



Achieving Food and Nutritional Security through Commercialized Agriculture: The Role of Transitional Systems in Kenya

Dennis Etemesi Olumeh^{*1}, David Jakinda Otieno¹, Willis Oluoch-Kosura¹ and Adam Rahma²

¹Department of Agricultural Economics, University of Nairobi, Kenya:

²International Maize and Wheat Improvement Centre (CIMMYT), Nairobi, Kenya:

Authors' Contacts': etemesideaty@gmail.com; jakinda1@yahoo.com; willis.kosura@gmail.com; R.Adam@cgiar.org

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1. Introduction

- Most if not all countries in Sub Saharan Africa (SSA) depend on agriculture as the primary activity on which food security and poverty reduction strategies are underpinned .
- This substantiates the significant role that agricultural commercialization can contribute in terms of increasing incomes and access to diversified foods.
- Increased purchasing power due to market participation enables farmers to afford more nutritious food bundles (Rios et al., 2009).
- Over the past decade, countries in SSA have experienced transitions that directly relate to agricultural production and commercialization.
- The significance of transitions on key agricultural support services such as land, credit, devolution, infrastructure , and extension cannot be gain said.
- However, there is scanty empirical literature on the extent and patterns of agricultural commercialisation in remote rural food-insecure farm-households in Africa amidst emerging transitions.
- This study examined how emerging transitions in rural infrastructure and devolved governance systems contribute to market participation by farm-households, which ultimately improves nutritional diversity in Western Kenya.

2. Materials and Methods

- Participatory experiential learning from farmers



- Household survey 300 smallholder maize farmers



- Descriptive methods & linear regression analysis

3. Results and Discussion

- Descriptive analysis demonstrated that there were different commercialization patterns among farmers who experienced transitions as compared to those who did not, where farmers in transitional systems were more commercialized.

Table 1: Regression Results on the Effect of Infrastructure and Devolution Transitions on Commercialization (Amount of Maize Sold)

Variables	Infrastructure transitions				Devolution transitions			
	Lack of improved access to all weather roads (n = 51)		Improved access to all weather roads (n = 246)		Market facilities have not been established since devolution (n=160)		Market facilities have been established since devolution (n=137)	
	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
Development group	0.08	0.94	0.27	0.45	0.44	0.29	0.16	0.79
Total seeds and fertilizer used	-1.17*	0.06	0.39*	0.09	-0.04	0.87	0.45	0.21
Household Asset Index	0.06	0.62	0.09**	0.05	0.00	0.98	0.14**	0.03
Total land under maize	1.69*	0.08	0.08	0.79	-0.08	0.84	0.30	0.48
Total maize harvested	2.41***	0.01	1.74***	0.00	2.63***	0.00	1.32***	0.00
Trust traders	0.31	0.77	0.39	0.22	0.22	0.57	0.82*	0.10
Years of formal schooling	-0.01	0.92	0.00	0.96	0.04	0.49	-0.04	0.53
Dependence number	0.06	0.77	-0.13**	0.03	-0.16**	0.04	-0.09	0.30
Access to credit	2.03*	0.07	0.25	0.45	0.35	0.38	0.96*	0.08
Access to extension	-0.45	0.70	0.13	0.74	0.15	0.72	-0.16	0.80
Gender of household head	-1.26	0.38	0.52	0.24	0.55	0.31	0.46	0.48
Traders known	0.08	0.90	-0.60***	0.01	-0.30	0.31	-0.69**	0.04
_cons	-8.92	0.08	-10.31	0.00	-14.28	0.00	-8.02	0.00

Notes: statistical significance levels: ***1%, **5%, respectively

- Total inputs used, household asset index, quantity of maize harvested, trust in traders and access to credit positively influenced commercialization patterns for farmers who experienced either infrastructural or devolution transitions, while dependence ratio and number of traders known had a negative influence.
- Further, quantity of maize harvested had a positive effect on farmers who had either experienced or not experienced infrastructure transitions. Similar observations were made to farmers under devolution transitions.

4. Conclusion and Way Forward

- There is need to effectively develop infrastructure (access to roads) as this will improve smallholder farmers' access to markets.
- Put in place strategies of building market facilities as this will help reduce the distance covered by smallholders while accessing markets and consequently improve commercialization.
- With evidence that farmers acknowledge to have experienced transitions, it is important to increase access to institutional support services that positively support commercialization.
- For instance; increasing access to credit through credit targeting and creating products that allow for seasonal repayment schedules .

Literature Cited

- Rios, R. A., Shively, E. G. and Masters, A. W. (2009). Farm productivity and household market participation: Evidence from LSMS data.

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