

**The Role of Capacity
Development in
Africa's Agricultural
Transformation : The
Case of Rising
Importance of
Medium Scale Farms**

**Adebayo B. Aromolaran,
Thomas Jayne &
Milu Muyanga**

**Agricultural Policy
Research in Africa
(APRA)**

**September 23, 2019.
Abuja, Nigeria**

**Presentation at
African
Association of
Agricultural
Economists
(AAAE)
Conference**

Institutional Affiliation of Authors :

- **Adebayo B Aromolaran**, Professor of Agric Economics and Dean, Faculty of Agriculture, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria
- **Thomas Jayne**, University Foundation Professor, Dept. of Agricultural, Food, and Resource Economics, Michigan State University
- **Milu Muyanga**, Assistant Professor, Dept. of Agricultural, Food, and Resource Economics, Michigan State University

Introduction

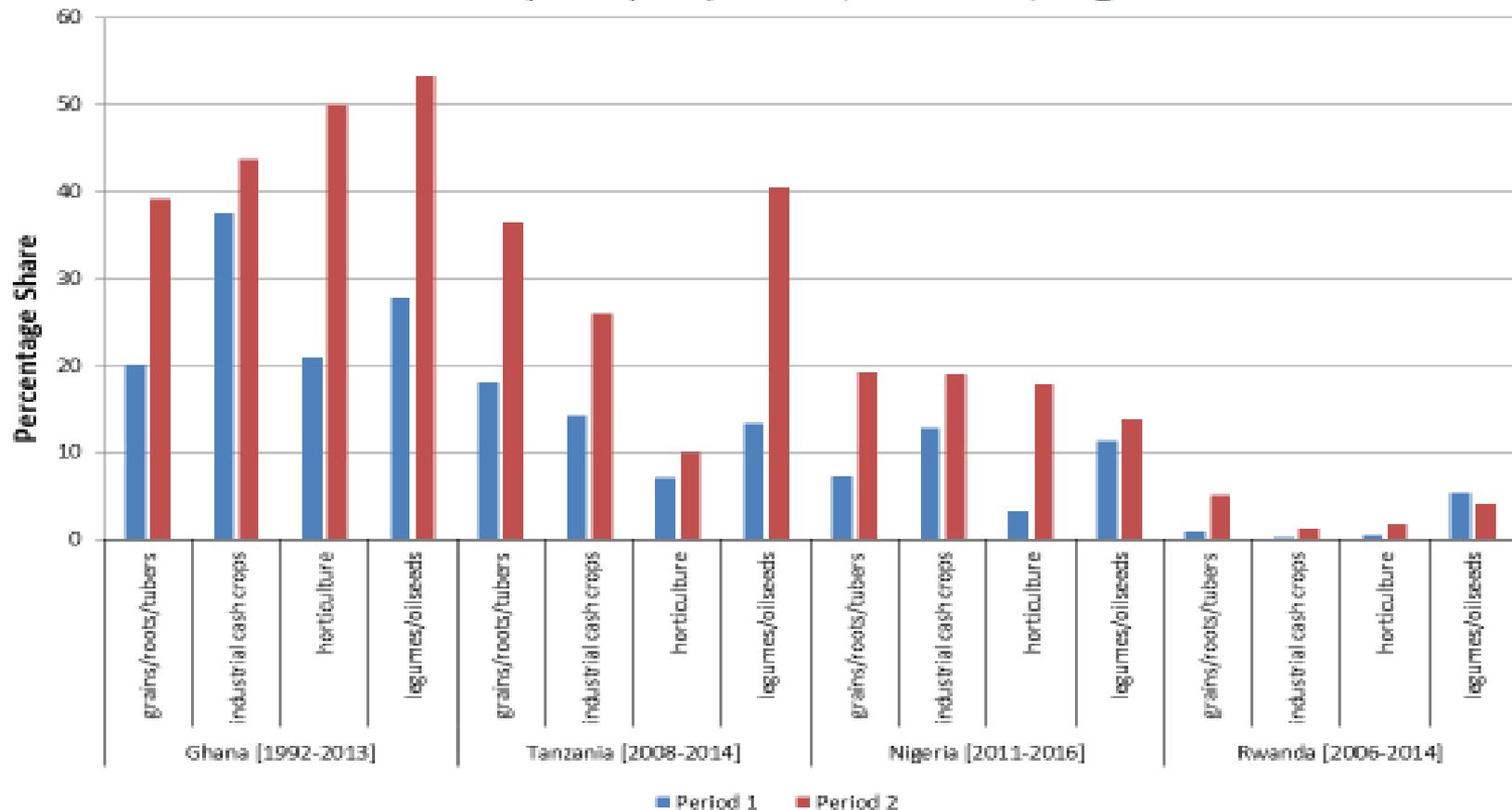
- **An emerging phenomenon in the evolution of sub-Saharan Africa agri-food system of the 21st century is**
- **The rise of medium scale farming as a major pathway to:**
 - **Agricultural commercialization**
 - **Growth in agricultural sector output**
- Even, though this changing structure creates opportunities for development in sub-Saharan Africa agri-food system
- It also comes with numerous “Capacity Development” challenges that must be addressed for sustainable growth to be achieved

