



Report from WG5: Agriculture and Food Security

Co-Chairs

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Pre-workshop by WG5 (Agriculture and Food Security)

Objective:

- Sharing the information about Vietnam Data cube and its application for sustainable agriculture and water management using EO data.
- Date: September 17th, 2017 (Sunday)
- Chair: Dr. Vu Anh Tuan (VNSC)
- Time: 13:30-17:00
- Room: Meeting room 903, 9th floor, VNSC Building (A6)
- About: 20 Participants from Australia, India, Indonesia, Japan, Thailand, Vietnam, ESCAP

Output

- Show CEOS data cube concept, Vietnam data cube, ARD of SAR and JAXA's rice paddy field estimation tool (INAHOR)
- Vietnam data cube will be first SAR data cube for forest, water and rice and other crop applications in cooperation with CSIRO, JAXA, etc. because Vietnam is cloudy country
- Confirm the needs of temporal and spatial resolution for rice crop monitoring as well as rice related parameters provision (phenology, transplanting/direct seeding, etc.)
- Need to capacity building of advance programing language such as Python
- Need to promote open and sharing results of information derived from SAR with interoperability using open data cube as well as promoting standardize ARD data.





WG5 Sessions

Room 903, VNSC Building (A6), VAST, 9:30-17:30, September 19, 2017 32 participants from Australia, China, India, Indonesia, Japan, Myanmar, Thailand, US, Vietnam, ESCAP

- Asia Rice/GEOGLAM and related projects in Asia Part 1
 - 8 presentations
 - Country reports on Asia Rice activities and related projects
 - India, Indonesia, Japan, Myanmar, Thailand, US, Vietnam

- - Asia Rice/GEOGLAM and related projects in Asia Part 2
 - 8 presentations
 - Guest speaker from WG1 (Prof. Jia)
 - GEOGLAM Crop Monitor
 - RESAP program UN ESCAP
 - Monitoring technology developments
- Panel Discussion





Panel Discussion

- Current status and future perspective of Asia Rice
 - What to solve and what to do
- Current status and future perspective of data cube
 - What to propose for optimal data managements
- Technology requirements
 - What to develop
- WG5's Contributions to SDGs







Toward sustainable and sufficient rich food production





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- A paradigm shift from the maximization to the optimization of food production to secure, sufficient and quality food, and grown sustainability
- We need to enhance the monitoring related to the sustainability of food production
 - Such as eutrophication, methane emissions and water use efficiency





Summary of WG5 statements

- GEOGLAM/AsiaRiCE Achievements
 - Asia Rice team's five products; rice planting area, rice crop calendar, rice crop damage assessment, agro-meteorological information and yield estimation/forecasting
- Promotion of scaling-up of current activities
- Development of a series of future activities beyond the outlook provision
- Enhancement of the monitoring related to the sustainability of food production
- Integration of multiple satellite data with high performance ground observation by drones and IOT under good data management system such as data cube
- Greater end user engagement and coordination





WG5 statements

- GEOGLAM/AsiaRiCE confirms the good progress of Asia Rice team's five products; rice planting area, rice crop calendar, rice crop damage assessment, agro-meteorological information and yield estimation/forecasting, in Indonesia, Vietnam, Myanmar, Cambodia, Japan as regional / international activities.
- GEOGLAM/AsiaRiCE also encourages to implement scale up activity of rice crop area and growth stage monitoring in major rice production area in the countries.
- GEOGLAM/AsiaRiCE confirms the necessity to promote integrated usage of multiple satellite data with high performance ground observation such as drone monitoring and advanced IOT.
- GEOGLAM/AsiaRiCE will promote the scaling-up of current activities and develop a series of future activities beyond the outlook provision and the monitoring related to the sustainability of food production, such as monitoring eutrophication, methane emissions and water use efficiency.
- GEOGLAM/AsiaRice will aim at greater end user engagement and coordination, aiming for a paradigm shift from the maximization to the optimization of production to secure, sufficient and quality food, and grown sustainability.









- Agriculture
 - Basis of human life
 - Highly related to rural society & development
- Food in the 21st Century with growing population of middle class people
 - Food is not just something to feed us anymore
 - Food is a key factor to enjoy economic growth
 - Food is a basis of healthy and quality life
 - Food is a part of the expression of own culture
- Shift from maximization of productivity to optimized production