December 2019

The Changing Face of African Agriculture in an Era of Rural Transformation: Dynamics in Land System and Tenure Policies

T. S. Jayne, Milu Muyanga, Ayala Wineman, Hosaena Ghebru, Caleb Stevens, Mercedes Stickler, Antony Chapoto, Felix K. Yeboah, Ward Anseeuw, David Nyange, and Divan Van der Westhuisen

Introduction

Conventional views of African agriculture are in many respects becoming obsolete. The policy brief summarizes key findings from the <u>full study</u>, which presents evidence of profound farm-level transformation in the region, identifies the key sources of dynamism in the sector, and proposes an updated typology of farms that reflects the evolving nature of African agriculture. We underscore the rising importance of an entrepreneurial class of African commercialized farmers, and examine the causes and consequences of this phenomenon.

Sub-Saharan Africa is witnessing rapid changes in farm size distributions. "Medium-scale" farm landholdings of five to 100 hectares now account for a substantial and growing share of farmland in many African countries.¹ Since 2000, this category of African farmer has acquired more land and put much more new land under cultivation than large-scale foreign investors. In parallel to these developments, the region is witnessing changes in land tenure institutions that influence who is acquiring land (Ghebru and Girmachew, 2019a; 2019b). Parts of the region are experiencing a notable shift in the allocation of customary land from a rights-based approach that secures access to land for localborn members of the community to market-based approaches to land allocation based increasingly on willingness to pay. As population densities rise and land becomes scarce in many areas, tenure security is becoming increasingly important. Research evidence shows that security of tenure typically promotes long-term land investments and agricultural productivity, hence the need for African governments to focus on improving land tenure security to more effectively achieve their national agricultural policy objectives.

Changes in the distributions of farm size, crop production and marketed output

The size distributions of farms in many African countries are rapidly changing. In most of the countries for which national rural household surveys exist, and particularly those with substantial potential for cropland expansion, it is no longer true that the vast majority of farmland in Africa is small-scale. We use repeat waves of national survey data to examine changes in crop area, production and marketed output by farm size. The national shares of area under cultivation, the value of production and marketed crop output on farms under five hectares is generally declining over time with corresponding increases in shares among medium- and large-scale farms. Medium-scale farms account for a rising share of total farmland, especially in the five to 25 hectare range where the number of these farms is growing especially rapidly. Medium-scale farms control roughly 20% of total farmland in Kenya, 32% in Ghana, 39% in Tanzania, and over 50% in Zambia.

Between the first and most recent national surveys, the share of national value of marketed crop output accounted for by medium-scale farms rose in Zambia from 23% to 42% (between 1999 and 2015), in Tanzania from 17% to 36% (between 2008 and 2014), in Nigeria from 7% to 18% (between 2011 and 2016), and from 20% to 43% in Ghana (between 1999 and 2013). Moreover, medium-scale farms accounted for 45% to 60% the increase in the national value of farm output over these same periods in Ghana, Zambia and Tanzania.

¹ Consistent with the taxonomy of many African governments, our study defines "small-scale farms" as those between 0-5 hectares of farmland. Medium-scale farms in this paper are





INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE



farms are those over 100 hectares.



defined as farms between 5-100 hectares of land, while large

Pathways into medium-scale farming

Medium-scale farmers are a diverse group, reflecting several distinct pathways into medium-scale farming, including (i) the successful expansion of small-scale farms into mediumscale farms, generally in the five to 25 hectare range; (ii) the diversification into farming by rural non-farm businesspeople and wage earners; and (iii) land acquisitions by urban-based professionals, retirees, and rural elites. Each of these pathways has been encouraged by the rapid development of land rental, purchase and long-term lease markets in the region.

This trend is not happening everywhere. In densely populated countries such as Kenya, Malawi, Uganda and Rwanda, land scarcity and high land values are impeding the pace of medium-scale farm acquisitions, and the share of land under medium-scale farms is growing slowly if at all. However, as established in the full report, the populationbased LSMS-type data utilized in this study may underrepresent medium and large-scale farm

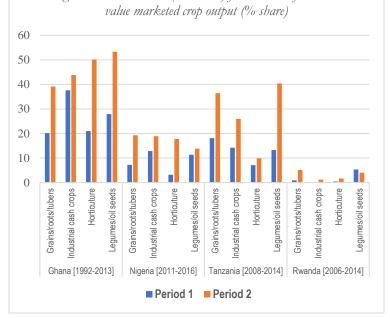


Figure 1. Medium-scale (5-100 ha) farms share of national

Table 1. Changes in the shares of national crop production value by farm size category

