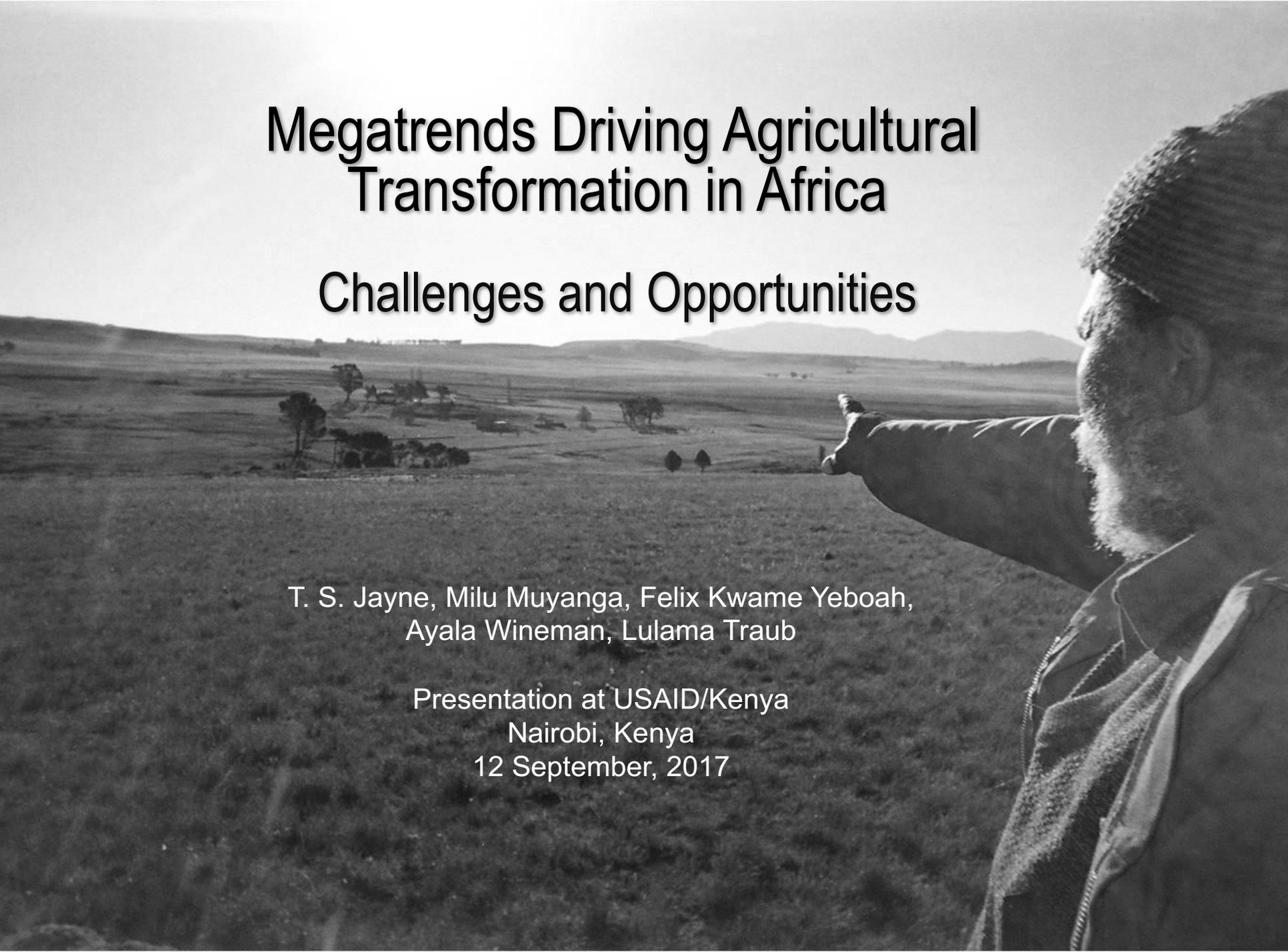


Megatrends Driving Agricultural Transformation in Africa

Challenges and Opportunities

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Ayala Wineman, Lulama Traub

Presentation at USAID/Kenya
Nairobi, Kenya
12 September, 2017



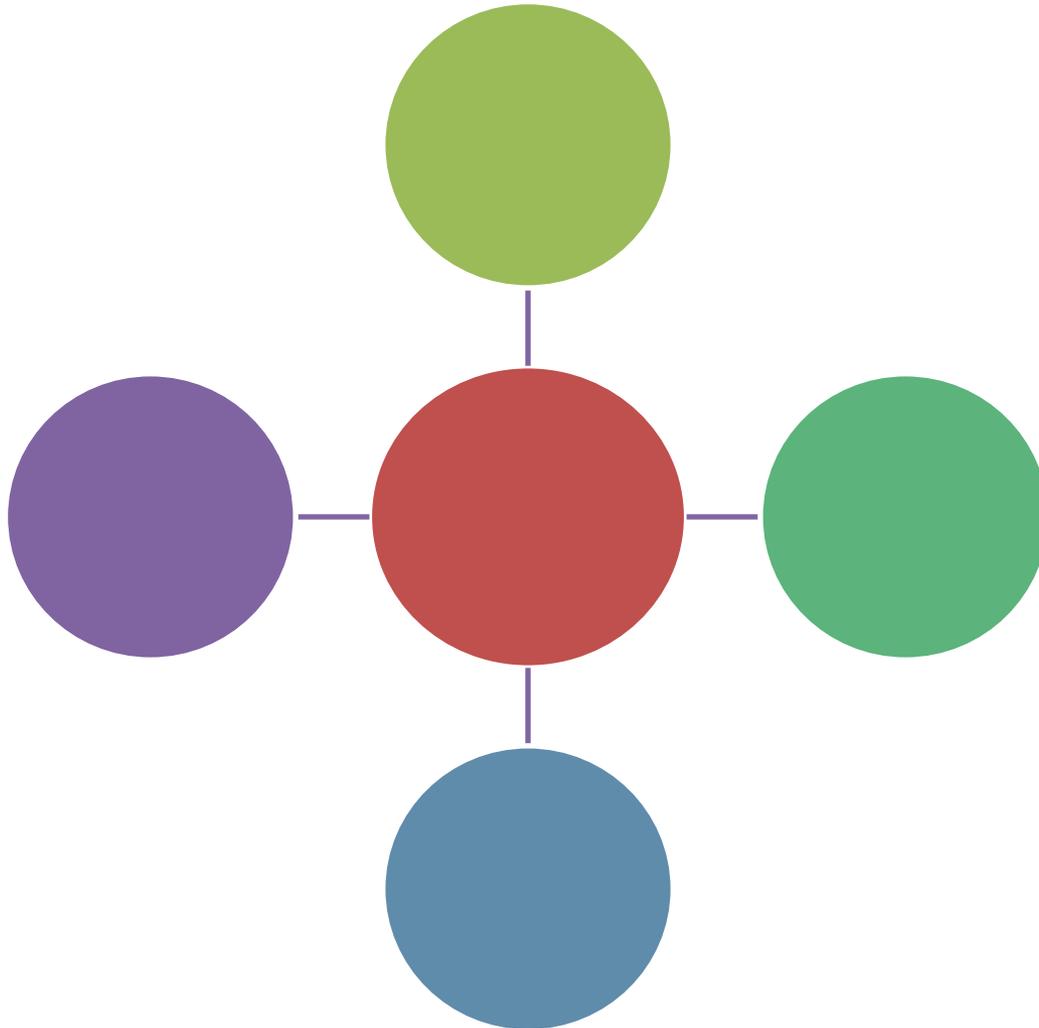
Format

1. Five megatrends affecting agri-food systems in the region
2. Conclusions and policy implications
3. Reflections on partnership

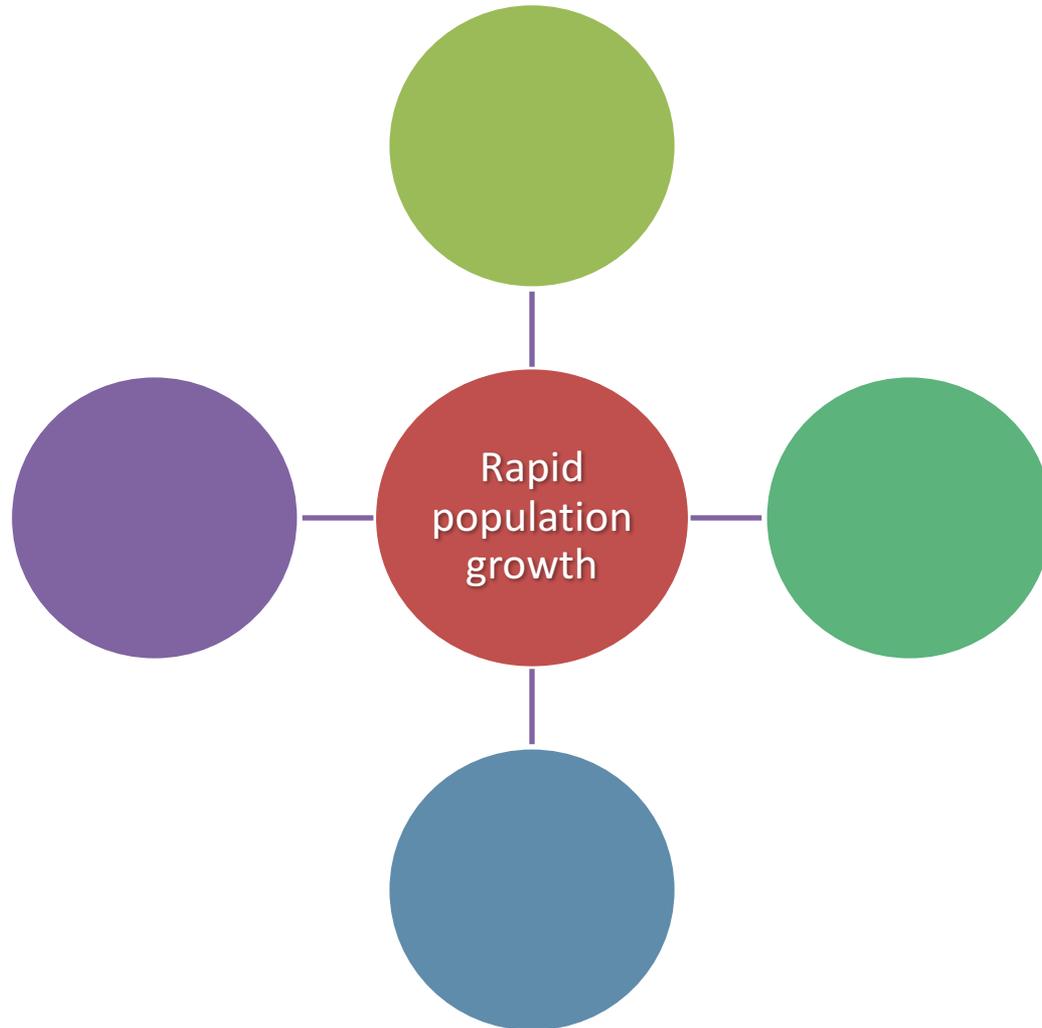
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1. Five megatrends affecting agri-food systems in the region

