Respondent perceptions of positive and negative changes due to presence of commercial land-based investments in Uganda: Regional Comparison

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Abstract:

This study examined the positive and negative perceptions of commercial land-based investments in three regions of Uganda: Kanungu (South-Western), Nakasongola (Central) and Nwoya (Northern) using data that was collected a decade after the 2007/2008 food and energy crisis. We found that Northern region district had the lowest percentage of respondents with positive or negative perceptions of commercial land-based investments.

1. Introduction

"The recent surge in land-based investments (LBIs) in the global South has been seen as both an opportunity for rural economic development and as a trend that poses significant social and environmental risks" (Mandondo & German, 2015:31). "They are mainly touted as employment generators, knowledge and technology transfer that translate in agricultural productivity enhancement, yet empirical evidence show that they have been largely detrimental to food, land and environmental security (Hufe & Heuermann, 2017: 168). Hufe & Heuermann (2017) noticed from their systematic review of the impacts of large scale LBIs of over 1000 hectares that they create positive changes along the dimensions of employment generation and provision of public goods and the negative changes were along the dimensions of inadequate compensation, land conflicts and environmental degradation.

Oberlack, Tejada, Messerli, Rist, & Giger (2016) focusing mostly on the processes through which large scale LBIs produce adverse livelihood outcomes which included loss of access to land and natural resources, increased conflict, increased material and procedural inequality, contested compensation, ecosystem degradation and adverse labour conditions. Byakagaba & Muhiirwe

(2017) found that acquisition of industrial forest plantations in Bujaawe Central Forest Reserve, Hoima district in Uganda changed local communities within 1 Km radius with employment (62%) and wood fuel (64%) and loss of land for crop production (89%). Deininger & Xia (2016) found positive changes of proximity to large scale farms such as adoption of agricultural practices and input use, job creation near crop farms and not livestock farms and negative changes such as decreased perceived well-being among Mozambican smallholder farmers.

In the context of gas and oil exploration in Albertine region of Uganda, Byakagaba, Mugagga, & Nnakayima (2019) found high mentions of road construction, increased business opportunities, emergence and strengthening social networks, construction and rehabilitation of primary schools, and establishment of health centres as positive social economic impacts. On the other hand, increased cost of land, inflation of price commodities, increased incidences of disease out-breaks, increased land conflicts, increased social ills like drug abuse or petty crimes, soil erosion increase, wildlife destruction, noise pollution and loss of grazing area were the most negative social economic and environment impacts of gas and oil exploration (Byakagaba et al., 2019).

Though various studies have documented the positive and negative changes of LBIs both theoretically and empirically on a case study basis with exception of Deininger & Xia (2016), existing evidence is still inclusive. According to Hufe & Heuermann (2017), the existing case studies that involved large scale land acquisitions of over 1000 hectares have on job creation, land conflicts, compensation for land us, provision of public goods and services, environmental effects, access to technology and markets, and food security. Evidence on the smallholder's perceptions of the positive and negative changes of commercial land-based investments irrespective of the scale or type of industry is somehow lacking in existing empirical studies. This study sought to shed light on the debate by examining the positive and negative perceptions of the changes of commercial land-based investments and how land tenure, tenure insecurity and poverty influence those perceptions in Uganda.

The main research question is taken from 2019 Agricultural Investors as Development Actors (AIDA) survey data that asks, "*Foreign companies and individuals have invested in this area during the recent years. In your experience, what have been the 5 most important changes associated with these investments which have affected the village/LC1 positively or negatively over the past years?"* Though the question asked about the positive or negative changes due to foreign owned farms, the responses could have included all commercial land-based investments whether foreign or local, and or large, medium or small scale. For example, when asked about foreign investments that are closest to the household land. Some respondents in Kanungu

referred to lodges as Kanungu is a top tourist destination due to gorilla tracking in Bwindi Impenetrable National Park. And others mentioned Ishasha hydro/eco power plant when asked to list the names of foreign agricultural investments near them in on the questions. People in Acholi sub region where Nwoya is located usually refer to farms by non-locals (non-community members) as foreign even for Ugandans from other regions. The study is important in that it comes over ten years after the 2007/2008 global food and energy crisis which sparked unprecedented commercial land acquisition in developing countries.

2. Data source

This study is based on quantitative cross-sectional data for 'Agricultural Investors as Development Actors' (AIDA) project that was collected between March and April 2019 from Kanungu (Southern Uganda), Nakasongola (Central Uganda), and Nwoya (Northern Uganda) districts. The data contains information for 399, 394 and 389 households/individuals in Kanungu, Nakasongola and Nwoya respectively[1]. For more information on the study districts in terms of respondent characteristics, poverty, land tenure systems (see, Nakanwagi et al., 2021).

