GROUP ON EARTH OBSERVATIONS

GEOGLAM
Global Agricultural Monitoring

Reports

WG5 Agriculture and Food Security

Co-chaired by

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Working Group Discussion Themes

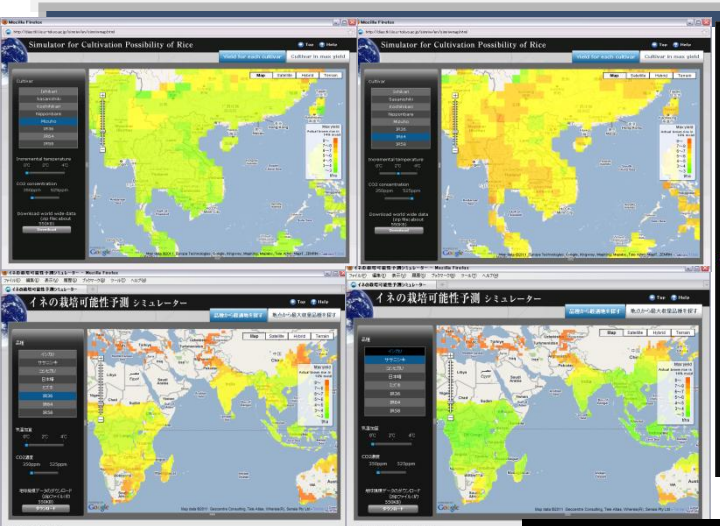
- **To share the information about available resources in this region for initiating a activity for agriculture and food security**

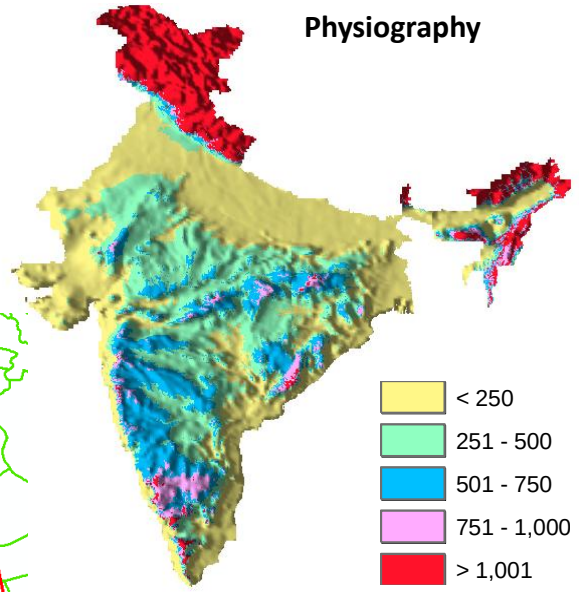
- **Best practices of earth observations for sustainable and optimized food production for green growth**
  - Clarification of short-term and long-term goals
  - Integration of satellite and ground data
  - Development and collaboration scheme within GEO as well as with other international projects including FAO AFSIS and WMO CAgM.
  - Capacity building
  - Provision of comments and suggestion to GEO GLAM project work plan from Asia Pacific region, especially for rice crop monitoring

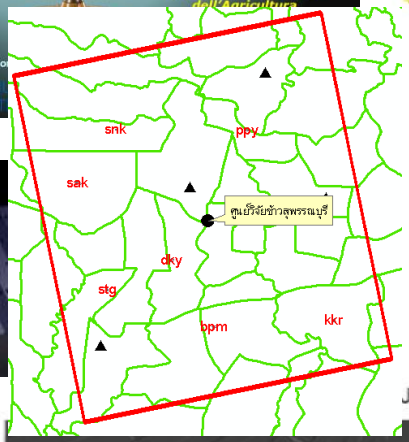
Presentations (50~60 participants)

