

Research Application Summary

Tenure Security and land improvements in Uganda

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Abstract

Permanent improvements on agricultural land by smallholder farmers have great potential to bolster agricultural productivity, enhance household food security, and improve household nutrition, while promoting environmental sustainability. Whereas demographic and socioeconomic factors have been demonstrated as important determinants, the type of land tenure and the nature of tenure security enshrined therein can be very critical and in some instances more important than the other covariates. The role of tenure security on land improvements in resource constrained smallholder farm setting has not been adequately investigated. This addressed this knowledge gap. We employed logistic regression analysis using data from a random sample of 1,200 households and 2012 parcels collected in 2012 from three sample districts. The aim was to understand the role of different levels of land tenure security on permanent improvements on agriculture land in Uganda. Results show that it is not the presence or absence of tenure security that is important but rather a combination of security and the sociocultural context of the area. The other important tenure related leveraging factor is if the parcel was inherited. The weight of the evidence is such that the importance of tenure security in influencing the decision to undertake improvements on agricultural land is very closely linked with the socio cultural fabric within which smallholder farmers find themselves. Merely promoting institutions that improve tenure security without addressing the underlying socio cultural elements may not result in the desired land improvements and the resultant enhancement of sustainable production.

Key words: Agricultural investments, land tenure, tenure security, Uganda

Resume

Les améliorations permanentes des terres agricoles par les petits exploitants ont un grand potentiel pour soutenir la productivité agricole, renforcer la sécurité alimentaire des ménages et améliorer leur nutrition, tout en promouvant la durabilité environnementale. Alors que les facteurs démographiques et socio-économiques ont été démontrés comme des déterminants importants, le type de régime foncier et la nature de la sécurité foncière qui y est inscrite peuvent être très critiques et dans certains cas plus importants que les autres covariables. Le rôle de la sécurité foncière sur les améliorations foncières dans le cadre de petites exploitations agricoles aux ressources limitées n'a pas été suffisamment étudié. Cette étude vise à combler ce manque de connaissances. Nous avons employé une analyse de régression logistique en utilisant les données d'un échantillon aléatoire de 1200 ménages et de parcelles collectées en 2012 dans trois districts de l'échantillon. L'objectif était de comprendre le rôle des différents niveaux de sécurité foncière sur les améliorations permanentes

des terres agricoles en Ouganda. Les résultats montrent que ce n'est pas la présence ou l'absence de sécurité foncière qui est importante mais plutôt une combinaison de la sécurité et du contexte socioculturel de la zone. L'autre facteur important est le fait que la parcelle ait été héritée. Le poids de cette preuve est tel que l'importance de la sécurité foncière pour influencer la décision d'entreprendre des améliorations sur les terres agricoles est très étroitement liée au tissu socioculturel dans lequel se trouvent les petits exploitants agricoles. Se contenter de promouvoir des institutions qui améliorent la sécurité foncière sans s'attaquer aux éléments socioculturels sous-jacents peut ne pas aboutir aux améliorations foncières souhaitées et à l'amélioration de la production durable qui en résulte.

Mots clés : Investissements agricoles, régime foncier, sécurité de la tenure, Ouganda

Introduction

Uganda has had a long standing quest for agricultural modernization understood to mean increased uptake and use of improved agricultural technologies, increased use of external inputs and the attendant benefits of increased production, reduction in food prices and an increase in real rural wages (MAAIF, 2000). The major objective of agricultural investment is to increase agricultural production to achieve food self-sufficiency, create surplus for export and provide raw materials for agro-industries. Agricultural investments also have the biggest potential to address the growing problem of youth unemployment especially in sub-Saharan African countries. Most recent research on agricultural investment has tended to focus on large scale agricultural investments run by the State or foreign investors (See e.g. Cotula *et al.*, 2009; Deininger, 2011; Hall, 2011, Deininger and Byerlee, 2012; Mujenja and Wonani, 2012; Cotula, 2013; Hall and Osorio, 2014). Yet, land investments by small scale farmers themselves especially those of a permanent nature entailing perennial crops and land improvements have great potential to meet the above mentioned objectives of agricultural investment and even more in terms of gender equity and environmental sustainability. Most studies have generally assumed (and perhaps correctly so) that smallholder farmers themselves are unable to undertake substantial agricultural investments by themselves. Whereas such inability is usually attributed to capital limitations and lack of skills or even absence of entrepreneurial acumen, there are various other factors that remain least understood. Some of these factors are constraining, whereas others may be opportunities. It is important that these factors are investigated and disaggregated so that constraints are addressed, while factors that present opportunities are enhanced to promote local agricultural investments.

Our previous research has shown that land tenure is a significant factor in determining agricultural land prices in Uganda (Bashaasha *et al.*, 2008; Aloba *et al.*, 2012), and that there is a relatively higher demand for land in the urban and peri-urban areas, and in the central region (compared to other regions) (Aloba *et al.*, 2012). Moreover, registered agricultural land is generally perceived to provide more tenure security compared to unregistered land as reflected in the higher land prices (Bashaasha *et al.*, 2008; Aloba *et al.*, 2012). While, for mailo land, the double ownership structure where both the registered mailo owner and the statutory tenant have claims over the same piece of land seems to discount its perceived market value (Aloba *et al.*, 2012). However, empirical evidence on the impact of different land tenure systems and associated land rights on investment and productivity in Uganda is inconclusive (Pedersen *et al.*, 2013).

