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Trends in maize grain and flour prices: Implications for food security

Githuku James

Cost of maize production across different systems and regions in Kenya: implications for food security and pricing

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Introduction

- Perfect markets would transfer the cost savings by producers to the consumers
- Most small scale farmers (producers of about 75% maize) are net buyers of maize (Tegemeo Panel Survey).
- Kenyan maize market liberalized, government intervenes in both input and output markets mostly via NCPB
- Interventions make Kenyan maize expensive
    - Producers, uncompetitive in the regional market
    - Consumers, food becomes expensive
- Expect millers to source maize from markets offering more margins
    - Kenyan maize is most expensive within the EAC (Kamau et al, 2013)

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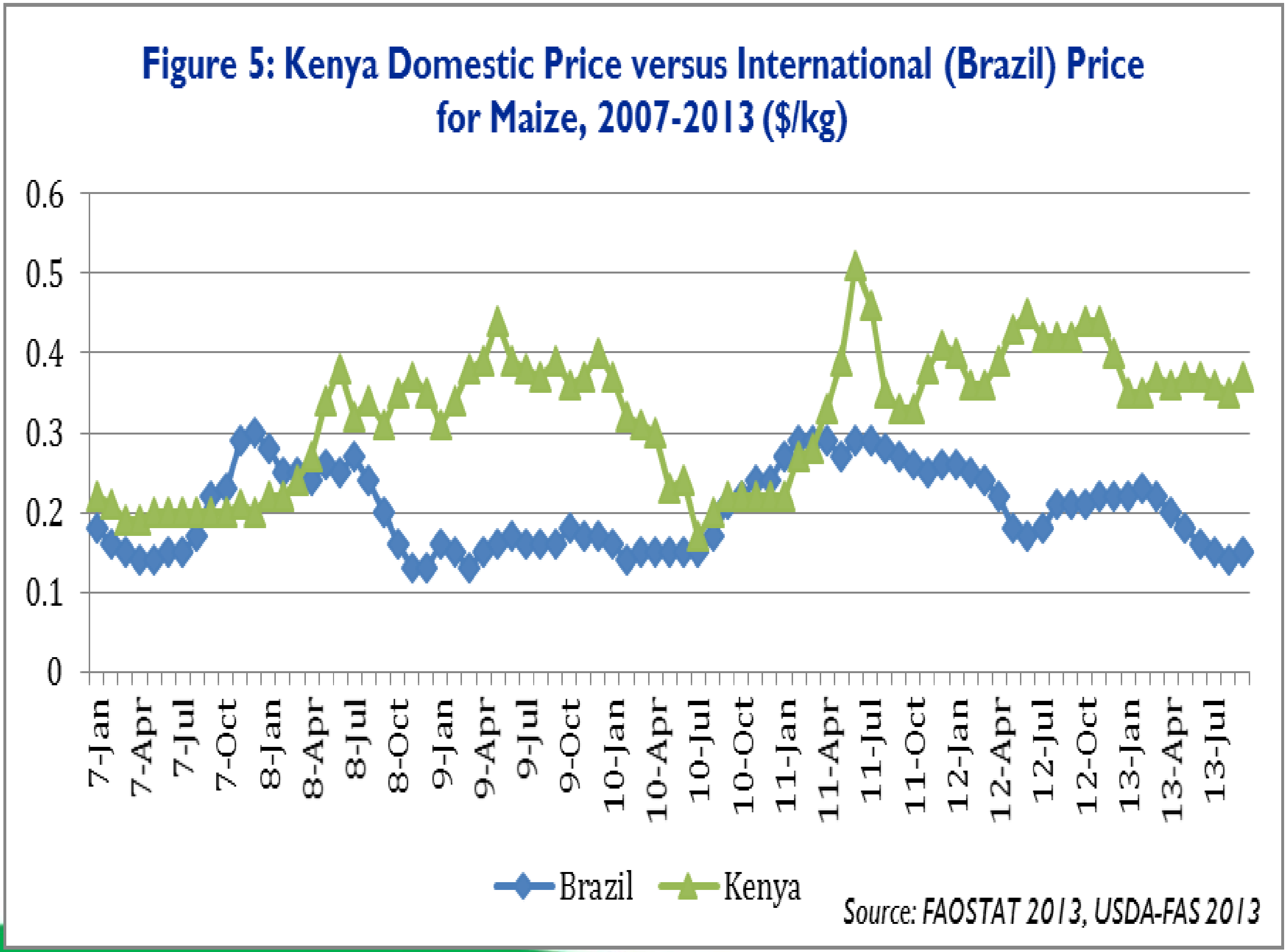
Kenya Maize Prices Against International (Brazil) Prices



