

## Assessment of climate adaptation options for cereal-based systems in the eastern Indo-Gangetic Plains, South Asia

**Project Title:** P961 - Building foresight portfolio for MAIZE AFS, including synthesis, gap analysis and new studies, as input in conducting priority setting for MAIZE AFS

**Description of the innovation:** Integration of new cropping system treatments and genetic improvements simultaneously for wheat based systems adaptation to future climate change

**New Innovation:** No

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

**Innovation type:** Production systems and Management practices

**Geographic Scope:** Regional

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

**Region:**

- Southern Asia

**Description of Stage reached:** All the crop management options studied increased yield, water productivity and net returns over that of the Current farmers Ppractice, under the current and future climate scenarios. However, the partial crop residue retention treatment gave significantly higher relative yield, lower annual yield variability and a higher benefit-cost-ratio than the other treatments across cropping system components and climate periods.

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

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

- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

**Milestones:** No milestones associated

**Sub-IDs:**

- 29 - Enhanced adaptive capacity to climate risks (More sustainably managed agro-ecosystems)
- 10 - Closed yield gaps through improved agronomic and animal husbandry practices
- 23 - Enhanced conservation of habitats and resources

**Contributing Centers/PPA partners:**

- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

**Evidence link:**

- <https://tinyurl.com/wa5p2mu>

**Deliverables associated:**

- D10406 - ex-ante impact assessment of pipeline technologies (**Not disseminated**)

**Contributing CRPs/Platforms:**

- CCAFS - Climate Change, Agriculture and Food Security
- Wheat - Wheat
- Maize - Maize