

# Small Farmers and Changing Food Systems in Africa:

## Emerging Issues and Implications for Governments and Donors



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Impacts on Smallholder Agriculture  
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## Emerging debates / challenges

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1. Rising world food prices – biofuels and China
  - Supply response
2. Increasingly clear that meaningful ag. trade reform will be resisted
  - protectionism in DCs likely to continue
3. Increasing role of international food chains – supermarkets.....but
4. Public expenditures to agriculture (NEPAD-CAADP):
  - how much is enough / how should it be allocated?
5. Major debate with regard to what constitutes the right “enabling environment”
  - food price support/stabilization
  - input subsidies

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- Many of these emerging challenges can be informed by a solid empirical understanding of how rural economies work

## Organization of presentation:

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1. Six underappreciated facts about how agri-food systems in Africa are changing
2. Discuss their implications for agri-food development strategy

## Six underappreciated aspects of African agri-food systems:

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1. Farm sizes are declining → Huge land disparities → rural population is hardly growing → new demands on food marketing systems
2. Given plausible assumptions about productivity growth possibilities, grain productivity growth will be inadequate to kick-start growth in most of the region → diversification into higher-return activities will be crucial
3. Most farmers in the region are buyers of staple food → directly hurt by higher grain prices

## Six underappreciated aspects of African agri-food systems:

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4. Emerging structural food deficits in E / S Africa
5. Changing urban food consumption patterns
6. Supermarkets account for less than 4% of urban food expenditures in almost all African countries. Even with major growth in supermarket volume, investments in traditional marketing channels will remain much more important for small farmer and consumer welfare

# Fact #1

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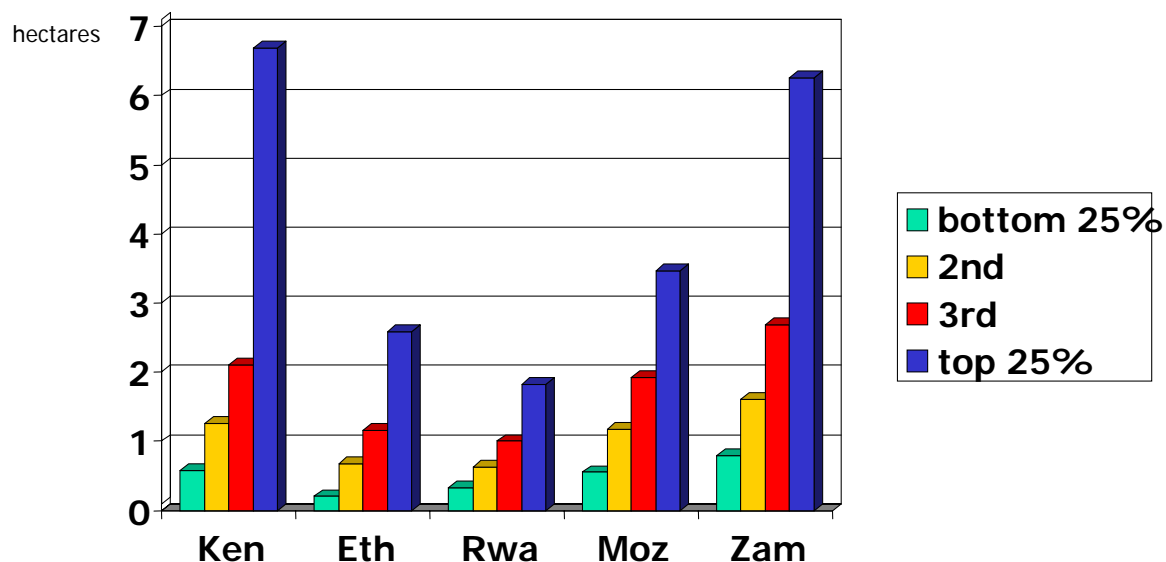
- Emerging land pressures are generating fundamental challenges for poverty reduction and investment strategies

## Cultivated land per agricultural person (hectares)

	1960-69	1970-79	1980-89	1990-99
<b>Ethiopia</b>	0.508	0.450	0.363	0.252
<b>Kenya</b>	0.459	0.350	0.280	0.229
<b>Mozambique</b>	0.389	0.367	0.298	0.249
<b>Rwanda</b>	0.215	0.211	0.197	0.161
<b>Zambia</b>	1.367	1.073	0.896	0.779
<b>Zimbabwe</b>	0.726	0.664	0.583	0.525

