ZAMBIA Food Security Outlook

Average national maize production attained despite experiencing unfavorable rainfall

KEY MESSAGES

- Zambia attained average 2015/16 maize production despite a late start of the season and erratic rainfall. The estimated maize production is 2.87 million MT against the national requirement of 2.9 million MT. Average production was also attained for sorghum, millet, and groundnuts.

- Erratic rainfall in parts of southern Zambia resulted in below-average production in localized areas. Stressed (IPC Phase 2) acute food insecurity outcomes are expected in these southeastern and southwestern areas during the outlook period. For the remainder of the country, acute food insecurity will remain Minimal (IPC Phase 1).

- The 2016/17 marketing season has opened with maize prices at least 35 percent above the previous season and well above the recent five-year average. Prices are likely to remain very high due to strong demand for Zambian maize since most of the southern Africa region is facing large maize production deficits this marketing year. The government recently announced that maize exports from new harvest would begin after September 2016 in order to allow the FRA adequate time to purchase maize for the strategic grain reserves and additional maize for price stabilization during the lean season.

- A La Niña event is likely to develop by late 2016 and tends to be associated with average to above-average rainfall in Zambia. A normal start to the next cropping season is expected for now, however updated forecasts are still forthcoming.

SEASONAL CALENDAR FOR A TYPICAL YEAR
NATIONAL OVERVIEW

Current Situation

- Minimal (IPC Phase 1) acute food insecurity has remained in most parts of the country and the new harvest has increased the availability of food at the household level. Stressed (IPC Phase 2) acute food insecurity outcomes are expected in some areas in the Eastern, Southern, and Western Provinces throughout the outlook period.

- Zambia has attained an average maize production of 2.87 million MT for the 2015/16 cropping season. This amount is an improvement from the previous season (an increase of 10 percent) despite the late start of season and erratic rainfall experienced during the first half. It’s also the third highest production in the last seven years (Figure 1). Rainfall improved significantly between February and March. This ensured that the late planted crop reached full maturity in many areas across the country. The abnormally high temperatures also contributed to an increased growth rate of crops. The impact of the late start of season and erratic rainfall on crops in the first half of the season was greatest in the Southern Province which recorded the highest drop in production in comparison to average.

- The carryover stock from the 2015/16 marketing year is at 667,500 MT or half of last year’s level. Current maize supply levels will exceed the total national requirement by about 634,681 MT. This amount will be available for regional export after September 2016; however these supplies will not be able to fulfill the large regional maize deficit this year. Several neighboring countries, including Zimbabwe, Malawi, and the DRC have already requested government to government imports this marketing year.

- Harvesting this year started in May, slightly later than in normal years. It is ongoing and expected to end in late June or early July. Average and above average production was recorded for sorghum, millet, soybeans, sweet potatoes, and groundnuts while cassava, rice and beans production are estimated at below-average levels.

- In rural areas, harvests are improving the availability of maize, pumpkins, sweet potatoes, groundnuts, and wild food at the household level and access to these supplies is reducing demand in local markets.

- Both large and small traders are already purchasing maize from farmers at prices that are 35 percent and higher than in June 2015. These higher prices suggest that the 2016/17 marketing season has opened with a relatively higher buying price, which may be attributed to a combination of higher production costs this season and very high regional demand for Zambian maize.
Larger traders in the Eastern Province are offering middlemen as much as ZK 1.8/kg for maize, while in Lusaka larger traders are paying farmers ZK 1.9/kg on delivery and selling to millers for ZK 2.5/kg. Small traders in the Southern Province are selling maize to millers in Lusaka for ZK 1.8 - 1.95/kg. This selling price is about 50 percent higher than prices in June 2015. In contrast to previous years, large traders this season have set-up maize purchasing points in the northern region of the country (Northern and Muchinga Provinces) where maize production has been increasingly contributing more and more to national production levels in recent years.

The Food Reserve Agency (FRA) has yet to start its maize purchasing program. Nonetheless, this season the FRA is planning to purchase 1 million MT of maize at ZK 1.7/kg. This price is 13 percent higher than the buying price in 2015. Since the current buying price by the private sector is just slightly below and in some cases higher than the new FRA buying price, the entry of the FRA is expected to have less of an impact on the market than it has in previous years.