The main objective of this study was to analyze the role of land tenure and its security attributes on agricultural investments or permanent improvements on land in Uganda. More specifically, holding other factors constant, what are the land tenure security attributes that determine agricultural investments or permanent improvements on land among smallholder farmers? Furthermore, which

demographic and socio-economic factors influence such investments?

Study description.

Data were obtained between May and July 2012 in the Amuru, Masaka and Pallisa areas through a questionnaire survey covering 1200 households. These study areas correspond to the 2001 Uganda district boundaries for Amuru, Masaka and Pallisa districts and encompass Amuru and Nwoya districts (Amuru area); Bukomansimbi, Lwengo, Kalungu and Masaka districts (Masaka area); and Butebo and Pallisa districts (Pallisa area). Data were collected on several variables at both household and parcel levels including land tenure form, tenure security, economic behavior, contact and access to institutions involved in land administration and tenure holder demographic and socioeconomic characteristics. The questionnaire data were digitalized and analysed using SPSS and STATA computer programs. We employed the logistic regression model to study the factors influencing permanent agricultural improvements on primary land parcels in Uganda. Gujarati (2004) provides an excellent theoretical exposition of the model that can be estimated as a probability. The model was tested for multicollinearity and heteroscedasticity and both were rejected.

Results and discussion

The summary results (Table 1 below) show that land tenure security attributes were significant in driving agricultural investments or permanent improvements on land, supporting the literature that tenure security is associated with land-related investments. More precisely, the following land tenure security attributes were significant: perception on tenure security (whether the land was secure or somewhat secure); existence of written tenure documentation (whether precise or somewhat precise); mode of land acquisition (whether it was inherited or hired); form of land tenure (freehold/ mailo/ leasehold arrangement); and the ability to dispose off the land parcel after consultation with family and local leaders. Our results are consistent with the findings of previous empirical studies that have shown a significant relationship between land tenure security and agricultural investments in the African context (Hayes *et al.*, 1997; Place and Otsuka, 2002; Gebremedhin and Swinton, 2003; Smith, 2004; Deininger and Jin, 2006; Place, 2009; Abdulai *et al.*, 2011; Fenske, 2011; Deininger *et al.*, 2011). In addition, agricultural investments or permanent improvements on land were driven by the number of parcels owned by the household; age of household head (being in the 40-45 year age bracket); poverty status (being non-poor or less poor); location variables (residence of the household in a rural area, and location of the household in Masaka or Pallisa district); and having access to off farm income.

Conclusions

The results of this study underscored the case for policy refocus on promoting smallholder agricultural investment alongside or complementary to large scale local, government and foreign agricultural investments. Smallholder agricultural investments offer the potential to spread the benefits more widely and equitably and to offer better environmental protection. Much as demographic, socio-economic and land related factors interact to influence the choice of permanent agricultural investments, land related factors are the key drivers warranting increased and adequate attention policy focus in terms of priority. Similarly, socio-economic factors that have much to do with household capacity, empowerment and the local policy environment constitute the second most important category of agricultural investment drivers. Though important contributing factors, demographics turn out not that much critical in as far as permanent agricultural investments on land are concerned.

Table 1. Summary of determinants of agricultural investments or permanent improvements on land.

Variable name	Category	Marginal Effects	P>z
Dependent variable: Whether any agricultural or permanent investments were carried out on the land primary land parcel in the last 5 years (1=yes, 0=no).			
Age range of the respondent (>25 years=0)	25-40 years	0.046	0.141
	40-45 years	0.102	0.001***
	>55 years	0.019	0.607
Poverty category of the household (Poorest=0)	Less poor	0.041	0.077*
	Non poor	0.091	0.000***
The respondent's household is in the rural category (rural=1, urban=0)		0.061	0.000***
Location (district of the household) (Amuru=0)	Masaka	0.473	0.000***
	Pallisa	0.500	0.000***
Total number of parcels owned by the household		0.005	0.020**
Tenure security level of the household (Not that secure=0)	Somewhat secure	0.061	0.069*
	Secure	0.061	0.082*
written tenure documentation level (No written documentation=0)	respondent has some or unprecise written documentation	0.050	0.036**
	respondent has precise written documentation	0.075	0.004***
Mode of acquisition for the parcel (Purchased=0).	Inherited	0.075	0.001***
	Donated from relative	0.061	0.118
	hired (paying rent)	-0.179	0.000***
	Others (mortgage arrangement, borrowed, contract farming agreement, cleaning the land with/without permission, allocation from clan)	0.012	0.855
Tenure form for the land (Customary==0)	Kibanja tenant	0.013	0.672
	Others (Freehold/mailo/leasehold)	0.061	0.027**
The household has access to off farm income (1=yes, 0=no)		0.041	0.091*
In case the respondent needs to raise money or wish to start cultivating elsewhere, the respondent expects to be able to sell your parcel (no=0)	Yes	-0.003	0.891
	Yes but it depends on approval from others (spouse, relatives, in laws, clan, LC1, land owner)	0.148	0.000***

Notes: ***significant at the 1% probability level; ** significant at 5% probability level, and * significant at 10% probability level.

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