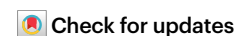


Wheat price hikes and food security in Sub-Saharan Africa

David Laborde & Valeria Piñeiro



The Russia–Ukraine conflict affected the price of staple crops and spurred interest in tropical wheat production. Regional consumption patterns and trade are better placed to guide effective and sustainable food security policy strategies.

Over the past several years, the world has experienced a historic series of globally disruptive crises. Amid the backdrop of increasingly intense effects from climate change, the COVID-19 pandemic and the outbreak of war in Ukraine have caused a surge in commodity prices and have driven substantial changes in the levels of food security across large portions of the developing world. While commodity price inflation is an important input to changes in food security, each country's experience is the outcome of the relationship between numerous country-specific economic factors. Thus, a nuanced understanding of these factors is critical to designing effective policy measures to achieve food security goals.

Now writing in *Nature Food*, Liverpool-Tasie et al.¹ describe the concern felt across Sub-Saharan Africa about surging global wheat prices due to the Russian invasion of Ukraine and the negative effects of higher wheat prices on the most vulnerable in the region. Using Sub-Saharan Africa general data and Nigeria as a case study, the authors argue that the proposed solution of producing tropical wheat where agronomically possible to achieve the objective of food security for the poor is a suboptimal use of limited government and donor resources.

The Russia–Ukraine conflict introduced additional stress into an already fragile landscape. When the war began in February 2022, global stocks of principal grains and vegetable oils were at their lowest levels in years and general global inflation was already rising alongside international freight rates and input prices as supply chains struggled with recurring COVID-19 quarantines in China^{2,3}.

While Ukraine and Russia have a key role in global food markets (they are a combined 12% of total calories traded in the world⁴), their contribution to specific country food security varies widely. Figure 1 shows the caloric dependency from the Russian Federation, Belarus and Ukraine, illustrating their relative importance for countries around the world and for Africa in particular.

Specifically, there are two major food security factors in the context of Liverpool-Tasie et al.'s article. The first is how much a particular country is linked to world markets through trade, and hence the relative impact of changes to world market prices on that country. The second is simply what the population actually consumes. A rice-based diet in India or Vietnam, for example, lowers the importance of the rising price of wheat. Even within a country, different regional and

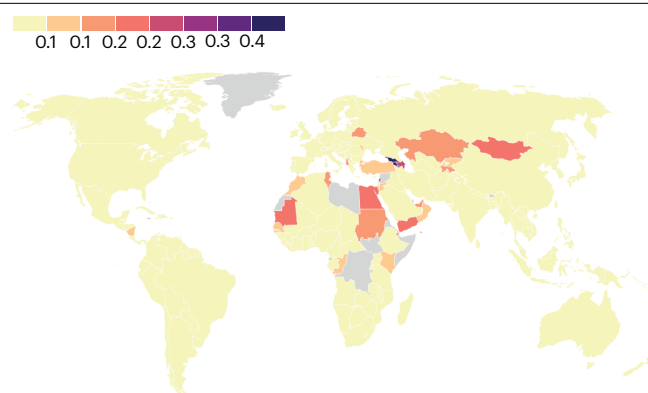


Fig. 1 | Caloric dependency from Ukraine, Belarus and Russia. Share of total consumption. Created with Datawrapper. Publ. note: Springer Nature is neutral about jurisdictional claims in maps.

socioeconomic segments of the population exhibit different consumption patterns.

Returning to Nigeria as a case study, the analysis by Liverpool-Tasie et al. concludes that wheat is primarily consumed by the higher-income population – and that high and rising wheat prices will have little impact on the poor. The authors propose focusing the allocation of scarce natural resources on the production of commodities more relevant to the poor and more suited to the country-specific agro-ecological condition, such as millets, rice, cassava and tubers, which are ten times more important to the poorest Nigerians than wheat. In addition, Liverpool-Tasie et al. recommend increasing local grain productivity in general and enhancing supply chain strategies – providing the dual benefits of addressing the short-run impacts of current crises and building resilience against possible future crises.

Domestic food security is predominantly a regional issue yet with the Russia–Ukraine crisis it became very clear that food prices are just one part of a more complex inflationary landscape. In other regions of the world, currency stability and the various drivers of the cost of living, including energy, were also of critical importance, for example, in certain countries in Africa, Sri Lanka, or Latin America and the Caribbean.

The world will continue to face the immense challenge of feeding a growing population. For Nigeria, Liverpool-Tasie et al. mentioned that tropical wheat production would be a costly endeavour and that looking towards the crops in highest demand would be a more beneficial route to pursue. In a broader context, the authors highlight the need for prudent use of local resources to provide commodities in a sustainable manner. Likewise, working towards more diverse and nutritious diets

for all will require policy strategies where technological innovations are tailored to regional demand and incentives are designed to support the adoption of that technology – enabling technology to provide for those who are most at risk of food insecurity.

David Laborde ¹ & **Valeria Piñeiro** ² 

¹Food and Agriculture Organization, Rome, Italy. ²Trade and Institutions Division, International Food Policy Research Institute, Washington, DC, USA.

 e-mail: V.pineiro@cgiar.org

Published online: 6 April 2023

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Competing interests

The authors declare no competing interests.