Food Security Status and Outlook Report

Summary

♦ Despite the drop in expected maize production in Zambia due to poor rainfall in the 2018/2019 agricultural season, some Provinces such as Central, Copperbelt, Eastern, and Northern are expected to have a good harvest. Most parts of these Provinces are likely to be food secure as the new harvest characterized by a variety of food crops will be available on the market.

♦ Households who managed to produce a market surplus will have income from crop sales, and this will facilitate access to other food items only accessible on the market as well as help them meet other basic needs. Hence, food security in Provinces that received good rainfall will remain favorable and stable, going into the next lean period.

♦ The general food security status in some parts of the Southern and Western regions of the country is threatened. This is because of the prolonged dry spells during the agricultural season, which resulted in crop failure and reduced water and pasture availability for livestock. This means more relief food may be required earlier than usual.

♦ Unofficial exports of maize grain and mealie meal in border towns are intensifying as producers and traders explore lucrative alternative markets. The Democratic Republic of Congo (DRC), Malawi, and Zimbabwe will be the major destination markets owing to the reduced agricultural production in these countries in the last agricultural season. Such trading activity though unofficial ways will contribute towards improved incomes for farming households and traders engaged in such trade due to the high price differential with the neighboring countries. For example, a 50kg bag of maize grain in Kasumbalesa on the Zambian side is about ZMW 200 compared to ZMW 350 in the DRC. The economic distress in Zimbabwe have affected agricultural production, with the country usually experiencing a maize deficit. This year Zimbabwe requires more than 1 million metric tons (MT) of maize grain to meet its domestic requirements.

♦ The outbreak of the Foot and Mouth Disease (FMD) has compounded the unfavorable effects of the crop failure experienced in the southern half of the country, more especially the Southern Province. Apart from losing out on the expected income from crop sales, districts affected by the FMD are likely to experience a reduction in livestock income sales due to the current restrictions on livestock movements intended to contain the spread of the disease. As a result of limited alternative income streams, livestock farmers and traders may be forced to try and move their animals for business without proper permits increasing the risk of the spread of FMD to other areas.

♦ Some farmers in dambo areas are enhancing their horticultural production to close the income gap created by crop failure and livestock movement restrictions as a result of the FMD outbreak. These factors are creating uncertainty concerning food security in affected areas. In the worst cases, the need to explore and employ social protection measures, such as emergency social cash transfers may arise.
Introduction
The 2018/2019 Crop Forecast Survey (CFS) results showed a significant drop in the expected production and sales of several crops in comparison to the 2017/2018 agricultural season. For example, maize, groundnuts and soya beans were projected to decline by 16.3, 28.1, and 28 percent respectively. This is attributed to the prolonged dry spells experienced in most parts of the southern half of the country, where various high crop production districts like Kalomo, Monze, and Choma are located. As expected in a reduced maize supply season such as the current one, the private sector entered the market to start purchasing the commodity as early as May 2019. The Food Reserve Agency (FRA) on the other hand, only announced their purchase program on the 1st of July to buy three commodities; maize, soya beans, and rice. The agency is targeting to buy 300,000 MT of white maize, 4,000 MT of soya beans and 1,000 MT of paddy rice.

Erratic rainfall in some parts of the country during the past agricultural season resulted in the reduced harvest for most crops. Households in affected areas, particularly in the southern regions of the country, have limited food stocks, a situation that will worsen as the country approaches the hunger period (November through January). However, households in the northern part of the country have access to diverse food crops from their own harvest and/or the market.

The food situation in the southern half of the country is being worsened by the negative impact of the dry conditions on the livestock sector. Reduced water and pasture conditions, as well as the occurrence of diseases, continue to adversely affect livestock raising households. Livestock movement restrictions as a result of the Foot and Mouth of Disease (FMD) outbreak in the Central, Northern, Southern, and Eastern Provinces has remained in place since the first quarter of 2019. This restriction is likely to be sustained given the recent reports of fresh FMD outbreaks in some districts in Central and Lusaka Provinces. Thus, livestock trading activities in these areas will remain limited.

Current Food Security Situation
As of the end of June, harvesting of crops from the 2018/2019 agricultural season was on-going, offering a variety of food groups and other seasonal vegetables at the household level as well as on the market.

