



# Impacts of Global Crises on Food, Fuel and Fertilizer (3Fs) Availability and Prices in Tanzania: Key Learnings for Future Global Shocks

March 2024

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## 1. Introduction

Tanzania, like many other African nations, has grappled with a series of social and economic upheavals, ranging from the ongoing Russia-Ukraine conflict, which commenced in February 2022, to the Covid-19 pandemic with its associated lockdowns that began in February 2020, to the persistent challenges posed by climate change (Abbass *et al.*, 2022) and internal conflicts within the continent (Glauber and Laborde, 2023). Moreover, Tanzania's economy has been significantly influenced by trade policies adopted by its partners, such as the voluntary oil production cuts by several OPEC+ countries and India's recent export ban on non-basmati white rice, implemented on July 20, 2023 and affecting 40% of global rice exports.

These global crises have had substantial implications for Tanzania, particularly in terms of disrupting the supply chains of essential commodities like food, fuel, and fertilizers (3Fs), leading to notable price hikes that have impacted the welfare of households and the broader economy. In response to these challenges, various efforts have been made to address the repercussions of these global crises. This policy brief emanates from a country-level analysis of the short- and medium-term impacts of these

### Key Messages

1. Between 2019 and 2023, Tanzania grappled with the Covid-19 pandemic, the Russia-Ukraine War, and the persistent challenges posed by climate change.
2. Despite facing major global shocks, Tanzania has maintained stable availability of fertilizer, fuel, and food commodities. However, the prices of these commodities experienced significant increases.
3. In response to the various global shocks, Tanzania has implemented policies aimed at protecting and strengthening its food, fuel, and fertilizer supply chains. Key interventions include the regulation of imports, subsidization initiatives, and the utilization of price stabilization funds to mitigate the impacts of price fluctuations.
4. Despite the importance of global trade, stakeholders widely perceive that fostering self-sufficiency in food commodities is imperative to mitigate vulnerability to external shocks.



global crises on the availability, prices, and policy responses related to food, fuel, and fertilizer in Tanzania.

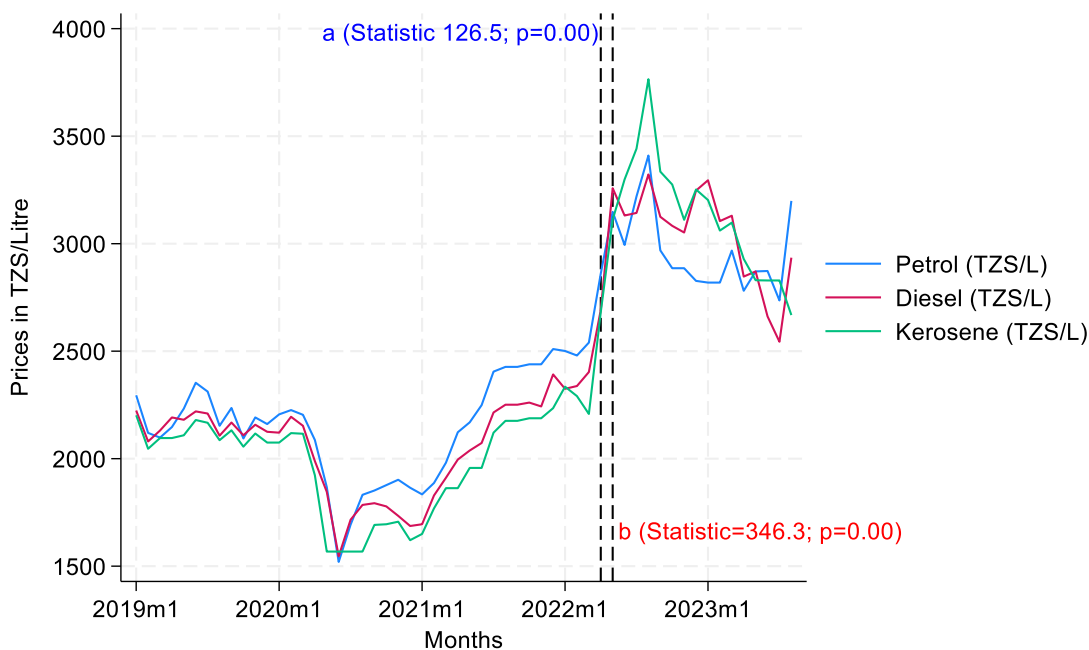
The study adopted a mixed-methods approach and drew on both secondary and primary data sources. Quantitative secondary data on the availability and prices of the 3Fs were collected from reliable secondary sources, including government reports, international organizations' databases, and trade statistics. Additionally, qualitative primary data were obtained through 11 key informant interviews (KIIs) with carefully selected stakeholders to ensure objectivity (Lokot, 2021), including representatives from government agencies, private sector entities, civil society organizations, and development partners. These stakeholders were chosen based on their expertise and involvement in sectors relevant to the 3Fs, ensuring a comprehensive understanding of the issues at hand.

