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Analyzing the effects of the Russian-Ukrainian war on Kenya's agrifood systems and policy responses

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HIGHLIGHTS



More than 5.4 million people in Kenya were estimated to be facing acute food insecurity between March and June 2023. The situation is worse in arid and semi-arid areas where 27% are facing very high levels of acute food insecurity and malnutrition. Recent COVID-19 lockdowns and economic downturns, locust invasion, and poor rainfall have impacted household income and overall crop and livestock productivity.



The Russia-Ukraine war has further exacerbated Kenya's challenges in food security, health, and poverty alleviation since it is heavily dependent on importing wheat, edible oils, and fuels.



The Russia-Ukraine war resulted in high fuel and fertilizer prices in Kenya, and this has negatively impacted overall crop productivity, agricultural sector employment and, by extension, the entire economy.

These impacts have caused severe destabilization of food systems, necessitating actionable policy responses that focus on building resilient food systems in cities and rural areas.



The Kenyan government adopted some measures, such as an emergency fertilizer subsidy, the suspension of taxes on maize importation, 'Unga,' and fuel subsidies, as a response to the increasing cost of living as a result of the Russian-Ukraine War.



Necessary short-term recommendations that can increase resilience to food systems in Kenya include protecting vulnerable groups, ending universal food subsidy approaches, and removing import tariffs on maize if early warning predictions indicate the need for maize imports.

Introduction

Kenya is East Africa's economic powerhouse with a population of more than 55 million, a robust financial sector, and a fairly mature logistics network, making it a hub in the region (Snyder & Kamau, 2023). The agricultural sector plays an important role in the country's economy as it contributes 22% of the gross domestic product (GDP) and employs over 40% of the total population and over 70% of the rural population (CBK, 2022). Kenya generates most of its revenue through exports of various agricultural products such as coffee, tea, cut flowers, and vegetables (Kiptoo, 2022). In 2021, Kenya's agricultural exports were valued at USD 3.26 billion compared to imports of consumer-oriented products at USD 484 million (Snyder & Kamau, 2023). However, despite Kenya's economic and agriculture sector progress, recent March to June 2023 estimates show that over 5.4 million Kenyans are facing acute food insecurity (FEWS NET, 2022). This situation is projected to worsen in the arid and semi-arid lands (ASAL) counties where about 4.4 million (27% of the ASAL population) are facing very high levels of acute food insecurity and malnutrition. Kenya's food insecurity status is attributed to the minimal rainfall recorded between March and May, which has caused a decrease in livestock productivity and crop production (FEWS NET, 2022).

The onset of the Russia-Ukraine war on 24 February 2022 and the subsequent sanctions imposed on Russia directly impacted Kenya's economy and food security and disrupted the export and import of commodities such as flowers, wheat, maize, fuel, and edible oils (Kiptoo, 2022; UNDP, 2022). The war also exacerbated significant increases in international food, fertilizer, and fuel prices, which had been on the rise since late 2020 due to supply chain disruptions caused by COVID-19 (Hatab, 2022; Mather et al., 2022). The high fuel and fertilizer prices negatively impacted the overall crop productivity and agricultural sector employment and, by extension, the entire Kenyan economy (UNDP, 2022). This policy brief aims to examine the consequences of the Russia-Ukraine war on the prices of fertilizers and food products in Kenya and the policy measures put in place in response to counter the effects of the war. This policy brief analyzed data from official institutions on food, fertilizer, fuel prices, inflation, and other key indicators. This analysis was based on the literature review of published articles, official institution reports, and selected online newspaper articles. The date range of January 2019 to February 2023 was chosen to understand the context before and during the war.