Source: KAVES 2014

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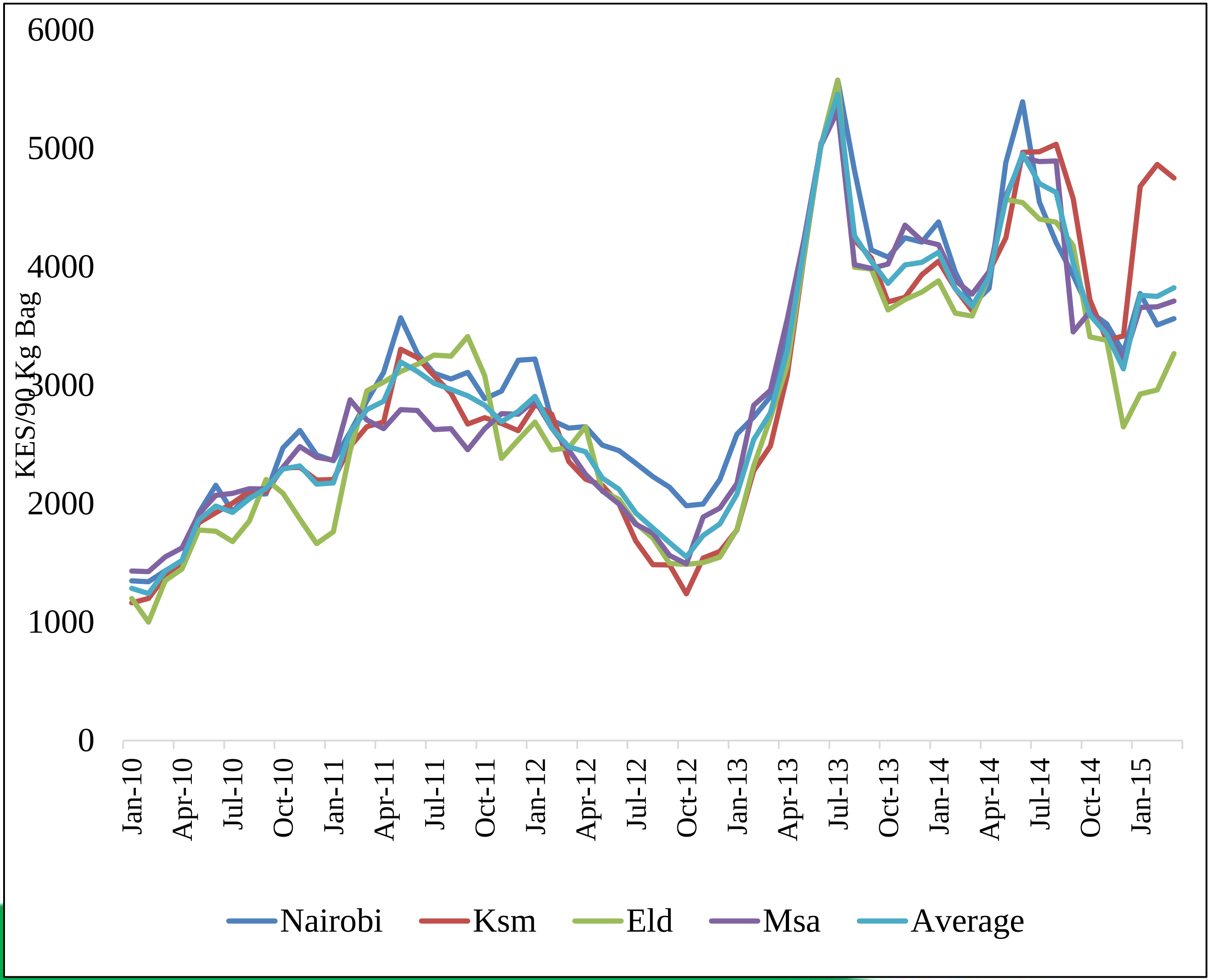
Whole Sale Maize Prices in Selected Markets (2010-2015)



