

# Strategy Options for the Maize and Fertilizer Sectors of Eastern and Southern Africa




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Presentation at DFID/London

London, UK

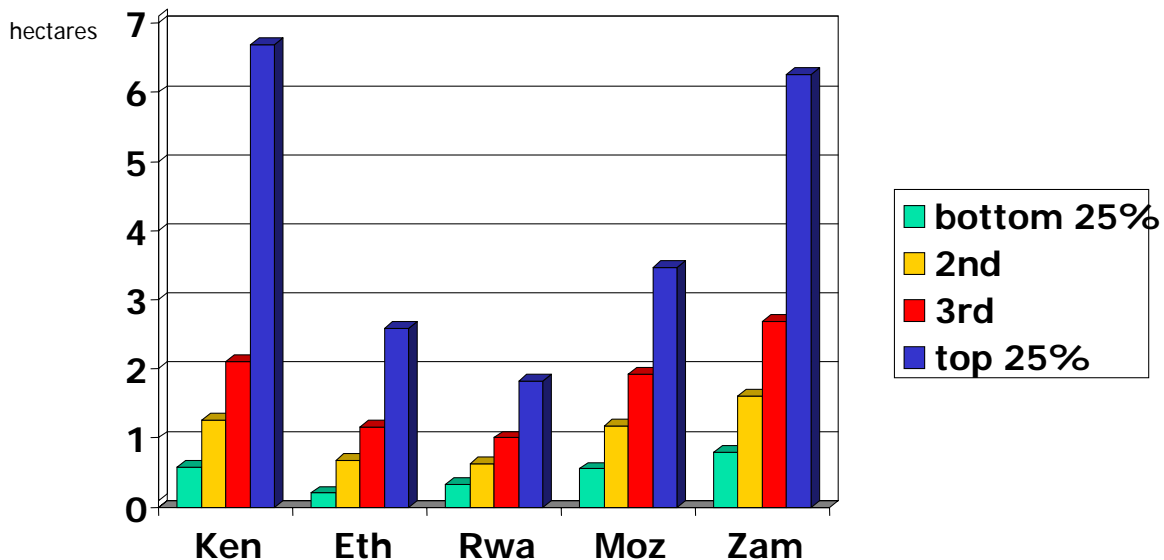
July 1, 2005

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- General consensus
    - Need for “big push” agricultural strategy to stimulate economic growth in Africa
    - Current trends are pointing to demise of the smallholder farm sector unless change in commitment
  - Major debate over how to do it, particularly with regard to
    - Food price support/stabilization
    - Input subsidies

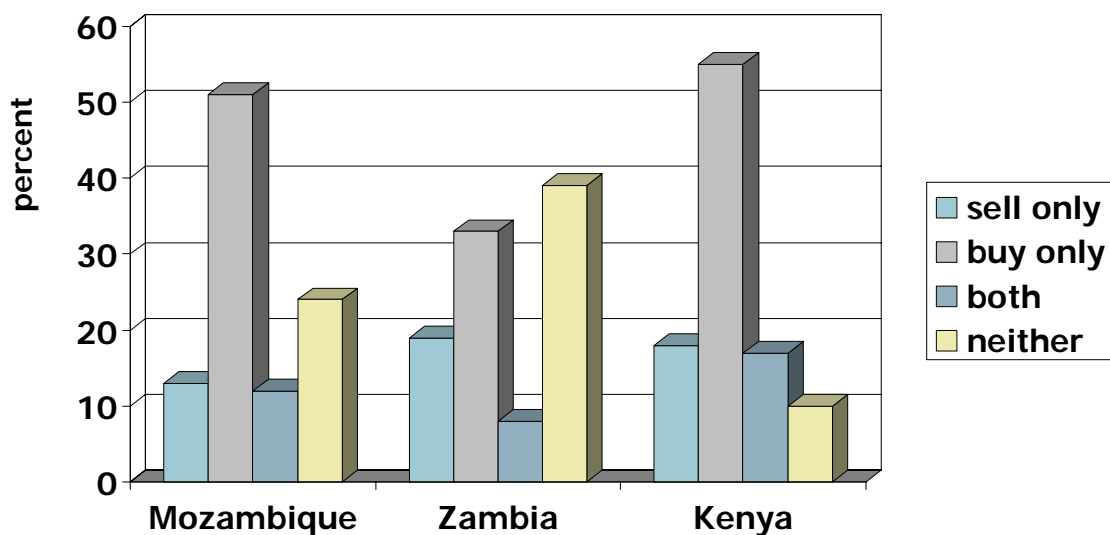
## Format:

1. "Empirical regularities" of small farm agriculture in Africa
2. Discuss pros and cons of contentious policy issues
3. Review performance – ag. stagnation
4. Clarify the policy environment having generated poor ag. performance
5. Conclusions and policy directions

## Farm Size Distribution: Smallholder Sector only



## Smallholder Households' Position in the Maize Market



## 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	6.0	1,558	690	823	2,282
Rest of maize sellers	234,988	3.9	541	74	135	514
Households not selling maize	762,566	2.8	373	0	36	291



## 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	2.3	4.8	88.9	na	na
Mozam	13.8	9.3	16.9	30.4	23.4
Zambia	28.2	7.7	16.7	27.5	14.7



## Conclusions thus far:

- Great rural differentiation
- Land allocation highly concentrated
- 2% of households account for 50% of marketed grain surplus
- Crop price supports:
  - highly concentrated benefits
  - anti-poor?



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## Strategies for the maize and fertilizer sectors:

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- Strategies for which there is widespread agreement:
  - invest in crop science and technology
  - Extension / farm management
  - Rural infrastructure
  - Education
  - HIV/AIDS
  - Governance
  - Safety nets for vulnerable consumers



## Strategies for the maize and fertilizer sectors:

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- Strategies for which there is controversy:
  - Commodity price stabilization / price supports
  - Input subsidies

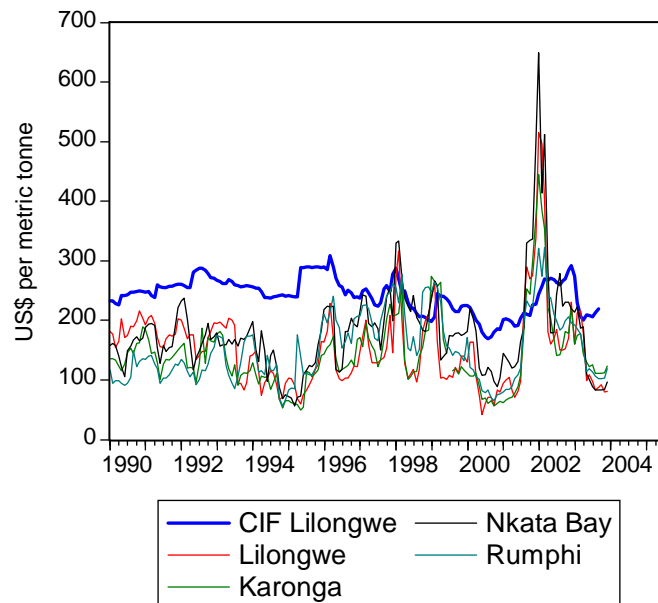


## Commodity Price Supports

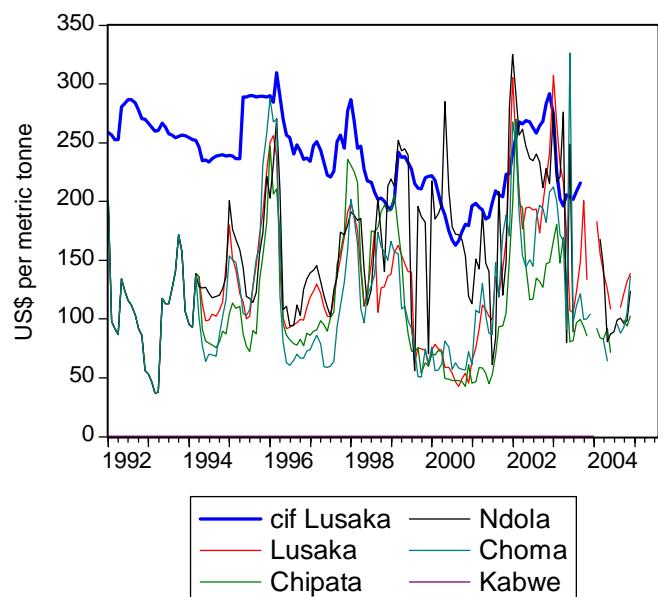
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- Arguments for:
  - Market failures – private sector is weak
  - During years of good harvests, small farmers need price supports to maintain incentives to producer
  - High prices exacerbate hunger and possibly political unrest
  - Large price fluctuations between import parity and export parity prices

