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Why have majority of farmers in Uganda remained in subsistence?

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Executive Summary

Uganda strives to transform the agriculture sector from subsistence to commercial agriculture, in part, to increase household incomes. While a number of policy interventions have been designed to this effect, the sector has remained largely subsistence. In this briefing, we show that for small holder farmers in Uganda, food self-sufficiency goals override the need to earn income from the market for most households in the second season. Food sufficiency goals could be addressed by improving crop productivity and storage. Interventions could also target crop varieties that perform well during short rains to encourage smallholder farmers to actively engage in production throughout the year. For commercialization drive, infrastructural development remains crucial

Introduction

The National Development Plan (NDP) envisions Uganda transforming into a second world country. One of the priority sectors through which this transformation will be achieved is agriculture. This however can only be achieved when smallholder farmers change from subsistence mode of farming to commercial. Government interventions in form of the Poverty Alleviation Action Plan (PEAP) and its subsequent revisions, the Plan for the Modernization of Agriculture (PMA), the Agriculture Development Strategy and Investment Plan (DSIP), and lately the National Agriculture Policy (NAP), reveal interest to ensure farmers target production for both home consumption and the market. The disbanded National Agricultural Advisory Delivery Services (NAADS): distributed farm inputs and provided advisory services with the overall goal of commercializing agricultural production for the market. In addition, the commodity approach in which value chain development is directed towards 10 selected commodities within the different agro ecological zones was also pinpointed to drive agriculture development efforts in the country in five years from 2010/11. All these seem not to have achieved the expected transformation towards commercialization in the sector.

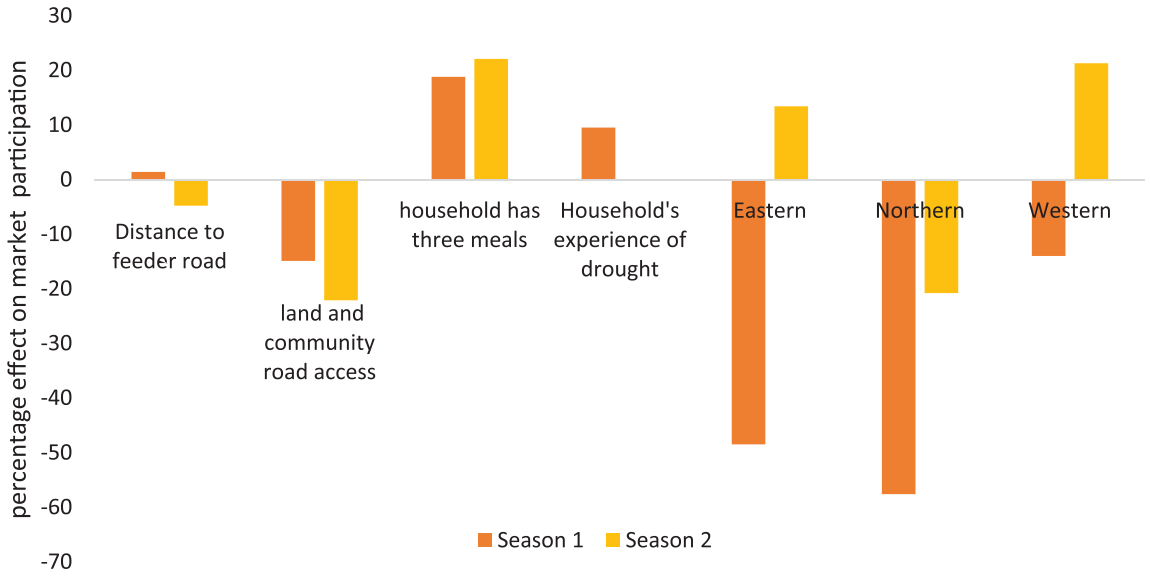
This brief uses nationally representative household panel data collected by the Uganda Bureau of Statistics (UBoS) in 2005 and 2009 to provide evidence on some of the factors which may be limiting farmers from commercialization. Commercialization is defined in terms of whether households participate in the market and the proportion of agriculture output that the household sells to the market. Focus is on the five major food crops grown in the country that is: maize, beans, sweet potatoes, cassava and bananas.

Factors limiting smallholder farmers from commercialization

The benefits of smallholder commercialization to farming households are usually accredited to increased household incomes. As rural households gradually commercialize, household incomes are increased, improving household welfare, food security and nutritional status. Despite the benefits, smallholder farmers may not necessarily integrate into the market because of some factors that limit their participation. If costs of undertaking the transaction outweigh the value of market participation, then households are not likely to participate. Figures 1 shows the percentage level at which some factors affect market participation in seasons one and two. The level of market participation in the regions eastern, northern

