

**Voluntary Report** – Voluntary - Public Distribution

**Date:** July 29,2020

**Report Number:** ZA2020-0001

**Report Name:** High Corn Production Leads to Excess Supplies in Zambia

**Country:** Zambia

**Post:** Pretoria

**Report Category:** Grain and Feed

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**Report Highlights:**

In the 2020/21 MY, Zambia produced its second highest corn crop on record. This bumper corn crop of 3.4 million tons is 69 percent higher than the previous season's crop of 2.0 million tons. Over the past 20 years, Zambia has more than doubled corn production through a combination of increased area and productivity, turning the country into a net exporter of corn. However, in the 2020/21 MY corn exports will be limited, despite the bumper crop, as the Zambian government plans to stock 1.0 million tons of corn as strategic reserves due to the COVID-19 pandemic. As a result, Post estimates Zambia's corn exports to neighboring countries will be limited to about 270,000 tons in the 2020/21 MY.

## **Executive Summary**

Corn is the most important crop in Zambia. It is widely grown by smallholder farmers and is the national staple food. In the 2020/21 MY, Zambia produced its second highest corn crop on record. This bumper corn crop of 3.4 million tons is 69 percent higher than the previous season's crop of 2.0 million tons. Post estimates that Zambia will consume about 2.3 million tons of corn in the 2020/21 MY, leaving excess supplies of corn available for exports to neighboring countries.

However, following the onset and progression of the COVID-19 pandemic, the Zambian Food Reserve Agency (FRA) announced that it would purchase 1.0 million tons of corn to protect the country's food security status. This decision by FRA will constrain the amount of corn available for exports. Hence, Post estimates Zambia's corn export will be limited to only about 270,000 tons in the 2020/21 MY. Zambia exported an estimated 100,000 tons of corn in the 2019/20 MY and 600,000 tons in the 2018/19 MY.

