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The political economy of food insecurity: How the Russian Ukraine conflict reconfigured global grain routes

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Abstract

The Russia-Ukraine conflict disrupted two of the world's largest grain exporters, exposed the fragility of global food supply chains, and intensified food insecurity across many low-income countries. This article uses World Systems theory to interpret how the conflict reconfigured global grain routes between 2018 and 2023. A mixed-method design joins quantitative trade and price data with qualitative policy analysis. Results reveal steep declines in exports from Ukraine and partial redirection of trade toward new core-controlled routes in Europe, Asia, and the Americas. The political responses of importing states and international organizations show how the conflict reinforced structural inequalities in world agriculture. The study concludes that the post-2022 food landscape remains shaped by the hierarchy of core, semi-periphery, and periphery nations that defines the global economy.

Keywords: Food insecurity; Russia-Ukraine conflict; Global grain trade; World-systems theory; Trade disruption; Structural dependency

1. Introduction

Food insecurity is more than a humanitarian concern; it is an expression of how power and markets intersect. When Russia attacked Ukraine in 2022, the effects were felt far beyond the battlefield. Ships that once carried wheat, maize and sunflower oil to the rest of the world could no longer leave Ukrainian ports. Before the war, Russia and Ukraine supplied about one-third of the world's wheat and more than half of its sunflower oil (FAO 2022). When the Black Sea ports were shut down, global grain prices jumped by about 40 percent in the months that followed (World Bank 2023).

This conflict has become a defining case for political-economy analysis. It demonstrates how a regional war inside the semi-periphery can shake the entire world system. The shock was hardest in regions that depend on affordable grain from the Black Sea. Many countries in Africa and the Middle East suddenly had to pay much more for food. Egypt, for instance, bought more than 70 percent of its imported wheat from Russia and Ukraine before the war. Kenya and Nigeria also sourced over half of their wheat from the same region (AfDB 2023).

By applying World Systems theory, this study examines how the conflict changed global trade routes and what these shifts reveal about structural dependence. It uses both quantitative trade data and qualitative policy analysis to capture patterns of change and explain their political meaning.

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2. Literature Review

2.1. Global Grain Trade before 2022

Before the war, global grain markets were efficient but concentrated. Even before the war, the world was leaning too heavily on a small group of wheat suppliers. Most of the wheat that moved across borders came from only four places: the United States, Russia, Ukraine and Australia. Together, they covered about six out of every ten bags of wheat traded internationally (FAO 2021). Some researchers had already raised alarm, saying that when so much of the world depends on so few regions, any crisis in one area can shake the entire system (Clapp and Moseley 2020).

The Black Sea corridor handled most of Eastern Europe's cereals; Odesa, Mykolaiv, and Novorossiysk processed nearly 75 percent of Ukrainian and Russian shipments (Behnassi & El Haiba, 2022).

2.2. Food Security as Political Economy

Sen (1981) demonstrated that famine stems from loss of entitlement rather than the absence of food. Later studies connected Sen's idea of "entitlements" to the way food is traded globally. Trade liberalization helped make food cheaper, but it also left many poorer countries dependent on imports instead of building their own secure supply (Clapp 2017).

Studies after 2020 emphasized speculation and transport fragility as major risks (McMichael, 2020).

2.3. Trade Disruptions after 2022

The Kiel Institute (2023) reported that global wheat exports dropped by 18 percent during 2022. Shipping data showed rising traffic through Romania and Poland as exporters sought substitute corridors (European Commission, 2023).

Shipping food out of the Black Sea became far more expensive after the war began. Freight charges to North Africa nearly doubled (UNCTAD 2023). At the same time, the FAO price index climbed to 523 USD per ton in May 2022 — the highest level since 2008 (FAO 2023). For many African countries, these higher costs quickly showed up in local markets, pushing food inflation above 30 percent.

2.4. World Systems Interpretations

World-Systems theory views the global economy as layered. At the top sit the core countries, which control finance, technology and transport. The semi-periphery produces major commodities and links the bottom of the system while the periphery depends on imports (Wallerstein 1974, 2004). Before the war, Russia and Ukraine played this bridging role in the grain trade. When their conflict disrupted exports, that link snapped. The disruption ultimately strengthened the position of core economies, since they continue to control global shipping and insurance. Nassif and Lima (2023, p. 655) argue that this outcome marks a renewed form of dependency, shaped not by old colonial rule but by present-day geopolitical forces.

3. Theoretical Framework: World Systems Perspective

World Systems theory explains food insecurity as a product of global structure. Countries at the core have the technology and financial strength to adjust quickly when crises occur. But peripheral states, by contrast, depend on external suppliers and have far less room to respond on their own when there is a crisis.