3. Perceptions of positive changes of commercial land-based investments across study areas

3.1. Perceived positive changes of commercial land-based investments

Results in Table 3.1a show that Kanungu had the highest percentage (38.29%) of respondents that had positive perceptions of the changes of commercial land-based investments and Nwoya had the least (20.57%). However, Nwoya had the lowest percentage (32.13%) respondents that did not have positive perceptions of the changes of commercial LBIs and Nakasongola had the highest percentage at 50%. Nwoya had a greater percentage of respondents that were not aware of the positive changes of LBIs. While Kanungu and Nakasongola had almost similar levels of those who were not aware. The difference in respondents' positive perceptions of the changes of LBIs across the districts was significant χ^2 (4, N=1,164) = 12.5976, p < 0.001.

Table 3.1a: Respondent perceives positive changes of commercial land-based investments

		positive changes due to commercial land-based investments			
Study district		**No**	**Don't know**	**Yes**	**All**
Kanungu	Freq.	170	75	152	397
	%	42.82	18.89	38.29	100
Nakasongola	Freq.	189	68	121	378

[1] For more information on how the survey was conducted, See Ravborg, H.M., Bashaasha, B., Broeggard, R.B., et al. (2021). "Tracing the development outcomes of Agricultural Investments in six research locations in Tanzania and Uganda: Questionnaire survey design and sample characterisation."

	%	50	17.99	32.01	100
Nwoya	Freq.	125	184	80	389
	%	32.13	47.3	20.57	100
All districts	Freq.	484	327	353	1,164
	%	41.58	28.09	30.33	100

Source: 2019 AIDA Survey

Table 3.1b: Types of perceived positive changes of commercial land-based investments (Multi answers if Yes in Table 1a)

	Kanungu (Respondents= 152)			**Nakasongola (Respondents=121)**			**Nwoya (Respondents=80)**		
Perceived positive changes	**Freq.**	**% answers**	**% cases**	**Freq.**	**% answers**	**% cases**	**Freq.**	**% answers**	**% cases**
Improved roads	73	15.40	48.03	57	19.45	47.11	20	11.70	25
Better transport possibilities	27	5.69	17.76	33	11.26	27.27	10	5.85	12.5
Improved schools	78	16.46	51.32	29	9.90	23.97	6	3.51	7.5
Improved health facilities	73	15.40	48.03	14	4.78	11.57	4	2.34	5
Improved electricity supply	36	7.59	23.68	11	3.75	9.09	0	0	0
Better agriculture marketing options	29	6.12	19.08	10	3.41	8.26	16	9.36	20
Greater supply of products in market	8	1.69	5.26	6	2.05	4.96	2	1.17	2.5
Better employment opportunities	73	15.40	48.03	69	23.55	57.03	56	32.75	70
New agricultural production ideas	33	6.96	21.71	10	3.41	8.26	28	16.37	35
Improved food supply	2	0.42	1.32	1	0.34	0.83	2	1.17	2.5
Improved overall economic activity	24	5.06	15.79	16	5.46	13.22	15	8.77	18.75
Improved household food security	13	2.74	8.55	7	2.39	5.79	9	5.26	11.25
More entertainment	3	0.63	1.97	7	2.39	5.79	1	0.58	1.25
Improved training opportunities	0	0	0	1	0.34	0.83	1	0.58	1.25
Improved clean water	2	0.42	1.32	21	7.17	17.36	1	0.58	1.25
Improved security	0	0	0	1	0.34	0.83	0	0	0
Total Observations	474	99.98	311.85	293	99.99	242.17	171	99.99	213.75

Source: 2019 AIDA Survey

Table 3.1b results show that the 5 important changes due to commercial LBIs as perceived by sampled respondents in Kanungu were improved roads, improved schools, improved health facilities, improved electricity supply and better employment opportunities. Improved roads, better transport possibilities improved schools, better employment opportunities and improved overall economic activity were the most important in Nakasongola. While in Nwoya, they were improved roads, better agriculture marketing options, better employment opportunities, improved overall economic activity and new agricultural production ideas were the most perceived changes of commercial LBIs.

3.2. Perceived negative changes of commercial land-based investments

Table 3.2a show that the difference in respondents' perceptions of the negative changes of LBIs was significant χ^2 (4, N=1,160) = 121.8790, p< 0.001. Nakasongola had the highest percentage

(34.22%) of respondents that had unfavorable view of commercial LBIs compared to those in Kanungu (24.81%) and Nwoya (13.44%).

