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Right Livelihood

A Smallholder Typology in Legume-based Farming Systems: an Application to Uganda

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Introduction

Over 60% of Uganda's population is rural and employed in the agricutlture sector (UBoS, 2020).

Smallholders are heterogenous and diverse due to differing livelihood strategies, socio-cultural settings, capabilities and resources.

Towards farmer-type specfic recommendations, this study sought to understand resource-based diversity among pigeon pea smallholders in Northern Uganda.

Results

- Six clusters constructed; Cluster 1 and 3 are LRE and older farmers
- Cluster 4 and 5 are HRE and younger farmers
- Cluster 2 and 6 are MRE





Research questions

- To what extent and how diverse are smallholders in pigeon pea farming systems in northern Uganda?
- what are the distinguishing factors within the different smallholder clusters?

Methods

- Districts (Lira, Pader and Kitgum)
- Expert interviews to develop hypothesis about the farming system
- Randomly sampled 2 sub-counties per district
- 255 smallholders interviewed using semi-structured questionnaire

Multivariate statistical analysis

Principal Component Analysis (PCA), Cluster Analysis (CA) and ANOVA in R software

Key messages

- Asset ownership (land and TLU s) are crucial factors in distinguishing between clusters
- Pigeon pea quantity produced is below the potential estimates across all clusters
- Household, asset ownership and crop production variables selected
- HRE, MRE & LRE: High, medium and low resource endowments
- We recommend farm-type specific recommendations given the diversity of farming system households

Ref: Uganda Bureau of Statistics (UBOS), 2020. Uganda Annual Agricultural Survey 2018. Kampala, Uganda; UBOS

Acknowledgements:



Deutscher Akademischer Austausch Dienst German Academic Exchange Service







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