

The Impact of the Russia–Ukraine War on Food Security in West Africa.

Onwuka, Collins Chiedozié^{1*}, Izu, S. Iroro, Ph.D.²

¹ Department of Political Science and International Relations, Nile University of Nigeria (NUN), Abuja, Nigeria.

² Department of Political Science and International Relations, Nile University of Nigeria (NUN), Abuja, Nigeria.

Corresponding Author:

Onwuka, Collins Chiedozié

Department of Political Science and International Relations, Nile University of Nigeria (NUN), Abuja, Nigeria.

Abstract

The Russia–Ukraine war disrupted a global agri-food system in which the two belligerents jointly supplied roughly one-third of traded wheat, a fifth of maize and barley, and over half of sunflower oil, alongside a sixth of internationally traded fertilizer. This study offers a data-driven, analytical assessment of the war's consequences for food security in West Africa, a region already burdened by conflict, climate shocks, and import dependence. Using secondary quantitative data drawn from the Food and Agriculture Organization (FAO), the World Food Programme (WFP), the International Food Policy Research Institute (IFPRI), the Cadre Harmonisé framework, and national statistical agencies, the study analyses four interlocking dynamics: the war's effect on Russian and Ukrainian grain production; the transmission of that shock through West Africa's grain supply chains; the escalation of food, fertilizer, and agricultural equipment costs; and the consequences of the July 2023 collapse of the Black Sea Grain Initiative (BSGI). Findings show that the FAO Cereal Price Index rose by roughly 18 percent in 2022 to a record high, that fertilizer prices more than doubled between 2021 and 2022, and that the number of acutely food-insecure people in West and Central Africa rose from 10.7 million in 2019 to over 52 million by mid-2025. The termination of the BSGI in July 2023 removed a critical stabilizing mechanism, deepening price volatility and disproportionately harming import-dependent, low-income economies such as Nigeria, Senegal, and The Gambia. The study situates these findings within Food Regime Theory and the FAO's four-pillar food security framework, and concludes with policy recommendations centred on regional grain reserves, diversified import sourcing, and accelerated investment in domestic fertilizer and grain production capacity.

Keywords: Black Sea Grain Initiative, Fertilizer Prices, Food Security, Grain Supply Chains, Russia–Ukraine War

Introduction

The Russian Federation's full-scale invasion of Ukraine on 24 February 2022 did not merely reconfigure the security architecture of Eastern Europe; it also triggered one of the most consequential shocks to global food systems since the 2007–2008 world food price crisis (Glauber & Laborde, 2022). Russia and Ukraine, often described as the "breadbasket" of the world economy, together accounted for approximately 28 to 34 percent of global wheat exports, around 17 to 20 percent of maize exports, and up to 75 percent of sunflower oil exports in the years immediately preceding the war (FAO, 2022; Intereconomics, as cited in Glauber & Laborde, 2022). Russia was additionally the world's leading exporter of nitrogen-based fertilizers and a major supplier of potash and phosphate, giving the conflict an outsized influence on the cost of agricultural inputs far beyond the Black Sea region (International Food Policy Research Institute [IFPRI], 2024a).

West Africa entered this crisis from a position of acute vulnerability. Even before February 2022, the Cadre Harmonisé food security analysis had recorded a quadrupling of the acutely food-insecure population in West and Central Africa, from 10.7 million people in 2019 to a projected 41 million by mid-2022 (World Food Programme [WFP], 2022). This pre-existing fragility, driven by the Sahelian insurgencies, the Lake Chad Basin crisis, climate variability, and the residual economic scarring of the COVID-19 pandemic, meant that the region had little fiscal or structural buffer against a further, externally generated shock (Human Rights Watch [HRW], 2022). The war's transmission channels into West African food systems were threefold: direct disruption of grain exports and shipping routes through the Black Sea; a sharp escalation in the cost of fertilizer, fuel, and imported agricultural machinery; and the eventual collapse, in July 2023, of the United Nations- and Türkiye-brokered Black Sea Grain Initiative (BSGI), which had briefly stabilized global markets (United Nations [UN] News, 2023).

