What are the Problems & Opportunities?

- Productivity growth elsewhere, but grain yields in Zambia are not increasing
- High production costs
- High transport costs
- Unstable markets (weather, uncertainty of government actions, inadequate information)
- Weak credit systems with mkt uncertainty

= Maize farming is not generating & facilitating broad-based rural income growth
Why is Maize Production & Marketing Not Thriving?
3 Major Reasons

1. Policy ( & implementation) unpredictability, leading to markets not being able to function effectively to stimulate production and marketing improvements

Sources of Policy Unpredictability

- Export bans, import quotas (Year to year & within year)
- Uncertainty over changes in import tariff rates
- When and where will FRA enter the market
  - current example: is FRA going to sell low this year?
- Prices at which FRA buys and sells unpredictable
- Farmer & trader inventory carrying risks are high
- All of these sources of unpredictability impede private traders’ servicing small farmers’ needs
- Impedes investment and competition in output & inputs markets
Sources of Policy Unpredictability- cont ....

• When the risks of buying and storing maize become too great, then traders:
  ▪ must limit their exposure to risks – adopt “wait-and-see approach”
  ▪ find less risky investments
  ▪ limit their investments that could otherwise benefit small farmers

= Small farmers lose out

What is the Evidence that Increased Market Predictability Will Improve Food Security?

• Example of maize milling since liberalization.
• Examples of growth rates in other crop markets in Zambia (with less direct govt. involvement)
• Examples from other African Countries where govt has less direct involvement in buying/selling in mkts (handout table)
Tangible Benefits of GOZ & Commercial Development in Milling Industry:

Lusaka: Price trends

000 Kwacha/ton (real: cpi-2005=100)

Year/Month


Wholesale grain  Breakfast meal  Linear-trend  Linear-trend

Source: Agricultural Marketing Information Centre-Zambia-various years

What is the Evidence that Increased Market Predictability Will Improve Food Security?

- Example of maize milling since liberalization.
- Examples of growth rates in other crop markets in Zambia (with less direct govt. involvement)
- Examples from other African Countries where govt has less direct involvement in buying/selling in markeks (handout table)
What is the Evidence that Increased Market Predictability Will Improve Food Security?

- Example of maize milling since liberalization.
- Examples of growth rates in other crop markets in Zambia (with less direct govt. involvement)
- Examples from other African Countries where govt has less direct involvement in buying/selling in markets (handout table)
African Countries - % Growth in Cereal Production between 1985 and 2005

- Sub-Saharan Africa
- Mali
- Mozambique
- Uganda

African Countries - % Growth in Cereal Production between 1985 and 2005

- Sub-Saharan Africa
- Kenya
- Malawi
- Zambia
- Zimbabwe

% change in production
Why is Maize Production & Marketing Not Thriving?

2. Erosion of information base required for government & private sector investors to make informed decisions
   - CFS and PHS surveys no longer accurately measure agricultural production
   - Large scale maize production is especially unreliable
   - Small-scale production estimates do not take account of rural population growth
   - Over time, production levels are increasingly underestimated
   - Inadequate market information, analysis & outreach

3. Arguments for improved policies often conflict with vested interest in maintaining status quo policies
   - Those who benefit when government approval is required for export and import permits?
   - Those who benefit when there are levies on maize traded across district boundaries?
   - Those who benefit when FRA is allowed to sell below its costs? Examples: 2001, 2003 (and 2006?)
Common Arguments & Challenges To Be Examined:

- Poor farmers need FRA to defend prices for them?
- Consumers need FRA to make sure enough grain is always available in the country?

Results & Challenges Arising From Concentration of Maize Sales Among Smallholder Farmers

- Only 30% of the smallholder households in Zambia sell maize in a normal year
- And 2% of the smallholder households (24,256 farms) account for 50% of sales of maize
- Some 68% are net buyers of maize
Characteristics of Smallholder Farmers
By Maize Sales Groups, Zambia PHS / FSRP Supplemental Survey - 2002/03

<table>
<thead>
<tr>
<th>Maize Sales Groups</th>
<th>N= Maize Sales Groups</th>
<th>Crop area (ha)</th>
<th>Asset values (Kw 000)</th>
<th>Gr. Rev., maize sales (Kw 000)</th>
<th>Gr. Rev., crop sales (Kw 000)</th>
<th>Total hh income (Kw 000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 50% of maize sales smallholders</td>
<td>24,255</td>
<td>5.1</td>
<td>6,809</td>
<td>3,622</td>
<td>4,323</td>
<td>15,727</td>
</tr>
<tr>
<td>Rest of smallholder maize sellers</td>
<td>330,104</td>
<td>2.0</td>
<td>1,348</td>
<td>271</td>
<td>548</td>
<td>3,102</td>
</tr>
<tr>
<td>Households not selling maize</td>
<td>890,682</td>
<td>1.3</td>
<td>1,080</td>
<td>0</td>
<td>283</td>
<td>1,956</td>
</tr>
</tbody>
</table>

