USAID FROM THE AMERICAN PEOPLE

SERVIR GLOBAL
CONNECTING SPACE TO VILLAGE

NASA

# SCIENCE & TECHNOLOGY CONNECTING SPACE TO VILLAGE

SERVIR is a joint initiative of the National Aeronautics and Space Administration (NASA) and the U.S. Agency for International Development (USAID) that connects space to village through partnerships with leading regional organizations around the world. SERVIR helps developing countries use information provided by Earth observing satellites and geospatial technologies to manage critical development issues, empowering decision-makers with tools, products, and services to act locally on issues related to disasters, agriculture, water, and ecosystems and land use.

With activities in more than 45 countries, SERVIR has developed over 70 custom decision-support tools, collaborated with over 250 institutions, and trained more than 3,500 individuals, improving the capacity of regional and national experts to access the data, science and technology to develop their own solutions to development challenges.

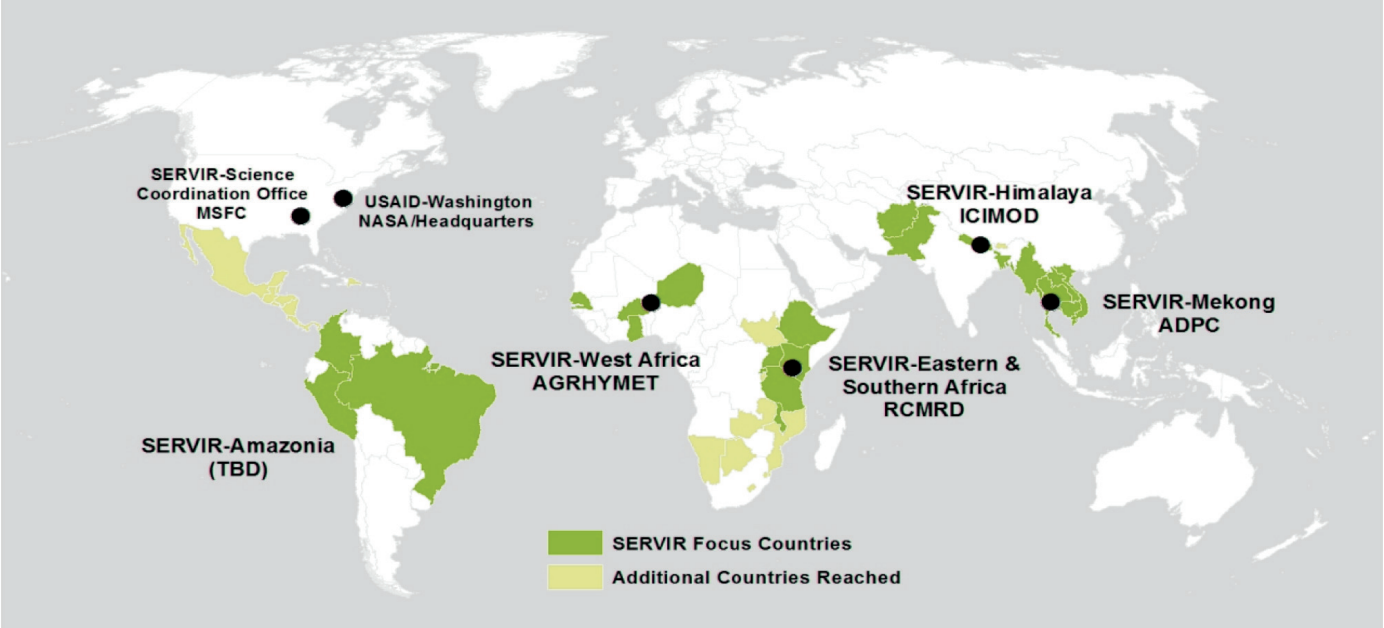
*Frost monitoring and forecasting in East Africa*

SERVIR uses data from a suite of Earth-observing satellites, ground-based data, and geospatial information technology in innovative ways. Custom SERVIR tools integrate historic, real-time, and modeled data, and SERVIR tools are open access and open source. For example, flood alerts using satellite rainfall data for several watersheds in Kenya, Tanzania, and Uganda are generated in close collaboration with the respective departments of water resources; seasonal crop productivity assessments are performed in collaboration with the Ministry of Agriculture in Nepal using a new digital agricultural atlas and satellite-derived greenness data; and high-resolution land cover maps and forest inventories are developed together with local authorities using satellite imagery in 15 countries across Africa and Asia.

## SERVIR BY THE NUMBERS

- 45+ COUNTRIES
- 250 PARTNERS
- 70 PRODUCTS DEVELOPED
- 1.5+ MILLION MAP REQUESTS
- 3,500 PEOPLE TRAINED
- 27 SATELLITES AND SENSORS

## CURRENT SERVIR HUB NETWORK



## SERVIR USES DATA FROM 27 SATELLITES AND SENSORS

| SATELLITE/SENSOR | DATA COLLECTED |
|---|---|
| ALOS (PALSAR data)* (Japan) | Vegetation structure |
| AltiKa (France, India) | River heights |
| AMSR-E on Aqua* (NASA) | Soil moisture |
| Sentinel-1 and -2 (European) | Disasters, vegetation |
| Terra-ASTER (NASA) | Vegetation properties |
| Digital Globe constellation+ (USA) | High-resolution visible imagery |
| EO-1 30-m multi-spectral (NASA) | Disasters, vegetation change |
| GOES-16 (NOAA/NASA) | Atmospheric composition, cloud formation, air mass characteristics |
| GPM (NASA/Japan) | Precipitation |
| GRACE (NASA/Germany) | Gravity, groundwater |
| ICESat (GLAS)* (NASA) | Altimetry |
| Jason-2 and -3 (NASA/NOAA/France/ European) | Water and sea surface elevation |
| LANDSAT 5*, 7 and 8 (NASA/USGS) | Vegetation properties, agriculture |
| Meteosat (European) | Atmospheric composition, cloud formation, air mass characteristics |
| QuikSCAT* (NASA) | Scatterometer (vegetation structure) |
| Radarsat-2 (Canada) | Vegetation, surface water |
| SMOS (European) | Soil moisture and ocean salinity |
| SRTM (NASA) | Elevation |
| Terra and Aqua- MODIS (NASA) | Land surface temps, vegetation, water resources, fire, light at night |
| TRMM* (NASA/Japan) | Precipitation |
| SMAP (NASA) | Soil moisture |
| VIIRS on Suomi-NPP (NASA/NOAA/DoD) | Land surface temps, vegetation, water resources, fire, light at night |

* Satellite/sensor no longer producing data

\+ 5 Commercial Satellites in use through a unique data collection tasking agreement

**U.S.-affiliated satellites and sensors are bolded**

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