Agricultural Policy Reforms in Zambia

Antony Chapoto, PhD
Food Security Research Project, Chief of Party

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1. About FSRP
2. Overview of Zambia’s agricultural sector
   - Zambia Ag. development goals
   - Key agricultural policy challenges hindering broad-based agricultural growth in Zambia
3. Political economy landscape in Zambia
   - Who makes agricultural policies?
   - Whose interests count?
5. FSRP opportunities and challenges in using empirical evidence to inform policy debates and reforms in Zambia
6. Comments on measuring and monitoring the impact of Policy Reforms under FTF.
About FSRP

• MSU/Food Security Research Project
  – In existence since 1999
  – USAID/Zambia Associate Award - $12.5m over 5 years
  – Embassy of Sweden through SIDA [Jan 2008 - Dec 2011]
  – FSRP III strategic objectives under Zambia FTF
    a. Transforming from a project into a local institution
    b. Supporting the CAADP process, incl. helping Ministry of Ag & Livestock (MAL) develop CIP
    c. Supporting Zambia FTF multiyear strategy (Ag. Policy reforms through policy analysis and outreach)
    d. Building analytical capacity of MAL, Central Statistical Office and University of Zambia (UNZA) through effective collaboration.
Overview of Zambia’s Agricultural Sector

• Zambia is characterized by:
  – Rapid population growth
  – Population ≈13 million (64% rural) in 2010
  – Stubbornly high rural poverty rate: ≈80%
  – High food and income inequality in urban areas
  – Rapid urbanization & increasing demand for food
  – Stagnant agricultural productivity (yields)
Zambia Ag. Development Goals

1. Reduce poverty through broad-based income growth for those in agricultural sector

2. Attain 90% household food security and cut hunger by 50% by 2015

3. Grow the agriculture sector from 1% to 7-10% per annum

4. Increase agriculture contribution to foreign currency earning from 3-5% to 10-20%
Data on Smallholder Farmers in Zambia

Nation Wide Random Surveys
CFS/PHS/SS 99/00 = 364 SEAs
CFS 2006/07 onward = 660 SEAs
Fig 1: Poverty Levels in Zambia 1991-2006 and 2010 (unofficial estimates)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>70%</td>
<td>88%</td>
<td>49%</td>
</tr>
<tr>
<td>1993</td>
<td>74%</td>
<td>92%</td>
<td>45%</td>
</tr>
<tr>
<td>1996</td>
<td>69%</td>
<td>82%</td>
<td>46%</td>
</tr>
<tr>
<td>1998</td>
<td>73%</td>
<td>83%</td>
<td>56%</td>
</tr>
<tr>
<td>2004</td>
<td>68%</td>
<td>78%</td>
<td>53%</td>
</tr>
<tr>
<td>2006</td>
<td>64%</td>
<td>80%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Estimated range of 74-78% for 2010 (unofficial estimates)

Source: Central Statistical Office, Govt. Zambia
Fig 2: Sector Contribution to Gross GDP

Source: Central Statistical Office, Govt. Zambia


Tertiary sector: Wholesale and Retail trade, Restaurants, Bars and Hotels, Transport, Storage and Communications, Rail, Road and Air Transport, Communications, Financial Intermediaries and Insurance, Real Estate and Business services, Community, Social and Personal Services, Public Administration and Defence, Education, Health, Recreation, Religious, Culture, Personal services
Many smallholder households are land constrained

-- 25% have less than 0.5 ha of land

-- 58% indicate there is no unallocated land in their village
Fig. 3: Farm Size For Small & Medium-Scale Farmers, 1999/2000 and 2006/07 Ag. seasons

Quartile of HH Landuse (Cultivated+Fallow Land)

Land per Household (Ha)

Source: CSO/MACO/FSRP 2001 and 2008 National-Level Supplemental Rural Livelihood Survey
Why are Zambian Smallholder Farmers Land Constrained?

• Land constraints in a land-abundant country is not a paradox
  – economically viable arable land requires access to basic services, water, schools, roads, and markets
  – Rural settlement follows infrastructure developments

• The basic public investments to make settlement economically viable have yet been made in many areas of Zambia.
Fig 5. Population Density, Zambia
Policy Challenge # 1

• If > 40% of the smallholder farms are < 1 ha,
  – then a staple food-based agricultural system that is primarily rain-fed system with one growing season is unlikely to provide a viable pathway out of poverty.

