Getting It Right: How to Make Grain Trade Work for Zambia

By

Brian Chisanga, Mitelo Subakanya, and Mirriam Makungwe

Working Paper No. 144

November 2018

Indaba Agricultural Policy Research Institute (IAPRI)
Lusaka, Zambia
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The Indaba Agricultural Policy Research Institute is a non-profit company limited by guarantee and collaboratively works with public and private stakeholders. IAPRI exists to carry out agricultural policy research and outreach, serving the agricultural sector in Zambia so as to contribute to sustainable pro-poor agricultural development.

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Any views expressed or remaining errors are solely the responsibility of the authors.

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EXECUTIVE SUMMARY

Agricultural exports—and maize in particular—have great potential to significantly boost Zambia’s foreign exchange earnings. In 2016, Zambia earned about $172 Million as revenue from maize exports or 28% of total agricultural exports, which were $611 Million. Apart from revenue generation, openness to grain trade holds a number of benefits for the country including helping farmers to generate higher incomes from exports. Thus, grain exports can positively contribute to employment creation in the agricultural sector, which accounts for more than 50% of the nation’s labor force.

Arguments against open grain trade have been premised on the need to attain food security for national citizens whenever national supply is threatened. This has led to government using policies that restrict exports of maize and maize meal in order to safeguard national stocks, which are often implemented along with a range of price controls. The effects of export restrictions, which are mostly unpredictable and not transparent, include loss of export revenue, high price volatility, increase in informal cross border trade, and reduced private sector investment, among other adverse effects. Further, research evidence has shown that export bans do not lower consumer prices.

Trade could be a great winner for Zambia but this requires policies that ensure that borders are open consistently, creating the conditions that enable trade, and facilitating trade by simplifying export procedures. The first objective of this paper was to show the importance of open trade in grains for the growth of the subsector. Secondly, the paper sought to discuss how open trade stimulates private sector investments and how this helps Zambia. Thirdly, the paper sought to provide policy steps for making grain trade work and ensuring trade contributes to growth in Zambia.

This paper was mainly a synthesis of studies previously conducted on Zambia’s participation in regional markets for grains. Whilst previous IAPRI studies were the main source of literature, the study was also informed by literature from other sources including government policy documents, peer reviewed journal articles, World Bank publications and grey literature sources including newspaper articles. Secondary data was also used to fill the gaps where literature was unavailable and to update relevant statistics.

Study findings

The main findings of the study are as follows:

1) Trade restrictions have been a prominent feature since independence including the post-liberalisation era. This is because there seems to be an implicit ‘social contract’ between government and its citizens whereby successive governments try to keep consumer maize prices low while keeping incentives high for farmers through high producer prices. Thus, high interventionist trade policies have characterised grain trade policies including export bans, import restrictions, direct importation and exportation of maize by the Food Reserve Agency (FRA) and price stabilization through subsidizing millers, among others.

2) The current trade policies have witnessed an increase in the imposition of trade restrictions including outright export bans. This, however, coincides with the period when Zambia has become a consistent surplus maize producer with potential to be a consistent grain basket for the region. Since 2012, there have been at least four cases of maize export bans either using a statutory instrument or administratively through
delays in the issuance of export permits. The private sector, which has demonstrated willingness and ability to procure grains from farmers at competitive prices when the conditions are in favour, have been largely constrained by the unpredictable policy environment.

3) While it is often argued that open trade could eventually lead to food insecurity for the country, the opposite is true. Open trade is not at variance with government’s aspirations of attaining food security, but instead can be an effective instrument for reinforcing food security by promoting surplus production thus making more food available to Zambia’s population.

4) The main effects of export restrictions and bans on grain have been negative: increases in price volatility; reduced investments by farmers and private sector; loss of potential government revenue; losses to the national treasury; increase in informal and often illegal cross border trade; and loss of export markets to competing suppliers.

5) Consistent trade policies promote private investment and this helps Zambia attain growth of the grain sectors. Zambia’s grains sector, which has already reached net surplus production status, can only expand significantly with export as an incentive given a relatively small domestic market. The input sector, particularly the seed sector, provides good lessons for output marketing because government only plays a regulatory role. This has resulted in Zambia’s seed sector becoming a consistent supplier to the region without undermining seed availability in the domestic market.

Recommendations

The paper makes the following recommendations:

1) **Implementing Consistent Open Border Policies.** Government should not institute any trade restrictions either through Statutory Instruments or administratively (*de facto* export bans) using delays in the issuance of export permits. Based on the exportable surpluses announced at the beginning of every marketing season, the government should announce how much the country is expected to export and issue permits based on that.

2) **Creating conditions that enable trade.** Helping to capitalize the Zambia Marketing Agricultural Commodity Exchange (ZAMACE), which requires large volumes for it to be fully functional. Government can help capitalize it by purchasing a portion of the Strategic Grain Reserve (SGR) though ZAMACE platform. Government should consider having a mixed portfolio of physical and virtual stocks in managing SGR.

3) **Trade facilitation and simplification of export procedures.** There is need to facilitate trade by a) Decentralizing the issuance of maize export permits to provincial offices of the Ministry of Agriculture (MoA) as well as the regional offices of the Zambia Revenue Authority (ZRA) officers; b) Further decentralizing issuance of the Sanitary and Phytosanitary (SPS) and Genetically modified organism (GMO) certificates that are still issued centrally by the Zambia Agriculture Research Institute (ZARI) to regional officers or at border posts; c) Implementing the one-stop-window for border procedures by ZRA; and d) Support initiatives that help small scale traders to comply with export procedures such as the COMESA Simplified Trade Regime (COMESA-STR).

4) **Establishment of the Zambia Grain Information System (ZAGIS):** Government decisions on agricultural marketing tend to be affected by lack access to updated market information such as stock levels in the country. While the stocks monitoring committee is meant to fulfil this role it lacks the legal mandate, therefore, some
stakeholders are not compelled to declare the correct stocks. Investing in a national grain information system would provide real time information on national stocks and would help Government to make the right policy decisions in a timely manner. ZAGIS can be instituted through statutory institution and would be based on the current legislation that compels stakeholders to avail Government stocks and other market information.

5) Harnessing large-scale commercial farmers’ potential to produce early maize: With the noted decline in large-scale maize production there exists a great opportunity for the government to harness large-scale commercial farmers’ potential to produce early maize for export under irrigation. The early maize programme should be up-scaled to ensure that Zambia secures its export market. The country has the potential to earn significantly more forex. To be successful, the government need to provide a policy guarantee allowing exports of maize produced under such a programme. Without policy guarantees large-scale farmers will continue to shun maize production.
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1. INTRODUCTION

Zambia’s benefits from open agricultural trade can be enormous. The agricultural sector is recognized as a potential earner of foreign exchange revenue and as means of diversifying away from mining (GRZ 2016). Indeed, agricultural exports—and maize in particular—have significantly boosted foreign exchange earnings for the country. For example, in 2016, Zambia earned about (US Dollar) US$172 Million as revenue from maize exports or 28% of total agricultural exports, which were US$611 Million. The share of maize in total export revenue was even higher in 2012, when the country earned US$414 Million or 34% of total agricultural exports, which were US$1.2 Billion (Chapoto, Chisanga, and Kabisa 2017).

Arguments against trade have been premised on the need to attain food security for national citizens whenever national supply is threatened. This has led to Government using policies that restrict exports of maize and maize meal in order to safeguard national stocks as well as price controls that aim to keep prices within tolerable levels. While restrictive trade policies may be intended to safeguard the welfare of Zambian citizens, the unintended consequences are quite dire. Export restrictions and bans result in loss of export revenue, lead to high price volatility, exacerbate informal cross border trade, and discourage private sector investment among other adverse effects. Further, research evidence has shown that export bans do not lower consumer prices (Chapoto and Jayne 2009; CTPD 2014; Chisanga, Chapoto, and Subakanya 2017). Despite the evidence, government time and again resorts to export bans whenever there is a perceived food security threat to the country.

