

## Landslide mapping using AW3D 2m DEM: a case study in Tegucigalpa, Honduras

\*Go Sato<sup>1</sup>, Hiroshi Yagi<sup>2</sup>, Elias Garcia-Urquia<sup>3</sup>, Mark Reilly Mullings Najera<sup>3</sup>, Takeru Kuwano<sup>4</sup>, Kazunori Hayashi<sup>5</sup>, Kazuo Isono<sup>6</sup>

1.Graduate School of Environmental Information, Teikyo Heisei University, 2.Faculty of Art, Science and Education, Yamagata University, 3.National Autonomous University of Honduras, 4.Kokusai Kogyo Co., LTD., 5.Okuyama Boring Co., LTD., 6.Remote Sensing Technology Center of Japan

In 1998, Tegucigalpa, the capital of the Republic of Honduras, suffered heavy damages by landslides induced by Hurricane Mitch. We have conducted the project of landslide mapping and susceptibility evaluation to reduce landslide disasters as a contribution of the work carried out by the Japan International Cooperation Agency (JICA) since 2015. In this project, we used digital air-photographs taken by JICA and high resolution DEM (Digital Elevation Model) generated by NTT Data and RESTEC (Remote Sensing Technology Center of Japan) using Digital Globe imagery. These data enabled us to create a detailed landslide distribution map to compare with the previous map that used 1:50,000 Honduran topographic data as base map. In the presentation, we will introduce the result of landslide mapping and explain the advantage of using the high-resolution AW3D 2m DEM.

Keywords: Landslide distribution map, AW3D, Tegucigalpa