



Policy Brief:

The El Nino-induced Food Security Crisis in Southern Africa: Situation and Response Actions for Policy Makers and Development Partners

Vine Mutyasira¹, Davis Muthini¹, Isaac Gokah¹, Protase Echessah¹ and Daniel Njiwa¹

April 2024

1. Key messages

- Southern Africa is facing a looming crisis as the El Nino-induced drought impose a significant strain on the region's agricultural sector, threatening food security for millions of households.
- Due to the unfolding crisis, Zambia, Malawi, and Zimbabwe have already declared state of disaster and put in motion efforts to mobilise resources and develop response strategies.
- To contribute to these efforts, this brief highlights the production impacts and implications on food prices, as well as import requirements, and provides some preliminary recommendations on how governments can strengthen response mechanisms to mitigate the crisis.
- Global forecasts show lower maize production from traditional exporters - South Africa, Ukraine, Mexico, Venezuela, and Russia. However, the Eastern Africa region is expected to have a net surplus of 1.7 million MT of maize in 2023/24 marketing year driven by enhanced rainfall and improved production. Tanzania's exportable surplus is expected to be 36 percent above average in MY 2023/24 (1.1 million MT), while Uganda and Ethiopia will average levels (450,000, and 400,000 MT respectively).
- While Ukraine offers grain at lower cost (approximately FOB 270 USD/ton), shipping costs to Southern Africa have increased substantially due to the attacks at the Suez Canal and continued Russia conflict. The East African region (especially Tanzania) holds a significant advantage, due to duty-free SADC and COMESA FTAs' and a good road, rail and sea transport routes between East and Southern Africa.
- Governments should move with speed to set up coordination structures for information and logistics and engage their peers at senior level to secure the needed grain, while partnering with the private sector to handle logistics. Trade facilitation measures will be required to reduce red tape and simplify customs procedures, and exemption from some procedures that lengthen clearing of goods.

2. An overview of the El Nino-induced food crisis in Southern Africa

Southern Africa is facing a precarious food security situation triggered by the El Nino-induced drought that has dampened food harvest forecasts in countries such as Malawi, Mozambique, Namibia, Zambia, and Zimbabwe. These countries, which are traditionally among the major food-growing areas in Southern Africa, received only 80% of average rainfall during the mid-November-to-February southern hemisphere summer. Besides the immediate impacts on the availability of food, the El Nino-induced food crisis is expected to have far-reaching socio-economic implications, including potentially triggering food inflation in the region.

In southern Africa, three countries - Zambia, Malawi, and Zimbabwe - have already declared the prolonged drought a national disaster. The President of Zambia declared a state of national disaster on 29th February 2024, noting that the prolonged dry spell had affected 84 of the country's 116 districts. On the 23rd of March, the President of Malawi declared a State of Disaster in 23 of the country's 28 districts, noting that over 2 million farming households had been affected by El Nino spell and hence needed support. The president of Zimbabwe also declared a state of disaster on the 3rd of April, noting that more than 2.7 million people in the country will not have enough food. Earlier in February, the Grain Millers Association of Zimbabwe (GMAZ) indicated that the country

intends to import 1.1 million metric tons of maize over the next year to mitigate the effects of an El Niño-induced drought on food security.

The FAO's Crop Prospects and Food Situation 2024¹ report gives a high-level summary of the food security situation in the selected countries:

- **Malawi:** The latest IPC analysis puts the number of people facing acute food insecurity (IPC Phase 3- Crisis and above) at 4.4 million between October 2023 and March 2024, 15 percent more than the corresponding period in 2022/23. Dry and hot conditions are impacting central and southern districts, weighing on 2024 agricultural production prospects, and along with persistently high food prices acute food insecurity conditions are foreseen to remain stressed in 2024.
- **Zimbabwe:** An estimated 3.5 million people are projected to need humanitarian assistance up until at least March 2024. Prevailing high food prices and reduced incomes, owing to the effects of an economic downturn, are key factors underpinning the high levels of acute food insecurity. Expectations of a reduced cereal output in 2024, on account of unfavourable weather conditions, is likely to be a serious aggravating stressor on food insecurity this year.
- **Zambia:** Just over 2 million people are classified in IPC Phase 3 (Crisis) and above between October 2023 and March 2024. High food prices, including record high prices of maize and localized shortfalls in cereal production, are key factors driving the high levels of acute food insecurity. Dry weather conditions are affecting large swathes of the country in 2024 and, if cereal production declines, this could intensify acute food insecurity in the affected areas.
- **Mozambique:** According to the latest IPC analysis, an estimated 3.3 million people are classified in IPC Phase 3 (Crisis) and above between October 2023 and March 2024. Insecurity in the northern province of Cabo Delgado underpins the severest levels of acute food insecurity. Unfavourable weather conditions in parts of the country during the 2023/24 cropping season could result in reduced localized agricultural outputs in 2024 and aggravate acute food insecurity, whilst persisting attacks by NSAGs in Cabo Delgado continue to be a severe stressor.

Consequently, most of the countries within the region will need to import substantial quantities of grain, especially maize, which is a staple in the region, to augment supplies and meet domestic consumption requirements. The dampened grain harvest forecasts in the region's primary suppliers South Africa and Zambia significantly reduce the prospects of exportable surplus available to the neighbouring countries where grain is urgently needed. For instance, a farmers' survey by Grain South Africa showed severe grain and oilseed production challenges in various patches across the country. This necessitates the importation of maize from outside of Southern Africa. Table 1 gives some estimated cereal import requirements for some of the countries in Southern Africa.

¹ FAO. 2024. Crop Prospects and Food Situation – Triannual Global Report No. 1, March 2024. Rome. <https://doi.org/10.4060/cd0022en>

Table 1: Estimated cereal import requirements in 2023/2024

	2022/23		2023/24
	Marketing year	Total imports ('000 tonnes)	Total import requirements ('000 tonnes)
Lesotho	Apr/Mar	201.6	219.6
Malawi	Apr/Mar	147.2	150.5
Mozambique	Apr/Mar	1,355.9	1561
Zimbabwe	Apr/Mar	524.4	612.1
Total		2,229.1	2,543.2

Source: FAO's Crop Prospects and Food Situation (March 2024)

3. A snapshot of the El Niño phenomenon and its impacts on agricultural production

El Niño is a climate pattern that describes the unusual warming of surface waters in the eastern Pacific Ocean, causing widespread and sometimes severe changes in the climate. Convection above warmer surface waters bring increased precipitation and flooding and erosion in some regions, and droughts that threaten food and water supplies in other parts of the world (figure 1).

The dry weather conditions being experienced in Southern Africa has sharply curtailed 2024 maize production prospects. The region has experienced warmer-than-average temperatures and an erratic temporal distribution of rains. Cumulative rainfall amounts across large portions of the sub-region have been well below average. Major cropping zones in Malawi, Mozambique, Zambia, and Zimbabwe, as well as in the more minor cereal-producing country of Namibia, received only up to 80% of average rainfall quantities between mid-November 2023 and February 2024. The 2023-24 El Niño phenomenon has escalated regional climate patterns, triggering extreme dry conditions in Southern Africa (Figure 1). Parts of Zambia, Zimbabwe and Botswana experienced the driest February in the past 40 years, while severe rainfall shortages have been recorded in southern Malawi, eastern Angola, and parts of Mozambique. Consequently, 2024 cereal outputs in countries such as Malawi, Mozambique and Zimbabwe are expected to fall to average or potentially below-average levels. The weather outlook points to continued below-average rainfall amounts in March and April, suggesting a low likelihood of any recovery in cereal crop production.