Source: FAOStat website: Source: FAO Stat database: [www.faostat.fao.org/](http://www.faostat.fao.org/)

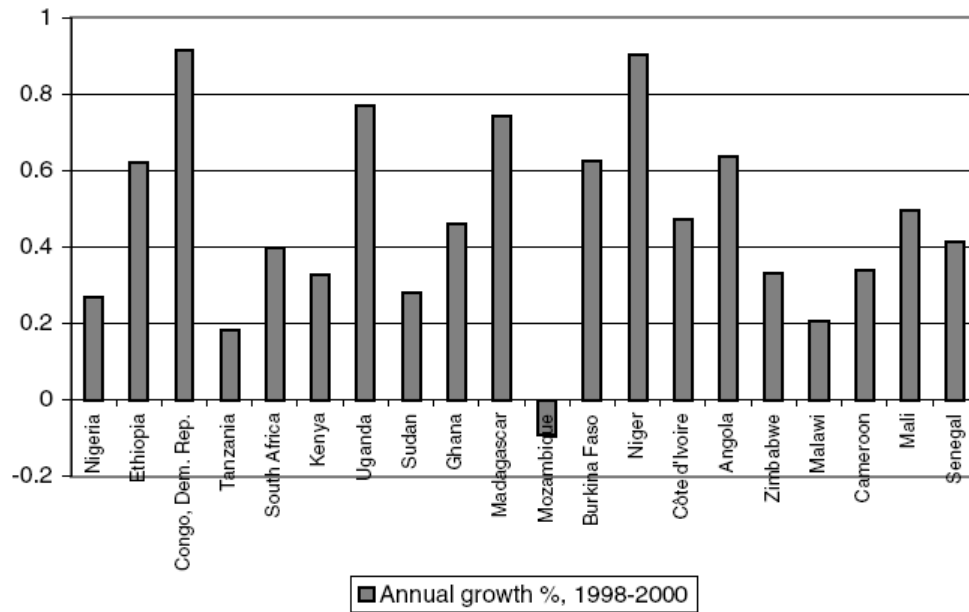
## Farm size distribution: Small farm sector



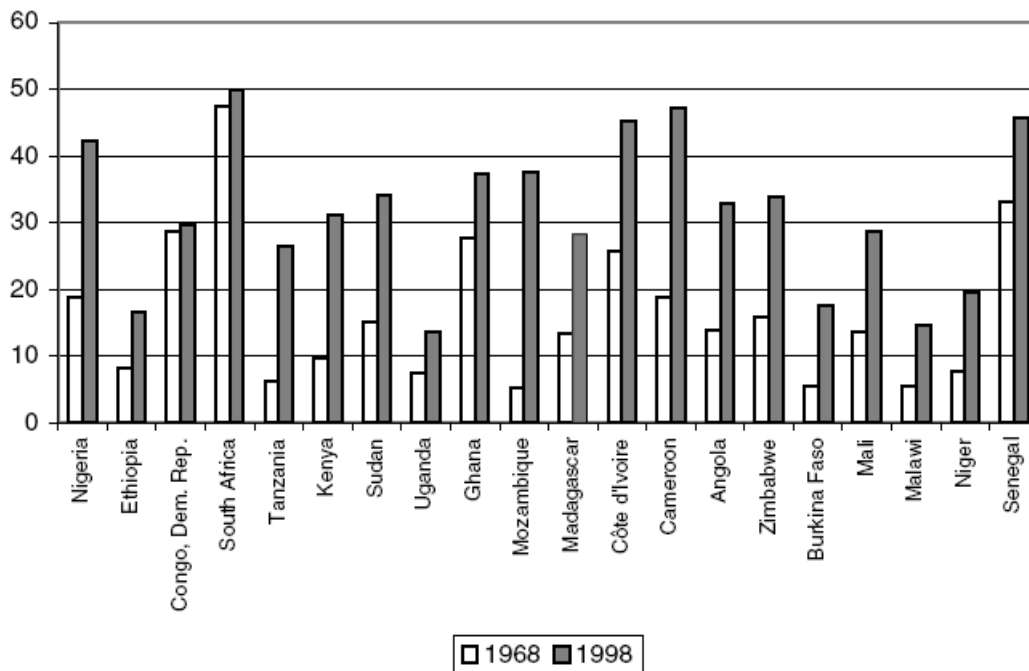
## Characteristics of smallholder farmers, Zambia 1999/00