Trade could be a great winner for Zambia but would require policies that ensure that borders are open consistently, creation of conditions that enable trade to take place rather than hinder it. Evidently, the challenge faced by government in creating a predictable and transparent market environment for grains lies in its policy decisions. To attain systemic and policy changes, evidence is needed to inform policy makers, hence the need for this research.

The first objective of this paper was to show the importance of open trade in achieving growth of the grain subsector. Secondly the paper sought to discuss how open trade stimulates private sector investments and how this helps Zambia. Thirdly, the paper sought to provide policy steps for making grain trade work and ensuring trade contributes to growth in Zambia.

The main contribution envisaged by this paper is to shape the understanding of policy makers and other stakeholders on the role of open trade in agriculture as the catalyst for growth of the sector through increased private sector investments. It is also hoped that the findings of this paper will stimulate positive policy discussions that will encourage the adoption of transparent trade policies for trade facilitation, which will also crowd-in private sector participation as a means of achieving growth in the sector.

The remainder of the paper is organized as follows: Section 2 discusses the data and methods and in Section 3, the paper reviews the effect of trade policies on Zambia’s grains. Section 4 discusses the effects of trade restrictions on grain trade while in Section 5 the paper explains why consistent trade policies promote private investment and how this benefits Zambia. In Section 6, the paper discusses how grain trade can be a winner for Zambia and concludes in Section 7.
2. DATA AND METHODS

This paper was mainly a synthesis of studies previously conducted on Zambia’s participation in regional markets for grains. Over the years, the Indaba Agricultural Policy Research Institute (IAPRI) has generated evidence on the need for transparent trade policies in grains, the benefits of participating in grain trade as well as the negative effects of export bans and associated restrictive trade practices. Drawing on this evidence, this study used the main arguments in the various studies to highlight the policy steps needed for open trade to benefit Zambia. Whilst previous IAPRI studies were the main sources of literature, the study was also informed by literature from other sources including government policy documents, peer reviewed journal articles, World Bank publications and grey literature sources including newspaper articles.

Secondary data was also used to fill the gaps where literature was unavailable and to update relevant statistics. Secondary data sources included government statistics from the Central Statistics Office (CSO), Ministry of Agriculture (MoA), World Trade Organization (WTO) and various policy documents. Key informant interviews were also used to complement and validate some of the findings from literature and secondary sources of information.

Noting that maize has been the most dominant grain traded between Zambia and its neighbors, the study takes a disproportionate focus on maize. However, wherever possible, reference is made to other tradable grains such as soya beans and wheat, where Zambia has significant prospects of realizing a net export status.
3. REVIEW OF THE EFFECTS OF TRADE POLICIES ON ZAMBIA’S GRAINS

3.1 A Brief Historical Context of Trade Restrictions in Zambia

In order to comprehend the current trade policies in grains, a brief historical overview of trade policy implementation is necessary. The foundation of present day trade policies in grains is the food price dilemma inherent in most governments in Southern and Eastern Africa (Timmer 1986). On the one hand, policy makers are under pressure to ensure that maize producers receive adequate incentives to produce and sell the crop. On the other hand, the food security of the growing urban population and rural households who are net buyers of maize depend on keeping maize prices at tolerable levels (Chapoto et al. 2015). In trying to balance these competing needs, government has found itself having an implicit social contract with its citizens requiring it to ensure that maize is available at the lowest possible cost to consumers.

The support to maize marketing was anchored on the creation and operation of a state marketing board called National Agricultural Marketing Board (NAMBOARD). During the period commonly referred to as the First Republic (1964 – 1972) NAMBOARD bought maize differential prices from farmers along the line of rail. The Second Republic (1972 – 1991) witnessed the implementation of pan-territorial maize pricing through NAMBOARD and the ushering in of the cooperative society movement among others policy measures (Howard and Mungoma 1996). The government provided guaranteed markets for various crops, increasing the number of crops for which it set the producer and consumer prices (Kean and Wood 1992). In addition to other subsidies, this policy contributed to the increase in the fiscal deficits compelling the government to dissolve NAMBOARD in 1989.

The Third Republic (1991–2001) was greatly influenced by the adoption of Structural Adjustment Programs (SAPs) of the International Monetary Fund (IMF) and the World Bank, which were aimed at economic liberalization. Among the consequences of SAP, which also happened to occur in a drought year, were food shortages and price shocks, which led to the food riots of 1991. The 1991 food related riots to a large extent helped to heighten the treatment of maize as a dangerous political crop, and has continued to shape the entire agricultural policy in Zambia (Zulu, Sitko, and Namonje-Kapembwa 2015). In 1993, the government announced its withdrawal from maize marketing and allowed private sector traders to enter the maize market (Rakner 2003). The crop marketing system however broke down as buying agents misused the funds and government was unable to maintain the floor price. While the government was trying to disengage itself from maize marketing, it found it difficult to do so because the private sector did not seem to be ready to take up its role. In 1996, the government established the Food Reserve Agency (FRA), with an original mandate of administering a national food reserve.

The Fourth Republic runs from 2001 to present. During this period, there has been a substantial increase in government expenditure on input subsidies and maize marketing. The share of the agricultural budget spent on maize marketing and input subsidies increased from below 40% in 2002 to as high as 90% in 2013. Figure 1 shows that the FRA significantly increased its purchase of marketable maize surplus on the market. During this period, smallholder farmers have also increased their maize sales relative to commercial farmers most of whom have opted out of maize production. This period has been largely characterized by ad hoc or unpredictable trade and marketing policies.
The FRA has particularly contributed to this instability after the 2005 Food Reserve Act mandated it to participate in crop marketing. In some years, the government has been providing guarantees to the financial sector enabling the FRA to borrow on the commercial credit market in order to expand its activity in the maize market (Sitko and Kuteya 2013). The increased role of the FRA has hindered the involvement of the private sector in the market by crowding it out. During the 2010/2011 marketing season when the FRA held excess maize as a result of purchasing the majority of the maize on the market, it participated directly in maize exports to the region, selling below the purchase and marketing costs (Sitko and Kuteya 2013). This not only crowded out the private sector in grain marketing- both in the domestic and export markets- but also resulted in major losses to the treasury. While the FRA plays a critical role of maintaining strategic reserves for the country, it is the expanded role into crop marketing as well as unpredictability of its actions that have presented the major challenge to the sector.

In summary, trade policies regarding maize have historically been chaotic. Table A1 (in appendices) details the key historical trade policies in Zambia from 1991 to 2018, while Figure 2 summarizes the trade policy implementation in relation to surplus/deficit maize position. While Zambia moved from being a deficit producer of maize prior to the year 2005 to a surplus maize producer thereafter, the government continued pursuing similar policies of intervening in maize trade. Protectionist policies such as export bans, import restrictions, direct importation, and exportation of maize by the FRA, price stabilization through subsidizing millers among others have continued during maize surplus years.
Other than maize, there have only been a few policy pronouncements targeting other grains. In the case of wheat, for example, the rise in the import parity price in July 2008 caused the government start protecting local commercial farmers from cheaper wheat imports in order to hasten the country becoming wheat self-sufficient (Chapoto 2012). The high domestic wheat price has acted an incentive for farmers to increase investments in wheat production, which has made Zambia to be self-sufficient in wheat production over the years. Note, however, that whenever Zambia’s wheat production falls short of its national requirements, Government has had to waive off the import restriction by allowing specific imports by the private sector.