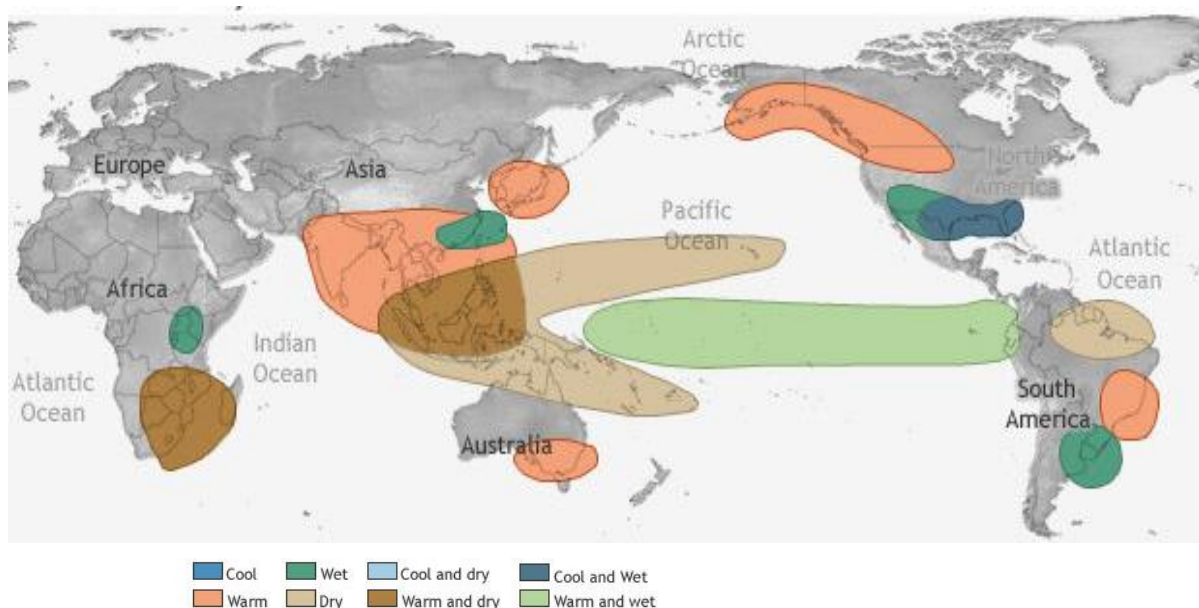


Figure 1: December-February El Nino Climate Impacts

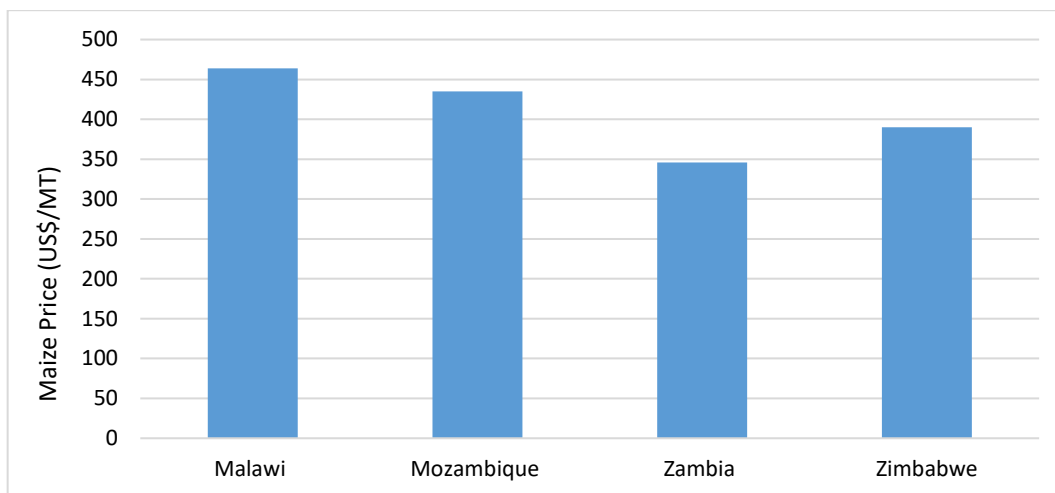
Source: National Oceanic and Atmospheric Administration (NOAA)

The impacts of the El Nino were already projected by situational outlook reports and early warning systems. In Zambia for instance, the Ministry of Agriculture and other partners² had projected increased production due to a 44% upsurge in the number of farmers and a subsidy program that reached more than a million smallholder farmers with inputs³. However, erratic weather patterns are likely to dampen the projected maize yield, which at 2.3 MT/Ha in MY 2023/24 was already 5% lower than the 5-year average for Zambia. Current estimates of likely harvests are fuzzy. While the government sources estimate about 1 million MT, private sources estimate about 1.9 million MT. This is against an estimated demand of 2.8 million MTs⁴, raising an urgent need to import from the sub-region or externally. This is replicated across the region.