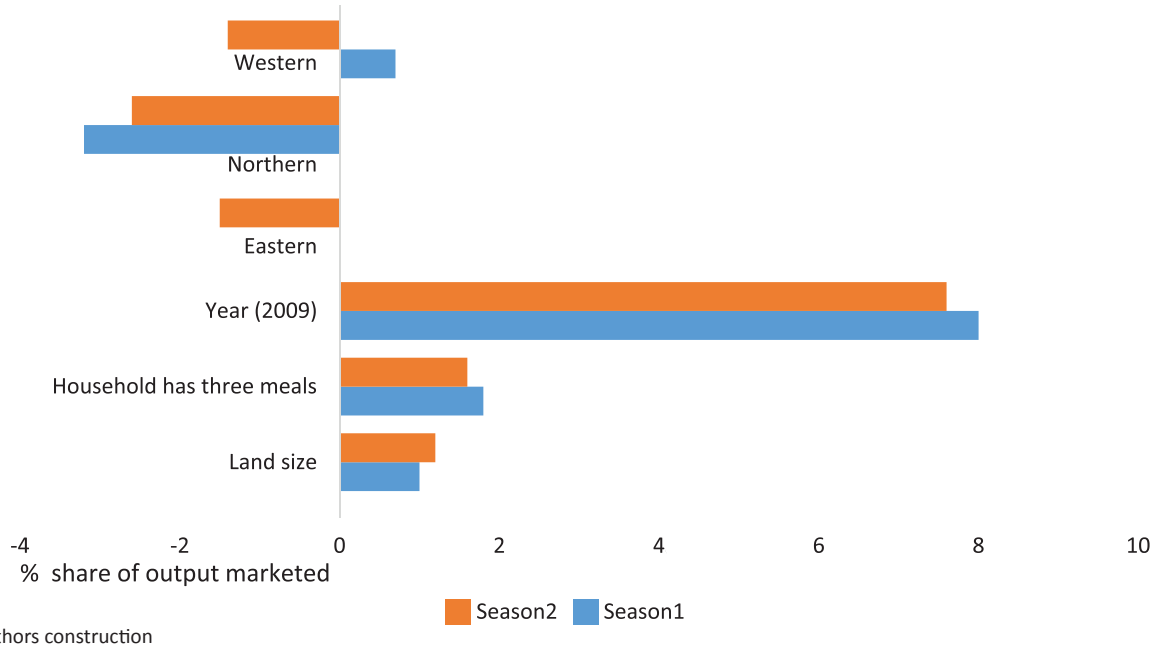
and western are compared with central Uganda. The level in market participation for access to land and community is compared to the alternative of having no access, while having three meals a day is compared to the counterpart – not having three meals a day. Lastly, household's experience of a drought is compared to household's not experiencing a drought. Figure 2 shows the effect of various factors on the percentage share of output marketed (for only those who market their crops). Similarly, percentage share of output marketed in the different regions (central, northern and western) is compared with central Uganda.

Figure 1: Factors affecting market participation of farmers in the market



Source: Authors own construction

Fig 2 : Factors affecting the intensity of market participation



Source: Authors construction

Food security concerns

Farmers are concerned about their food security and are therefore less likely to participate in the market or increase the proportion of output that they sell to the market in both the first and second seasons. Food security concerns are however more pronounced in the second rather than in the first season (Figures 1 and 2). In figure 1 for example, households that have three meals a day are 18 percent more likely to sell to the market when compared to those who don't have three meals a day in season one. In season two, those who have three meals a day are 22 percent more likely to participate in the market than those who don't have three meals a day implying that the gap in market participation between food secure(have three meals a day) and food insecure (have less than three meals a day) is wider in the second season. This result is crucial for policy interventions to achieve commercialization. Food security concerns of households should first be addressed before embarking on the drive for commercialization. The two objectives of attaining food security and commercialization can be achieved through improving productivity and production by encouraging the use of improved crop varieties.

Access to road infrastructure

Access to roads particularly to feeder roads play an important role in the decision of farmers to participate in selling their output. Figure 1 shows that in the second season, the further one is from the feeder road, the less likely one is to participate. This limitation is pronounced in the second season that is characterized by lower production due to shorter rains. Poor roads or the lack of it increases transaction costs associated with taking supplies to the market. When the costs are greater than the profits that farmers will get from selling their produce, farmers decide against selling their produce in the market.

The size of land owned by households

The size of land that households own limit their decisions to participate in the market (Figure 1) and the extent to which they should participate (Figure 2). In an ideal situation, it would be assumed that with increasing land size and hence greater production, the transactions costs associated with reaching the market should become minimal and households should participate and market more of their output. However the results show that this does not hold; households with larger land sizes will not participate in the market if the community in which they leave in does not have an access to a feeder road. Access to a road network that facilitates transportation of agricultural produce to the market is therefore very crucial for both large and small farmers alike.

Climate variation: household's exposure to drought

The effect of drought is associated with crop loss. In the first season households that have experienced a drought are more likely to participate in the market than their counterparts who have not. This contradicts the normal assumption that with drought, farmers will hold on to what they have in store and use it for home consumption. However selling to the market having experienced a drought may also be a copying mechanism. To combat the effects of climate change, focus should be directed towards investment in water for production technologies.

Regional location of the households

From figure 1 and 2, it's clear that central Uganda shows superiority in market participation and the share of output marketed particularly in the first season. It may be attributed to the fact that Central Uganda has better infrastructures and hence reduced transaction costs to the market.

Implications for policy

One of the key intuitive observations from this brief is that food self-sufficiency goals override the need to earn income from the market for most households in the second season. Therefore, while households could have preferred to engage in the market in both

seasons, low farming activity in the second season necessitates reserving most of the output for domestic use. This phenomenon is important for policy targeting agriculture commercialization. Food sufficiency goals could be addressed by improving crop productivity and storage. Interventions could also target crop varieties that perform well during short rains to encourage smallholder farmers to actively engage in production throughout the year. The National Agricultural Research Organization has been instrumental in developing new improved varieties, the challenge remains in dissemination and farmer adoption. Infrastructural development is also remains crucial in the commercialization drive.

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Endnotes

Von Braun, J. (1995). "Agricultural commercialization impacts on income and nutrition and implications for policy" *Food policy, Vol. 20. No. 3. Pp 187-202*

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