agencies shall be machine-readable, in open formats and released with open licenses”. This policy seeks to drive government decision-making based on available and sound data, establishes linkages with CSOs, the private sector, and academe, and aspires to create opportunities that benefit both the government and the public (<http://data.gov.ph>).

The policy on openness is consistent with our commitments to the international community because we deal with products that are directly related to disaster risk reduction and we should take the lead in getting best practices in DRR applied. Open Data and timely delivery of disaster products are important in DRR. Promotion and enhancement of access to these items, particularly geospatial data, discussed and emphasized in the recently drafted UN disaster risk reduction framework (Hyogo Framework for Action 2 or HFA2) are imperative for DRR. The pertinent provision in the Sendai Framework for disaster risk reduction is found in Article III (Guiding Principles) Section G, where it is stated that “Disaster risk reduction requires a multi-hazard approach and inclusive risk- informed decision-making **based on the open exchange and dissemination of disaggregated data**, including by sex, age, and disability, **as well as on easily accessible, up-to-date, comprehensible, science-based, non-sensitive risk information**, complemented by traditional knowledge”

The maps should be used responsibly, scientifically, and alongside the ISI journal articles published by the creators of the dataset. These journal articles, which need to be cited as an ethical standard when the datasets are used, are as follows:

- J. P. Lapidez, J. Tablazon, L. Dasallas, L. A. Gonzalo, K. M. Cabacaba, M. M. A. Ramos, J. K. Suarez, J. Santiago, A. M. F. Lagmay, and V. Malano (2015). Identification of storm surge vulnerable areas in the Philippines through the simulation of Typhoon Haiyan-induced storm surge levels over historical storm tracks. *National Hazards and Earth System Sciences*, 15, 1473-1481 doi:10.5194/nhess-15-1473-2015
- A.M.F. Lagmay and N. Kerle (2015). Typhoons: Storm-surge models helped for Hagupit. *Nature*. 519, 414 doi:10.1038/519414b.
- J. Tablazon, C. V. Caro, A. M. F. Lagmay, J. B. L. Briones, L. Dasallas, J. P. Lapidez, J. Santiago, J. K. Suarez, C. Ladiero, L. A. Gonzalo, M. T. F. Mungcal, and V. Malano. (2015). Probabilistic storm surge inundation maps for Metro Manila based on Philippine public storm warning signals. *National Hazards and Earth System Sciences*, 15, 557-570 doi:10.5194/nhess-15-557-2015
- A.M.F. Lagmay, R.P. Agaton, M.C. Bahala, J.T Briones, KM.C. Cabacaba, C.V.C. Caro, L.L. Dasallas, L.I.L. Gonzalo, C.N. Ladiero, J.P. Lapidez, M.T.F. Mungcal, J.V.R. Puno, M.C. Ramos, J. Santiago, J.K. Suarez, J.P. Tablazon (2015). Devastating storm surges of Typhoon Haiyan. *International Journal of Disaster Risk Reduction*. V. 11, pp. 1-12

The maps, produced and delivered on a nationwide-scale, can be improved by the local and scientific communities for detail and accuracy. We welcome discussions on how the quality of these datasets can be upgraded.