Consequences of the Russia-Ukraine War on Kenya's agricultural sector

Considering that Russia is the world's largest exporter of fertilizer and supplies a significant amount of fertilizer to East African countries, the disruption in fertilizer production and exports due to the war caused a spike in fertilizer prices in Kenya (Kiptoo, 2022; UNDP, 2022). In terms of quantities, Russia was the sixth largest international fertilizer supplier for Kenya in 2021, accounting for 3.1% of Kenya's fertilizer imports (WITS, 2022). Figure 1 shows the prices of most fertilizers used in Kenya's agricultural sector, namely urea, DAP, and MOP. Fertilizer prices were relatively stable between January 2019 and April 2021, with urea selling between 20-30 USD/50 kg. The onset of the Russia-Ukraine war in February 2022 further exacerbated fertilizer prices, causing urea and DAP prices to increase by 11.3% and 10%, respectively, just four months later, while MOP prices did

not have significant variations. This increase in fertilizer prices led small-holder farmers to reduce fertilizer use in maize and other food crops. In March 2022, the average fertilizer application rate decreased by 20% compared to October 2021, representing a decline from 41 kg/ha to 33 kg/ha (Mather et al., 2022).

Regarding fertilizer availability, by April 2022, Kenya's fertilizer reserves were estimated to be severely depleted due to a decline of 71% in the country's fertilizer imports in the first quarter of 2022 compared to the same period in 2021 (IFDC, 2022). This caused prices to rise leading to the abandonment of phosphate and potash fertilizers in favor of nitrogen fertilizers, also resulting in only cash crops, such as tea and coffee, being eligible for the usual fertilizer subsidies (Watson, 2022).

