

Vulnerability and Resiliency of coastal communities in Dominican Republic:

Tropical coastal islands are the most vulnerable to climate changes due to slow sea-level rises and sudden coastal flooding in tropical cyclonic events. The US Agency for International Development (USAID) has commissioned NOAA-CREST Center to quantify the vulnerability of coastal communities due to climate changes in Dominican Republic via an initiative referred as Climate-Informatics and Adaptation. The effort consists on identification of extreme events possibilities and quantification of vulnerability of the communities via climate change vulnerability indexes (CCVI) for three coastal communities. An intern interested may assist in this effort by quantifying CCVI for 1-coastal community in the southern coast of Dominican Republic. The task will involve case studies based on past extreme events (Hurricanes w/landfalls), quantification of damage via geo-spatial extent using satellite imagery and official reports, and CCVI using exposure of the community and ability to adapt. The net outcome will be a series of GIS based CCVI index for the community (ies). The student will learn of; cliamet changes, impacts of coastal flooding in tropical regions, vulnerability indexes, GIS, and visible satellite imagery. Basic knowledge of GIS as pre-requisite is a plus. The intern will report to a team consisting of; faculty (Prof. J Gonzalez), a post-doctoral fellow (Moises Malaspina), a master student (Equisha Glenn), and an undergraduate researcher (Ambar Mesa).