Purpose

- **Within the context of the rise in medium scale farms (5-100 hectares), we seek to :**
- **Identify** some key demands/requirements of the changing agri-food system in Africa
- **Explore** the capacity development challenges associated with these changing demands/needs.
- **Give some insights** into :
 - the specific roles that the education system can play in addressing these changing needs and
 - how the educational institutions can be enabled to do so.

Evidence of Rise in MSFs across Sub-Saharan Africa(1)

Figure 1 Medium-scale (5-100 ha) farms accounting for rising share of national value marketed crop output (Ghana, Tanzania, Nigeria and Rwanda)



Ghana data source: Ghana Living Standards Surveys

Tanzania data source: Tanzania NPS/LSMS Surveys

Nigeria data source: Nigeria General Household Surveys

Rwanda data source: Rwanda Integrated Household Living Condition Surveys

Source: Thomas Jayne et al (2019)

Evidence of Rise in MSFs across Africa(2)

- Evidence from a recent study (Muyanga *et al.*, 2019) found that ;
 - about 47% of current MSFs transitioned from SSFs
 - about 53% started off directly as MSFs,

Secondly:

- about 77% of SSFs who transitioned to MSFs did so within the past 2 decades,
- about 55% of MSFs who started initially as MSFs entered into farming within the past 2 decades

Changing Demands Associated with Rise in MSFs

1. Increase in Demand for agro-entrepreneurs
2. Increase in Demand for Agribusiness Managers
3. Increase in demand for knowledge management systems (eg. Soil testing, pest and insect control systems etc)
4. Increase in use of agricultural mechanization
5. Increase in use of irrigation
6. Increase in demand for modern systems of food safety, associated with growth in modern food supply chain
7. Increase in use of digital tools for all aspects of agribusiness management

Emerging New Roles for Tertiary Education System

The above listed changing demands of the agri-food system will require the Tertiary education system to refocus on :

- Creating different kinds of knowledge and skills from what is currently available
- Producing graduates for a **private sector labour market** rather than the current **public sector employment** focus.

Specific Areas of Focus for Tertiary Education

System

Tertiary Education Institutions must **develop adequate curriculum** to produce the following distinct categories of agricultural graduates :

- Graduates that will take up agribusiness jobs in the private sector as **agri-business owners or managers** after graduation
- Graduates that will end up as agricultural scientists to continue to extend the frontiers of **locally adaptable agricultural innovation**
- Graduates that will be skilled in the art of creating an **effective linkage** between farmers and research institutions; as well as between farmers and government agencies responsible for implementation of government programs

Specific Areas of Focus for Tertiary Education System

Furthermore, the tertiary education system must refocus on producing Graduates that are **knowledgeable and skilled** enough to :

- Initiate or take up private sector jobs in agricultural mechanization services after graduation.
- Install, operate and manage modern irrigation systems
- Initiate or manage modern food supply chains that meets the competitive global market standards of food safety
- Deploy the use of digital technology in agribusiness management across the broad spectrum of the agricultural value chain.

REQUIREMENTS FOR ACHIEVING THE OBJECTIVES OF A REFOCUSSED TERTIARY AGRICULTURAL EDUCATION SYSTEM

1. Admission into agriculture programmes must be based on student **interest** and not by “**drafting**”!
2. More **resources** must go into funding agricultural education, especially in terms of providing needed facilities for **practical exposure**
3. **Funding** of agricultural education must be **targeted** to meet specific market needs
4. There is need for **private public partnership** in the **training** of future agri-food system workforce
5. Tertiary agricultural education institutions in Africa should also **seek collaboration** with similar institutions internationally to **develop institutional capacity** in agricultural education

REFERENCES

1. T. S. Jayne, Milu Muyanga, Hosaena Ghebru, Mercedes Stickler, Caleb Stevens, Ward Anseeuw, Ayala Wineman, Kwame Yeboah, Antony Chapoto, Divan Van der Westhuisen (2019), Changing Farm Structure and Rural Transformation in Africa. Presentation at World Bank Land and Poverty Conference, March 26, 2019, Washington, DC.
2. Milu Muyanga, Adebayo Aromolaran, Thomas Jayne, Saweda Liverpool-Tasie, Titus Awokuse, Adesoji Adelaja (2019), Changing Farm Structure and Agricultural Commercialization in Nigeria. Working Paper WP/26, Agricultural Policy Research in Africa. <https://www.future-agricultures.org/apra/#aprapublications>



Thank You
for
Listening!