PROPOSAL PROJECT TO EXPLORE USE OF LATEST TECHNOLOGIES TO PROVIDE EARLY WARNING CAPABILITIES FOR STORM SURGE IN THE SOUTH CHINA SEA

The Need

In recent years, we have witness increased occurrence and intensity of tropical cyclones in the South China Sea, resulting in extensive loss of lives and properties in the coastal regions. Using Philippines as an example, it experiences an average of 20 tropical cyclones annually. South China Sea being a semi-enclosed sea, storm surges are often a result of intense tropical cyclones or as a result of prolonged wind intensity during the north-east monsoon.

Although the loss of lives and properties cannot be eliminated, the impact could be reduced through the development and use of technologies and modelling to predict, evaluate and monitor the risks of storm surges occurring.

Objective

The objective of the project proposal is identify available latest technologies and cost effective solutions to accurately and timely measure storm surges from the impact of tropical cyclones. The information generated can then be used to develop an effective and accurate predictive tools. To achieve this, there is an important need to incorporate comprehensive and up-to-date bathymetic and coastal details for input to the model.

Project Proposal

Phase 1 – Identification of latest available technologies, for example, use of satellite sensing system coupled with possible ground based instrumentation to compare and verify the measurements. It is also necessary to identify participating countries to contribute coastal bathymetric and land data for input into the model.

Phase 2 – Development of model and to integrate the measured data from the various sensors and coastal bathymetric and coastal data. There is also a need to carry out verificationa and calibration of the model.

Deliverables

Establisment of an integrated system that is cost effective to measure and carry out modelling tools to predict storm surges as a result of tropical cyclones or monsoons.

Benefits

Cooperation and collaboration among Coastal States to minimise impact of storm surges to lives and economic losses.

If successful, this concept can be applied to other regions in the world.