Developing a new methodology to identify global hotspots of climatic risk and food security, including a meta-analysis of four decades of climate research in agriculture

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

**Description of the innovation:** This research innovation collated and analysed 157 published research articles on climate impact assessments on maize, rice and wheat published globally since 1980s. The results from meta-analysis were combined with future food security projections to identify new vulnerable hotspots. The methodology developed can help in prioritizing climate investments and streamlining risk management policies for major grains.

**New Innovation:** No

**Stage of innovation:** Stage 1: discovery/proof of concept (PC - end of research phase)  
**Innovation type:** Biophysical Research  
**Geographic Scope:** Global  
**Number of individual improved lines/varieties:** <Not Applicable>

**Description of Stage reached:** The methodology has already been published as a journal article. The same method can be used to identify potential hotspots at sub-national scales for policy planning.

**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:**  
- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

**Milestones:** No milestones associated

**Sub-IDOs:**  
- 33 - Improved forecasting of impacts of climate change and targeted technology development

**Contributing Centers/PPA partners:**  
- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

**Evidence link:** https://iopscience.iop.org/article/10.1088/1748-9326/aafa3e

**Deliverables associated:** <Not Defined>

**Contributing CRPs/Platforms:** <Not Defined>