3.2 Policy Landscape of the Grain Trade in Zambia

With increasing government interference in maize marketing as highlighted, maize export restrictions have also become commonplace. Maize trade is regulated in two main ways. One is formally, through the issuance of a Statutory Instrument (SI) by the Minister of Agriculture that explicitly bans the export of maize (CTPD 2014). This is normally accompanied by an announcement. Although this formal way of regulating trade is publicly announced, there is generally a lack of clarity on the criteria that triggers their implementation and how long it lasts. Usually they are implemented as a way of preventing exports in order to safeguard the food security of the country, whenever export levels are regarded to be detrimental.

The other method is through de facto export bans, which are often implemented by administratively limiting or delaying the issuing of export permits (CTPD 2014). The Government does not announce the ban but limits the number of permits issued or in some cases delays in issuing permits to would be exporters. Apart from the challenges associated with export bans in general, de facto export bans pose further constraints in that they far less
less transparent as stakeholders are not even made aware of their implementation causing long delays at border posts by exporters and generally failure to access export markets.

Figure 3 shows maize exports between 2010 and 2017 and the timing of export bans on maize and its products. In the last 5 years, there have been at least two major periods when export bans have been implemented: 2012 to 2014 and 2016 to 2017. The period 2012 to 2014 was characterized by large maize surplus production, FRA purchasing maize significantly beyond strategic reserves, holding the majority of the maize stocks on the market and the implementation of subsidies to millers. The export bans therefore, were in response to price spikes arising from a number of structural factors including the fact that the FRA centrally held the majority of the maize and could not effectively distribute it when required, particularly in the far-flung areas (Sitko and Kuteya 2013).

In December 2012, following a third consecutive bumper maize harvest, the government announced the suspension of maize exports due to rising maize meal (maize flour) prices. In September 2013, SI No. 85 was signed once again to ban maize grain exports, although the ban was later lifted on maize bran through the 2014 SI No. 7. SI No. 85 was completely lifted in April 2014 through SI No. 3. The export restrictions implemented between 2016 and 2017 were related to the weather. The El Nino weather patterns that covered much of Southern Africa led to serious maize deficits in the region putting pressure on Zambia’s maize, which led to price increases. Zambia was the only country in the region with sufficient maize (Chisanga and Chapoto 2016; Chisanga, Chapoto, and Subakanya 2017).

**Figure 3. Quantities of Maize Exported and Timing of Export Bans, 2010-2017**

![Chart showing maize exports and export bans between 2010 and 2017.](image)

Source: Authors’ representation using CSO Various Years.
In April 2016 amid fears that the country would run out of maize, the Government imposed a temporary ban on maize and maize meal exports in April 2016. This was initially planned to last until September 2016, but lasted until May 2017. During the 2017 budget speech, Minister of Finance further announced the introduction of a 10% tax on maize exports, which was meant to increase value addition and create employment (Chisanga, Chapoto, and Subakanya 2017). During the 2016/2017 marketing season, private sector players were more actively involved in maize purchasing and paid higher prices to farmers than the FRA price. Trade policies played an important role in private sector market participation (see Box 1).

The lifting of the export ban, which came in May 2017, was late, as Zambia had missed the opportunity to export when prices were high in the region. In the agricultural season that followed, most countries in the region produced enough maize, which could be attributed to sufficient rains due to the La Nina weather, with Zambia and South Africa leading production with a record bumper harvest. As a result, Zambia’s farmers faced depressed prices for maize due to the high carryover stocks of maize from the previous season leading to low participation from the private sector.

**Box 1. Grain Trade Policies and How They Affect Private Sector Participation**

With right incentives and marketing and trade policies, private sector has demonstrated the ability to purchase and store significant proportions of marketable surplus maize as well as transmit the high market prices to the farmers. Assessment of the national maize stocks held by various players show that the private traders (Grain Traders Association of Zambia (GTAZ)) held the majority of the maize stock in the 2016/2017 maize marketing season due to attractive domestic prices, the high regional demand for exports and high regional prices and supportive policies in place (Figure 4). Millers also participated more actively during this season by purchasing sufficient stocks of maize from farmers. The private sector outbid the FRA as they purchased 580,000 MT of maize from farmers while the FRA only managed to purchase 280,005 MT and could not meet its requirement of 500,000 MT. However, export restrictions and an outright ban on exports affected their participation in the following season. The maize marketing situation was a repeat of the 2013/2014 marketing year when the FRA bought less than the private sector due to attractive prices and once again similar policy instruments were applied.

**Figure 4. National Maize Stocks Held by Different Stakeholders**

Source: Stocks Monitoring Committee Various Years.
The marketing policies implemented during the 2017/2018 marketing season which was a bumper harvest year, have been similar to other bumper years such as 2010/2011 and 2015/2016 agricultural seasons (Nkonde et al. 2011; Chapoto et al. 2015). In all these years, the government and private sector struggled with finding domestic and export markets because of large surplus and carryover stock from previous years. Usually the only market in these years has been in East Africa; however, due to the poor infrastructure linking this region, Zambia has failed to competitively supply East Africa due to high transport costs and differences in standards requirements.

Zambia’s ability to be the grain basket for the region is further constrained by the highly tedious export procedures requiring several certification procedures specific to maize. The issuing of export permits for maize is centralized to the Ministry of Agriculture headquarters, as each permit requires the approval from the Permanent Secretaries Office. Other procedures such as obtaining Phytosanitary certificates are also centralized at the Zambia Agricultural Research Institute (ZARI), which is also in Lusaka. While the costs associated with the processes themselves may not be prohibitive, it is the tediousness and centralized nature of the processes, which makes compliance with the procedures a challenge especially for smaller exporters. Figure A1 (in appendices) shows the export procedures for maize as required by the Zambian government. These export requirements also affects importers as they often result in significant delays at border posts hence affecting Zambia’s export competitiveness.

3.3 Current Trade and its Benefits

The benefit of open grain trade to Zambia’s economy cannot be over emphasized. In recent years, maize exports have become increasingly important as a source of export revenue, sometimes exceeding the more established cash crops such as sugar and tobacco in value. Figure 5 shows the proportion of export value for different agricultural products as a percentage of total agricultural exports value. In 2012, maize was the major earner of foreign exchange among agricultural exports as was the case in 2015. During the 2015/2016 marketing season, the increased maize exports to some extent demonstrated how Zambia could utilize maize grain to boost its export revenue, especially at the time when the economy was struggling from reduced export revenues due to falling copper prices and China’s economic slowdown (Chisanga and Chapoto 2016). While the significant maize exports boosted the country’s revenue, private sector investments enhanced incomes for farmers and provided employment for those involved in the maize value chain. This did not undermine the government’s objective of meeting national food security.

Noteworthy, maize exports have performed relatively well despite the market distortions that have constrained the sector in a number of years as already highlighted in the paper. If Zambia were to pursue open trade policies with respect to the maize subsector, the level, of exports could have been substantially higher. Increased exports have not compromised food security; therefore, the government should open up the market for exports so that it can enjoy increased and consistent benefits of trade, namely growth of the sector and increased revenues for the economy.
Apart from revenue generation, openness to grain trade holds a number of other key benefits for Zambia’s agricultural sector. Open trade is a major boost for private sector investments in the grain subsector, particularly given that Zambia has become a surplus producer of maize – the second in the region from South Africa (MoA and CSO Various Years). Private sector investment growth benefits the entire economy through growth in Foreign Direction Investments (FDIs) coming from multinationals as well as investments from domestic sources. Benefits also accrue to traders, exporters and various players involved in the maize value chain through increased incomes and employment creation. In particular, farmers benefit from the export market as they can receive higher prices for their produce if allowed to participate freely in export markets thereby creating incentives for further investments in the production of grains. As an example, the private sector have been able to offer competitive prices to farmers during the 2016/2017 and the 2013/2014 maize marketing seasons, which exceeded the FRA price; and they purchased more volumes from farmers because they were allowed to sell both in the domestic and export markets. Given that more than 50% of the population is employed in the agriculture sector, open trade positively contributes to employment creation in agriculture (World Bank 2018). Further, open trade in grains stimulates surplus grain production, increases food availability thereby contributing to food security.
4. EFFECTS OF RESTRICTIONS ON GRAIN TRADE

Research evidence suggests that there are a number of negative effects of trade restriction on the agricultural sector with particular emphasis on the maize subsector, which has been the target for most of the restrictions. The effects of trade restrictions on maize, the extreme being outright export ban, are discussed below.

