

Mapping of the Typhoon Haiyan Affected Areas in the Philippines Using Geospatial and Very High Resolution Satellite Images

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ABSTRACT

Typhoon Haiyan (local name Yolanda) which hit the Philippines in November 2013 is the most destructive and deadliest typhoon ever experienced by the country, causing 6,300 in lost lives and more than \$2 billion in damaged properties. The Office of Presidential Assistant for Rehabilitation and Recovery (OPARR) was created to expedite the coordination and monitoring efforts in the release of project funds for the affected areas.

The National Mapping and Resource Information Authority (NAMRIA), as central mapping agency of the government, produced the topographic base maps at scale 1:10,000 of the disaster-stricken areas for use by the OPARR, national and local government units and relief agencies in the rehabilitation efforts. It utilized Very High Resolution Satellite Images as primary image source. These were supplemented by Interferometric Synthetic Aperture Radar (IfSAR) data to obtain elevation data. Field validation and verification surveys were conducted to gather secondary information about infrastructure, vegetation, administrative boundaries and geographic names. The extracted ground features and field data with attributes were integrated into a centralized geodatabase. Aside from disaster management, the new topographic maps are being used by local government units in updating their Comprehensive Land Use Plans.

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