

THE FUTURE OF WORK IN AFRICAN AGRICULTURE: TRENDS AND DRIVERS OF CHANGE



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Main messages

1. Profound trends driving economic transformation in Africa – respond proactively to them
2. Already significant economic transformation in Africa since 2000
 - generally rapid rates of exit from farming to off-farm sectors
 - Particularly strong exit by youth
 - Reflects low profitability of smallholder farming and rising difficulties acquiring land
3. Farming remains extremely important for economic transformation
 - pace of exit from farming fastest in countries experiencing highest rates of agricultural productivity growth
4. Strategies that raise the returns to labor in farming will be crucial to build broad-based economic growth and expand work opportunities

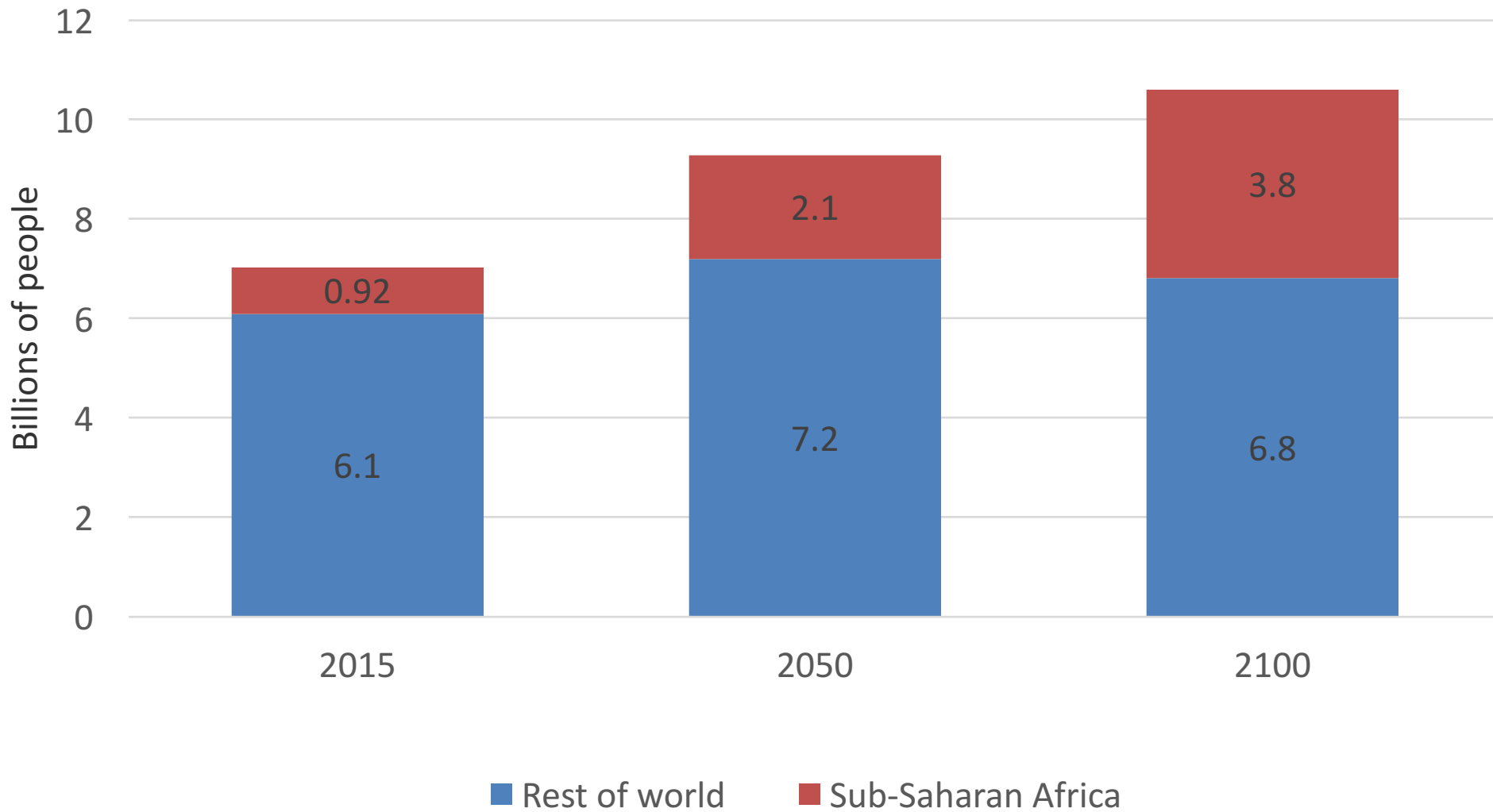
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- 1. Mega-trends driving economic transformation in Africa – respond proactively to them**
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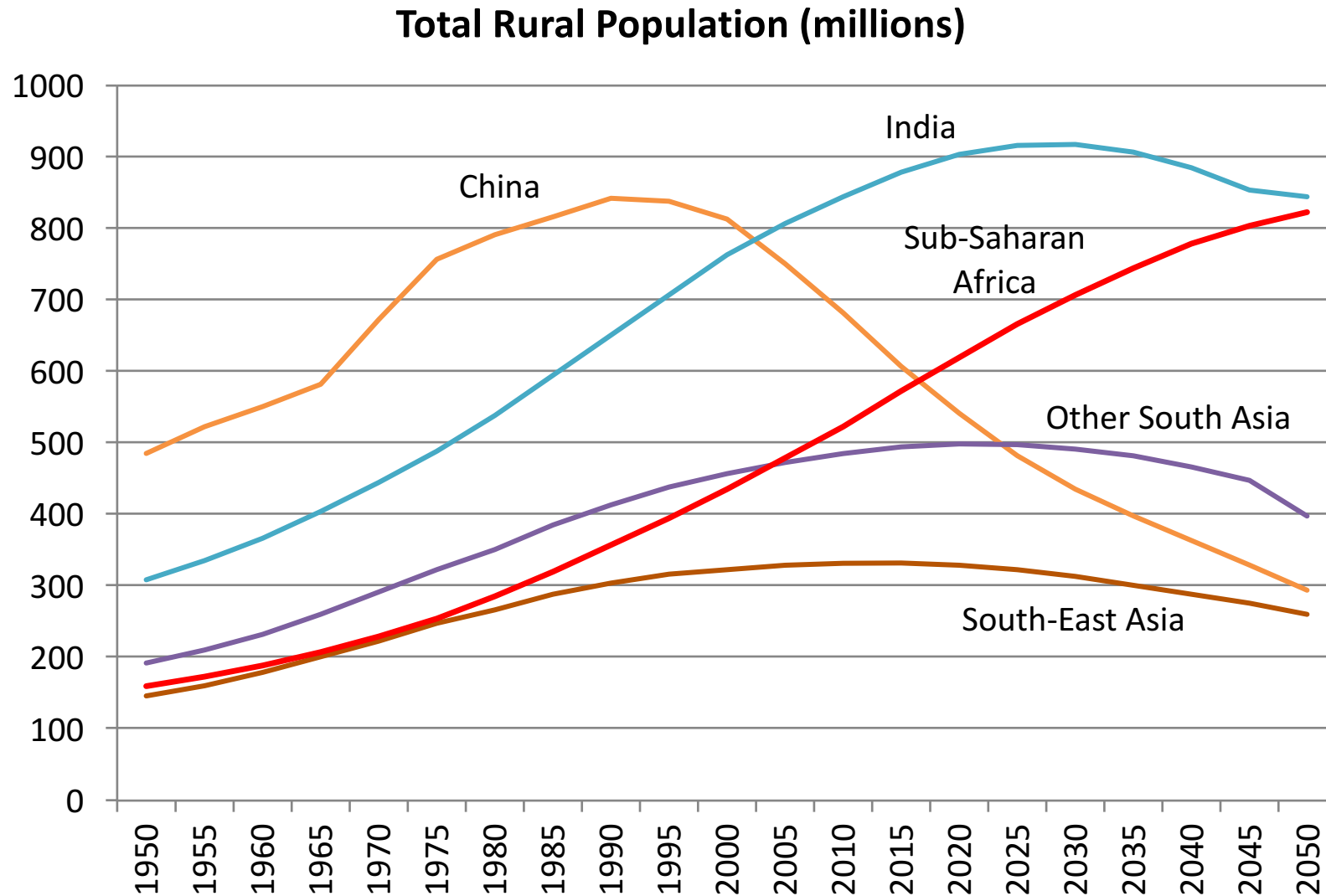
Trend #1: Rapid population growth



