POLICY SYNTHESIS
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ZAMBIA'S 2005 MAIZE IMPORT AND MARKETING EXPERIENCES: LESSONS AND IMPLICATIONS

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Main policy messages for the 2005/06 marketing season:

- Domestic production of maize was inadequate this season; imports are required.
- Yet mixed signals and disincentives have resulted in delays and insufficient quantities of commercial imports, as of December 2005, by both the private sector and FRA.
- Consumers will pay a high price for these delays, as import prices have risen over $100 per ton between July and December.
- Immediate action can facilitate private imports and reduce pressure on consumer prices:
  - make extension of the maize import and import duty waiver period to 31st March 2006 applicable to all importers, including small traders
  - expedite maize import clearance;
  - clarify FRA's intended import volume, period of sale, and selling price to reduce uncertainty for private traders and millers
  - publicize FRA willingness to sell maize grain in small lots to consumers and small traders so that mugaiwa maize meal remains a viable option for low income rural and urban consumers.

INTRODUCTION: This Policy Brief shows how government actions can affect the performance of the maize marketing system and influence the severity of food crises. Examples from the 2005/06 marketing season are used to illustrate how Zambia's food security situation can be improved through closer consultation, transparency and predictability between government and the private sector. The Policy Synthesis also identifies longer-run options for strengthening the ability of local and regional markets to ensure household and national food security in the face of maize production instability. Our analysis is based on interviews with representatives of the Maize Millers Association of Zambia (MAZ), the Grain Traders Association (GTA), the Ministry of Agriculture and Cooperatives (MACO), the Food Reserve Agency (FRA), as well as small-scale traders and hammer millers.

UNANTICIPATED CONSEQUENCES OF GOVERNMENT DECISIONS: WHAT HAPPENED IN 2005? A chronology of decisions and their effects on the maize market is summarized in Table 1. A key feature of this chronology is mixed signals sent to the maize market resulting in disincentives to import even though imports are clearly needed at this time.

MARKET PARALYSIS DUE TO UNCERTAINTY AND RELATED DELAYS: The uncertainty and unpredictability of how the import duty issue was handled caused a paralysis of the import market, whereby importers did not make firm import commitments until the import duty was waived. This was a rational response by private traders, since importing before the duty was waived would have forced them to pay at least $30 per ton more than competing firms who waited

Table 1. A Chronology of events in the Maize Market, 2005

Date	Action/No Action	Implications/Comments
January	• Government raises maize import duty from 5% to 15%	Raises the price at which importation becomes attractive, adversely affecting consumers in a shortfall year
May	• National Food Balance Sheet presented to government showing an import requirement of 85,000 tonnes • Millers, traders, and donors estimate that the commercial import requirement is instead 150,000 tonnes	To what extent is the National FBS able to accurately determine import requirements?
June	• Private sector requests lifting of the 15% import duty • Government refuses	CIF import price from South Africa is at US $210 per tonne
August 12	• Millers agree that 186,000 imports required • Millers request import permits from MACO and duty waiver from MFNP	CIF import price increases to $236 per tonne
August 26	• MACO announces lifting of import ban and that it will issue import permits for 150,000 tons millers and 50,000 tons to FRA • Ministry of Finance and National Planning still refuses to waive the import duty	Private sector continue to lobby government on waiving of duty
September 13	• After heavy lobbying by all the stakeholders, MFNP agrees to waive duty	No imports yet as permits not yet issued
September 26	• MACO issues permits • Millers begin to contract for imports	CIF price $256/ton
October and November	• FRA releases 50,000 tons of locally procured maize through tender at $210/ton (CIF import price stands at $266-287);	FRA's selling of maize substantially below import price causes many millers to opt for cheaper FRA maize instead of importing
November 8	• MACO advised private sector to stop importing because they are failing to comply with new phytosanitary regulations	Imports further slowed
November 15-18	• Millers finance trip to South Africa for Mt. Makulu phytosanitary unit Inspector to confirm that 8 new pests are not present in regions where traders are arranging exports to Zambia	"Wait and see" approach taken by private sector as they await the outcome of the inspection
November 21	• President Mwanawasa declares a national disaster at the request of Parliament.	
November 23:	• Mt. Makulu issues phytosanitary clearance; permits imports to resume	Thirteen days lost; CIF price from South Africa rises to $278 per tonne
December 3	• President Mwanawasa announces that millers should lower maize prices significantly due to the abrupt strengthening of the Kwacha (up 26% in two weeks)	Traders and millers who have already paid up contracts at the old exchange rate stand to lose 26% on their imports
December 7	• Stakeholders meet with MACO to discuss the maize situation	Exchange rate reduces Kwacha price of imports; but rising grain prices and transport costs combine to offset these gains
December 19	• Importation period extended to 31st March, 2006 • MACO writes to Ministry of Finance and National Planning to extend the import duty waiver	Potential for the uncertainty over the extension of the waiver to constrain imports (CIF price from South Africa rises to $320/tonne
December 28	• Import duty waiver extended to 31st March	