The Famine Early Warning Systems Network (FEWSNET) outlook report for Southern Africa from October 2023 to May 2024 had projected increases in food and non-food prices across the region due to depleted stocks, increased demand, and inflationary pressures. The FAO in February 2024 projected production declines in Southern Africa due to widespread rainfall shortages and high temperatures⁵, leading to increased cereal import needs for the region in the 2024/25 marketing year and record food inflation.

4. Impacts of the current crisis on commodity prices

Cereal prices in the Southern African region were at higher year-on-year levels in December 2023 and January 2024, reflecting cumulative impacts of weather shocks on domestic production, elevated international commodity prices and weak currencies. Malawi recorded the highest retail price of maize per metric ton while Zambia recorded the cheapest (figure 2).



² In July 2023, the USDA projected that Zambia's maize crop would grow by 23% to 3.3 million MT in MY 2023/24 (May 2023 to April 2024), mainly due to a 27% upsurge in area harvested to an estimated 1.4 million hectares

³ The inputs were supplied through the Farmer Input Support Program (FISP) program

⁴ USDA (2023). Zambia Maintains its Status as a Net Exporter of Corn. <https://fas.usda.gov/data/zambia-zambia-maintains-its-status-net-exporter-corn>

⁵ FAO. 2024. Crop Prospects and Food Situation – Triannual Global Report No. 1, March 2024. Rome. <https://doi.org/10.4060/cd0022en>

Figure 2: National average price spreads for maize across select Southern African Countries

Source: Authors' computations based on available data

Whereas current maize prices remain lower than the previous month's in Malawi and Mozambique due to availability of green harvests and food assistance, the prices remain generally above the levels experienced 3-12 months ago in all countries. The changes in prices of maize looks drastic in Zimbabwe, whereas FEWSNET reports, the government increased maize prices from 335 USD/MT to 390 USD/MT.

Table 2: Percentage Changes in maize prices in Southern Africa

Country	Crop	Market	Last Price	1 Month %	3 Months %	6 Months %	1 Year %
Malawi	Maize	Lilongwe, MWK/Kg**	825.00	3.13 ▲	14.58 ↑	42.24 ☒	175.00 ☒
Malawi	Maize	Liwonde, MWK/Kg	828.00	-15.16 ↓	-4.17 ▾	7.32 ↑	25.26 ☒
Malawi	Maize	Mzimba, MWK/Kg	678.00	-9.30 ↓	4.79 ▲	19.89 ☒	37.73 ☒
Malawi	Maize	Mzuzu, MWK/Kg	679.00	-7.27 ↓	6.93 ↑	19.38 ☒	34.59 ☒
Malawi	Maize	National Average, MWK/Kg	798.00	-11.50 ↓	7.26 ↑	16.71 ☒	31.14 ☒
Malawi	Maize	Nsanje, MWK/Kg	890.00	-11.85 ↓	15.58 ☒	30.79 ☒	40.54 ☒
Mozambique	Maize (white)	Maputo, Retail, MZN/Kg***	34.29	0.00 ●	20.02 ☒	50.00 ☒	50.00 ☒
Mozambique	Maize (white)	Montepuez, Retail, MZN/Kg***	28.57	0.00 ●	0.00 ●	15.39 ☒	53.85 ☒
Mozambique	Maize (white)	National Average, Retail, MZN/Kg***	27.51	-4.10 ▾	3.36 ▲	29.86 ☒	22.03 ☒
Zambia	Maize (white)	National Average, Retail, Kwacha/KG	8.64	8.12 ↑	25.11 ☒	59.13 ☒	76.74 ☒
Zimbabwe	Maize (white)	National Average, Retail, ZWL/Kg**	4,186.60	69.28 ☒	86.97 ☒	126.47 ☒	1,143.47 ☒