The government recently announced that export of newly harvested maize would begin after September 2016 in order to allow the FRA adequate time to purchase maize for the strategic grain reserves and additional maize for price stabilization during the lean season. However, export of the 167,000MT of maize from last season that Zimbabwe already contracted and paid for would be allowed.

According to FEWS NET, the FRA may face increased competition with the private sector for the purchase of maize supplies. The slightly higher FRA buying price is also expected to contribute to a steep increase in maize meal prices after the FRA stops subsidized maize sales to millers in late June. The current high prices at which millers are buying maize will also result in much higher maize meal prices.

Since February, formal maize exports have been reducing steadily as local stock levels reduced before the harvest. Following the instigation of border patrols in April to curb the large volumes of maize/meal being exported which resulted in temporal shortages in border towns, formal exports sharply dropped by 80 percent in April with respect to the month of March (Figure 2). Similarly, informal maize and meal exports also sharply dropped. However, following the recent harvest, informal maize grain exports to the DRC have started typically rising, having increased by 34 percent in May with...
respect to the month of April. However, the current volumes are much lower than usual for this time of the year due to ongoing border monitoring.

- Food assistance for the 2016/17 marketing season will be based on the recent assessment completed by the Zambia Vulnerability and Assessment Committee (VAC). Approximately 975,738 people have been identified as requiring food assistance between August 2016 and March 2017. The government will provide assistance to households using FRA maize stocks and the Disaster Management and Mitigation Unit (DMMU) will coordinate this relief effort. Proposed implementation modalities include cash transfers for areas where markets are functional.

- Livestock conditions are generally fair to good and pastures are in good shape as a result of the extended seasonal rainfall in March. However, concerns over water supplies for livestock continue.

- Although the local currency has appreciated since the beginning of the year, it remains highly volatile. Inflation rate on the other hand has remained high at 21 percent (Figure 4).

**National Level Assumptions**

The June 2016 to January 2017 Food Security Outlook report is based on the following national-level assumptions.

**Staple food availability:** Given the estimated average production for maize (2.87 million MT) and moderate carryover stock (667,000 MT), staple food will be able to meet national the national cereal requirements (2.9 million MT) during the June 2016 – January 2017 period and beyond. With the new harvest coming onto the market, the FRA (a current major supplier) will stop supplying subsidized maize to millers at the end of June as supply of the commodity on the market increases.

**Maize market and prices:** The 2016/17 marketing season which opened in May has started with much higher maize price levels compared to the previous season. Given this situation, maize prices will trend above the levels that prevailed in the previous season for the duration of the outlook period. The prices will be relatively stable between June and July but start rising early (by August) initially steadily then more steeply as the lean season starts in November (Figure 3). Throughout the outlook period, maize retail prices will remain at least 60 percent above the recent five year average. Strong regional demand for Zambian maize will sustain high local prices as most of the marketable surplus will be in the hands of the medium and large traders and the FRA.

Although the FRA is planning to purchase 1 million MT of maize during the June to September period at the new fixed price of ZK 85/50 kg, they may fall short of their target.

Additionally, the private sector has extended its purchase area to include some high producing areas in northern Zambia where the FRA purchased most of their maize in the last marketing season. The very attractive regional market will support very large maize volume purchases by the private sector this season.

Since the FRA will purchase above the 500,000 MT strategic reserve target, they will enter the market to sell the grain to the millers for price stabilization during the lean period (Nov –Jan period). However, due to the expected high regional demand, prices are likely to remain high and the intervention is likely to have limited impact on the market as was the situation in the just ended marketing season.

**Maize flow and Trade:** Given the good harvest and increasing market supply, there will be increased informal maize exports; however, these will be much below normal considering the ongoing border monitoring which will limit the movement to the DRC, Tanzania, and Malawi. Formal maize trade will continue initially at lower levels given that from June to September there will be limited volumes to export (only from old stock, a minimum of 167,000 MT). No maize from the new harvest is likely be exported during that period. Border monitoring will likely last until September (end of FRA maize purchase period).
Volatile local currency and Increased Inflation rate: The recent appreciation of the local currency by 16 -20 percent with respect to the month of October has not provided enough confidence on the market as the copper prices (the main driver) have not adequately recovered given the limited demand by China. Therefore, commodity prices will still remain high and high level of inflation will remain during the outlook period. Given this situation, FEWS NET expects that household purchasing power will continue to erode, making it increasingly difficult for some poor households to access adequate food from the market.

