Regional Dimensions of Effective Food Security Strategies in Africa

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Regional Dimensions of Food Security

1. Mapping regional market sheds
2. Food availability
3. Food access (purchasing power of the poor)
4. Conclusions

Africa’s major food-deficit markets are well-known.
Less well-known are Africa’s highly productive, regularly surplus food production zones.

Connecting the two is critical:

- To improving food availability in the deficit zones
- To maintaining incentives for farmers and traders to invest in the surplus zones
Connecting the two often requires cross-border trade

For Example
### Surplus Zones and Deficit Markets in ESA

<table>
<thead>
<tr>
<th>Surplus Zones</th>
<th>Deficit Markets They Serve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Mozambique</td>
<td>Malawi</td>
</tr>
<tr>
<td>Southern Tanzania</td>
<td>Malawi, DRC</td>
</tr>
<tr>
<td>Eastern Uganda</td>
<td>Kenya</td>
</tr>
<tr>
<td>South Africa</td>
<td>Zimbabwe, S. Mozambique, Malawi</td>
</tr>
<tr>
<td>Southern Mali</td>
<td>Niger, coastal W. Af.</td>
</tr>
</tbody>
</table>
Connecting surplus and deficit zones often requires cross-border trade.

Maize Market Sheds in ESA
Population

Cross-border proximity of ▲ and □
Regional Dimensions of Food Security

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   • production
   • trade
   • prices
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Production

- Farmers need to invest in high-potential bread basket zones
- Need access to cross-border deficit markets
- Trade bans
  - → price collapses
  - → farmers disincentives

Surplus millet and sorghum production in West Africa
Surplus millet and sorghum production in West Africa

Deficit markets

- Consumers need food surpluses from breadbasket zones
- Traders need access to supplies in breadbasket zones
Surplus millet and sorghum markets in West Africa

Surplus millet and sorghum market flows in West Africa
Beef market flows in West Africa

Price volatility

- Closed borders accentuate price volatility
  double cereal production $\rightarrow$ 40% price fall
  farm incomes fall
- Open borders
  double cereal production $\rightarrow$ 10% price fall
  farm incomes rise
Open borders moderate price volatility

South Africa: white maize prices

Open borders moderate price volatility

Nairobi: white maize prices
Open borders moderate price volatility

Bangladesh: rice imports from India

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   • agricultural productivity gains
   • nonfarm income
   • regional infrastructure
4. Conclusions

Source: Dorosh (2001).
Agricultural productivity spillovers

- Eastern and Central Africa
  - spillovers = 25% to 75% of total benefits

- Mali cotton
  - 5/6 releases from outside Mali
Agricultural productivity spillovers

- Eastern and Central Africa
  - spillovers = 25% to 75% of total benefits
- Mali cotton
  - 5/6 releases from outside Mali
- Worldwide
  - research spillovers account for majority of benefits

Nonfarm income

- Small individual country markets
- Economies of scale in production
- 30% of Africa’s population in land-locked countries
- Cross-border markets critical to nonfarm business efficiency
Regional infrastructure

- Transport costs
  - 50% reduction → 8% increase in agricultural incomes, 20% increase in intra-regional trade

- Electric power
  - huge EOS in power generation
  - 20 countries under 200 MW: cost = $0.40/kwh
  - large scale generation cuts cost to $0.13/kwh
  - 2 countries 60% of Africa’s hydro potential
    → regional trade in power is critical to competitive energy costs
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Regional dimensions of food security are critical

Boosting food supplies
• Improving farmer incentives in high-potential zones
• Improving market efficiency
• Ensuring food supplies in deficit markets

Boosting purchasing power of the poor
• Increasing technology spillovers
• Accelerating agricultural income growth
• Increasing real incomes of the poor
• Lowering food prices
• Reducing price volatility
Regional approach to African food security

• Necessary
• Efficient
• Requires donor support
• Requires support to RECs

• Disconnected, individual, country-level efforts won’t reduce hunger as effectively