The significance of this crisis for West Africa is compounded by the region's structural dependence on imported wheat and its comparatively limited domestic milling and mechanization base. Nigeria, the region's largest

economy, produces only about one percent of the five to six million metric tonnes of wheat it consumes annually, relying on imports — historically sourced in part from Russia and Ukraine — for the remainder (Central Bank of Nigeria, as cited in Emergency Digest, 2022). Similar import dependence characterizes Senegal, Ghana, Benin, and The Gambia, several of which sourced more than two-thirds of their wheat from the Black Sea region prior to the war (Consilium, 2023). This study therefore asks: how, and to what extent, has the Russia–Ukraine war reshaped food security outcomes in West Africa through the specific channels of grain production, supply-chain disruption, input-price inflation, and the failure of the Black Sea Grain Initiative? Using quantitative secondary data and descriptive statistical analysis, the study traces these channels empirically and situates them within a theoretical framework combining Food Regime Theory and the FAO's four-pillar conception of food security (availability, access, utilization, and stability).

The study is structured as follows. Section 2 reviews the literature and develops the theoretical framework. Section 3 outlines the methodology. Section 4 presents the discussion of findings across four thematic sub-sections grain production, supply-chain transmission, input-price inflation, and the collapse of the BSGI supported by tables and charts constructed from FAO, WFP, IFPRI, and national data. Section 5 concludes with policy recommendations.

2. Literature Review and Theoretical Framework

2.1 *The Global Food-Market Footprint of Russia and Ukraine*

A substantial body of post-2022 scholarship has documented the pre-war centrality of Russia and Ukraine to global agricultural trade. FAO (2022) estimated that the two countries jointly contributed 18 percent of global cereal output between 2016/17 and 2020/21 and accounted for close to 72 percent of world sunflower-oil exports. Glauber and Laborde (2022) similarly reported a combined export market share of 28 percent for wheat, 15 percent for maize, and 66 percent for sunflower oil over 2015–2020, noting that this share had nearly tripled over the preceding two decades as Black Sea production capacity expanded. Ritchie (2022), writing for *Our World in Data*, emphasized the asymmetric exposure this created for import-dependent states, showing that countries such as Egypt, Libya, Lebanon, and several West African economies sourced more than two-thirds of their wheat imports from the two belligerents.

Empirical assessments conducted after the invasion confirm that the anticipated worst-case collapse in Ukrainian exports did not fully materialize, owing to the BSGI and alternative overland and Danube-river routes, but that production and export volumes nonetheless remained persistently below pre-war trends (Janzen & Zulauf, 2023; United States Department of Agriculture Economic Research Service [USDA-ERS], 2024). Arndt et al. (2023), using a general equilibrium modelling approach, projected that Ukraine's war-induced export shortfall would raise the number of acutely food-insecure people globally by as much as 20.8 percent, or 174 million people, concentrated in import-dependent low-income economies. Kim et al. (2024), analysing the war's economy-wide effects, found that African economies were disproportionately affected given their combination of high wheat-import dependence and limited fiscal space to cushion price shocks.

2.2 *Fertilizer Markets and Input-Cost Transmission*

A parallel literature has examined the war's effect on fertilizer markets. Because Russia is the world's largest exporter of nitrogen fertilizer and a major exporter of potash, while Belarus (a co-belligerent under sanctions) is the second-largest potash exporter, the conflict produced a fertilizer-specific shock layered atop the grain-market disruption (IFPRI, 2024a). The St Louis Federal Reserve (2023) documented that the Bloomberg Green Markets Weekly North America Fertilizer Price Index reached an all-time high of 1,270.4 points on 25 March 2022, eclipsing the previous 2008 record. IFPRI's (2024b) trade-flow analysis found that while global fertilizer availability recovered somewhat by 2023 as Moroccan phosphate and Canadian potash exports expanded, several low-income sub-Saharan African economies continued to face acute affordability constraints, with the International Fertilizer Development Center estimating a decline in regional fertilizer consumption of up to 25 percent in the 2022 fertilizer year. Growing Africa (2026), citing Hassan (2023), reported that retail fertilizer prices in East African states such as Kenya, Uganda, and Tanzania doubled between 2020 and 2022, a pattern broadly mirrored in West African input markets through elevated import costs and currency depreciation.