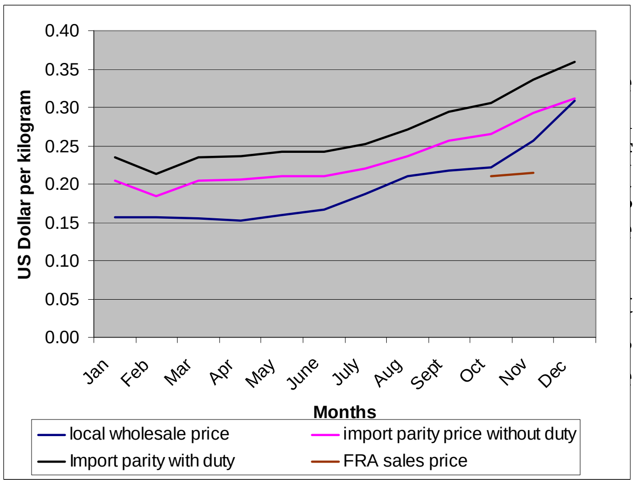
to import until after the duty was waived. The delay in waiving the duty also pushed imports into a period when South African prices were higher than earlier in the season. Moreover, because of increased demand for transport services in the region, current transport rates are higher and transport delays more severe than they were earlier in the season. Further delays are likely to occur at the major border crossings once large numbers of trucks start rolling in, adding to the already overstretched capacity of Zambia Revenue Authority (ZRA) and Customs. Random testing for phytosanitary requirements may also add to these delays, even though management of Mount Makulu indicated that testing is not time consuming and should not cause additional delays.

IMPACTS OF MARKET PARALYSIS: The consequence of the above situation was that, as of December 16, 2005, the private sector had imported only 40,000 tonnes of maize, and FRA has yet to import any maize. The combined effect of the delayed import duty waiver, phytosanitary certification issues, and resulting logistical constraints is that imports may be delayed by up to four months. At the same time, significant maize exports, estimated to be as much as 500 tonnes per day, continue from the Copperbelt to DRC. Of the 40,000 tonnes imported so far from South Africa, only 5,000 tonnes had arrived in Zambia by November 8. Another 17,000 tonnes arrived between November 8 and December 6, and another 18,000 tonnes arrived between December 7-16, 2005 (MAZ). While data are not available on informal maize imports, stakeholder interviews indicate that maize has been moving into Zambia from Tanzania. These informal flows may turn out to be a great help to Zambian consumers in the months to come.

The accelerated import flows from November 8 show that when market impediments are dealt with and there is reasonable policy certainty in the market, then the private sector can respond effectively. This is an example of how predictable government behaviour can trigger effective private sector response. The accelerated imports seen in the last two weeks seem to emanate from the conclusion of the consultative meeting the Minister of Agriculture and Cooperative had with industry stakeholders on December 7, 2005.

