

A farm-level assessment of labor and mechanization in Eastern and Southern Africa.

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: Ex-ante impact assessment of small-scale mechanization through analysis that labor is a major limiting factor to the productivity of most farming systems in Africa. The team used farm-level data (including detailed labor data) from four countries in Eastern and Southern Africa, and analyzed this dataset using multivariate methods. Labor and/or other sources of farm power (draught power or tractor power) were found to limit land productivity in all study sites.

New Innovation: No

Stage of innovation: Stage 3: available/ ready for uptake (AV)

Innovation type: Biophysical Research

Geographic Scope: Regional

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

Region:

- Southern Africa
- Eastern Africa

Description of Stage reached: peer reviewed journal article highlighting the ex-ante impact assessment of small scale mechanisation in Africa

Name of lead organization/entity to take innovation to this stage: CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

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
- EIAR - Ethiopian Institute of Agricultural Research
- KENDAT - Kenya Network for Dissemination of Agricultural Technologies
- SARI - Selian Agricultural Research Institute
- University of Zimbabwe

Milestones:

- Ex-ante impact assessments assess how major drivers like climate change and rural transformation will alter MAIZE in the developing world

Sub-IDs:

- 8 - More efficient use of inputs
- 5 - Diversified enterprise opportunities
- 6 - Increased livelihood opportunities

Contributing Centers/PPA partners:

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

Evidence link:

- <https://link.springer.com/article/10.1007%2Fs13593-019-0563-5>

Deliverables associated: <Not Defined>

Contributing CRPs/Platforms:

- Wheat - Wheat
- Maize - Maize