Regional Trade in Food Staples:
Stimulating Agricultural Growth and Improving Food
Security in Eastern and Southern Africa

Steven Haggblade
Michigan State University
*Presented to USAID Washington*
January 13, 2009
Outline

• Importance of food staples
• Regional trade in food staples
• Secondary food staples
• Policy implications
## Value of Agricultural Production in Sub-Saharan Africa, 2000

<table>
<thead>
<tr>
<th>Value ($US billions)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag. Exports</td>
<td>$17</td>
</tr>
<tr>
<td><strong>Domestic staples</strong></td>
<td>$50</td>
</tr>
<tr>
<td>Other</td>
<td>$2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$68</td>
</tr>
</tbody>
</table>

Source: Diao and Hazell (2004)

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### Growing markets for food staples

Urban population will double in next 15 years → growing demand for purchased and prepared foods

Early stages of economic growth → changing diets, rising dairy and meat consumption → surge in staple food demand (directly, indirectly)

Rural specialization → growing rural food markets
Dried cassava exiting Zambia for the DRC

Food Staple Markets

• Big
• Growing
• Important to the rural and urban poor

➔ Agricultural growth
➔ Poverty reduction
➔ Improved food security
Outline

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Deficit markets
Surplus food production zones

Mozambique
Surplus Zones and Deficit Markets in ESA

**Surplus Zones**
- Northern Mozambique
- Southern Tanzania
- Eastern Uganda
- South Africa

**Deficit Markets They Serve**
- Malawi
- Malawi, DRC
- Kenya
- Zimbabwe, S. Mozambique, Malawi
Maize Market Sheds in ESA

[Map of maize market sheds in ESA with labels for East Africa, South East Africa, Southern Mozambique, and major and minor flow indicators.]
Southern Mozambique Maize Market Shed

Dried Cassava Trade Flows
The Curse of the Nation State

- Africa’s political boundaries cut across natural market sheds.
- COMESA and other RECs enable cost savings by facilitating low-cost cross-border flows.

Trade moderates price volatility
Trade moderates price volatility

Demand

Price

Quantity

Closed border
Trade moderates price volatility

South Africa, domestic and border prices for white maize, 1992-2006
Rice Prices and Quantity of Private Rice Imports in Bangladesh, 1993-2000

Source: Dorosh (2001).

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Malawi, domestic and border prices for white maize, 2000-2006

Wholesale price (US$ per ton)

- Import Parity Northern Mozambique
- Export Parity, Northern Mozambique
- Southern Malawi

Malawi, domestic and border prices for white maize, 2000-2006

Wholesale price (US$ per ton)

- Import Parity Northern Mozambique
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- Southern Malawi
Lusaka, domestic and border prices for white maize, 1994-2006
When does import parity fail to cap price rises?

• When import and export bans prevent trade
• Foreign exchange unavailable
• Government protects farmers
• Late decision making and import authorization
• Uncertainty over government action
• When traders fear subsidized government sales will
Import parity caps price rises

- When borders remain open
- Foreign exchange is available
- Under stable, predictable government policies

South Africa, domestic and border prices for white maize, 1992-2006
Regional trade in food staples

- **Deficit Zones**
  - Reduces price volatility
  - Improves food security

- **Surplus Zones**
  - Improves producer incentives
  - Accelerates agricultural growth

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- Policy implications
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 production for local consumption and export maize to deficit zones in times of stress
Cassava production

Maize production
Dual staple zones

Regional Food Staple Zones

Percent of HH Growing Cassava & Maize
- Cassava Mixed (C > 75%, M 25%-50%)
- Dual Mixed (C > 50%, M > 50%)
- Maize Mixed (C 25%-50%, M > 50%)
- Maize Belt (C < 25%, M > 75%)

Dual staple zones

Regional Food Staple Zones

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Northern Zambia, a dual-staple zone

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<th>('000 tons of maize equivalents)</th>
<th>Dual staple zone</th>
<th>Maize belt</th>
<th>All Zambia</th>
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<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>
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<tr>
<td>Cassava plus maize</td>
<td>646</td>
<td>537</td>
<td>1,183</td>
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Maize and cassava sell side-by-side in the dual-staple zones
Two food security shock absorbers

- Regional trade
- Substitution among food staples

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<td>-50%</td>
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Source: Dorosh, Dradri and Haggblade (2007)
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open border moderates price increases (by capping price increases at import parity) during a drought and also limits price fall during a bumper year (by allowing exports to cushion the price fall).
Open borders plus consumer substitution among food staples

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<td>Poor household consumption (‘000 tons of maize-equivalents)</td>
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Policy Implications

- Open borders
- Secondary food staples
- Trust

Open borders

- Stabilize prices
- Moderate consumption pressure,
- improve investment incentives for farmers and traders in surplus zones
Trade bans

• Drive trade into informal channels
• Raise transaction costs
• Increase bands between import and export parity
• Discourage investment in staple food production and trade

Secondary staples

• Stabilize food availability during drought years
• Substitute for maize in livestock feeds, starch and sweeteners
• Require public investments in research
Trust

- Stable, predictable policies
- Open dialogue and communications
- Competitive markets (predictable policies, finance, good infrastructure)
- Good crop forecasting and market information systems