

Knowledge Sharing from Space to Village: The SERVIR Service Catalogue

SERVIR Support Team

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Bridging the Spectrum Symposium

Catholic University of America

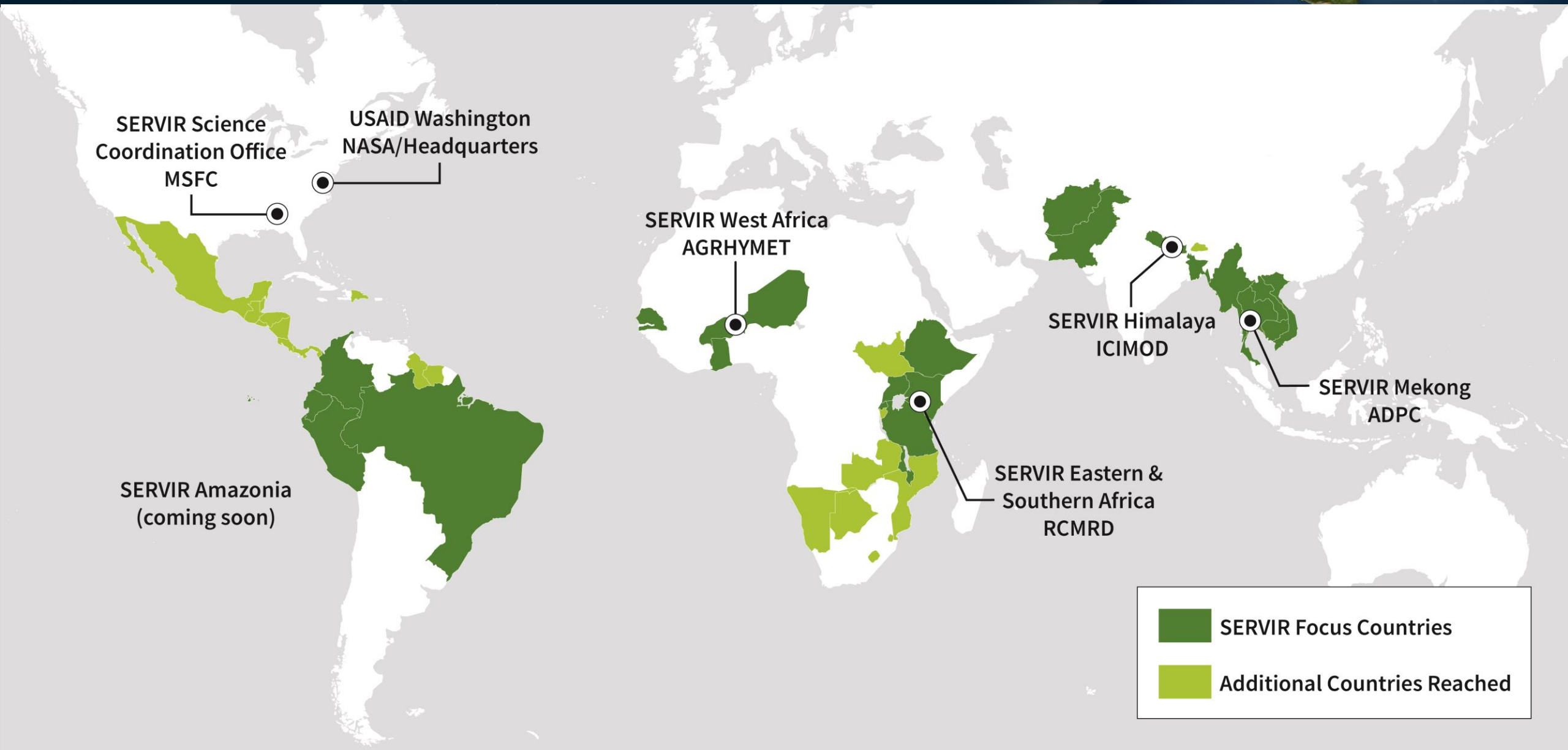
Washington, DC - February 8, 2019



