

04 March 2024

El Niño-induced drought hits Southern Africa's agricultural sector

- This past week, South Africa, Zambia and Zimbabwe published reports indicating a potential decline in grain harvest because of intense El Niño-induced dryness. In South Africa, a recent farmers' survey by Grain South Africa showed severe grain and oilseed production challenges in various patches across the country, which have probably worsened in the past week since the survey was completed on February 21.
- The Crop Estimates Committee (CEC) also fears the possible decline in the summer grains and oilseed harvest. In its first production estimate for the 2023/24 season, the Committee placed the summer grains and oilseed harvest at 17,4 million tonnes, down 13% y/y. This is primarily a function of lower expected yields rather than an area reduction. This is an overall production figure, and the decline varies crop by crop. Still, a positive aspect of South Africa is that the expected harvest still covers the domestic consumption, leaving some volume for exports, albeit significantly down from the previous seasons.
- The weather forecast only shows prospects of widespread rainfall in the week of March 11, which may be too late for various summer crop-producing regions where the heat is already damaging the crop, mainly in the western and central regions of the country, as rainfall in these areas was not as intense even from the start of the season. Still, if the expected rain in the second week of March materializes across South Africa, other commodities, outside the summer grains and oilseed, would see better production conditions and improvement.
- There has not been a lot of talk about other value chains outside summer grains and oilseed, primarily because of higher dam levels from the past few years and earlier rains in the season. With all of South Africa's commercial fruit and vegetable production under irrigation, the improved water levels in the dams assist farmers in coping with the current heatwave, provided the load-shedding is minimal. The livestock industry is still in a relatively better place as the grazing veld has generally improved, and there were large maize and soybean supplies from the 2022/23 season. The field crops are primarily rainfed. For example, only about 20% of maize, 15% of soybean, and 34% of sugarcane are produced under irrigation, leaving a large part of the crop at the mercy of the natural rains, which have been scarce since the start of February.

Zambia under drought stress

- In Zambia, the drought impact seems worse than in South Africa. On February 29, the country's President, Mr Hakainde Hichilema, declared Zambia's severe drought a national disaster and emergency. There is crop damage in the majority of the summer crop-producing regions of the country because of the El Niño-induced drought. Worryingly, the government reported that the

drought has destroyed nearly a million hectares of maize.¹ Given that the overall commercial maize area planting in the country is about 1,9 million hectares, this would mean half of the production is destroyed. It could have significant negative consequences on food production.²

- Zambia is the second largest maize producer and exporter in Southern Africa after South Africa. If the maize harvest is down notably in the country, there will be no export volume in the neighbouring countries that also need supplies. This happens at a time when South Africa, although potentially with sufficient supplies for domestic consumption, would have a massive decline in the volume of maize available for exports. The entire Southern Africa maize supply chain is at risk, with Zambia and South Africa hard hit by the heatwave and dryness. The neighbouring small producers such as Zimbabwe, Botswana, Lesotho and Namibia are also struggling with dryness.

Zimbabwe's grain production is also strained.

- At the start of this year, there were reports of roughly 2,7 million Zimbabweans potentially at risk of hunger because of the impact of drought on their summer grain fields.³ Moreover, on February 28, Reuters reported that "Zimbabwe plans to import 1.1 million metric tons of maize over the next year".⁴ It is unclear how much of this volume has thus far already been imported into the country. The volume speaks to the pressures of maize supplies in Southern Africa. Typically, when Zimbabwe needs such large maize imports, South Africa and Zambia are the primary suppliers.
- With Zambia potentially out of the export market this year, the pressure is now on South Africa to supply Zimbabwe. Still, suppose all the required maize is a white variety, South Africa may not be in a position to provide Zimbabwe with the total required volume, particularly if we consider that the likes of Namibia, Botswana, Lesotho, Mozambique, Madagascar, and even Zambia will also require maize imports to supplement their domestic annual needs.

Policy considerations

- While we are dealing with a "moving target", and the extent of the impact of the heatwave and dryness on crops changes daily, it is clear that the whole Southern Africa region has taken strain and will see a significant reduction in the volume of the crop produced. Although the domestic hunger challenges may rise in some countries, as we already see in the forecasts in Zimbabwe and Zambia, the governments in the region must be careful about the response policies and programmes to these potential challenges.
- There are several key points they should consider, such as:

¹ Read more about Zambia's potential decline in maize harvest here: <https://apnews.com/article/drought-national-disaster-emergency-electricity-4cc6a2105f4641efe17e10a5b75f78a5>

² This USDA report provides better insight on Zambia's overall grain plantings: https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Zambia%20Maintains%20its%20status%20as%20a%20net%20exporter%20of%20corn%20_Pretoria_Zambia_ZA2023-0001.pdf

