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Development of historical storm surge events database for better understanding of coastal disaster management in the Philippines

Joy Santiago and the Storm Surge Component - Nationwide Operational Assessment of Hazards Team
Nationwide Operational Assessment of Hazards, Quezon City, Philippines (joytoriolsantiago@gmail.com)

Environmental hazards impose harm to lives and properties. One of the hazards the Philippines is exposed to is storm surge. This can be attested by the impacts brought by Supertyphoon Haiyan in 2013 with approximately 6300 deaths and 2.1 billion USD damage to properties. To mitigate this kind of losses, it is essential to understand the framework of managing disaster risk reduction in the country and the best practices that we can learn from. This research aims to examine impacts of storm surges that have occurred in the country since 1881 to 2015, using historical and systematic literature review and data triangulation. This study will compare the characteristics of the source of hazards, fatalities, affected households, and damage to properties. This will also evaluate how storm surge hazard assessment and mitigation management in the country progresses throughout the years. Even though there is still no international consensus on the quantitative definition on the scale on how much loss due to hazard has to occur in order to qualify as a disaster, this research will consider an event a disaster if there were 10 or more deaths, and/or 100 or more affected individuals, and/or there was a declaration of a state of calamity as defined by the Center for Research on the Epidemiology of Disasters. This study will not include the complex processes that extend beyond the event as the results of a disaster such as trauma to affected individuals, lost education, induced losses on sales, wages, and profits due to loss of function and many others. Furthermore, this study may serve as a preliminary database for the Philippine government which can be used for replicating frameworks and techniques for effective implementation of disaster preparedness planning and post-disaster recovery.