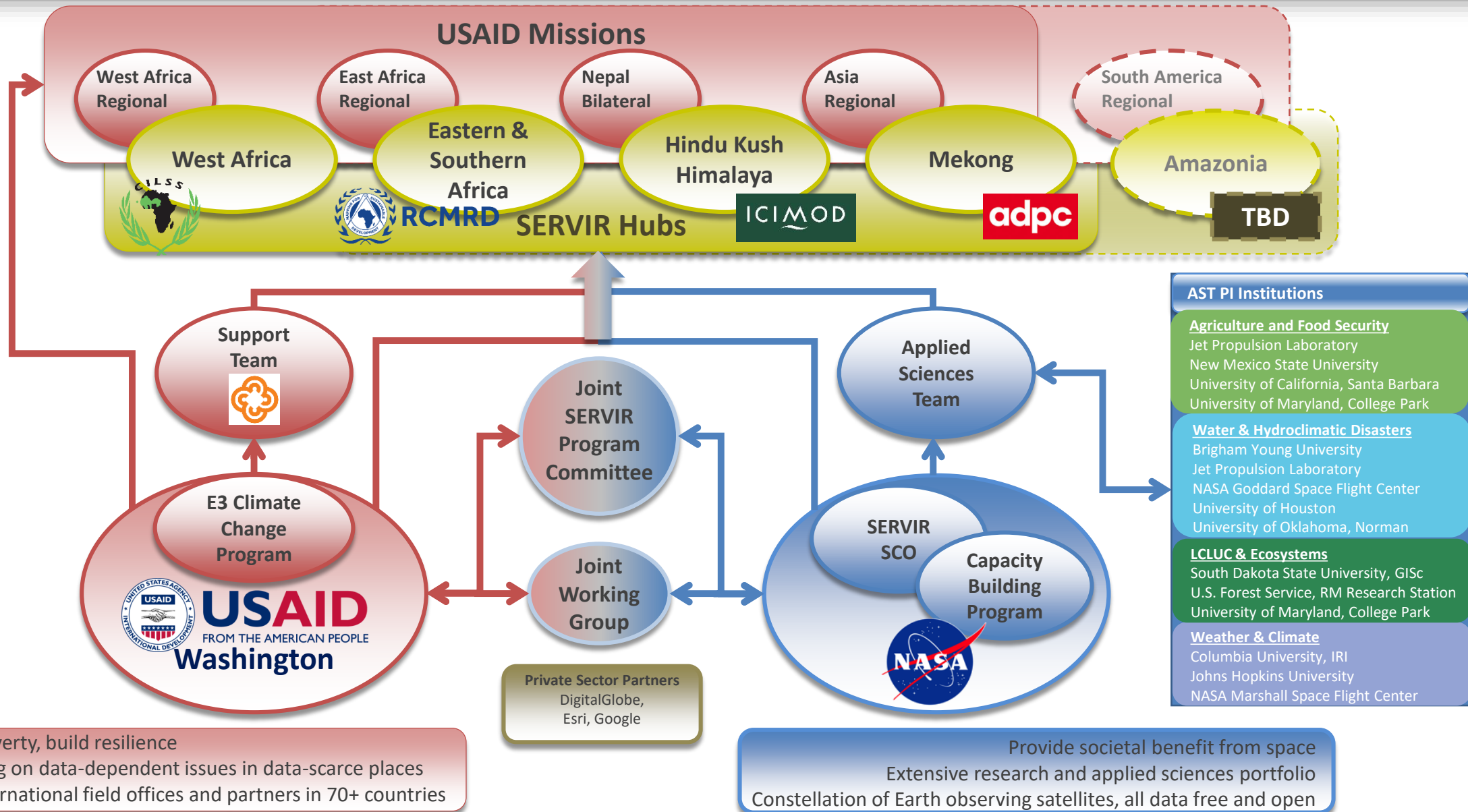
Introduction to SERVIR



SERVIR's Global Network



SERVIR's Integrated Global Structure



Service Approach

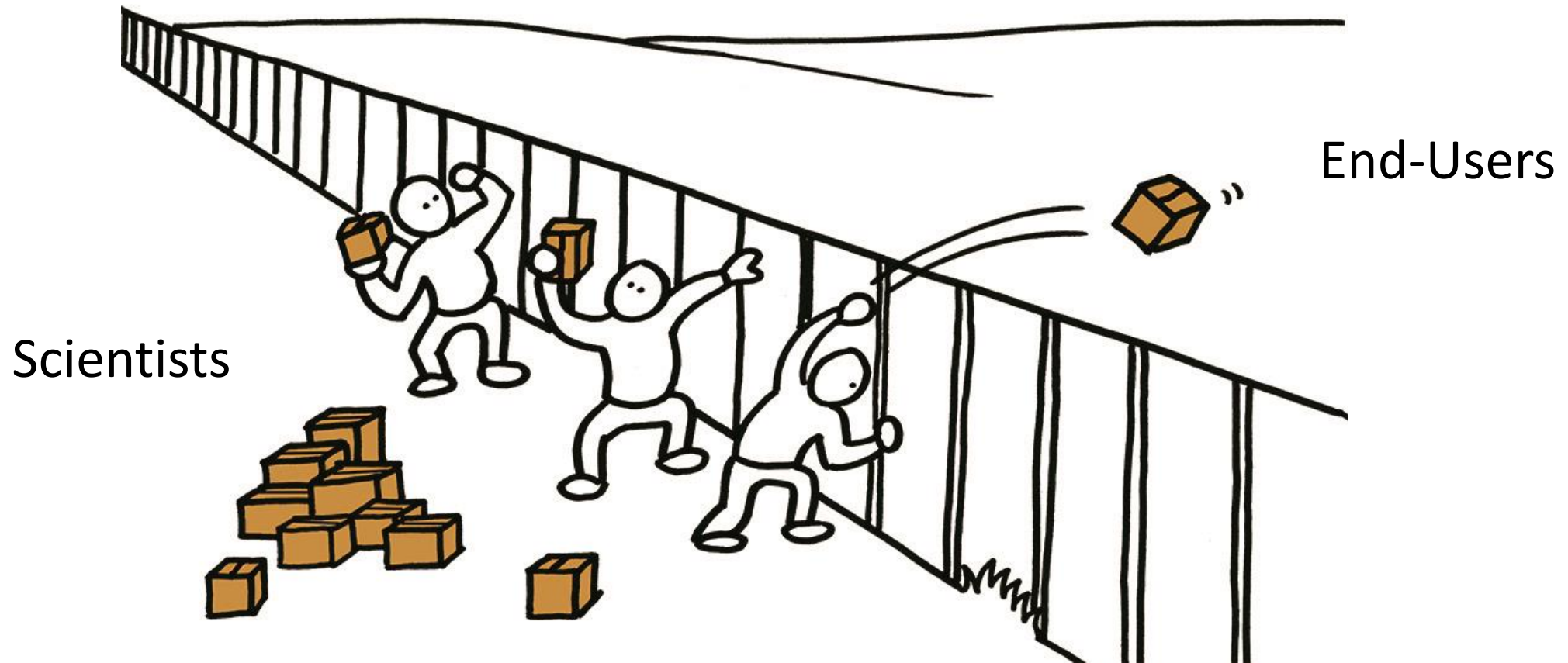


A wide-angle photograph of a large cable-stayed bridge spanning a body of water. The bridge features two tall, dark pylons with numerous white cables fanning out to support the deck. The water is dark blue with small ripples, and the sky is a clear, light blue. The bridge is positioned in the middle ground, with the water in the foreground and the sky above.

