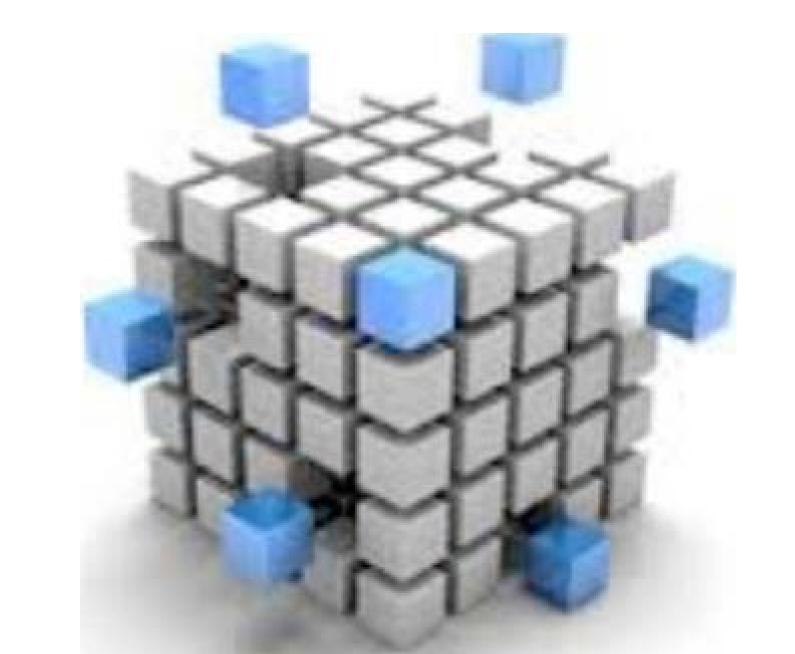
VIETNAM DATA CUBE

Pham Thi Mai Thy, Lam Dao Nguyen, Vu Anh Tuan, Loc Thi Thuy Linh Vietnam Space Center (VNSC), VAST

Vietnam National Space Center is using the power of the Open Data Cube to help address the needs of satellite data users, giving them a better picture of their land resources and land change.

- Ease of use and access to satellite-based data
- Multiple dataset interoperability and spatial consistency
- Use of "Analysis Ready" Data Products
- A Shift in Paradigm from Scenes to Pixels

http://datacube.vn/



- Users want to minimize the time and capacity required to obtain and prepare satellite data
 Users want free and open source solutions
- Users want to perform time series analyses
- Users want to use multiple datasets together
- Users want to use their common GIS tools
- Users want to "own" the data and keep it locally
- Users want customer service and help

• RAW DATA: FREE

- Optical data: Landsat; Sentinel-2
- Radar data: JERS; Sentinel 1A & 1B;
 ALOS/PALSAR

• **SOURCE OF DATA**: USGS (Landsat); ESA (Sentinel); JAXA (ALOS and JERS)

ANALYSIS READY DATA (ARD): FREE

Level2

Level 3

• APPLICATIONS

- Rice monitoring: in collaboration with CESBIO/CNES, University of Maryland
- Forest monitoring: in collaboration with FIPI, CNES, CSIRO
- Water management: in collaboration with CSIRO