Table 3.2a: Perceived negative changes of commercial land-based investments

	Negative changes due to commercial land-based investments			
District	**No**	**Don't know**	**Yes**	**All**
Kanungu	213	87	99	399
	53.38	21.80	24.81	100
Nakasongola	168	78	128	374
	44.92	20.86	34.22	100
Nwoya	137	198	52	387
	35.40	51.16	13.44	100
All districts	518	363	279	1,160
	44.66	31.29	24.05	100

Source: 2019 AIDA Survey

Table 3.2b results show that personal insecurity, theft, AIDS increase, alcohol problems and food insecurity were the 5 most important negative changes associated with commercial LBIs in Kanungu. Water pollution, arrival of many migrants, theft, alcohol problems, decreased grazing area received higher mentions in Nakasongola while water pollution, arrival of many migrants, alcohol problems, decreased grazing areas and difficult in getting thatch material in Nwoya.

Table 3.2b: Type of perceived negative changes of commercial land-based investments

	Kanungu (Respondents= 99)			**Nakasongola (Respondents=128)**			**Nwoya (Respondents=52)**		
Type of negative changes	**Freq.**	**% answers**	**% cases**	**Freq.**	**% answers**	**% cases**	**Freq.**	**% answers**	**% cases**
Water pollution	18	5.38	18.18	28	10.07	21.88	12	9.84	23.08
Arrival of many migrants	17	5.06	17.17	36	12.95	28.13	21	17.21	40.38
Personal Insecurity	42	12.5	42.42	12	4.32	9.38	4	3.28	7.69
Theft	69	20.54	69.69	54	19.42	42.19	9	7.38	17.31
AIDS increase	55	16.37	55.56	12	4.32	9.38	8	6.56	15.38
Alcohol problems	60	17.86	60.61	32	11.51	25	17	13.93	32.69
Household food Insecurity	41	12.20	41.41	15	5.40	11.72	6	4.92	11.54
Increased Noise	8	2.38	8.08	9	3.24	7.03	1	0.82	1.92
Traffic accidents	4	1.19	4.04	5	1.80	3.91	0	0	0
Decreased grazing areas	8	2.38	8.08	36	12.95	28.13	12	9.84	23.08
Difficult to get thatch material	4	1.19	4.04	1	0.36	0.78	15	12.30	28.85
Competition for labor and market	3	0.89	3.03	2	0.72	1.56	2	1.64	3.85
Increased domestic violence	0	0	0	0	0	0	1	0.82	1.92
Harmful chemicals	5	1.49	5.05	3	1.08	2.34	5	4.09	9.62
Poor employment	2	0.60	2.02	4	1.44	3.13	8	6.56	15.38
Land loss	0	0	0	1	0.36	0.78	1	0.82	1.92
Blockage of drainage	0	0	0	2	0.72	1.56	0	0	0
Drainage of wetlands	0	0	0	2	0.72	1.56	0	0	0
Deforestation	0	0	0	7	2.52	5.47	0	0	0
Increased dust	0	0	0	7	2.52	5.47	0	0	0
Increase rental prices	0	0	0	1	0.36	0.78	0	0	0

Water scarcity	0	0	0	9	3.24	7.03	0	0	0
Total Observations	**336**	**100.03**	**339.38**	**278**	**100.02**	**217.21**	**122**	**100.01**	**234.61**

Source: 2019 AIDA Survey

Conclusion

This study examined the positive and negative perceptions of commercial land-based investments in three regions of Uganda: Kanungu (South-Western), Nakasongola (Central) and Nwoya (Northern) using data that was collected a decade after the 2007/2008 food and energy crisis. We found that Northern region district had the lowest percentage of respondents with positive or negative perceptions of commercial land-based investments. Improved roads and improved employment opportunities were the common important 5 changes due commercial LBIs across the study areas (see summary in Table 3.3a). improved health facilities and improved electricity supply were the important 5 changes due commercial LBIs in Kanungu. While Nakasongola had better transport possibilities change due to commercial LBIs and Nwoya had better agriculture marketing options and new agricultural production ideas. Table 3.3b shows the commonalities and differences in what respondents perceived as negative changes due to commercial LBIs.

Table 3.3a: Five most important perceived positive changes due to commercial LBIs

5 most important changes	Kanungu	Nakasongola	Nwoya
Improved roads	x	x	x
Improved schools	x	x	
Improved health facilities	x		
Improved electricity supply	x		
Better transport possibilities		x	
Better employment opportunities	x	x	x
Better agriculture marketing options			x
New agricultural production ideas			x
Improved overall economic activity		x	x

Source: Extracted from Table 3.1b

Table 3.3b: Five most important perceived negative changes due to commercial LBIs

5 most important changes	Kanungu	Nakasongola	Nwoya
Personal Insecurity	x		
Theft	x	x	
AIDS increase	x		

Alcohol Problems	x	x	x
Food insecurity	x		
Water pollution		x	x
Arrival of migrants		x	x
Decreased grazing area		x	x
Decreased thatch material			x

Source: Extracted from Table 3.2b

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