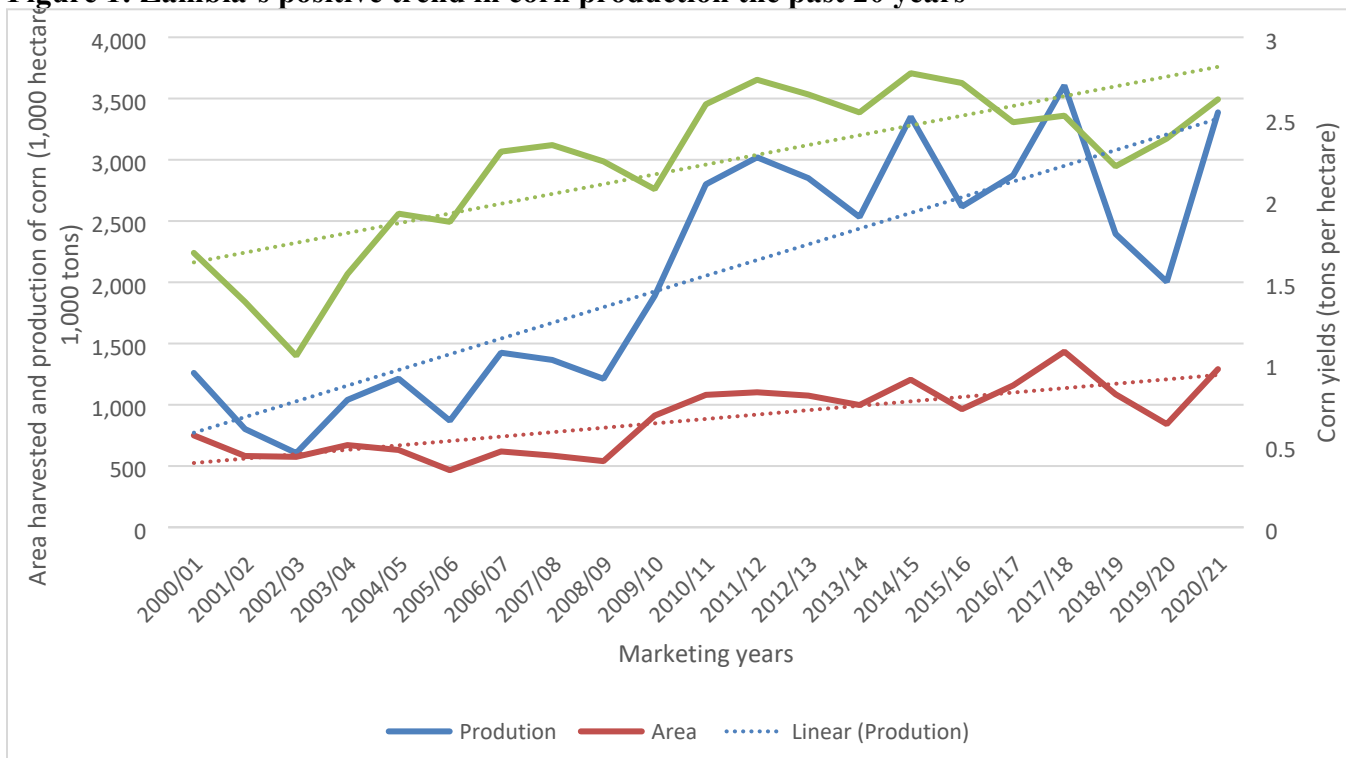
# Corn

## Production

In the 2020/21 MY, Zambia produced its second highest corn crop on record. This bumper corn crop of 3.4 million tons is 69 percent higher than the previous season’s crop of 2.0 million tons. Favorable weather conditions and above-average rainfall received since mid-January, which offset early-seasonal rainfall deficits, contributed to Zambia’s bumper corn crop. Another contributor to the successful production season was the early deliveries of farming inputs under the Farmer Input Support Program (FISP) program. The government’s FISP supplies subsidized seed and fertilizer to smallholder famers to increase efficiencies and food security. Small- and medium-scale farmers produced almost 3.2 million tons of corn in the 2020/21 MY or 93 percent of the total corn crop.

Over the past 20 years, Zambia more than doubled corn production through a combination of increased area and productivity (see also Figure 1). The major factors contributing to the positive trend in productivity includes the increased availability and usage of higher potential hybrid seeds, a rise in fertilizer usage and the government’s FISP that subsidized inputs for farmers. This input support program was first introduced in 2001 as the Fertilizer Support Program, but was revised and renamed in 2009 to the FISP to reach more smallholder farmers. The Zambian government believes this positive trend in corn production will continue with Zambia’s farmers ultimately producing in excess of 5.0 million tons of corn per year.

**Figure 1: Zambia’s positive trend in corn production the past 20 years**



Reports on this year's production season indicated that Fall Armyworm (FAW) affected about 15 percent of the area planted with corn, mostly in Southern and Central provinces. However, due to improved management by producers and the distribution of pesticides by the Zambian government, farmers were able to reduce the severity of the infestations. In Zambia, the cultivation of Genetically Engineered (GE) corn is prohibited.

Table 1 summarizes the area planted, area harvested, production and yield of corn in Zambia for the 2018/19 MY, 2019/20 MY and 2020/21 MY (estimate). Almost all of the corn planted in Zambia is white corn and is mainly used for human consumption.

**Table 1: Area planted and production of corn in Zambia**

Marketing years (MY)	Area planted (1,000 ha)	Area harvested (1,000 ha)	Yield (t/ha)	Prod. (1,000 tons)
2018/19	1,392	1,086	2.2	2,395
2019/20	1,557	842	2.4	2,004
2020/21	1,635	1,291	2.6	3,387