4.1 Increase in Price Volatility

Research evidence shows that trade restrictions increase price volatility negatively affecting farmers and traders due to uncertainties created in the market. While certain levels of price volatility are acceptable in the market, it is the unpredictability of this volatility that presents a major price risk especially for smallholder farmers. Price volatility itself is a manifestation of the unpredictability in the policy space, including trade bans that can affect extreme price shifts over and above what is expected and predictable leading to unexpected losses. For smallholder farmers, extreme price volatility is a risk that affects household income and food security (Braimoh et al. 2018).

Figure 6 shows trends in Lusaka maize prices and import parity (CIF from South Africa). The large inter seasonal and intra seasonal price swings in the Lusaka maize prices could be a result of a number of factors including weather shocks but more significantly is a reflection of policy instability in comparison to South Africa which has limited interference in the maize sector. From the evidence, it is apparent that restrictive trade policies implemented by the Zambian Government over the years have not helped address price volatility contrary to popular views.

Figure 6. Lusaka Maize Prices vs. Import Parity Lusaka, Zambia

Source: MoA Various Years; GTAZ Various Years; SAFEX Various years.
4.2 Reduced Investments by Private Sector and Farmers

Export bans have been found to have negative effects on farmers and private traders. The unpredictable trading environment created by this policy affects private sector operations and consequently they withhold any future investments. Farmers may be penalized by large price swings following the imposition of export restrictions thereby reducing incentives to produce maize in the following season (see Chapoto and Jayne 2009). Despite the unpredictable policy environment, the private sector in Zambia has endured and has made significant investments particularly in grain storage facilities. Notwithstanding, we note that these investments could have been greater if the policy environment were to be more stable. With the right policies in place as well as infrastructural developments, some stakeholders such as the Grain Traders Association of Zambia (GTAZ) have expressed willingness to scale up grain storage facilities across the country (GTAZ 2018). Figure 7 shows private sector grain storage facilities in the country.

Figure 7. Location of Grain Storage Facilities by Large Grain Traders

---

1 Personal Interview with GTAZ.
At the moment, grain traders who are members of GTAZ have 20 certified storage sites mostly located along the line of rail. They are willing to invest in 23 additional storage sites in 18 districts including sites off the line of rail. Such investments would also be to the benefit of smallholder farmers.

**4.3 Loss of Potential Foreign Exchange and Losses to the National Treasury**

The potential of agriculture to become a major foreign exchange earner is undermined by the imposition of unpredictable export bans and restrictions. Table 1 shows the value of Zambia’s foregone foreign exchange earnings as a result of limited maize exports between 2008 and 2016. Over this period, Zambia could have earned US$1.36 Billion from maize exports if it were to export all its exportable maize valued at the export parity prices. This loss represents the opportunity cost of foregone trade. However, it is worth mentioning that there is a lot of informal and often illicit trade that goes unaccounted, representing another significant source of revenue loss.


<table>
<thead>
<tr>
<th>Production Year</th>
<th>Production (1,000 MT)</th>
<th>Production + Carryover Stocks (1,000 MT)</th>
<th>Domestic Consumption (1,000 MT)</th>
<th>Expected Exports (1,000 MT)</th>
<th>Exported Formally (1,000 MT)</th>
<th>Not Exported Formally (1,000 MT)</th>
<th>Foregone Foreign Exchange Earnings through Trade (Million US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D = B − C</td>
<td>E</td>
<td>F = D − E</td>
<td>G = F × Export Parity Price</td>
<td></td>
</tr>
<tr>
<td>2008/2009</td>
<td>1,887</td>
<td>1,950</td>
<td>1,700</td>
<td>250</td>
<td>173</td>
<td>77</td>
<td>16.9</td>
</tr>
<tr>
<td>2009/2010</td>
<td>2,795</td>
<td>3,094</td>
<td>2,000</td>
<td>1,094</td>
<td>3</td>
<td>1,091</td>
<td>240.0</td>
</tr>
<tr>
<td>2010/2011</td>
<td>3,020</td>
<td>3,450</td>
<td>2,500</td>
<td>950</td>
<td>30</td>
<td>920</td>
<td>202.4</td>
</tr>
<tr>
<td>2011/2012</td>
<td>2,853</td>
<td>3,550</td>
<td>2,500</td>
<td>1,050</td>
<td>358</td>
<td>692</td>
<td>152.2</td>
</tr>
<tr>
<td>2012/2013</td>
<td>2,532</td>
<td>2,988</td>
<td>2,500</td>
<td>488</td>
<td>73</td>
<td>415</td>
<td>91.3</td>
</tr>
<tr>
<td>2013/2014</td>
<td>3,351</td>
<td>3,948</td>
<td>2,500</td>
<td>1,448</td>
<td>231</td>
<td>1,217</td>
<td>267.7</td>
</tr>
<tr>
<td>2014/2015</td>
<td>2,618</td>
<td>3,964</td>
<td>2,500</td>
<td>1,464</td>
<td>895</td>
<td>568</td>
<td>116.5</td>
</tr>
<tr>
<td>2015/2016</td>
<td>2,873</td>
<td>3,541</td>
<td>2,500</td>
<td>1,041</td>
<td>221</td>
<td>820</td>
<td>270.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,357.6</td>
</tr>
</tbody>
</table>

Source: MoA/CSO Various Years; CSO Various Years.
Another implicit loss to the national treasury is the cost of holding exportable maize for an average of 8 months within the country. This arises from the fact that costs build up as a result of rising storage costs for grains held for all these months in the marketing season. In the 2014/2015 maize marketing season Chapoto et al. (2015) estimated the total losses to be US$151 Million for grains valued the opportunity cost (export parity price). While it is not possible that all the exportable maize would easily find the market in export markets, the analysis underscores the significance of actively pursuing markets for surplus maize as a priority, rather than restricting or banning maize exports in preference for keeping surplus maize in the country for a minimum of eight months.

4.4 Increase in Informal Cross Border Exports

The imposition of trade restrictions is often difficult to implement because informal cross border trade flourishes instead. Historically, the African continent inherited political borders that separated people from the same ethnic groups and even families. These borders often separated food surplus areas from the food deficit areas (Haggblade 2013); therefore, it is inevitable that cross-border trade should happen among countries. Further complicating the challenge is the porousness of the border posts, which includes long stretches of land not policed at all. Therefore, instituting trade bans increases informal cross border trade, particularly for maize. The export ban imposed in the 2016/2017 maize marketing season illustrates this point. Kasumbalesa—the border between Zambia and the Democratic Republic of Congo (DRC)—experienced a surge in informal maize meal exports despite the export ban put in place because of the large price differential prevailing at the opposite side of the border and further inland. Figure 8 shows the price differences at Kasumbalesa border post in 2016. Even when the Zambian government responded by sending military personnel to the border, the trade flow continued.