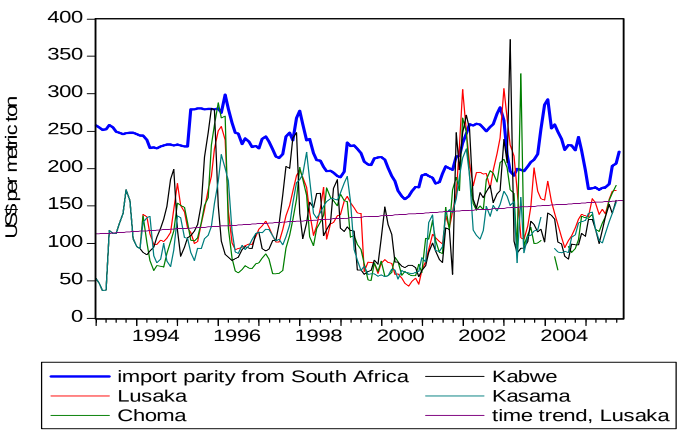
LOCAL AND IMPORT MAIZE GRAIN PARITY PRICE TRENDS: From January to December, 2005, the local maize price has persistently remained below import parity but had swiftly been moving towards convergence by December, showing an import-driven market (Figure 1).

Figure 1. Local and Import Prices for white maize (US Dollar per kilogram in 2005)



The FRA price has not only been below the import parity price but also below the local market price. This explains the preference of millers to buy local maize instead of importing maize and the slow pace of imports despite the duty waiver and the resolving of the SPS issues. The frequency of local prices hitting import parity (Figure 2) should not be surprising as it is concomitant with the apparently ever more frequent food deficits in Zambia.

Figure 2. Domestic Maize Prices Reaching Import Parity More Frequently

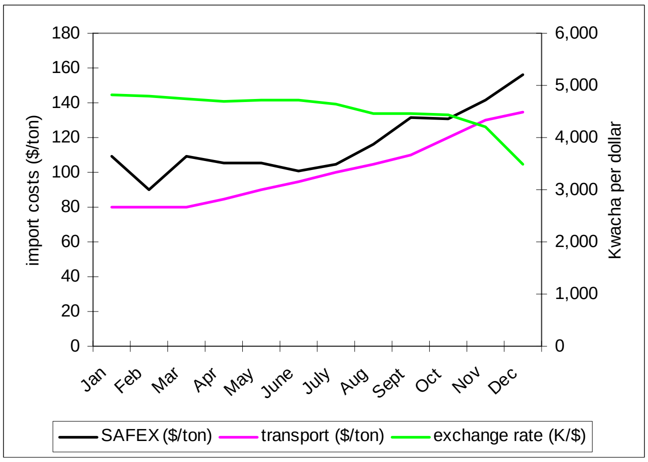


Source: Ministry of Agriculture and Cooperatives, Government of Zambia, and transport cost data from local transporters.

There are various sources of changes in maize import prices. First, there are the seasonal characteristics of the commodity exchange, South African Exchange (SAFEX), which generally occur each year. In recent months, increased transport costs from South Africa have increased due to increased demand by not only Zambia, but other market participants such as Zimbabwe and Malawi.

The South African Rand strengthened against the United States Dollar in recent weeks, placing further upward pressure on dollar-based import prices. An estimated reduction of maize plantings in South Africa for 2005/2006 is further contributing to higher maize prices on SAFEX (AMT 2005). Figure 3 breaks down the change in maize import prices into the sources of changes, whether from SAFEX price changes or transport costs. Mitigating these price rises is a strengthening of the Zambian Kwacha with respect to the USD (Figure 3).

Figure 3. Sources of Change in Maize Import Prices, 2005



While the strengthening of the Kwacha has reduced the kwacha cost of importing maize, the combined effect of higher SAFEX price and increased transport costs has offset the exchange rate gains.

Transport is very difficult to book into Zambia from South Africa. Transport rates have nearly doubled, from $80/ton early in the season to US$150 by December, 2005. The increase in transport costs together with the increasing SAFEX price and have pushed the CIF price to more than US$320 in December from $230 in July, 2005. The increased buying of maize by the World Food Programme (WFP) may also be a contributing factor to the increase in CIF price. Some grain traders, such as AFGRI, are quoting their prices for local delivery of imported maize in the range of US$320 to US$350 per metric tonne.

Local maize prices have risen to between US$290-365 per ton (CHC Commodities Market Report). The increase is consistent with rising prices on SAFEX and equally important is driven by the demand from industrial users who are unable to procure sufficient rations of cheap FRA maize. More than anything, the rising prices in Zambia reflect the constraints impeding the flow of maize importation.