Water situation: The below average rainfall for the second consecutive season has significantly reduced water levels in bodies of water and this is reducing the country’s capacity to generate power. Consequently, power importation will continue and this will sustain the high prices of power for commercial purposes. FEWS NET believes that this will keep production costs high and this will decrease consumer purchasing power. Load shedding will continue throughout the outlook period, but with reduced hours as the power company has recently added additional power sources to the national grid.

Livestock conditions: With the reduced rainfall in the southern half of the country during a good part of the 2016 growing season, FEWS NET expects that livestock conditions may deteriorate during the August to October period in this part of the country. Consequently, animals will need to be moved long distances in search of both pasture and water, increasing the risk of livestock disease outbreaks.

Rainfall forecast: After experiencing one of the strongest El Niño events on record during the previous 2015/16 cropping season, early June CPC/IRI forecasters indicate that a La Niña event is likely to develop by late 2016. In Zambia, the La Niña event tends to be associated with average to above-average rainfall during the September to December period (Figure 5). These likely rainfall conditions are sufficient and would promote crop development in Zambia between October 2016 and January 2017. However, ENSO and sea surface temperatures are not the only factor affecting southern Africa rainfall. The Subtropical Indian Ocean Dipole (SIOD) influence ENSO’s impact on rainfall in southern Africa. Positive SIOD enhances La Niña influence on southern Africa rainfall, while negative SIOD mitigates the influence. Therefore, the state and impact of SIOD on 2016/17 rainfall will only be estimable with more confidence later in the year. Given that the normal start of the season is far away and forecasts are still forthcoming, FEWS NET is assuming a normal start to the 2016/17 cropping season. There is also a possibility of localized flooding in the flood-prone areas in the western and southern parts of the country.
the country. In addition to rainfall amounts, prospects for the next main production season will also be driven by the timing and availability of subsidized inputs.

**Agricultural Input support:** The government will continue providing inputs (fertilizer, seed) and vouchers to support small scale farmers in the 2016/17 agricultural season. The inputs are likely to be distributed by August 2016 (much earlier than usual) as the country goes into election mode. This will support timely planting and increase input accessibility for small scale farmers.

**Most Likely Food Security Outcomes**

Most areas across the country will experience Minimal (IPC Phase 1) acute food insecurity. Given the average production this year, most rural households are likely to continue consuming their own production. Increased availability to own production (pumpkins, groundnuts, squashes, beans, sweet potatoes etc.) is most abundant in the northern half of the country that received good rainfall. In addition, some areas in the central and southern parts of the country experienced reasonable harvests that should sustain them for a good part of the marketing season.

Based on the recent Zambia VAC findings and FEWS NET analysis, poor households in the extreme southwest (Sesheke, Mwandi, Mulobezi, south Kazungula, and south Shangombo districts) and southeastern parts of the country (Sinazongwe, Siavonga, Gwembe, and Luangwa district), as well as Mambwe District will experience Stressed (IPC Phase 2) acute food insecurity outcomes due to below-average maize production for the 2016 cropping season. Households in the affected areas will minimally meet their food requirements from the little harvest and purchases, but will be unable to access essential non-food items without engaging in irreversible coping strategies. In view of this, the government will provide food assistance for livelihood protection.

**AREAS OF CONCERN**

**South Western Cereal, Livestock, and Timber Livelihood Zone (LZ ZM02)**
Mulobezi, Mwandi, Sesheke, part of Shangombo-Sioma and Kazungula districts

**Current Situation**

Cereal harvests in this area were approximately 30 percent below average due to poor seasonal rainfall and limited access to inputs among poor households. Households are currently consuming own produced food stocks from the reduced 2016 harvest. Some households that could not afford to replant after the late start of season did not harvest much cereal and have finished all of their food stocks. These households are now relying on market purchases for food consumption and their main sources of income for these purchases are charcoal sales, reed mat sales, fishing, petty trading, and casual labor.

