THE ROLE OF STRATEGIC FOOD RESERVES IN ENHANCING FOOD SECURITY IN DEVELOPING COUNTRIES: THE CASE OF ZAMBIA

By
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Workshop
“Which role for food reserves in enhancing food security in developing countries?”
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June 22-24, 2016
About Zambia

- Zambia is a landlocked country, covering an area of 752,620 square kilometres (sq km)
- Population 15.5 million of which 58.2% live in the rural areas with agriculture as their mainstay for survival.
- Stubbornly high levels of rural poverty
- Maize is the single most important crop
  - 90% production by smallholders
  - Provides about 60% of the country’s caloric requirements (LCMS, 2015; Mason and Myers, 2011).
- Maize centric polices
- Zambia is land linked
Maize production, domestic supply, consumption requirements and food balance trends, 2000-2015

Ministry of Agriculture Crop Forecast Surveys, Various years
Maize-led Agricultural economy

Food Staple Zones
- Blue: cassava belt, cassava > 75% area
- Green: dual staple, cassava & maize 25-75%
- Yellow: maize belt, maize > 75% area

Surplus Maize – Central and South
Surplus Cassava – North
Market Failure
OR
Government Failure
National food production shortfall anticipated

Who’s going to import? And how much?

Government announces plan to import X tons

Private traders sit on sidelines

State incurs delays in contracting for imports

Supplies dwindle; prices skyrocket

“EVIDENCE THAT MARKETS FAIL!”

Zambia - 2001/02, 2002/03
Zambia: 2005/06

National food production shortfall anticipated

Trader arranges to import; asks for waiver on import duty

Government delays in waiving import duty rate

Supplies dwindle; prices skyrocket

"EVIDENCE THAT MARKETS FAIL!"

Private sector delays importation; intrigue over timing of waiver
National food production / balance sheets indicate adequate harvest → Import licenses applied for but not granted → Prices rise as actual supplies dwindle → Supplies dwindle; prices skyrocket → “EVIDENCE THAT MARKETS FAIL!” → Charges of hoarding and trader manipulation of market
Price Stabilization and Food Security Objectives

- **Food Reserve Agency**: buys grain from farmers, arranges grains imports and stock releases at subsidized prices.

- **Provision of subsidized inputs (mainly fertilizer and maize seed)** to smallholder farmers to increase production.

- **Transfer programme involving the provision of assistance to vulnerable households**
  - *food security pack (maize seed and fertilizer for a quarter of a hectare)*
  - *social cash transfer through the Ministry of Community Development, Mother and Child Health (MCDMCH)*.
3 Competing models of roles of government and private sector in food markets

**Model 1**
- Rely on markets
- Government role limited to:
  - Public goods investment
  - Regulatory framework
  - Strengthening of institutions / defense of property rights
  - Policies supportive of private sector entry and competition

**Model 2**
- Primary reliance on markets but role for rules-based government operations
  - e.g., buffer stock release in response to defend stated ceiling price
  - Marketing board purchases at stated floor price announced in advance
  - Transparent rules for initiating state imports

**Model 3**
- Role for markets and discretionary government intervention
  - Based on premise that private sector cannot ensure adequate food supplies in response to production shortfalls
  - Justification for unconstrained role for state interventions in markets to correct for market failures
Price Stabilization and Modalities of Intervention

- Actors involved in dealing with grain shortfalls and surpluses
  - Government
  - Private traders
  - Millers
  - Zambia National Farmers Union
  - Non-governmental organizations, and food aid agencies (eg. WFP)
## Price Stabilization Actors

<table>
<thead>
<tr>
<th>Actor</th>
<th>Role and Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td>Buys grain and offloads on market in deficit, exports and imports</td>
</tr>
<tr>
<td></td>
<td><strong>DMMU, FRA, FISP</strong></td>
</tr>
<tr>
<td><strong>Private traders</strong></td>
<td>Advocate for open grain border policy</td>
</tr>
<tr>
<td><strong>Millers</strong></td>
<td>Mixed depending on situation: Maize grain vs. Wheat flour/Maize meal</td>
</tr>
<tr>
<td><strong>ZNFU</strong></td>
<td>Lobbies for high prices, buys grain and exports</td>
</tr>
<tr>
<td><strong>Other – WFP</strong></td>
<td>Food Aid, School feeding program (Buys from FRA)</td>
</tr>
</tbody>
</table>
Government Intervention for Food Security

- The FRA is mandated through the Food Reserve Act of 1995 to procurement and management of SGRs
- Role expanded in 2005 role expanded
  - Become one of the market players
  - Announces pan territorial and seasonal prices
Impact of Interventions
Consumers

Many smallholder households are land constrained
- 32% have less than 1.0 ha of land

Rural Agricultural Livelihoods Survey, 2015
Nearly 30% of rural smallholder farmers are net buyers of maize.