Source: MIB-MoA

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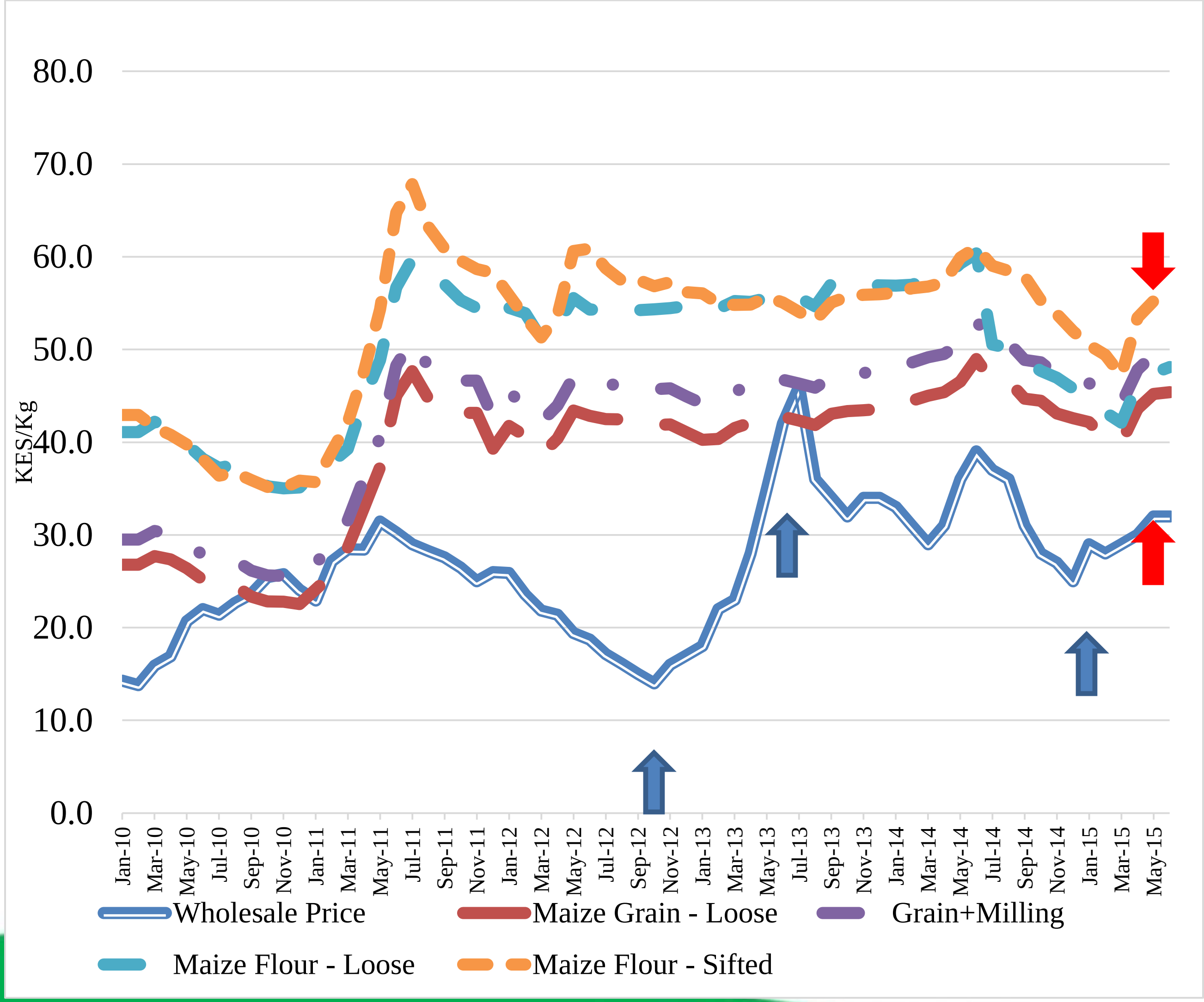
Maize Grain & Flour Prices (Nominal KES/Kg) 2010-2015