IMPACT OF NEW PHYTO-SANITARY CERTIFICATION REQUIREMENTS: New phytosanitary regulations increasing the number of pests and diseases to be checked were introduced in 2004, but they were not operative last season because Zambia did not import maize during the 2004/05 marketing year. The legislation mandates that the newly added pathogens require testing while the crop is still in the field. But this testing was not carried out in 2005 because neither the South African authorities nor prospective maize buyers and sellers were aware of the prior change in legislation until they initiated maize importation in November, 2005. A modified procedure to check for these pathogens while maize is in storage was however developed and implemented. Recent findings suggested that the additional pathogens do not exist in South Africa and certification is now taking place as usual. However, the fact that the private sector was largely unaware of the new requirements slowed down imports by close to two weeks.

FRA MAIZE SALES PROCEDURES AND ACCESS BY SMALL TRADERS AND HAMMERMILLERS: At the request of large millers and in an effort to reduce mealie meal prices to consumers, the Food Reserve Agency (FRA) is selling 110,000 tonnes of maize from November 2005 to March, 2006 as summarized in Table 2.

Table 2. Food Reserve Agency Maize Sales (Intentions) to Registered Millers

Month	Year	Quantity, Tonnes
November/December	2005	35,000
January	2006	25,000
February	2006	25,000
March	2006	25,000
		110,000

Source: Food Reserve Agency

These stocks are sold by tender to millers only. With few millers that meet the tendering requirements the established sales price tends to be below market price. Being awarded a tender is highly lucrative because FRA is selling the maize at US$210 per tonne, while the landed cost of maize imports from South Africa are in the range of $350 per tonne. Millers who can acquire maize from FRA are given a great advantage in the market *vis a vis* millers who either get small allocations or cannot source maize from FRA at all.[1] It is also possible that selling maize at subsidized prices to millers benefits the millers more so than consumers. Moreover, by selling maize at subsidized prices, the FRA may provide yet another disincentive to traders to import maize, because they are vying to sell to the same millers being supplied by the FRA at a substantially lower price.

The FRA's pan-territorial prices also disadvantage traders who must pay the full transport cost of buying grain in rural areas and selling in urban areas. By adopting a uniform and subsidized selling price, the FRA is undercutting private traders and encouraging them to do the opposite of what the government would want the private sector to do – buy maize in rural areas and make it available to millers and consumers in urban areas where it is needed.

There is need to ensure that FRA releases adequate supplies onto local markets, so that small millers, small traders and consumers can continue to acquire grain to mill into *mugaiwa*. Consumer surveys in Zambia show that most of the urban poor rely primarily on informal traders and small millers for their maize meal and could reduce their expenditure on maize by 20% by purchasing grain and milling it into mugaiwa at a neighborhood small mill as opposed to purchasing packaged breakfast meal in a store (Mwiinga et al. 2003). From our Rapid Appraisal in late October, we estimated the market shares of mugaiwa to be as much as 50% of urban maize meal consumption in the May-August period (Zulu et al. forthcoming), but it dwindles down to almost nothing if grain becomes unavailable in local markets.

Based on surveys of 42 hammermillers conducted in November and December 2005 in Lusaka and Copperbelt Provinces, the FSRP found that each mill averaged 36 tonnes of maize throughput per month in June-July, but this has dwindled to 12 tonnes per month by December. Only two of the 42 millers surveyed were selling mealie meal through the entire season so far. One miller buys from traders and the other miller grows maize on a large family farm and supplies it to his grain mill, so he is able to continue selling in spite of maize having become very scarce in local markets. Of the 42 millers interviewed, 21 say there is no maize to be bought in their local market, 14 say supplies are available but extremely scarce, and only 7 say they can buy maize in their local markets. If urban consumers become unable to purchase maize grain in local markets, they will become dependent on purchasing higher-priced commercial meal and this will further jeopardize their ability to afford adequate food in this year of already very high food prices.

Small traders and millers play an integral role in ensuring competition in the grain milling industry in Zambia. Government practices that foster their ability to thrive would both encourage greater competition in the grain marketing system and help poor urban consumers. Unfortunately, despite the fact that FRA apparently stands ready to sell maize on a "one bag-one bag" basis to small traders and millers, none of the 42 hammermillers have purchased any maize from FRA (Zulu et al. forthcoming). When asked why not, the hammermillers stated that they either don't know what FRA is, or have no capital to buy from FRA. One miller stated his belief that the minimum buy quantity is one tonne (20 bags) and that most small millers lack the financing to purchase such volumes.

