Price tracker: key food prices

November 2021, DRAFT FOR PILOT

Welcome to the eighth draft food price tracker. This is an initiative of the Market Observatory of the Centre for Competition, Regulation and Economic Development, at the University of Johannesburg, and its partners.

Each month we will provide a short summary of key trends in prices in East and Southern Africa (ESA) for selected staple food products, and a focus on selected areas. Please also see the previous trackers.

The price tracker is motivated by the need for greater transparency on prices on the ground to smaller market participants. Small producers and agri-businesses are at the heart of growing production and value, yet research shows they often receive unfair prices.

Tracking markets is also very important for African countries which face the challenges of growing agricultural production while adapting to climate change. There is huge potential for expanded food production across many African countries with good soils and water availability. However, Southern Africa is a climate change hotspot, with greater than average increases in temperature and more volatile weather – heatwaves and floods – alongside declining rainfall. The changes have important implications for food systems, with investment required in water management, information storage and logistics, along with ensuring support for expanded production in areas where there is good rainfall while shocks disrupt production elsewhere.

In this eighth tracker we include a review of the La Niña climate pattern and the resulting drought affecting Kenya. There are also major shifts underway within ESA linked to global changes.

Key developments:

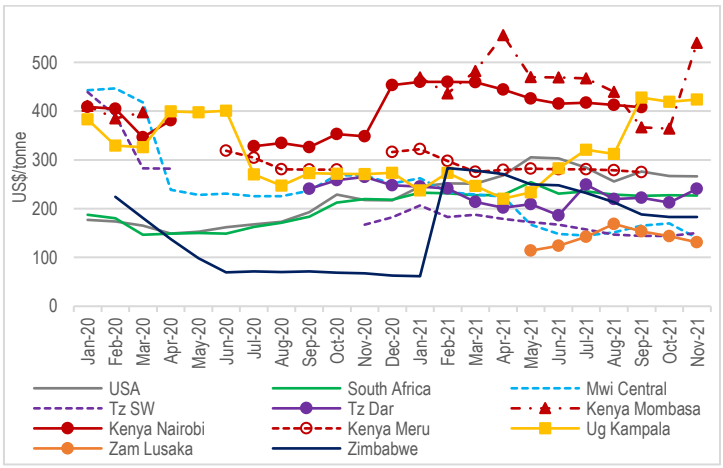
- Maize prices in Kenya are more than three times higher than in Zambia and Malawi, following sharp increases in November.
- The La Niña related drought is creating devastation in East Africa, with crops such as maize at risk in important grain producing countries.[1]
- In south of ESA, La Niña means good conditions, with high confidence levels and production in Zambia, Malawi and Tanzania to meet regional demand for maize, and low prices.
- Fertilizer prices continue to increase to extremely high levels due to global developments, which could undermine usage and yields.
- Global overall food prices increased for fourth consecutive month, reaching the highest level since June 2011.[2]
- Malawi soybean prices have decreased, along with prices in Lusaka, while prices in Tanzania and Kenya remain high and increasing.

Maize prices

There continue to be substantial variations in maize prices across countries in the region with very low prices in Zambia, Malawi and south west Tanzania. The price in south west Tanzania remains around $150/t, which is also the case in Zambia and central Malawi, with prices in both regions declining this month. Meanwhile, Mombasa prices have shown a steep increase, breaching the Kampala price which has increased only marginally. Maize prices in Kenya are more than three times the levels in Malawi and Zambia. These price differences are much larger than justified by transport costs and reflect major problems with regional markets as surplus areas should be able to meet demand at much lower cost.

The international price and the South African price have remained steady and shown little movement since September. The price in Zimbabwe continues to decline due to the depreciation of the parallel exchange rate.

Figure 1. Maize prices, ESA and international



Notes: based on price tracker data from multiple sources

Data from the Market Observatory App also indicates higher prices in Dar es Salaam compared to other regions, at as much as $434/t for small buyers. The app shows declining prices in Zambia as well as within country differences in Malawi, with higher prices in southern Malawi ($159/t) than in Malawi North and central Malawi, which are at $129/t and $140/t, respectively.