Data analysis included time series methods to examine price and quantity trends during the study period spanning from 2019 to 2023, incorporating checks for cycles, seasonality, trends, and structural breaks (Shrestha and Bhatta, 2018) to provide a robust analysis of the 3Fs in Tanzania. Furthermore, the study assessed the effectiveness of various policy responses implemented by the Tanzanian government with the aim of mitigating the impacts of these global crises on food security, energy accessibility, and agricultural productivity. The findings of this study offer valuable insights for policymakers, stakeholders, and development practitioners in Tanzania and beyond, informing evidence-based decision-making and strategic interventions to enhance resilience and sustainability in the face of future global shocks.

## 2. Impact of Global Shocks on Food, Fuel and Fertilizer in Tanzania

Despite facing major global shocks, Tanzania has maintained relatively stable availability of fertilizer, fuel, and food commodities. However, the prices of these commodities have experienced significant increases, posing challenges to affordability and accessibility for consumers across the country.

**Figure 1: Price movements and structural breaks in nominal fuel prices in Tanzania**



Source: Authors' analysis of data from the Energy and Water Utilities Regulatory Authority (EWURA)

Note: Average exchange rate is 2297.8 TZS/USD



Notably, during the Covid-19 pandemic, while the supply of fuel decreased slightly by approximately 11%, the overall quantity consumed within Tanzania remained largely unaffected. Conversely, the ramifications of the Russia-Ukraine war have reverberated in food markets through heightened logistics costs and constraints in accessing fertilizers, which are crucial for agricultural production. This confluence of factors, compounded by weather-related challenges, has contributed to a decline in the production levels of key crops such as maize and rice in 2022, exacerbating food security concerns within the nation.

These challenges have resulted in reduced maize and rice production, critical staples in Tanzania's food supply chain. The escalation in fuel prices (depicted in Figure 1), coupled with disruptions in fertilizer access and distribution channels, has had a tangible impact on agricultural output, signaling a need for strategic interventions to mitigate these adverse effects and safeguard food security in Tanzania.

### 3. Tanzania Policy Responses to the Global Crises

In response to the various global shocks, Tanzania has implemented policy packages aimed at bolstering resilience and ensuring the stability of its food, fuel, and fertilizer supply chains. These measures encompass investments in production technologies to enhance productivity and establish conditions conducive to fostering productive, sustainable, and resilient food systems capable of withstanding current and future shocks. Key policy interventions have included the regulation of imports, subsidization initiatives, and the utilization of price stabilization funds to mitigate the impacts of price fluctuations.

Notably, there has been a concerted effort to prioritize support for domestic production. This is especially evident in policies aimed at regulating imports of essential food commodities and providing subsidies, particularly in the fuel and fertilizer sectors. The government's strategic focus on bolstering domestic production underscores its perception of the importance of self-sufficiency in ensuring resilience against external shocks. For instance, fertilizer policy responses have centered on subsidies, coupled with initiatives to support domestic production through tax reforms and import management strategies, including the removal of the bulk procurement scheme. Between 2021 and 2022, domestic production of fertilizer increased by 70%, as shown in Figure 2.