³ Read more about Zimbabwe's hunger issues in this AP's report of 17 January 2024: <https://apnews.com/article/zimbabwe-hunger-food-aid-el-nino-climate-aa25b4d2ee6405a792d75a0d4d12d505>

⁴ The full article from Reuters is available here: <https://www.nasdaq.com/articles/zimbabwe-targets-1.1-mln-tons-of-maize-imports-state-media-reports>

- Avoid export restrictions and maize price caps. While restricting exports seems like a good approach for the near term to cushion households, such an intervention disincentivizes production for the next year as the farm-level prices would be artificially depressed. This is particularly important as farmers are not protected from higher input costs and pay world prices for all the imported inputs such as fertilizers, agrochemicals and some seeds.
- The interventions should be at the household level through various support packages with fiscal space used to implement such programmes.
- The regional governments should also engage with the World Food Programme to prepare to assist the least well-off countries with maize imports from the world market.
- The governments should also engage, collectively with the private sector, the likes of Mexico that produce white maize, to assess if they would have space to export to the Southern Africa region if the need arises.

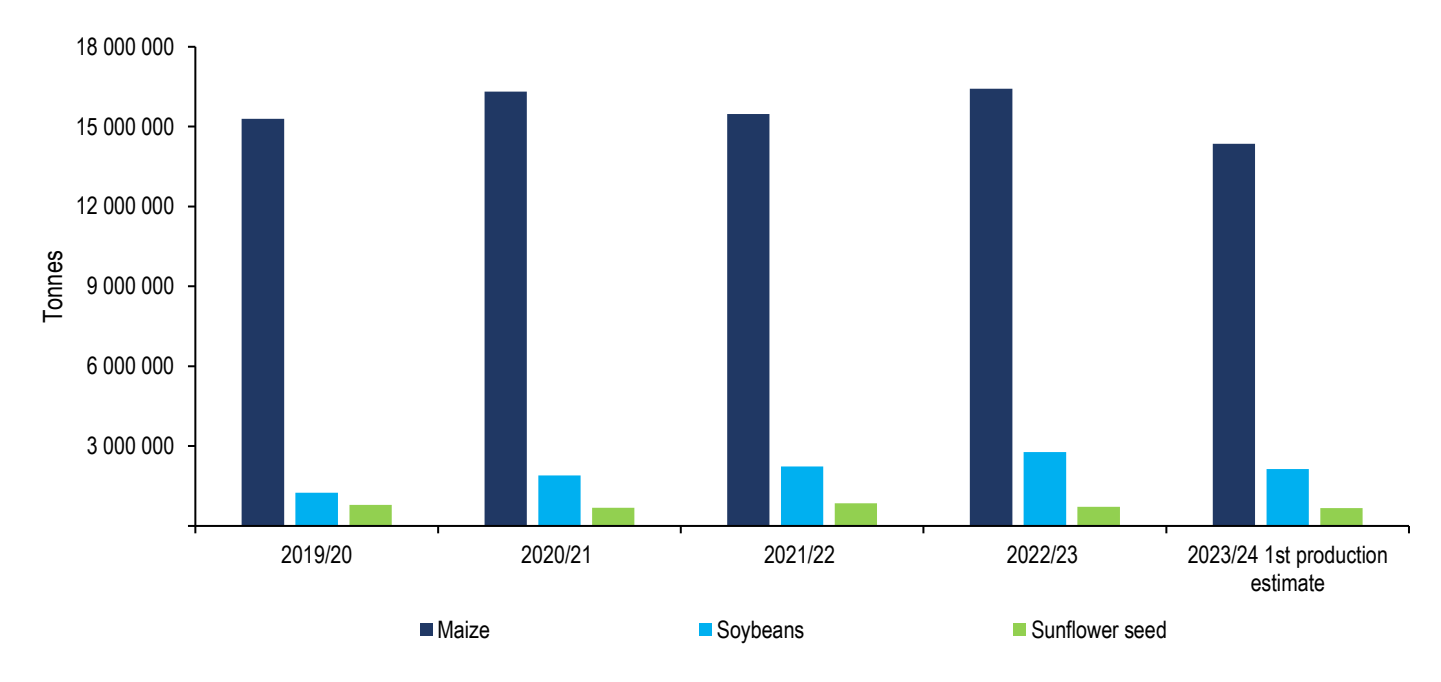
WEEKLY HIGHLIGHT

South Africa's 2023-24 summer crop production forecasts are down notably from the previous year

