

# Impact Assessment

## Zambia Fertilizer Support Program (FSP)

### Briefing on Main Results

World Bank Country Office, Lusaka

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## This Assessment

### *Key Questions*

- Has the FSP achieved its stated objectives?
- How could the program be improved?

### *Origins and Background*

- Study requested by MoFNP, launched in co-operation with MACO.
- Consultative process involving GRZ and other stakeholders at all stages (kick-off, survey design, data collection, analysis and reporting).
- **Public Expenditure Tracking Survey (PETS) covering 2007/08 FSP season.**

# Recent concerns over the FSP

- **CSO/MACO data raise important questions.**
  - 13% - 70% apparent annual deficit between inputs allocated and inputs received.
  - Major gaps between farmers targeted and farmers reached.
  - Farmer yields with FSP 5% lower than smallholders who use commercial inputs.
  - No improvement in national average yields.
- **ZNFU and others have also voiced concern.**
  - Late delivery of inputs, farmer resources tied up during the wait.
  - Extension work and other types of investment being neglected.
  - Opaque selection process, various examples of malfeasance and misrepresentation.

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## Main Findings

- Total FSP costs were at least K183.7 bn (i.e. 22% more than stated at the start of the season).
- Pack for pack, FSP inputs cost Zambia an average of K245,000 more than private sector benchmark.
- Overall leakage from the system was around 30% (i.e. K55.1 bn or USD 14.3 million).
- Beneficiary selection has been arbitrary and non-transparent.
- At least 70% of inputs received too late.
- FSP produced 70% less maize than predicted by MACO.
- Estimate that FSP has displaced 7-10% of private sector customers.

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# Program Costs

- Analysis shows that FSP costs were K183.7 billion (i.e. 22% more than MACO's original estimate)

	ZMK bn	USD m
<b>Core spending by MACO</b>		
Fertilizer	122.21	31.55
Seed	21.74	5.65
Logistics	20.02	5.20
Administration	3.97	1.03
Other direct costs	1.06	0.28
<b>Sub-total</b>	<b>169.00</b>	<b>43.71</b>
<b>Other FSP costs</b>		
Staff salaries, benefits & costs	4.89	1.27
DAC meetings	0.04	0.01
Extras paid by farmers	9.75	2.53
<b>Sub-total</b>	<b>14.67</b>	<b>3.81</b>
<b>Grand Total</b>	<b>183.67</b>	<b>47.52</b>

- Original budget was K150bn.
- Core spending by MACO at least K169bn (13% overrun)
- Total costs including extras paid by farmers at least K183.7bn (22% more than stated)
- PCO says overruns "always" happen.

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# Cost per Pack

- FSP inputs were more expensive to Zambia than private sector benchmarks in 4 out of 5 provinces.

	Commercial price of 4x4 pack	Cost of FSP pack at farm gate	Extra cost of one FSP pack for Zambia*
Central	1,166,486		302,886
Copperbelt	1,331,306		138,066
Eastern	1,138,347	1,469,372	331,025
Northern	1,211,926		257,446
Western	1,837,400		(368,028)

\* Excluding transport of commercial pack to farm gate.

- Based on the allocation to sampled provinces, the average extra cost was about K245,000 per 1ha pack.

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# Leakage from the System

- **Estimate total leakage around 30% (equal to K55.1 billion or USD 14.3 million).**
  - On average, individual recipients got 72% of the total seed and 69% of the total fertilizer allocation promised.
- **Moreover...**
  - In 20% of sampled districts, number of packs received by co-ops was barely half of what DACOs said they sent.
  - 24 of 40 private shops said they had either heard of or seen FSP inputs being bought and sold by private dealers (usually in large quantities).
  - Backstopping fund of 3,750 packs (worth K5.5bn) unaccounted for.
  - K9.75 billion in extra fees charged to farmers.
  - Deposits not reconciled at national level.
  - Significant delays in paying vendors.

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# Targeting and Selection

- **Beneficiary selection has been arbitrary and non-transparent.**
  - Vague and all-encompassing selection criteria.
  - Little understanding of what the FSP is meant to achieve or who is to benefit.
  - Much talk about “undeserving” beneficiaries, but no definition of who these people are.
- **As a result, strategic focus of FSP is lost.**
  - 45% did not use fertilizer on maize before FSP.
  - 10% produced at full 4x4 before FSP.
  - 28% planted less than 1ha maize with FSP.

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# What did the farmers get and when did they get it?

