Flood and Climate Information for Management of Disasters and Mosquito-Borne Disease

SERVIR Applied Sciences Team Project, Ceccato et al.

This project forecasts flood likelihoods and assesses vector-borne disease risk for SERVIR-Eastern and Southern Africa in support of infectious disease monitoring and outbreak prediction. Visit [http://www.servircatalog.net](http://www.servircatalog.net) for more product details.

Co-I Erika Podest (JPL) trains RCMRD staff and 16 participants from the Ministry of Water and Irrigation of Kenya, Kenya Water Institute, and the Ministry of Mining's Department of Resource Surveys and Remote Sensing, in methods to automate the detection of surface water extent and color using Landsat images.

Flood Simulator for African Basins

RCMRD/SERVIR-Eastern & Southern Africa with FEWS NET

This application combines the CREST hydrologic model with digital elevation maps and sends users an email alert with real-time and short-term forecast flood inundation maps of select stream-gauge locations. An web map version of the flood simulator is above.

Multi-Scale Disaster Risk Assessment and Decision Support System for DRR

ICIMOD/SERVIR-Himalaya

Flood simulations for Rapti river, Nepal, under different rainfall accumulations (100 to 420 mm) and return periods (2-100 yr), support planning and risk reduction. See [http://apps.geoportal.icimod.org/raptiflood](http://apps.geoportal.icimod.org/raptiflood) and [http://www.icimod.org/?q=21316](http://www.icimod.org/?q=21316).

Surface Water and Flood Extent Mapping Tool for the Lower Mekong

SERVIR-Mekong: ADPC / Deltas / SEI / SIG

This satellite-based water resources and water hazard mapping system produces a series of historical flood extent maps for the years 2000 to 2015 for the most extensive flooding in the Lower Mekong Basin during monsoon seasons to help end users visualize and understand the inter-annual variability of inundated areas. Landsat and SRTM are primary inputs into processing run on Google Earth Engine.

Thai example: Modified Normalized Difference Index

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“"The biggest problem we have is lack of data. When someone like SERVIR-Eastern and Southern Africa comes along to help us out, it is very good because we have been missing advance warning of floods."

Simintei Kooke, Deputy Director, Kenya Department of Water Resources