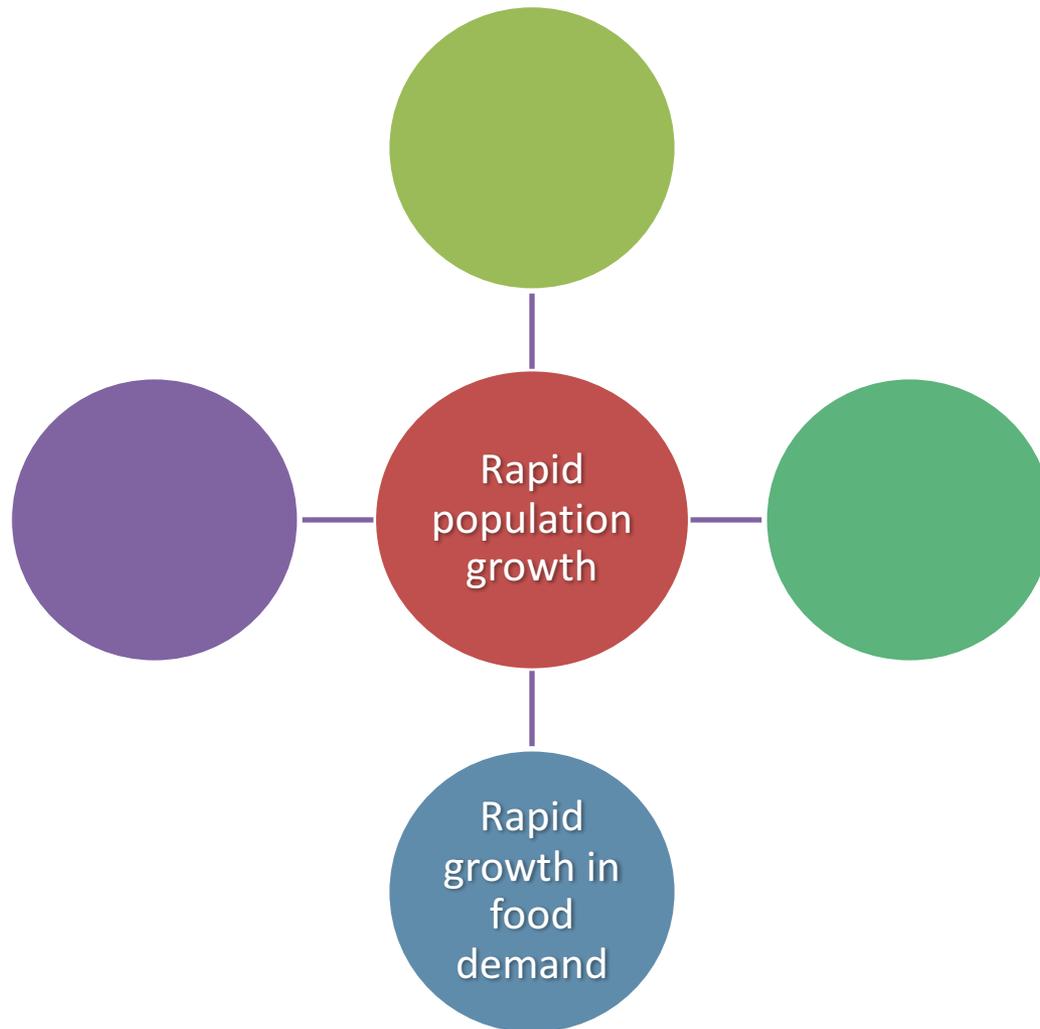
Five inter-related trends



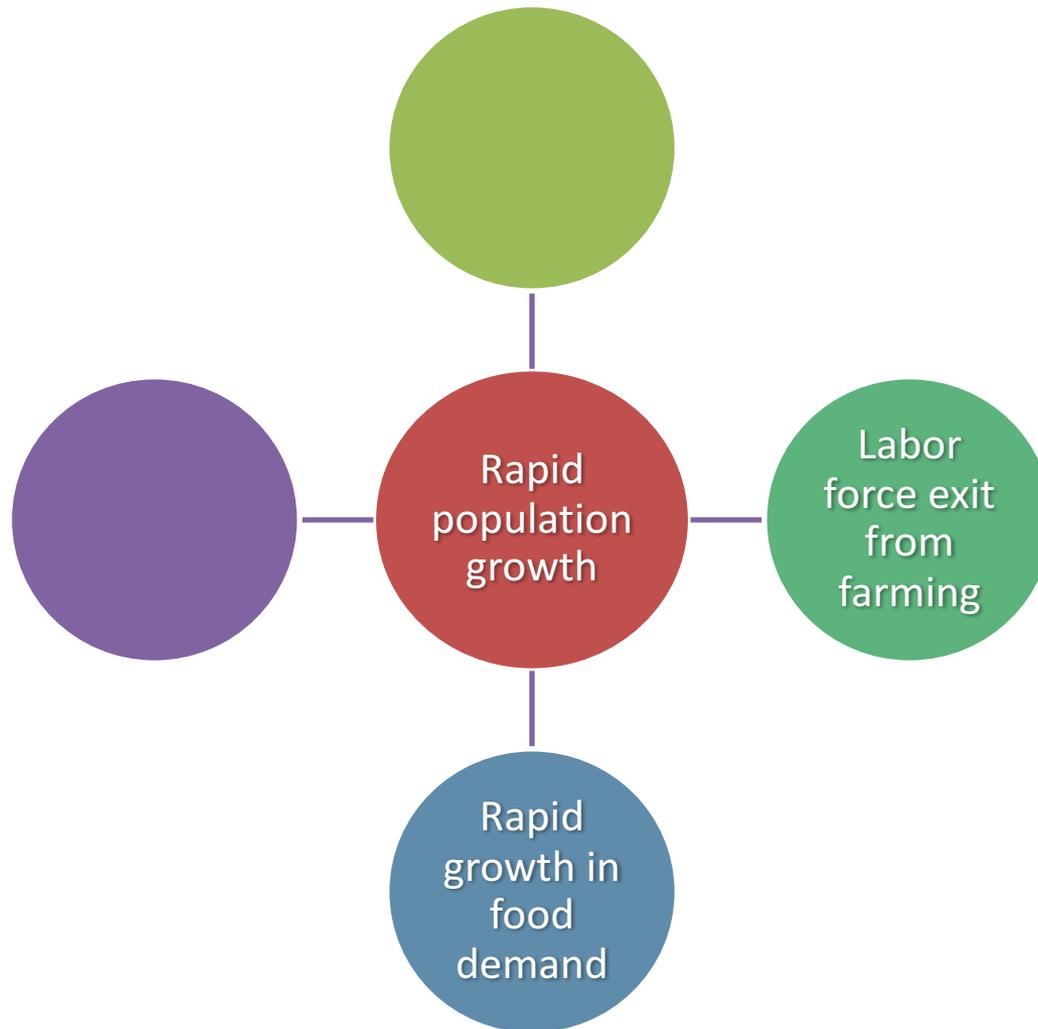
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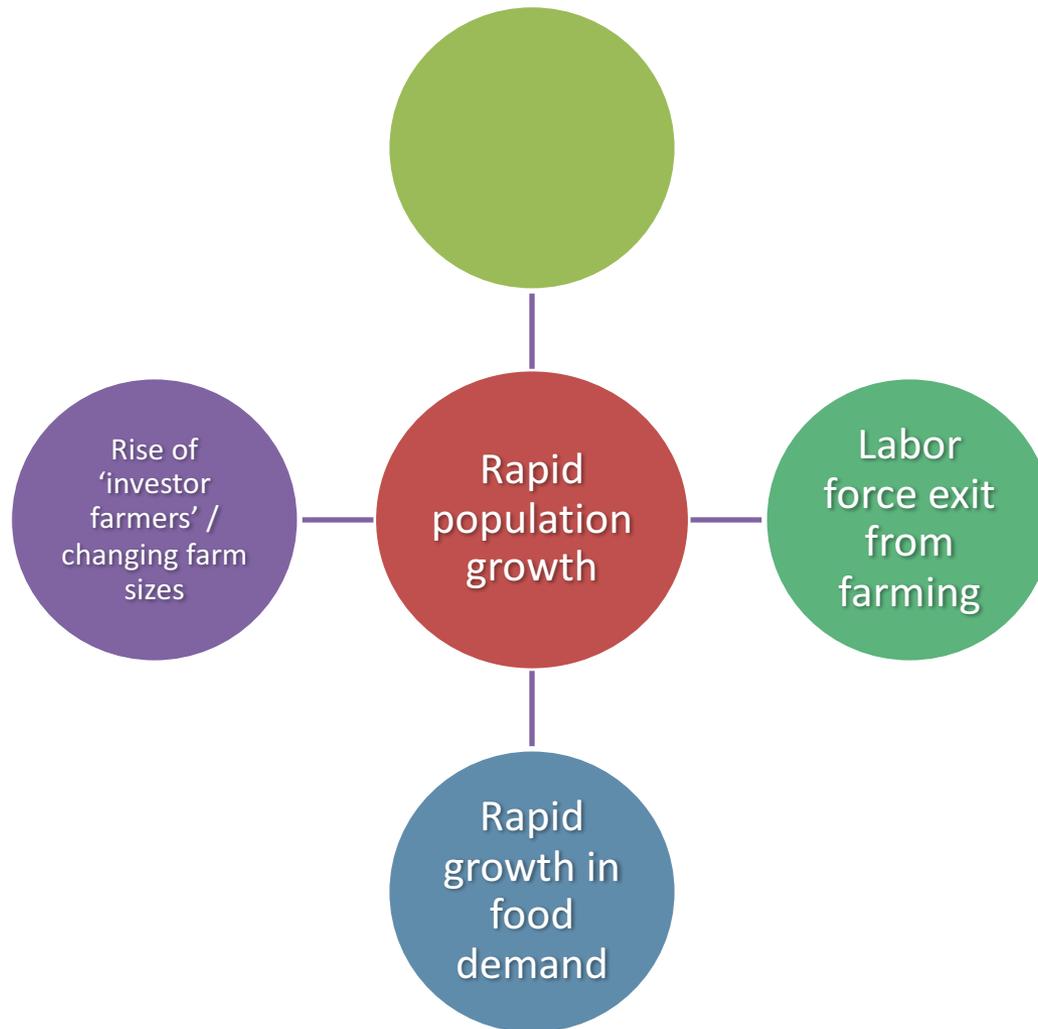
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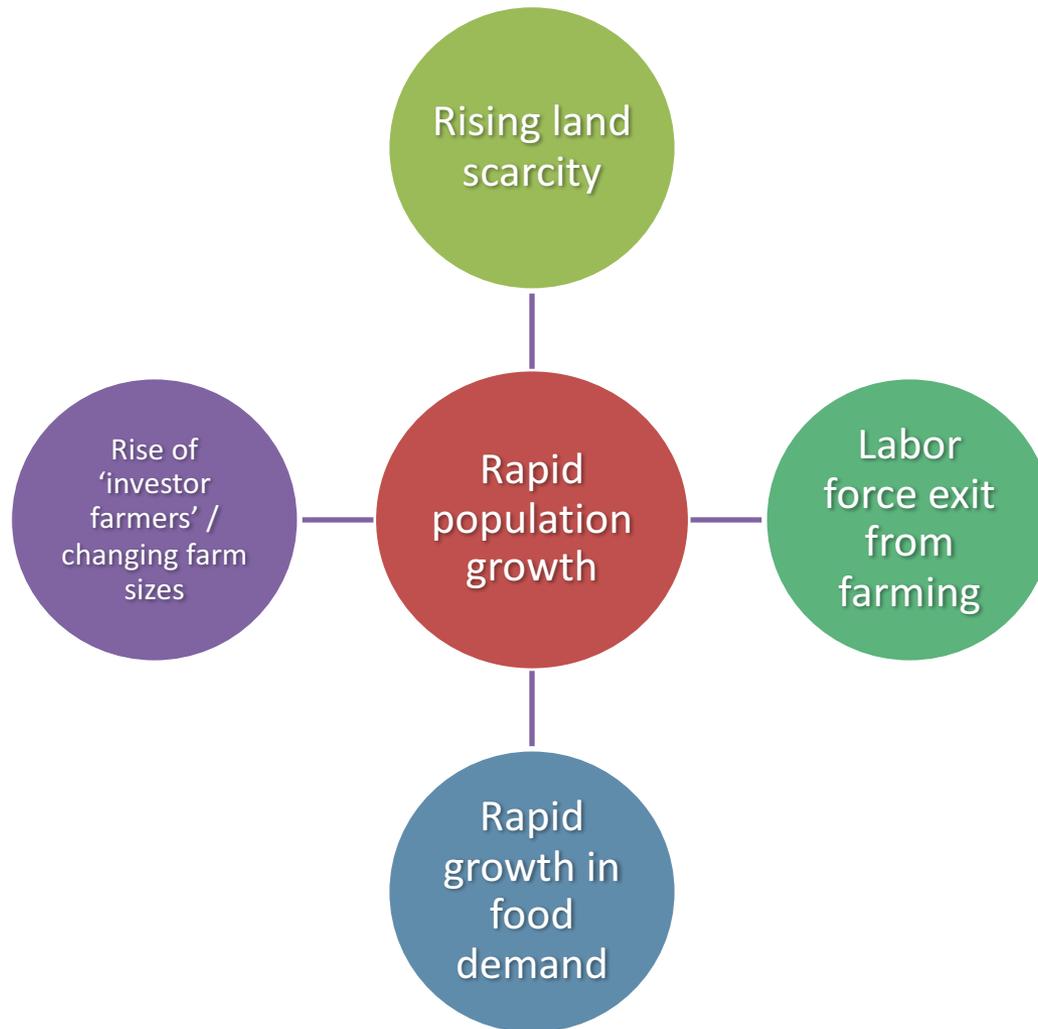
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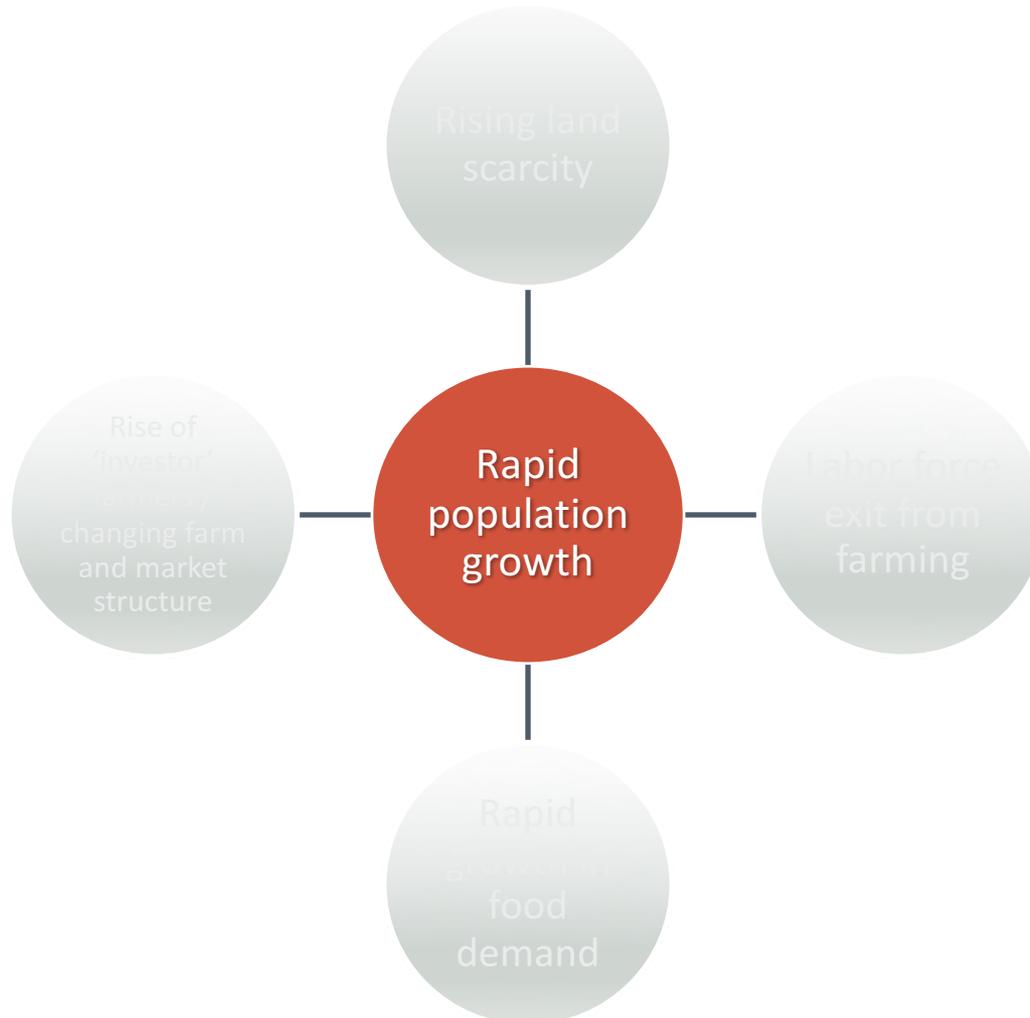
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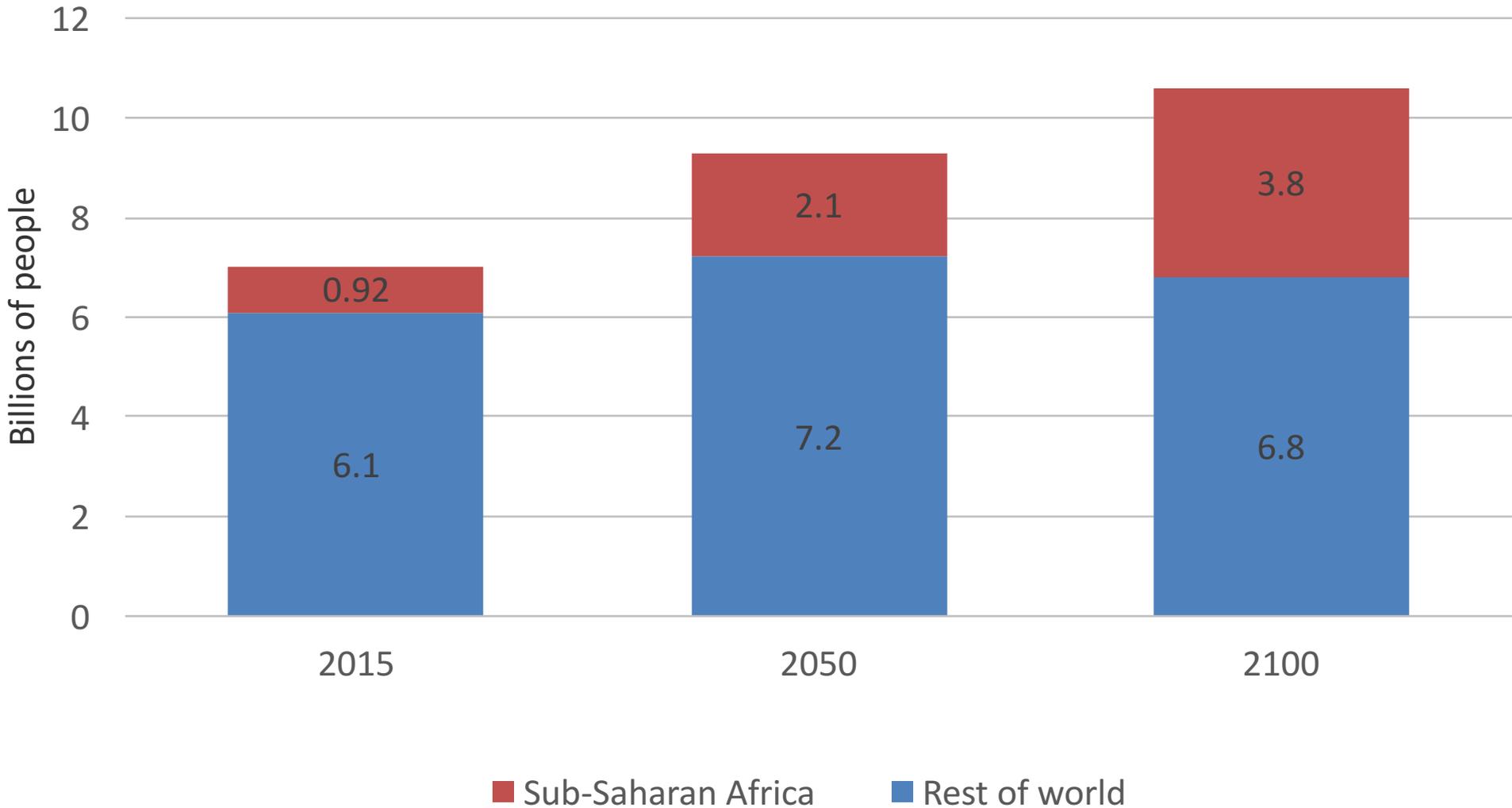
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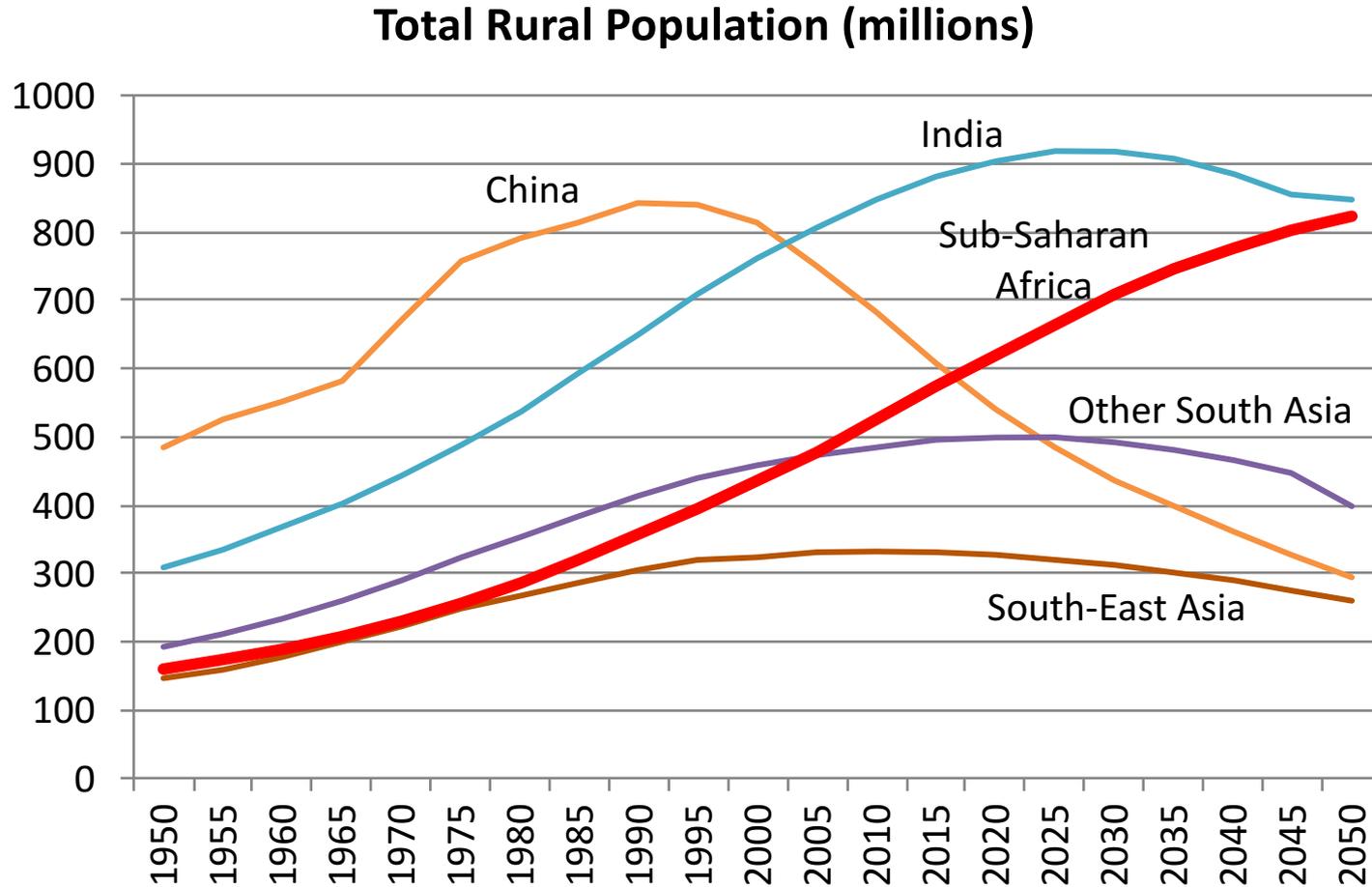
Five inter-related trends