Informal trade is also more expensive than formal trade due to costs associated with evading or bribing border agents, as well as costs associated with loading and unloading small volumes on bicycles to be moved across the border (COMESA 2014). The other challenge with informal cross border trade is that it is not captured in official statistics and therefore, governments and their planning agencies do not know the size of this trade; further contributing to the loss of revenue that could be earned from formal taxable exports.

Figure 8. Mealie Meal Price Differences at Kasumbalesa Border Post during the 2016/2017 Marketing

<table>
<thead>
<tr>
<th>Location</th>
<th>Price Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitwe (Zambian)</td>
<td>K85 per 25 kg bag</td>
</tr>
<tr>
<td>Kasumbalesa (Zambian Side)</td>
<td>K175 per 25 kg bag</td>
</tr>
<tr>
<td>Kasumbalesa (DRC Side)</td>
<td>K250 per 25 kg bag</td>
</tr>
<tr>
<td>Lubumbashi (DRC)</td>
<td>K400 per 25 kg bag</td>
</tr>
</tbody>
</table>

Source: IAPRI 2016.
4.5 Unrealized Potential in the Regional Market

Ad hoc export bans: in some cases, Zimbabwe, which is Zambia’s biggest maize market, has had to relax its strict non-Genetically modified organism (GMO) status to facilitate maize imports from South Africa because of export bans imposed by Zambia. In the 2016/2017 marketing season, Zimbabwe had to import maize from as far as Ukraine and Mexico when Zambia had imposed an export ban. Similarly, anecdotal evidence suggests that the DRC has had to import maize and maize meal from South Africa, which is deemed a more reliable supplier, thereby, bypassing Zambia, which is closest to the DRC.

Figure 9 shows South Africa and Zambia’s exports of white maize to East and Southern Africa. In the recent past, both countries have accounted for significant maize surplus production in the region. South Africa’s maize is predominantly GMO, while most countries in the region have legislation in place that does not allow production and importation of GMO maize. Yet, South Africa still outcompetes Zambia with maize exports in the region despite Zambia having non-GMO maize. Zimbabwe and Kenya are examples of countries with strict non-GMO policies and yet they are able to relax the policy to allow imports from South Africa. Another point to note from the Figure 9 is the consistency of South Africa’s exports compared to Zambia, whose exports are more irregular—an effect of trade policy inconsistency.

Figure 9. South Africa and Zambia’s Exports of White Maize to East and Southern Africa

Source: CSO various years; and SAGIS various years.
5. WHY CONSISTENT TRADE POLICIES PROMOTE PRIVATE INVESTMENT AND HOW THIS COULD BENEFIT ZAMBIA

Zambia’s production capacity for maize and other key commodities such as soya beans and wheat has steadily increased, making Zambia a net exporter. This also applies to other nodes of the value chain such as seed production where the country is a consistent net exporter. This means that further investments in production capacity can only take place with exports as an incentive given that the domestic market is relatively small. As shown in this study, there has been consistent surplus maize production in the last 13 years, which makes its less likely that Zambia can slide into a deficit maize producer in the medium term. Trade protection and policy inconsistency thereof inhibit further growth in the sector and results in private sector players exiting the market. Zambia needs to shift its focus from considering the maize as a food security crop to a strategic commodity that directly contributes to economic growth of the country.

Zambia’s agricultural landscape has transformed over the years, which makes the conditions for maintaining open border policies that are favorable. This is because: a) the private sector has made large scale investments in storage facilities across the country making it less likely that there can be total market failure if private sector took the lead in maize marketing as was feared in the early 1990s; b) there is a strong demand for Zambian maize in the region, which was previously not the case; c) there is evidence showing that consumption patterns today are different from many years ago—demand for non-maize food products is increasing (Chisanga and Zulu-Mbata 2018); d) The country’s irrigation capacity has improved since the 1990s — commercial farmers at short notice can be contracted to produce maize to fill any anticipated shortfall; and e) there are cheaper alternatives for maintaining strategic reserves compared to physically holding all strategic reserves for at least eight months. The transformations above entail that Zambia needs to explore different policies regarding maize marketing policies in line with the changes that have occurred over time.

Private sector investments in grain marketing have also generated a number of positive benefits for smallholder farmers, which have increased market access, finance, knowledge, information, and risk management among many other benefits. With growth in private sector investments a number of innovations have emerged, which are beneficial to smallholder farmers. These include: creation of more structured markets for grains, credit financing and Information and communications technologies (ICTs) for smallholder farmers, private sector extension services and skills transfer, weather insurance, and the Warehouse Receipt Systems (WRS) (Chisanga and Chapoto 2018). These innovations can only flourish in a policy condition that favors private sector participation in grain marketing as well as open border policies.

While policies in grain marketing and trade have been largely inconsistent, input marketing particularly the seed sector, provides a good example of how to successfully develop the grain trade. The seed sector stands out as one of Zambia’s most successful industries, which has attracted a significant share of investments from the private sector making Zambia a consistent net exporter of seed. This is because the seed industry is operated almost entirely by the private sector, while government’s role is to provide an enabling policy environment. Zambia’s open trade policies as well as little or no government interference in the seed sector have been a major driver of growth and success of the seed industry. Zambia’s hybrid maize seed production as at 2013 was about 35,000 MT, while domestic consumption was around
15,000 MT; meaning that the larger proportion of seed production is for export (Kabaghe and Chisanga 2013). Box 2 outlines the key policies behind the success of Zambia’s seed sector.

The effects of distortionary trade policies on output market prices, consumers, farmers, grain traders and loss of potential revenue are well documented as already discussed in this paper. However, it is worth noting that market distortions created by the trade policies in maize marketing affects the entire value chain. What happens at the output stage eventually affects investments in the input stage as well. For example, depressed maize prices due to an export ban affect demand for inputs (seed and fertilizer) for the following years’ production cycle. Thus, policy inconsistency in trade policies has a domino effect on the entire value chain.

**Box 2. Lessons from the Success of Zambia’s Seed Sector**

Zambia’s seed industry has been successful as it has grown into an export led sector but consistently meeting domestic demand particular for maize and has witnessed the high investments. On average, Zambia exports about 26,000 MT of seed to the region annually, earning the country about US$39 million per annum. The sector has witnessed the entry of local and international seed companies since the liberalization of the sector in the early 1990s. The number of registered seed companies has grown from 7 in 2007 to 20 by 2017 with over 700 agro-dealers. The rate of release of new varieties has been high, growing from 16 maize varieties in 1990 to 244 in 2015 largely driven by the private sector. Private sector accounts for 82% of the total varieties released.

A very strong policy framework has been the major underlying factor behind the success of the sector where government concentrates on supporting the sector through research; providing strong regulatory framework; free trade regime; regional seed policy harmonization and securing intellectual property rights.

The National Seeds Policy of 1999 embedded in the National Agriculture Policy provides the basis for regulating the sector. Plant Variety and Seeds Act established the Seed Control and Certification Institute (SCCI) as a seeds quality controller which has provided an enabling environment for the private sector. As a signatory country to SADC and COMESA, Zambia has been part of the regional seed harmonization efforts, which encourages trade in seed. Plant Breeders Act of 2007 grants rights to breeders to multiply and release seed varieties. This also spurs private sector investments because it grants full intellectual property rights on their innovations. There is also dedicated research and development by both the government and private sector, which promotes innovation resulting in rapid seed variety releases.

Finally, the government does not interfere in exports of seed as it does in the output market, particularly for maize. “…The government has never imposed an export ban on maize seed and yet Zambia has never run out of seed despite high regional demand…” (Chance Kabaghe).
6. HOW GRAIN TRADE CAN BE A WINNER FOR ZAMBIA

Open trade in grains can be a winner for Zambia by stimulating growth and increasing government revenue. However, for this to happen there needs to be systemic change in trade policies.

