Food Production & Security Difficulties Facing Zambia

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Presentation at the conference Zambia 2012 - Shaping our Future,
Taj Pamodzi Hotel, Lusaka, 29-30 March, 2012
Outline of Presentation

- Overview of Zambia’s agricultural sector
- Trends and composition of GRZ expenditure on agriculture
- Agricultural sector challenges in Zambia
- Options for consideration to address challenges
Overview of Zambia’s agricultural sector

- Over 70% of the rural population depends on agriculture-related activities for their livelihood
- Poverty levels (80%) still stubbornly high in rural areas
- Maize accounts for 50% of all cropped land
- Maize is the dominant staple crop in consumption
- Cassava is second most important staple food
- Groundnuts is second most widely cultivated
Proportion of smallholders growing crops

Sources: MAL/CSO Crop Forecast Surveys, 2000/01-2010/11
National Production Trends for Selected Crops over time

Crop Production (Metric tons)

- Groundnuts
- Sweet potatoes
- Millet
- Sorghum

Year:
- 2000/01
- 2001/02
- 2002/03
- 2003/04
- 2004/05
- 2005/06
- 2006/07
- 2007/08
- 2008/09
- 2009/10
- 2010/11
## Highly concentrated patterns of maize surplus production, 2011

<table>
<thead>
<tr>
<th></th>
<th>N=</th>
<th>Farm size (ha)</th>
<th>Ha farmed (ha)</th>
<th>Gross rev., maize sales (million kw)</th>
<th>Gross rev., crop sales (million kw)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 50% of maize sales</strong></td>
<td>78,384 (5.2%)</td>
<td>4.3</td>
<td>3.0</td>
<td>8.1</td>
<td>8.6</td>
</tr>
<tr>
<td><strong>Rest of maize sellers</strong></td>
<td>499,530 (33.2%)</td>
<td>3.4</td>
<td>2.0</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Households not selling maize</strong></td>
<td>927,971 (61.6%)</td>
<td>2.2</td>
<td>1.2</td>
<td>0</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: CSO Crop Forecast Survey, 2011
Roughly 50% of rural HHs are maize buyers

- **Buyers only, 45%**
- **Sellers only, 18.6%**
- **Neither Buy nor sell, 22.9%**
- **Buy and sell (net buyers), 4.1%**
- **Buy and Sell (net sellers), 8.9%**
Land constraints in smallholder agriculture

Source: CSO Crop Forecast Survey, 2011
## Low agricultural productivity levels (Mt/ha)

<table>
<thead>
<tr>
<th>Crop</th>
<th>2001/02</th>
<th>2003/04</th>
<th>2005/06</th>
<th>2007/08</th>
<th>2009/10</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>1.0</td>
<td>1.7</td>
<td>1.5</td>
<td>1.3</td>
<td>2.1</td>
<td>4.47</td>
</tr>
<tr>
<td>G/nuts</td>
<td>0.4</td>
<td>0.7</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>1.35</td>
</tr>
<tr>
<td>Millet</td>
<td>0.7</td>
<td>1.0</td>
<td>0.7</td>
<td>1.0</td>
<td>1.1</td>
<td>0.82</td>
</tr>
<tr>
<td>Sorghum</td>
<td>0.7</td>
<td>0.7</td>
<td>0.5</td>
<td>0.5</td>
<td>0.9</td>
<td>2.66</td>
</tr>
<tr>
<td>Rice</td>
<td>1.0</td>
<td>1.0</td>
<td>1.3</td>
<td>1.2</td>
<td>1.7</td>
<td>3.84</td>
</tr>
</tbody>
</table>

Sources: MAL/CSO Crop Forecast Surveys, 2000/01-2010/11 while global averages from COMESA
Poor infrastructure (bad state of feeder roads)
**Distance to Location of the Maize Sales Transaction by Percentile of Distance to the Nearest District Town in Zambia**

<table>
<thead>
<tr>
<th>Percentile group of distance to the District Town</th>
<th>Distance to location of the maize sales transaction from homestead</th>
<th>% of state marketing board purchases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>10</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Accessible: Bottom 25%</td>
<td>3.61</td>
<td>0</td>
</tr>
<tr>
<td>Mid accessible Mid bottom 25%</td>
<td>6.78</td>
<td>0</td>
</tr>
<tr>
<td>Mid inaccessible: Mid 25%</td>
<td>7.33</td>
<td>0</td>
</tr>
<tr>
<td>Inaccessible: Top 25%</td>
<td>10.84</td>
<td>0</td>
</tr>
<tr>
<td>All</td>
<td>7.14</td>
<td>0</td>
</tr>
</tbody>
</table>
2010 Allocation of Public Budget to Agriculture

- Poverty reduction Program (FSP), 35.3%
- Recurrent Departmental Charges, 10.8%
- Personal Emoluments, 12.7%
- Other MACO expenditures including capital expenditure, 4.0%
- Allocation via other ministries, 6.9%
- Agricultural development Programs, 20.3%
- Poverty reduction Program (All Other), 1.8%
- Allocation via other ministries, 6.9%

Actual 2010 FRA allocation: 57%
Other agricultural sector challenges

- Many key drivers of Agric growth are underfunded
- Weather shocks greatly affect smallholders
- Inputs are expensive and unaffordable esp to 40% (land constrained) smallholders
- Accessibility to credit is limited for smallholders
- Inadequate extension services to farmers
- Maize-centric policies encourage mono production
- Unfavorable environment to attract private investment
Options for consideration

- Promote usage of improved farm technologies by smallholders to increase yields
- Promote adoption of lime usage to deal with soil acidity problems
- Encourage crop rotation & compost manure to improve soils
- Increased investments in technology (research, extension), irrigation, markets and infrastructure.
- Flexible FISP (E-voucher) to cover other farm inputs
Options for consideration

- Improving conducive environment for private investors and participation
  - Transition to rules-based and transparent government operations in markets
  - Stable import/export trade policy environment
- Promote adoption of technologies/practices that reduce risk of weather shocks in food production
- Promote periodic transparent consultation between policy makers, private sector, donors and NGOs to address the challenges of the sector
## Ranking with respect to agricultural growth: Evidence from Asia

<table>
<thead>
<tr>
<th></th>
<th>The Economist</th>
<th>IFPRI</th>
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<tbody>
<tr>
<td>Policies</td>
<td>1</td>
<td></td>
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<tr>
<td>Road investment</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Agricultural R&amp;D</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Agricultural extension services</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Credit subsidies</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Fertilizer subsidies</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Irrigation</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
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