Africa's rapid population growth

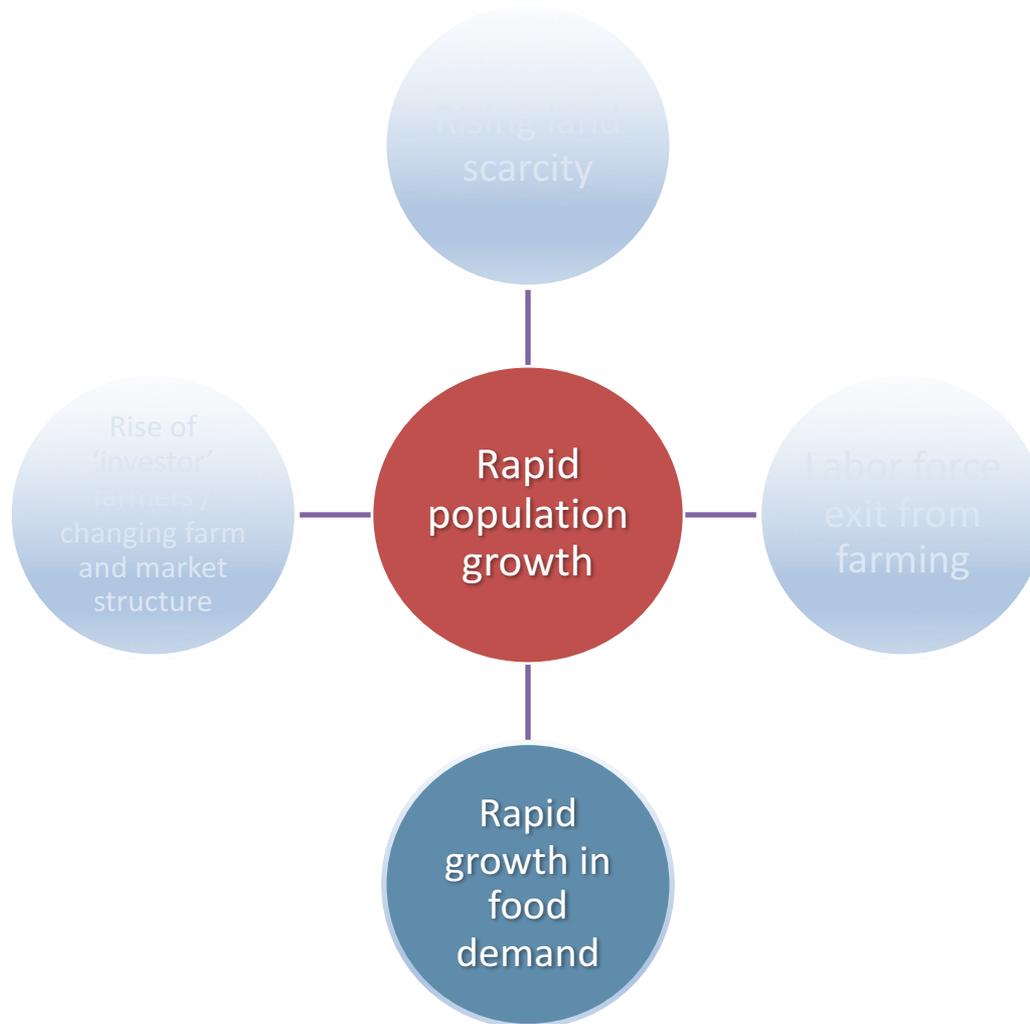


Sub-Saharan Africa: only region of world where rural population continues to rise past 2050



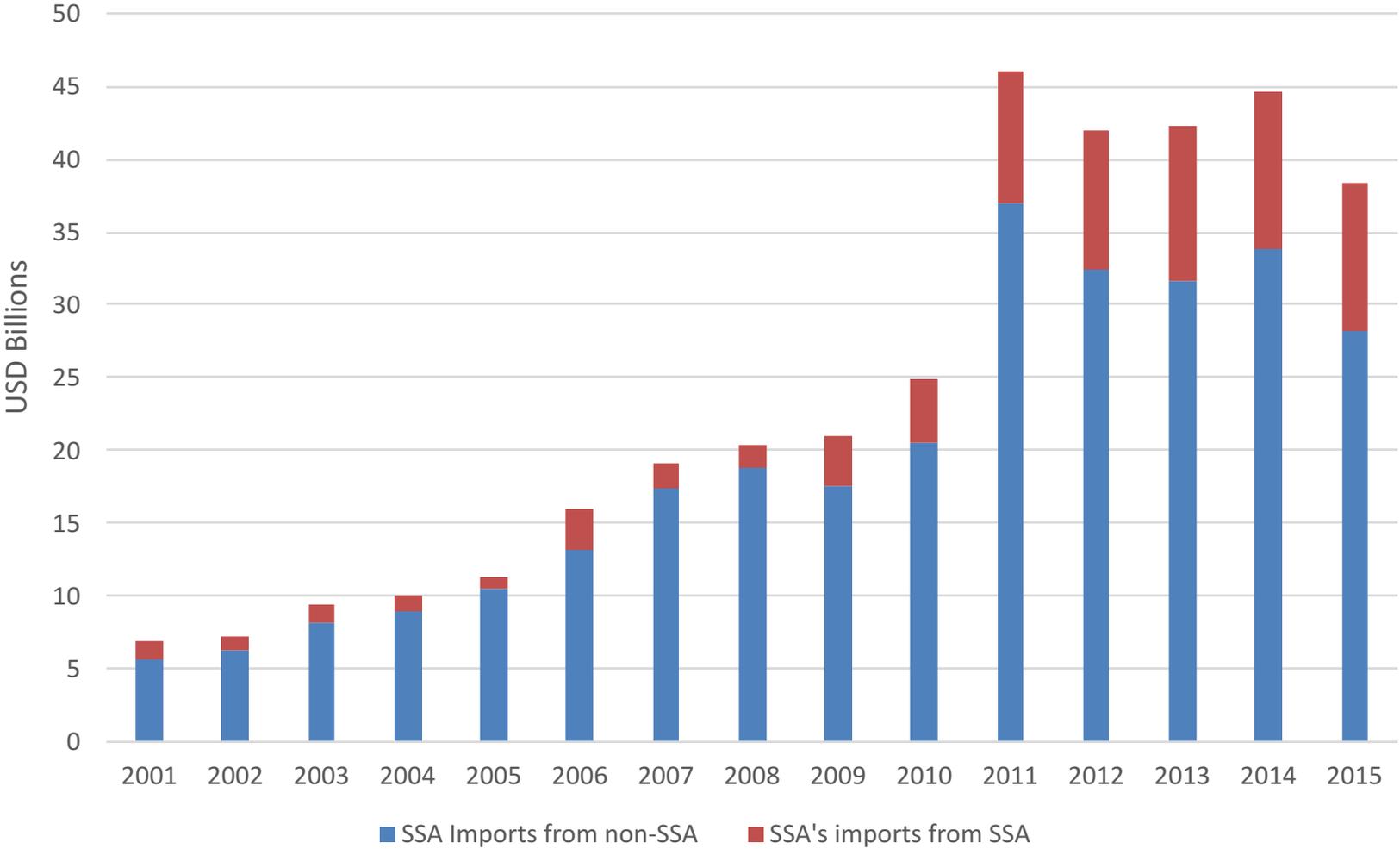
Source: UN 2013

Five inter-related trends

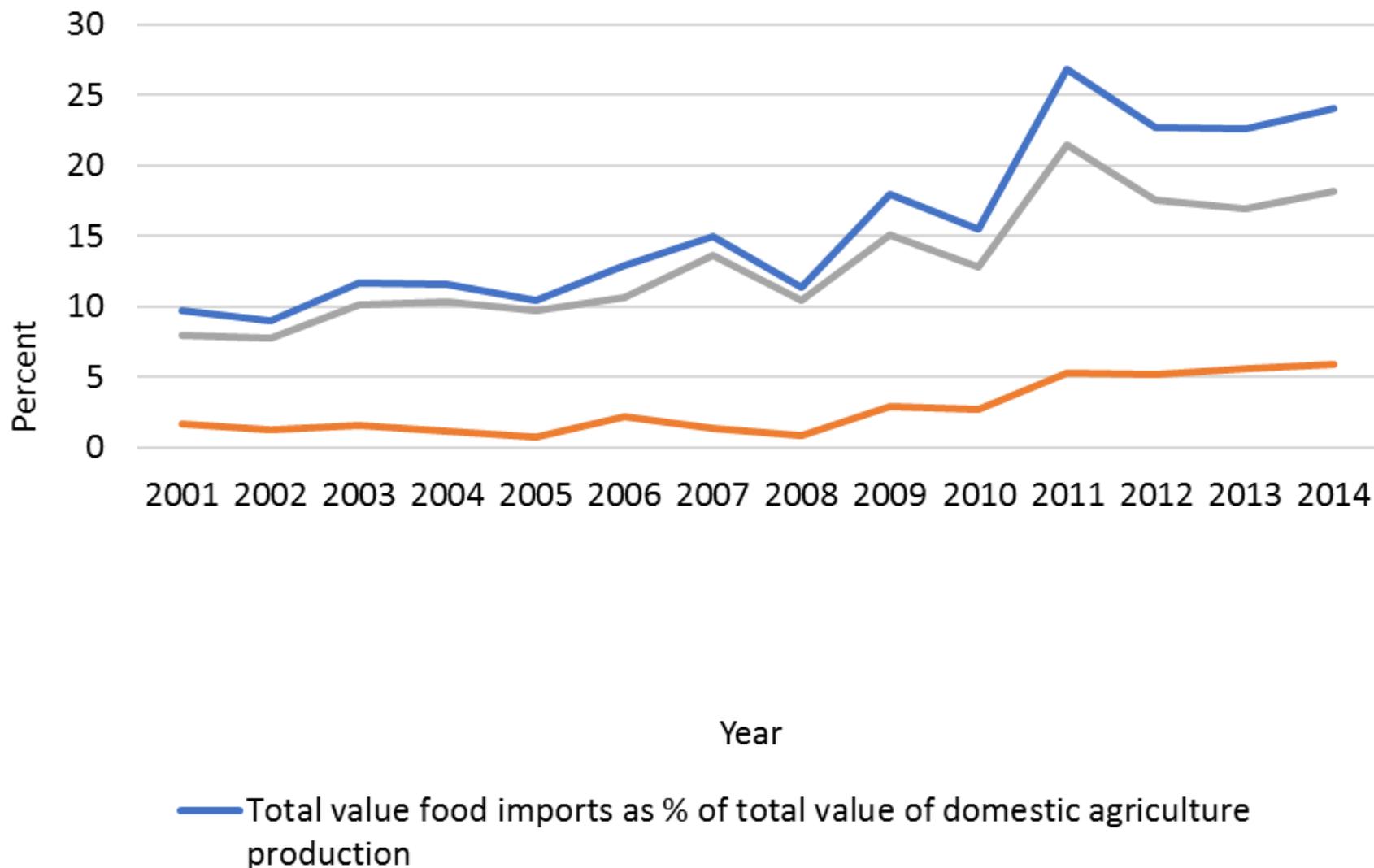


SSA Total Food Imports from 7 to 40 billion USD (2001-2015)