Source: KNBS, MIB-MoA

Milling Costs (Generic) and Potential Margins

				TMC:CG Ratio		Nairobi WS	Kitale WS	Busia WS
Cost of grain (KES)				1.25		2,860	2,500	2,600
Other Costs (20%)						715	625	650
Total Cost Per 90kg Bag						3,575.0	3,125.0	3,250.0
	Share	Qty (Kgs)	W/sale KES/Kg	Revenue in KES	Margin (KES)	Margins (%)		
Grain	1	90.0	33	2,970	110	70.0	270.0	120.0
Transport						40	200	250
Mill								
Flour	0.80	72.0	45.0	3,240				
Bran	0.11	9.9	15.0	149				
Germ	0.09	8.1	15.0	122				
Margin						(65)	385	260
		90		3,510		(1.8)	12.3	8.0

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Milling Sector

- Maize millers shift the burden of grain price increases to consumers
  - Cost of maize grain constitutes at least 80 percent of total cost of milling maize (CMA Chair, Diamond Lalji as quoted in the Business Daily February 8, 2015)
  - Price of maize grain and flour generally move together and maintain a nearly constant price margin, (Kamau et al, 2012).
- Extraction rates range between 70 to 85 percent for Grade 1, up to 95 percent for Grade 2, (KAVES' survey, 2014). Variation may be due to differences in machinery efficiency.
- Medium- and large-scale mills account for 90 to 95 percent of the total installed milling capacity estimated at 1.4 million MT per year.
  - The large millers are members of the cereal millers association (CMA), while the small- and medium- scale millers belong to United Grain Millers and Farmers Association (UGMFA)

Production of Major Food Crops 2012-2014

Crop	*2012 (Baseline)*	*2013*	*2014*	*Net Change (%)*
Maize	41,665,332	39,918,751	39,035,228	-7
Beans	7,162,192	9,036,206	8,009,609	**8**
Wheat	4,910,492	4,996,012	3,651,528	**-35**
Sorghum	1,851,411	1,744,707	1,867,466	**0.5**
Millet	787,331	680,118	792,600	**-2**
Irish Potatoes *(tons)*	1,470,562	1,565,054	1,575,982	7
Rice *(tons)*	140,565	137,236	146,477	**4**
Cassava *(tons)*	935,617	939,026	888,619	**-5**

Source: Validated Crop Production Data MOAL&F, March 2015

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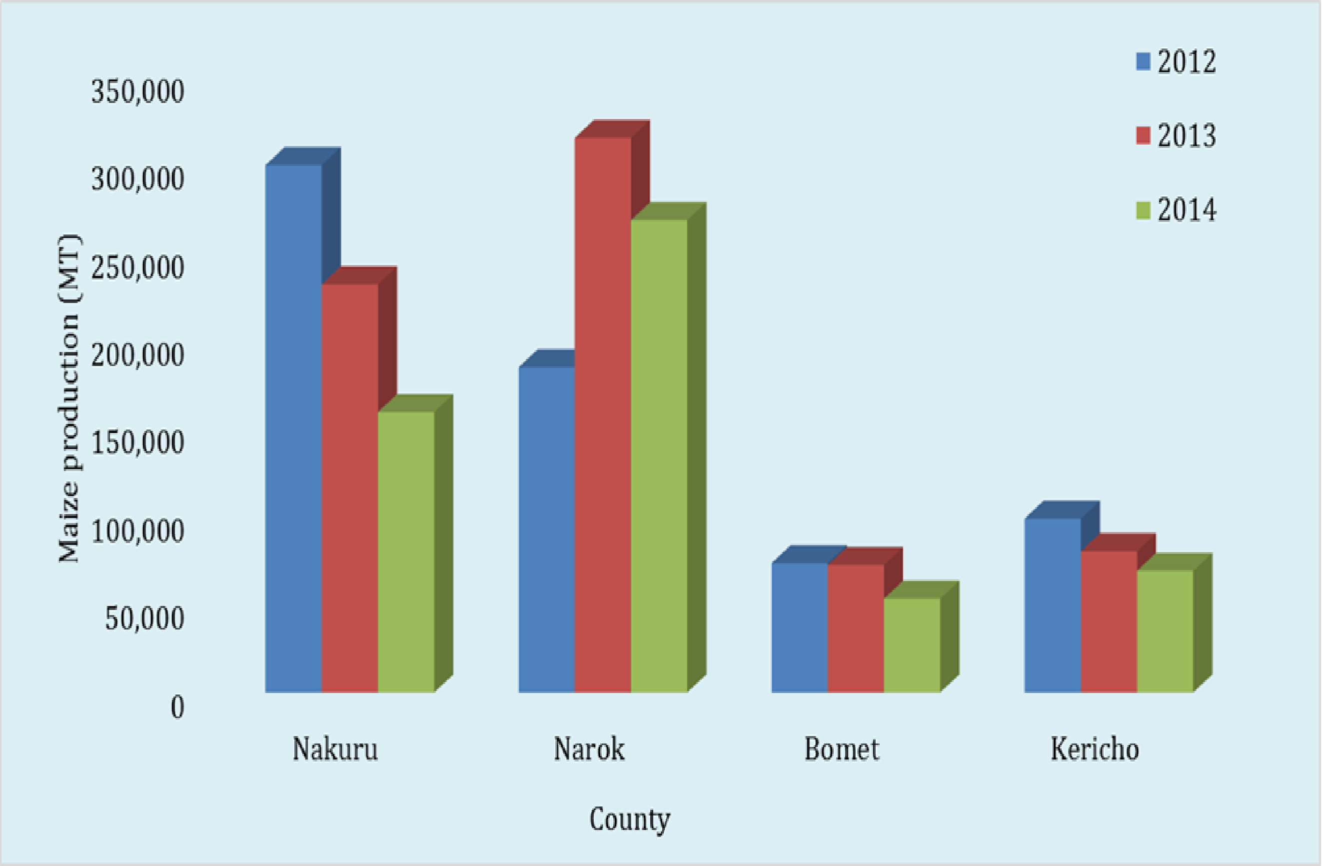
Maize production in the South and Central Rift- (MLND)



