What are Agricultural Subsidies Doing for Smallholder Agriculture in Zambia?

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“Evidence-based policy helps people make well-informed decisions about policies, programmes and projects by *putting the best available evidence from research at the heart of policy development and implementation.*” (Davies, P.T., 1999)
Smallholder agriculture in Zambia: Context
Agricultural Subsidies in Zambia
Facts About Subsidies: Research Evidence
Policy Options
1. Smallholder Agriculture in Zambia: Context
High Rural Poverty Rates (National level)

Poverty headcount (%)

82 83 78 80 77.9 76 76.6

Source: GRZ’s Central Statistical Office and RALS 2012 and 2015
Persistently low productivity

Maize yields

- **Groundnuts**
  - Yield: below 0.5 MT/ha
  - Potential yield: 2 MT/ha

- **Soyabean**
  - Yield: below 1 MT/ha
  - Potential yield: 2 MT/ha

- **Cotton**
  - Yield: 600 – 900 kg/ha
  - Potential yield: >1500kg/ha

Sources: MAL/CSO Crop Forecast Surveys, 2006/07 - 2013/14
Land constraints

Many smallholder households are land constrained

• More than 25% have less than 1 ha of land
• 58% indicate there is no unallocated land in village
2. Agricultural Subsidies in Zambia
Farmer Input Support Programme (FISP)

1<sup>st</sup> Wave – Fertiliser Support Programme (02/03 – 08/09)
- Obj: to improve input access, private sector participation, national food security
- Fertiliser and hybrid seed, 1ha pack
- Subsidy rate (50%), 60% in 2006/7
- 9 – 11% of Zambian smallholders benefitted each year

2<sup>nd</sup> Wave - FISP (09/10 – 14/15)
- Obj. remained the same

3<sup>rd</sup> Wave - FISP + e-voucher (15/16 – date)
- Emphasis placed on targeting and diversification
- 13 districts, 241,000 farmers
- Electronic VISA card platform
- More inputs
- MAL, ZNFU and Agrodealers
1st wave (2000/01 – 09/10):
- Targeted towards “vulnerable but viable” HHs
- Ministry of Community Development, Mother and Child Health (MCDMCH)
- Intended target - 20% of “vulnerable but viable” HHs → 200,000 HHs
- Cereal, legume, Cassava cuttings or sweet potato vines, fertilizer and lime

2nd wave (09/10 - date)
- Expanded FSP
- E-voucher system intended to improve the traditional FSP
- Minimum of 27,000 HHs
- Strengthened the role of agro dealers
Established in 1996 following enactment of Food Reserve Act of 1995

To establish and administer a national food reserve

1st Wave (96/97 – 97/98)
- Purchased maize through private traders at market price
- Minimal market share

2nd Wave (98/99 – 01/02)
- No FRA Purchases

3rd Wave (02/03 – 04/05)
- Direct purchase from smallholders
- Market share increases but not a dominant player

4th Wave (05/06 – date)
- Act amended to give FRA maize marketing mandate
- Dominant player
3. Facts About Subsidies: Research Evidence
Zambia’s Economic Achievements

- Zambia
  - GDP growing at 6% per annum
  - Agricultural growth rate at 7% - above 6% CAADP Goal

BUT, Rural poverty has remained high!!!!!!
Fact #1 – Late Delivery of Inputs

- FISP recipients reported to have received fertilizer late:
  - 22% in 2010/11 (RALS 2012)
  - 35% in 2013/14 (RALS 2015)

- Late receipt of inputs was associated with:
  - Reduction in input use efficiency by 4.2%
  - Yield losses → reduction in national maize output by 85,000MT
  - Farm-level income losses

- HH and individual characteristics have influence on timely receipt of fertilizer
  - Landholding size, value of assets, kinship relations
Fact #2 - FISP is benefiting mostly the larger and relatively already well-off HHs.

<table>
<thead>
<tr>
<th>Total area cultivated</th>
<th>Number of farms</th>
<th>% of farms</th>
<th>Poverty Rate (%)</th>
<th>% of farmers receiving FISP fertilizer</th>
<th>kg of FISP fertilizer received per farm household</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-0.99 ha</td>
<td>515,415</td>
<td>34.1</td>
<td>83</td>
<td>18</td>
<td>28.7</td>
</tr>
<tr>
<td>1-1.99 ha</td>
<td>503,656</td>
<td>33.3</td>
<td>80</td>
<td>39</td>
<td>83.24</td>
</tr>
<tr>
<td>2-4.99 ha</td>
<td>408,169</td>
<td>27.0</td>
<td>68</td>
<td>50</td>
<td>143.3</td>
</tr>
<tr>
<td>5-9.99 ha</td>
<td>70,822</td>
<td>4.7</td>
<td>35</td>
<td>61</td>
<td>229.17</td>
</tr>
<tr>
<td>10-20 ha</td>
<td>14,316</td>
<td>0.9</td>
<td>25</td>
<td>50</td>
<td>227.54</td>
</tr>
<tr>
<td>Total</td>
<td>1,512,378</td>
<td>100.0</td>
<td>75</td>
<td>36</td>
<td>89.07</td>
</tr>
</tbody>
</table>
Fact # 3 – Rural farm HHs are maize net buyers

Nearly 39% of rural farm HHs are net buyers of maize

Net Buyers Negatively affected by high FRA maize prices

Source: RALS 2012
Fact # 4: Highly concentrated patterns of maize surplus production, Zambia

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
<th>Hectare</th>
<th>50kg Bags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize sellers</td>
<td>690,885</td>
<td>52.5</td>
<td>2.56</td>
<td>60</td>
</tr>
<tr>
<td>Top 50% of maize sales</td>
<td>59,961</td>
<td>4.6</td>
<td>6.87</td>
<td>345</td>
</tr>
<tr>
<td>Rest of all other maize sales</td>
<td>630,924</td>
<td>47.9</td>
<td>2.15</td>
<td>33</td>
</tr>
<tr>
<td>Non maize sellers</td>
<td>625,562</td>
<td>47.5</td>
<td>1.38</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: RALS 2015
Fact #5 - Excessive FRA participation in the maize market reduces private sector participation.
Fact# 6: Maize centric policy environment

- Policies are oriented towards achieving mainly maize self-sufficiency
  - 57% of 2016 agricultural budgetary allocation to maize subsidies
  - 89.4% farmers grow maize
  - Area under maize 54%
What are the policy options?
Input markets
- Address the bottlenecks of the e-voucher
- Lessons from FAO

Output markets
- Enhancing the role of the private sector

Vulnerable HHs
- Improve effectiveness of social protection initiatives
Acknowledgements

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  - Thomas Jayne, Nicky Mason

- University of Zambia
Thank you for listening!!
Why are Zambia Farmers land constrained?

Considerable land is covered by water, national parks, GMA

Settlements concentrated on areas with infrastructure

Hence, the land constraints in a land-abundant country is not a paradox


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>
</thead>
<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>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>% of PRPs</th>
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</thead>
<tbody>
<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>
</tr>
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