FRA IMPORTS: The Food Reserve Agency, through the National Tender Board, has issued a tender for the importation of 50,000 tonnes of maize. However, delays at the National Tender Board have caused the potential suppliers to need to re-submit their bids to adjust to the price changes on SAFEX that have occurred in the meantime. Care will need to be taken in determining how to allocate this FRA maize and at what price to sell it, in a way that is perceived to be fair and doesn't disadvantage traders seeking to import commercially. If traders and millers who have taken the initiative to import commercially turn out to lose money as a result of FRA's selling maize more cheaply to

[1] FRA management stated that it would like to sell maize at cost, but is being directed to sell at US$210 per tonne.

competing millers, it is likely to send the message that importing maize into Zambia in times of production shortfalls is too risky and uncertain to warrant further investment and would increase the probability that the government would need to step in more actively in future drought years. This, of course, is contrary to objectives of the strengthening of grain markets and regional trade, well articulated in the Agricultural Market Development Plan (AMDP).

CHOCKED TRANSPORT SYSTEM AND IMPLICATIONS: Whilst the importers (including WFP), who were ready to import maize from South Africa to Zambia in early November, 2005, are now able to continue their operations, unfortunately, the scarce rail and road transport that was booked earlier had to be postponed at a substantial cost and with delayed availability. Transport is becoming extremely scarce and costly in the region, due to large volumes of maize shipped to Zimbabwe and Malawi from South Africa. Consequently, transport costs have now increased to US$150 per tonne, up from US$80 per tonne in the past several years (MAZ).

THE TANZANIAN ALTERNATIVE: Southern Tanzania enjoyed a relatively good maize harvest in 2005. Representatives from the maize industry estimate that 40,000 to 60,000 tonnes of maize has been imported from Tanzania into Zambia by small traders. It is likely that the maize imports from Tanzania were stimulated by the high FRA buying price of ZK36,000 per 50 kg bag (roughly US$160 per tonne). However, the full benefits of this trade were not captured especially by the informal traders because of a discriminatory duty waiver system. The duty waiver is provided only to millers and traders with import licenses. Small traders not able to acquire import licenses were paying ZK7,500 per 100 kilogramme bag (roughly US$15 per tonne). As these traders are the main source of maize for the small millers and hammermillers the effective duty is likely to have been passed on to low-income consumers in form of higher maize prices. Thus not only did the duty constrain imports in a production shortfall year, it also is likely to have raised the cost of maize grain for poor consumers.

IMMEDIATE ACTION THAT WOULD FACILITATE PRIVATE SECTOR IMPORT.

- **Application to all sizes of importers the extension on maize import and duty waivers already agreed through March 31, 2006:** Extension of the maize import and duty waivers should apply to all importers of maize, not simply registered marketing agents. This would help especially informal traders and low-income consumers access maize.

- **Exploration of possible fast-tracking of maize imports:** Border checks based on pre-shipment verification documents could continue to accelerate imports as would suspension of Regular Customs and ZRA administrations. In addition, Government could, on a bilateral basis, engage both South Africa and Zimbabwe to facilitate flow of maize through Beitbridge. In addition, the Government could ask the Republic of South Africa to temporarily provide more rail wagons to the Railway Systems of Zambia.

- **Isssuance of a clear statement regarding FRA's import arrangements, overall sales and pricing modalities:** To ensure adequate maize supplies, FRA's participation in the market needs to encourage rather than discourage complementary private sector imports. It will be important for FRA to announce its import intentions and sales (especially pricing) modalities immediately. The import quantities announced by FRA will need to be based on realistic projections of available resources and transport capacity. The announcement of exaggerated intentions will result in private sector holding back and a possible supply vacuum. Mixed signals and continued uncertainty will result in reduced commercial imports and will cause urban food shortages. If pricing modalities allow for subsidized sales, this will provide a disincentive for traders and may depress the commercial importation of maize.