**Science
& Data**

**Development
Impact**

The Over The Fence Method



SERVIR Service Areas

Land Cover
Land Use
Change and
Ecosystems



Agriculture
and Food
Security



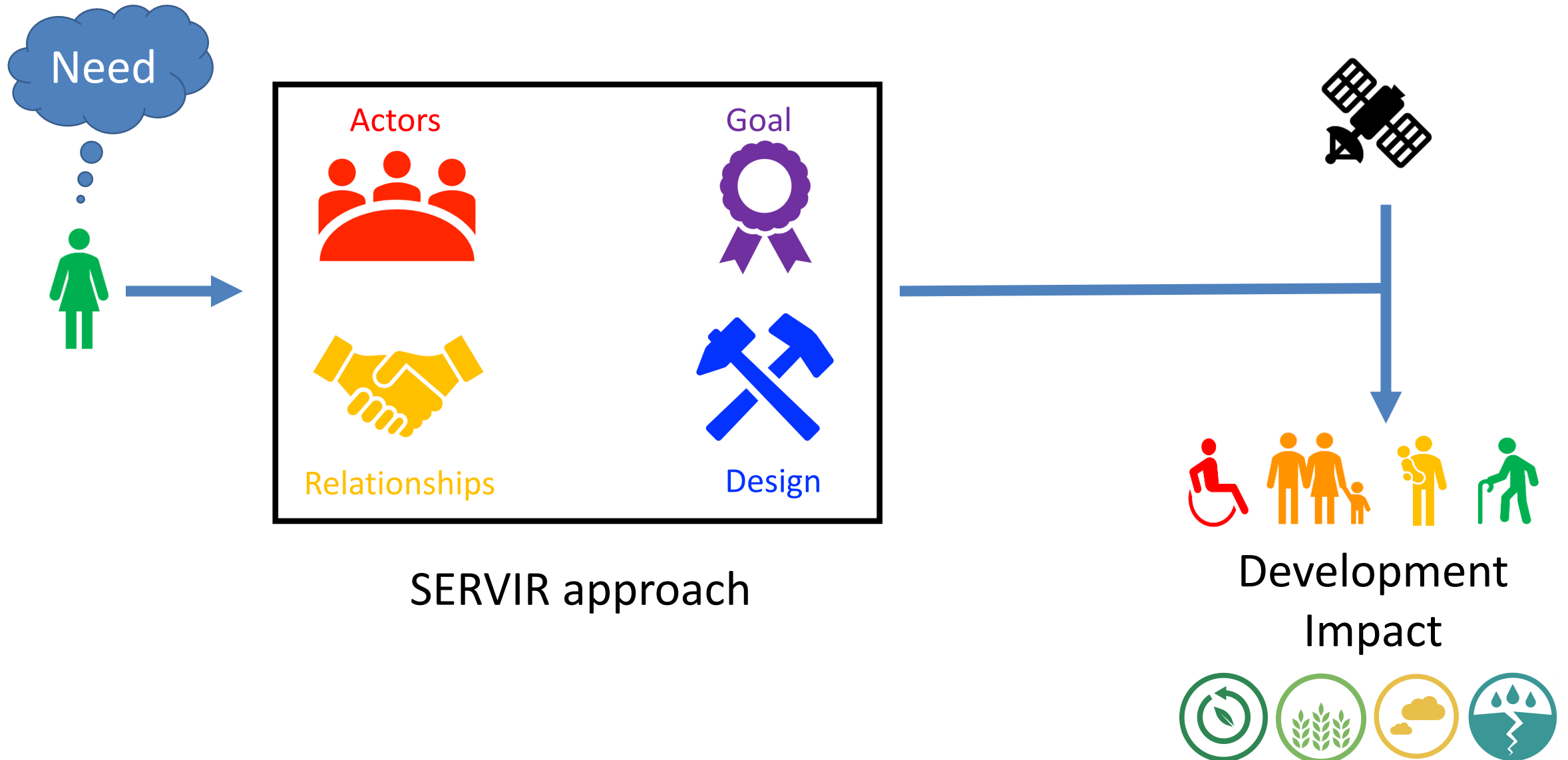
Water and
Water-Related
Disasters



Weather and
Climate



How SERVIR Develops Services



What SERVIR Services Produce



List of stakeholders, service end users, and other partners



Team of key co-developers
Use cases that capture use of the service

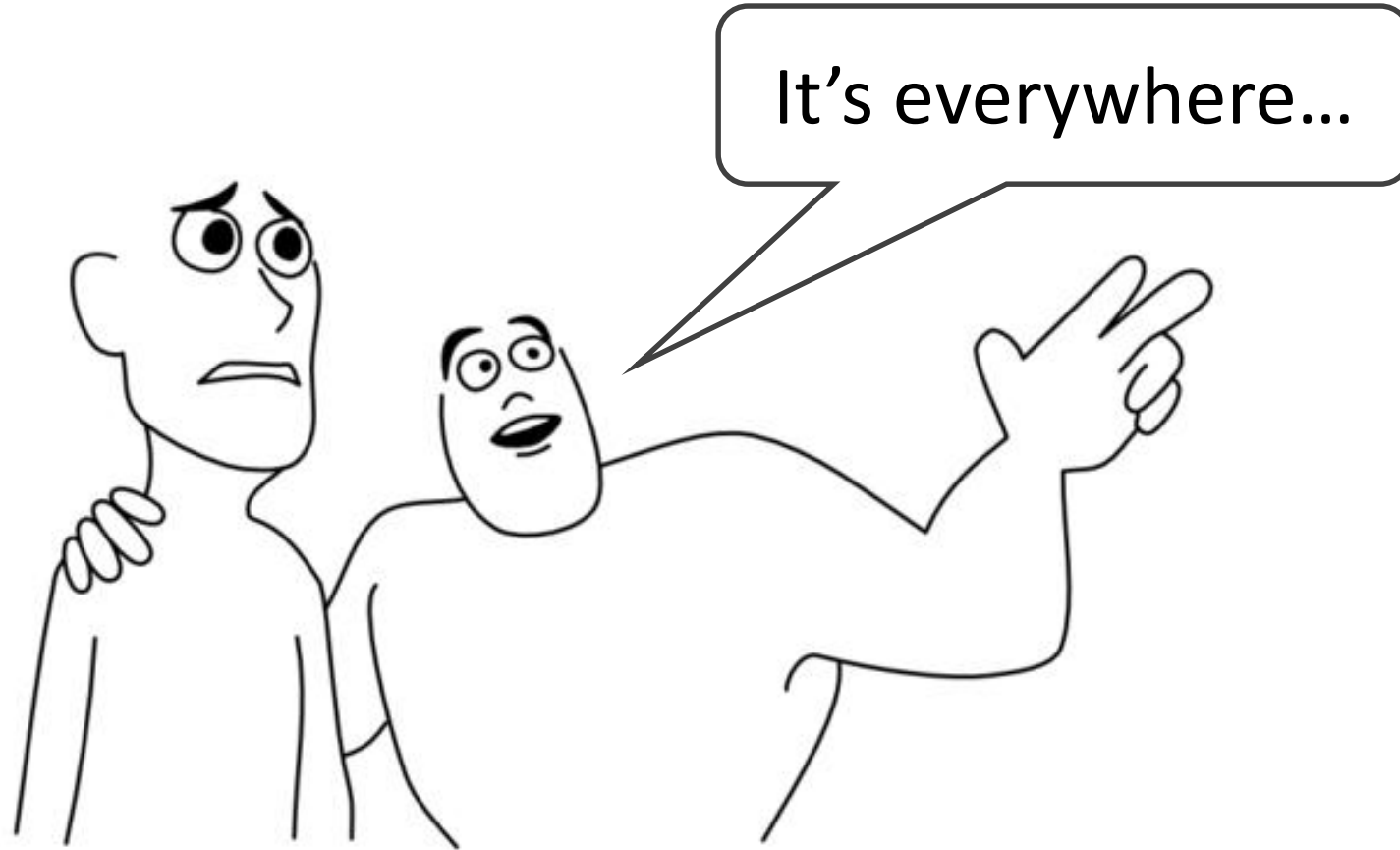


Geospatial tools, products, applications
Unique datasets



Training Resources
News

Where is this info?



Service Catalogue



Stocktaking of Existing Resources



- Product Catalogue: Liked the structure, integration into website – but text heavy and only focused on geospatial products
- [Data Catalog](#): Not indexing all data correctly, not integrated elsewhere on website
- Geoportal: Not all SERVIR data can be visualized, not regularly updated
- [Training Resources Database](#): Buried within the site infrastructure, under-utilized as knowledge sharing platform
- News: Established production schedule, well integrated into website

Primary processes

- Working group of decision makers
- Clear Scope of Work
- Content templates