Africa's rapid population growth



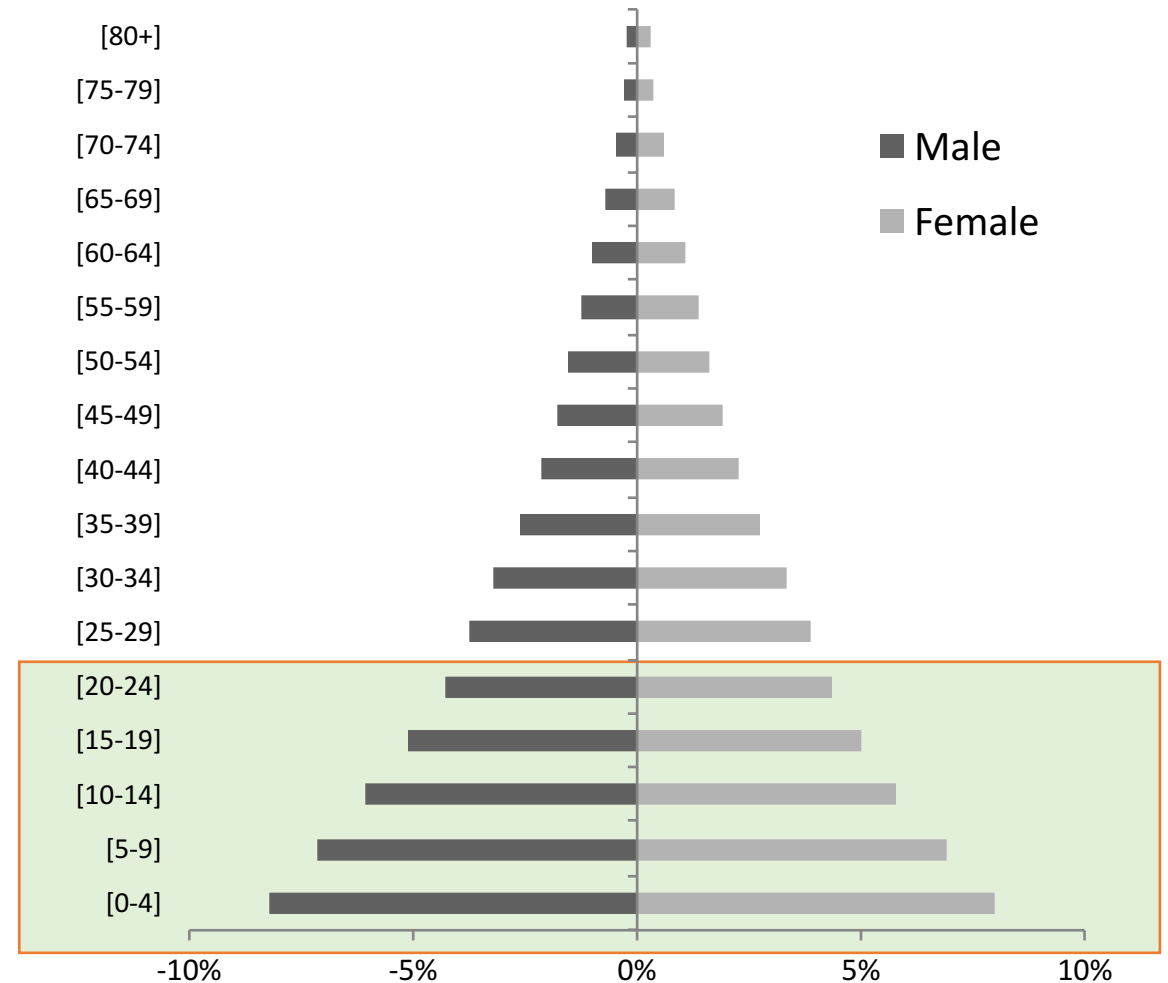
Sub-Saharan Africa: only region of world where rural population continues to rise past 2050



Looming employment challenge

- Rural and young population
 - 53% more people in rural areas in 2050 than today (UN 2016)
- 11 million people entering the labor force each year (3% annual growth rate)