	N=	Farm size (ha)	Asset values (US\$)	Gr. Rev., maize sales (US\$)	Gr. Rev., crop sales (US\$)	Total hh income (US\$)
Top 50% of maize sales	23,680 (2%)	6.0	1,558	690	823	2,282
Rest of maize sellers	234,988 (23%)	3.9	541	74	135	514
Households not selling maize	762,566 (75%)	2.8	373	0	36	291

## Rural population growth rates



## Share of Urban population in total population, 1968 and 1998



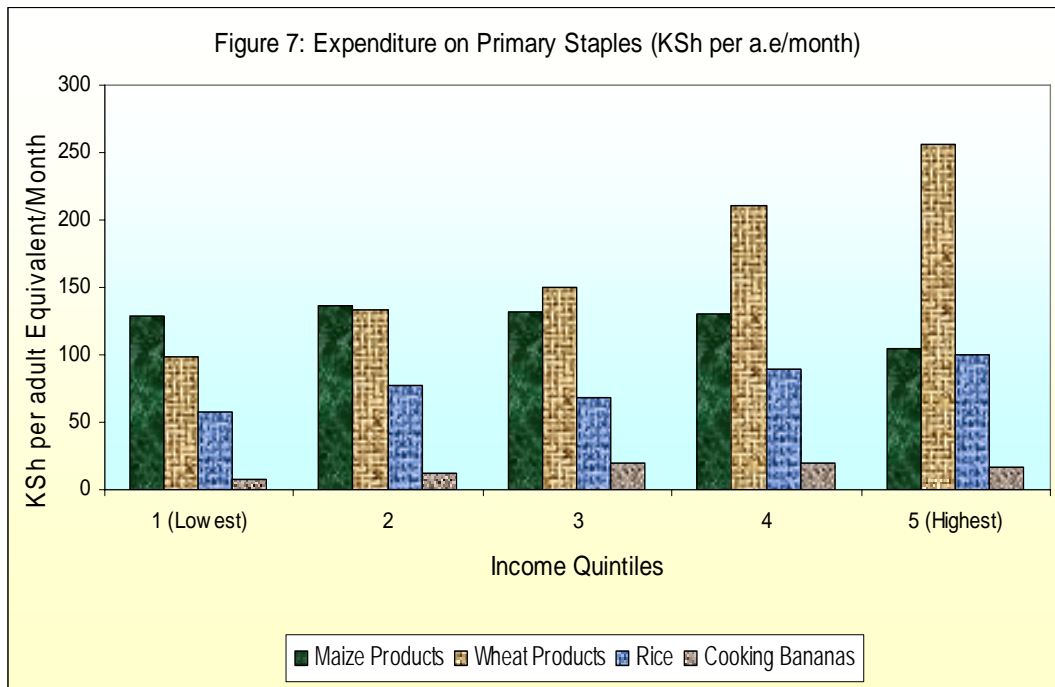
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- More than 50% of Africa's population will be urban by 2015.
    - 2000: 10 farm households feed 7 non-farm households
    - 2020: 10 farm households feed 16 non-farm households
  - Upshot: urban demand for food is rising rapidly

## Are imported wheat and rice crowding out domestically-produced grain?

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- 3.6% annual growth in cereal imports
- Of total grain imports by African countries, only 5% is produced by African farmers
- Growth in urban demand is being met mainly by imported rice and wheat

# Importance of Imported Staples in Nairobi Expenditure Patterns



## Fact #2

- Given plausible assumptions about new technology development, farm sizes are too small for grain-based productivity growth to lift most rural households out of poverty
- Hence, diversification into higher-return activities will be crucial
- This transition is already occurring



Role of maize in small farm incomes is declining (share of gross sales revenue)