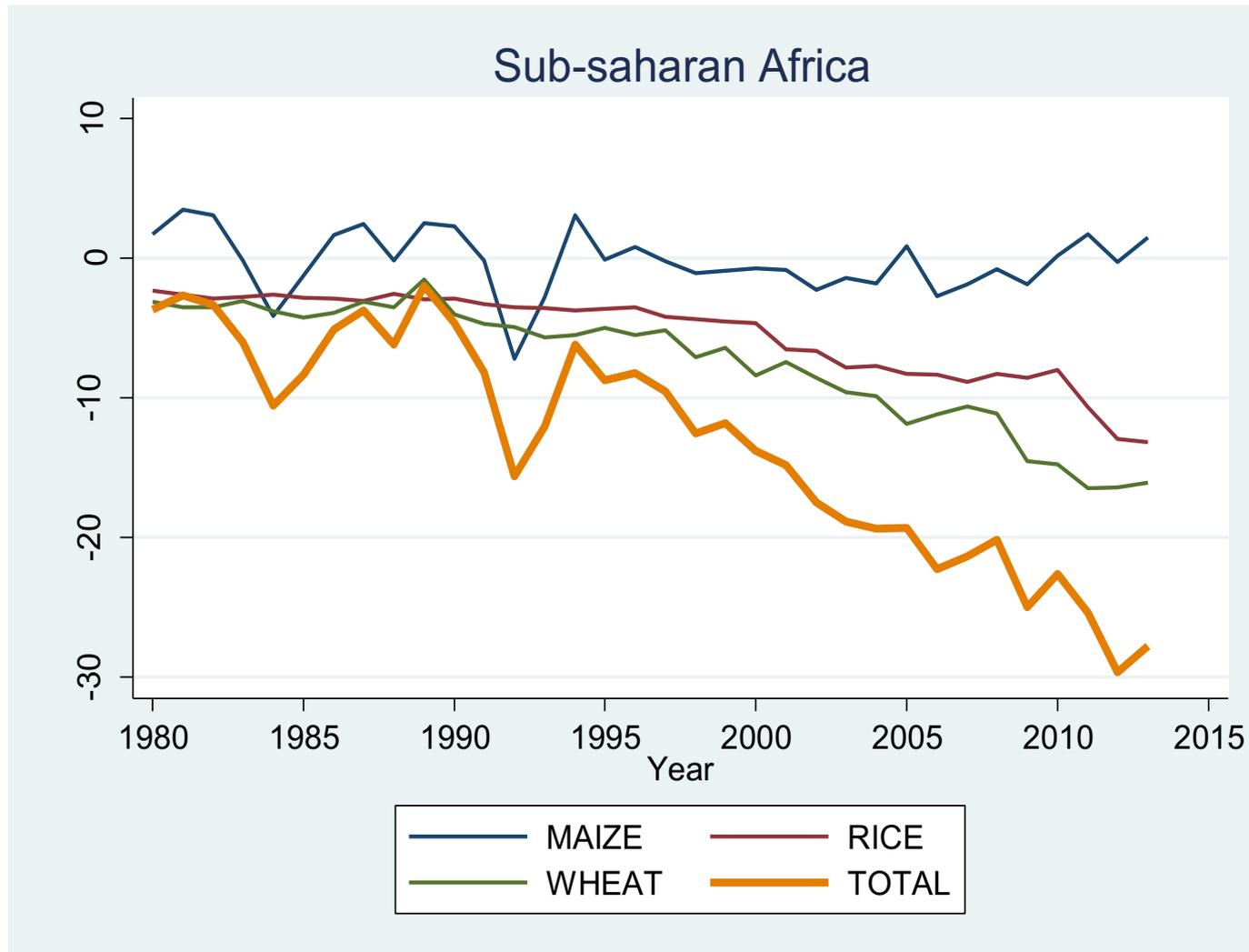
(intra SSA trade from 1 to 10 billion USD)



Value of food imports as a percentage of the value of domestic agricultural production

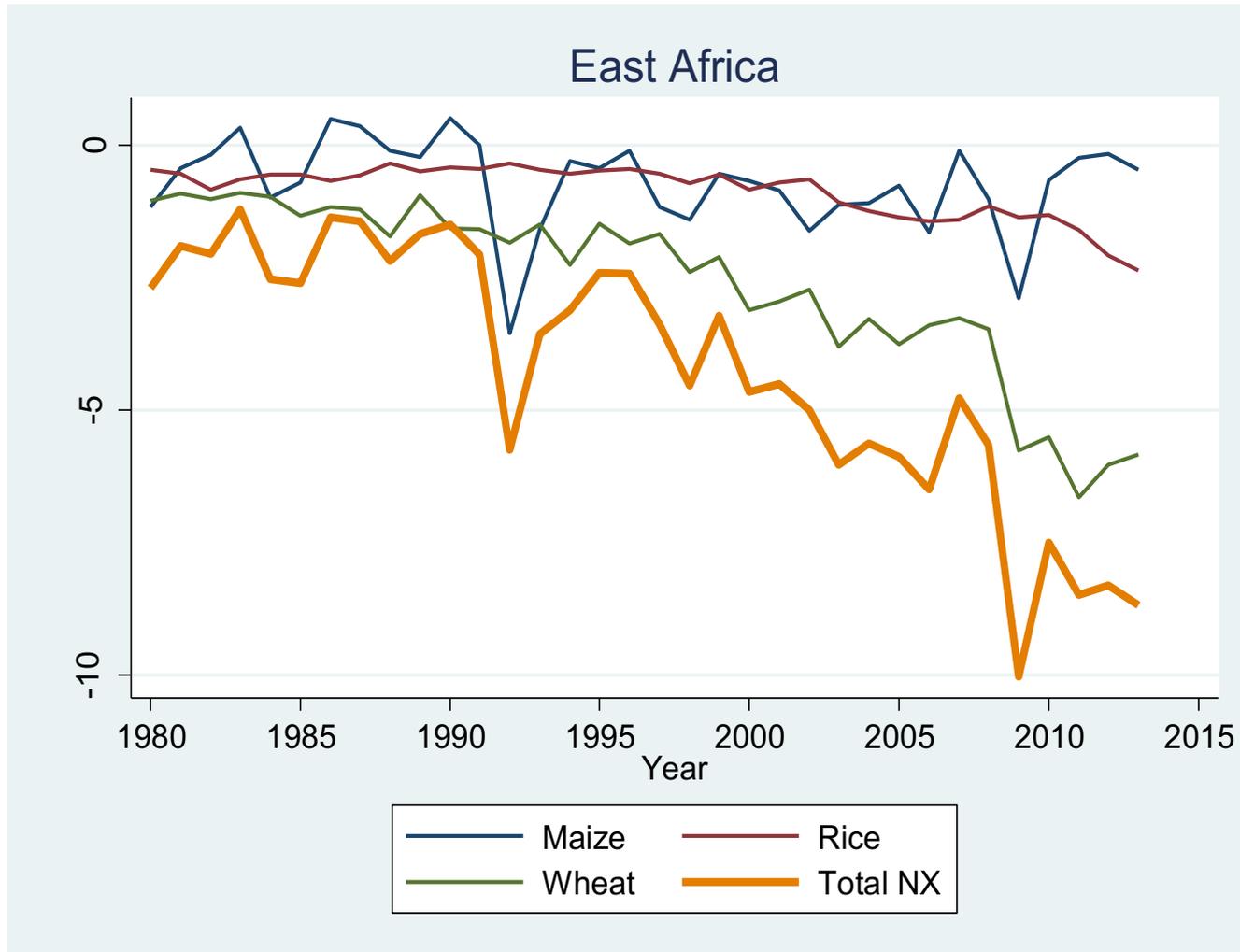


Net cereal exports, Sub-Saharan Africa

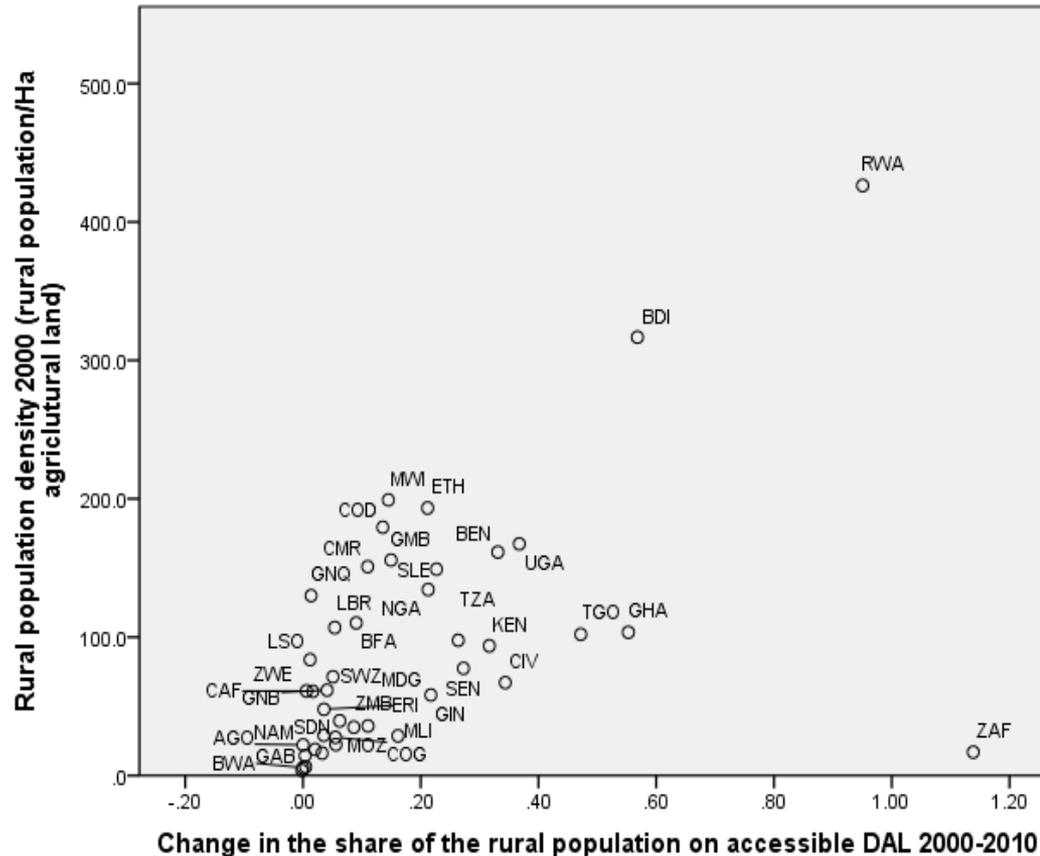


Source: FAOSTAT, 2016

Net cereal exports, East Africa Region

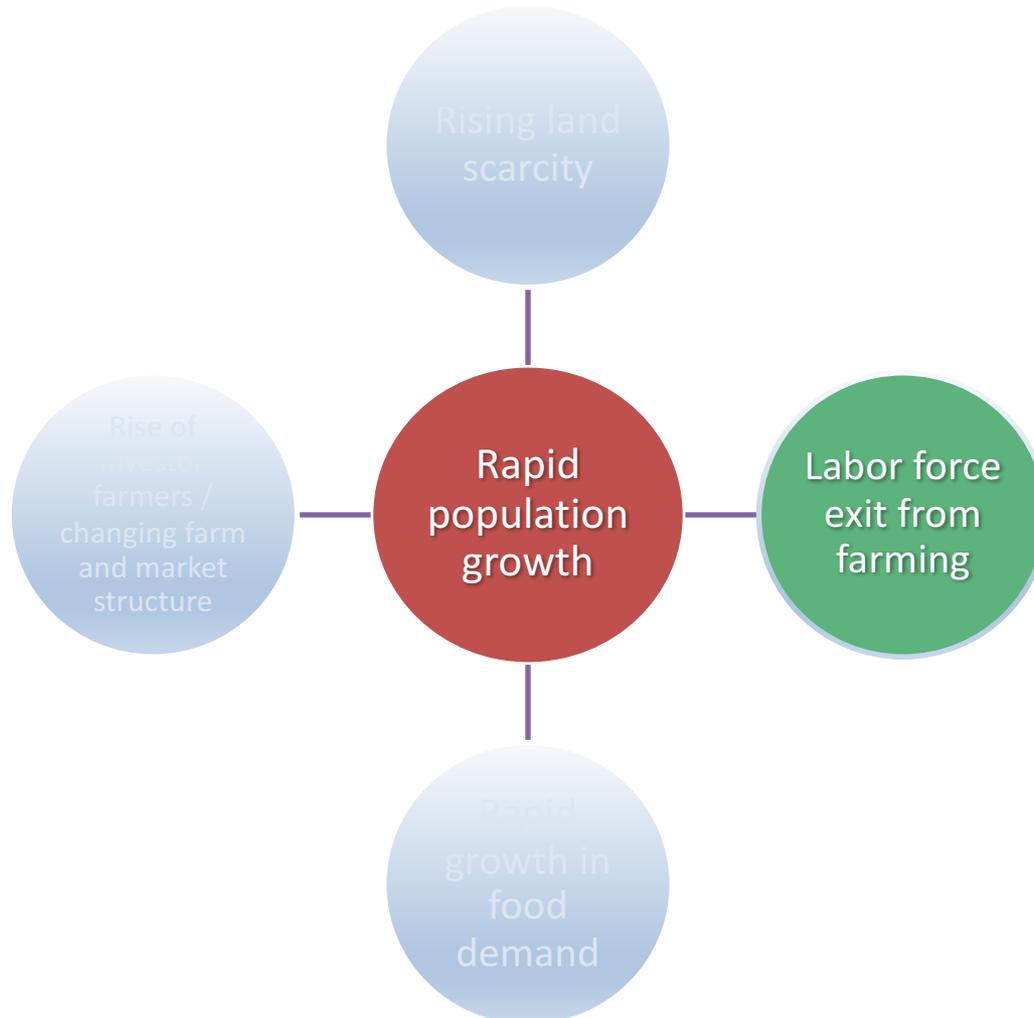


Relationship between % of rural population on degrading agricultural land and pop density



- Roughly 28% of rural population in SSA live on degrading agricultural land.
- 43 million additional people living on DAL between 2000-2010