62% of people <25 years old



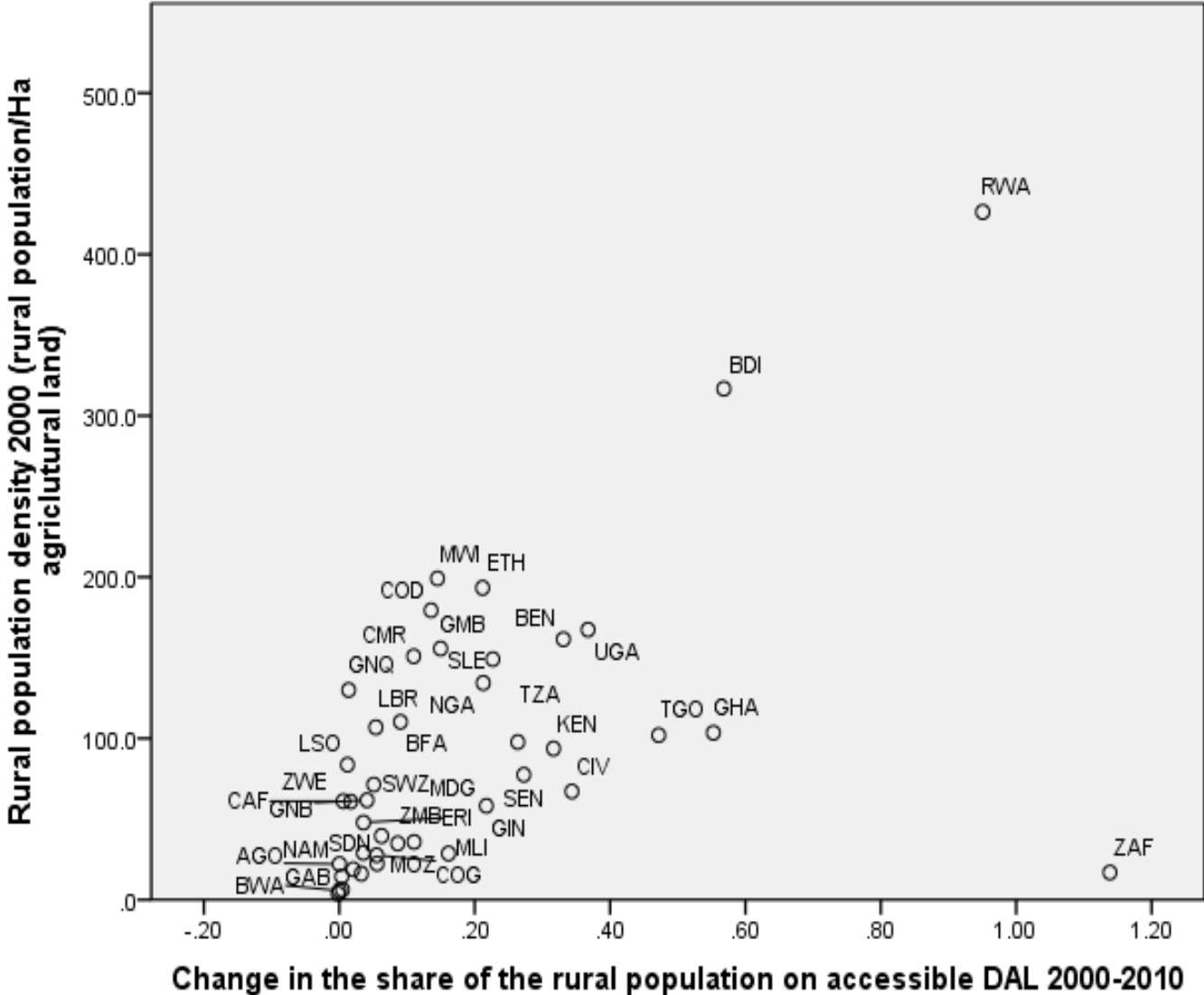
Trend #2: Climate-change induced stress on rural economies

Trend #3: Land degradation

- Percentage of SSA rural population living on degrading agricultural land:
 - 2000: 19.8%
 - 2010: 28.1%



Relationship between % of rural pop. on degrading agricultural land and pop density



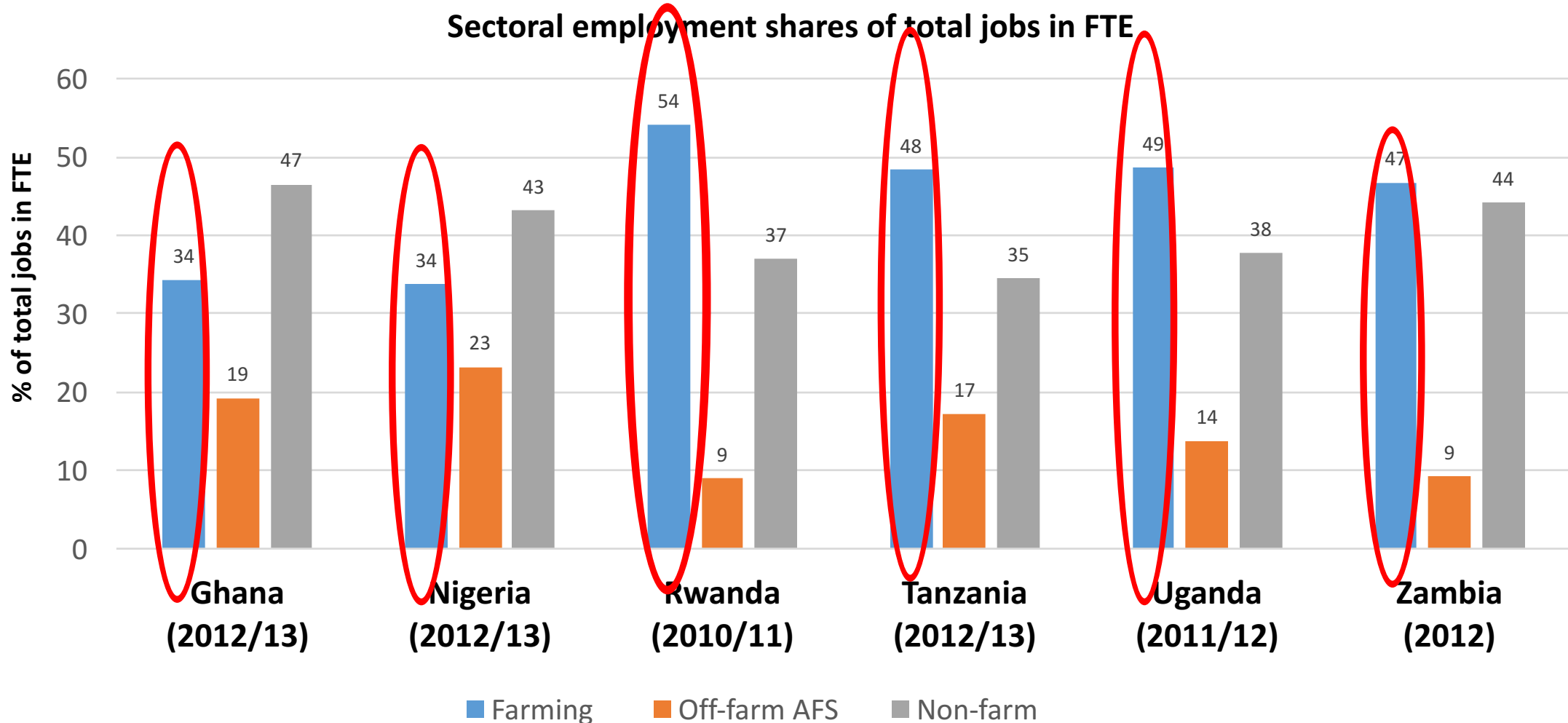
Trend #4: Rapid Exit from Farm-Based Agriculture