6.1 Implementing Consistent Open Border Policies

As the paper has shown, the opportunity costs of inconsistent trade policies in terms of lost revenue and associated negative effects on farmers, traders and consumers is high. Consistent trade policies in this regard entails that the government should not institute any trade restrictions either through SIs or administratively (de facto export bans) using delays in the issuance of export permits. Based on the exportable surpluses announced at the beginning of every marketing season, the government should announce how much the country is expected to export and issue permits based on that. This will result in: 1) increased predictability, which will instill confidence by key players in the sector including the private sector, exporters and farmers who will be willing to invest more; 2) reduce excessive price volatility which normally result from unexpected imposition of trade bans; and 3) maximize the economic benefits for the country through revenue collection as well as earning the much needed foreign exchange for the country.

Open trade policies do not imply that there should be unregulated outflows of commodities. Illegal and informal trade should still be controlled particularly at porous border posts, while promoting formalized trade by simplification of procedures as discussed under point (c) below.

6.2 Creating Conditions that Enable Trade

The evolution of grain marketing in Zambia through history resulted in interventionist trade policies premised on the need for government to keep incentives high for farmers while keeping consumer prices low. This has created a policy environment that does not favor open trade. ZAMACE is a good example of an initiative that can help create transparency and predictability in grain marketing. Zambia should be commended for having made tremendous steps towards having a private sector-led commodity exchange by passing the Credits Act of 2010 and putting in place an SI empowering ZAMACE to oversee the setting up of the Warehouse Receipt System (Chisanga, Chapoto, and Subakanya 2017). Currently, ZAMACE had certified four warehouse operators with a total storage capacity of about 800,000 MT for the warehouse receipt system. The certified warehouses are located in about 18 districts of Zambia. However, transactions conducted through ZAMACE have remained low. There is need to fully embrace the use of Commodity Exchanges and Warehouse Receipts System by fully operationalizing the functioning of ZAMACE, which will expand the role of the private sector.

Direct market interventions by government through the FRA can hinder the private sector from investing in a platform like ZAMACE. Hence, there is need to streamline the role of the FRA in grain marketing to that of holding strategic grain reserves, which can be purchased through ZAMACE. ZAMACE requires large volumes to initialize it, thus government can help capitalize it by purchasing a portion of the Strategic Grain Reserves (SGRs) though ZAMACE. Government should consider purchasing a mixed portfolio of physical and virtual
stocks in managing SGR. This will limit the fiscal exposure of the government through storage costs and losses and will stimulate the role of the private sector, while continuing to provide food security.

Furthermore, what is required to resolve the ad hoc nature of government interventions in the market is the enactment of a comprehensive Agricultural Marketing Act. The Agriculture Marketing Bill of 2010 has not yet been signed into an Act since 2010. This would see the creation of a Council consisting of government and other key stakeholders to make joint recommendations on grain marketing in the country. The enactment of the Agricultural Marketing Act will provide the legislative framework and will be an instrument for transforming agricultural marketing decision making to become rule-based rather than continuing to be at Government’s discretion as it is in the current state.

6.3 Trade Facilitation and Simplification of Export Procedures

There is need for government to actively facilitate grain trade and ensure that trade can happen—with particular emphasis on maize. Measures to reduce the time spent at border posts include:

1) Decentralizing the issuance of maize exports to provincial offices of the MoA as well as the regional offices of the Zambia Revenue Authority (ZRA). Currently the requirement for final approval by the Permanent Secretary at both at the MoA and ZRA has led to a number of exporters being marooned with their maize at the border, waiting for the schedule of permits; further decentralizing issuance of the Sanitary and Phytosanitary Measures and GMO certificates that are still issued centrally by the ZARI to regional officers or at border posts; and implementing the one-stop-window for border procedures by ZRA, which will further reduce the time spent at border posts, thus, enhance Zambia’s export competitiveness.

2) Government and stakeholders should support initiatives that help small-scale traders to comply with export procedures in the context of the simplifying of border procedures. This includes the Common Market For Eastern and Southern Africa (COMESA) Simplified Trade Regime (COMESA-STR), which was introduced to simplify the procedure for clearing goods to enable the small scale cross-border traders to benefit from the import duty exemption on traded goods (COMESA 2017).

The above measures will reduce the time and cost constraints associated with export procedure. This will further enhance Zambia’s grain export competitiveness in the region.

While member countries have signed the STR, implementation on the ground is still poor, making it difficult to control illegal cross border trade.

6.4 Establishment of the Zambia Grain Information System (ZAGIS)

Government decisions on agricultural marketing tend to be affected by lack access to updated market information such as stock levels in the country. While the stocks monitoring committee is meant to fulfil this role it lacks the legal mandate, therefore, some stakeholders are not compelled to declare the correct stocks. Investing in a national grain information system would provide real time information on national stocks and would help Government to make the right policy decisions in a timely manner. ZAGIS can be instituted through
statutory institution and would be based on the current legislation that compels stakeholders to avail Government stocks and other market information.

6.5 Harnessing Large-Scale Commercial Farmers’ Potential to Produce Early Maize

With the noted decline in largescale maize production there exists a great opportunity for the government to harness large-scale commercial farmers’ potential to produce early maize for export under irrigation. The early maize programme should be up-scaled to ensure that Zambia secures its export market. The country has the potential to earn significantly more forex. To be successful, the government need to provide a policy guarantee allowing exports of maize produced under such a programme. Without policy guarantees large-scale farmers will continue to shun maize production.
7. CONCLUSIONS

Zambia has become a major surplus producer of maize and is self-sufficient in wheat and soya beans. Further growth in the grain sectors will have to be export-driven, hence the need for policies that promote grain exports. The paper demonstrates the importance of trade to the economy and on key value chain players including farmers, traders and consumers and highlights the negative effects of trade restriction most of which have been imposed on maize. It has also outlined how the economic conditions are ripe for export-led growth in the sector due to increased investment in the private sector and the existence of a healthy regional market for Zambian grain. Predictable and consistent trade policies have been highlighted as being critical for a private sector led grain sector where government role is to provide the policy environment necessary for the growth of the sector. The food riots, which occurred 27 years ago in 1991, have led to the entrenchment of maize as a politically sensitive crop in Zambia’s agricultural policy space. However, it is important to note that since 1991 conditions have changed significantly, therefore, different policy approaches to food security and agricultural trade are required. Zambia is better placed to deal with any shocks without the need to hold huge SGR. Options available include purchasing the SGR through the private sector preferably through ZAMACE as opposed to holding the entire SGR as physical stocks. This could help stimulate private sector development.

The key benefits of open trade in grains include increasing foreign exchange earnings, enhancing income earning potential for farmers, and increasing private sector participation among others. Export restrictions lead to loss of revenue, increase price volatility, increase informal cross border trade, discourage private sector and farmers’ investments, and lead to loss of export market to competing suppliers such as South Africa. While it is often argued that open trade could eventually lead to food insecurity for the country, the opposite is true. Open trade is not at variance with government’s aspirations of attaining food security, but instead it can be an effective instrument for reinforcing food security by increasing surplus production thus making more food available to Zambia’s population.