- The excessive heat and scant rains across South Africa are a significant concern for farmers, particularly in the summer grains and oilseed-producing regions. The 2023/24 summer crop season started on favourable footing. We received widespread rains, which was unusual in an El Niño season, which would typically start with drier weather conditions. Those good early-season rains led us to believe the country would have a decent harvest in the 2023/24 production season. But this view has now changed. We worry about possible poor harvests if there is no widespread rain during these closing days of February into the first week of March. Indeed, the Crop Estimates Committee (CEC) also fears the possible decline in the summer grains and oilseed harvest. Its first production estimate for the 2023/24 season placed the summer grains and oilseed harvest at 17,4 million tonnes, down 13% y/y. This is primarily a function of lower expected yields in some regions.
- A closer look at the data shows that white and yellow maize harvest could be 7,0 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). The challenge for maize is the possible poor yield in some regions as the area plantings are higher than the 2022/23 season. While this expected harvest is significantly lower than the previous season, if it materializes, it would still meet South Africa's annual maize consumption of roughly 12,00 million tonnes, and the country would remain a net exporter of maize, although a much lower volume than the previous years.
- The 2023/24 soybean harvest is estimated at 2,1 million tonnes, down 23% y/y. This decline is a function of moderately lower area plantings and possible yield decline in various regions. Similarly to maize, a harvest of this size would still keep South Africa a net exporter of soybeans.

- The sunflower seed harvest estimate is 671 100 tonnes, down 8%/y. The area plantings are moderately up from the previous year, so the major concern is possibly lower yields. The 2023/24 groundnut harvest estimate is 64 395 (up 22% y/y), sorghum is at 110 780 tonnes (up 17%), and dry beans are at 59 880 tonnes (up 19%).
- Overall, much of the crop prospects' damage occurred this month. The significance of February cannot be overemphasized in South Africa's agriculture. Significant summer grains such as maize, sunflower seed, and soybeans are in pollination stages this month. The crop should ideally have higher moisture levels during this pollination stage to boost yields. The crop has entered this growth stage with limited moisture across the major growing regions in Free State, North West, and Mpumalanga, amongst other provinces.
- In conversations with farmers and agricultural analysts, the consensus is that the last two weeks of February are critical for the crop. This means South Africa must receive widespread rains this week or next week for the crop to recover from its current worrying state.
- The significant worry is that the majority of the crops are rainfed. The irrigation regions of summer crops will benefit from the better dam levels. Still, only about 20% of maize and 15% of soybeans are under irrigation. Importantly, it is unclear how much of the current heat strain on crops the Crop Estimate Committee has factored into these estimates. Perhaps the key figures that will provide a better sense of the summer crop harvest is the March 2024 release, when the Committee has fully considered the weather events and how much of the crop would have successfully pollinated.
- In essence, while we started the 2023/24 summer crop season with optimism and even estimated that harvest would be decent at above-average levels, the outlook is now challenged by the excessive heat and limited rainfall across the major crop-growing regions.