2.3 *West Africa-Specific Evidence*

A growing corpus of country-specific studies has examined transmission into West African food systems. Ejeh and colleagues, writing for the Policy Center for the New South (2023), argue that the conflict has reframed food security as a national security concern across Africa given the continent's trade dependence on both belligerents. Amare et al. (2022), analysing Nigerian price micro-data, found that imported rice and wheat prices had already risen by 41 percent and 21 percent respectively during the pandemic period, a baseline that the war's shock was subsequently layered upon. A 2025 study in the *Tanzanian Journal of Multidisciplinary Studies* examining bread and wheat-product prices in Nigeria found that the war substantially raised wheat-import costs, which were transmitted through the milling and baking industries into higher consumer bread prices and reduced product sizes (Ibrahim et al., 2025). The United States Department of Agriculture Foreign Agricultural Service (USDA-FAS,

2023) similarly documented elevated Nigerian flour-milling costs and a marginal increase in wheat imports despite tightening global supply. Springer's *Agriculture & Food Security* journal (Abulude et al., 2024) extended this analysis to North Africa, documenting government interventions such as Egypt's temporary export embargo on wheat, flour, and cooking oils, illustrating a regional pattern of defensive trade policy that further tightened West African import markets.

2.4 Theoretical Framework

This study draws on two complementary theoretical lenses. The first is Food Regime Theory, originally developed by Friedmann and McMichael and subsequently applied to conflict-driven disruptions, which conceptualizes global food security as structured by historically contingent, geopolitically anchored regimes of production, trade, and finance (McMichael, 2022, as applied in post-2022 conflict literature). From this perspective, the Russia–Ukraine war exposed the fragility of a post-Cold War grain regime in which a small number of Black Sea exporters became structurally embedded as the marginal suppliers to food-deficit regions, including West Africa, such that a bilateral conflict between two exporting states could generate a systemic, multi-continental food-security crisis. The second lens is the FAO's four-pillar food security framework, which defines food security along the dimensions of availability (sufficient quantities of food), access (economic and physical ability to obtain food), utilization (nutritional adequacy), and stability (consistency of the preceding three dimensions over time) (FAO, cited in Abulude et al., 2024). This study applies the framework to distinguish the war's distinct effects: reduced availability through export disruption; reduced access through price inflation; and, most centrally, reduced stability through the volatility introduced by the BSGI's collapse. Together, these frameworks allow the analysis to move beyond a purely descriptive account of price changes toward an explanation of why West Africa's structural position within the global grain regime rendered it acutely vulnerable to a conflict fought thousands of kilometres away.

3. Methodology

This study adopted a quantitative, secondary-data-driven analytical design appropriate for a policy-oriented assessment of macro-level food-security trends. Rather than generating primary survey or interview data, the study systematically compiles, triangulates, and analyses time-series data published by major international and national institutions between 2022 and 2025. Primary data sources include: the FAO Food Price Index and Cereal Price Index (monthly and annual averages, 2019–2025); the Cadre Harmonisé food security analyses coordinated by the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) and disseminated through WFP situation reports (2022–2025); IFPRI's fertilizer trade and Russia–Ukraine war impact bulletins (2023–2024); the USDA Foreign Agricultural Service Grain and Feed Annual reports for Nigeria (2022–2023); and Nigeria's National Bureau of Statistics (NBS) price-tracking series for diesel, bread, and headline/food inflation (2021–2024).

The analytical approach combines descriptive statistical analysis with trend and comparative-period analysis. Descriptive statistics (percentage change, index-point change, and year-on-year variation) are used to quantify shifts in grain prices, fertilizer costs, and food-insecure population figures before and after February 2022 and, subsequently, before and after the BSGI's termination in July 2023. Data are presented through summary tables and charts generated from the compiled datasets to allow visual identification of inflection points corresponding to key war-related events (the invasion itself, the BSGI's establishment in July 2022, and its collapse in July 2023). Where national-level data for individual West African states were unavailable, Nigeria is used as an illustrative case given its status as the region's largest economy, its high wheat-import dependence, and the relative availability of NBS price-tracking data; findings are triangulated against regional Cadre Harmonisé aggregates to support broader West African generalizability. The study's limitations include the absence of primary survey data on household-level coping strategies, the possible confounding of war-specific effects with other concurrent shocks (notably Nigeria's 2023 fuel-subsidy removal and currency float, and recurrent Sahelian conflict and climate shocks), and residual data gaps arising from Russia's discontinuation of trade reporting to UN Comtrade after early 2022 (IFPRI, 2024c). These confounds are addressed, where possible, by drawing on studies that isolate the war-specific channel through modelling (e.g., Arndt et al., 2023) and by explicitly flagging concurrent domestic shocks in the discussion of findings.