Consistent trade policies promote private investment and this helps Zambia attain growth of the grain sectors. Zambia’s grains sector, which has already reached net surplus production status, can only expand significantly with export as an incentive given a relatively small domestic market. The input sector, particularly the seed sector provides good lessons for output marketing. In the seed sector, government’s role is that of providing an enabling policy environment as well as key public goods such as research, while the public sector takes a leading role. This has resulted in Zambia’s seed sector becoming a consistent supplier to the region without undermining seed availability in the domestic market. The government can afford to seek to emulate this success for grain exports and should do by opening opening borders and having consistent policy, creating the conditions that enable trade and facilitating trade by simplifying export procedures.
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### APPENDICES

#### Table A 1. Zambia: Key Trade Policy Implementation, 1991 – 2018

<table>
<thead>
<tr>
<th>Period</th>
<th>Policy</th>
<th>Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-94</td>
<td>• National Agricultural Marketing Board (NAMBOARD) abolished in 1990.</td>
<td>• The initial effects of the liberalization were skyrocketing prices, which made government uncomfortable with leaving trade and marketing to market forces.</td>
</tr>
<tr>
<td></td>
<td>• Government removes import and export restrictions and liberalizes foreign exchange market.</td>
<td>• Market uncertainties and food riots made the government start treating maize as a politically sensitive crop.</td>
</tr>
<tr>
<td></td>
<td>• Maize meal subsidies reduced in late 1991. However, severe drought delays maize market reform.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government sets floor price, into-mill, and consumer price of maize.</td>
<td></td>
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<tr>
<td></td>
<td>• Government appoints rural banks and cooperatives as buying agents for maize but government fails to maintain maize floor price.</td>
<td></td>
</tr>
<tr>
<td>1995/96</td>
<td>• First season where government refrains from announcing any prices and private sector plays dominant role in input and commodity marketing.</td>
<td>• Government’s involvement in trade entrenched by trade controls as well as through the establishment of State Marketing Agency (FRA).</td>
</tr>
<tr>
<td></td>
<td>• Real maize prices begin to rise. Government imposes an export ban on maize grain and maize meal.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Food Reserve Agency (FRA) established to manage the national food reserve.</td>
<td></td>
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<tr>
<td>1997-2000</td>
<td>• Pan-territorial pricing re-introduced for FRA-distributed fertilizer; makes private sector fertilizer uncompetitive in outlying areas.</td>
<td>• By directly importing maize through the FRA, government was crowding out the private sector and introducing uncertainties in the market.</td>
</tr>
<tr>
<td></td>
<td>• Maize imported by government and sold to selected millers at US$160 per ton, 30% below prevailing market prices.</td>
<td></td>
</tr>
<tr>
<td>2001/02</td>
<td>• August 2001, government announces intention to arrange import of 200,000 Metric Tons of maize at subsidized prices. Government issued tenders to selected importers, for maize to be delivered by October 2001 through April 2002.</td>
<td>• Government’s failure to provide clear market signals disadvantaged private sector as they could not participate. The uncertainly caused shortages and serious price spikes forcing government to revert to subsiding millers.</td>
</tr>
<tr>
<td></td>
<td>• Private traders do not import, despite high domestic prices, because of fear of being undercut by subsidized government imports.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government financing of imports is delayed. Starting November 2001, food shortages emerge and prices rise well above Cost, Insurance and Freight (CIF) price level.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Most of government’s imported maize did not arrive until December 2001 and January 2002 because of financing difficulties. CIF price reach US$220 to $260, far above import parity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sales at subsidized price of US$160 per ton in the millers. Selected millers receive subsidy of US$70 to $100 per ton of maize purchased.</td>
<td></td>
</tr>
<tr>
<td>2002/03</td>
<td>• Government entered into a Memorandum of Understanding (MoU) with the millers to import 300,000 MT, government to import 180,000 MT as food relief and 120,000 MT as reserves.</td>
<td>• In this year, there was clarity of policy as well as involvement of the private sector except that this was hampered by the introduction of another policy – non GMO maize.</td>
</tr>
<tr>
<td></td>
<td>• The flow of imports were, however, slow because of a ban on GMO maize. Relief operators had to revisit their pipeline in order to supply non-GMO maize.</td>
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</tr>
<tr>
<td>2003/04</td>
<td>• Government imports in response to the 2002 harvest were late in arriving, some only arriving as the 2003 harvest was being offered for sale. Several thousand tons of maize imports costing as much as US$270/MT were arriving in Zambia as farmers were offering their new crop at prices below US$180/MT.</td>
<td>• Government direct involvement in imports was shown to be ineffective as evidenced by the long delay in maize importation.</td>
</tr>
<tr>
<td></td>
<td>• Export permits not issued, effectively banning maize exports.</td>
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<tr>
<td>2004</td>
<td>• Government raises maize import duty to 15%.</td>
<td>• An independent crop marketing authority would have provided effective policy decisions for the country. However, even though the Agricultural Marketing Bill was later drafted in 2010, this has not been enacted into law to</td>
</tr>
<tr>
<td></td>
<td>• Ministry of Agriculture and Cooperatives (MACO) sets up task force to provide planning guidelines for the establishment of the proposed Crop Marketing Authority (CMA).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Millers lobbied for a lifting of the export ban on maize, in order to maintain demand and remunerative producer prices for maize</td>
<td></td>
</tr>
<tr>
<td>Period</td>
<td>Policy</td>
<td>Implication</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 2005     | • National food balance sheet shows an import requirement of 85,000 MT, but private sector estimates are 150,000 tons  
• Millers request import permits from MACO and duty waiver from Ministry of Finance and National Planning (MFNP).  
• In September, MACO announces a temporary waiver of import duty and issues import permits for 150,000 tons to millers and 50,000 tons to FRA. FRA purchases 120,000 MT from domestic market at above market prices in deficit year.  
• MFNP refuses to waive the import duty. After heavy lobbying by all the stakeholders, MFNP agrees in late October to waive duty; MACO issues import permits.  
• Millers begin to contract for imports.  
• FRA releases 50,000 tons of maize at US$210/ton in December 2005, undercutting importers (CIF import price stands at US$266-287).  
• MACO advised private sector to stop importing because they are failing to comply with new phytosanitary regulations.  
• President Mwanawasa declares a national disaster at the request of Parliament.  
• MT. Makulu issues phytosanitary clearance; permits imports to resume after a four-week delay.  
• Import duty waiver extended to 31 March 2006.                                                                 | • Inconsistent trade policies continued to hamper private sector participation in maize trade particularly with increased government interference through the FRA. The actions of the government also highlighted the growing mistrust between government and the private sector. |
| 2006 - 7 | • Good harvest. FRA instructed to purchase 386,000 tons of maize at US$190 per ton to support maize prices.  
• FRA price attracted maize from Mozambique and Tanzania supplied by traders.  
• Government restricts export permits to traders and provides FRA with de facto monopoly on the export of maize; some traders and farmers allowed to use FRA export permit later in the season.                                                                 | • The government’s move restricting export permits to the private sector further stifled private sector participation in grain trade and entrenched FRA’s monopoly in grain trade. |
| 2008-9   | • May 2008 national food balance sheet showed a small surplus over national consumption requirements.  
• FRA announced a buying price of 45,000 kwacha/ton (roughly US$260/ton). No export permits issued essentially banning private exportation.  
• Because of nervousness in the markets related to high world food prices, private millers and traders started the 2008 season by aggressively buying maize at prices higher than the FRA floor price.  
• The FRA countered by raising its buying price to 55,000 kwacha (US$304) per ton in an attempt to procure its target supplies.  
• Aggressive attempts by both private traders and the government pushed prices up quickly after the 2008 harvest.  
• In June of 2008, the GTAZ informed MACO that roughly 200,000 tons of maize would be required to fill residual consumption requirements in early 2009.  
• In July/August, government refused to sign MoU with GTAZ assuring them that the government would not import and sell grain to millers at subsidized prices.  
• By November 2008, neither the government nor the private sector had arranged to import maize. Food shortages emerged and the maize price quickly rose beyond import parity from South Africa.  