Source: Validated Crop Production Data MoAL&F, March 2015

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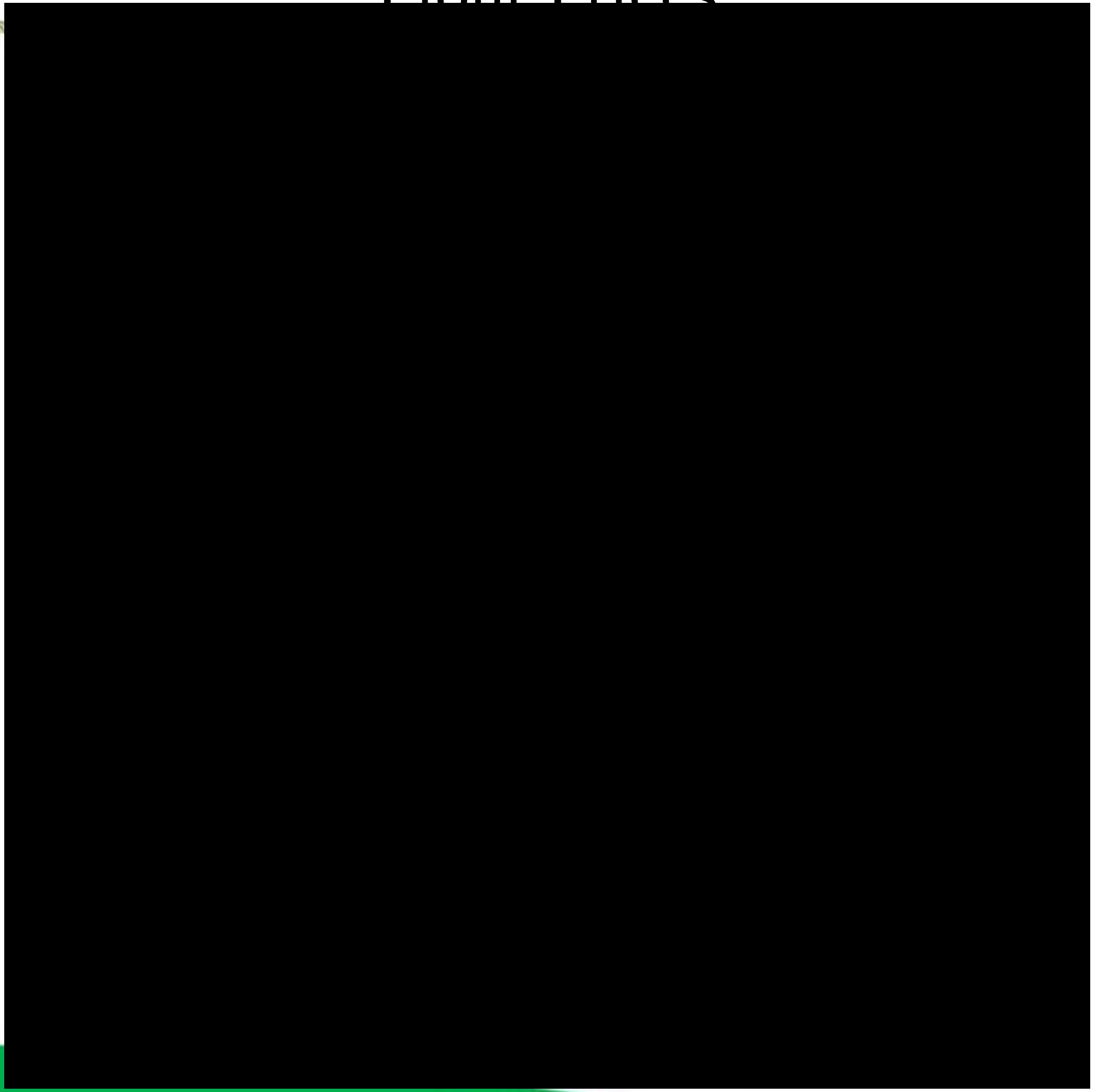
Maize Balance Sheet 31st May-30th Sept 2015