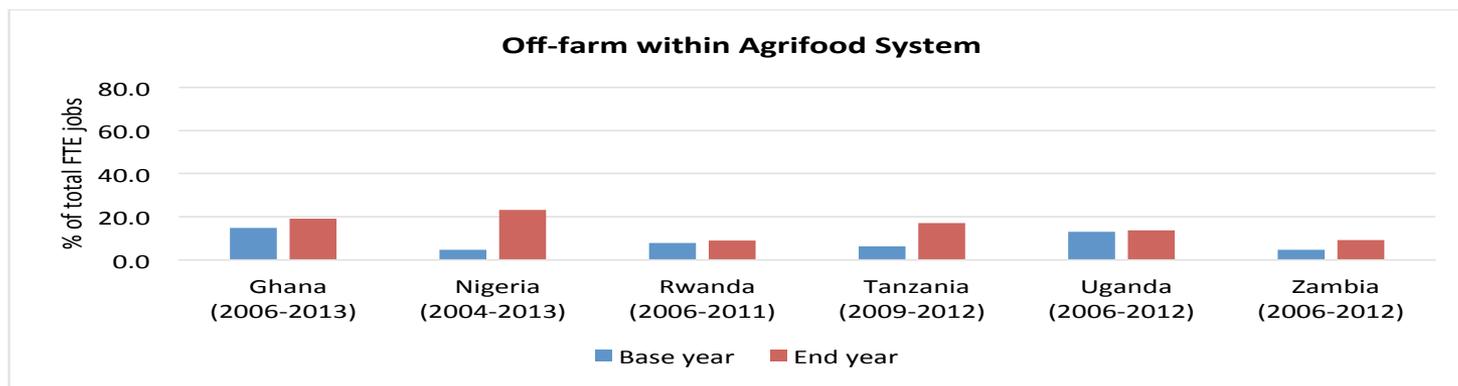
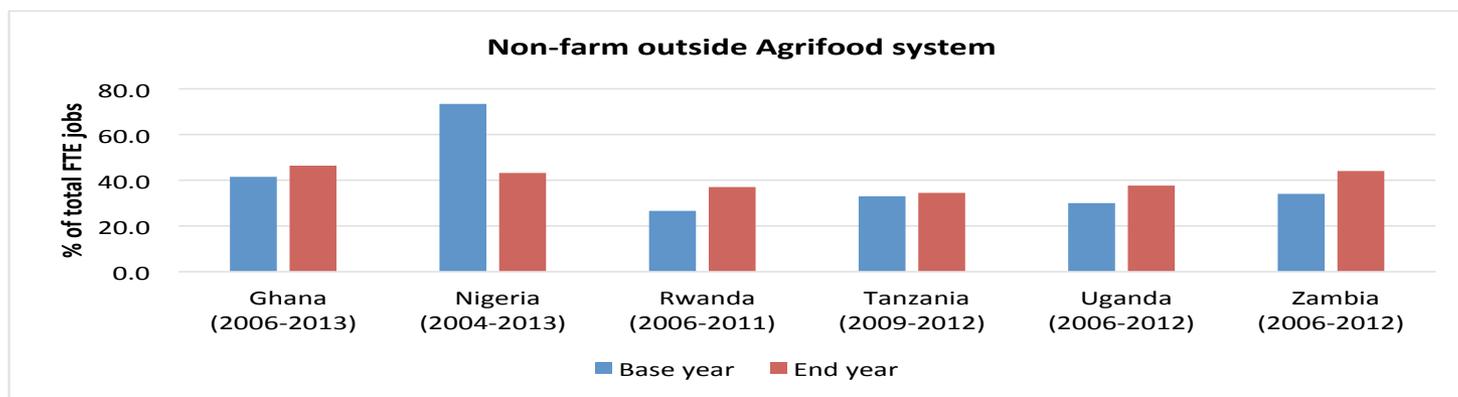
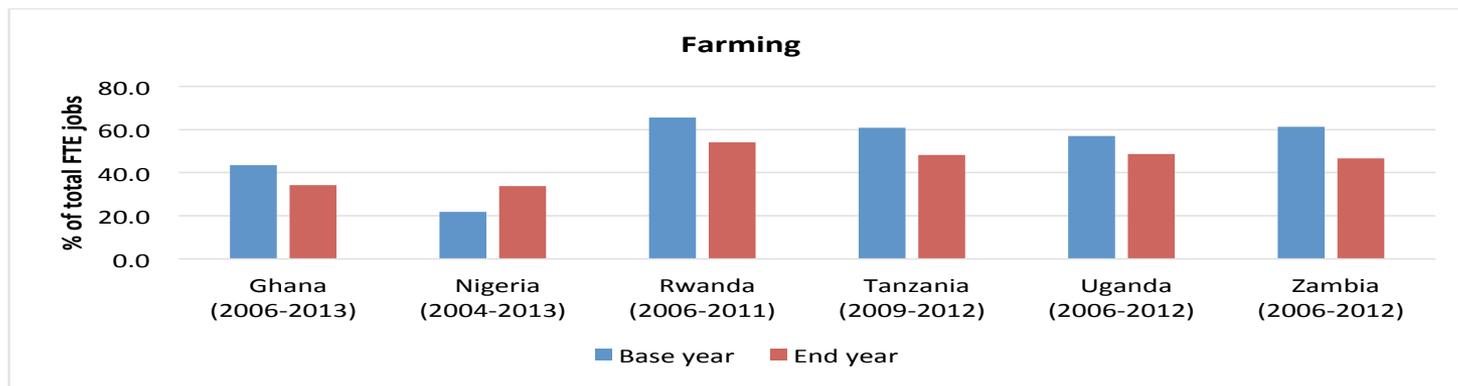
Five inter-related trends



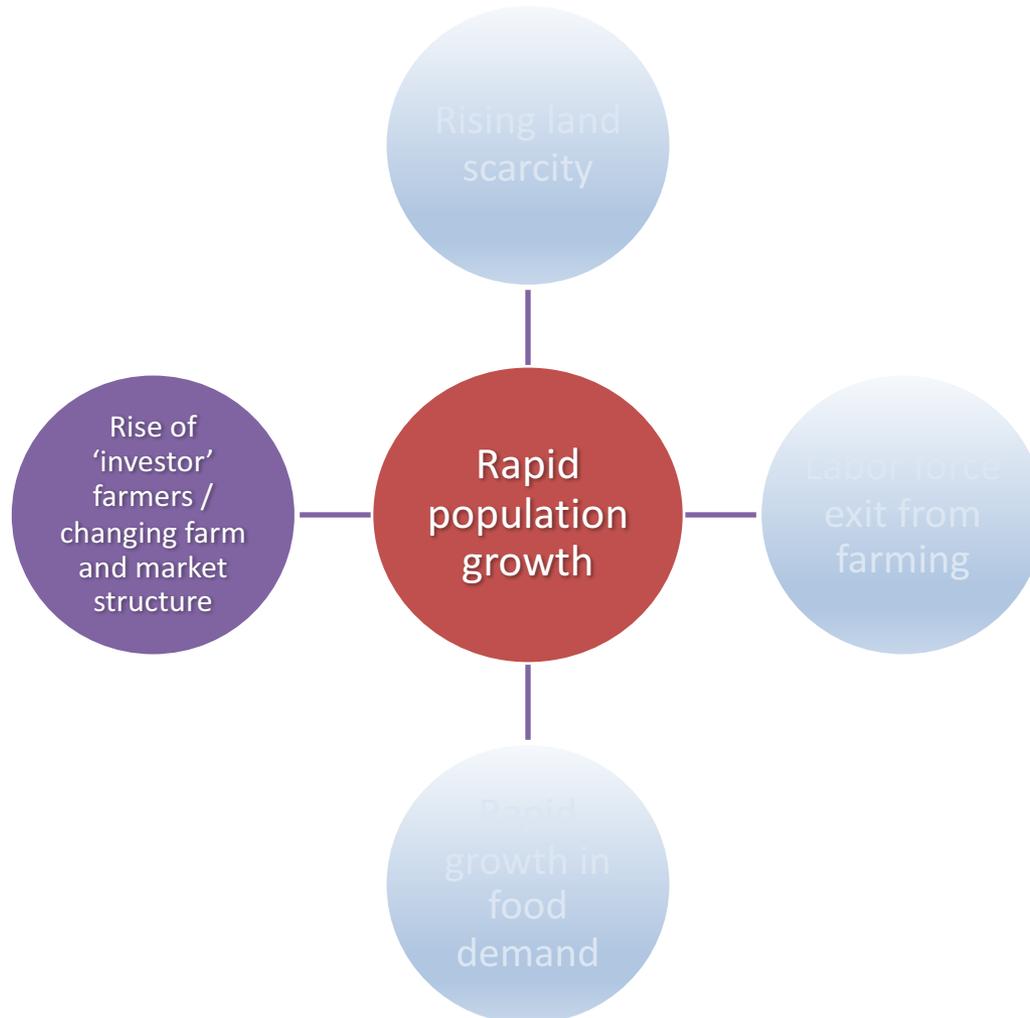


Employment trends

Changes in the share of total jobs in farming, non-farm and off-farm agri-food systems, among the working age population (15–64 years)



Five inter-related trends



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 Ghana (1992-2013)

Ghana	Number of farms		% growth in number of farms	% of total cultivated area	
	1992	2013		1992	2013
0-2 ha	1,458,540	1,582,034	8.5	25.1	14.2
2-5 ha	578,890	998,651	72.5	35.6	31.3
5-10 ha	116,800	320,411	174.3	17.2	22.8
10-20 ha	38,690	117,722	204.3	11.0	16.1
20-100 ha	18,980	37,421	97.2	11.1	12.2
>100 ha	--	1,740	-	--	3.5
Total	2,211,900	3,057,978	38.3	100	100

51.1%

Source: Ghana GLSS Surveys, 1992, 2013, Jayne et al., 2016, using data from Ghana GLSS Surveys I and IV.

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

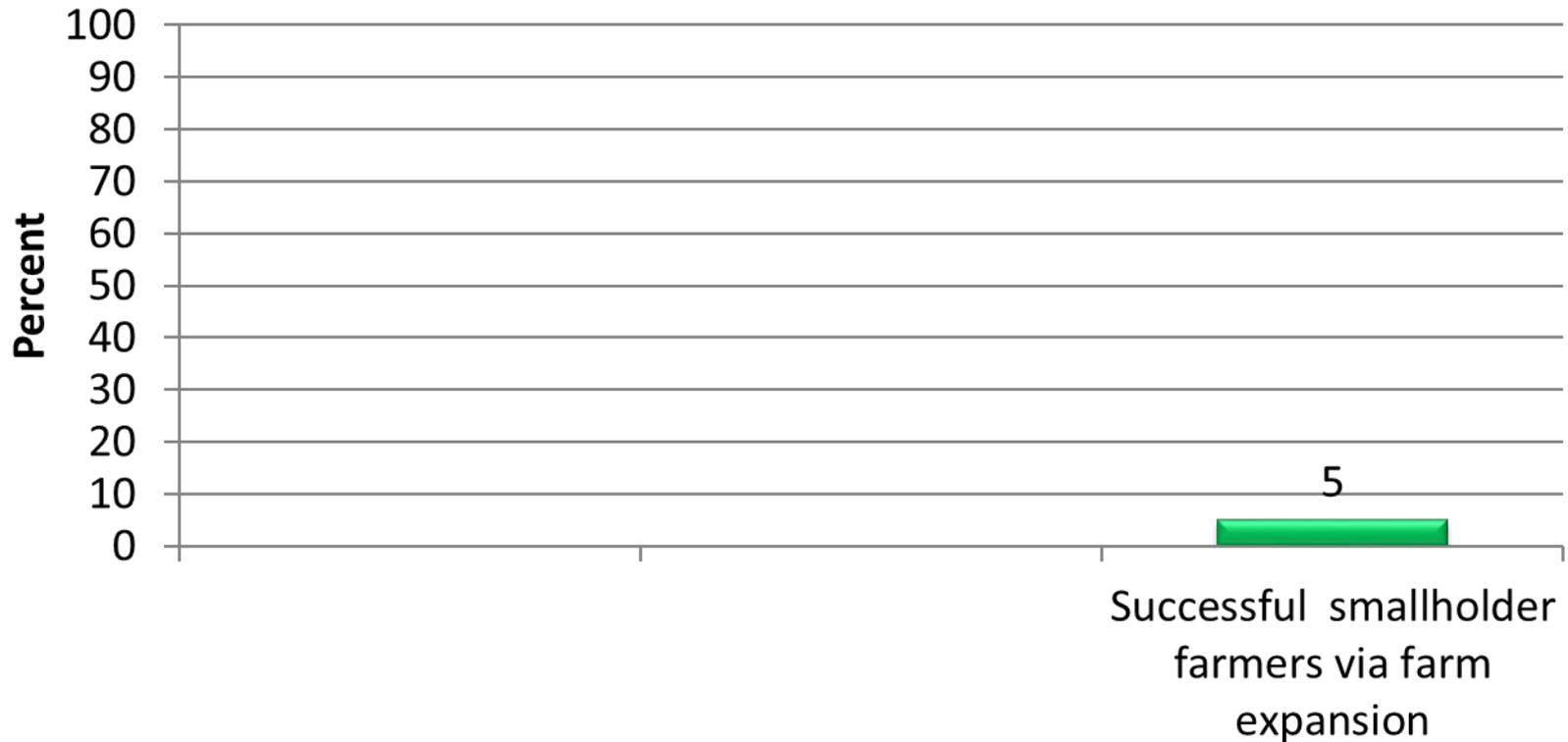
52.1%

Source: Zambia MAL Crop Forecast Surveys, 2001 and 2012

Characteristics of “emergent farmers”

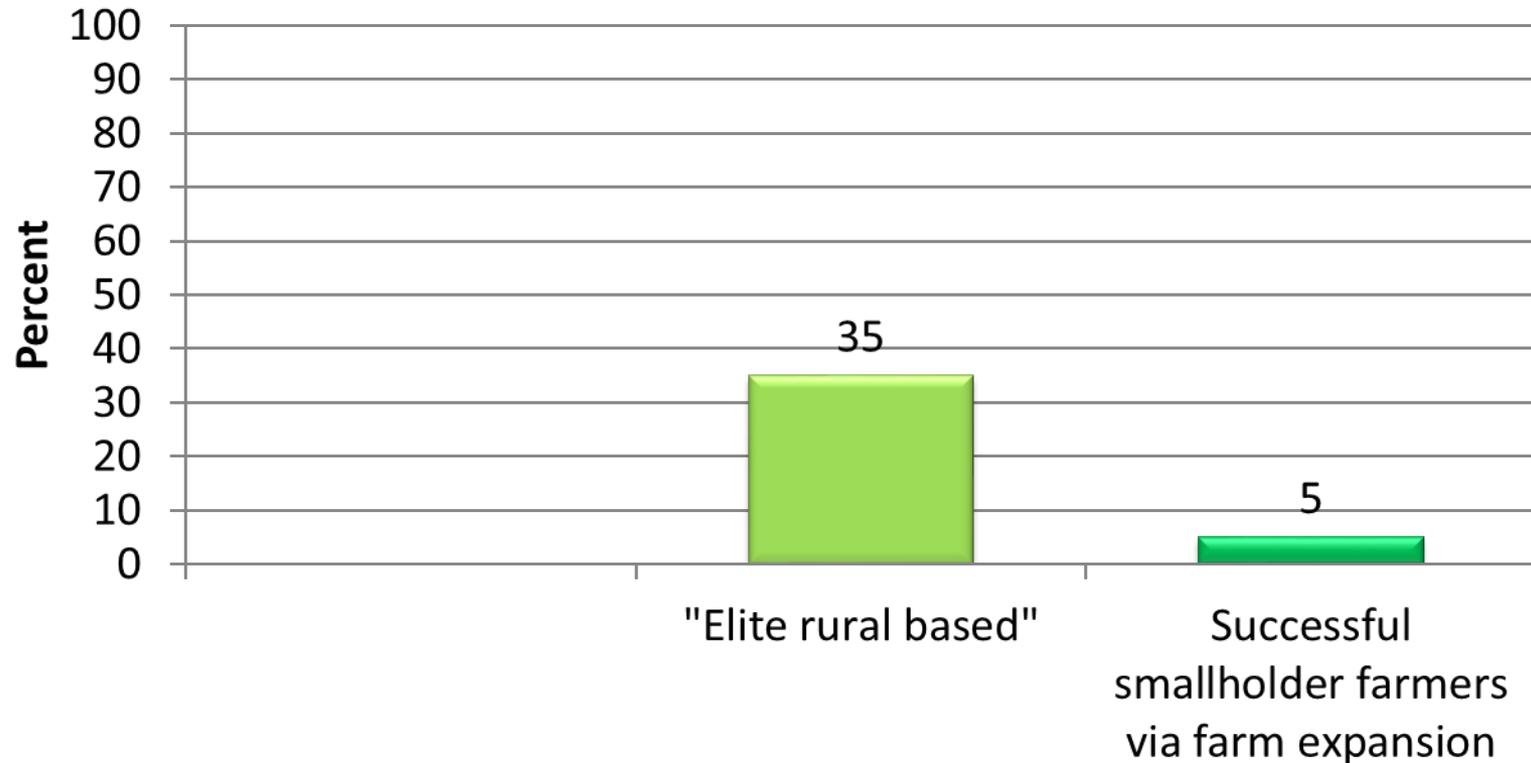
Rise of the medium-scale farmers

Three sub-categories of medium scale farmers (Kenya, Zambia, Ghana)



