

Report from TG5: Asia-RICE and Food Security



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The participants represent different communities: researchers on earth observations or decision-support systems, and national and international users whose targets are operational implementations. Insightful interactions between participants have led to mutual learning about the present status, challenges and opportunities of what can be achieved.

The TG session comprises three parts: 1) Rice monitoring through satellite and ground-level observations, 2) Rice monitoring for regional food security and environment, and 3) Rice crop Outlook activities and crop yield estimation model.

The discussion focused on the actions to be undertaken on each of the GEO priority areas with the following outcomes:

1. Sustainable Development Goals

It is critical to end poverty and hunger: AsiaRiCE directly addresses the issues of SDGs 1 and 2, but also SDG 3, 6, 10, 13, 15 and 17 . It will be through better agri-food policy implementation. Compiled agromet information from various EO systems in Japan (JAXA/JASMIN), India (ISRO/MOSDAC) and other AsiaRICE countries under GEOGLAM. AsiaRiCE will greatly contribute to global and regional food security, by improving the outlook of crop production, precision agriculture, development of decision-support systems and early warning systems for biotic and abiotic stresses, in cooperation with the ASEAN Food Security Information System (AFSIS).

2. Paris Climate Agreement

The lowland rice field is one of the major sources of methane emission, a key component of greenhouse gas. Methane being measured and modelled by AsiaRiCE for optimization and minimization of water use and for reducing the methane emission without sacrificing the rice production.

3. Sendai framework for the Disaster risk Reduction

For risk management of water-related disasters, it is important to understand the impact of drought and flood on agriculture, which can be estimated by the agromet information and the monitoring of inundated area based on EO data in the activities of AsiaRiCE. This task is closely linked with SDG 13.

4. Emerging case of the Mekong River basin

AsiaRiCE and Data Platforms will work with Vietnam National Space Center and Mekong river Commission to develop Open Data Cube deployments across the Mekong region with a focus on rice crop and forest monitoring in addition to hydrological response.

Data sharing and data platforms/cubes are planned in the 2019 workplan by development of Analysis Ready Data, capacity building, and integration of systems for the Mekong region.

Finally, TG agreed on harmonized coordination among the current initiatives/ programs/ R&D projects in the region including GEOGLAM, with active knowledge and experience sharing among key stakeholders