Markets are well supplied with maize meal from millers in Livingstone and agents in Senanga. In April the average prices were about 20 percent lower than prices at the peak lean season in February. There are reduced agricultural and non-agricultural labor opportunities because of the lingering impacts of poor seasonal performance on better-off households for the second consecutive year. According to recent field information, about 2,500 households in Sesheke district are receiving monthly rations of relief food (25 kg maize meal, 750 ml cooking oil, 5 kg beans and salt). This is an emergency program financed by a Canadian NGO (World Renewal) that is working through the local United Church of Zambia. Livestock conditions are good and pasture conditions are fair. There have been no reports of the Contagious Bovine Plural Pneumonia (CBPP) a disease that is endemic to this area. The main water source in this area is through bole holes and there are reports that streams and Zambezi tributaries are flowing but that water levels are reduced.
Assumptions

- Between June and August, departures for migration labor opportunities (herding and casual labor) in Namibia are expected to occur at normal levels. As local demand for this labor in Namibia is expected to be near average. Incomes earned by migrants from southwestern Zambia are also expected to be near average. Between October and January, departures for migration labor opportunities (herding and casual labor) in Namibia are expected to be higher than normal as households seek greater income-earning opportunities to meet their market purchase needs. As the supply for this labor in Namibia increases atypically, average incomes earned will be below average.

- Agricultural labor opportunities for harvesting and processing (June-August) are expected to be below normal as the reduction in maize production limits demand for these activities. With reduced agricultural production, and the resulting decrease in incomes earned from agricultural sales, demand for non-agricultural labor will likely be below average.

- Poor households will face difficulty purchasing required agricultural inputs for the next planting season that starts in November because of the below-average incomes earned in 2016 and above average market food purchases made. Consequently this could lower production next production next season.

- There will be a seasonal increase in fishing activities between July and November, but lower river levels and poor fishing practices mean that fewer fish will be caught than in previous years.

- The seasonal increase in trade flows of maize meal from Livingstone (millers) is expected to begin in August, as opposed to September, due to the increased market demand in the zone following below-average 2016 maize production. The level of trade flows will likely be above-average due to the high demand both in southwestern Zambia and in northeastern Namibia. The 2016 production surplus in Zambia is expected to be able to meet this increased demand.

- The price of maize meal (main staple) is likely to increase earlier (August) than normal (Oct/Nov) and remain above-average due to the limited local availability of maize, and increased demand for local purchases as well as in neighboring Namibia and Angola (Figure 7).

- Incomes from vegetable gardening (between July to October) will be lower than normal due to the reduced availability of irrigation and flood recession water as levels in the Zambezi River reduce.

- Poor seasonal performance during the 2015/16 season has led to below-average pasture and surface water availability. Between September and November, restricted access to pasture and water will lead to below-average livestock body conditions, resulting in reduced incomes earned from livestock and livestock product sale.
The availability of wild food, an important source of food and income, will be near normal as these plants are more resilient than cereals, and they also benefited from late season rains.

The high likelihood of a La Niña developing by the start of the 2016/17 production season implies that these areas in southwestern Zambia are expected to experience a timely start of season in November, and rainfall accumulation at the beginning of the season is expected to be near average. Consequently, agricultural labor demand from October to January for land preparation, planting and weeding activities between November and January will be average. Wages for agricultural labor work are also expected to be near average.

**Most Likely Food Security Outcomes**

During the June to September period, FEWS NET expects that poor households will be able to minimally meet their food requirements from their reduced harvests and through food purchases. Poor households will exhaust their own production stocks by July, while these stocks would typically last until September. This will bring households to rely on market purchase for two months longer than in a typical year. Households are likely to engage in normal livelihood strategies for income sources during the outlook period. For the poor this will include the sale of labor, migratory labor, the sale of wild foods, fishing and the sale of small livestock, however overall incomes levels will be lower than normal from these activities. During the October to January period, households will have some difficulties meeting their non-food needs due to the reduced incomes earned in 2016. FEWS NET expects that they will be Stressed (IPC Phase 2) and will begin to receive food assistance coordinated by the DMMU. Poor households are expected to expand existing livelihood strategies in the charcoal sales, wild food collection, and migratory labor.