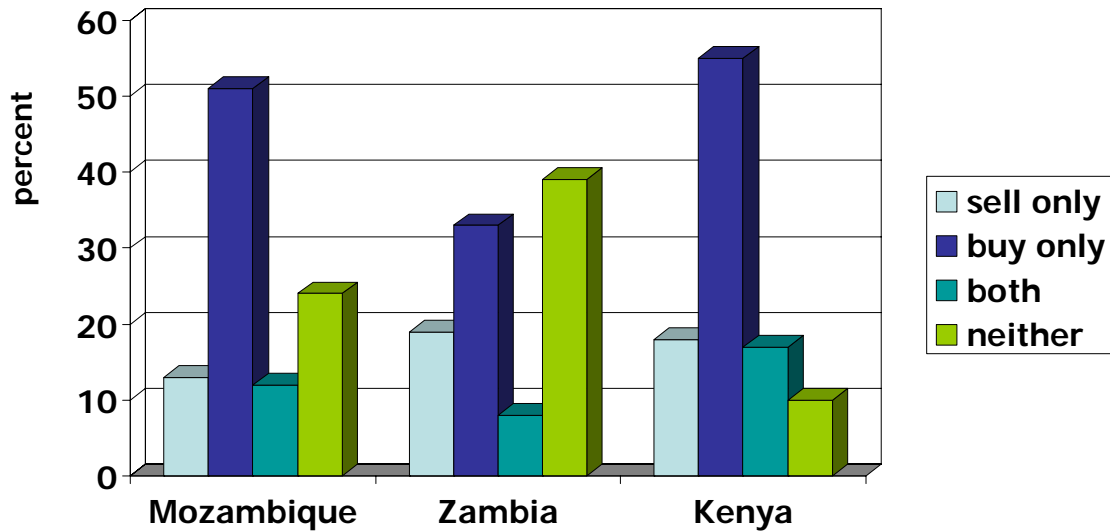
	Maize	Other grains/ beans/ oilseeds	Non-food cash crops	Fruits - veges	Animal products
Kenya	13.3	7.9	34.0	14.7	26.7
Malawi	32.3	11.8	44.9	na	na
Mozam	13.8	9.3	16.9	30.4	23.4
Zambia	28.2	7.7	16.7	27.5	14.7

### Fact #3

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- Most rural farm households are buyers of maize (or net buyers)

## Smallholder Households' Position in the Maize Market

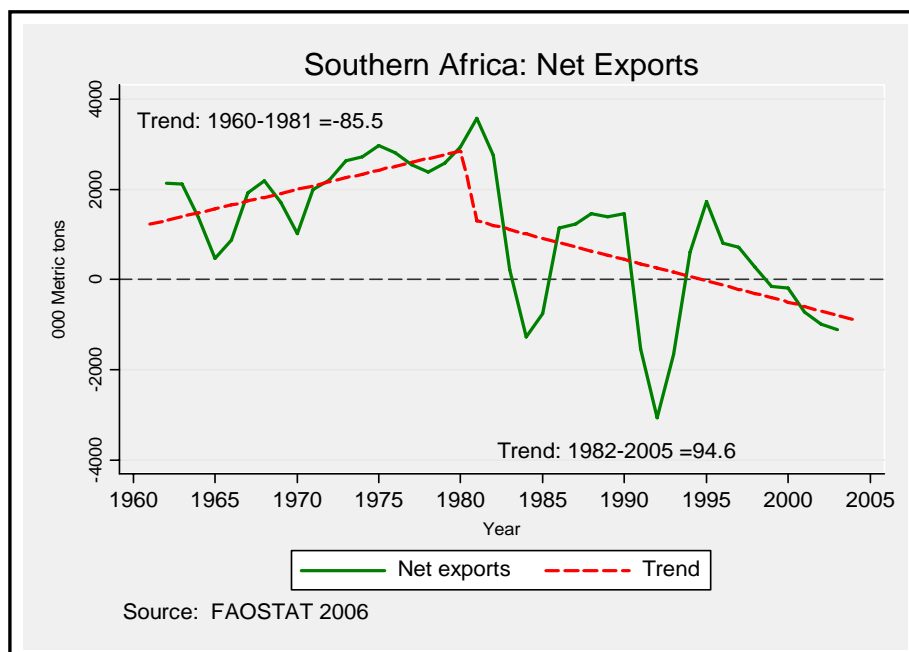
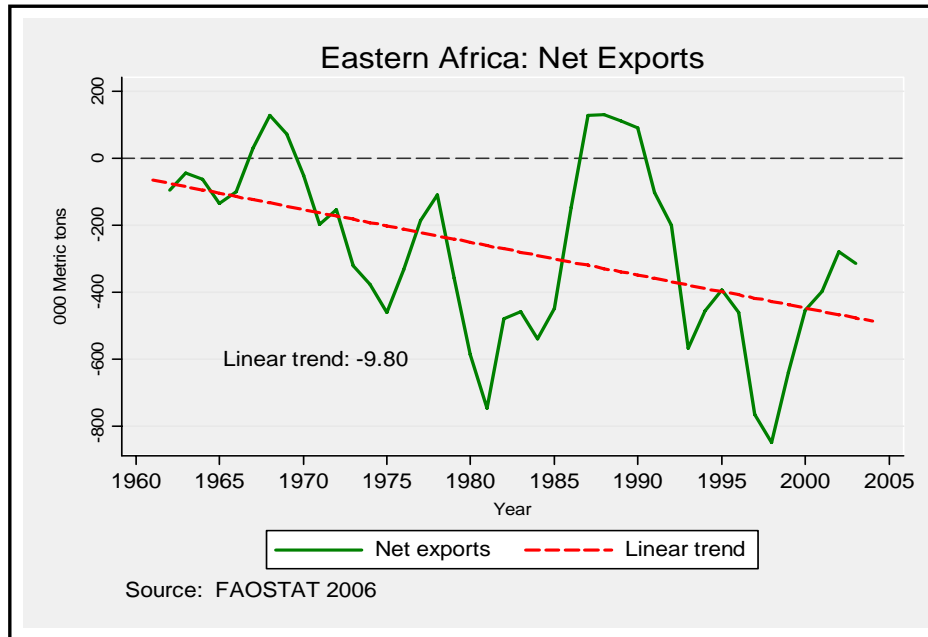