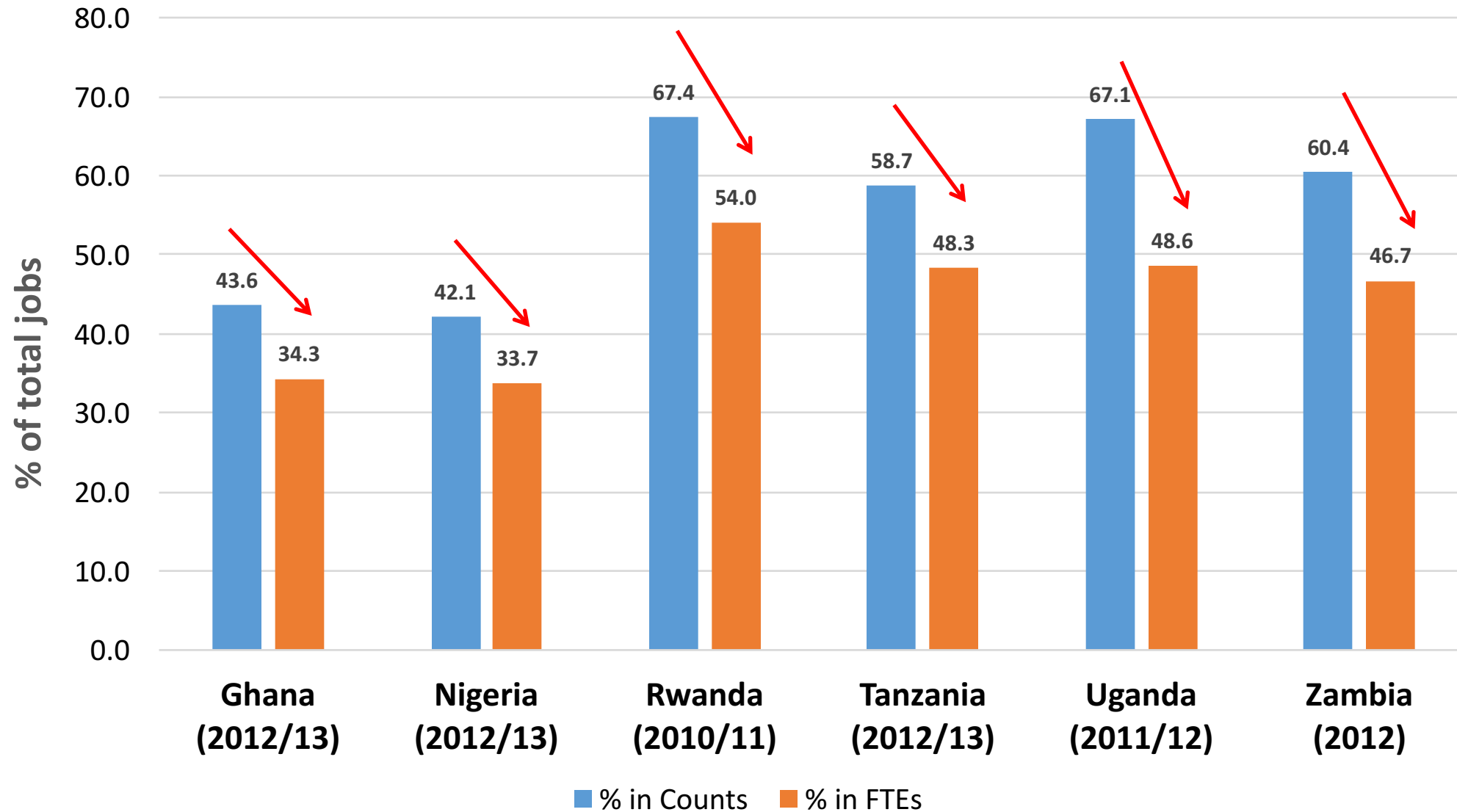
Highlights:

1. Poor youth are exiting from agriculture
2. Young people (15-25 yrs) in ag are primarily working on their parents' farms or on others' farms
3. People 25-35 yrs are exiting out of agriculture at rapid pace
4. Average age of labor force in agriculture not rising – steady at 37-42 yrs depending on the country
5. Wealthy youth, retirees, and urban entrepreneurs are investing in farming
6. Overall, additional people entering agriculture, but % of labor force declining
7. Rapid % growth in employment in agri-food systems, but generally starting from low base

Farming is single largest employer in most countries despite declining job share



Agricultural employment share in total numbers of jobs and in full-time equivalents (FTE)



Off-farm AFS jobs largely in commerce and less in agro-processing

Country	Survey years	Farming	Agro-processing	Downstream commerce and distribution	Non-farm
		% of FTE jobs	% of FTE jobs	% of FTE jobs	% of FTE jobs
Ghana	2005/06	43.5	6.3	8.6	41.6
	2012/13	34.3	3.7	15.5	46.5
Nigeria	2010/11	30.6	2.3	18.7	48.2
	2012/13	33.7	4.6	18.6	43.1
Rwanda	2005/06	65.7	0.4	7.4	26.6
	2010/11	54.0	1.2	7.7	37.0
Tanzania	2010/11	47.3	2.5	15.0	35.2
	2012/13	48.3	1.6	15.6	34.5
Uganda	2005/06	57.0	2.8	10.2	30.0
	2011/12	48.6	1.7	12.0	37.7
Zambia	2005	61.2	1.6	3.1	34.1
	2012	46.7	2.1	7.1	44.1