• FUTURE APPLICATIONS

- Flood monitoring
- Erosion monitoring

Landsat

- 36453 images (Landsat 4, 5, 7, 8)
- Time: Dec. 1991 Jan. 2018

ALOS-2

- 1507 images
- Time: Nov. 2016 Apr. 2018

Terra ASTER GDEM

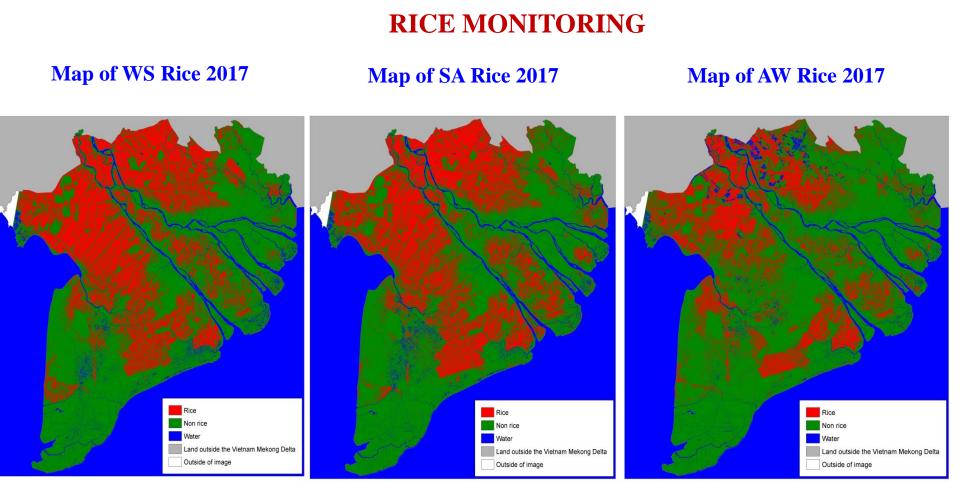
Sentinel-1:

• For the whole territory of Vietnam



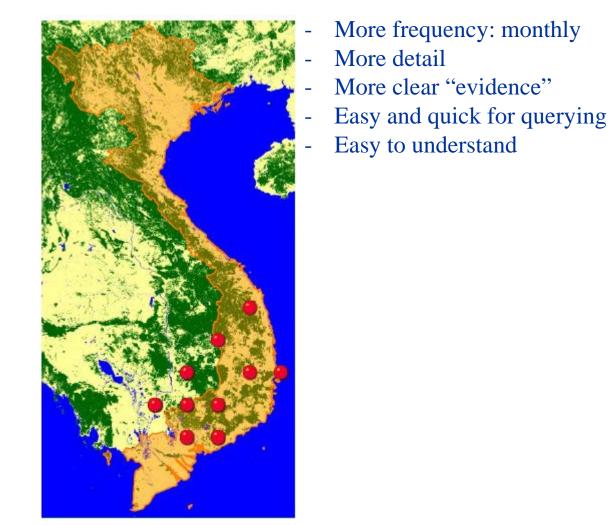
- S-1 images (VH and VV polarisation)
- Time: Jan. 2015 Mar. 2018
- Swath width: 250 km
- Pixel size: 10 m x 10 m
- Constantly update new data

Urban developmentEtc.

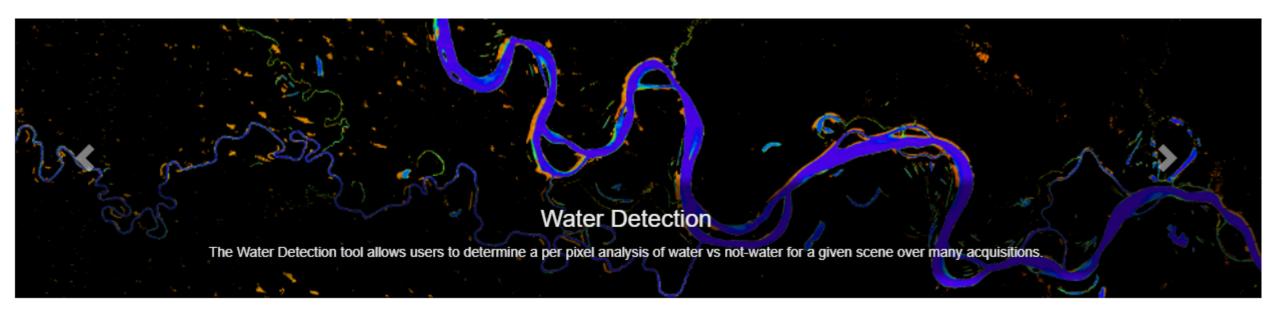


+ Rice age, Rice production

FOREST MONITORING



WATER MANAGEMENT



+ Water quality ...