• Since rural settlement follows infrastructure developments, the Government of Zambia (GRZ), needs to seriously consider basic infrastructure investments to make resettlements economically viable.
Nearly 50% of rural farm HHs are net buyers of maize

- 49% net buyers (45% buy only; 11% did not produce maize)
- 28% net sellers
- 23% produced but did not sell nor buy maize

**Fig 6: Smallholder Farmers Maize Market Position**
Under-Appreciated Fact # 3

- Highly concentrated patterns of maize surplus generation - 2% of smallholder farm households account for 50% of marketed maize.
- Maize surplus generation is highly associated with area cropped and household assets.
Table 1: Disparities in livelihoods within smallholder agriculture, Zambia – 2006/07

<table>
<thead>
<tr>
<th>Category</th>
<th>N=</th>
<th>Farm size (ha)</th>
<th>Asset values (US$)</th>
<th>Gr. Rev., maize sales (US$)</th>
<th>Gr. Rev., crop sales (US$)</th>
<th>Total hh income (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 50% of maize sales</td>
<td>30,150 (2%)</td>
<td>7.2</td>
<td>3,703</td>
<td>3,199</td>
<td>3,354</td>
<td>7,624</td>
</tr>
<tr>
<td>Rest of maize sellers</td>
<td>467,320 (31%)</td>
<td>1.9</td>
<td>257</td>
<td>172</td>
<td>252</td>
<td>1,272</td>
</tr>
<tr>
<td>Households not selling maize</td>
<td>1,010,014 (67%)</td>
<td>1.1</td>
<td>129</td>
<td>0</td>
<td>57</td>
<td>756</td>
</tr>
</tbody>
</table>

Source: CSO Supplemental surveys, 2008
### Table 2: Disparities in livelihoods within smallholder agriculture, Zambia – 2010/11

<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>Top 50% of maize sales</td>
<td>78,384</td>
<td>4.3</td>
<td>3.0</td>
<td>8.1</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>(5.2%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rest of maize sellers</td>
<td>499,530</td>
<td>3.4</td>
<td>2.0</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>(33.2%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households not selling maize</td>
<td>927,971</td>
<td>2.2</td>
<td>1.2</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>(61.6%)</td>
<td></td>
<td></td>
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</table>

Source: CSO Crop Forecast Survey, 2011
Fig 7: Maize Production, Sales and Assets

Source: 2008 (07/08 Crop Marketing Season)
Policy Challenge # 2

• How to effectively reform FRA and FISP programs?
  – Since smallholder maize sales are so concentrated, Food Reserve Agency (FRA) price-raising policies have highly regressive effects on income distribution
  – Higher maize prices hurt the majority of the population who are net maize buyers and relatively poor farmers
  – FISP if poorly implemented crowds out private sector participation
Policy Challenge # 3

- How to bring the bottom 60% of smallholder farmers into the market and raise them above the poverty line?
Under-Investment in Public Goods

- Past agricultural budgets have not placed enough emphasis on broad-based public investments
  - Over last 7 years, 50-70% of MAL budget spent on fertilizer subsidies (FISP) & maize price stabilization (FRA)
    - Politically popular but less effective than investments in research, extension, roads, and other public goods at stimulating agricultural growth
    - Crowd out/discourage private sector investment
    - Prone to diversion and manipulation
Fig 8: Proportion of MAL Budget Devoted to FRA and FSP/FISP (2001-2011), Zambia
Fig 9: Trends in Maize Production and Number of Small/Medium Scale Farm Households

- Maize production (75% growth)
- Number of farm households
Fig 10: Maize area cultivated & average yields

Pre FSP Era
FSP Era: Target
Yield 4-5 Mt/Ha

Area Cultivated (hectares)  Average Yields (Mt/ha)

Year

Hectares

Mt/ha

Figure 11: Average yields of key commodities compared to global average

Source: CFS datasets, various years with Global figures obtained from COMESA
Fig 12: Net real value of Zambian smallholder crop production – total and total per household

Sources: MACO/CSO Crop Forecast Surveys, 2000/01-2010/11; CPI data from the Central Statistical Office.
Notes: Other crops are sorghum, millet, groundnuts, mixed beans, sweet potatoes, cassava, and cotton. Crops valued at real 2010 prices (nominal prices in each year adjusted by the 2010 CPI).
Zambia maize-centric policies through FRA and FISP are stifling:

- Crop diversification
- Private sector investment & market participation
- Investments in key agricultural growth drivers (e.g., irrigation, research and development, extension, feeder roads etc.)