Trend #5: Changing Farm Structure

Highlights:

1. Median farm size declining / mean farm size rising
2. Sub-division and fragmentation:
 - reducing returns to labor from own-hh farming
 - Youth less like to inherit land
 - encouraging youth migration and exit from farming
3. Rise of investor farms
4. Rising land prices

Changes in farm structure in Kenya (1994-2006)

Farm size category	Number of farms		% growth in number of farms	% of total cultivated area	
	1994	2006		1994	2006
0 – 2 ha	1,692,343	2,640,020	56	29.2	46.4
2 – 5 ha	525,363	332,011	-36.8	32.3	23.5
5 – 10 ha	93,871	17,451	-81.4	21.4	2.1
over 10 ha	92,498	19,493	-78.9***	24.5	28
Total	2,404,075	3,008,975		100	100

Source: Kenya National Bureau of Statistics

Changes in farm structure in Tanzania (2008-2012), National Panel Surveys

Farm size	Number of farms (% of total)		% growth in number of farms between initial and latest year	% of total operated land on farms between 0-100 ha	
	2008	2012		2008	2012
0 – 5 ha	5,454,961 (92.8)	6,151,035 (91.4)	12.8	62.4	56.3
5 – 10 ha	300,511 (5.1)	406,947 (6.0)	35.4	15.9	18.0
10 – 20 ha	77,668 (1.3)	109,960 (1.6)	41.6	7.9	9.7
20 – 100 ha	45,700 (0.7)	64,588 (0.9)	41.3	13.8	16.0
Total	5,878,840 (100%)	6,732,530 (100%)	14.5	100.0	100.0

Share of farmland on farms 5-100 ha from 38% to 44% in 4 years

Changes in farm structure in Zambia (2001-2012)

Farm size category	Number of farms		% growth in number of farms	% of total cultivated area	
	2001	2012		2001	2012
0 – 2 ha	638,118	748,771	17.3	34.1	16.2
2 – 5 ha	159,039	418,544	163.2	45	31.7
5 – 10 ha	20,832	165,129	692.6	14.3	25.0
10 – 20 ha	2,352	53,454	2272.7	6.6	15.0
20 – 100 ha	--	13,839	na	--	12.1
Total	820,341	1,399,737		100	100

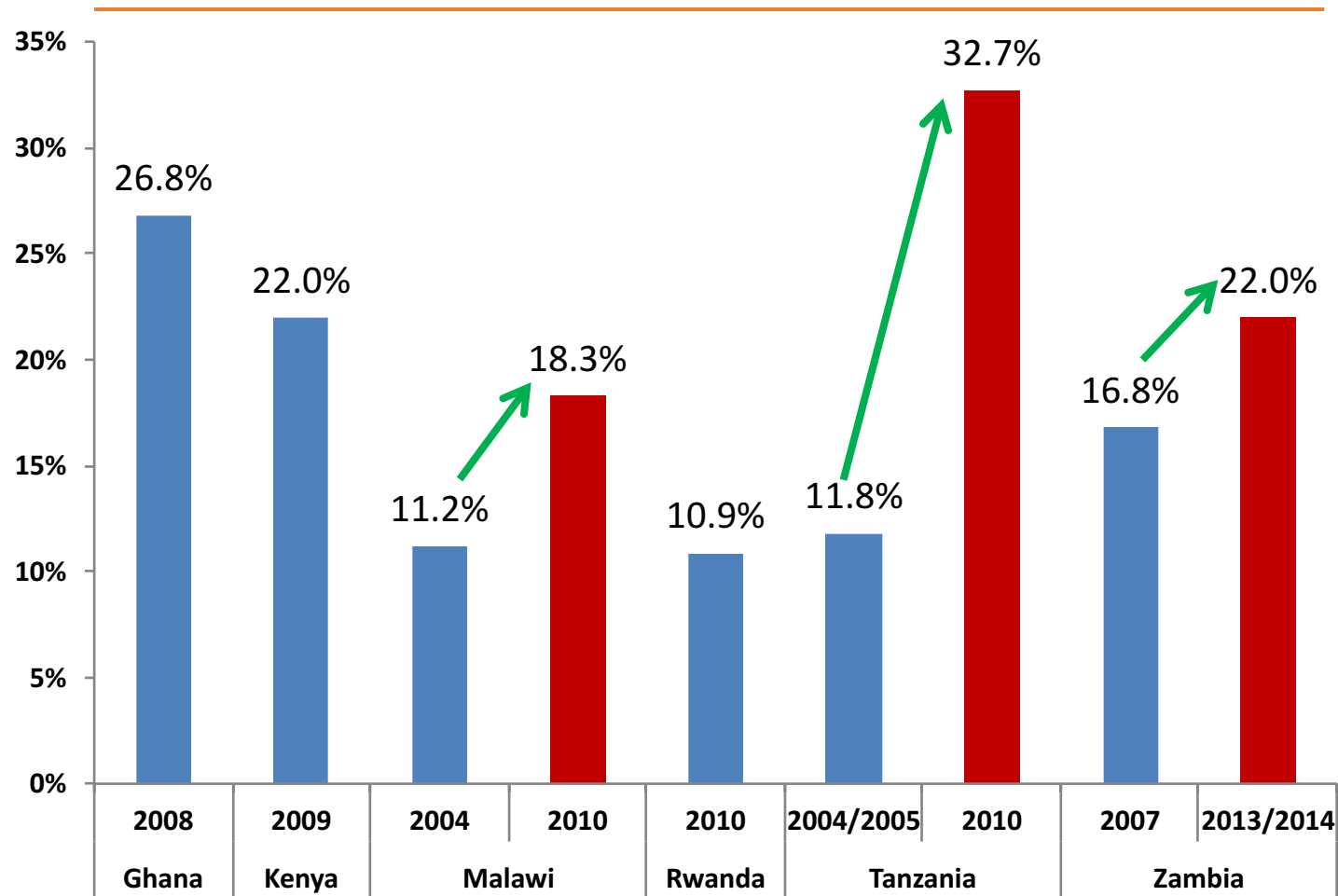
52.1%

Characteristics of “emergent farmers”

Type 1: Urban-based investor farmer

	Mode of entry to medium-scale farming status: acquire farm using non-farm income	
	Zambia	Kenya
	(n=164)	(n=180)
% of cases	58	60
% men	91.4	80
Year of birth	1960	1947
Years of education of head	11	12.7
Have held a job other than farmer (%)	100	83.3
Formerly /currently employed by the public sector (%)	59.6	56.7
Current landholding size (ha)	74.9	50.1
% of land currently under cultivation	24.7	46.6
Decade when land was acquired		
1969 or earlier	1.1	6
1970-79	5.1	18
1980-89	7.4	20
1990-99	23.8	32
2000 or later	63.4	25

% of National Landholdings held by Urban Households



Source: Demographic and Health Surveys, various years between 2004-2014.