Soybean prices

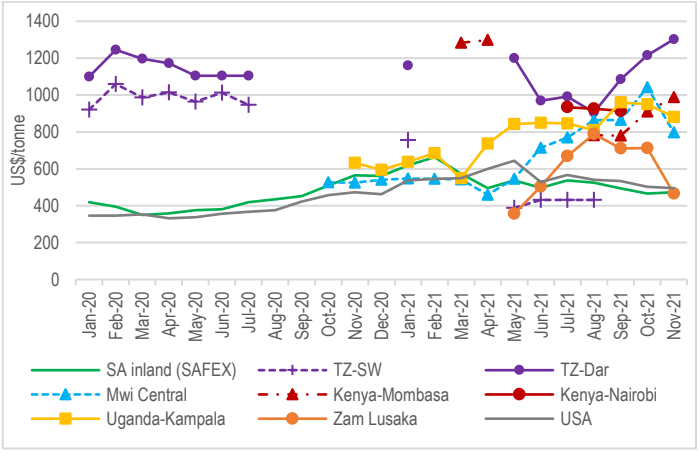
The ESA region has good potential for soybean production; yet production levels were low in most countries in the region between 2010 and 2019, aside from South Africa and Zambia.[3] Soybean production has been increasing in Malawi, with levels up by 89% from 222 650 tonnes in 2019 to 421 279 tonnes in 2020, apparently overtaking Zambia.

Significant soybean price decreases can be seen in Zambia and Malawi in November, with Zambian prices dropping below both the international price and the South African price. In contrast, prices in Dar es Salaam are showing a consistent increase over three months, reaching above $1300/t, with price differences of over $800/t from the prices in Zambia, South Africa and the USA, even larger variations than in the maize market. The high soybean price in Dar es Salaam is far above the costs of transport to supply the city from producing areas, and contrasts with the maize prices observed.

Mombasa prices are also increasing and showing a trend towards $1000/t while Kampala prices are trending downwards. However, the price difference between Kenya and Malawi is not as large in the soybean market as it is in the maize market.

[1] https://app.gro-intelligence.com/feed
[2] https://www.fao.org/worldfoodsituation/foodpricesindex/en/
[3] Nsomba, G., Roberts, S. and Tshabalala, N. (2021). Assessing agriculture markets in Eastern and Southern Africa: Implications for inclusion, climate change and the case for a market observatory. CCRED Working Paper 2021/07

Figure 2. Soybean prices, ESA and international

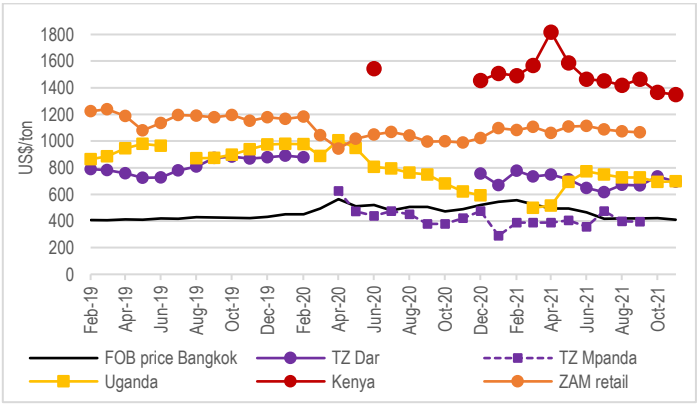


Source: Tanzania is from WFP(VAM) and from retail prices per kg; Kenya, Uganda from RATIN per tonne; Malawi from IFPRI, per kg. S Africa is SA Futures Exchange price. USA is fob prices from SAGIS. Zambia are user prices.

Rice prices

Rice prices in the region remain above the international FOB price in Bangkok since early 2021, apart from in Mpanda, Tanzania which is in line with the international price at just under $400/t since August. Although it is declining, the average price in Kenya is at very high at levels around $1300/t even while it can import directly through Mombasa, while prices in Uganda, and Dar es Salaam in Tanzania are at around $700/t.

Figure 3. Rice prices



Source: Tanzania and Uganda is from WFP(VAM) and Min of Agriculture in Tanzania wholesale prices per 100kg. Bangkok prices are fob from USDA. ZAM retail from ZamStat, per kg.

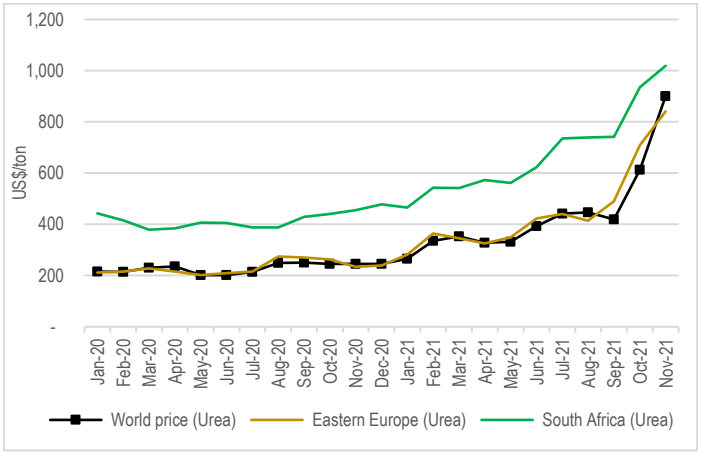
Data from the app on wholesale prices in Dar es Salaam are higher than reported in figure 3 above, at $868/t.