- **55% of farmers received less than a full 4x4 input pack.**
  - In many cases, this was because they could not afford the subsidized price so decided to share.
  - In other cases, it was because the co-op subscribed too many beneficiaries (after charging K100,000 average for co-op fees).
  - In still other cases, it was because FSP inputs went missing ("*leaked out*") before they reached the co-op.
- **Around 70% of inputs arrived too late.**
  - 63% of inputs reached farmers in November.
  - 32% of inputs reached farmers in December.
  - 68% of inputs received after the start of the rains.

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# Causes of the Delay

- **Timeline for FSP tendering is inherently flawed and inconsistent with timely supply.**
  - MoFNP announces ceiling in October/November and the figures almost never change.
  - MACO waits for parliament to approve the national budget before working on FSP tender documents.
  - Tender documents issued in June, but could be ready in April (...if PCO wasn't overstretched).
- **DACOs only informed of FSP rules in October and November.**
- **Limited and over-stretched capacities at all levels of MACO.**

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# Impact on Production

- **FSP produced 70% less maize than predicted by MACO.**
  - MACO has claimed 3.0 MT per 1ha pack (375,000 MT in 2007/08).
  - This “best case” scenario overlooks timeliness of delivery, regional variations, sharing of inputs, actual levels of fertilizer use, what farmers were doing before FSP, impact on area cultivated, etc. etc.
  - Need to look at incremental production instead.
  - Our estimates suggest 82,000 – 146,000 MT incremental maize only (61-78% less than MACO).

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# Cost per MT

- **Each ton of FSP maize cost Zambia about \$326 to \$580 at the farm gate.**

	No area increase		With area increase	
	ZMK	USD	ZMK	USD
<b>Budget Allocation (K169 bn)</b>				
Sampled provinces	2,026,417	524	1,141,009	295
Rest of Zambia	2,127,321	550	1,188,880	307
<b>Total Zambaia</b>	<b>2,062,317</b>	<b>533</b>	<b>1,158,124</b>	<b>300</b>
<b>Total FSP Costs (K183.7 bn)</b>				
Sampled provinces	2,202,337	570	1,141,009	321
Rest of Zambia	2,312,001	598	1,188,880	334
<b>Total Zambaia</b>	<b>2,241,354</b>	<b>580</b>	<b>1,158,124</b>	<b>326</b>

- **Compare with June 2008 import parity = \$385 into mill.**
  - FSP probably reasonable value for food security in outlying areas.
  - Generally uncompetitive with imports for urban markets.

# Impact on Private Sales

- **FSP appears to have displaced 7-10% of customers at the district level.**
  - 50% of farmers reported buying commercial inputs before FSP (including 10% who were already at 4x4).
  - With FSP, only 43% reported buying commercial inputs.
- **Private networks are available and expanding in many locations.**
  - Most beneficiaries said there were reliable private shops within the district they could reasonably get to.
  - Private sales appear to be growing based on number of shops and turnover.
  - Inputs usually available before start of season.

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# Recommendations for Program Design

- **Start with a clear definition of what the FSP aims for.**
- **Choose selection criteria that are meaningful, easy to apply, and verifiable.**
- **Recognize that “graduation” after two years is impractical.**
  - Even with FSP, the income from maize is not sufficient to afford the inputs needed for next year.
  - Cannot expect sustainable growth from a short-term injection of cheap inputs.
  - Enforcement is bound to be difficult and controversial.
- **Consider moving away from direct procurement.**
- **Consider multiyear programming to send clear signals and avoid pressure for change.**
- **Keep the design simple.**

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## Recommendations for Program Implementation

- Consider if MACO has the capacity to manage such a program.
- Install a dedicated accounting and M&E system to track the flow of funds, distribution of inputs, and total costs.
- Avoid continuous change in rules to reduce burden on administration at national and district levels.

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## Potential of Vouchers

- **What could vouchers do?**
  - One big advantage would be to solve the problem of late delivery by avoiding lengthy tendering process.
  - Could also contribute to much greater and more competitive private sector involvement at the national and district levels.
  - Could reduce leakage if the rules are workable and robust.
- **But...**
  - Important to get the implementation plan right (risk is to create new / different opportunities for leakage or time spent fighting fires with complex technical solutions).
  - Must address other important weaknesses related to beneficiary selection and strategic targeting (choice of subsidy level, years of participation, etc).

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# Final Thoughts

- **Also important for GRZ to consider how input and output subsidies could work together in more strategic ways.**
  - FRA and FSP subsidies together account for 83% of government spending on poverty reduction programs in agriculture.
- **Whatever the solution, GRZ spending on subsidies must be supported by other types of investment to achieve Zambia's strategic growth targets.**