**Zambezi Valley Agro Fisheries Livelihood Zone (LZ ZM10)**

**Sinazongwe, Gwembe, Siavonga, and Mambwe Districts**

**Current Situation**

Since most crops did not reach maturity by the end of the 2016 rainy season, most poor households are depending on market purchases with incomes from sale of charcoal, fish, small livestock, casual labor, and petty trading. There are reduced agricultural and non-agricultural labor opportunities since better-off household food and cash crop production was reduced this season. Maize meal is readily available on the market at prices that are 15 percent below their peak in February, but much above the recent five-year average. Maize grain which had been scarce in the source market (Choma) and therefore was highly priced (106 percent above average) dropped in May by 40 percent as supplies from the harvests began to entre markets. Livestock conditions are fair and domestic water supply is readily accessible from bole holes.

**Assumptions**

- Staple food markets are expected to be well supplied by traders from the surplus producing areas of Southern province (Choma, Monze, and Kalomo districts) despite production being 25 percent below average.
The price of maize is likely to increase earlier (August) than normal (Oct/Nov) and remain above-average throughout the outlook period due to the limited local availability and increased demand (Figure 7).

The seasonal increase in trade flows of maize and maize meal from Choma (source market) traders and millers is expected to begin in August, as opposed to November, due to the increased market demand in the zone following below-average 2016 maize production. The level of trade flows will likely be above-average due to the high demand as more households will have to depend on market purchases than normal. The 2016 production surplus in Zambia is expected to be able to meet this increased demand.

Agricultural labor opportunities for harvesting and processing (May-August) are expected to be below normal as the reduction in maize production limits demand for these activities. However, agricultural labor demand from October (land prep) through to January (planting and weeding) are expected to be normal as better off will be expecting good rains in the next season and will therefore go out of their way to ensure they plant normally. This could involve selling large livestock in order to be able to provide labor wages.

Poor households will face difficulty purchasing required agricultural inputs for the next planting season that starts in November as they earn below-average incomes in 2016 and expend a larger proportion of their incomes to access food than normal.

The availability of wild food, an important source of food and income, will be near normal as these plants are more resilient than cereals, and they also benefited from late season rains.

Given the expected normal start of season in November and average availability of capital resources in households who hire agricultural labor, demand for agricultural labor is expected to be near average for land preparation, planting and weeding activities between November and January. Wages for agricultural labor are also expected to be near average.

**Most Likely Food Security Outcomes**

In the June to September period, households will minimally meet food requirements mostly from purchases (staple food) as the harvest is too little to sustain them beyond July. Poor households will exhaust their own production stocks by July. This will force households to rely on market purchase four months longer than in a typical year. Households are already supplementing the small harvest with market purchases and this is atypical at this time of the year. The poorer households will engage in normal livelihood strategies such as fishing, sale of labor, small livestock, and wild foods but are likely to increase on charcoal sales in order to earn more money to purchase food.

During the second half of the outlook (October to January), poor households will collect and consume more wild foods than usual. Poorer households will expand/increase on a number of livelihood strategies including charcoal sales, casual labor, and wild food sales, but they may not meet essential nonfood needs (education and health) and will experience livelihood challenges.
protection deficits. They will lose out on brewing income due to the reduced 2016 millet harvest. Although fishing will take place, they will earn less due to low water levels.

EVENTS THAT MAY CHANGE THE OUTLOOK

Table 1. Possible events over the next six months that could change the most-likely scenario.

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<thead>
<tr>
<th>Area</th>
<th>Event</th>
<th>Impact on food security outcomes</th>
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<tbody>
<tr>
<td>Southeastern and southwestern regions</td>
<td>Delayed start of the 2016/17 cropping season and inadequate coverage/assistance through social safety-net program.</td>
<td>The DMMU is planning to provide some food assistance between August 2016 and March 2017 to households in areas that received below-average 2016 production. Acute food insecurity outcomes could worsen among these households if this program is inadequate and if casual labor opportunities at the start of the next cropping season are delayed.</td>
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ABOUT SCENARIO DEVELOPMENT

To project food security outcomes over a six-month period, FEWS NET develops a set of assumptions about likely events, their effects, and the probable responses of various actors. FEWS NET analyzes those assumptions in the context of current conditions and local livelihoods to develop scenarios estimating food security outcomes. Typically, FEWS NET reports the most likely scenario.