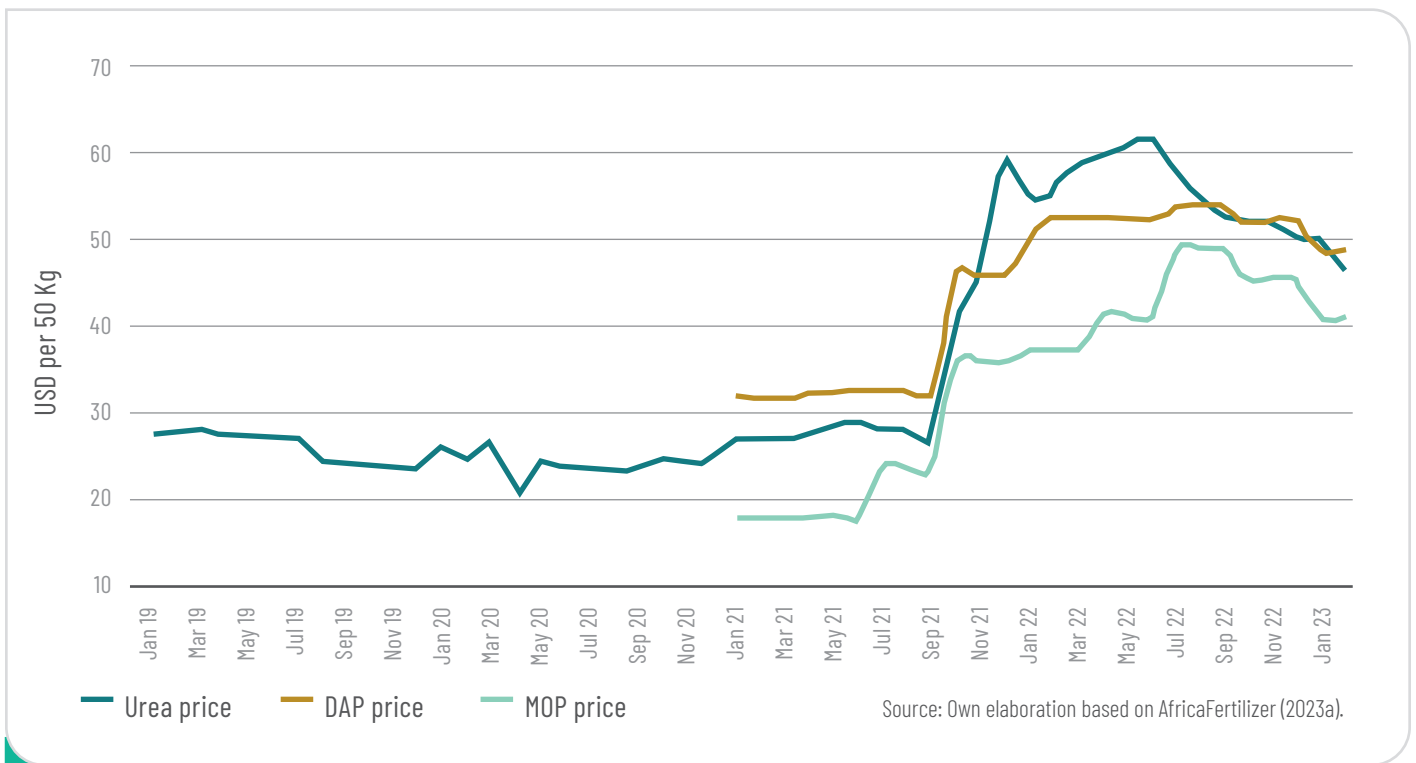


Figure 1. Fertilizer retail prices

The increase in fertilizer, fuel, and domestic food prices as a result of Russia’s invasion of Ukraine was significant in Kenya since all its fuel, half of its edible oil, fertilizer, and a large amount of maize and wheat are imported from Russia, Ukraine, and other countries (Mather et al., 2022). Given that international oil prices recorded a drop of 13% in early 2020 before increasing by 57% from January 2022 just before the start of the Russia-Ukraine war, the war further exacerbated the prices by an additional 39% between February 2022 and June 2022. Despite this, the value of edible oil imports in Kenya recorded minimal fluctuations. However, the months of May and August 2022 each recorded a monthly increase of 90% in the value of edible oil imports. Similarly, the month of November recorded a growth rate of 109% in terms of edible oil imports compared to October of the same year (CBK, 2023). On the other hand, the fuel prices (petrol, diesel, and kerosene) in Kenya increased from November 2020 and were further accelerated in March 2022 after the start of the war, with an average monthly increase of 7.6% (EPRA, 2023).

Fuel and oil prices influence the cost of production because they are used in making fertilizers, operating agricultural machinery, transportation and marketing of food products. Therefore, an increase in the price of oil would lead to an increase in all costs associated with the production, processing, and transportation of food products (Mather et al., 2022; Ngare, 2021). Consequently, the high cost of fuels and edible oil products has impacted

the overall cost of living in Kenya (UNDP, 2022). This can be evidenced by the evolution of the Consumer Price Index (CPI) between 2019 and 2022 (Figure 2). Although the CPI had been on an upward trend, indicating a general increase in the prices of goods and services, after the outbreak of the war, there was a notable acceleration in the CPI. Specifically, while the CPI had been growing by an average of 0.5% per month in the first quarter of 2022, this rate more than doubled to an average of 1.1% per month in the third quarter of the same year (KNBS, 2023).



