AG OBSERVATORY

TEAM LEADS: Caroline Sartorato Franca and Erick C.M. Fernandes

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MISSION

The World Bank's Ag Observatory provides near real-time and high-resolution agricultural weather information that allows us to proactively monitor agricultural production systems globally. The Ag Observatory's insight is based on 1.7 million 'virtual weather stations' (VWS) generated from a combination of ground stations, satellite platforms and the application of Big Data, Artificial Intelligence, and Machine Learning. The VWS are generated on demand every 9 km across the globe's agricultural land.

By harnessing high resolution and real time weather data with local cropping calendars, it is possible to make early projections of crop yield anomalies from village to global scales. This capability provides early warning of potential food shocks, several months in advance of harvest periods. The 9km x 9km spatial resolution of the data allows a quick assessment of sub-national agricultural weather anomalies and makes possible, the early identification of crop failure "Hot Spots" that can generate displacement and conflicts. In addition, the data can provide decision support for the energy, water, transport, environment, and health sectors. The Ag Observatory accesses 1.5 million big-data generated virtual weather stations that produce 7 billion data points across the planet updated every 6 hours. We can also routinely access the last 10 years of such data for comparative statistics and trend analyses

CAPACITY

TEAM
Ag Observatory team comprises of two members.

WORKSHOPS/EVENTS
Workshops and trainings are regularly conducted for WBG and national agency staff to develop their own platforms and to attract youth to engage with, and to innovate for, agriculture.
- Eurasia Center for Food Security (ECFS) Ag Observatory Training

SERVICES OFFERED

- Support WBG Task Teams and clients for project design and implementation including early warning of extreme events that can lead to disasters, displacements, and conflicts.
- Make state of the art local to global weather data accessible in real time covering croplands and rangelands globally for proactive yield and forage quality forecasts and 'environmental' trend analyses relative to a 10- year baseline as a decision support tool for policy makers.
- Provide capacity enhancement for both WBG and national agency staff to develop their own platforms. A key target audience is youth – "empowering young minds in the service of agriculture!"

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PRODUCTS

- Agricultural Observatory Platforms – It helps creating valuable insights for farmers through weather, agronomics, and analytics.
- Tinya Ag-advisory Platform – Historical, PET, and hourly week forecasts. It helps in stimulating farm cropping systems.

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PARTNERSHIPS

INTERNAL

Agriculture GP

EXTERNAL

aWhere platform