→ *Stagnation of agricultural sector and stubbornly high rural poverty levels*
Rainfed Agriculture

- Rainfed agriculture → Zambian smallholders highly vulnerable to weather shocks

Fig 13: % of maize area planted to be harvested

Fig 14: Yield Response to Fertilizer use over time,
Policy Challenge # 5

• How to reform agricultural policies to reduce the vulnerability and increase the resilience of smallholder ag production to weather-related shocks?
1. How can ag. policy provide broad-based benefits to rural farm households, in order to:
   1. Raise rural incomes
   2. Significantly reduce rural poverty
   3. Improve nutritional status of the poor

2. How to ensure tolerable food prices for urban and rural consumers?

3. How to achieve objectives 1 and 2 in a financially sustainable way?

4. How to deal with the effects of weather when smallholder agriculture is predominantly rainfed?
POLITICAL ECONOMY ISSUES IN ZAMBIA
Who makes Agricultural Policy decisions in Zambia?

• MAL responsible for food policy
  – Mainly supply side policies, especially for maize
  – Technical aspects of food policy changes
• BUT, most **major** policy decisions coordinated by Cabinet w/ technical input from MAL Policy Analysis & Coordination Unit
• Other key players:
  – Ministry of Finance & National Planning
  – Bank of Zambia
  – Zambia Revenue Authority (ZRA)
Who makes Agricultural Policy decisions in Zambia?

• Since 1996, food price policy mainly **implemented** by FRA and ZRA

• Ultimately, all power in Cabinet vested with Head of State. Although a Minister can lobby, political interest tends to be a priority.

• Top lobby groups with access to State House
  – **Zambia National Farmers Union (ZNFU)** – represent interest of commercial farmers and the most successful smallholders. **No effective representation of the issues affecting the bottom 60% of smallholders.**
  – **Millers Associations of Zambia (MAZ)** – purportedly represent consumers through lobbying for subsidized grain but **consumer subsidies rarely benefit consumers**
Effectiveness of policy analysis in influencing policy reforms in Zambia?

• The policy wheels turn very slowly
  – Lack of political will
  – High turnover of key decision makers
  – Long process to get a Bill passed

• Technical input usually ignored at higher level until policy goes wrong
To be effective, FSRP has over the years engaged different stakeholders to push for policy reforms

- Relevant Ministers
- Permanent Secretaries
- Parliamentary Committees
- State House advisors
- Directors and Deputy Directors (technical level)
- Lobby groups (e.g., ZNFU, MAZ, Grain Traders Assoc. of Zambia)
- Donors
Measuring and Monitoring of Agricultural Policy Reforms under FTF

• General comments
  – In sorting out effects of policy and program changes, the attribution challenge is great and needs to be recognized from the outset
  – Looking for direct effects may lead to misjudgment regarding the effectiveness of policy reform analysis and programs
  – This does not mean it can't be done, but that it is a much more humbling and difficult process than most people think
  – Best way to assess progress is to set benchmarks based on a set of development objectives
  – AgClir indicators may be best suited for regional/country comparisons
Examples of indicators/criteria for assessing ag. policy reform progress in Zambia

• Farmer Input Support Program reforms:
  – Progress if Government pilots the flexible e-voucher scheme in 12-24 districts for 2013 -- specifying which districts.
  – Progress if the number of farmers practicing conservation farming techniques increases by say 15% by year 2014.

• Budget allocations to public good investments
  – Distribution of annual external audit / financial accounting of FRA and FISP operations
  – Reallocation of resources from the subsidy program to key agriculture growth drivers such as extension, R & D and irrigation.
Examples of indicators/criteria for assessing ag. policy reform progress in Zambia

- Enactment of the Agricultural Marketing Bill
  - GRZ to limit FRA activities to only procuring strategic grain reserves (crowding private sector into maize marketing)
  - GRZ to announce the specific conditions that would trigger a change in FRA prices, volumes to be purchased, import tariff rates, an export ban, etc.
  - GRZ to ensure that FRA purchase price is set with reference to MACO cost of production estimates, CFS production estimates, world prices and regional conditions.
  - GRZ to ensure that FRA selling price is set as the sum of FRA purchase price + marketing costs per tonne handled. This will ensure that there will be a role for private trade, that private traders’ margins won't be unreasonably squeezed by heavily subsidized FRA operations.
Thank You

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