Stocks as at 31 May 2015 in 90kg bags	**7,194,991**
a) Total East Africa Imports* (Private sector cross border trade) expected between June to Sept 2015	1,000,000
b) Imports outside EAC between June to Sept 2015	0
c) Estimated harvests between June to Sept 2015	**13,000,000**
Total available stocks to Sept 2015	**21,194,991**
Post –harvest storage losses estimated at 10%	1,300,000
Amount used for manufacture of feeds and other industrial products (2% of stocks)	423,900
Amount used as seed (1%)	211,950
Expected total exports to East Africa Community region	0
Expected exports outside the EAC region	0
Projected national availability as at 30th Sept 2015	**19,259,141**
CONSUMPTION @3.34 million bags/Month for 43 million people for 4 months	12,420,000
Balance as at 30th Sept 2015 (Surplus/Deficit)	6,839,141
Surplus	***6,839,141***

Source: MoAL&F, National Food Security Report, May, 2015

Low Income Consumers Views on Maize Flour Prices



Conclusion

- Retail maize and maize flour prices move together, trends not in tandem with the wholesale prices
- From 2014 the consumer prices for maize and flour mirror the wholesale prices, what has changed?
  - Improvements in cross borders trade with the EAC customs protocol?
  - Declining demand for maize and maize meal with growing middle class (Kamau et al 2012)?
  - Interventions to lower milling costs
- Local markets well integrated in terms of wholesale maize prices
- Kenyan maize is uncompetitive in the regional market, government interventions are counter productive for both consumers and producers
- The performance of the July September harvest needs close monitoring to respond early
- County balance sheets need close monitoring, move SGR early to deficit

Broader Issues

1. **Other ways of reducing cost of maize production in Kenya?**
   - Varies across regions and scale
   - No clear economies of scale
2. **Viability of maize production**
   - Need to diversify into other crops
   - Comparative advantage
3. **Fertilizer Subsidy Programme**
   - ***Design issues***
     - Accessibility
     - Packaging (Less than 50kg)
     - Distortion of the market (NCPB achieve less that 10% against the 40% market requirement)

- ***Intended goal***
  - *Affordability of fertilizer?*
  - *Reducing the cost of production and increasing yields?*
  - *Has the price of maize/food reduced?*
- ***Inconsistent policies***
  - Input subsidy to lower cost of production and lower maize prices
  - Producer support leading to higher maize prices for consumers (Why not let market forces determine the prices)

4. Maize Price Support

- Undue advantage to some farmers

5. Potential for irrigation

- Government aims at putting 0.5 million acres under irrigation to get 40 million bags (more than the national requirement) within a year
- What is the future of the smallholder farmers?.
- Viability of irrigation?

6. Maize Lethal Necrosis Disease (MLND)

- Its 5 years and MLND has not been controlled.

7. In practice, prevailing maize prices requires a real balancing act between:

- Production and consumption
- Demand and supply
- Producers and consumers

- Although, this is a million dollar question which some writers call the Food Price Dilemma, it nevertheless requires, sober, prudent and cautious management of domestic policies by government and other stakeholders.

- Thankyou …