- Outreach to collaborators

Complementary processes

- Additional working groups formed to review GeoPortal, Data Catalog, and Training materials

Service Catalogue

Welcome to the SERVIR Global Service Catalogue, a searchable collection of demand-driven geospatial services that use Earth observations to support decision making and resilient development.

Search (i.e. service name)



NARROW BY:

Region

- Global >
- West Africa
- Eastern/Southern Africa >
- Himalaya >
- Mekong >

Service Area

- Agriculture & Food Security
- Land Cover Land Use Change & Ecosystems
- Water & Water Related Disasters
- Weather & Climate

> Status

> Data Source

Service Catalogue

8 Results



Enhancing Drought Information Service of Mekong River Commission

Status Active

Service Areas Agriculture & Food Security

Regions Mekong

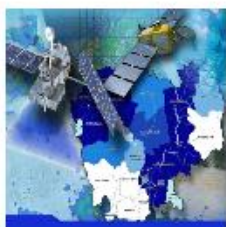


Enhancing Drought Resilience and Crop Yield Security in Ninh Thuan Province of Vietnam

Status Active

Service Areas Agriculture & Food Security

Regions Mekong



Improving Rainfall Estimates for Flood Forecasting in Cambodia

Status In Development

Service Areas Weather & Climate

Regions Mekong

Enhancing Drought Resilience and Crop Yield Security in Ninh Thuan Province of Vietnam



