ABSTRACT & ABOUT DEVELOP

NASA’s DEVELOP program engages individuals and organizations in 10-week feasibility studies to apply NASA Earth observations (EO) to decision makers’ needs. Since 2018, DEVELOP conducted 21 projects in Central and South America, eight of those in collaboration with Sistema de la Integración Centroamericana (SICA) and its member state partner agencies. These projects addressed a diverse set of community needs across multiple themes, including a project focused on monitoring aerosols using satellite-based measurements from Aqua and Terra MODIS, Suomi NPP VIIRS, and CALIPSO CALIOP and in situ data in El Salvador, Guatemala, and Panama. This poster introduces DEVELOP, its approach to capacity building, key partnerships, and project results highlighting the capabilities of Earth observations for enhanced decision making in the area of health.

The DEVELOP model of capacity building connects users (federal agencies, state & local governments, non-profits, private industry, etc.) and early career professionals (primarily students & recent graduates) through rapid feasibility studies. Projects are tailored specific to the partner’s decision-making needs and explore the feasibility of integrating NASA remote sensing assets into decision-making processes. DEVELOP’s health applications focus on a variety of themes: monitoring air quality and pollution, extreme heat, urban heat islands, and zoonotic and vector borne disease mapping, monitoring, and forecasting.

PERU HEALTH & AIR QUALITY – 2021 SUMMER

This project partnered with the Peru Ministry of the Environment and Ministry of Health to apply Landsat 5 TM and Landsat 8 OLI data to explore land use change in the rapidly developing Madre de Dios region of Peru and the negative implications on zoonotic disease incidence.

CENTRAL AMERICA HEALTH & AIR QUALITY – 2019 FALL

This project partnered with MARN in El Salvador and Guatemala to identify particulate matter and aerosols using Aqua & Terra MODIS, CALIPSO CALIOP, and Suomi-NPP VIIRS, as well as data from NASA FIRMS and in-situ health data to understand how fires impact AQ and how that impacts human health in the region.

For more information, visit: https://develop.larc.nasa.gov