Fertilizer prices

2021 has seen a sharp increase in fertilizer prices globally, owing mainly to higher input costs, especially rising natural gas prices. Increases continued in November 2021, with a further almost 50% hike in urea prices to $900/t (Figure 4). They are now higher than the price peaks during the global financial crisis of 2008-2009. Globally, the high fertilizer prices are being driven by energy costs, extreme weather patterns, plant shutdowns, and sanctions.[4]

South African prices for both years have been significantly above the world market prices, reaching $1019/t in November 2021, reflecting the import costs. From interviews with app users in Tanzania, we found that fertilizer prices in Tanzania are also high at $825/t for Urea and $955/t for DAP.

Figure 4. Urea prices



Source: World price is from the World Bank. South Africa & Eastern Europe prices are from Grain SA.

The impacts of high fertilizer prices on different countries will differ depending on the importance of agriculture in the economy, major crops grown, climate, and reliance on fertilizer imports. Many African countries, including those in ESA, stand to be massively affected by the current price spike given that countries rely on fertilizer imports of either key fertilizer inputs or the final product itself to be able to serve their markets.

Since fertilizer is one of the key inputs in the crop production bottom line, the current surge in fertilizer prices will directly impact farmers. This is a cause for concern in the region. High fertilizer prices affect farmers in terms of both the affordability of its purchase, given poor access to finance, and the profitability of its use. High fertilizer costs will impact planting intentions for the 2022 crop season. Soybeans need lower fertilizer inputs than maize and this could result in shifting production from maize to soybeans as farmers look to manage input costs.

Interviews with app users in Tanzania reveal that if prices don't improve, farmers will be unable to afford the high prices of fertilizer so charging a higher price for maize and other crops will be necessary so that they can cover the cost of fertilizer. Another impact of the high fertilizer prices is its likely contribution to rising food price inflation which may result in global food shortages in 2022 and maintain global food price prices. Therefore, the high fertilizer prices will add to pressures on food affordability, especially in import-reliant economies in the ESA region which are already overburdened by the impact of the COVID-19 pandemic.

The impact on small-scale farmers in the region is huge because these farmers do not necessarily have the opportunity to make early purchases nor the benefit of economies of scale. If farmers use less fertilizer it will have a direct impact on their yields and then there is less food to go around. For instance, countries like Malawi which is dominated by smallholder farmers might experience significant reduction in yields if farmers fail to apply adequate fertilizer on their maize crops this season.[5] Therefore, the current high fertilizer prices are likely to lead to strong political pressures for most countries in the ESA region for subsidisation of fertilizer imports.

[4] https://www.wisfarmer.com/story/news/2021/12/08/fertilizer-prices-continue-their-upward-trend/6420545001/

[5] Komarek, A., Drogué, S., Chenoune, R., Hawkins, J., Msangi, S., Belhouchette, H., and Flichman, G., 2017. Agricultural household effects of fertilizer price changes for smallholder farmers in central Malawi. Agricultural Systems. 154. 168-178.

The La Niña climate pattern

Climate change is having massive impacts on global agricultural production. In the short term, there is more frequent extreme weather, such as droughts and floods. In the medium-term Southern Africa will experience much higher temperatures and become much dryer in the south, while central and eastern areas will have good rainfall on average but more extreme changes from year to year.

Southern Africa is identified as a climate change hotspot with temperature increases predicted to be double the global average. Even if global average increases are kept to 1.5 degrees, the increase in Southern Africa will be 3 degrees. Africa in general is also particularly vulnerable to climate change impacts as the continent largely depends on rainfed agriculture and has little investment in water management and irrigation.