- **Finding the means to import the 50,000 tonnes designated for import by the FRA, or identification of alternate means to obtain these supplies:** The uncertainty surrounding these importation modalities is adversely affecting potential private sector imports. Further delays may have a negative spillover effect on next year's crop.

- **Publicizing more widely that the FRA has grain stocks and is willing to sell maize on a one-bag/one-bag basis to all buyers:** Consumers' access to maize grain for purposes of milling it into mugaiwa for the remainder of this season is likely to require active selling of maize by the FRA to small-scale buyers who supply local markets such as Soweto Market in Lusaka. If the FRA opens selling stations near the main markets and sells on a cash basis with the minimum amount being one bag, this could make a huge contribution to urban food security in the next several months.

- **Transparent, predictable, and con-sultative operations by Government in the maize market:** The guiding principle is that there should be transparency and predictable behaviour by government in its rules of engagement in the grain market. Greater consultation, transparency, and predictability will reduce the risks facing private maize importers. This can also help strengthen mutual trust and facilitate coordination between the private and public decisions in the market. Government decisions through the FRA should be consistent with its resources. For example, if the FRA announces its intention to import 200,000 tonnes but is given the foreign exchange to only import 100,000 tonnes, this could lead to a food shortage later in the year if the private sector based its own import decisions on the stated FRA import figure.

- **Millers also need to be transparent:** Lack of transparency amongst millers leads government to act out of fear. Mutual consultation, coordination, and trust can be nurtured by holding frequent stakeholder meetings so that the private sector can also provide information and clarify intentions in the market.

WHAT NEEDS TO BE DONE IN THE MEDIUM TO LONG-TERM? Longer-run issues need to be dealt with over time to enable Zambia to deal more effectively with future food crises:

Support diversification of staple food consumption patterns: The food security situation in the region is being helped by increased diversification of staple food consumption in the country. The increasing role of cassava, a drought tolerant crop that can be stored in the ground, provides new potential to stabilize food consumption in the face of maize production shortfalls. Its potential substitution for maize in livestock feeds and brewing offer the potential to reduce maize import requirements. The availability of a drought-tolerant crop that is less prone than maize to extreme production fluctuations provides some relief in the degree to which maize supplies can fluctuate from year to year without seriously aggravating food insecurity.

Support private sector supply chains for alternative crops: Government can promote more stable farm revenue and consumption patterns through supporting private systems of input delivery, finance, and commodity marketing for a range of crops that can offer profitable returns to small farmers. Such investments would represent a shift from the strategy of price stabilization and price support for a dominant staple grain to a portfolio approach that puts greater emphasis on a range of higher-valued commodities. This approach would shift the emphasis from direct approaches to stabilize and/or support the price for a dominant staple grain to one of minimizing the impact of food price instability by making the socio-political economy less vulnerable to the effects of food price instability.

Public goods investments: Many agricultural market failure problems in Africa reflect an under-provision of public goods investments to drive down the costs of production, marketing and contracting. Preventing market failure is likely to require increased commitment to investing in public goods (e.g., road, rail and port infrastructure, R&D, agricultural extension systems, market information systems) and institutional change to promote the functioning of market-oriented trading systems. Unfortunately the large share of government expenditures devoted to food and input marketing operations means that these funds cannot be invested in public goods to promote the functioning of viable food markets. The current pressure on the regional transport system has exposed capacity issues that need addressing. The regional transport capacity needs to be enhanced.

Policy clarity: The future role of the FRA needs to be clearly spelt out. The vision in the MTEF with regards to commercializing the FRA by 2008 needs to be further articulated and harmonized with the vision as laid out in the AMDP.

Reconsider import duties on maize for unregistered traders: Government should encourage rather than tax informal flows such as those from Tanzania or to DRC. Such trade flows represent comparative advantage and can help to integrate the region and thus make it less vulnerable to trade disruptions. By maintaining its open border policy on maize trade, Mozambique has shown positive effects on both farmers and consumers (Mwanaumo et al 2005). Simplifying licensing and border procedures, especially for small traders and facilitating flow of market information are key to fully realizing the benefits of such open trade policy. Information on such trade should be captured and provided to market players to prevent information asymmetries. The industry does not seem to have good market information and contacts to effectively access these markets. Government can collect and disseminate such information as part of its market development mandate.

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