GINI coefficients in farm landholding

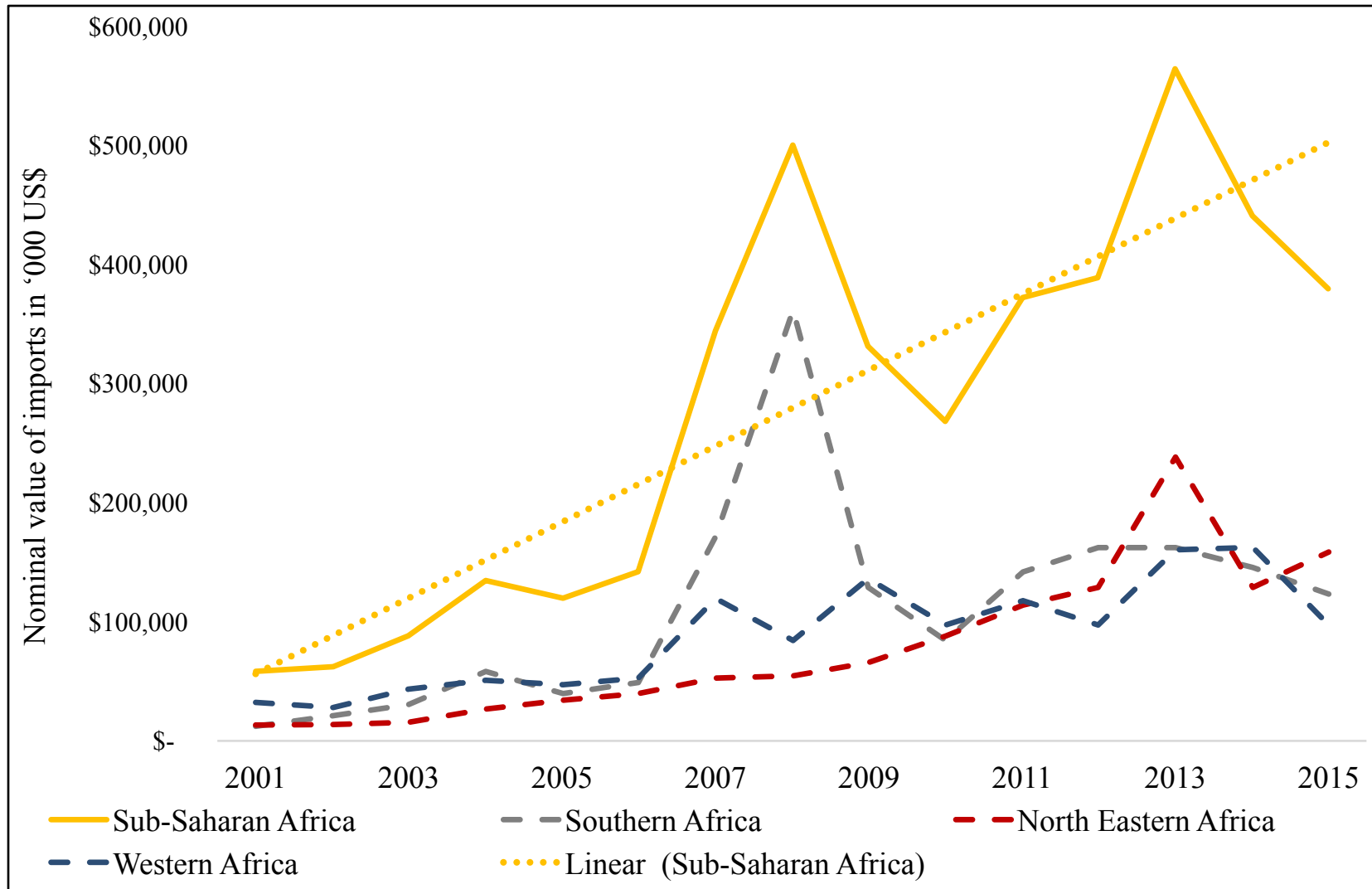
	Period	Movement in Gini coefficient:
Ghana (cult. area)	1992 → 2013	0.54 → 0.70
Kenya (cult. area)	1994 → 2006	0.51 → 0.55
Tanzania (landholdings)	2008 → 2012	0.63 → 0.69
Zambia (landholding)	2001 → 2012	0.42 → 0.49

Source: Jayne et al. 2014 (JIA)

Emerging findings:

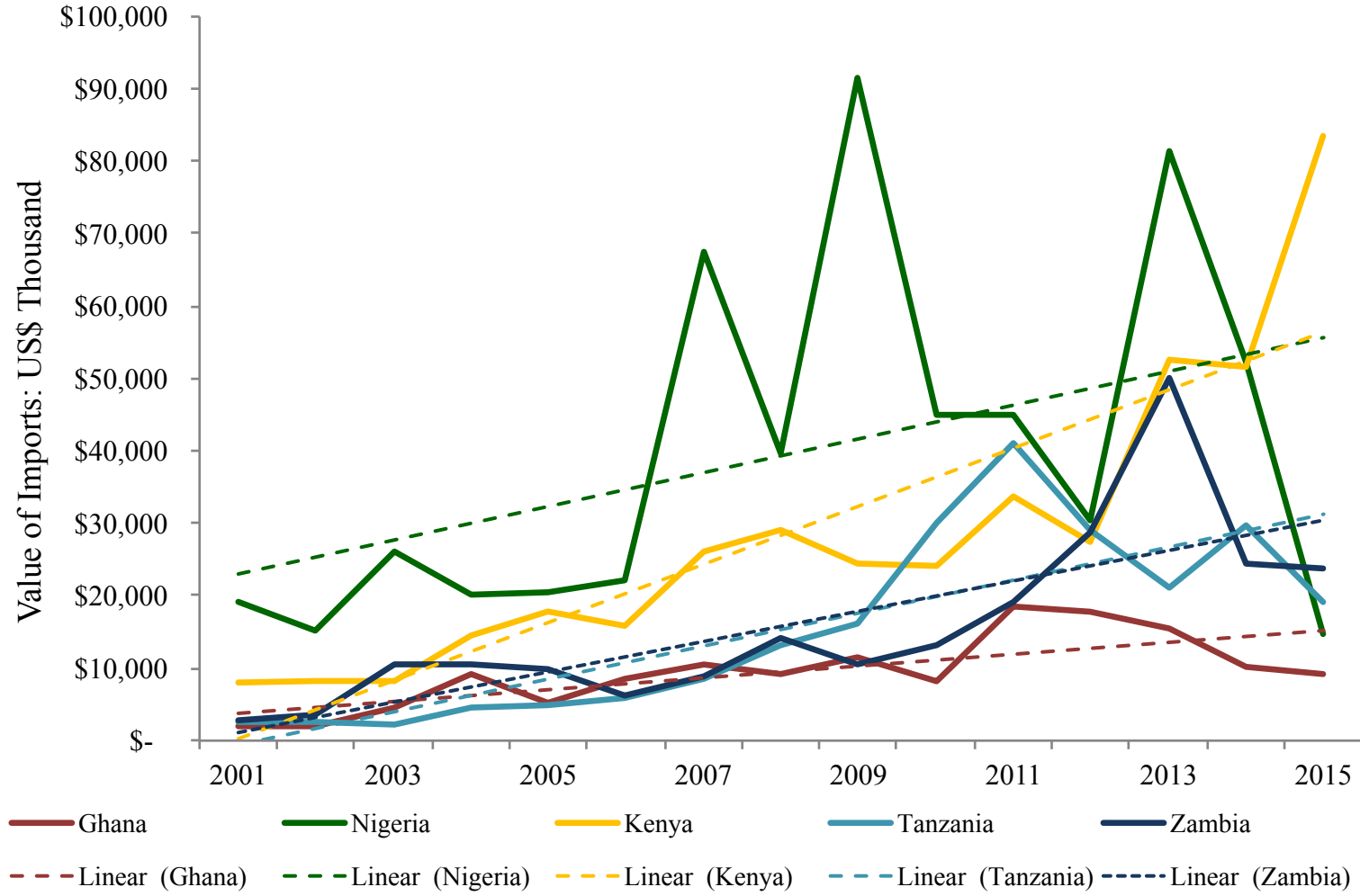
- Determinants of youth migration out of rural home (Tanzania, Ethiopia, Kenya):
 1. Landholding size of parents (-)
 2. Agro-ecological potential and market access conditions of farm (-)
 3. Number of same-sex siblings (+)
 4. Education of individual (+)
- MS farms now account for 30-50% of total farmland in 5 African countries analyzed
- MS farmers tend to be older
- When they retire, likely that much of this area will be bequeathed to new generation of relatively capitalized medium-scale farmers

Nominal value of tractor imports to Sub-Saharan Africa (excluding South Africa), 2001-2015



Source: vanderWesthuisen, forthcoming

Nominal value of tractor imports in selective Sub-Saharan African countries (2001-2015)



Source: vanderWesthuisen, forthcoming, based on Trade Map data

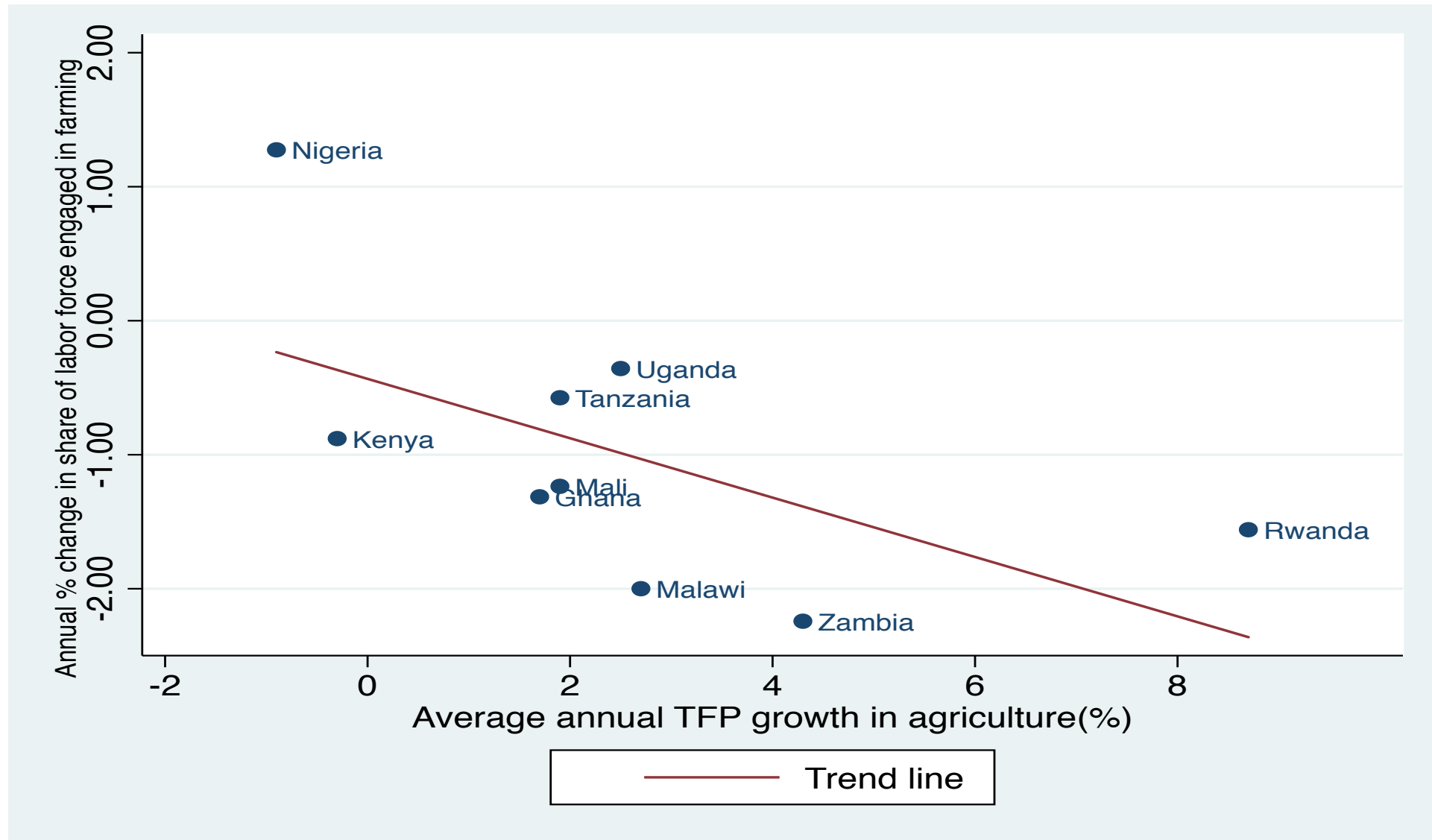
Greater capital-intensity of agriculture

- Rising use of tractor hire services by smallholders
- Rising use of herbicides/pesticides and fertilizers
- Leading to labor-saving forms of agricultural production
- Likely to further reduce share of labor force in ag over time

A woman wearing a red t-shirt and a pink patterned headscarf is smiling while looking at a tablet computer. She is standing in a large field of green cabbages. The background shows a bright, sunny day with some trees and distant hills under a clear blue sky. The overall scene is bright and positive, suggesting a successful agricultural setting.

