Regional Food Staples Market Development

Steven Haggblade
Michigan State University
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Africa’s hunger hot spots are well known.
Africa’s unenviable reputation as:

• Chronically food insecure
• Dependent on massive inflows of food aid

Today, Africa spends $19 billion per year on food imports
Attracts the majority of worldwide emergency food aid.

Less well-known are
Africa’s highly productive, regularly surplus food production zones
COMESA
Alliance for Commodity Trade in Eastern and Southern Africa (ACETA)

• Expand regional trade in *food staples* to link surplus and deficit zones
Dried Cassava Trade Flows
(for snack foods, flour, feeds and industrial processing)

Dried cassava transiting the Chembe border post
Two keys for linking surplus and deficit food staple zones

- Cross-border trade in food staples
- Consumer substitution among food staples
Where are Africa’s surplus food staple production zones?

- Areas of favorable rainfall or economical irrigation
- Multiple-staple zones
  - cassava & maize (N. Zambia)
  - banana, cassava & maize (Uganda)
  - Irish potato, cassava & maize (Mozambique)
  - cassava, rice, maize (S. Tanzania)

Perennial food staples: cassava, banana

- Can be harvested any time of year
- Over multiple years
- Drought resistant
- Dual staple zones allow farmers to expand cassava/banana production for local consumption and export maize to deficit zones in times of stress
Cassava is drought-resistant. Maize, in contrast, is highly susceptible to moisture. Given dependence on rainfed crop production, maize output proves extremely volatile, as a function of the rains.
Northern Zambia, a dual-staple zone

<table>
<thead>
<tr>
<th>('000 tons of maize equivalents)</th>
<th>Cassava belt</th>
<th>Maize belt</th>
<th>All Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassava</td>
<td>270</td>
<td>12</td>
<td>282</td>
</tr>
<tr>
<td>Maize</td>
<td><strong>376</strong></td>
<td>525</td>
<td>901</td>
</tr>
<tr>
<td>Cassava plus maize</td>
<td>646</td>
<td>537</td>
<td>1,183</td>
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Note the large volume of maize consumed in the cassava belt. Since households in this region consume both cassava and maize, they are willing and able to substitute one for the other when scarcity prevails.
Mozambique’s dual staple food zones

Density of Food Staple Production in Mozambique

Number of households

Hectarage planted

1 Dot = 5,000
- Cassava-growing households
- Maize-growing households

1 Dot = 5,000
- Cassava hectares
- Maize hectares
Cassava production

Maize production
Dual staple zones

- Linking surplus (FSEHS) zones with deficit zones
  - Improves food security in deficit zones
  - Reduces price volatility
  - Improves producer incentives in surplus zones
  - Accelerates agricultural growth
Despite regional trade agreements, many governments restrict cross-border trade in food staples

- Malawi and Zambia (strict controls)
- Kenya (progressively lifted restrictions)
- Mozambique, S.Africa and Mali (open border policy)
Trade policy impact on maize prices in Zambia

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<tr>
<th>Maize harvest</th>
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<td>Bumper harvest (30% above normal)</td>
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Source: Dorosh, Dradri and Haggblade (2007)
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Source: Dorosh, Dradri and Haggblade (2007)
Maize and cassava sell side-by-side

Open borders plus consumer substitution among food staples

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<td>Maize price</td>
<td>+163%</td>
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<tr>
<td>Poor household consumption</td>
<td>(‘000 tons of maize-equivalents)</td>
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<tr>
<td>Maize</td>
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<td>Cassava</td>
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Column 1 shows the importance of consumer substitution of cassava for maize (this occurs primarily in the cassava belt). A simplied food balance sheet approach to the drought would estimate a 100,000 ton maize shortfall. Government and donors would import too much maize.

Column 2 shows the benefits of consumer substitution and cross-border trade. Together, these two private sector responses would mitigate two-thirds of the maize shortfall facing vulnerable households.

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- Expand regional trade in food staples to link surplus and deficit zones
- Increase farm incomes through commercialization of food staples
- Spur industrial processing of food staples
Regional trade

Farm commercialization
Industrial processing