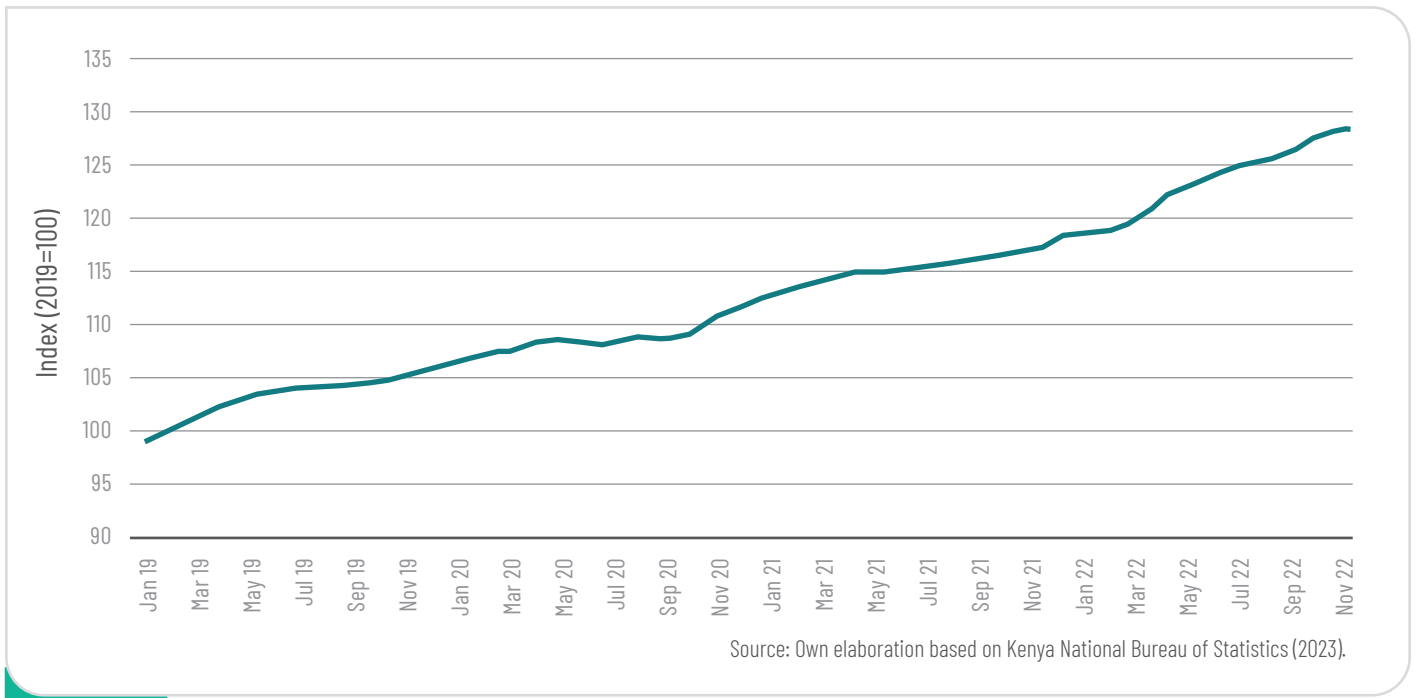


Figure 2.

Kenya: Consumer Prices Index 2019-2022

Domestic food prices in Kenya have also been greatly affected by unpredictable climate conditions and the recent COVID-19 pandemic. The unstable climatic conditions have caused three years of pervasive drought conditions leading to crop failure. The resulting food insecurity was heightened by the COVID-19 pandemic, which greatly destabilized food production, accessibility, and distribution. Together with the recent Russia-Ukraine war, these circumstances have led to high food

price inflation in Kenya in the past three years (Figure 3). Food inflation by 7% from May 2020 to January 2021. However, since the Russia-Ukraine war, this inflation rate doubled (14%) between March 2022 and September 2022. The rising food prices contribute to food insecurity by making essential food commodities unaffordable for households, especially the poor households that are more vulnerable to price increases (Mather et al., 2022).

