Abstract of Presentation

Presentation Title:

Experiences and Prospects by the Philippines in Developing an Information Infrastructure for Flood Hazard Assessment and Advisory

Abstract :

The Philippines is visited by an average of 18 typhoons every year and increasingly frequented by monsoon events packed carrying heavy rainfall. These hydrometeorological conditions make the country susceptible to flooding hazards especially in the plains and low-lying areas. In this paper, we present an integrated approach to assess flooding events and generate river water level forecasts as a means to mitigate threats posed by flood hazards. First, to accurately define the topographic conditions in the most flood-prone areas in the country, LIDAR mapping was done. Automated rain gauges and water level sensors were installed in strategic locations within the watersheds and along the rivers respectively to capture possible flooding events Rain and river water level are then ingested into the watershed and flood simulation models that make use of the LIDAR-derived digital elevation models to route water flow. The data captured within a 24-hour period and the results of the models are then disseminated online through a web-based system. We will present initial accomplishments to date, case studies demonstrating the applicability of the systems developed, and finally prospects for future work.