Similar patterns were found in the panel base year: 1999/00 for the PHS/Supplemental

Fertilizer Use & Source Patterns
By Maize Sales Groups, 2002/03

| Maize Sales Groups | % receiving FSP fertilizer | % purchasing fertilizer from retailers | -- kgs per hh (users only) 
Received from FSP | private retailers |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 50% of maize sales Smallholders</td>
<td>38%</td>
<td>54%</td>
<td>1,011</td>
<td>815</td>
</tr>
<tr>
<td>Rest of Smallholder maize sellers</td>
<td>21%</td>
<td>30%</td>
<td>248</td>
<td>225</td>
</tr>
<tr>
<td>Households not selling maize</td>
<td>9%</td>
<td>13%</td>
<td>173</td>
<td>157</td>
</tr>
</tbody>
</table>
Fertilizer Use and Source Patterns
By Maize Sales Groups, 2002/03

<table>
<thead>
<tr>
<th>Maize Sales Groups</th>
<th>% receiving FSP fertilizer</th>
<th>% purchasing fertilizer from retailers</th>
<th>-- kgs per hh (total sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 50% of maize sales</td>
<td>38%</td>
<td>54%</td>
<td>384</td>
</tr>
<tr>
<td>Rest of maize sellers</td>
<td>21%</td>
<td>30%</td>
<td>51</td>
</tr>
<tr>
<td>Households not selling maize</td>
<td>9%</td>
<td>13%</td>
<td>20</td>
</tr>
</tbody>
</table>

Poverty Effects of Raising Maize Prices Above Market Clearing Levels

- Higher maize prices hurt the majority of the population who are net maize buyers
- Net maize buyers tend to be relatively poor farmers
- Many of these smallholders need technology to produce on less area enough maize to eat & raise incomes from selling other crops and labor services
- Since smallholder sales are so concentrated, FRA price-raising policies have highly regressive effects on income distribution
- Distribution of input subsidies also get concentrated according to production
Where From Here?

- The research and analysis of ACF/MACO/FSRP/MATEP underscores the potential positive payoffs to seriously consider the following options:

Greater Commitment to Agriculture Means Investing In:

- Agricultural science/technology/extension.
- Rail-port-road infrastructure
- Farmer organizations
- Regional trade / predictable government actions in markets
- Accurate and timely information on production & prices
- Development of public sector awareness of markets’ potential and local analysis capacity

*Dilemma: Current commitment of resources is needed to bring long-term economic & political payoffs*
Investing in Transportation Infrastructure

- High transport costs in region
  - $90–$145 / mt from Jo'burg → Lusaka
- Much of price instability problem is due to high transport costs
- Increasing fertilizer use on maize and other crops requires much lower transport costs

Dilemma: *Current commitment of resources is needed to bring long-term economic & political payoffs*

Promoting Regional Trade

- Simplify / harmonize trade regulations
- Professionalisation of customs services
  - Focus on promoting trade rather than generating revenue from traders
- Reconsider using export and import restrictions, denying of export/import permits
- Denying exports prevents commercial markets from being able to evacuate surpluses
- Taxing imports prevents commercial markets from being able to import in times of need

Dilemma: *Current commitment of resources is needed to bring long-term economic & political payoffs*
Caution Regarding Size and Role of Strategic Reserve

- All evidence indicates that relying on regional trade is much more cost effective than costly strategic stocks – cost to maintain grain quality and uncertainty on storage investments of large stocks overhanging mkt
- Size of strategic stock need not be more than 2 months, because this is time required for imports
- GOZ needs timely information to make strategic import/export decisions
- These issues already addressed in AMDP
- Waiting for implementation of AMDP

Caution on Maize Meal Fortification

- Possible adverse effects on costs and competition in commercial milling sector could put at risk the significant gains from prior liberalization & completion in milling
- Low income rural & urban consumers - options are important for access to grain, custom milling and good nutrition via wholegrain maize meal
Effective Policy Responses Require Accurate Crop Forecasts

• Incentives for CSO to develop accurate crop forecasts
• Resources & Oversight of CSO
• Strengthen the effective demand for use of CSO crop forecasts
  – DMU needs serious capacity building
  – ZNFU can become an important advocate for better CSO agricultural information

Long-Run Challenges

• In the long-run, small farmers’ welfare can improve rapidly when there is GOZ policy environment that encourages broad-based commercial investment in the food system
• Among other things, this requires:
  – policy makers’ trust in the role of markets and trade in improving the livelihoods of small farmers.
  – policy decisions and public sector will to provide missing public goods to facilitate production and marketing
Zikomo Kwambili,
Natotela sana,
L'i tumezi ahulu,
Twalumba kapatì,
Thank you