



A Platform for Big Data in Agriculture
COMMUNITY OF PRACTICE

GEOSPATIAL WORK PLAN 2018



INTERNATIONAL
FOOD POLICY
RESEARCH
INSTITUTE



CGIAR Geospatial Community of Practice, also known as the Consortium for Spatial Information (CGIAR-CSI), facilitates CGIAR's agricultural research using geospatial data and analysis. CGIAR-CSI coordinates community-wide activities to bring CGIAR's spatial scientists together through communications, geospatial datasets, and publications and convening in various events to represent CGIAR in the geospatial domain of expertise.

WHAT WE DO, WHY

Geospatial data and spatial analysis techniques provide a new opportunity for CGIAR to better target investment, monitor impacts, and spur innovations in agricultural science. It is becoming easier for researchers in any discipline to access spatial data and incorporate them in own analysis, yet there are many technical challenges exist especially in the application of geospatial analysis in the areas where ground-measured data is limited. Due to the nature of specificity and scale, the best way to find what would be the best choice, both for the data and method, for the specific need is to consult with other colleagues – who might have used it already and figured the strength/weakness. That is where the Community of Practice can be a valuable resource, and that is why we exist. Being at the forefront of applying the new geospatial science and technology in agriculture together, CGIAR-CSI's community members share knowledge, learning, and best practices, build partnerships with external technology developers and service providers, and collectively support CGIAR's agricultural research and development agenda.

OUR WORK IN 2018

- 1. Publication of Flagship Geospatial Datasets:** At the core, throughout the year, we will continue publishing flagship geospatial datasets, annotated with CG Core Metadata Standards, and make them F.A.I.R. (findable, accessible, interoperable, and reusable) through GARDIAN (<http://gardian.bigdata.cgiar.org>).
- 2. Training Workshops:** We will organize a series of training workshops for strengthening our members' programming skills to process large spatial data more efficiently. In addition to online webinars, CGIAR-CSI will partner with UC Davis to provide in-person *R* training workshops during the FOSS4G Conference in Dar es Salaam, Tanzania (August 27-28). During the conference, we will also feature about 30 presentations in the Agriculture Track and showcase CGIAR's geospatial analysis and engage with a broad geospatial community in partner institutions.
- 3. Provision of Shared Services:** We will provide our community members with key shared-services on commercial datasets (e.g., daily weather data on grids, archive of very-high resolution remote sensing imagery) and analytical tools (e.g., cloud-based remote sensing imagery processing platform).
- 4. Travel Support:** We will support our community members' travel to the prominent geospatial conferences (e.g., FOSS4G, EGU, AGU, Esri User Conference).

5. **Mini-Grants for Open Geospatial Datasets:** We will provide our external partners with mini-grants (10K each) to facilitate the development of key open geospatial datasets that can facilitate CGIAR's geospatial research (see the announcement of the first-round program at <https://wp.me/p9dbDR-gF>).
6. **Support for the UAV Working Group:** Within CGIAR-CSI, a new working group on the use of UAVs in agriculture was formed in early 2018. Based on the working group's needs assessments, where the majority (45%) answered the training workshop as the top priority, CGIAR-CSI will partner with WeRobotics, a technical NGO specialized in the use of UAVs and robotics in the development work, to organize a UAV training and knowledge sharing workshop.
7. **Other Community Event:** As opportunities arise, we will organize community-wide events and programs (e.g., mapathon, mapping algorithm contest) to help advance the quality of CGIAR-produced geospatial datasets and promote their broad use in agricultural science.

HOW TO ENGAGE

Currently, there are more than 100 members in CGIAR-CSI Community across all 15 centers. Anyone in CGIAR with interests in geospatial science can request to join the community's Sharepoint at <https://cgiar.sharepoint.com/sites/CGIAR-CSI-Community> and kept in the loop. External non-CGIAR members can follow the community's update through the Community Website at <https://cgiarcsi.community>.