



# KENYA AND EAST AFRICA

# SERVIR-EASTERN AFRICA

SERVIR is a joint initiative of USAID and NASA. It is working in partnership with leading regional organizations around the globe. SERVIR connects space to village by making geospatial information, including earth observation data from satellites, geographic information systems (GIS) and predictive models useful for evidence based planning and decision making in developing countries. The data, products, tools and information derived from SERVIR's work is making a difference in agriculture and food security, water and water related disasters, land cover land use change and ecosystems, and weather and climate. The Regional Centre for Mapping of Resources for Development (RCMRD) hosts SERVIR-Eastern Africa hub which joined the SERVIR Network in 2008. The project's goal is to increase the ability of African institutions to apply geospatial technologies to improve the region's resilience to the impacts of climate change and ensure land use management reduces greenhouse gas emissions.

## **OUR WORK**

SERVIR Eastern Africa is focused on working with institutions and stakeholders in Kenya, Uganda, Tanzania and Rwanda to support them to adopt earth observation data and GIS tools in addressing information gaps in the sectors of: agriculture and food security; water and water related disasters; land use change and ecosystems and weather and climate. The SERVIR model leverages on the array of earth observing satellites collecting information about our planet, to provide data that would otherwise would be difficult to obtain through field-based conventional methods.

Combining field data and information from satellite imagery, Governments and other stakeholders such as civil society organizations, emergency relief agencies and the private sector can make informed decisions to save lives and livelihoods in periods of disasters, or plan better for unforeseen events.

# **ACHIEVEMENTS**

- RCMRD in collaboration with the Ministry of Agriculture in Kenya, has built a GIS-based sampling frame for 10 counties that significantly reduced the cost of agricultural sampling for unit areas of insurance by over 70 percent, leading to faster delivery of information on agricultural production
- Supported the implementation of regional and national GIS-based crop monitors in collaboration with IGAD Climate Predictions and Application Centre (ICPAC) and University of Maryland-USA, leading to timely bulletins on crop conditions throughout the country and the East Africa region
- RCMRD developed vulnerability assessment maps for the Lake Victoria Basin which informed the East Africa Commission (EAC) regional strategy on climate change adaptation and resilience. From these results, the EAC leveraged 5 million US dollars from the United Nations Framework Convention on Climate Change Adaptation Fund for continued adaptation work.
- Several community climate vulnerable ('hotspots') areas in 20 districts in two river basins Wami Ruvu and Rufiji in Tanzania, were identified through SERVIR/Eastern Africa in collaboration with the USAID Tanzania funded Water Resources Integration Development Initiative (WARIDI) project. A series of climate vulnerability maps were also developed and are informing climate resilient water resources management.
- Vulnerability assessment maps developed for 14 Northern Rangelands Trust (NRT) conservancies in Isiolo, Samburu, Laikipia and Marsabit counties managed by NRT that will support holistic rangeland management across Kenya Northern Rangelands.
- About 20 satellite derived maps on land use land cover change developed covering the Kenya water towers: Mt. Elgon, Mau Forest Complex and Cherangany Hills and shared with partner organizations working on piloting payment for ecosystem services across these key sectors, under the Kenya Water Towers Project.
- A total of 845 (620 Males and 225 Females) analysts and decision-makers from Kenya, Uganda, Tanzania and Rwanda trained to use Earth Observation information and geospatial technologies to address issues on climate change and sustainable landscapes.
- Staff from four Government of Tanzania agencies was trained on use earth observation and GIS tools to monitor water flow in key river basins. Trained Kenya Meteorological Department officials to assess floods using earth observation and GIS tools
- Working with a total of 700 students in 23 schools in Kenya and Uganda on an environmental mentorship program to raise awareness on sustainable landscapes, climate change and resilience issues.

**Budget:** USD \$7,000,000 **Duration:** 2015-2020

#### **Key Partners:**

Government of Kenya

- Ministry of Agriculture, Livestock, and Fisheries
- Ministry of Devolution and Planning, National Drought Management Authority (NDMA)
- Kenya Meteorological Department (KMD)
- Kenya Water Towers Agency
- Kenya Forestry Research Institute
- Kenya Forest Service
- County Government of Laikipia

# East African Community (EAC)

- IGAD Climate Predictions and Application Centre (ICPAC)
- CIFOR
- Northern Rangeland Trust (NRT)
- Laikipia Wildlife Forum
- GLOBE
- TAHMO

#### Government of Rwanda

- The Ministry of Agriculture and Animal Resources (MINAGRI)
- Rwanda Water and Forest Authority

#### Government of Uganda

- Ministry of Environment
- Makerere University

#### Government of Tanzania

- Water Resources Integration Development Initiative (WARIDI)
- Tanzania Meteorological Agency (TMA)
- Rufiji and Wami-Ruvu River Basin Authorities

#### **PREG Partners:**

- Northern Rangelands Trust (NRT)
- KIWASH
- Livestock Management Systems (LMS)
- Kenya Rapid

#### **MISSION CONTACT**

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