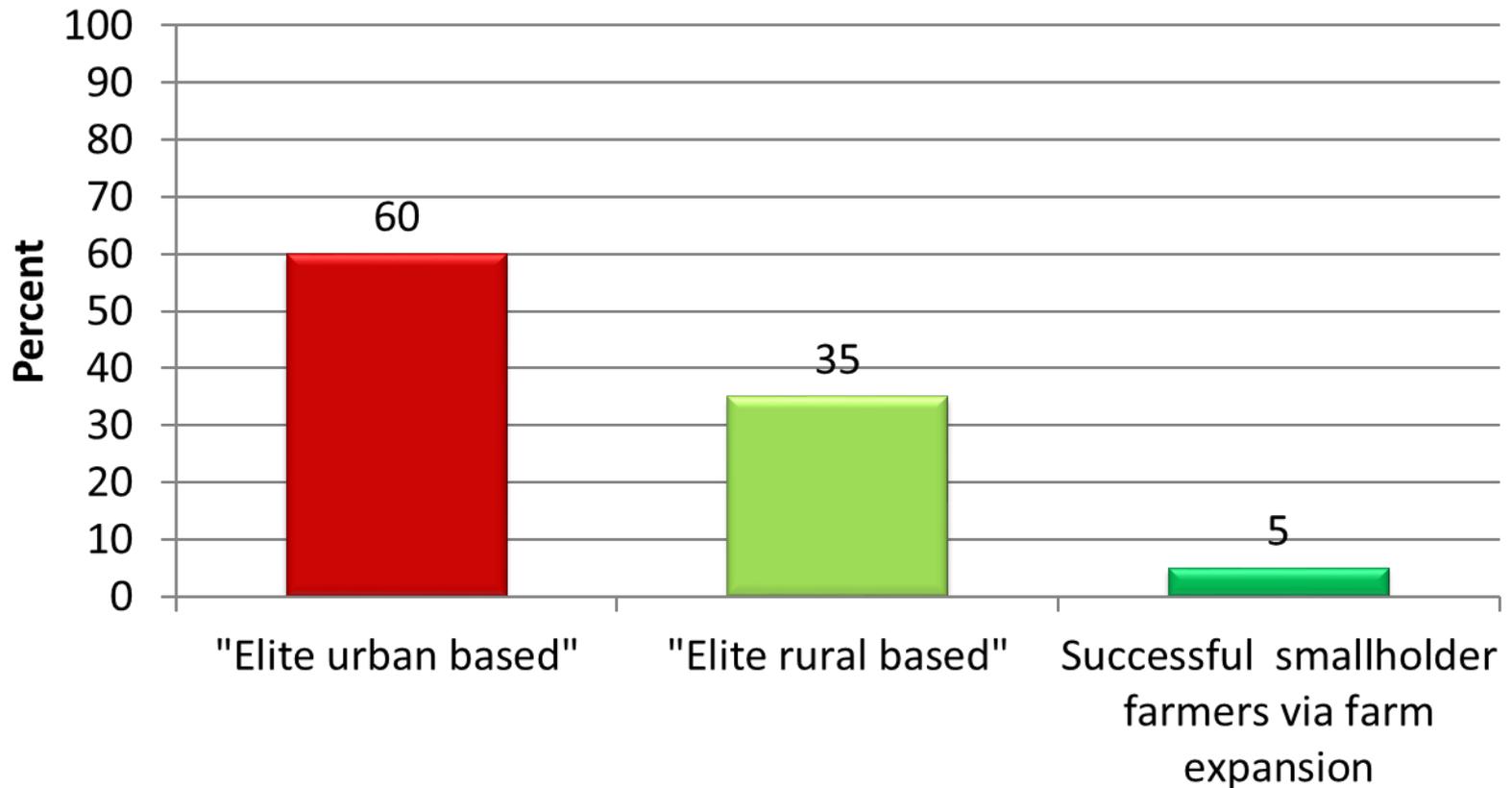
Rise of the medium-scale farmers

Three sub-categories of medium scale farmers: Kenya, Zambia, Ghana



Rise of the medium-scale farmers

Three sub-categories of medium scale farmers: Kenya, Zambia, Ghana



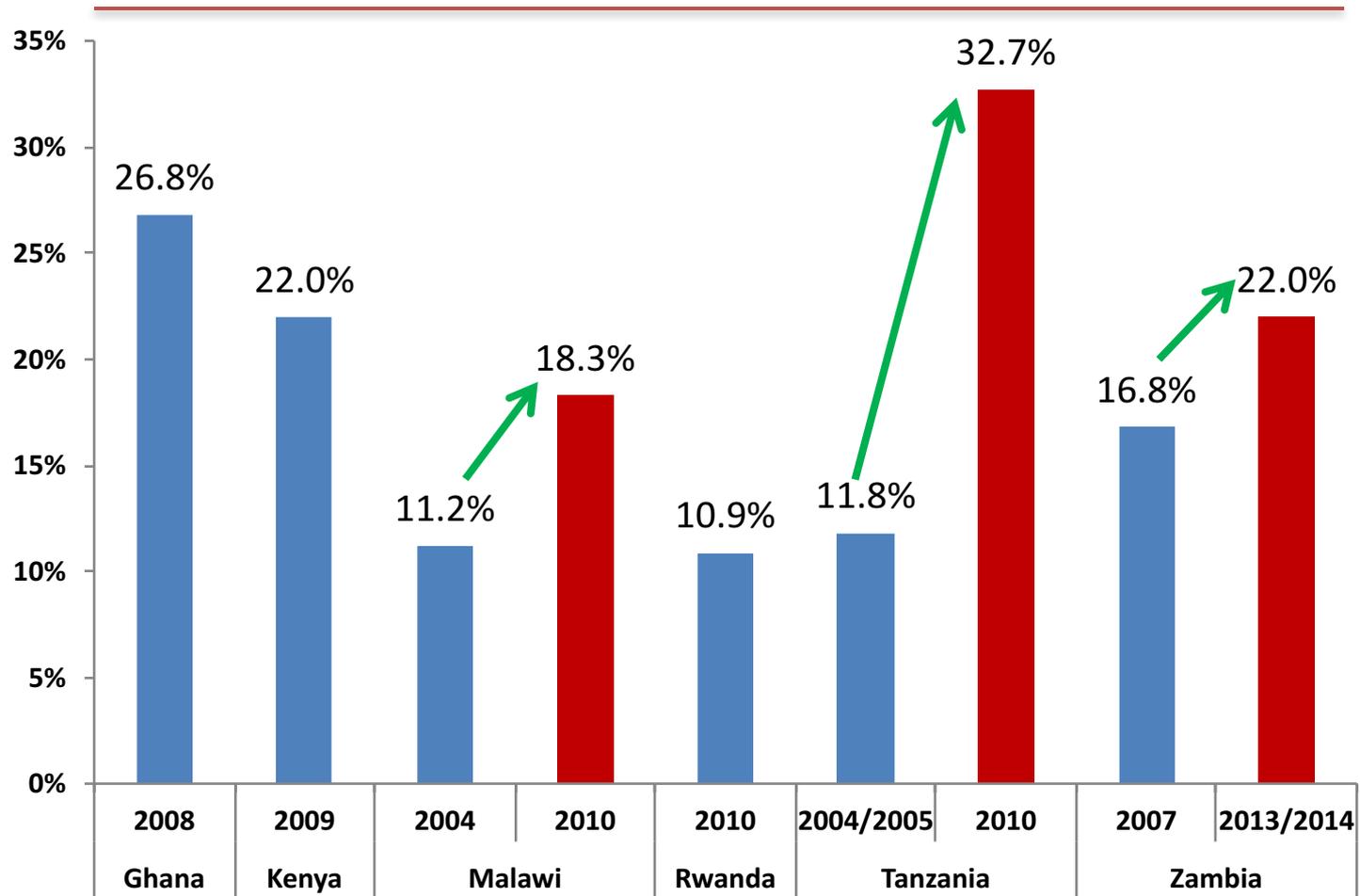
Type 1: Urban-based investor farmer

	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

Type 2: Rural-based 'elite' farmer

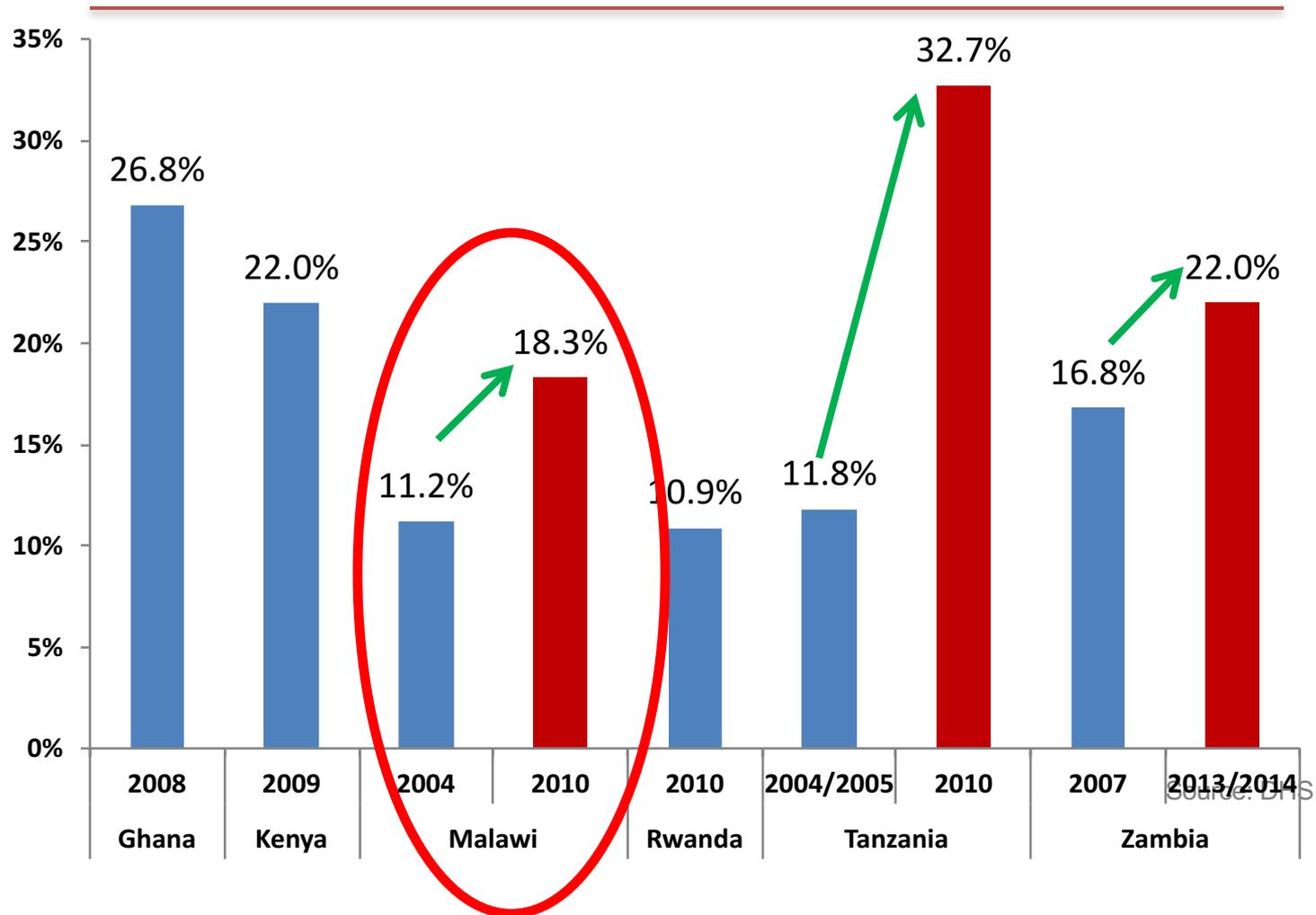
	Mode of entry into medium-scale farming status: expansion of rural elite	
	Zambia	Kenya
	(n=118)	(n=120)
% of cases	42	40
% men	92.9	82.5
Year of birth	1966	1945
Years of education of head	8.2	7.5
Have held a job other than as a farmer (%)	32.9	17.5
Landholding size when operator started own household (ha)	10.7	16.2
Current landholding size (ha)	38.2	32.7
% of land currently under cultivation	46.9	54.1
Decade when land was acquired		
1969 or earlier	3.9	29
1970-79	6.7	24
1980-89	14.8	20
1990-99	32.2	18
2000 or later	42.0	9

