Is Credit and Input Distribution the Answer to Increased Crop Production and Incomes in Zambia?

Presented by:
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Outline of Presentation

1. Objective: think out loud with participants today on how Zambia can better escape from 2 self-perpetuating negative cycles:
   - 1 results in missing agriculture productivity growth & input use
   - 1 results in a lack of progress on agricultural finance options
   - Discuss findings from ZNFU/Profit, and FSRP studies on challenges facing agricultural finance & input market/productivity reform in Zambia.

2. Stimulate discussion of more effective ways forward on credit & productivity for agriculture
Zambia’s Agricultural Finance Market Challenges and Opportunities – ZNFU/PROFIT – Dec 2009 Study

• Three fundamental problems facing Zambia’s agricultural finance and input markets:
  1. A highly-risky lending environment due to unpredictable GRZ intervention & weaknesses in the legal framework;
  2. Limited understanding of agricultural markets & productivity drivers, and limited expertise in agricultural finance among most banks and other financial institutions;
  3. Within agriculture, poor risk management practices, and limited financial analysis and management capabilities.

Recommendation 1. Strengthen Enabling Environment for Zambian Agriculture

  1. Reduce Government direct intervention in agricultural markets and make it more predictable.
  2. Identify strategies for reducing the costs of agricultural production by investing in critical productivity drivers.
  3. Strengthen the legal/regulatory framework for agricultural finance, example warehouse receipts.
  4. Move towards a more transparent and secure agricultural marketing environment to help capture markets in the region and elsewhere.
### Ranking of Alternative Investments: Meta-Study Evidence from Asia and Africa

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<thead>
<tr>
<th>Productivity Drivers</th>
<th>The Economist</th>
<th>IFPRI study</th>
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<td>Policies</td>
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<td>Fertilizer subsidies</td>
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<td>Irrigation</td>
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### Ranking with respect to Agricultural Growth: Evidence from Asia

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<td>Policies</td>
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<td>Road investment</td>
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<td>Agricultural R&amp;D</td>
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<tr>
<td>Credit subsidies</td>
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<td>3</td>
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<tr>
<td>Fertilizer subsidies</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Irrigation</td>
<td>6</td>
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Well Accepted Basics: What Drives Growth in Agriculture?

- Irrigation
  - Small scale and large schemes
- Research, technology and extension
  - GART, ZARI, NISIR, UNZA
- Soil fertility management
  - Fertilizer use & management
  - Conservation farming & other agronomic/soil practices
- Reliable & Competitive Markets
  - Domestic and international
- Strategic Infrastructure
  - Soft and hard (eg. Road building/maintenance, electric power, communication, storage facilities)

Recommendations 2. Strengthen Understanding & Expertise in Agricultural Finance

1. Train lenders in the fundamentals of agricultural economics in Zambia
2. Create specialised agricultural units with in-house agricultural risk assessment skills
3. Engage the agricultural sector to improve understanding, increase information flow, and assess risks
Recommendations 3. Develop and Test New Financial Products and Lending Approaches to Spread, Manage and Mitigate risks

1. Agricultural finance can be profitable – even in a country like Zambia – it works in other countries

2. Examples of innovation needed:
   – The use of non-traditional forms of security
   – Warehouse receipts to obtain loans on inventory
   – Agricultural equipment leasing
   – Reform cotton act to control side selling & facilitate expansion of outgrower credit in kind to farmers
   – Developing agricultural insurance market & hedging tools
   – Use international lines of credit & risk mitigation

Recommendations 4. Improve Financial Management in the Agricultural Sector

1. Farmers also need to work to make themselves more attractive as clients of lending firms:

   - Work hard to demonstrate financial proficiency
   - Invest in crops/activities that have viable financial payoff
   - Build a history & expectations that loans will be paid back
   - Use self-financing mechanism first to show viability of investments – then go to banks for additional loans to expand
Recommendations 5. Insights from Efforts to Reform the Fertiliser Support Programme

- Little overall progress in raising maize productivity
- Poor targeting of farmers/beneficiaries to achieve the programme’s food security objectives;
- Delays in input distribution beyond recommended application dates which significantly reduces the effectiveness of both seed and fertilizer use;
- Poor fertilizer use efficiency among many targeted farmers due to poor and/or missing crop management practices, recommended conservation farming practices, and use of complementary farming inputs;
- Inconsistency in FSP policy implementation such as the reversal of plans to gradually reduce the subsidy level:
- Broad private sector participation in input distribution has not been achieved. Limited opportunities for agro-dealer development
- Poor monitoring of the programme’s implementation and impact;
- Concerns about the programme’s long-term sustainability.

Maize Production Trends 1995 - 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Area Cultivated (hectares)</th>
<th>Maize Production (Mt)</th>
<th>Average Yields (Mt)</th>
<th>% Yield Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>520,165</td>
<td>737,835</td>
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<tr>
<td>1996</td>
<td>675,565</td>
<td>1,409,485</td>
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<td>1997</td>
<td>649,039</td>
<td>960,188</td>
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<td>1998</td>
<td>510,376</td>
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<td>1999</td>
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<td>2000</td>
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<td>850,466</td>
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<tr>
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<td>2002</td>
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<td>2003</td>
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<td>2005</td>
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<td>2007</td>
<td>827,812</td>
<td>1,366,158</td>
<td>1.57</td>
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<td>2008</td>
<td>928,224</td>
<td>1,211,566</td>
<td>1.31</td>
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Maize Productivity Patterns & Trends Summary – ACF/FSRP

- Increases in maize production have come largely from area expansion not yield improvements
  - Maize yield potential for smallholders not being achieved even among participants in the era of FSP
  - Large portion of smallholders with declining maize yield over 03/04 to 07/08
  - More s/m farmers buy fertilizer with self-finance than get it from FSP, yet their yields are likewise greatly below potential

- By 07/08 only 35% of smallholders are fertiliser users, yet their yields only average about 2.4 mt/ha

- Yield improvements among fertiliser users is greatest among smaller land holding categories

- Generally, maize yield also strongly associated with rainfall amount and timing, & agronomic practices

Maize Production:
Area Cultivated and Average yields

[Graph showing area cultivated and average yields over time]

- Pre FSP Era
  - Yield 4-5 Mt/ha

- FSP Era: Target
  - Yield 4-5 Mt/ha

- Year
- Hectares
- Mt/ha

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

• Given the data I have outlined above, what then are your thoughts about the following:
  I. What Government wants to achieve in relation to credit and input distribution?
  II. Does FISP really help farmers out of poverty?
  III. What are the major issues that we need to put in place to achieve sustainable agricultural growth?
  IV. Any political implications/ramifications, etc.