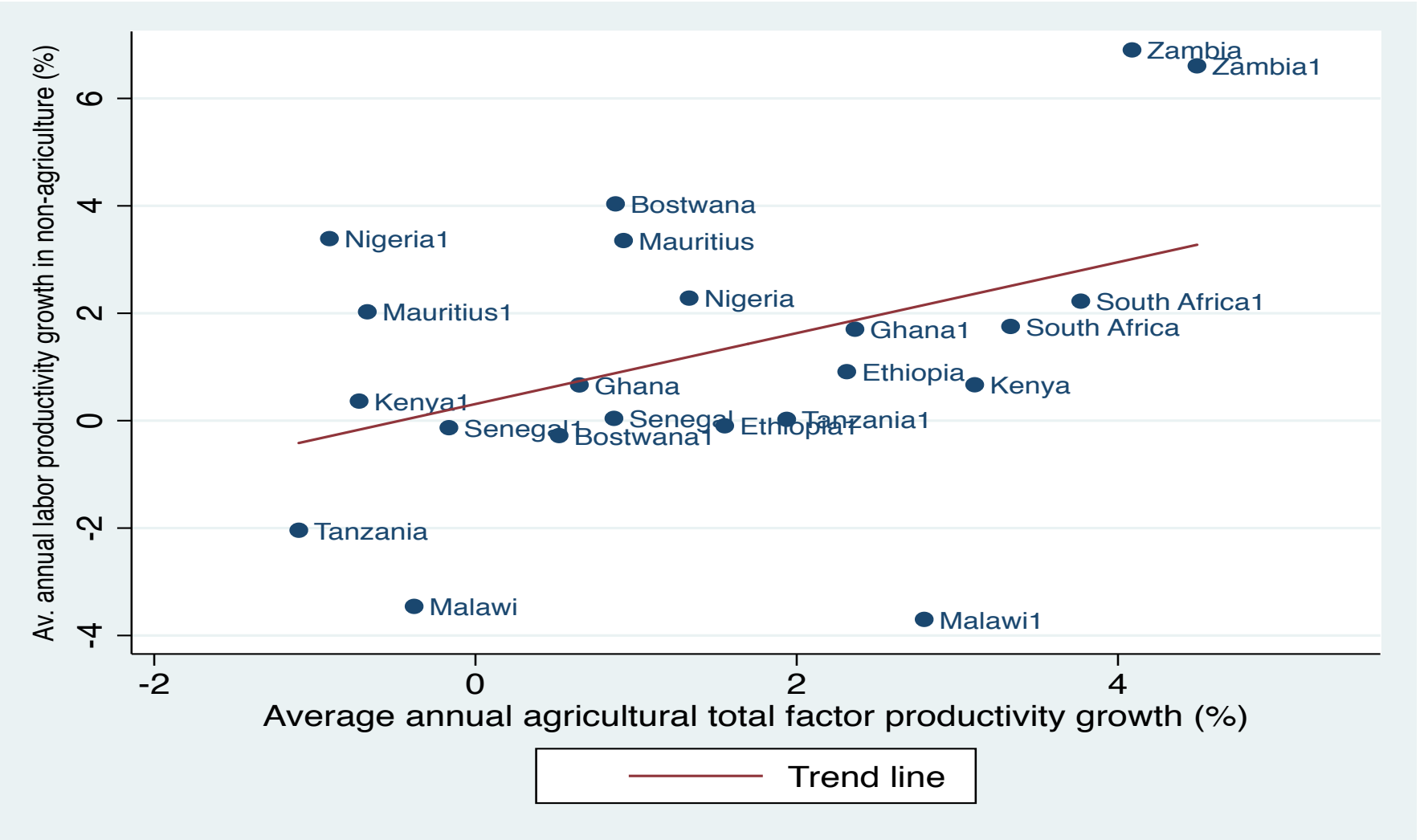
**Role of agricultural
productivity growth**

Farming share declining most rapidly among countries enjoying highest agricultural productivity growth



Source: Yeboah and Jayne, 2016

Non-farm labor productivity growth highest among countries with high agricultural productivity growth



Source: Yeboah and Jayne, 2016

Recap

1. Significant labor exit from agriculture since 2000s
 - Exit is most pronounced when employment is computed in FTEs
2. Farming remains extremely important for livelihoods despite declining employment shares
 - largest employer and key source of new employment
3. Rapid % growth in off-farm agri-food systems but from low base
 - Greatest absolute number of new jobs for youth will be in farming and non-farm
 - Growing off-farm AFS relies on inputs from farming (milk, grains)
4. Performance of ag. sector will influence job growth in overall economy
 - Pace of labor exit from ag and labor productivity growth in off-farm sectors linked to agricultural productivity growth

Broad strategies for government consideration:

- Promote investment in agricultural productivity growth
 - Strategies to improve youth access to land
 - Strategies to improve youth access to finance
 - Government policies/investment patterns influence profitability of farming / AFS
 - the challenges and responses are different in dense vs. sparsely populated rural areas
 - Also different between those self-employed in ag vs. ag wage workers
- Invest in education skills training
 - Prepare youth to take advantage of new job opportunities in agri-food system
 - Increase productivity and returns to labor in the informal sector enterprises, which will provide greater services to those in agriculture.

Conclusions

Strategies for improving expanding work in agriculture could anticipate and respond to

- rising land prices, decline of inheritance,
- Land market being an increasingly important mode of acquiring land
- Increased use of labor-saving technologies (mechanization, chemicals, fertilisers)
- Increasing labor mobility in rural areas

Thank you