## Domestic Prices Reaching Import Parity More Frequently: Malawi



## Domestic Prices Reaching Import Parity More Frequently: Zambia



# Commodity price stabilization/subsidy

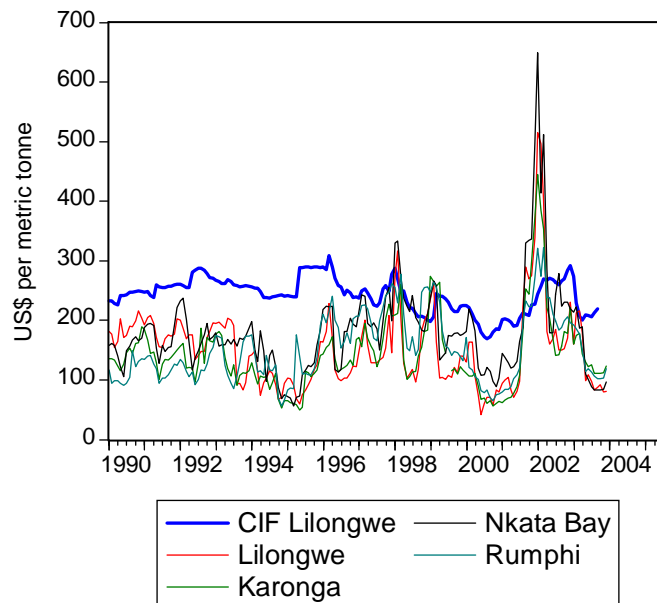
- Arguments against:
  - Revenue stability or price stability?
  - Only 20% of farmers sell grain – most farmers don't face export parity prices
  - Benefits proportional to landholding size
  - Regressive?
    - In Zimbabwe prior to market reform, 4% of smallholder farmers derived 50% of all govt expenditures on maize pricing policies
  - Very costly – 5% of GDP in Kenya, Zimbabwe
  - Hinders development of private trade
    - example from Uganda-Kenya, 2004/05; Malawi 2001/02

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## Domestic Prices Reaching Import Parity More Frequently: Malawi



## Fertilizer/credit subsidies:

- Arguments for:
  - Input market failures → small farmers are denied access
  - Gives producers incentives to intensify food production
  - Instrumental part of “green revolutions” in Asia
  - Productivity growth nurtures structural transformation processes



## Fertilizer/credit subsidies:

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- Arguments against:
  - What does “market failure” mean?
    - Underlying cause of low use:
      - Lack of credit or low profitability of input use?
  - Benefits tend to be disproportionately captured by better-off farmers, unless near universal coverage
  - Costly – foregone payoffs from alternative public investments
  - Inhibits development of private sector capacity
    - Example from Zambia, 2001, 2002, 2003



## IFPRI study findings:

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- Fertilizer subsidies could be justified on either efficiency or equity grounds in principle, but not in practice, given their poor performance.
- “If a fertilizer subsidy program is to be economically justifiable, it should be designed (1) to preserve a competitive fertilizer marketing program, and/or (2) to provide benefits to poor farmers in a cost-effective way. It is not clear that either goal is feasible” (Kherallah et al, 2002; IFPRI study)



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	State-led	Market-led
Successful “GR”	India, Pakistan E. / S. Africa (pre-1990)	
Unsuccessful		E. / S. Africa (post 1990)



	State-led	Market-led
Successful "GR"	India Pakistan	
Unsuccessful	E. / S. Africa (post-1990)	



- Market performance in much of E. / S. Africa since 1990 has not been impressive
- What has been the food and input marketing policy environment since 1990?



## Marketing Boards' share of estimated maize surplus:

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- NCPB (Kenya):
  - 40% (1990-2003)
  - 26% (1995-2003)
- ADMARC (Malawi):
  - 15% (1995–2003) – not including sales from imported stocks
- FRA (Zambia):
  - 34% (1997-2003) - mostly from sales of imported stocks




## Major features of policy environment in E. / S. Africa

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- Marketing boards continue to play strong role in food markets
- Discretionary approach to
  - export bans
  - import tariffs
  - state importation/stock release
  - internal levies
- Large-scale input subsidies in Malawi and Zambia

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- “Empirical assessments of these countries since 1990s reflects not the impact of unfettered market forces but rather the mixed policy environment of legalized private trade within the context of continuing strong govt. operations in food markets” (Jayne et al., 2005).