Note: Last price is for January 2024, *February 2024, **December 2023, and ***November 2023

● = no change, ▲ = low increase (0-5%), ↑ = moderate increase (5-15%), ☒ = high increase (>15%),
 ▾ = low decrease (0-5%), ↓ = moderate decrease (5-15%), ▼ = high decrease (>15%)

5. Alternative Sources of Maize for Southern Africa

The USDA projections forecast lower maize production resulting from declines in traditional exporters - South Africa, Ukraine, Mexico, Venezuela, and Russia (table 6). Based on the prospects, the United States, Brazil, and Ukraine appear to have substantial surplus stock. South Africa, like other Southern African countries, is facing lower yield prospects. Lower production is expected from Mexico due to lower winter production area.

Table 6: Maize production and supply for selected countries in 2023/24

Figures in million MT	Beginning stocks	Production	Imports	Domestic demand	Exports	Ending stocks
United States	34.55	389.69	0.64	316.37	53.34	55.17
Brazil	10.27	124	1.2	77.5	52	5.97
Russia	0.91	17	0.05	11.6	5.3	1.06
South Africa	2.35	16.8	0	13.6	3.4	2.15
Ukraine	2.8	30.5	0.02	5	23	5.32
Mexico	4.5	25	19.6	46.3	0.2	2.6

Source: Based on data from USDA⁶

According to FEWSNET, East Africa is expected to have a net surplus of 1.7 million MT of maize in 2023/24 marketing year (production of 25 million MT, against demand of 23 million MT) (Figure 5). This is driven by forecasted El Nino - enhanced rainfall and improved production. Tanzania's exportable surplus is expected to be 36 percent above average in MY 2023/24 (1.1 million MT), while Uganda and Ethiopia will average levels (450,000, and 400,000 MT respectively). The maize

⁶ <https://www.usda.gov/oce/commodity/wasde>

deficit in Burundi, Kenya, and South Sudan is expected to be 159, 68, and 16 percent lower the 2017/22 average decreasing the regional shortfall (from 850,000 MT last year to 300,000 MT). Maize trade in the East African region in the third quarter of 2023 by more than 60% due to increased supply/production of maize and other substitutes, including grains, roots, and tubers in the deficit-producing country of Kenya.

South Africa has been the traditional source for the Southern Africa region. However, 2023/24 summer crop production forecasts for South Africa indicates that white and yellow maize harvest could be 7 million tonnes (down 17% y/y) and 7.3 million tonnes (down 8% y/y), thus placing the overall maize production estimate at 14.3 million tonnes (down 13% y/y)⁷. The expected harvest is significantly lower than the previous season, which could potentially limit the volumes of exportable surplus. Given the expected drop, the East African region looks like the easiest and quickest source of maize for the South African region at this point.