% of National Landholdings held by Urban Households



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

% of National Landholdings held by Urban Households

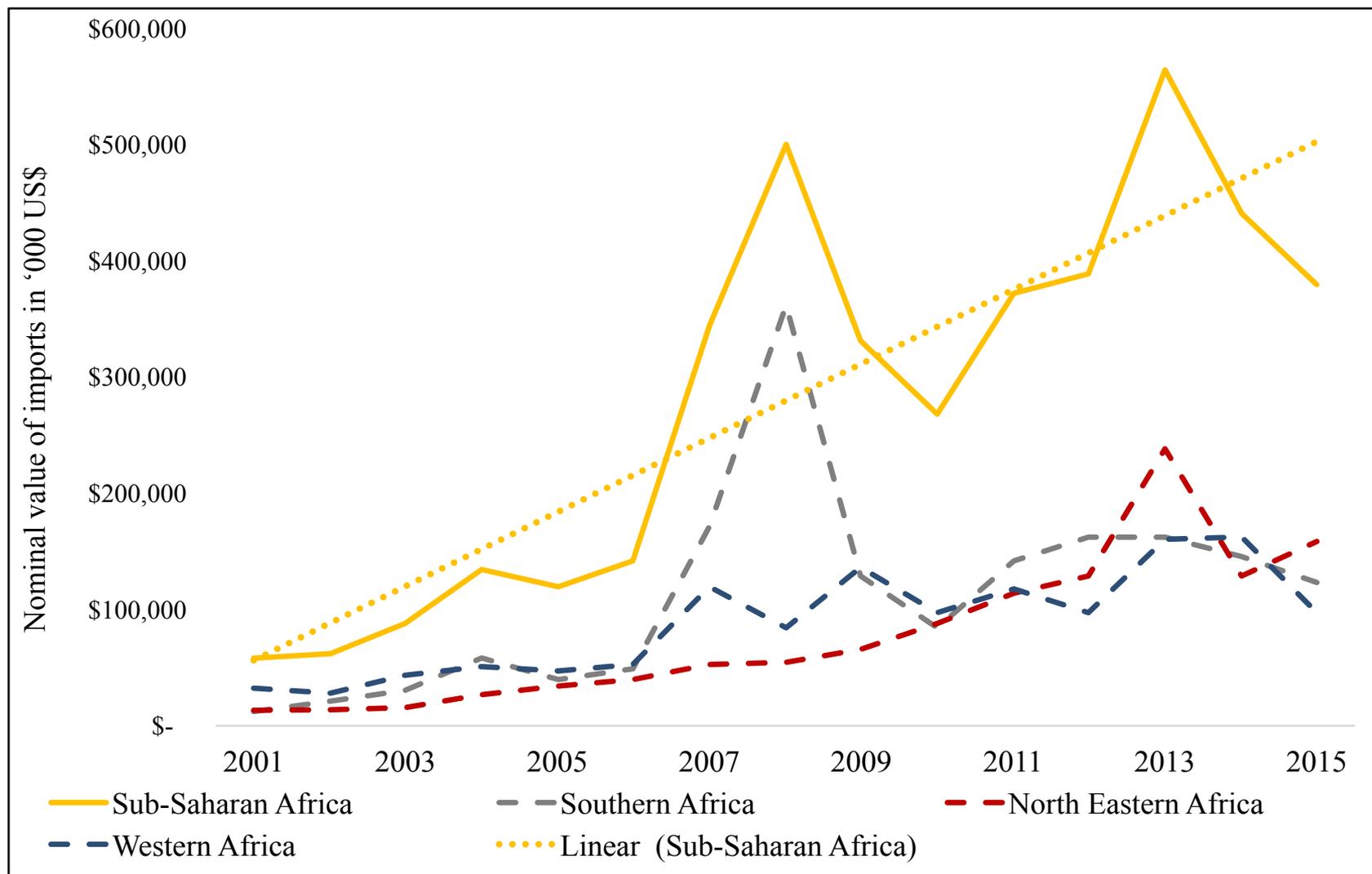


GINI coefficients in farm landholding

	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

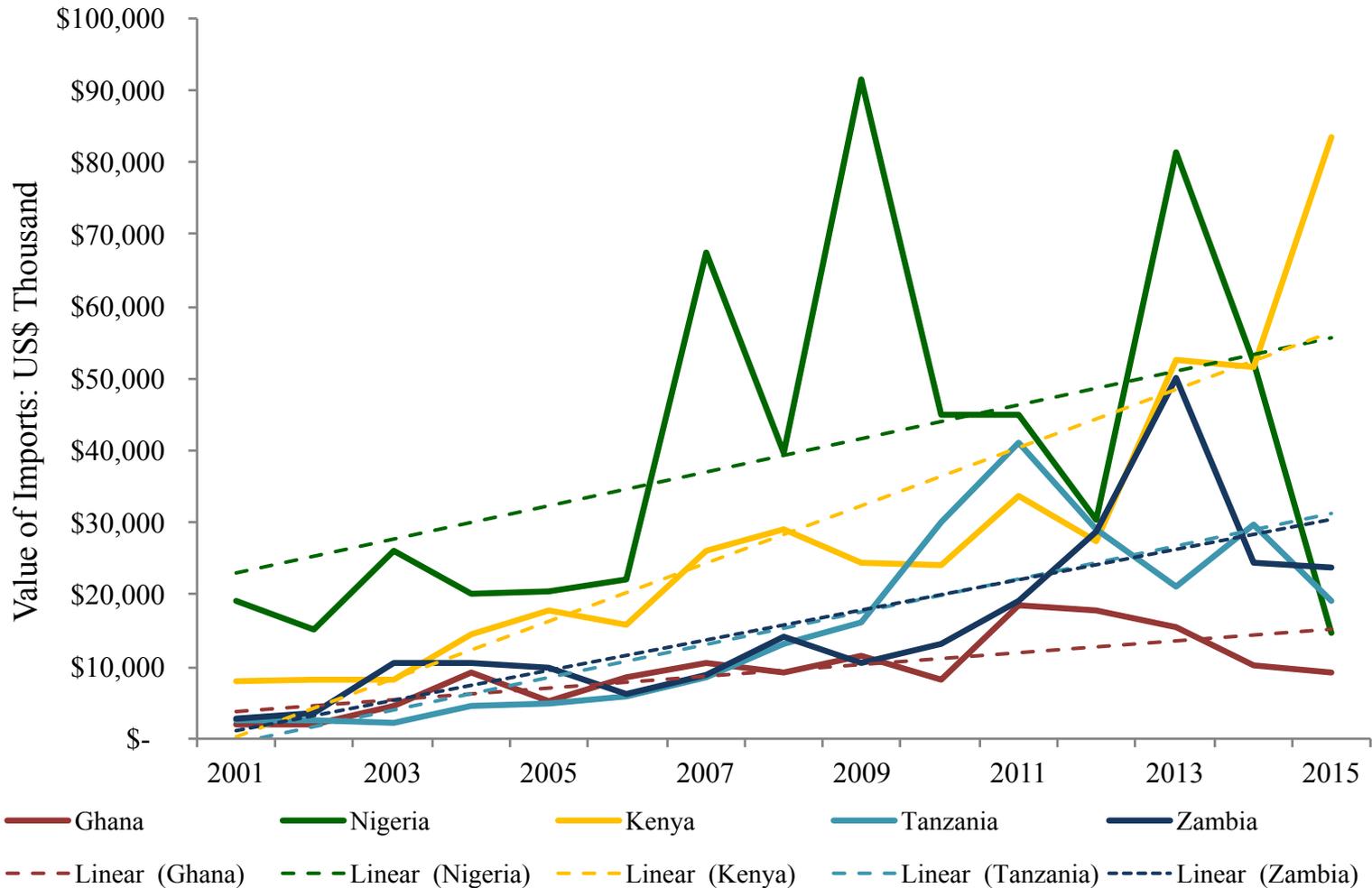
Source: Jayne et al. 2014 (JIA)