Source: Zambia's Ministry of Agriculture

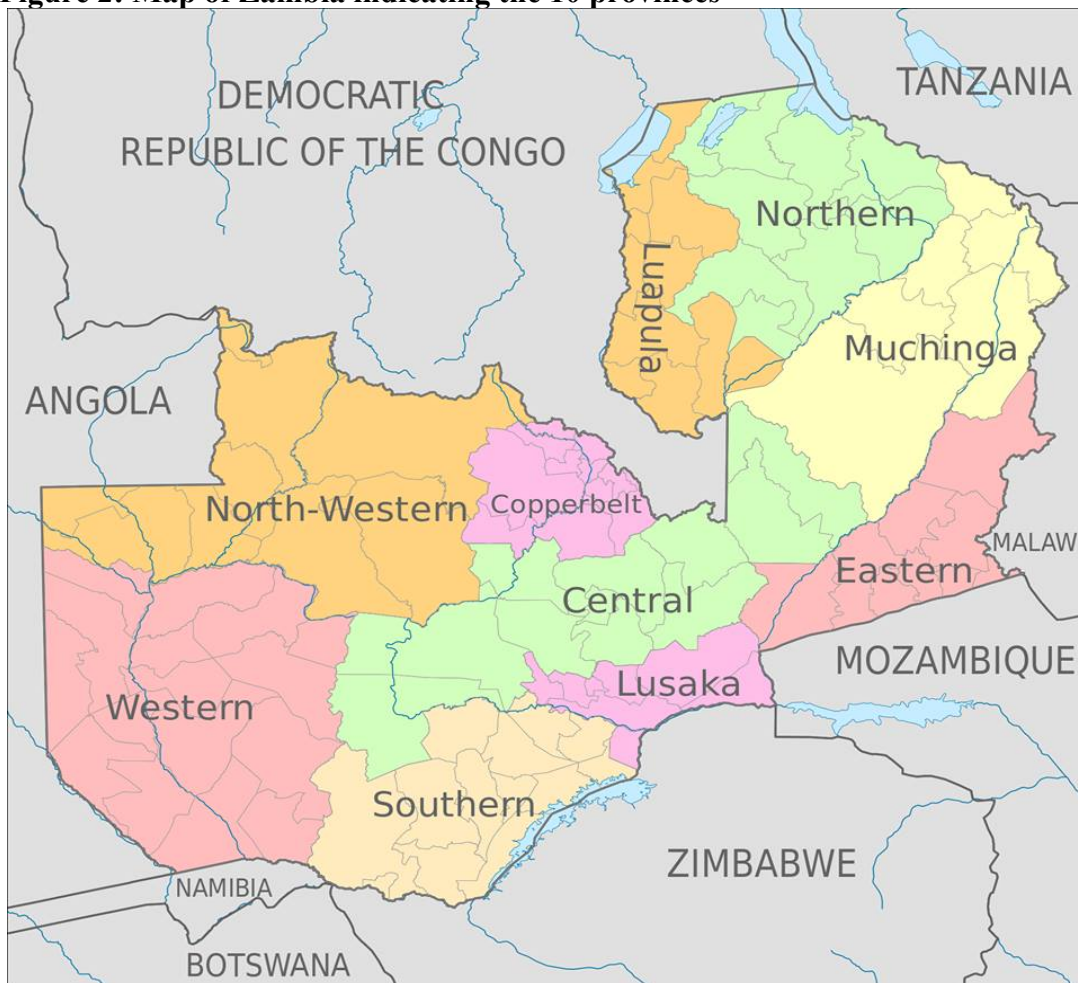
Table 2 specifies the contribution each of Zambia's 10 provinces has made to total area and corn production in the 2018/19 MY, 2019/20 MY and 2020/21 MY (see also Figure 2 for a map of Zambia). Zambia produces corn in all 10 provinces, with the Central, Eastern and Southern provinces the major contributors. In the 2020/21 MY, the Central province was the major producer of corn with 664,000 tons or almost 20 percent of total corn production. The Southern province recovered after last season's disastrous crop and produced almost half-a-million tons of corn in the 2020/21 MY. The Southern province contributes more than 20 percent to the total area of corn planted in Zambia.

**Table 2: The contribution of Zambia's provinces to total area and corn production in the 2018/19 MY, 2019/20 MY and 2020/21 MY**

Provinces	2018/19 MY			2019/20 MY			2020/21 MY		
	Area (1,000 ha)	Prod. (1,000 tons)	Yield (t/ha)	Area (1,000 ha)	Prod. (1,000 tons)	Yield (t/ha)	Area (1,000 ha)	Prod. (1,000 tons)	Yield (t/ha)
Central	238	467	2.0	258	362	1.4	295	664	2.3
Copperbelt	79	174	2.2	90	222	2.5	102	306	3.0
Eastern	284	460	1.6	290	500	1.7	294	614	2.1
Luapula	40	104	2.6	49	121	2.5	70	183	2.6
Lusaka	52	97	1.9	55	35	0.6	57	132	2.3
Muchinga	84	255	3.0	84	240	2.9	114	332	2.9
Northern	92	240	2.6	102	240	2.4	126	330	2.6
North Western	68	151	3.7	80	182	2.3	86	225	2.6
Southern	337	361	1.1	418	79	0.2	360	489	1.4
Western	118	85	0.7	132	23	0.2	131	112	0.9
<b>Total</b>	<b>1,392</b>	<b>2,395</b>	<b>1.7</b>	<b>1,557</b>	<b>2,004</b>	<b>1.3</b>	<b>1,635</b>	<b>3,387</b>	<b>2.1</b>