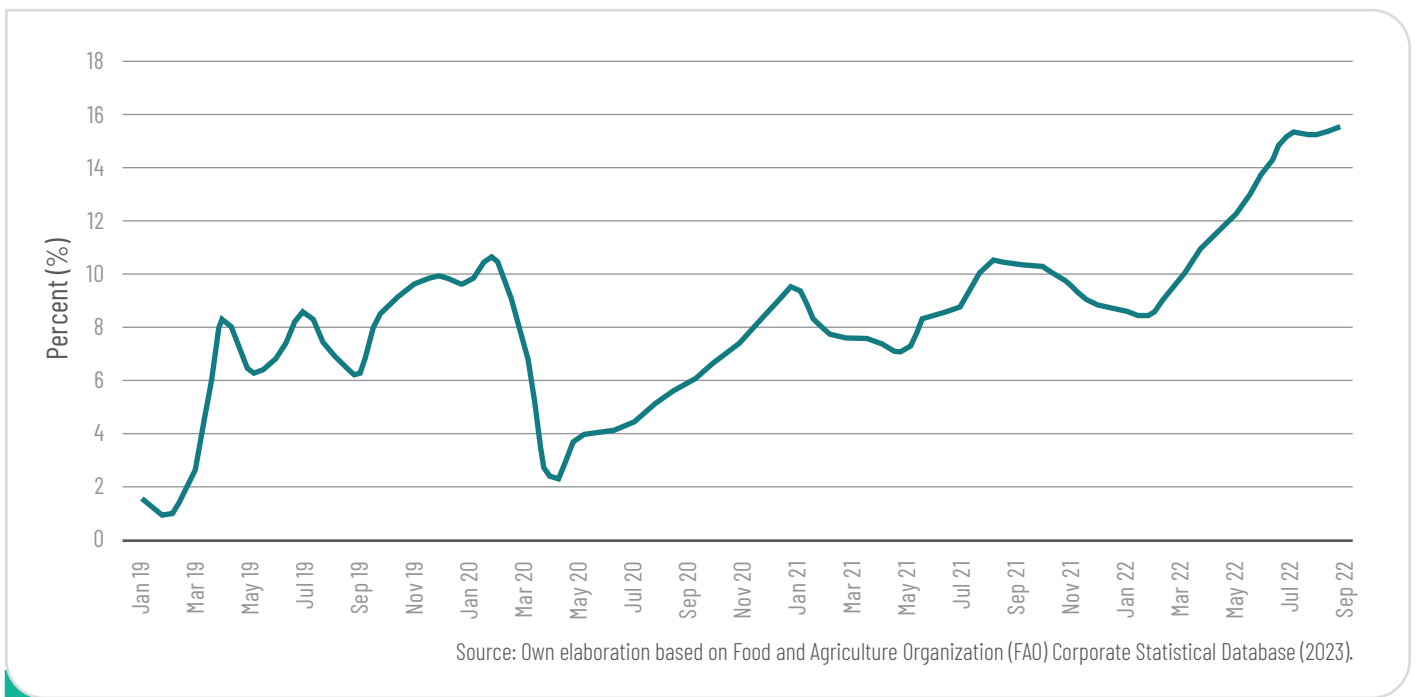


Figure 3.

Kenya: Food price inflation 2019-2022

Kenya imports approximately 67%, 22%, and 11% of wheat from Russia, Ukraine, and the rest of the world, respectively (Kiptoo, 2022, UNDP, 2022). Other commodities imported by Kenya from Russia and Ukraine are cereals, edible vegetables, certain roots and tubers, animal or vegetable fats and oils (Trade Map, 2023). Food commodity prices mostly affected by the Russia-Ukraine war were maize flour, wheat flour, and rice (UNDP, 2022). These products are the three most important cereals in Kenya, making them a priority for Kenya's food security. Maize is a fundamental food crop and a primary source of carbohydrates for nearly 96% of the Kenyan population (Njagi et al., 2017). On the other hand, wheat is the second most important cereal in the country with an average consumption of 39.3 kg per person per year in 2020 (FAOSTAT, 2023). Rice is also key to the food security of the poorest populations (Ouma, 2014). It is also in high demand, with an average consumption of 21.6kg per person per year in 2020 (FAOSTAT, 2023).

Figure 4 illustrates the monthly change in the prices of rice, wheat flour, and maize flour, between August 2020 and February 2023. The price of rice increased by 22% from January 2022 to May 2022 but then stabilized in April 2022 before slightly decreasing. Similarly, wheat flour prices increased by 9.1% from February 2022 to May 2022 before stabilizing at high prices of more than USD 0.8/kg after June (Krishnaswamy et al., 2022). Maize flour recorded a 54% price increase from January to May 2022. These high prices were partly caused by high demand created by the short supply of local maize since in anticipation of better prices, most farmers stocked 8.5 million bags of maize (each). This left local millers with a shortage of grain, thereby increasing the price of maize flour (Nhemachena et al., 2022). The rising prices of maize and wheat further contributed to food inflation, household poverty, and dietary inequalities in the country (Breisinger et al., 2022a).