Households that did not experience any crop failure may have enough maize stocks from own production. However, looking at the drop in the expected production for most crops, supplies are likely to reduce earlier than usual, especially in the southern parts of the country. At the same time, crop sales are improving income levels of farming households, especially in areas where the farming season performed relatively well, enabling them to have the ability to afford an array of food items as well as meet other basic needs.

In parts of the country where the agricultural season has performed poorly, livestock sales are a typical option for farming households as a coping strategy against livelihood shocks. But in the current season, this option has been under threat by the FMD outbreak whose control measures hinder farmers and traders from moving their animals to more lucrative markets within and outside the affected districts. As a result, some farming households have intensified gardening activities, particularly those closer to dambo areas supplementing their household consumption as well as income generation activities. This is in addition to the collection of wild fruits where they are available. Incomes realized from the sale of horticultural produce as well as the wild fruits could also help to meet household starch dietary requirements, among other things. Community sales of maize grain by the FRA in various areas, the Southern Province especially, could become one of the major sources of the main staple crop for farming households that experienced crop failure.

Expected crop production and sales
Maize Grain: The production of the main staple crop, maize, was estimated to have decreased by 16 percent, from 2,394,907 MT produced in the 2017/2018 agricultural season to 2,004,389 MT in 2018/2019 season (Figure 1). The 2018/2019 level of production is 32 percent below the past five year average. The contribution by most of the districts in the southern half, mostly from the Southern Province, of the country to the national production is expected to be rather low (averaging 0.34 percent) compared to 1 percent in the last agricultural season (Figure 2). This is mainly due to the prolonged dry spells experienced during the critical period of the growing season. Districts with a significant contribution (5 percent and above), include Kapiri Mposhi (Central Province) at 6 percent and the Eastern Province Districts of Petauke, Chipata, and Lundazi at 5 percent, 6 percent and 7 percent respectively.
This shows the significant role Eastern Province continues to play as a major maize producing area with Lundazi remaining the highest producer in the country. It is interesting to note that the northern parts of the country have increasingly become more important contributors to the overall maize production in the country. For example, the northern region (Luapula, Muchinga, and Northern Provinces) was expected to contribute 1.22 percent and 1.30 percent in 2018 and 2019 compared to 0.99 percent and 0.87 percent 5 years and 10 years ago respectively. Consequently, maize sales will be highest in Kapiri Mposhi, Eastern Province, and Northern Province districts.

Given the reduction in expected maize production, maize sales during the 2019/2020 marketing season will be 14 and 42 percent lower than the previous marketing season at 956,369 MT compared to 1,106,029 MT in 2018/2019 and the 5-year average respectively (Figure 2). As
depicted in Figure 4, Kapiri Mposhi is expected to contribute the highest, accounting for about 8 percent to the expected sales, followed by Mbala (6 percent), Mpika, Lundazi, and Mpongwe (5 percent each). Most of the areas in the western and southern regions are expected to contribute less than 3 percent (Figure 3).

**Figure 3. District contribution to the expected maize grain sales in the 2018/2019 and 2019/2020 agricultural marketing season**

![District contribution to the expected maize grain sales](image)

Source: Generated by the Author using the MoA CFS 2018/19 data

**Other crops**

Similar to previous years, soya beans, groundnuts, seed cotton, and mixed beans remain the other major rain-fed crops produced in Zambia (Figure 4). However, similar to maize, it is expected that production of these crops will drop. Comparatively, among the food crops, the expected decline in production is highest for sorghum (49 percent), which is predominantly grown in drier parts of the country, followed by rice (31 percent), and sunflower and groundnuts by 28 percent. Production of soya beans, seed cotton and Virginia tobacco is estimated to drop by 7, 18 and 4 percent respectively. The reduction in the production of these crops is lower compared to other crops because a large share of these crops was produced in some parts of Central, Copperbelt, and Eastern Provinces, and the northern region, where rainfall received was normal to above normal. Despite the erratic rainfall during the 2018/2019 agricultural season, production increases have been recorded for mixed beans (12 percent) and Irish potatoes (186 percent).

**Markets and Trade**

In view of the reduced maize supply, nominal retail maize grain prices in 2019 have remained much higher than during the same period in 2018. There was a slight dip in prices between April and May 2019 as new maize started rolling in, thus increasing the dwindling supply and marking the start of the 2019/2020 marketing season which commenced on May 1st. However, by the end of June, the prices appear to have resumed the upward trajectory (Figure 5).