### Fact #4

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- Most rural farm households are buyers of maize (or net buyers)
- 2% of households account for 50% of marketed grain surplus
- Crop price supports:
  - highly concentrated benefits
  - anti-poor
  - Most likely impede small farm diversification into higher-valued activities

# Fact #5: Gradual transition to structural grain deficit



## Fact #6: Regional price surface trending toward import parity

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- Combined with higher world food prices, the trend toward structural deficit means that regional food prices are likely to rise
  - Maize wholesale price:
    - Nairobi (1995-2005): \$196/mt
    - Lusaka (1995-2005): \$174/mt

## Supply response

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- Structural food deficits → raising price surface toward import parity
- Higher world food prices appear likely
- Impact on consumers – clearly negative
- Will small farmers be able to respond to these price incentives?

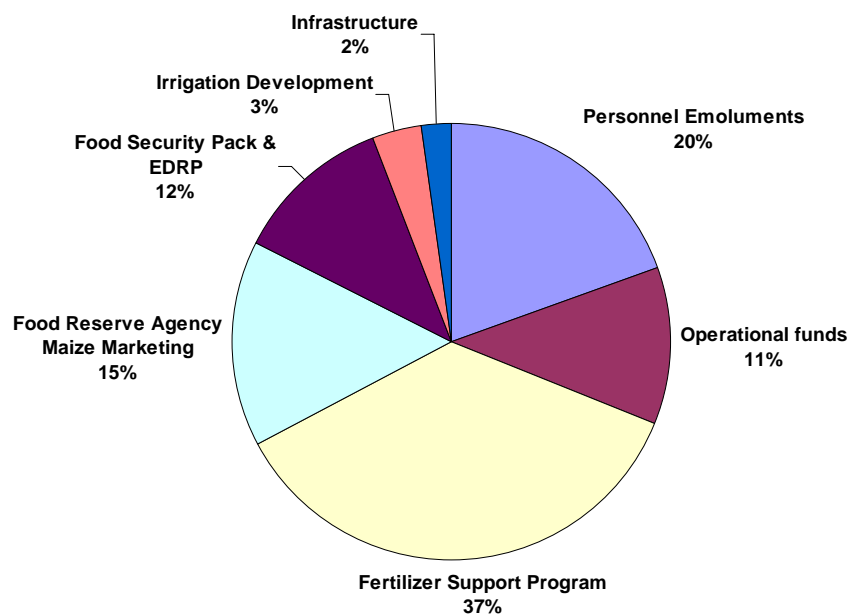
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- Keep in mind:
    - > 50% of rural farm households have < 1 hectare and are extremely poor
    - > 50% of rural farm households are net buyers of staple food
    - A small % will be able to respond to higher food prices
    - Most won't without sustained public goods investments

Much research evidence documents high returns to investment in

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1. R & D: (Alston, Grilliches, Mellor)
2. Education: turns information into knowledge (Johnston)
3. Extension systems: farm management (Evenson)
4. Infrastructure: road, rail, port, communications (Antle)
5. Investments in health and addressing HIV/AIDS (Binswanger)