	Countries with relatively sparsely populated areas						Relatively densely populated areas			
	Zambia		Tanzania		Ghana		Nigeria		Uganda	
	% share of national value of crop output									
	<u>1999</u>	<u>2015</u>	<u>2009</u>	<u>2015</u>	<u>1999</u>	<u>2013</u>	<u>2011</u>	<u>2016</u>	<u>2006</u>	<u>2014</u>
0-5 ha	79.6	66.3	82.0	70.7	78.0	56.0	93.9	88.0	84.2	95.3
5-10 ha	13.7	18.9	12.1	17.8	11.8	25.9	5.1	6.8	7.6	3.0
10-20 ha	5.1	12.0	2.1	9.3	6.4	12.3	0.7	4.9	3.3	1.6
20-100 ha	1.4	2.8	2.3	2.1	3.5	5.5	0.3	0.3	4.3	0.1
+ 100 ha	0.0	0.0	1.3	0.1	0.3	0.3	0.1	0.0	0.6	0.0
	100	100	100	100	100	100	100	100	100	100

Sources for Table 1 and Figure 1: computed by authors from the following data sets: Zambia: Crop Forecast Surveys (CFS), Central Statistical Office, Government of Zambia, 2001 and 2015. Ghana: Ghana Living Standards Surveys (GLSS), Ministry of Finance, Government of Ghana, 1999 and 2013. Tanzania: National Panel Surveys (NPS)/LSMS, National Bureau of Statistics, Government of Tanzania, 2008/09 and 2014/15. Nigeria: LSMS surveys, 2011 and 2016. Uganda: LSMS surveys, 2006 and 2014.

Causes and Consequences of the rise of mediumscale farms

There are four main causes of changing farm size distributions in Africa: the rise of land markets, the recent era of relatively high global food prices, agricultural policy reforms, and the growing influence of relatively wealthy and politically connected "emergent farmers".

The rise of medium-scale farms is affecting the region in diverse ways that are difficult to generalize. Many such farms are a source of dynamism, technical change and commercialization of African agriculture. They attract private investment in crop buying and input suppliers and hence improve market access conditions for all surrounding farms regardless of scale. They may also make it more feasible for governments to raise taxes from the farm sector. However, medium-scale land acquisitions may exacerbate land scarcity in favorable rural areas, raise land prices, and crowd out young peoples' access to land for farming.

Medium-scale farmers tend to dominate farm lobby groups and influence agricultural policies and public expenditures to agriculture in their favor. Nationally representative Demographic and Health Survey (DHS) data from six countries (Ghana, Kenya, Malawi, Rwanda, Tanzania and Zambia) show that urban households own 5% to 35% of total agricultural land and that this share is rising in all countries where DHS surveys were repeated. This suggests a new and hitherto unrecognized channel by which medium-scale farmers may be altering the strength and location of agricultural growth and employment multipliers between rural and urban areas.

African states seem to be generally supportive of such changes. They are keen to increase food production and marketed farm output to feed their rapidly swelling cities and reduce dependence on food imports. Putting land into the hands of capitalized, educated, and entrepreneurial African farmers is viewed as supporting this objective. Medium-scale farms are attracting major new private investment by input suppliers that improve market access conditions for nearby smallholders. Farming areas with a high concentration of medium-scale farms attract greater investment by large-scale grain buyers. In Tanzania, smallscale farms are much more likely to rent mechanization services in areas with a high concentration of medium-scale farms. Other evidence from Tanzania indicates that smallholder household incomes are positively and significantly associated with the share of land in the district controlled by 5-10 hectare farms, even after controlling for market access, rainfall, and other local conditions.

However, there are warning signs as well. The acquisition of land by outside investors certainly reduces the stock of land under customary tenure that will be accessible to current and future generations of local people. As traditional authorities sell off land to outside investors based on willingness to pay criteria, their actions are raising the price of land, making it more difficult for young people to acquire land, and raising the likelihood that they will exit farming and migrate out of the area. The rise of land markets is creating a new class of landless workers in Africa, who sell their land informally to others, and become dependent on the local non-farm economy for their livelihoods.

Implications for agricultural and land tenure policies

A major policy question for African governments and international development partners concerns the future role of smallholder farms in Africa. While opinions are divided, our interpretation of available evidence is that governments may most effectively achieve their national development goals by focusing explicitly on promoting the productivity of smallholder farms to achieve agricultural and economic transformation <u>with</u> poverty reduction. Inclusive forms of rural income growth are likely to accelerate the pace and equity of structural transformation processes. Where competition for land is not intense, new investment in medium-scale farms can be a powerful source of economic dynamism, attracting private sector investments in input and output markets that improve market access conditions and the commercialization potential of small-scale farms. In such areas, questions of "either/or" are somewhat misplaced.