When the Black Sea ports closed, the capacity to redirect trade rested with multinational corporations and core logistics networks. These actors rerouted goods through European transport corridors and absorbed new profits while much of the developing world absorbed higher prices.

This framework also interprets political reactions. Core economies emphasized free-market adjustment, while import-dependent countries called for humanitarian corridors and regional self-sufficiency. The difference reflects their position in the hierarchy. The war thus both disrupted trade and revealed the persistent asymmetry that sustains global hunger.

4. Methodology

4.1. Research Design

A mixed method approach was used. This study uses both quantitative and qualitative research. The quantitative part is simply about looking at what changed between 2018 and 2023. It checks which trade routes were used, how much grain was exported and how prices moved in that period. The qualitative part then looks at policy documents and official responses to understand how they reacted to those changes.

4.2. Data Sources

This study uses both quantitative and qualitative data. For the quantitative part, the figures were taken from well-known global databases such as those run by UN Comtrade, FAOSTAT, the World Bank, the IMF and the U.S. Department of Agriculture. For the qualitative part, the material comes from reports and public statements released by international bodies including the United Nations, the FAO, the European Commission, the African Union and different national ministries.

Years 2018-2021 represent the pre-conflict baseline; 2022-2023 represent the post-invasion period. The key variables are wheat export volume (metric tons), price per ton (USD), freight cost index, and import share by region.

4.3. Analytical Procedures

Descriptive statistics and simple percentage-change calculations highlight shifts in export patterns. Policy documents were coded thematically (Braun & Clarke, 2019) for terms such as food sovereignty, grain corridor, and solidarity lanes. Combining the results shows both structural movement and the discourse that accompanied it.

4.4. Limitations

Some 2022 trade data are estimates due to disrupted reporting. Domestic consumption data were not included. Despite these limits, triangulation among several international databases makes the conclusions robust.

5. Quantitative Results

5.1. Changes in Export Volumes

Table 1 Compares pre- and post-war wheat exports

Exporter	2021 (Million tons)	2022 (Million tons)	Change (%)	2023 Trend (Estimate)
Ukraine	20	9	-55	≈15 (Recovery)
Russia	35	30	-14	≈33 (stable)
European Union	27	30	+11	Steady
Australia	26	29	+12	High yields
United States	26	28	+8	Steady
India	7	9	+29	Export ban mid 2023

Sources: FAO (2023); USDA (2023); UN Comtrade (2023).

5.2. Impact on Importing Regions

Table 2 Dependence on Black Sea grain among selected importers.

Region	Share of Imports from Russia & Ukraine (2021)	Share in 2023	Main New Suppliers
North Africa (Egypt, Tunisia)	≈ 70 %	≈ 40 %	EU, India, Argentina

Sub-Saharan Africa (Nigeria, Kenya)	≈ 55 %	≈ 35 %	U.S., Australia
Middle East (Lebanon, Yemen)	≈ 80 %	≈ 60 %	Turkey, EU
South Asia (Bangladesh, Sri Lanka)	≈ 40 %	≈ 25 %	India, Thailand

Sources: FAO (2023); AfDB (2023); World Bank (2023).

5.3. Price Movements

Figure 1. Global Wheat Price Index (2018–2023) *(Description for document)* FAO monthly index with 2018 = 100.

Average 2018-2021 ≈ 110; spike to 170 in May-June 2022; gradual decline to 130 by late 2023.

6. Qualitative Results

Across hundreds of official statements, four themes emerged.

- Food as diplomacy: The United Nations and Turkey negotiated the *Black Sea Grain Initiative* (2022), allowing supervised passage of ships. About 30 million tons of grain left Ukrainian ports before Russia withdrew from the deal.
- Rise of protectionism: India, Argentina, and Egypt introduced export restrictions to secure domestic supply.
- Regional solidarity: The European Union organized "solidarity lanes" through Poland and Romania (European Commission, 2023).
- Appeals for autonomy: The African Union and the African Development Bank asked countries to increase local food production and to remove food from sanction lists (AfDB, 2023).

7. Discussion

From a world-systems viewpoint three conclusions follow.

- First, existing inequalities deepened. Core states controlled replacement routes and financial instruments. Peripheral import-dependent countries did not have enough transport or insurance support, so they faced the worst price increases.
- Second, movement within semi-peripheral countries was small. Countries such as India and Brazil increased their exports, but they still relied on ships and credit from the major economies.
- Third, government policy speeches and reports showed how different countries see themselves within the global system. Core nations defended liberal trade, semi-peripheral states sought new alliances, and peripheral nations framed food as a security issue. These positions match Wallerstein's hierarchy and the recent analyses of McMichael (2020) and Baines and Haggerty (2023).

