# **RSO Update**

# Asian Disaster Preparedness Center (ADPC)

Peeranan Towashiraporn – ADPC

UN International Conference on Space-based Technologies for Disaster Management September 21, 2016 - Beijing, China



#### ADPC signed an agreement to become UN-SPIDER RSO

#### 5 April 2016



#### Annual UN-SPIDER Regional Support Offices Coordination Meeting & UN-SPIDER+10 Anniversary Conference

6 - 8 June 2016, Vienna, Austria



#### **UN-SPIDER Technical Advisory Mission follow up activities**

27 June - 1 July 2016, Nay Pyi Taw, Myanmar



- Together with ICIMOD
- Participated in a training on the "Use of Earth observation data and GIS techniques for landslide hazard mapping"
- Shared experience of Multi-Hazard Risk Assessment in Bangladesh in High level advocacy and Technical consultation meetings



#### **UN-SPIDER Technical Advisory Mission follow up activities**

#### 25 - 29 July 2016, Vientiane, Lao PDR



- Together with IWMI, Beijing Normal University
- Participated in a training on the "space based technologies exploring the use of earth observation data and modeling tools in flood risk mapping and flood early warning"



# ASEAN workshop on 'Simulation exercise on the procedural guidelines for sharing space-based information during emergency response'

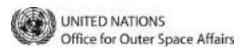
#### 19 - 21 April 2016, Bogor, Indonesia







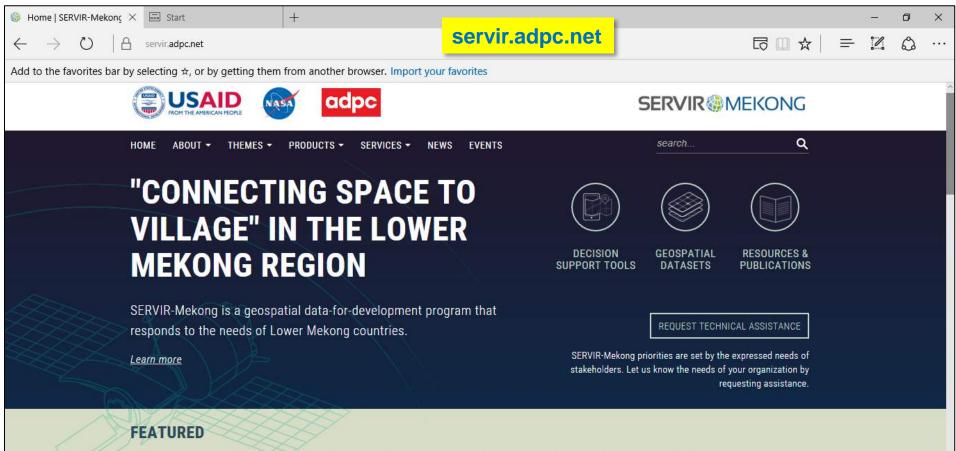












Cry season surface
Pry season surface
Wet season surface
Wet season
Wet season

Estimated Dry and Wet Season Surface Water Distribution

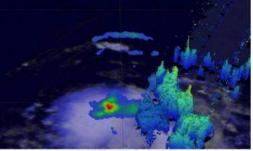


Monitoring Land Cover for Resilient Development Aug 18 2016

### **SERVIR-Mekong's Virtual Rain Gauge**

#### SERVIR





- The GPM Core Observatory and partner satellites orbiting Earth. The joint NASA - JAXA (Japan Space Agency) GPM instrument was launched in February 2014.
- A visualization of GPM data from a tropical storm system.



The Jason-2 satellite and part of the Lower Mekong Region showing the intersection of Jason-2 satellite (red lines) and Envisat (orange lines) orbits and major streams (purple lines) in the LMR. These intersection points provide the opportunity to generate virtual stream gauge data for hundreds of points throughout the region.

- Data on a 3-hourly basis, which would be suitable even for nowcasting (i.e., less than 6 hours) system, which are especially relevant for flash flood and small river warnings.
- GPM precipitation datasets are freely available through the NASA website

(http://pmm.nasa.gov/dataaccess/downloads/gpm)

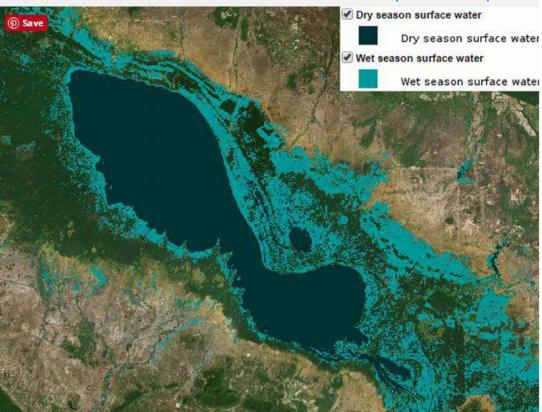


### SERVIR-Mekong's Surface Water Mapping

https://servir.adpc.net/

#### SERVIR

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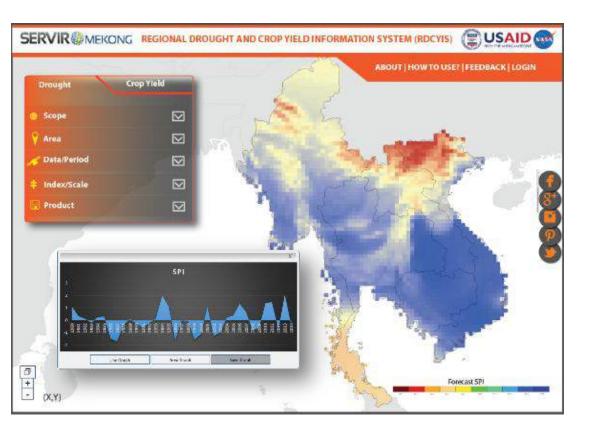
This satellite-based surface water mapping system produces a series of historical inundated areas for the years 2000 to 2015 in the Lower Mekong Basin to help end users visualize and understand the inter-annual variability of inundated areas

The tool uses publicly available satellite imagery and radar data (initially from Landsat 7 and 8 and later from Sentinel-1 radar)



## SERVIR-Mekong's Drought Monitoring

#### SERVIR



 Based on Regional Hydrological Extremes Assessment System(RHEAS) and Decision Support System for Agrotechnology Transfer (DSSAT) models

#### Assist stakeholders with:

- Drought monitoring
- Seasonal drought forecasting;
- Short and long-term mitigation measures during and in advance of droughts; and
- Crop yield forecasting



# **Going Forward**

- Continue to support in TAM missions and follow-up activities
- Organize joint learning workshop
- Propose joint projects



# FOR YOUR ATTENTION