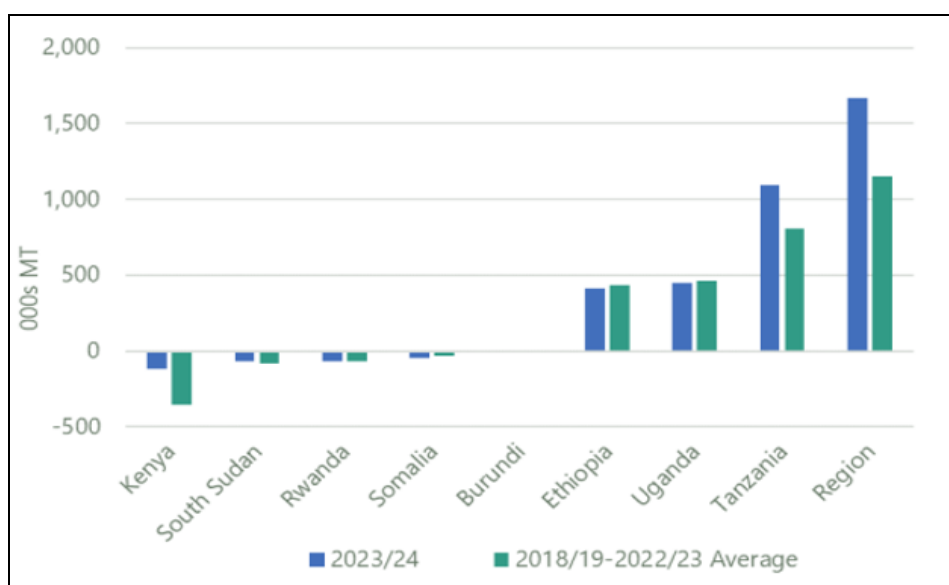


Figure 5: Regional Maize balances in East Africa

Source: FEWS NET

Shipping and Logistics

In addition to production challenges, grain sourcing is significantly affected by shipping costs, especially given the ongoing conflicts in the Middle East and Europe. Inadequate logistics and infrastructure contribute to high food losses in many markets in Africa. These losses worsen in times of crisis. IFC estimates that emerging markets experience food losses of 30 to 40 percent compared to losses of 10 to 15 percent in OECD countries due to logistics failures.

Ukraine offers grain at lower cost (FOB 270 USD/ton), but shipping costs to Beira Port have increased substantially (USD140 /ton against normal freight rate of USD 70/Ton⁸) due to the attacks at the Suez Canal and continued Russia conflict (Figure 3). Also, the end of the Black Sea Grain Initiative (BGSi) as well as insecurity in the Suez Canal may put further strain on global grain markets (stocks and prices), as Ukraine is projected to contribute around 10 percent of global exports of maize and wheat.

⁷ AgBiz, 28 Feb 2024

⁸ Information obtained from the East Africa Grain Council

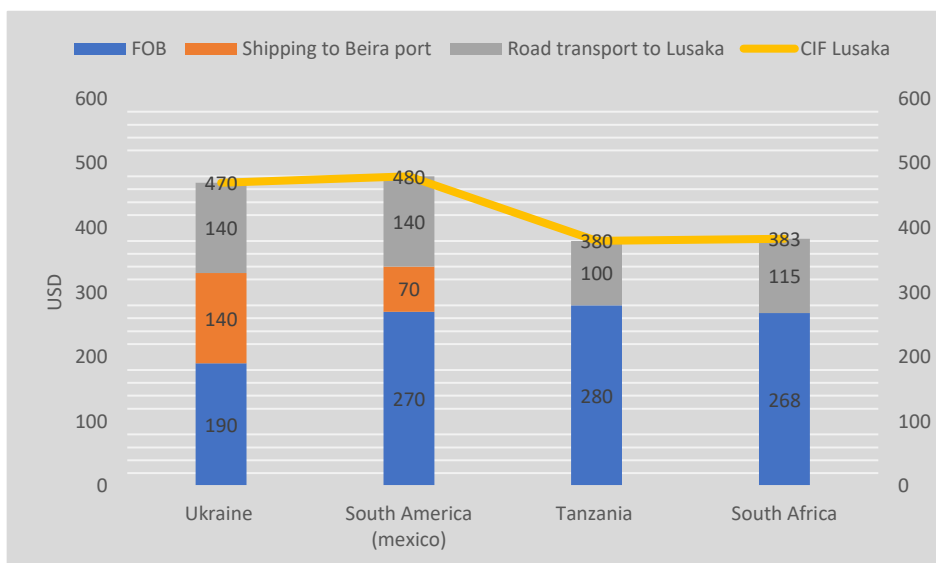


Figure 4: Comparison of prices of landing costs of maize from competing sources.

Source: authors' computation based on consultation from stakeholders and various sources.

The East African region (especially Tanzania) holds a significant advantage, as maize imported into Southern Africa from SADC and COMESA FTAs' countries enter duty-free while imports from countries outside the COMESA and SADC FTAs face a 15% tariff. In addition, there is a fairly good road, rail and sea transport routes between East and Southern Africa. The cheapest way is by sea to Beira port, then by road to neighbouring countries. The total transit time by road from Dar es Salaam, Tanzania to Lusaka for example, is estimated at around 6 days, including loading, and unloading operations at origin and destination. The Dar es Salaam – Beira – Lusaka route's total transit time is about 12 days, which is significantly longer than it would take on road transport, but cheaper.