The Black Sea crisis therefore combined economic, political, and symbolic dimensions: an immediate disruption of supply and a longer test of the world's unequal architecture.

8. Conclusion

The Russia-Ukraine war transformed the geography of grain trade while confirming the persistent hierarchy of the global economy. Quantitative evidence proved large shifts in volume and price, and qualitative evidence illustrated how diplomacy and policy expressed structural dependence. The crisis strengthened the logistical and financial dominance of core economies, particularly in Europe and North America, while exposing the vulnerability of import-dependent regions in Africa and the Middle East.

A fairer food system will only be possible if regions invest in their own agriculture, spread their shipping routes, and sign global agreements that protect food trade during times of war and crisis. If these deeper changes do not happen, the next global shock will again allow powerful actors to use transport and food supplies as tools of control.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare no conflicts of interest regarding this manuscript. No financial, personal, or institutional relationships have influenced the research presented, and there are no competing interests to disclose in connection with the study on the political economy of food insecurity and the Russia-Ukraine conflict.

Statement of ethical approval

This study relies exclusively on analysis of publicly available secondary data and official policy documents; therefore, formal ethical approval was not required. No human participants or sensitive personal data were involved in this research, and all procedures complied with institutional and international ethical standards for desk-based studies.

References

[1] African Development Bank. Africa's food import dependency and the Russia–Ukraine war. Abidjan, Côte d'Ivoire: African Development Bank; 2023.

[2] Baines J, Haggerty KD. The new geopolitics of food: Crisis and restructuring in the global agrifood system. Third World Q. 2023;44(5):912-31.

[3] Behnassi M, El Haiba M. Implications of the Russia–Ukraine war on global food security: Toward more resilient food systems. Discov Sustain. 2022;3(1):1-10.

[4] Braun V, Clarke V. Reflecting on reflexive thematic analysis. Qual Res Sport Exerc Health. 2019;11(4):589-97.

[5] Clapp J. Food self-sufficiency: Making sense of it, and when it makes sense. Food Policy. 2017;66:88-96.

[6] Clapp J, Moseley L. This isn't your parents' food crisis. Curr Hist. 2020;119(817):9-15.

[7] European Commission. Solidarity lanes: EU-Ukraine trade in action. Brussels, Belgium: European Commission; 2023.

[8] Food and Agriculture Organization of the United Nations (FAO). The state of agricultural commodity markets 2020. Rome, Italy: FAO; 2021.

[9] Food and Agriculture Organization of the United Nations (FAO). The importance of Ukraine and the Russian Federation for global agricultural markets and the risks associated with the war. Rome, Italy: FAO; 2022.

[10] Food and Agriculture Organization of the United Nations (FAO). Food Outlook: Biannual report on global food markets. Rome, Italy: FAO; 2023.

[11] Friedmann H, McMichael P. Agriculture and the state system: The rise and decline of national agricultures, 1870 to the present. Sociol Ruralis. 1989;29(2):93-117.

[12] Glauber J, Laborde D. How will Russia's invasion of Ukraine affect global food security? Washington, DC: International Food Policy Research Institute; 2022.

[13] Kiel Institute for the World Economy. Global trade report 2023. Kiel, Germany: Kiel Institute for the World Economy; 2023.

[14] McMichael P. Food regimes and agrarian questions. Halifax, Canada: Fernwood Publishing; 2013.

[15] McMichael P. The contested prospects of food sovereignty. J Peasant Stud. 2020;47(4):911-28.

[16] Nassif A, Lima GT. The return of dependency: Economic and geopolitical implications of the Ukraine war. Camb J Econ. 2023;47(3):647-69.

[17] Sen A. Poverty and famines: An essay on entitlement and deprivation. Oxford, England: Clarendon Press; 1981.

[18] United Nations Conference on Trade and Development (UNCTAD). Review of maritime transport 2023. Geneva, Switzerland: UNCTAD; 2023.

[19] United States Department of Agriculture (USDA). World agricultural supply and demand estimates (WASDE). Washington, DC: USDA; 2023.

[20] Wallerstein I. The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century. New York, NY: Academic Press; 1974.

[21] Wallerstein I. World-systems analysis: An introduction. Durham, NC: Duke University Press; 2004.

[22] World Bank. Food security update: Impacts of the war in Ukraine. Washington, DC: World Bank; 2023.