• As of December 2008:  
  o Retail maize prices were in the range of US$350 to US$400 per ton compared to US$176 per ton on the South Africa Futures Exchange (SAFEX) exchange.  
  o The government concluded that indeed imports would be necessary and contracted for over 100,000 tons of maize to be imported from South Africa revised downwards to 35,000 MT after stock audit.  
  o GRZ started subsidizing the price of maize paid by selected millers below market levels and then requiring millers to pass Private sector actively purchased maize at competitive prices from farmers due to incentives from the export markets; however, the government interference to ban private sector participation in exports was a disincentive. Government’s mistrust of the private sector was growing into rivalry as the FRA tried to outbid the private sector maize purchase price. Food shortages were a result of an uncoordinated response between government and the private sector. Government also returned to the policy of subsidizing millers, which is an ineffective policy instrument for price stabilization. |
### Period | Policy | Implication
--- | --- | ---
2008-2009 | - along lower maize meal prices to consumers.  
  - Maize grain and maize meal prices remained high.  
  - In January 2009, the maize imported by a private contractor was discovered to be GMO maize and rejected by FRA.  
  - In February 2009, traders were able to sell 40,000 of the 55,000 metric tons to FRA at US$409.05 after protracted negotiations.  
  - In March 2009:  
    - Government announced the intent to discontinue subsidies to millers by the end of March, as they were not effective enough in reducing mealie-meal retail prices.  
    - As a result, millers announced that breakfast meal prices were to increase by 10,000 Kwacha if subsidies were ended. | FRA’s role in grain marketing significantly increased, further increasing its role in maize trade to the extent of exporting surplus maize to the region at below market prices.  
  - Subsidies to millers were continued, but were further proved to be an ineffective policy instrument.  
2010-2012 | - Between 2010 and 2012, the country recorded a total maize production of 8.6 million metric tons.  
  - Out of this total, 4.6 million metric tons were surplus.  
  - The FRA alone purchased nearly 3.7 million metric tons, or 80% of this surplus.  
  - This left little surplus for private sector procurement.  
  - The FRA borrowed approximately US$420 million for its maize marketing activities in addition to the funds provided by the treasury.  
  - In 2011, the government through the FRA handled maize exports to neighbouring countries at a discounted price of US$110 per Metric Ton.  
  - Despite large levels of surplus production and significant subsidies on maize supplied to commercial mills, maize meal prices in Zambia increased rapidly towards the end of 2012. | Government instituting outright export bans using SIs. However, this was done at a time when Zambia was in a surplus position, thus, Zambia was losing potential revenue from potential exports.  
2013-2014 | - September 2013, government bans maize exports through SI No. 85. Only government-to-government and World Food Programme (WFP) maize exports allowed.  
  - December 2013, government introduces price controls on mealie meal stating that the price of mealie meal should not exceed K45 and K65 per 25kg for roller and breakfast meal respectively.  
  - April 2014, government lifts ban on the exports of maize and related products through SI No. 3.5 | Government policy was more predictable, allowing for increased private sector participation  
  - There were no export bans in this season  
  - Private sector purchased sufficient grain for the domestic and export markets at prices which were higher than the FRA price.  
2015-2017 | - In the 2014/2015 agricultural season, Zambia’s maize production was estimated to decline by 22% from the previous year’s historical bumper harvest of 3,350,671 Metric Tons.  
  - This was a unique agricultural year due to high demand from the region as a result of the El Nino weather.  
  - However, due to large carry-over stocks, Zambia emerged as the largest surplus country in the region eclipsing South Africa.  
  - The Minister of Agriculture urged the private sector to be active and the farmers to sell their maize at the best price.  
  - With no indication of an export ban, private sector managed to freely participate in export markets.  
  - Farmers received a competitive price from private sector buyers ranging from K50-K65 per 50 kg bag (depending on location), then this compared reasonably well with the FRA.  
  - Zambia exported approximately 872,000 Metric Tons of maize valued at US$670 Million, which was 30% of total agricultural export, proving that maize can be a significant foreign exchange earner for the country. | Government returned to export bans amidst fear of high regional demand.  
  - Export bans extended to soya beans, which had become an important cash crop for smallholder farmers.  
2016-2017 | - The 2016/2017 agricultural season was characterised by El Nino weather conditions. However, Zambia still emerged as a surplus producer.  
  - This was because the reduction in maize production in the southern parts of the country was compensated for by the northern parts which received normal rainfall  
  - The private sector, however offered more competitive prices than |
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<th>Period</th>
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<th>Implication</th>
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<td>the FRA price, hence, they outbid the FRA in maize purchases.</td>
<td>• Once again the banning of exports and price controls proved ineffective and hampered private sector participation and investments.</td>
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<td>• The government supplied subsidised maize to millers, which was once again proved as an ineffective tool for price stabilisation.</td>
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<td>• A temporary ban on maize and maize meal exports in April 2016 was imposed. While this was initially planned to last until September 2016. Traders with existing export contracts were allowed to export but exports were highly restricted.</td>
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<td>• The Minister of Finance announced the introduction of an export tax of 10% during the presentation of the 2017 national budget.</td>
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<td>• An outright ban on exports was announced in September; this lasted until May 2017.</td>
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<td>• Soya beans exports were also banned between October 2016 and March 2017.</td>
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<td>2017-2018</td>
<td>• Zambia received good rains in the previous agricultural season due to the La Niña weather phenomenon ensuring a bumper harvest.</td>
<td>• The ripple effects of the export bans led to the collapse of maize prices.</td>
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<td>• Combined with a large carry overstock from the previous season, which is explained by the decision to close the borders, Zambia was left with excess maize.</td>
<td>• The failure to take advantage of the East Africa market showed that Zambia is still uncompetitive in supplying that market.</td>
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<td>• As a result, maize prices dropped by almost 45%. Similarly, soya beans prices also declined.</td>
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<td>• The fact that most of Southern Africa also produced a surplus meant there were few opportunities for Zambia to export its maize.</td>
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<td>• There was high demand for Zambia’s maize in East Africa, but poor infrastructure links, high transport costs, and stringent standard requirements, prevented Zambia from meeting this demand.</td>
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<td>• On 25th June, 2017, the government through the FRA announced a maize buying price of ZMW60 per 50 Kg which was a drop from the ZMW85 per 50 Kg offered in the previous season.</td>
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<td>• The government through the FRA also announced that it would include soya beans in its purchases at a price which was higher than the market to encourage farmers to diversify from maize.</td>
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Sources: Howard and Mungoma 1997; Govereh, Jayne, and Chapoto 2008; Chisanga and Chapoto 2015; Chisanga and Chapoto 2016; Chisanga, Chapoto, and Subakanya 2017.
Figure A 1. Maize Export Procedures and Costs

1. **GMO Certificate**
   - Inspections done on the site by ZARI inspector
   - Process replicated every time a trader wants to export maize
   - Obtained within 48 hours at a cost of K547 per consignment

2. **Phytosanitary Certificate**
   - Issued by the POPZ ZARI per 30 metric tonne truck load not the whole export consignment
   - Issued within 24 hours at a cost of K15 per truck load

3. **Export Permit**
   - Issued by Department of Agribusiness, MoA at a cost of K35 per 30 Mt and only valid for 30 days
   - Exports permits are issued within 24 hours.

4. **SADC/COMESA origin certificate**
   - Issued by ZRA within 24 hours at a cost of K5.5 per 30 MT and valid for 30 days

5. **Fumigation certificate**
   - Issued upon the exporter presenting the inspection report.
   - There is no cost attached to the certificate

6. **MoA Schedule of export permits**
   - Takes up to 7 days for final approval
   - Once approved the schedule is sent to ZRA

7. **ZRA Schedule of Export permits**
   - ZRA receives a schedule from the Ministry of Agriculture
   - Takes 2-5 days for the schedule to be approved by ZRA and sent to the respective border posts

Source: Chisanga and Chapoto 2016.