However, in densely populated areas where small-scale farms predominate and where there remains limited additional land for area expansion, the priority is clear: focus on promoting the productive potential of small farms, realizing that success in this endeavour will lead to progressive movements of individuals from rural smallholder households out of farming and into off-farm jobs as part of the structural transformation process. In short, a successful smallholder-led agricultural strategy will result in a declining share of the labor force in farming over time.

Inclusive forms of rural transformation will require greater attention to supporting smallholder farms even as larger farms gain greater traction in the region. Given the diverse nature of extant customary land tenure systems in Africa and of the threats to tenure security facing different landholders and regions, policies to strengthen tenure security and regulate land transactions in Africa will need to be carefully tailored to the local tenure context and needs of different landholders to affect perceived tenure security and agricultural outcomes. Where land rights derive primarily from community membership, customary tenure systems effectively regulate within-community transactions, and external actors pose the primary threat to land rights, land registration at the community level accompanied by formal recognition of customary tenure institutions may be sufficient to reduce insecurity. In other areas where land rights are already individualized and internal actors pose the greatest tenure security threat, and especially where informal transactions involving outsiders are common, the more costly and time-consuming investment of registering individual land rights and transactions may be needed to secure existing rights and avoid conflicts that are beyond the capacity of customary institutions to manage.

Implications for national statistical agencies

We do not yet know how generalizable these trends are across the region. However, it is very likely that existing population-based data collection platforms systematically under-report a very dynamic segment of African agriculture: the medium-scale farms. While this omission is understandable, it has profound implications. Under the status quo, African governments cannot accurately monitor, much less understand, how farm structure is changing over time. Similarly, policy makers cannot adequately address such routine questions as the magnitude and location of marketed agricultural surplus. These questions are certainly important for guiding strategic policy decisions aimed at stimulating agricultural growth, reducing rural poverty, and managing strategic food reserves and trade policies.

Redressing this informational blind spot will require new modes of data collection. We advocate for the expansion of agricultural sample census surveys to better capture the magnitude, location and other characteristics of this growth of medium- and large farms that cannot be adequately captured via population-based LSMS-type surveys. We also advocate for the systematic collection of data on non-local land control, i.e., ownership or other usufruct rights over rural agricultural land held by urban or other non-locally residing households. This will require new approaches to sampling, listing, and enumeration, as well as questionnaire designs that explicitly capture nonlocal holdings.

This Brief is based on the Innovational Lab for Food Security Policy <u>Synthesis Report II "The Changing Face of</u> <u>African Farmland in an Era of Rural Transformation"</u> by the same authors.

About Authors:

- T. S. Jayne is University Foundation Professor, Department of Agricultural, Food and Resource Economics at Michigan State University
- Milu Muyanga is Assistant Professor, Department of Agricultural, Food and Resource Economics at Michigan State University
- Hosaena Ghebru is Research Fellow, International Food Policy Research Institute
- Kwame Yeboah is the Coordinator of Michigan State University's Youth Investment Program
- Mercedes Stickler is an Agriculture Economist at the World Bank, Washington, DC
- Ward Anseeuw is Research Fellow at the Agricultural Research Centre for International Development (CIRAD)
- Ayala Wineman is Postdoctoral Fellow at the Evans School of Public Policy and Governance, University of Washington
- David Nyange is Associate Professor, Department of Agricultural, Food, and Resource Economics at Michigan State University (MSU) and Director of the Tanzania Feed the Future Innovation Lab for Food Security Policy (ASPIRES).
- Antony Chapoto is Research Director, Indaba Agricultural Policy Research Institute, Zambia
- Caleb Stevens is Land and Resource Governance Advisor, E3/Land, United States Agency for International Development
- Divan Van der Westhuisen is Manager/Farm & Inputs Division at the Bureau for Food and Agricultural Policy (BFAP), Pretoria, South Africa

This research is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future initiative. The contents are the responsibility of study authors and do not necessarily reflect the views of USAID or the United States Government

Copyright © 2019, Michigan State University, IFPRI and University of Pretoria. All rights reserved. This material may be reproduced for personal and not-for-profit use without permission from but with acknowledgement to MSU, IFPRI, and University of Pretoria.

Published by the Department of Agricultural, Food, and Resource Economics, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Dr., Room 202, East Lansing, Michigan 48824