2022-10-24 | Session 1C | Pecora 2022

1C: Advancing environmental and climate justice, extending the benefits of remote sensing to traditionally underserved communities, and advancing gender and racial equality in EO

SERVIR in Central America

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Planning the SERVIR Hub in Central America

NASA / SICA joint statement (2019)

- Support Earth observation research and applications
- Priorities span Group on Earth Observations, Applied Sciences Program, Research & Analysis
- Explore concrete joint activities

SICA / World Bank agreement (2020)

- Provide additional support to the NASA-SICA joint statement

Action Towards a SERVIR Central America Hub (2021-2022)

- USAID-funded geospatial assessment
- NASA and USAID joint planning and co-design
- Supports Administration climate adaptation and resilience priorities for the region

NASA SICA joint statement | credit: SICA

Forecasting Algal Blooms in Lake Atitlan [1]

Available at: **https://freshwater.net/**

This system forecasts daily probability of algal bloom formations in Lake Atitlan. A biodiversity and cultural landmark in Guatemala, Lake Atitlan is the second most visited site in the country.

This forecasting system is a key input into the Lake Authority's Harmful Algal Bloom (HAB) Alert System. A new algal bloom was detected in late August 2022 as a result of the information provided by this forecast.

A key input into the forecast model is GEOGloWS[2] ECMWF streamflow data.

The web platform also provides daily information on the lake environmental conditions to inform authorities about conditions for field campaigns.

[1] This project was supported by National Geographic and Microsoft.
[2] GEOGloWS is supported by CNES, NASA, World Bank, Microsoft, BYU, NOAA, the Swiss government, with additional in-kind contributions from ECMWF, JRC, BYU, USAID-NASA-SERVIR, Esri, and many national hydromet agencies.

Earth Observations in Action

1. FORECAST
Daily algal bloom probability

→

2.VERIFICATION
Informs WQ field campaigns by AMSCLAE and UVG

→

3. ALERT
HAB Alert System / Activate Action Plan

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE · SERVIR · GOBIERNO de GUATEMALA · AUTORIDAD PARA EL MANEJO SUSTENTABLE DE LA CUENCA DEL LAGO DE ATITLAN Y SU ENTORNO · AMSCLAE · UVG · CENTRO DE ESTUDIOS ATITLÁN · BYU Civil & Environmental Engineering

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