

Profile of Tanzanian Farming Households in Five Sub-Regions

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Research Question

What are the traits of Tanzanian farmers living in five different farming system-based sub-regions?

The Data

The Tanzania National Panel Survey (TNPS) is part of the World Bank's Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS – ISA) funded by the Bill & Melinda Gates Foundation (BMGF). The LSMS – ISA covers 7 Sub-Saharan African countries and interviews the same households multiple times to produce panel data. The surveys collect detailed information about agriculture and socio-economic indicators. The TNPS is implemented by the Tanzania National Bureau of Statistics (NBS). The sample design was constructed to produce nationally representative estimates, and it consists of 3,265 households, 2,474 of which are agricultural households. Data was collected at multiple levels: communities, households, plots, individuals, and crops & animals. For this research, all analysis is reported at the household level.

Abstract

This research project examines the traits of Tanzanian farmers living in five different farming system-based sub-regions: the Northern Highlands, Sukumaland, Central Maize, Coastal Cassava, and Zanzibar. We conducted quantitative analysis on data from the Tanzania National Panel Survey (TNPS). We complimented this analysis with qualitative data from fieldwork conducted in the summer of 2011 and September 2013 to present a quantitatively and qualitatively informed profile of the "typical" agricultural household's land use patterns, demographic dynamics, and key issues or production constraints in each sub-region.

Our findings confirm that there exist many differences among these sub-regions. This research contributes to the knowledge base of those working with smallholder farmers in Tanzania to improve agricultural systems as a means of reducing hunger and poverty. Specifically, this research offers information about the activities and challenges faced by the "typical" farmer in each of the Tanzanian sub-regions. Collectively, these differences emphasize the importance of a geographically tailored approach to agricultural development.

Evans School Policy Analysis and Research Group (EPAR)

The Evans School Policy Analysis and Research Group (EPAR) provides research and policy analysis to support the work of the Agricultural Policies team at the Bill & Melinda Gates Foundation. EPAR's innovative student-faculty team model is the first University of Washington (UW) partnership to provide ongoing rigorous, applied research and analysis to the Bill & Melinda Gates Foundation. Established in 2008, the EPAR model has since been emulated by other UW schools and programs to further support the

Cassava

Sukumaland

Central Maize



Proportion of Households Growing Crops by Sub-Region ■ Maize ■ Paddy ■ Sorghum ■ Cassava ■ Beans ■ Mango ■ Banana **Central Maize** Northern Highlands Zanzibar **Sukumaland Coastal Cassava** Tanzania Zanzibar Paddy Dem. Rep. of Congo Mango Sorghum **Map of Tanzanian Sub-regions** Banana

Field Inputs

Proportion of Households that use inputs: Organic

Fertilizer, Inorganic Fertilizer, &

Pesticide/Herbicide/Fungicide

Organic Fertilizer Inorganic Fertilizer Pesticide, Herbicide, or Fungacide

29% 30%

Northern

Highlands

Central Maize, 21% Northern Highlands, Coastal Cassava, 54% Proportion of Households reporting Pre-Harvest Maize Losses The impact of pests differs between sub-region and between crop affected, however we were unable to include crops other than maize in this analysis due to insufficient observations. **Proportion of Households Using Different Storage Methods** ■ Sacks/Open Drum ■ Airtight Drum ■ Ceiling Storage ■ Traditional **Coastal Cassava Central Maize** Northern Sukumaland **Highlands Reasons for Post-Harvest** Losses in the **Coastal Cassava Sub-Region** by proportion of households reporting **Cassava Processing Rotting Rodents/ Pests** Insects The same chemical in cassava that deters pests must be removed through a In each sub-region, only 7%-13% of complicated and time consuming process households report experiencing when cassava is processed for food. some sort of post-harvest loss.

Farmer Losses & Storage Methods

Households Reporting

Reasons for Pre-Harvest Losses for Maize, by Sub-Region

■ Birds ■ Animals ■ Insects ■ Disease ■ Other



Coastal Cassava

13% 11%

Zanzibar

Zanzibar