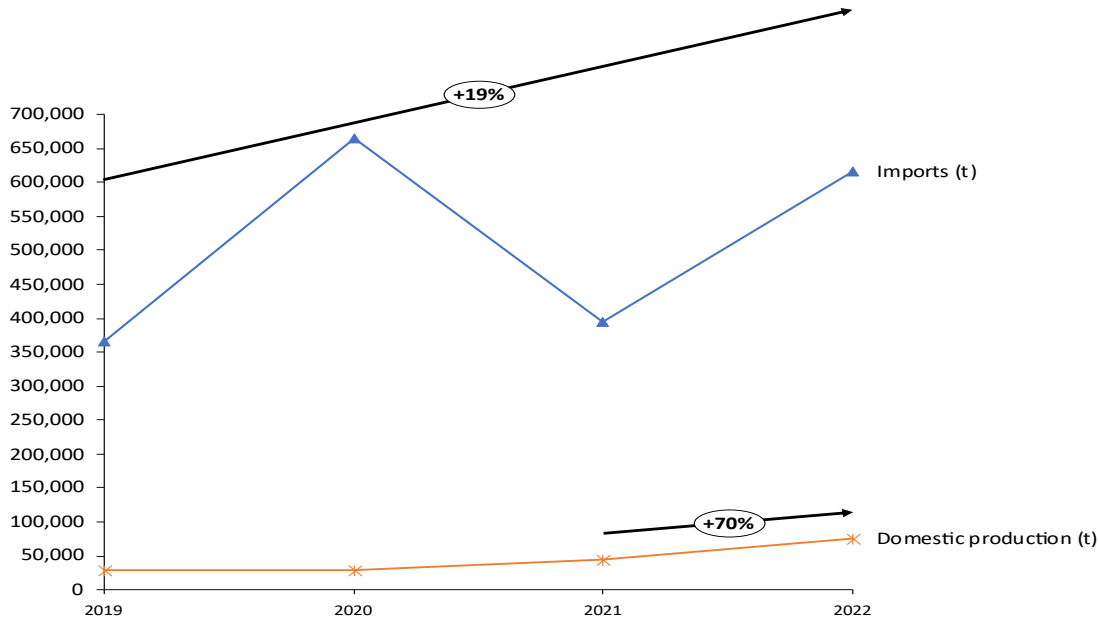
Policy responses directed towards maize production have mostly revolved around bolstering spending initiatives, primarily through the augmentation of capacity, such as quantity purchased and infrastructure development, under the aegis of the National Food Reserve Agency (NFRA). Import exemptions have also been implemented to mitigate disruptions in food supply chains, exemplified by the import duty exemption for the importation of 90,000 tons of rice aimed at stabilizing domestic rice prices during periods of volatility.

Stakeholders have classified policy responses into short and long-term solutions, with varying perspectives on the intention and efficacy of subsidization measures. While some stakeholders perceive fertilizer subsidization as a long-term intervention, others view it as a short-term remedy. However, there is unanimous acknowledgement among stakeholders regarding the importance of supporting domestic fertilizer production as a long-term solution to mitigate shocks related to fertilizer availability. Furthermore, while policy responses have been more pronounced for highly imported commodities, such as fertilizer, price hikes have been observed across all commodities, underscoring the pervasive nature of the challenges posed by global shocks.



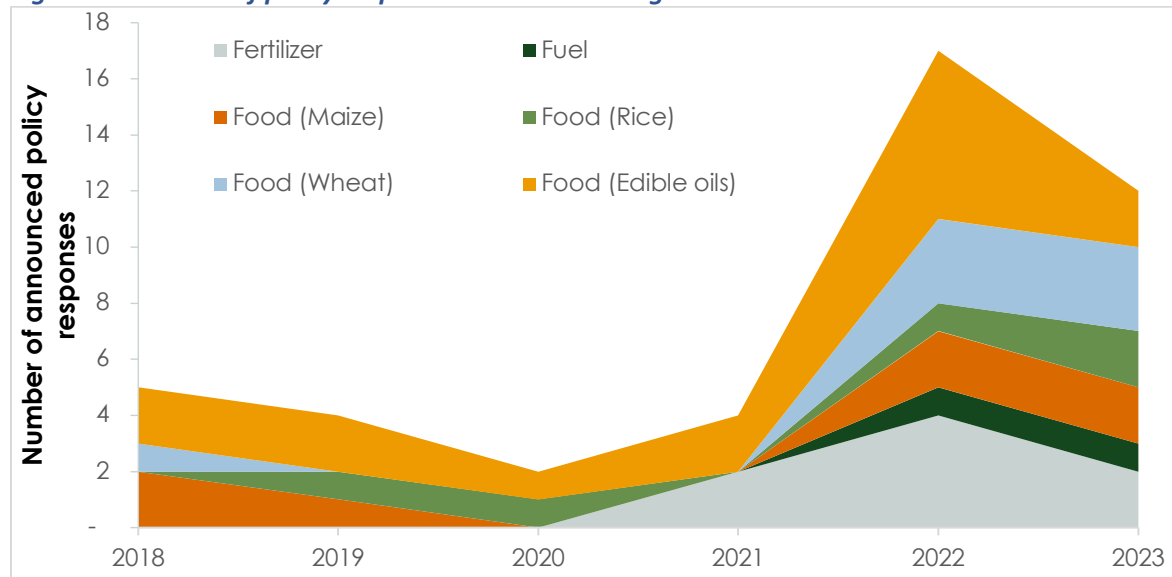
Critically, the timing of policy responses has mirrored the occurrence of major shocks, a pattern that indicates a reactive rather than proactive approach by the government. As illustrated in Figure 3, the timeline of policy responses aligns closely with significant shock events, highlighting the need for enhanced foresight and preparedness to mitigate the adverse impacts of future global crises on Tanzania's economy and food security.

