

## Proposed new methodology to benchmark N input requirements, N use efficiency and related GHG emissions for cereals

**Project Title:** P250 - Bringing CSA practices to scale: assessing their contributions to narrow nutrient and yield gaps

**Description of the innovation:** A new benchmarking method is proposed for N inputs & related GHG emissions in cereal cultivation

**New Innovation:** No

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

**Innovation type:** Research and Communication Methodologies and Tools

**Geographic Scope:** Global

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

**Description of Stage reached:** We propose a new benchmarking method for N inputs and related GHG emissions. In the coming year, we will test this methodology for different arable production systems to validate the approach.

**Name of lead organization/entity to take innovation to this stage:** WUR - Wageningen University and Research Centre

**Names of top five contributing organizations/entities to this stage:** <Not Defined>

### Milestones:

- Proof of concept of mitigation practices for N management, rice, and livestock provided to focal countries based on field trials and scenarios
- Technical and policy guidance on more efficient management options with mitigation co-benefits, including impacts on women, synthesized and disseminated to focus countries, supply chains and donors

### Sub-IDOs:

- 30 - Reduced net greenhouse gas emissions from agriculture, forests and other forms of land-use (More sustainably managed agro-ecosystems)
- 10 - Closed yield gaps through improved agronomic and animal husbandry practices

### Contributing Centers/PPA partners:

- WUR - Wageningen University and Research Centre
- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

**Evidence link:**

- <https://hdl.handle.net/10568/110875>

**Deliverables associated:**

- D17784 - 1.7 Benchmarking crop nutrient requirements, nutrient use efficiencies and mitigation potentials of major cereal crops and climate conditions in SSA (<https://hdl.handle.net/10568/110875>)

**Contributing CRPs/Platforms:**

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