The slight increase in both nominal and real prices for the period of May to June, though less than 5 percent, may be an early signal of the tight maize market situation. The observed minimal price reduction at the start of the new marketing season when supply should be at its peak suggests the availability of maize on the market is still not adequate to significantly push down the high prices observed since October 2018. Nevertheless, price increases are likely to be experienced earlier than usual in the southern parts of the country due to a poor harvest.
Figure 4. Expected production for food and non-food crops

Source: MoA (2019)

Figure 5. Maize grain nominal and real retail prices, March to June 2018 and 2019

Source: Central Statistical Office (2019)
Average prices across all provincial capitals (Kabwe, Lusaka, Mongu, Kasama, Mansa, Mpika, Solwezi, Ndola, Chipata and Choma)
Maize grain and maize meal market conditions

The maize market is gaining momentum with private traders entering the market as early as May 2019 when the moisture content was still above the FRA standard of about 12 percent for storage purposes. As of the beginning of the second week of July, the FRA started purchasing maize grain, soya beans, and paddy rice. FRA announced a price of ZMW 110 per 50kg bag or ZMW 2.2/kg for maize, ZMW 150 for a 50 kg bag of soya beans (ZMW 3/kg) and ZMW 70 for a 40 kg bag of paddy rice (ZMW 1.75/kg) on the 5th of July 2019. The FRA announced price for maize grain is at least 36 percent higher than the past season and is reflective of the market conditions currently prevailing in the major production areas.

Figure 6 shows that market prices for maize grain are ranging between ZMW 70 and ZMW 170 per 50 kg bag, with the lowest reported price in Luapula and the highest in Monze. As can be seen from Figure 6, maize grain prices in major consumption centres such as Lusaka and Ndola are averaging ZMW 130 per 50 kg bag compared to production areas such as Lundazi, Chipata, and Petauke where prices are averaging ZMW 108 per 50 kg bag. In non-major maize consumption areas such as Luapula and Mbala, traders are buying at an average price of ZMW 83 per 50 kg bag. The differences in price by location is mainly due to the maize supply situation and distance from major consumption centres. Across all the provincial capitals, maize meal prices have remained much higher than during the same period in 2018, both in nominal and real terms. Maize meal prices have remained relatively stable from April to June 2019, with a 25kg bag of Breakfast meal selling at ZMW 104 in Lusaka and ZMW 105 in Choma, on average whilst roller meal was selling at ZMW 85 and ZMW 84 respectively (Figure 7 and 8). Breakfast meal prices increased by about 2 percent from ZMW 107 in May to ZMW 109 in June 2019 whereas it remained about the same for roller meal.

With respect to the expected sales of other crops, the pattern is similar to maize with most soya bean sales likely to come from the Central, Copperbelt, and Eastern Provinces, where the expected production is higher. In comparison to the previous marketing season, sales are likely to substantially drop by 44 percent for sorghum, 52 percent for seed cotton, and 67 percent for sunflower. On the other hand, sales for Irish potatoes, and burley tobacco are likely to be way over 75 percent (Figure 9 and 10).
Figure 7. Breakfast meal nominal and real retail prices, March to June 2018 and 2019

Figure 8. Roller meal nominal and real retail prices, March to June 2018 and 2019

Source: CSO (2019)

Figure 9. Expected sales for food and non-food crops

Source: MoA (2019)
Trade
Market proximity and the high price differential between Zambia and the neighboring countries like the DRC and Malawi continue to steer unofficial maize grain and mealie meal trade despite the export ban. Figure 11 shows the minimum recorded volumes of maize grain and mealie meal exports for the period October 2018 to May 2019. The minimum quantity of maize grain unofficially exported increased by about 47 percent between April (1392 MT) and May (2055 MT) 2019, whereas the increase in mealie meal was only about 2 percent from 1857 MT to 1885 MT. A large volume of the

Figure 11. Minimum recorded volumes of maize grain and mealie meal unofficially traded (MT) – October 2018 to May 2019.
maize grain, about 61 percent (1,235 MT) and 94 percent of the mealie meal (1,781 MT) informally exported was destined to the DRC. Maize grain exports to Malawi, on the other hand, rose by more than 300 percent from an estimated 194 MT in April to 622 MT in May. By the end of June 2019, the purchase prices for maize grain and mealie meal were ZMW 200/50 kg bag and ZMW 150/25 kg bag, respectively, at Kasumbalesa. On the DRC side, the price was at ZMW 350/50 kg bag and ZMW 190/25 kg bag for maize grain and mealie meal, respectively.