## Budget allocation to Agricultural Sector in Zambia: ZMK465 million in 2005



Zambia	Total Income	Assets	Landholding size
	‘000 kwacha per capita		ha per capita
<b>Fertilizer source:</b>			
<i>Households not acquiring fertilizer:</i>	266	173	.15
<i>Cash purchases from private retailers:</i>	774	342	.20
<i>Government Fertilizer Support Program (50% subsidy)</i>	804	425	.23

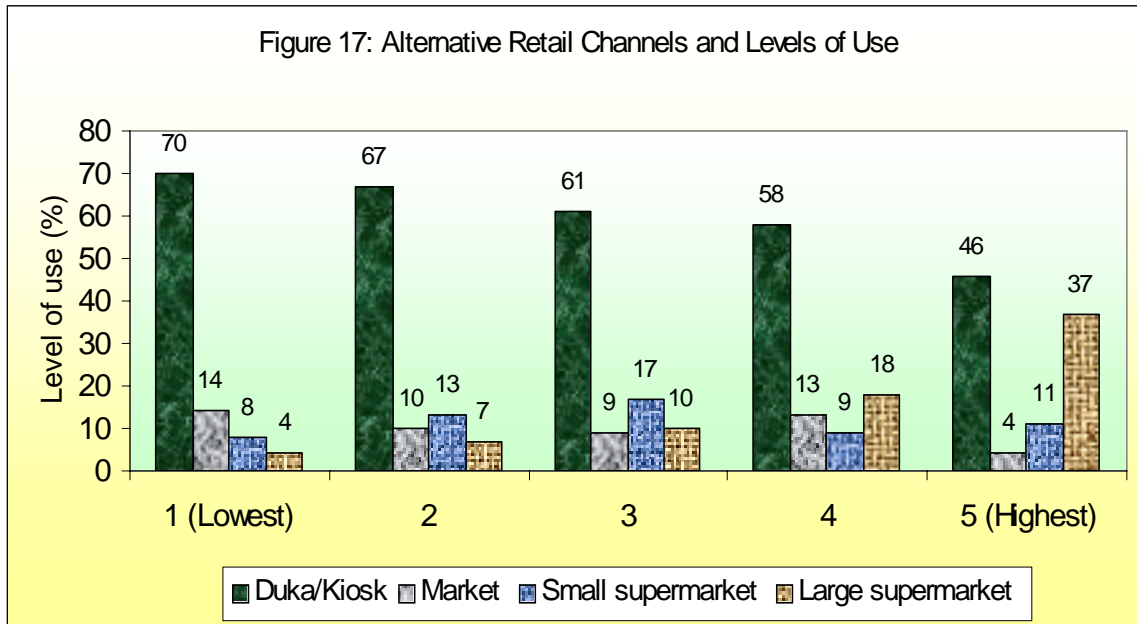
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- ❑ Spending 70% of agricultural budget on input/output subsidies is most likely a regressive mis-use of budget resources with questionable long-term payoffs
  - ❑ Opportunity costs

## Fact #7

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- The performance of “traditional” food systems will remain a much more important determinant of farmer welfare and consumer food security than “supermarkets”
- Hence, focus investment priorities on improving the performance of traditional food marketing systems
  - linking traditional with new agribusiness systems

## Retail sources of consumer staple food expenditures, Nairobi



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- Even with 20% annual growth of supermarkets, in relatively progressive Kenya, in 10 years, the supermarket share will be:

12.4% market share in 2016.



## Recap: 6 underappreciated aspects about African agriculture:

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1. Farm sizes are declining → emerging land pressures
2. Major growth in urban food demand, but consumption patterns are shifting toward crops that most African smallholders don't produce
3. Meeting the demand will require greater competitiveness / productivity in smallholder ag.
4. Most farmers in the region are buyers of staple food → directly hurt by higher grain prices
5. Emerging structural food deficits in E / S Africa
6. The traditional marketing channels hold the key to smallholder livelihoods – supermarkets often overstated

## Major Policy Challenge:

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1. How best to encourage governments to reallocate public budgets toward crucial investments with long-term payoffs instead of investments with short-term payoffs with limited impact on L.T. development?
2. Invest in strengthening traditional marketing channels – reducing production and marketing costs
3. Public goods investments: crop science, extension, infrastructure.

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- Lobby forcefully for more level playing field in international trade
    - OECD support for Africa: \$50 bill./yr
    - OECD ag. subsidies: \$350 bill./yr
    - Reassess developed country policy of dumping free food in Africa under guise of “food for development”



thank you