**Figure 2: Fertilizer availability in Tanzania from 2019 to 2022**



Source: Mpenda et al. (2023)

**Figure 3: Timeline of policy responses in Tanzania to global shocks**



Source: Mpenda et al. (2023)



## 4. Key Learnings and Recommendations

The impact of global shocks on food commodities manifests in both direct and indirect ways, encompassing shifts in global market dynamics, disruptions to domestic production due to decreased fertilizer use, and heightened costs of logistics and mechanization activities reliant on fuel. This dual effect underscores the shocks' diverse and nuanced implications for Tanzania's economy, necessitating comprehensive policy responses.

Tanzania's policy responses have exhibited a high degree of alignment with the shocks experienced, with a notable emphasis on addressing the price increases of the 3Fs, more so during the Russia-Ukraine war compared to the Covid-19 pandemic. This reactive approach reflects a prioritization of immediate interventions to mitigate the adverse effects of global crises, underscoring an imperative to balance revenue generation with short-term measures to safeguard economic stability. However, the substantial allocation of resources, particularly towards subsidies for fuel and fertilizer, suggests a heavy reliance on short-term solutions to mitigate shocks across the 3Fs. Amaglobeli *et al.* (2023) found that Tanzania spent 0.3% and 0.1% of the Gross Domestic Product (GDP) on subsidizing fuel and fertilizer, respectively, in 2022. While subsidies have played a crucial role in stabilizing commodity prices, stakeholders acknowledge their limitations as temporary measures, necessitating a more sustainable approach that should focus on self-sufficiency to address the underlying vulnerabilities exposed by global crises.

The growing emphasis on strategic reserve policies for fuel and food commodities reflects an evolving recognition of the need to bolster resilience against supply chain disruptions and other external shocks. This shift underscores the importance of proactive measures to build resilience and mitigate the impacts of future global crises on Tanzania's economy and food security.

Drawing from these insights, several policy implications emerge:

- (i) The rapid transmission of global shocks to local markets underscores the interconnectedness of the global economy, highlighting the need for timely and proactive policy responses to mitigate their adverse effects.
- (ii) Tax reforms are employed to mitigate the impacts of global shocks in developing countries. While such reforms may yield tangible benefits, these benefits seem to require a longer time frame to materialize than what is often hoped for. Efforts to reduce prices during global shocks should be multi-pronged and nuanced in their approach.
- (iii) Despite the importance of comparative advantage in global trade, stakeholders in Tanzania widely perceive that fostering self-sufficiency in food commodities is imperative to enhance resilience and mitigate vulnerability to external shocks.
- (iv) Prioritizing strategic reserves through investment in storage facilities and setting aside funds for essential food and fuel commodities can bolster resilience against supply disruptions and mitigate the adverse impacts of abrupt export bans imposed by trading partners during times of crisis.

By incorporating these policy recommendations into strategic planning and decision-making processes, Tanzania can enhance its resilience to future global shocks and safeguard its economy and food security in the face of uncertainty.



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This paper was prepared by the Feed the Future Innovation Lab for Food Security Policy, Research, Capacity and Influence (PRCI) with funding from the United States Agency for International Development (USAID) under Grant No. 7200AA19LE00001. The contents are the responsibility of the authors of this report (i.e., PRCI team) and do not necessarily reflect the views of USAID, the United States Government, Michigan State University, IFPRI, Cornell University, ReNAPRI, University of Ghana, Kasetsart University, or Research and Information System for Developing Countries (RIS).

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