Conclusion and Recommendations
The food security situation remains mixed with most areas in the northern half, where the 2018/2019 agricultural season performed relatively well, showing no signs of food insecurity. There is a variety of food crops available from production at the household level and on the market. However, some rural areas in the southern parts of the country (e.g. Siavonga, Gwembe, Sinazongwe, and Zimba were among the worst affected) are already exhibiting signs of food insecurity following incidences of crop failure, and restricted trade in livestock and livestock products due to the outbreak of FMD in livestock rearing areas like Monze. Consequently, some rural farming households in dambo areas are intensifying gardening activities and the collection of wild fruits for both home consumption and income generation. The drop in expected production for most crops is likely going to result in the reduction of supplies earlier than usual, especially in the southern half of the country. The vulnerability assessment report will provide a more comprehensive list of such areas.

As a result of the expected reduction in crop production, it is likely that the prices of some staple commodities may start to rise sooner than expected. However, this does not mean that the country is food insecure but rather requires timely and effective planning. For example, to ensure poor households are food secure in most affected areas, relief food needs to continue to flow to their areas, and community sales need to be intensified during the hunger season. To avoid knee-jerk policies that have long lasting negative impacts on maize market development such as price controls, there might be a need for government to consider temporary emergency cash transfers to urban poor households to afford commercially milled maize meal. This would be a better option than a blanket subsidy delivered through millers (see Chisanga et al., 2018). In addition, to ensure that urban consumers continue to have access to cheaper maize meal, there is a need to have constant grain supply into markets such as Soweto, Bauleni, and Chisokone. This provides households with an alternative source of grain for milling at the local grinding mill instead of relying only on formal milled maize meal.

Farm gate and trader prices for maize grain as well as soya beans are exceptionally high as the new marketing season progresses. Among the households who were able to produce a marketable surplus, crop sales at these prices will help to improve their income levels. However, with a reduction in production for most of the crops except mixed beans and Irish potatoes, market supply will be tight, resulting in prices trending upwards.

Livestock conditions are likely to stay poor because of the limited water and pasture availability, particularly in the Southern Province as a consequence of the dried up water points such as streams. Furthermore, inter-district and province livestock trade activities are hampered following the livestock movement restriction – to limit the spread of the FMD outbreak in the Central, Northern, Southern, and Eastern Provinces. Hence, the income stream from
livestock sales will remain affected, reducing households’ ability to cope with other livelihood shocks emanating from the crop failure.

Informal cross border maize grain and mealie meal trade in border towns are expected to intensify as traders and farmers explore other alternative lucrative markets nearby. With reduced regional maize supply, the maize outflow is expected to continue mostly to the DRC and Malawi which are closer to high production areas of the Copperbelt and Eastern Provinces which have performed moderately well.

The crop failure experienced in some parts of the country due to the erratic rainfall pattern once again echoes the need for the development of sustainable irrigation systems in normally high agricultural producing areas. Such development will facilitate crop production off-season, thereby countering the effects of unpredictable weather patterns. The current experience, of reduced agricultural production, reiterates the vital role commercial farming can play to cushion any shortfall in the supply of the main staple at any point, more especially during the lean period. However, commercial maize farming can and will only thrive in an environment where marketing policies are consistent.

Given the increasing unpredictability of weather patterns due to El Niño and La Niña conditions, farmers should continuously be encouraged to adopt climate-smart agricultural practices that help retain soil moisture combined with appropriate seed varieties in terms of the maturation period, particularly in drier parts of the country. Adoption of such agricultural practices and technologies require advice on the importance of timely implementation through the existing extension networks, and interpretation of tailored climate information such as seasonal forecasts. Increased funding and investment in meteorological facilities stand paramount to ensure climate information services and products reach and get utilized by the intended end users like farmers for agricultural planning purposes.

Last but not least, Zambia must intensify investments into agricultural productivity growth and diversification away from maize into other crops and livestock. This is achievable but requires the country to move towards creating ‘special agricultural zones or corridors’ that will represent different forms of comparative agricultural advantage across the national space and economy. There are many areas in the country that bear significant comparative advantages for the development of agriculture-based spatial development corridors that can give life to high potential regional agricultural value chains spanning grains and staples, livestock, cash crops, horticulture and spices, and edible oils.

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