Figure 4. Kenya: Price of maize flour, wheat flour, and rice 2020-2023

Kenya's policy measures and responses due to Russia and Ukraine War

Faced with the consequences of the Russian-Ukrainian war on agriculture and food security, the government of Kenya took several policy responses, which are summarized in Figure 5. Prior to the outbreak of the war, the Kenyan government had enacted fertilizer subsidies through an E-voucher program in which registered farmers could purchase fertilizers, lime,

agrochemicals, insurance, and seeds. Farmers were responsible for paying 60% and the government 40%. Although this program continued in 2022, the government had a need to intervene in the face of war-related price shocks. In April 2022, the government implemented an emergency subsidy in which the government expected to purchase 114,000 tonnes of different fertilizers from

local importers (AfricaFertilizer, 2023b). The government allocated USD 29.58 million to subsidize 1.42 million 50-kg bags of fertilizer for food crops during the short rainy season of 2022 (Nhlengethwa et al., 2023). In this case, each producer could access a maximum of 100 50-kg bags of fertilizer at a maximum subsidized price of USD 29 per bag, which reduced costs to the producer by 46% per bag (Nhlengethwa et al., 2023).

Maize prices were also strongly affected by the Russian-Ukrainian war. This cereal is essential in agriculture considering that 57% of small farmers are net maize buyers. Therefore, elevated maize prices adversely affect the well-being and food security of most small-scale farmers as well as a significant portion of urban households (Mather et al., 2022). For this reason, in March 2022, the government of Kenya lowered the yellow corn purity requirement for imports from 100% to 99.1%, meaning that it will allow imports to have traces of genetically modified organisms (AGRA, 2022). This measure was implemented to help lower yellow maize prices, which were expected to increase every week due to shortages and white maize prices on the market. Subsequently, in April 2022, the government through the Kenya National Grain and Commodities Board put 200,000 bags of maize on sale to millers in an effort to reduce maize flour prices, which reached record levels (AGRA, 2022). After this measure, efforts continued to counter escalating maize flour prices and guarantee the country's maize supply.

On 1 July 2022, the government suspended taxes on imported maize (KNA, 2022). In the same month, the 'Unga' government introduced the maize subsidy, which aimed at reducing the price of 2 kg of maize flour to USD 0.84/kg while the excess production costs by the millers paid by the government at USD 68 million (Andae, 2023). However, this 'Unga' subsidy was suspended by the new government when the new government ascended to power in September 2022 - a move that has left the prices of maize flour barely unaffordable by vulnerable citizens (USD 1.76/kg in February 2023).