Source: Zambia Statistic Agency

**Figure 2: Map of Zambia indicating the 10 provinces**



## **Consumption**

Corn is the most important crop in Zambia. It is widely grown by smallholder farmers and is the national staple food consumed in the form of a porridge called “nshima”. Corn provides about 60 percent of the caloric requirements of Zambia’s population of 17.9 million. Other food crops include wheat, sorghum and cassava. Post estimates that Zambia will consume about 1.7 million tons of corn for human consumption in the 2020/21 MY (see also Table 3). Industrial requirements are estimated at about 130,000 tons, while Zambia’s animal feed for the poultry and livestock industries is estimated at around 280,000 tons. Post-harvest losses are estimated at about five percent of production. Thus, Zambia’s total domestic demand for corn in the 2020/21 MY is estimated at 2.3 million tons, 4 percent higher than the previous season on increased production.

**Table 3: The usage of corn in Zambia (1,000 tons)**

Marketing year (MY)	Food	Animal feed	Industrial	Losses	Other	TOTAL
2018/19	1,620	280	120	120	80	2,220
2019/20	1,650	280	125	100	50	2,205
2020/21	1,670	280	130	150	70	2,300

**Source:** Post estimates based on information from the Zambia’s Ministry of Agriculture

## Trade

Post estimates, Zambia could export about 270,000 tons of corn in the 2020/21 MY, a substantial increase from the prior year. Following the onset and progression of the COVID-19 pandemic, the Zambian Food Reserve Agency (FRA) announced that it would locally procure 1.0 million tons of corn, a significant increase from the original plan of 300,000 tons. This decision by FRA will limit the amount of corn available for exports. This limited exportable surplus could also impact an agreement the government of Zambia has signed with the Democratic Republic of Congo (DRC) to export 600,000 tons of corn to the DRC in 2020. The agreement aims to deter the continues informal trade flows and promote formalized corn exports to the DRC.

Post estimates, Zambia exported about 100,000 tons of corn in the 2019/20 MY. In March 2019, the Zambian government lifted the export ban of corn and corn products to neighboring countries after it was introduced in October 2018. The decision was met with mixed reactions with some industry role-players welcoming the move, saying it will allow Zambia to take advantage of demands in neighboring countries and earn some foreign exchange; others have questioned the rationale as it may affect food security.

In the 2018/19 MY, Zambia exported an estimated 600,000 tons of corn, which included cross-border informal trade, mostly to the DRC and Malawi, that occurs on a continuing basis.

## Stocks

The Zambian government estimated corn stocks at the end of the 2019/20 MY at 179,247 tons, down 62 percent from the 475,000 tons of corn stock that was available at the end of the 2018/19 MY. FRA has the mandate to buy at least 500,000 tons of corn annually to keep as a national strategic food reserve. This amount is equal to about three months of domestic consumption. The purpose of the national strategic food reserve is to ensure a reliable supply of designated agricultural commodities for Zambia during shortfalls in the supply as a result of drought, floods, or any other natural disaster. As already mentioned, FRA announced that it would purchase 1.0 million tons of corn in the 2020/21 MY to keep Zambia food secure amidst the COVID-19 pandemic. Zambia has formal storage capacity in excess of two million tons.

**Table 4: The production, supply and demand for corn in Zambia**

Corn Market Begin Year Zambia	2018/2019		2019/2020		2020/2021	
	May-18		May-19		May-20	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Area Harvested</b>	1086	1086	842	842	1291	1291
<b>Beginning Stocks</b>	895	895	495	475	294	179
<b>Production</b>	2395	2395	2004	2004	3387	3387
<b>MY Imports</b>	5	5	15	5	20	5
<b>TY Imports</b>	5	0	15	5	20	5
<b>TY Imp. from U.S.</b>	0	0	0	0	0	0
<b>Total Supply</b>	3295	3295	2514	2484	3701	3571
<b>MY Exports</b>	600	600	100	100	400	270
<b>TY Exports</b>	600	600	100	100	400	270
<b>Feed and Residual</b>	400	400	370	380	450	430
<b>FSI Consumption</b>	1800	1820	1750	1825	2000	1870
<b>Total Consumption</b>	2200	2220	2120	2205	2450	2300
<b>Ending Stocks</b>	495	475	294	179	851	1001
<b>Total Distribution</b>	3295	3295	2514	2484	3701	3571
<b>Yield</b>	2.21	2.21	2.38	2.38	2.62	2.62
(1000 HA) ,(1000 MT) ,(MT/HA)						

**Attachments:**

No Attachments.