Using a positive deviance approach to inform farming systems redesign: A case study from Bihar, India

Project Title: P259 - Scaling-up Strategies for Climate Risk Management in South Asian Agriculture

Description of the innovation: Improving farming systems in resource-poor contexts is often difficult as farmers face multiple challenges to implement the innovations developed by researchers. Viable solutions may however be present within local communities by positive deviant farmers, i.e. farmers that outperform positively compared to others. This study develops a positive deviance informed methodology to support redesign of farming systems, with the aim to improve farm productive, economic and environmental performances.

New Innovation: Yes

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

Innovation type: Production systems and Management practices

Geographic Scope: Sub-national

Country(ies):

- India

Description of Stage reached: We tested the methodology in Bihar, India, using survey data from 43 farms and the indicators of operating profit, soil organic matter balance, water use and dietary energy production. Positive deviant farms and practices were first identified and then recombined into a redesigned farm in consultation with farmers.

Name of lead organization/entity to take innovation to this stage: <Not Defined>

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

- BISA - Borlaug Institute for South Asia
- Bioversity (Alliance) - Alliance of Bioversity and CIAT - Headquarter (Bioversity International)
- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

Milestones:

- New generation of support tools, approaches, guidelines for CSA targeting/prioritization and local adaptation and investment planning developed and "hands-on" tools training workshop to subnational governments, development agencies and grower associations

Sub-IDOs:

- 39 - Increase capacity of beneficiaries to adopt research outputs
- 29 - Enhanced adaptive capacity to climate risks (More sustainably managed agro-ecosystems)

Contributing Centers/PPA partners:

- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

Evidence link: https://hdl.handle.net/10568/110079

Deliverables associated:

- D26666 - Farm-level exploration of economic and environmental impacts of sustainable intensification of rice-wheat cropping systems in the Eastern Indo-Gangetic plains (https://tinyurl.com/yycgnt4f)
- D26501 - Using a positive deviance approach to inform farming systems redesign: A case study from Bihar, India (https://tinyurl.com/y5ardhxs)

Contributing CRPs/Platforms:

- Wheat - Wheat