Exhibit 2: South Africa's summer crop production



Source: Crop Estimates Committee and Agbiz Research

WEEK AHEAD

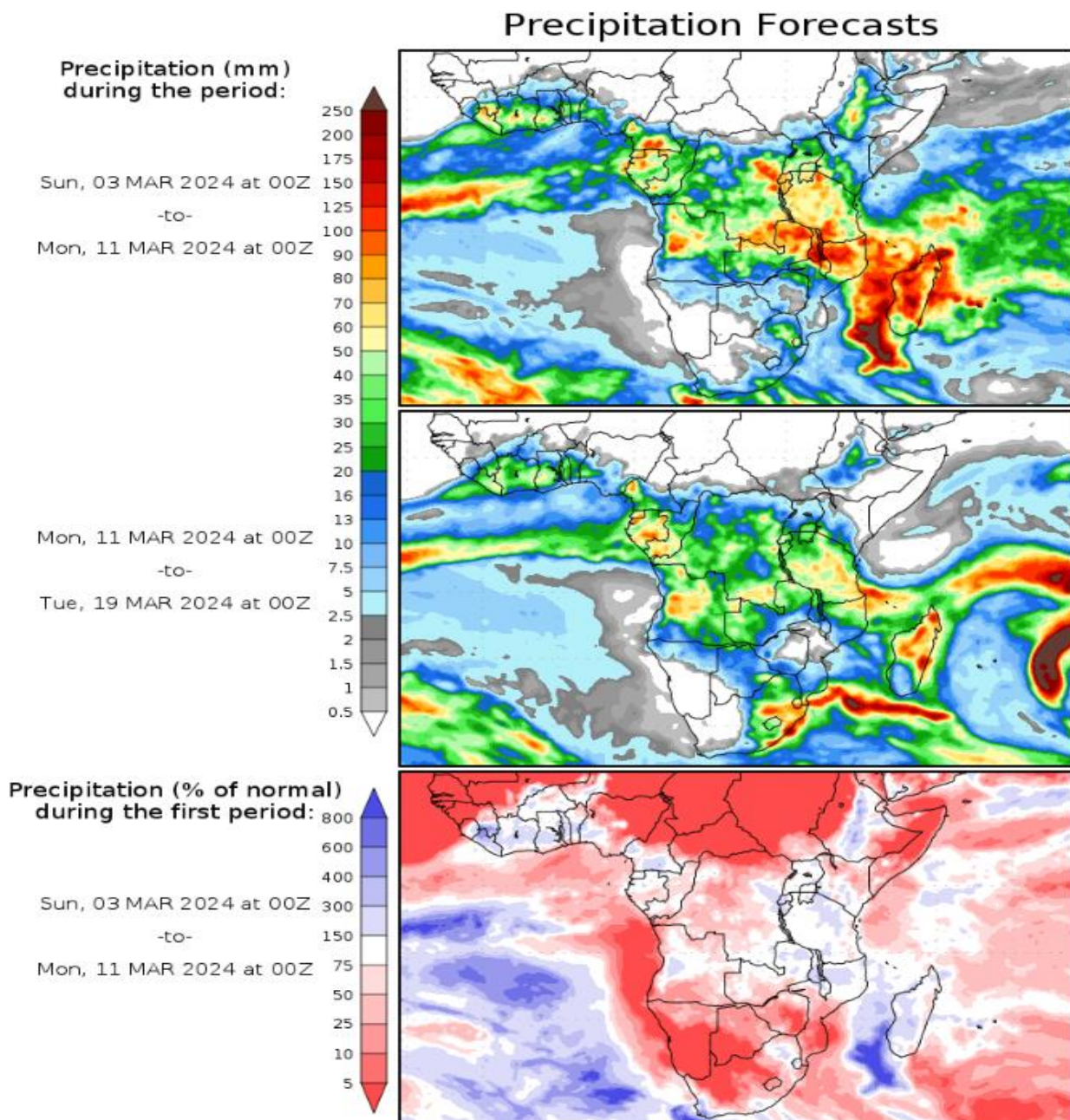
What we are watching this week

- We start with a global perspective, where we have three major data releases this week. On Thursday, the United States Department of Agriculture (USDA) releases **weekly US grains and oilseeds export sales** data. On Friday, the USDA will release its monthly **World Agricultural Production and Trade** data. Also, on Friday, the Food and Agriculture Organization of the United Nations (FAO) will release its **Food Price Index** data for February 2024. This data measures the monthly change in international agricultural prices of a basket of food commodities.
- Within the domestic front, Statistics South Africa will release the **Gross Domestic Product (GDP) for the last quarter of 2023** on Tuesday. Our focus on this data will primarily be on agricultural performance. South Africa's agricultural gross value added contracted by 9,6% in the third quarter of 2023. These figures were a surprise as we thought the ample field crop, whose harvest was a month behind the typical schedule, would still be reflected in the third-quarter data.
- On Wednesday, SAGIS will release its weekly **South Africa's Grains and Oilseeds Producer Deliveries** data for March 1. In the previous release on February 23, South Africa's 2023/24 maize producer deliveries were about 50 440 tonnes. This placed the 2023/24 marketing year's maize producer deliveries at 15,0 million tonnes out of the overall harvest of 16,4 million. On the same day, the soybean deliveries were about 2,7 million tonnes of soybeans out of the harvest of 2,8 million tonnes. The sunflower seed producer deliveries amounted to 720 519 tonnes, which is roughly aligned with the overall production estimate for the year.
- Also worth noting is that South Africa's winter wheat harvest is virtually complete. Last week, 8 328 tonnes of wheat were delivered to commercial silos. This placed the 2023/24 wheat producer deliveries at 1,9 million tonnes out of the expected harvest of 2,2 million tonnes.
- On Thursday, SAGIS will publish its **weekly South Africa's Grains and Oilseeds Trade** data for March 1. In the previous release on February 23, the 43rd week of the 2023/24 marketing year, South Africa exported 41 165 tonnes of maize. Of this volume, 52% was exported to Zimbabwe, and the balance to the rest of the neighbouring African countries. This placed South Africa's 2023/24 maize exports at 3,0 million tonnes out of the seasonal export forecast of 3,3 million.
- South Africa is a net wheat importer, and February 23 was the 21st week of the new 2023/24 marketing year, with 19 576 tonnes of imports, all from Lithuania. This placed South Africa's 2023/24 wheat imports at 758 804 tonnes out of the seasonal forecast of 1,6 million tonnes.

South Africa's Precipitation forecast

- The weather forecast for the coming week remains worrying. There will likely be only scattered showers over the summer crop-growing regions of South Africa. This is not ideal as crops currently need moisture. Positively, the forecasts for the second week of March show the possibility of widespread rain, which would benefit agricultural activity in the country if it materializes. Still, it might be too late for some regions in the country's western areas.

Exhibit 2: South Africa's precipitation forecast



Source: George Mason University (wxmaps)