It takes a community

CGIAR's effort to mainstream geospatial data science in agriculture

Jawoo Koo | International Food Policy Research Institute
Earth observation for sustainable agricultural development | World Bank | September 27, 2018

Mapping Baseline/Projections

- Landcover and land-use
- Crop/livestock distribution
- Historic climate
- Soils
- Population
- Market access
- Health
- Technology adoption
- Poverty
- Suitability
- Crop modeling
- Trade modeling
- Climate change impacts
- Socioeconomic projections
- ...and many more!

Geospatial research in CGIAR
One of three Research Support Platforms

Objectives:
1. Better organization and management of data
2. Collaborate and convene around data science
3. Inspire how data science can deliver impacts

- Developing new Technical Partnerships
- Provision of Shared Services (data and tools)
- Provision of Technical Training
- Supporting six Community of Practice
- Mini-Grants for Key Datasets
1. Managing large files
   → Cloud.
2. Developing/Managing portals
   → Don’t; Invest on data.
3. Need insiders’ knowledge
   → CoP is here to help!
4. Need programming skills
   → Invest to train staffs.
5. Proprietary or FOSS4G
   → Don’t sweat; whichever works.

Seeing is (not always) believing!

A visual comparison of all crop extent products, shown in green, overlaid on Google Earth Imagery

Converting GIS users **Data Scientists**

- Programming Skills
- Statistics
- Machine Learning
- Data Wrangling
CGIAR at the 2018 FOSS4G
3 training workshops and 26 academic presentations