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SERVIR-MEKONG

The SERVIR-Mekong activity uses publicly available satellite technologies to support regional institutions, governments, and citizens to address climate-related challenges such as disaster preparedness and response, water resource, and land management. Together with stakeholders, SERVIR-Mekong co-develops regional geospatial tools and services ranging from drought monitoring, flood forecasting, and crop yield management to improve natural resources management, environmental conservation and protection in line with the Mekong-U.S. Strategic Partnership. SERVIR-Mekong is part of a network of SERVIR hubs currently operating across the developing world.

The Lower Mekong region is home to over 245 million people living in Burma, Cambodia, Laos, Thailand, and Vietnam, and is currently suffering from one of the worst droughts in recent history. As climate-related disasters become more frequent and intense, decision-makers are looking to the scientific community for help when monitoring, mapping, and managing these disasters. Through a unique partnership between USAID and the U.S. National Aeronautics and Space Administration (NASA), SERVIR-Mekong streamlines access to data and tools that strengthen the ability of Lower Mekong countries to build locally-developed and sustainable solutions to address the climate crisis.

SERVIR-MEKONG

SERVIR-Mekong is implemented by the Asian Disaster Preparedness Center together with consortium partners Spatial Informatics Groups, Stockholm Environment Institute, and Deltares.

SHARING GEOSPATIAL TECHNOLOGIES AND EXPERTISE

In partnership with NASA, regional organizations, and other SERVIR hubs, SERVIR-Mekong enhances climate change adaptation and helps address the regional challenge of managing shared natural resources using customized data, decision-tools, and best practice guides. With support from SERVIR-Mekong, decision-makers can apply science and technology to manage environmental resources and improve disaster resilience and response.

ENGAGING THE REGION

As a demand-driven program, SERVIR-Mekong conducts periodic needs assessments to understand the region's current priorities, challenges, and opportunities for targeted technical assistance. Continuous engagement with key stakeholders through a co-development approach has led to successful adoption of SERVIR-Mekong's geospatial tools and services by international and regional institutions.

IMPACTS AND RESULTS

SERVIR-Mekong has launched a series of regional tools and services to support the Lower Mekong region to manage environmental risk:

- **Enhancing Drought Resilience and Crop Yield Security in the Lower Mekong:** SERVIR-Mekong provided satellite imagery, data and decision support tools to the Mekong River Commission (MRC) to assist the MRC in implementing its Drought Management Strategy (2020 - 2025). As a result, farmers have advanced information to mitigate the impact of droughts on their crops and policy makers have better data and tools to develop and implement drought prevention and mitigation strategies.
- **Using Near Real-time Data to Support Flood Response:** Through its partnership with the United Nations World Food Programme (WFP), the WFP Cambodia Office used SERVIR-Mekong's regional flood extent data to better respond to major flooding in October 2020. The data enabled the Government and humanitarian partners to understand flood impacts in near real-time and target life-saving emergency assistance where it was most needed.
- **Supporting Better Flood Forecasting and Early Warning in the Lower Mekong:** SERVIR-Mekong's new generation satellite-based rainfall data and products adopted by the Mekong River Commission increase the accuracy of flood forecasting and give first responders fifteen days lead time (as opposed to six days previously). The updated data provides policymakers with longer term forecasting abilities on the potential effects of extreme monsoon rains and tropical storms and helps strengthen the resilience of communities in the Lower Mekong by reducing flood risk.
- **Reducing Agricultural Burning and Managing Forest Fires using Air Quality Data and Forecasts:** Working with Thailand's Pollution Control Department, a local university, and a provincial government, the provincial government successfully used SERVIR-Mekong's air

quality data and forecasts to regulate agricultural burning and put out forest fires (major sources of air pollution in Northern Thailand). The Royal Thai Government is scaling up this activity to cover the whole country. SERVIR-Mekong also aims to build on this success and replicate it regionally.

- **Applying Regional Land Cover Mapping for Cambodia’s Forest Alerts:** Supported by USAID/Cambodia, SERVIR-Mekong brought regional land cover monitoring technologies to help Cambodia monitor its protected forests. The Forest Alert tool uses satellite data and advanced technology such as Machine Learning to detect forest changes, external disturbances such as forest fires, and send alerts to the authorities. This tool enables forest officials to make data-driven decisions to promote forest conservation in Cambodia.

CONTACT INFORMATION

For more information, please visit <https://servir.adpc.net/> or <https://www.usaid.gov/asia-regional/sustainable-mekong>.