

An Interactive dashboard to automate data cleaning, processing, analysis to produce crop and location specific farm advisories.

Project Title: P1595 - Big data analytics to identify and overcome scaling limitations to climate-smart agricultural practices in South Asia (BigData2CSA)

Description of the innovation: We've setup a system whereby field data collected using mobile device can be instantly uploaded into the server wherein data can undergo cleaning, missing value imputation and completion with associated soil and environmental variables followed by predictive and optimization modelling. The whole process will be automated in dashboard so that NARES partners can generate data-based farm advisories instantly after uploading the management information collected through crop-cuts and farmers' surveys.

New Innovation: Yes

Stage of innovation: Stage 1: discovery/proof of concept (PC - end of research phase)

Innovation type: Other

Geographic Scope: Regional

Number of individual improved lines/varieties: <Not Applicable>

Region:

- Southern Asia

Description of Stage reached: We have developed scripts for data cleaning and processing. We are now developing scripts for range of predictive and optimization modelling. In parallel, we are also developing a schema to automate all of these processes through data cleaning to production of knowledge product in the form of dashboard.

Name of lead organization/entity to take innovation to this stage: CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

Names of top five contributing organizations/entities to this stage:

- DAE - Department of Agriculture Extension (Bangladesh)

Milestones: No milestones associated

Sub-IDs:

- 26 - Agricultural systems diversified and intensified in ways that protect soils and water
- 10 - Closed yield gaps through improved agronomic and animal husbandry practices

Contributing Centers/PPA partners:

- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

Evidence link: <https://samples.ccafs.cgiar.org/n2o-dashboard/>

Deliverables associated:

- D9574 - Interactive web-based dashboards presenting post-season research results and

providing CSA management recommendations.
(<https://tinyurl.com/yxqvlq79>)

Contributing CRPs/Platforms:

- CCAFS - Climate Change, Agriculture and Food Security