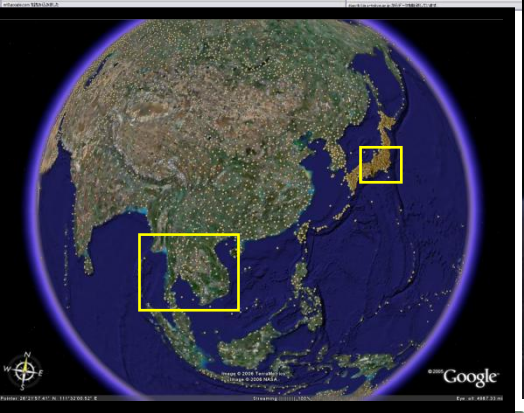
- **Institutional frame works and projects**
  - GEO-GLAM Global agricultural monitoring (GEO GLAM/India)
  - Contribution and policy of CAgM/WMO to ground data provision (WMO CAgM/Korea)
- **Satellite observations**
  - ISRO Food Security and Satellite Monitoring (India)
  - JAXA Food Security and Satellite Monitoring (Japan)
- **Ground observations**
  - Utilization of children as field sensors (Japan and Vietnam)
  - Present status and perspective of field sensor network (Japan)
- **Crop modeling and Integration of satellite and ground observations**
  - Rice paddy monitoring in Thailand using Multi-Temporal SAR data (Thailand)
  - Field sensing and agricultural decision support in Indonesia (Indonesia)
  - Crop modeling in agriculture and food production decision support system (Philippines)
  - Calibrating crop models through data assimilation under ubiquitous geoinformatics (Japan)
  - GeoSense - Towards an OGC complaint DSS for precision farming with GeoICT and WSN (India)
  - Evaluating mismatch between crop development and availability (Australia)
- **Database**
  - Integrated databases for agricultural decision support (Japan)

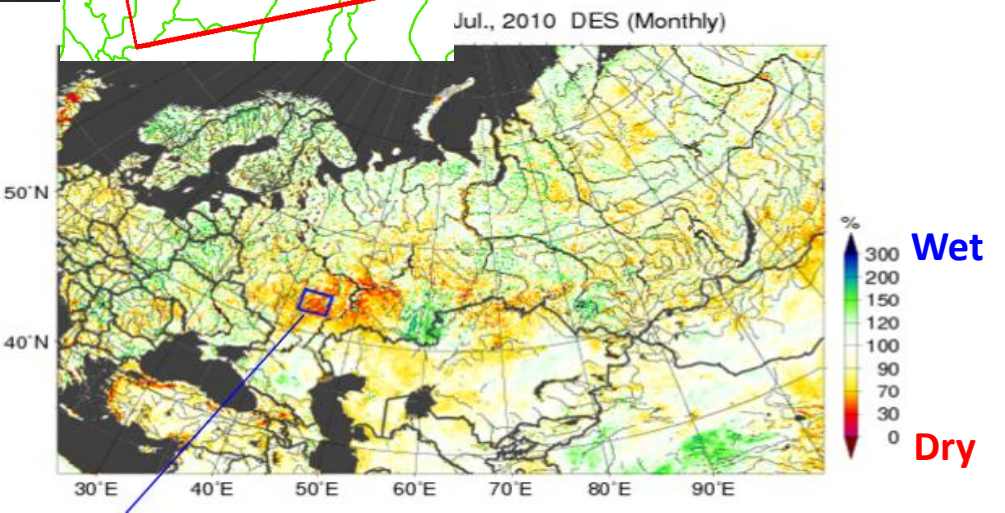
A plenty of available resources











WG5 Recommendations

- **In the context of GEO and the Asia Pacific region, following are the specific recommendations:**
  - Initiate an institutional frame work to link all the groups and projects together in the Asia Pacific
  - Gather information on EO data based Agriculture monitoring programmes in the countries of region and share the information across the community.
  - Identify the gaps in the current level of development and the need and ways to improve it.
  - Document the best practices in use of EO for agriculture monitoring, especially for rice crop monitoring.
  - Encourage the member countries to participate in the GEOSS Agriculture working group
    - e.g GEO GLAM, Joint Experiments for Crop Area Monitoring (JECAM)
  - Set the test sites, data provision, and/or knowledge sharing.
  - Capacity Building to be taken up to strengthen the use of EO data and bring uniformity in understanding and achieve

WG5 General recommendation

- To develop for collaboration scheme within GEO as well as with other international projects including FAO AMIS, ASEAN+3 AFSIS and WMO CAgM.
- To develop a platform to exchange and link data seamlessly
- To utilize available resources such as data sets, models, applications, hardware and humans.
- To support GEO-GLAM providing suggestions and proposals from the Asia Pacific region including promoting rice crop monitoring
- To identify the gaps between information providers and users
- To promote capacity building


Thank you very much