**Table 2. Cereal Production Trends in Kenya, Malawi, Zambia, Zimbabwe, and Sub-Saharan Africa overall, 1985 to 2004.**



	Sub-Saharan Africa	Kenya	Malawi	Zambia	Zimbabwe
Production indices (1985 = 100)					
1985	100	100	100	100	100
1986	106	115	96	110	90
1987	101	98	88	97	44
1988	119	113	105	172	92
1989	119	110	112	165	75
1990	112	93	99	103	76
1991	122	95	119	104	61
1992	117	97	47	53	13
1993	124	86	153	149	73
1994	129	126	78	102	80
1995	131	113	126	75	27
1996	146	94	139	134	91
1997	139	93	97	99	82
1998	146	102	136	70	55
1999	147	96	189	88	59
2000	140	89	187	91	73
2001	147	113	126	66	55
2002	145	97	124	65	22
2003	161	95	155	114	30
2004	159	95	131	114	35



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## The Challenge: How to promote labor productivity of small farms?

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$$\frac{Y}{L} = \frac{A}{L} * \frac{Y}{A}$$

- Y = value of output
- A = area cultivated
- L = labor in agriculture



## Policy Implications: Where from here?

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- Policy focus on:
  - Public goods support for market development –
    - R & D, extension, rural infrastructure, etc.
    - currently very low
    - To what extent are “market failures” a reflection of “public goods failures”?



## Policy response (cont.)

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- Lobby forcefully for more level playing field in international trade
  - OECD support for African ag: \$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”





# Getting Markets Right: What does this mean?

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- Not getting government out of markets
- Changing the *role* of government from direct intervention to supportive investments to make markets work
  - Public goods investment
  - Support development of farmer organizations
  - Create “stable” policy environment: uncertainty over import tariffs, export bans
  - Commodity risk management tools (e.g. warehouse receipt systems)
  - Is market liberalization complete? Wrong question



## Last point:

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- Must deal realistically with political economy issues
- “In theory, there is no difference between theory and practice, but in practice, of course, there is”

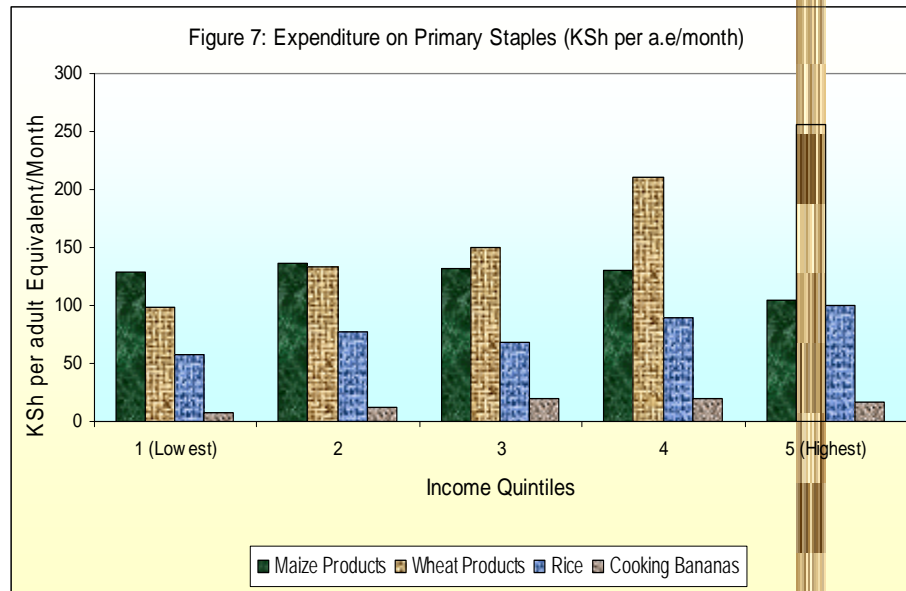


## Emerging consumption trends

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- Urban population growth:
  - 50% of Africa will be urban by 2020
  - → rapid growth in staple demand
- Major staple in many urban areas:  
WHEAT, RICE, not maize

# Nairobi staple expenditure patterns



## Emerging consumption trends

- Urban population growth:
  - 50% of Africa will be urban by 2020
  - → rapid growth in staple demand
- Major staple in many urban areas: WHEAT, RICE, not maize
  - largest part of demand growth for staples will not be for domestic staples
- Challenge: how to fuel demand for domestic staples when intl supplies are increasingly substituting for domestic crops