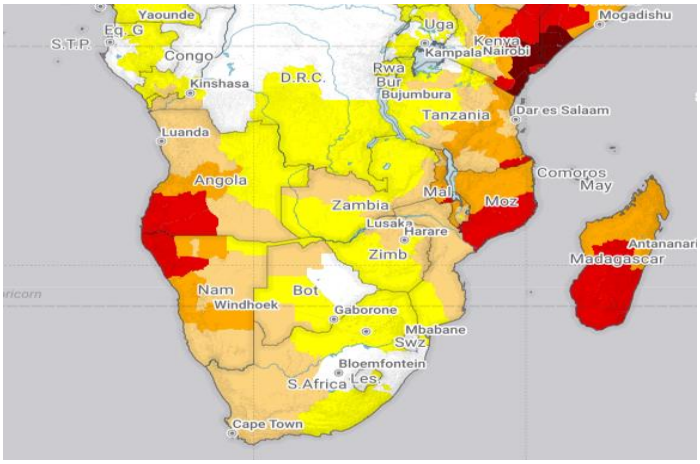
The El Niño Southern Oscillation (ENSO) is an important weather phenomenon which is characterized by three states - "El Niño", "La Niña" or "neutral". El Niño is a warming of the central to eastern tropical Pacific Ocean, with drought in southern Africa whilst inducing heavy rainfall and floods in eastern Africa. La Niña is the opposite, with cooling of the central to eastern tropical Pacific Ocean, and lower than average rainfall in south-eastern South America and parts of North America as in 2020/21.

La Niña has returned for the second consecutive year in 2021/22. For East Africa, the cycle often brings drier conditions (see Figure 5). Observations of rainfall patterns around the world this year by the IGAD Climate Prediction and Adaptation Centre (ICPAC) have indicated that drier conditions will dominate in many parts of central and southern East Africa until December 2021, with rains coming late.

The risk of droughts due to the current cycle is much higher in eastern Kenya, north-east Mozambique, Malawi, and parts of Tanzania. This outlook concurs with the predictions by the IGAD Climate Prediction and Adaptation Centre (ICPAC) which have also indicated that drier conditions will dominate in many parts of central and southern East Africa. However, average to above average rains are expected in western and northern parts of Kenya, Uganda, northern and western parts of Tanzania, most of Zambia, Zimbabwe and South Africa.

The effects of La Niña are already showing in different parts of Kenya as of November with the October to December short rains producing just 30-60 percent of the 40-year average in northern and eastern Kenya. Report forecasts based on historical analogs have shown an approximately 70 percent likelihood that the March to May long rains in Kenya will also be below-average.[6] The dry conditions which prevailed since October this year in coastal and marginal agricultural areas of southeastern Kenya have delayed planting operations and affected crop development.[7] These areas account for about 60 to 70 percent of the yearly national cereal output. This shows the importance of the short rains to the food security situation in these structurally vulnerable areas. However, rainfall conditions later improved into November, but a full crop recovery is unlikely. The negative effects of La Niña have delayed planting operations and affected crop development, reduced grazing opportunities and dried up most water bodies.[8]

Figure 5. Global Gro Drought Index the ESA region as at 30 November 2021



Source: Global Gro Drought Index, Gro Intelligence
Note: The Gro Drought Index (GDI) measures drought severity on a scale from "0" (yellow) or no drought to "5" (red) or severe drought.

Although La Niña generally means good rains in southern Africa, Malawi is also currently experiencing extreme heat which has delayed planting. Some farmers are holding off for as long as they can in anticipation for the good rains to start.

In contrast, the Agribusiness Confidence Index in South Africa has improved and 2021 has seen the highest levels for twenty years. This has been influenced by a shift in Chinese and Indian grain demands away from South America, due to ongoing droughts in the face of La Niña, to South Africa which is currently more conducive to agriculture.[9] However, the opposite will be true in an El Niño year, with droughts in Southern Africa while eastern Africa and South America has good rainfall. Southern Africa should be making investments in water storage and taking other necessary precautionary measures now, before circumstances change.

Urgent measures are thus required to support agricultural practices in adapting to climate change. Making the changes necessary to deal with climate change requires a regional approach given the differing anticipated impacts within and across different countries, and for groups of producers. Steps can be taken to ensure African food value chains remain resilient and build capabilities to be better positioned in global agricultural markets. The interventions need to be made urgently given the accelerating pace of changes. The market observatory has an important role to play in supporting agricultural value chains and making the case for investment in infrastructure, water management, logistics and storage and support services.

A Market Observatory App

A Market Observatory App has now been launched for crowd-sourcing data, available for download on the Google play store (POKET, only available on android devices), please contact gnsomba@uj.ac.za or +27 65 9965936 for the relevant country code.

Centre for Competition, Regulation and Economic Development, University of Johannesburg; www.competition.org.za.

Email: gnsomba@uj.ac.za

[6] https://fews.net/east-africa/kenya
[7] https://www.the-star.co.ke/news/2021-11-18-dry-season-to-begin-next-month-say-experts-in-new-forecast/
[8] https://www.the-star.co.ke/news/2021-11-18-dry-season-to-begin-next-month-say-experts-in-new-forecast/
[9] https://www.dailymaverick.co.za/article/2021-12-06-agbiz-idc-agribusiness-confidence-index-hits-its-highest-level-since-2001/