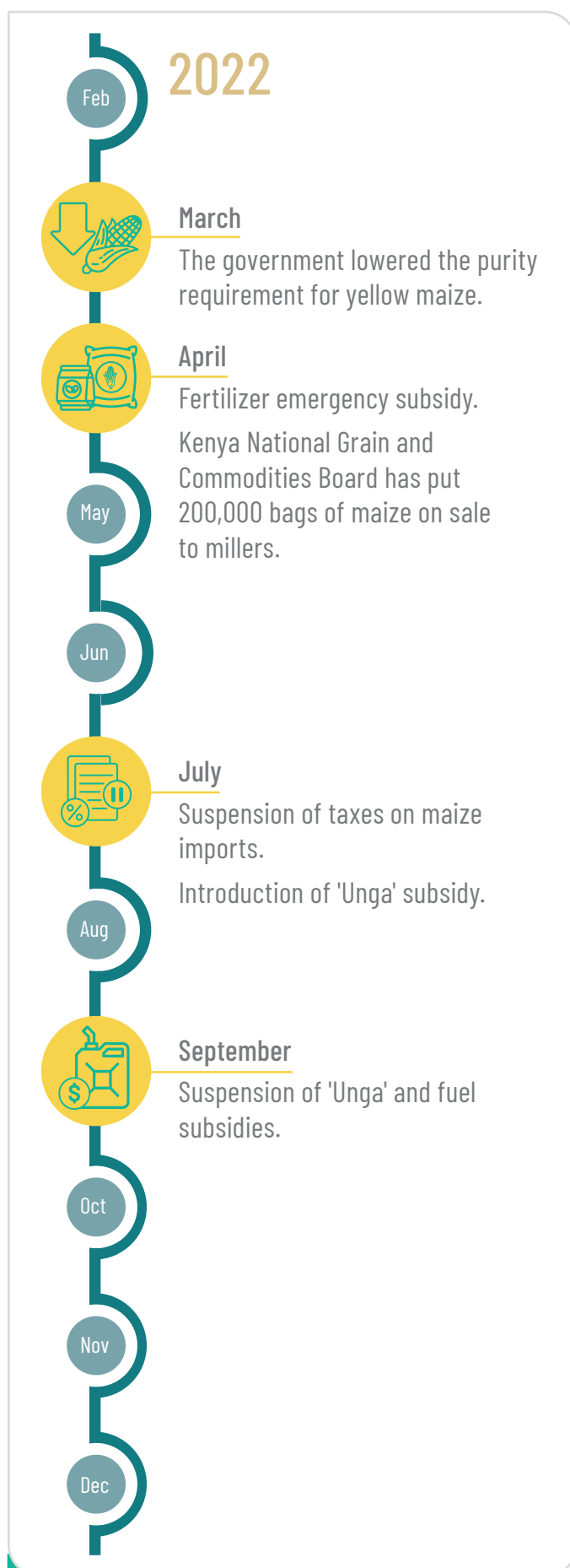


Figure 5. Timeline of Kenya's policy responses to the Russia-Ukraine War

Source: Own elaboration based on AfricaFertilizer (2023b), AGRA (2022), Andae (2023), Herbling (2022), KNA (2022), Nhlengethwa et al. (2023), Okadia (2022) and UNDP (2022).

Conclusion

The ongoing Russia-Ukraine war continues to pose a significant threat to food security, health, and poverty reduction in Kenya, since the country is highly dependent on imports of wheat, edible oils, and fuels (Brimoh, 2020; Breisinger et al., 2022b; Omega et al., 2021, UNDP, 2022). This crisis has led to severe destabilization of food systems, which requires actionable policy responses focused on building resilient food systems in the everyday business environment in both cities and rural areas. The Kenyan government took several measures to counter these effects, including the implementation of emergency fertilizer subsidies and maize sales, the suspension of taxes on imported maize, and the introduction of the maize 'Unga' subsidy. However, these measures were not always effective, and the new government's decision to suspend the 'Unga' subsidy and remove fuel subsidies has left vulnerable citizens struggling to afford basic necessities. Despite the challenges, it is crucial that the government continues to prioritize the development of resilient food systems and agricultural policies to ensure long-term food security and reduce poverty in the country.

The African Union Commission views the Russia-Ukraine war as an opportunity for African countries to produce more food domestically and reduce their dependence on imports (Sacko & Mayaki, 2022). Kenya should prioritize short- and long-term solutions to respond to the impacts of war and build robust and resilient food systems. Researchers suggest short-term recommendations, such as protecting vulnerable groups, removing universal food subsidy approaches, and waiving import tariffs on maize if early warning predictions suggest the need for importation (Mather et al., 2022). These interventions can contribute to Kenya's food security and resilience by reducing food, fertilizer, and fuel prices. Similarly, Kenya has the opportunity to reduce its dependence on imported fertilizers and create social safety nets for vulnerable populations. These strategies include expanding domestic fertilizer production, allowing private sector partners to import and blend fertilizers in the country, encouraging private sector investments in fertilizer production, and expanding social safety net programs for the poor.



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