Service

The Enhancing Drought Resilience and Crop Yield Security in Ninh Thuan Province of Vietnam Service provides drought forecasts at the provincial level in Vietnam using hydrological and crop model information. Through this service, a Regional Drought and Crop Yield Information System (RDCYIS) was co-developed by SERVIR, the Vietnam Academy of Water Resources (VAWR), and the NASA Jet Propulsion Laboratory, the University of Massachusetts Amherst, and the Stockholm Environmental Institute to manage information needed to understand drought conditions and potential effects on crop yields. This service seeks to improve VAWR's ability to forecast and monitor drought conditions to inform better mitigative decision-making by the Ministry of Agriculture and Rural Development, including salt-water intrusion, water allocation and distributing compensation and other social welfare initiatives. In order to build ownership and trust in the system's ability to support drought monitoring, SERVIR will pilot the system and support calibration and verification by the VAWR. An initial pilot in the Ninh Thuan Province of Vietnam will allow for testing, calibration, and verification of the generated outputs. This service encompasses both the co-development of RDCYIS and efforts to the build capacity of its users within Vietnam to monitor and forecast droughts.

Rationale

Water security issues in the agricultural sector and for urban, industrial and domestic users are addressed through water allocation decisions. In Vietnam, technical agencies advise the Ministry of Agriculture and Rural Development (MARD) on forecasted water availability with a focus on dry spells. These agencies also monitor current conditions and provide information to the department responsible for detailed plans for rice, coffee, cashew and other cash crop planting and harvesting. Currently the national and provincial systems do not provide the agencies mandated to monitor and forecast agricultural drought with information of sufficient accuracy and temporal resolution to ensure food security and robust livelihoods for farmers. This service support the Prime Minister's directive to the VAWR to seek a method for accurate drought forecasting. These efforts aim to gather wider political buy-in to use the developed methods via direct communications and support of the Prime Minister and the Minister of Rural Development. By supporting regional and national drought monitoring, and national crop yield planning and monitoring, MARD will have access to

Service Area: Agriculture & Food Security

Geographic Coverage: Vietnam

Co-Developers: ADPC/SERVIR Mekong, Vietnam Academy of Water Resources (VAWR), NASA Jet Propulsion Laboratory (JPL), University of Massachusetts Amherst, Stockholm Environment Institute

Satellite Data and Products Used: AMSR-E, CHIRPS, CMORPH, GPM, GRACE, MODIS, SMAP, SMOS, TRMM

Period of Performance: June 2017 - Present



Users and Stakeholders

Vietnam Academy of Water Resources (VAWR)

Ministry of Agriculture and Rural Development (MARD)

Ministry of Natural Resources and Environment (MoNRE)

Tools

[Regional Drought Information System](#)

[Regional Land Cover Monitoring System - Lower Mekong](#)

[Satellite Radar-derived Virtual Rain and Stream Gauge Data Service](#)

[ClimateSERV](#)

[AgriSERV](#)

Data

[Combined Drought Index \(CDI\), year 2015-date](#)

[Standardized Precipitation Index \(SPI 3\), year 2015-date](#)

[Standardized Runoff Index \(SRI 1,3,6,12\), year 1981-date](#)

[Soil Moisture Deficit Index \(SMDI\), year 1981-date](#)

[Dry Spells \(Number of dry spell events with at least 2-week duration\), year 1981-date](#)

[Root Zone Soil Moisture \(RZSM\),](#)

Training Materials

[Regional Hydrologic Extremes Assessment System \(RHEAS\) User Guide](#)

[Regional Hydrologic Extremes Assessment System \(RHEAS\) - Vietnam Academy for Water Resources Training](#)

[Regional Hydrologic Extremes Assessment System \(RHEAS\) -qgis](#)

[Regional Hydrologic Extremes Assessment System \(RHEAS\) -docker](#)

News

[Infographic: Enhancing Drought Resilience and Crop Yield Security in Vietnam](#)

[Facilitating Decision Making: Tools That Monitor Drought Onset and Agriculture Productivity](#)

[Mainstreaming Gender in Drought Forecasting](#)

[Call for Abstracts for Regional Knowledge Forum on Drought](#)

[Empowering Agricultural Decision Makers Across the Globe with Improved Rainfall Forecasting Data](#)



- Depicts the project's intersection of science and development
- Gives visibility to all content, irrespective of location
- Documents institutional knowledge
- API available

- Prompted reflection and action on other resources within the website
- Consultative development process takes time
- Will require active maintenance



Thank you!

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