6. Preliminary Recommendations

Given the current El Nino-induced drought, and its potential impacts on the region' food security situation, there are several key points that policy makers should consider. They include the following:

- *Multistakeholder coordination platforms.*

Governments should establish multistakeholder coordination platforms domiciled at the highest level and well linked with the relevant food security and disaster management organs to coordinate efforts and bring together stakeholders (public, private, development partners). The platform should be supported by a secretariat/Situation Room which is able to collect and collate data and disseminate on timely basis, including shortages, by region/district, prices, country, and regional stocks. The Situation Room should be accessible by private and public partners to enhance communication and coordination. Already, the GoZ has established this multi-stakeholder platform led by Disaster Management and Mitigation Unit (DMMU).

- *Irrigation for short term production*

Given the uncertainty of regional supplies, governments should immediately engage private commercial farmers to put their irrigated land to maize production (including seed) for early crop that should mitigate unforeseen supply disruptions from imports. The early crop should kick start the recovery efforts in the short to medium term, on top of the ongoing emergency response mechanisms. In addition, plans for input/fertiliser imports should start in advance of time for next season as in many cases times of deficit tend to clog logistics (port handling).

- *Government-government engagement*

Government-government (G-G) procurement deal between governments provides one of the immediate avenues for securing the needed grain. For a start, governments in Southern African should engage countries with surplus production in East Africa - to secure supplies through a G-G deal, with partnership with the private sector to handle logistics. Support services such as advance testing and clearance of SPS issues should be put in place to increase efficiency.

- *Import and trade facilitation.*

While some countries within the region provide an immediate and potential source of grain, we should not rule out import options from global suppliers (South America) in case regional logistics prove unreliable. To support imports from global and perhaps unconventional sources, trade facilitation measures will be required to reduce red tape and simplify customs procedures, and exemption from some procedures that lengthen clearing of goods. Specifically, governments should quickly have specific import guidelines, outlining among other things the safety and quality specifications (for example on yellow vs white maize, GMO maize) developed and finalized for the private sector to engage.

- *Medium- and long-term investments in sustainable agriculture technologies and policies*

Governments should seriously consider medium- and long-term investments in sustainable agriculture technologies and policies. These include investments in drought tolerant varieties and their access, irrigation and water harvesting techniques, revisiting role of regional strategic grain

reserves, data and evidence mapping to anchor decision making i.e. digital regional food balances. The GoZ and partners should also consider e-commerce, creating a shared (government and private sector) online sales platform for maize stakeholders to engage. The platform would share real time information on availability of stocks, prices, etc. Increased visibility even at regional level would support the private sector in sourcing maize in areas of surplus. Such a platform should engage regional private sector forums such as the regional Grain Councils who can quickly mobilize information from their members.

- *Evidence based response to shocks.*

In the long term, government policy responses to immediate and unforeseen exogenous shocks need to be anchored on robust evidence and analytics. Some countries are already restricting exports of maize and soybean meal in response to the prolonged drought. While restricting exports seems a good approach for cushioning households and to cope with production and price volatilities in the short-term, long-term impacts of trade policy interventions need to be considered as well.

7. Acknowledgement and Disclaimer

This document was produced by the Center for Technical Excellence team under the guidance of the Vice President of CTE, Vice president for Program Delivery and Regional Director for East and Southern Africa.

The opinions expressed in this report are those of the authors and do not in any way reflect the official policy or position of AGRA, its employees, partners, or its affiliates. While AGRA has made every effort to ensure the accuracy and completeness of the information entered in this report, we assume no responsibility for any errors, inaccuracies, omissions, or inconsistencies included herein. The mention of specific companies, manufacturers, or their products, whether these have been patented, does not imply endorsement or recommendation or approval by AGRA, its employees, partners, or their affiliates in preference over others of a similar nature that are not mentioned. The descriptions, charts and maps used do not imply the expression of any opinion whatsoever on the part of AGRA concerning the development, legal or constitutional status of any country.