HIGH-RESOLUTION DIGITAL ELEVATION DATASET DERIVED FROM AIRBORNE LIDAR FOR FLOOD HAZARD ASSSESSMENT AND MAPPING APPLICATIONS

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ABSTRACT: The Philippines experience at least 19 typhoons a year, eight to nine of which actually make a landfall. Perennially these events threaten lives, damage property and impede all efforts of economic growth. In the last four months of 2011 alone, tropical cyclones claimed the lives of over one thousand Filipinos and damaged properties of significant value. This paper presents the current research and developments efforts to acquire a national elevation and resource information dataset at sufficient detail and resolution from which various features necessary for flood hazards. Airborne LIDAR and high-resolution remote sensing images are used to cover 17 major river systems over 100,000 sq. km. of the Philippine archipelago. The digital elevation models will be used to create flood models from which flood hazard maps will be generated. The resource information to be generated in this proposed project will respond to information requirements of development planning, natural resource and environment, disaster risk reduction and climate change adaptation.