***Hence, negatively affected by high FRA maize prices***

Source: RALS 2015
## Highly concentrated patterns of maize surplus production, Zambia

<table>
<thead>
<tr>
<th></th>
<th>20011/12</th>
<th>2012/13</th>
<th>2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households reporting that they will sell maize (N)</td>
<td>647,937</td>
<td>606,736</td>
<td>619,880</td>
</tr>
<tr>
<td>Proportion of farms accounting for 50% of total expected maize sales (N and %)</td>
<td>72,052 (6%)</td>
<td>64,134 (5.2%)</td>
<td>70,095 (4.8%)</td>
</tr>
<tr>
<td>Households not selling maize</td>
<td>46.5%</td>
<td>50.7%</td>
<td>53.1%</td>
</tr>
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</table>
Excessive FRA participation in the maize market reduces private sector participation.

Zambia 2013/14 bumper harvest experience:
- Government committed:
  - to buy less
  - charge commercial mills economic prices for maize from the FRA

Positive results:
- Increased trader activity
- Higher spot prices for farmers
- Increased production the following season.
Impact on Prices

Ad hoc maize import and export bans do not help to keep grain prices within reasonable bounds for consumers and producers?
Comparison of FRA pan territorial prices to Lusaka nominal maize market price
Zambia: Maize Market + Ad-hoc Policies

- **Nominal US$ per metric ton**
  - **Red line**: CIF from South Africa
  - **Green line**: Lusaka wholesale price

Key Events:
- **Deficit years**
- **World Food Crises**
- **Bumper harvest**
Impact on the Treasury

A never ending Government struggle!!!

Farmers lobby for higher maize prices + lower fertilizer prices

Lower consumer prices, usually culminating into consumer subsidies

Treasury

Source: pixgood.com
2016 Zambia Agriculture Budget Allocation

- FRA and FISP taking too much
- Staff receive salaries but delayed release of operational funds

<table>
<thead>
<tr>
<th>Program</th>
<th>% of others</th>
</tr>
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<tbody>
<tr>
<td>Personnel Emoluments</td>
<td>62</td>
</tr>
<tr>
<td>Capital Expenditure</td>
<td>21</td>
</tr>
<tr>
<td>Grants &amp; other payments</td>
<td>13</td>
</tr>
<tr>
<td>All others</td>
<td>4</td>
</tr>
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<table>
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<tr>
<th>Program</th>
<th>% of PRPs</th>
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<tr>
<td>FISP</td>
<td>56</td>
</tr>
<tr>
<td>FRA</td>
<td>42</td>
</tr>
<tr>
<td>All others</td>
<td>2</td>
</tr>
<tr>
<td>Total PRP</td>
<td>100</td>
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</table>
Better off HHs account for majority of maize sold to FRA, 2011

These account for 78% of maize sold to FRA

Source: RALS 2012
Export bans and trade restrictions

- Generally doesn’t stop trade from occurring but raises smuggling costs, which depress prices for farmers and raise costs for consumers
Summary

- Maize remains an important staple food crop for poor households.
- Staple food price stabilising policies tend to be implemented in ad hoc, stop-go, and unpredictable ways.
- Increase in market participation of the FRA has resulted into raising maize prices above the market.
- Unpredictable implementation of government interventions in maize market has led to reduced private sector participation.
- Informal grain markets tend to become very thin in the hunger season.
- Government consumer subsidy through selling subsidised maize to millers is very ineffective and does not lower lowering retail mealie meal prices.
Policy Options

Fostering Private Sector Market Development

• review the country’s strategic grain reserve requirement and procurement modalities, and put in place clear trigger mechanisms for FRA grain purchases and releases.
• Clarify the role of FRA to stimulate private sector participation
• Stick to strategic reserves

Substitution Among Food Staples

• Consumption diversification provides a key to helping vulnerable households’ deal with food price shocks.
• Move away from maize centric policies
Policy Options

Hastening the Operation of ZAMACE

- FRA is one of the biggest market player, the government could make a deliberate decision to help capitalize ZAMACE by purchasing SGR requirements through the exchange and have the grains secured in certified private silos/warehouses.
- Lease out storage facilities to highest bidder

Making Maize Available in Informal market

- In deficit years, the government should reconsider its strategy of releasing large quantities of subsidised maize through large scale millers alone.
- Lease some stock to the smaller local traders in provincial and district markets, small-scale millers and hammer mills and even small direct sales to consumers. to other unfunded public investments.
Policy Options

Moderating Price Volatility Through Trade

- Foster a sustainable open border policy offers Zambia a financially inexpensive means of reducing the domestic price volatility of staple foods.
- Eliminate uncertainties over government interventions especially FRA trade volumes and import and export regulations.
Thank You