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



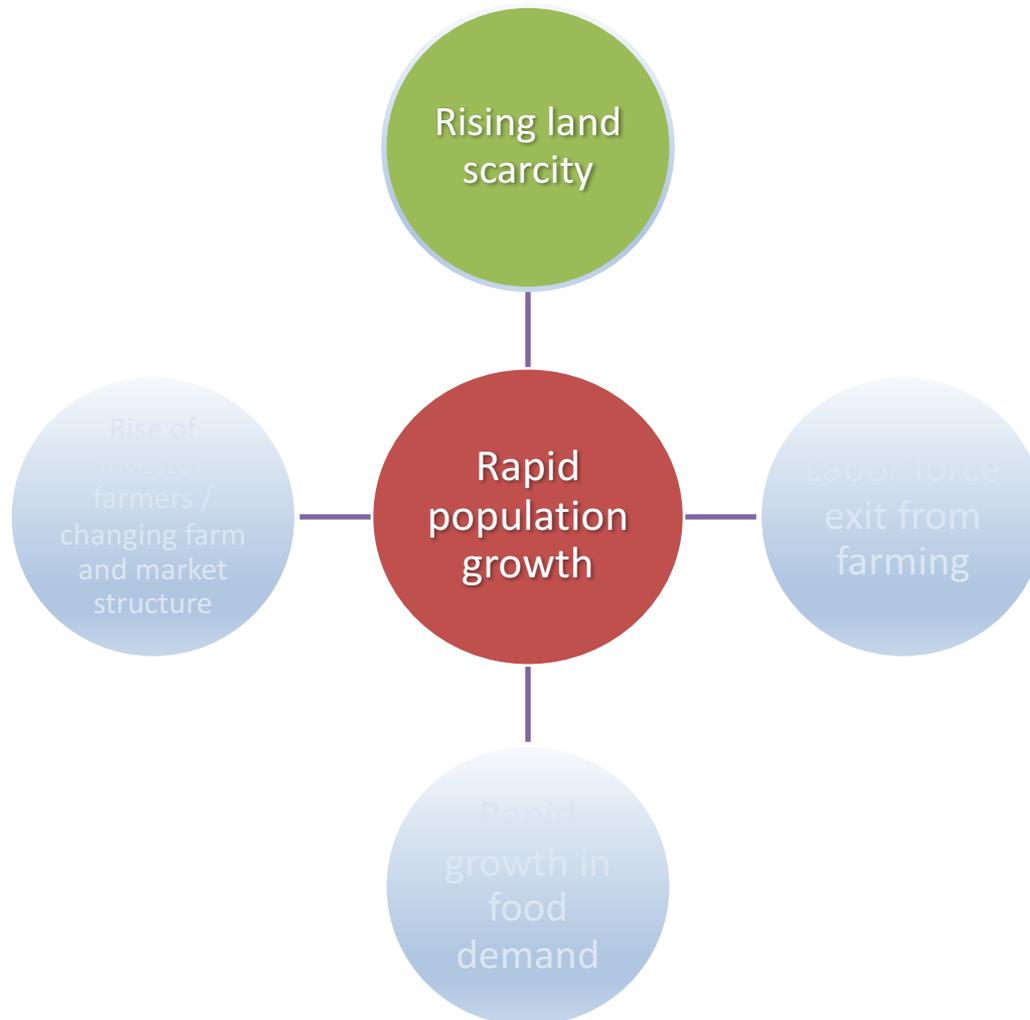
Source: vanderWesthuisen, forthcoming

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

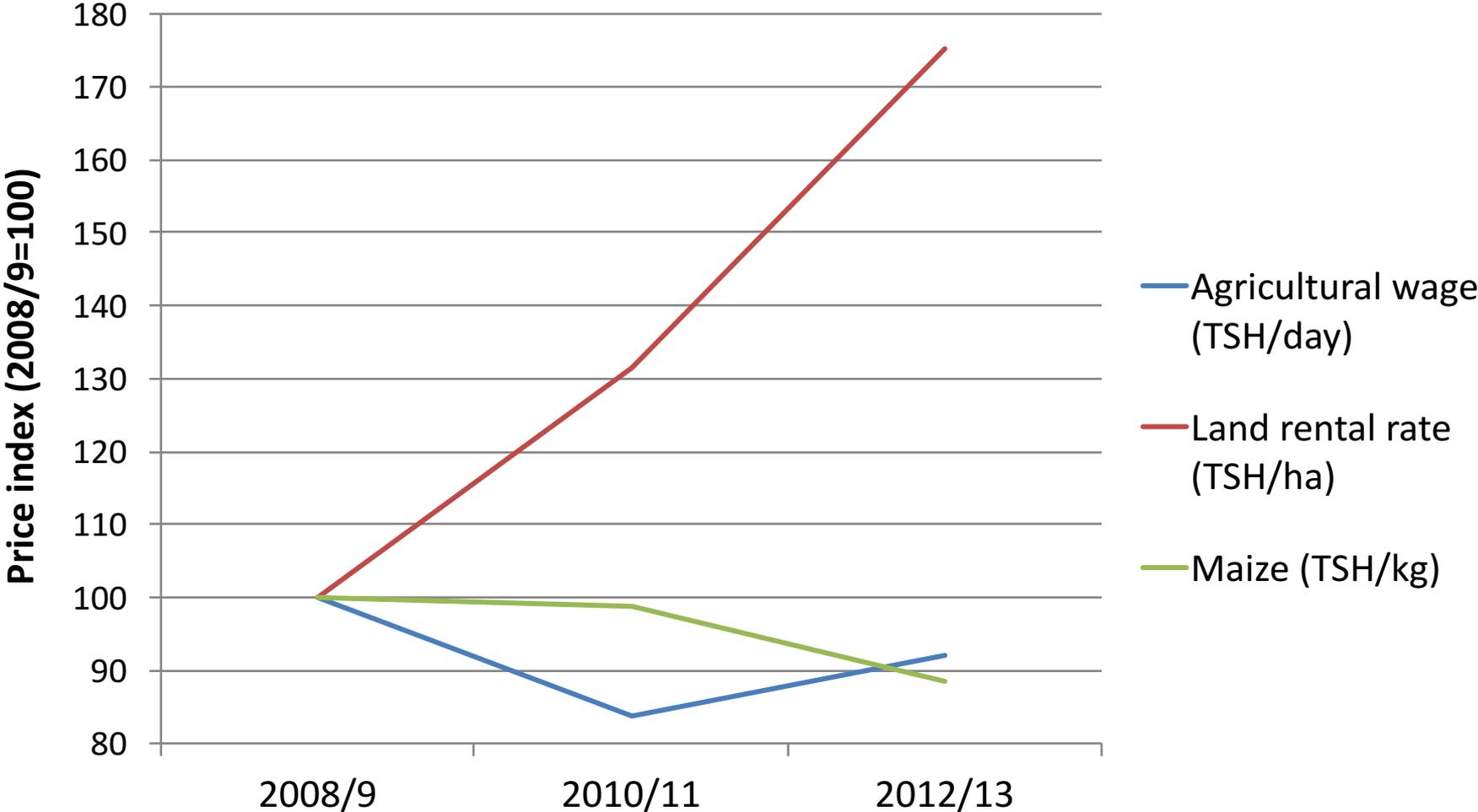


Source: vanderWesthuisen, forthcoming, based on Trade Map data

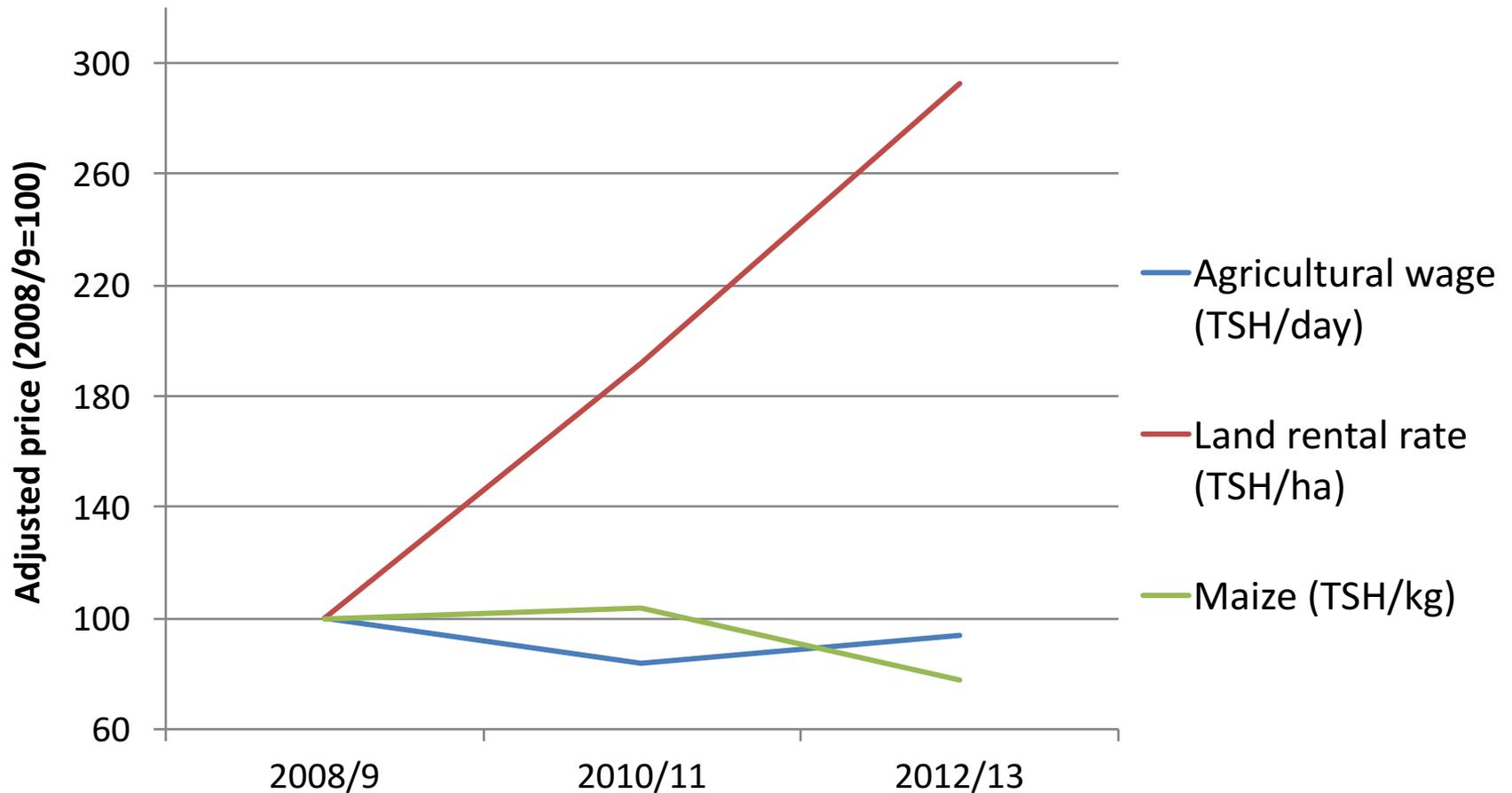
Five inter-related trends



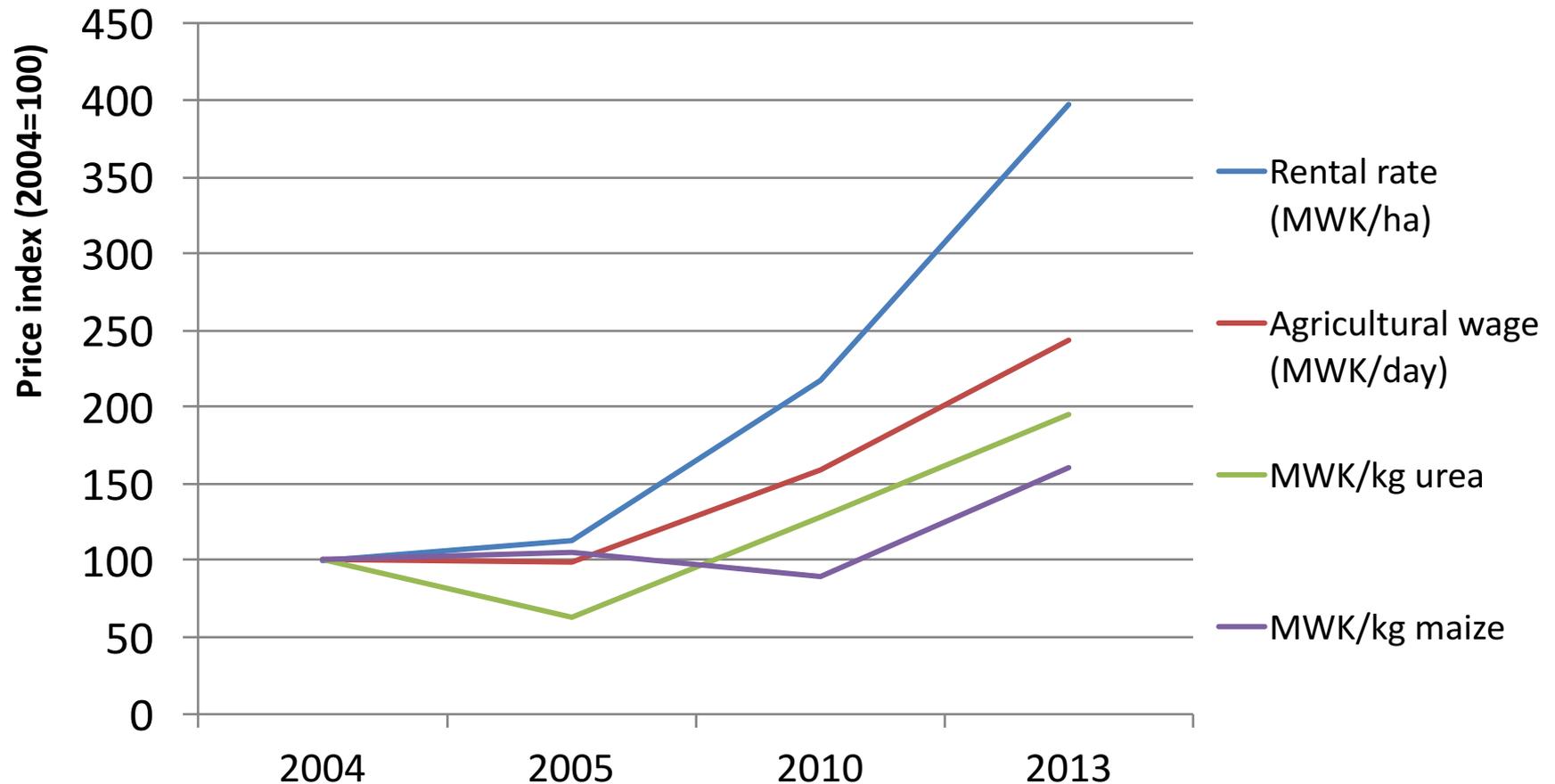
Output and factor price indices, northern Tanzania



Output and factor price indices, western Tanzania

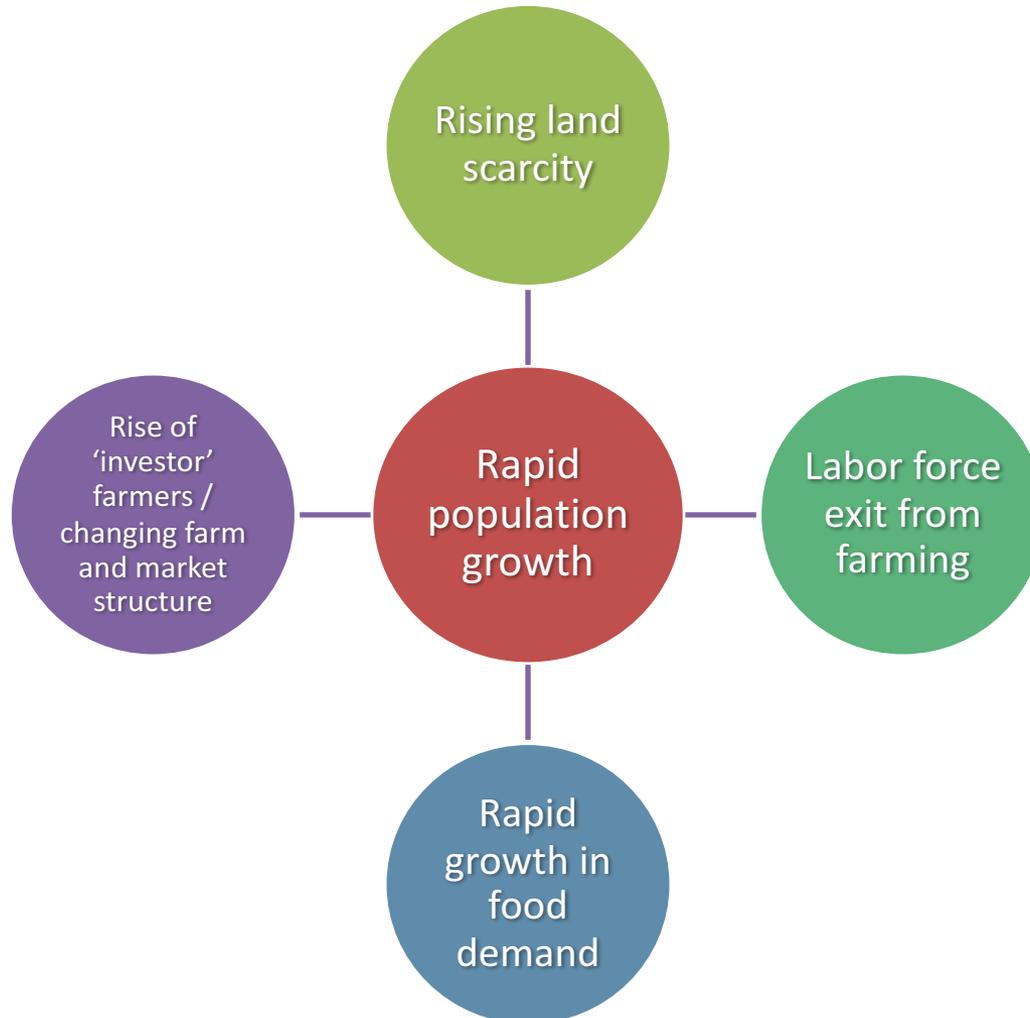


Output and factor price indices, rural Malawi, 2004-2013



Sources: IHS for land and wages; FEWSNET for urea and maize

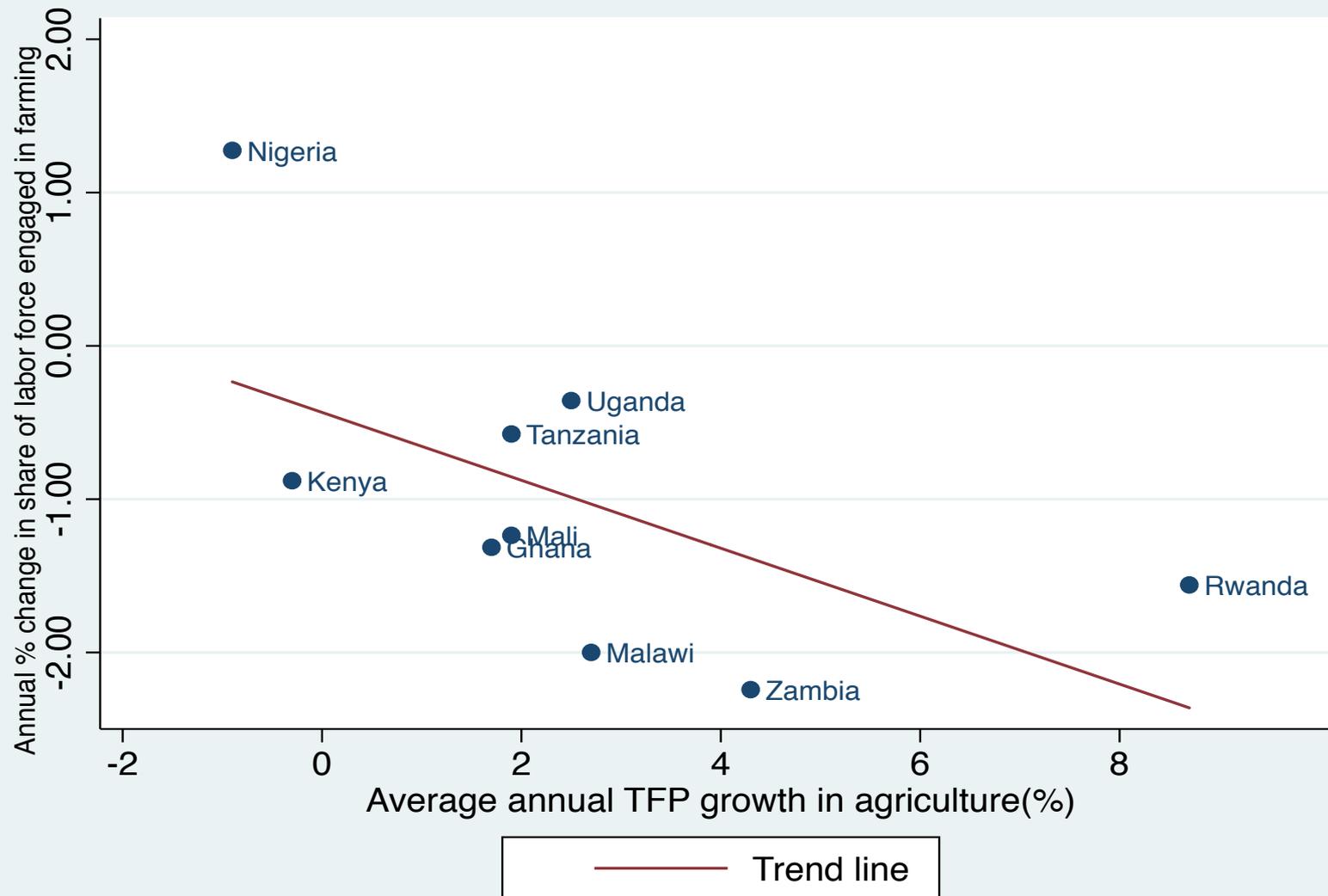
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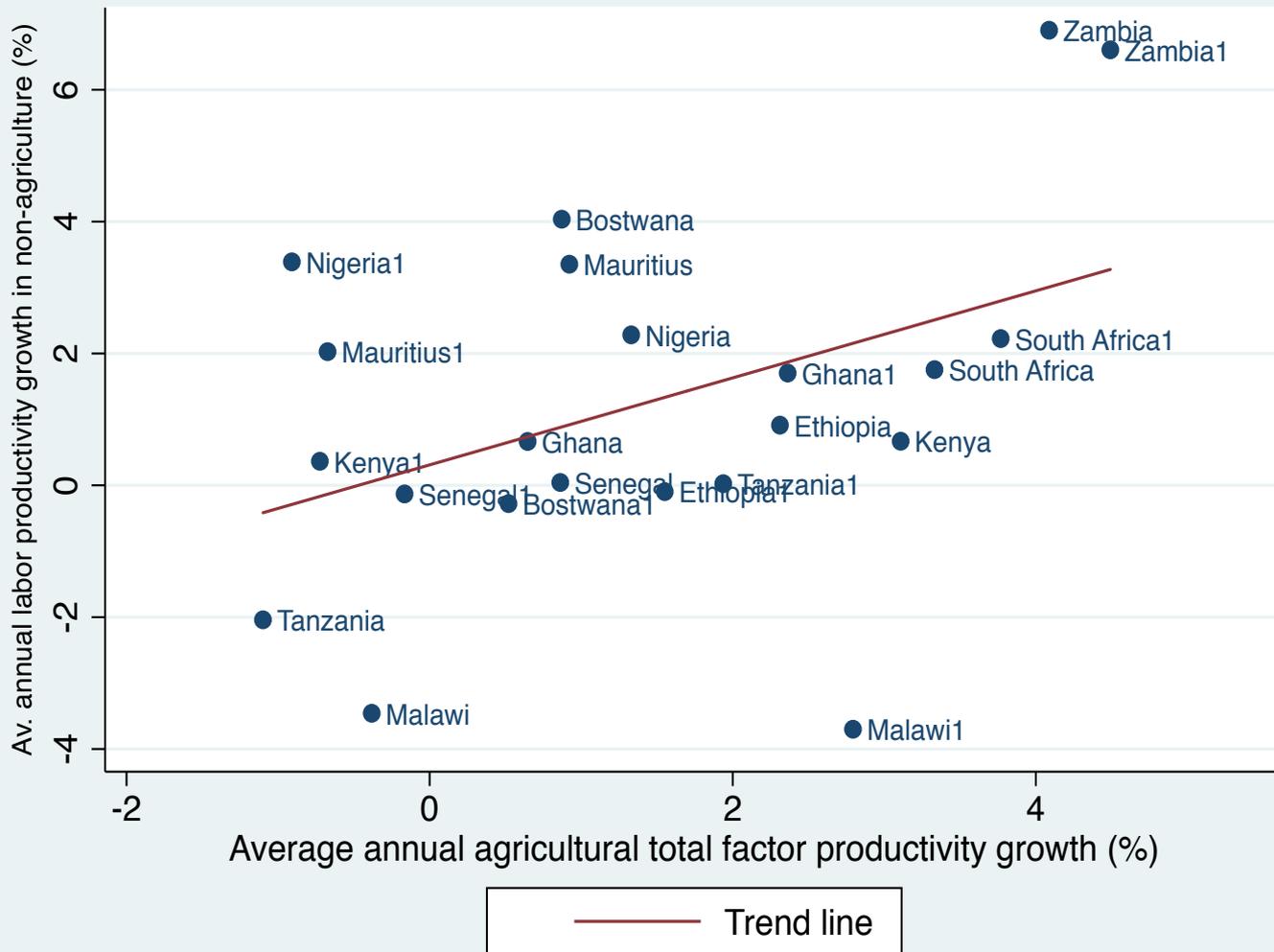
Conclusions

1. Performance of agriculture will continue to exert major influence on job growth and income growth in overall economy
2. Agricultural productivity growth will be the cornerstone of any comprehensive youth livelihoods strategy:
 - Ag productivity growth influences
 - pace of labor force exit out of farming
 - Labor productivity in broader economy

Share of labor force in farming is declining most rapidly where agricultural productivity growth is highest



Non-farm labor productivity growth linked to lagged agricultural productivity growth



Conclusions (cont.)

- ## 3. Important changes in the distribution of farm sizes
- Decline in share of farmland under 5 hectare farms
 - Rise of medium-scale farms
 - Rising inequality of farmland distribution
 - Growing land scarcity driven by middle/high income urban people seeking to acquire land – not just for farming
 - speculation, housing/properties, farming
 - Rise of new towns converting formerly remote land into valued property

Conclusions (cont.)

3. Ag sector policies must anticipate and respond to

- rising land prices, decline of inheritance, market as increasingly important mode of acquiring land
- Resources needed for youth to succeed in farming (access to land, finance)
- Distinguish between “trying to keep youth in agriculture” vs. “giving youth viable choices”

Bottom line conclusions

Economic transformation in SSA will require:

- Enlightened policies → evidence → research
- Strengthen educational system
- Strengthen African public institutions, including agricultural policy institutes
- Process matters

Governments hold the key!

Thank You