4. Discussion of Findings

4.1 Russia–Ukraine War and Grains Production

Prior to the war, Russia and Ukraine occupied structurally dominant positions in global grain markets. FAO (2022) data indicate that the two countries together accounted for 18 percent of global output of wheat, maize, and barley between 2016/17 and 2020/21, with Russia contributing 14 percentage points and Ukraine 4 percentage points of that share; in oilseeds, their combined contribution to global sunflower-seed production exceeded 50 percent.

Table 1 summarizes the two countries' pre-war export shares across the principal commodities relevant to West African food security.

Commodity	Russia's Global Export Share (%)	Ukraine's Global Export Share (%)	Combined Share (%)
Wheat	15–20	10–12	28–34
Maize (corn)	2–3	15–16	17–19
Barley	14	18	26–32
Sunflower oil	22	50	66–75
Nitrogen fertilizer	~16 (of global fertilizer exports)	n/a (net importer)	16

Table 1. Pre-War Export Market Shares of Russia and Ukraine in Key Commodities (Average, 2015–2021)

Source: Compiled by the author from FAO (2022), Glauber and Laborde (2022), Council of the European Union (Consilium, 2023), and IFPRI (2024a).

The war's immediate effect on production was severe but geographically uneven. Ukrainian grain and oilseed output fell sharply in the 2022/23 marketing year owing to the loss of Black Sea shipping access, the occupation or contamination by landmines of significant cropland in the south and east, labour shortages from mobilization and displacement, and constrained access to fuel, seed, and fertilizer. Janzen and Zulauf (2023) estimate that combined Ukrainian corn and wheat exports in the 2021/22 marketing year were approximately 20 percent below pre-war projections, though this shortfall was less severe than the 50 to 66 percent declines initially feared, owing to the rapid development of alternative export corridors via the Danube, rail, and road links to European Union ports. USDA-ERS (2024) further reports that Ukraine's share of key EU cereal import markets nonetheless remained historically elevated through 2022–2023 (39 percent of EU wheat imports, 40 percent of barley imports, and roughly half of maize imports in 2022), even as absolute export volumes to more distant markets, including West Africa, declined.

Russian grain production and exports followed a different trajectory. Despite Western sanctions targeting Russian finance, shipping insurance, and banking access, Russian wheat exports recovered relatively quickly after an initial 2022 dip, aided by record domestic harvests and the country's ability to reroute exports to non-sanctioning markets in Asia, the Middle East, and Africa (IFPRI, 2024c). This asymmetry a sustained Ukrainian production and export shortfall alongside a resilient, and in some years expanding, Russian export volume has had important distributional consequences: West African states with historically diversified Russia-Ukraine sourcing (as in Nigeria, which sourced roughly five percent of its wheat imports directly from Russia; Daily Trust, 2022) experienced comparatively more moderate direct-supply disruption than states more heavily dependent on Ukrainian shipments specifically, such as The Gambia, which sourced approximately 84 percent of its wheat imports from Ukraine before the war (Ritchie, 2022).

4.2 Russia–Ukraine War and Grain Supply-Chains in West Africa

The transmission of the Black Sea production shock into West African markets operated primarily through the price and logistics channels of global grain trade rather than through direct bilateral trade disruption alone, given that most West African wheat imports are intermediated through international grain-trading houses and shipped via multiple origin ports. The FAO Food Price Index (FFPI) and its Cereal Price Index sub-component provide the clearest aggregate evidence of this transmission. As illustrated in Figure 1, the FAO Cereal Price Index rose from an annual average of 131.1 points in 2021 to a record 154.7 points in 2022 an increase of approximately 18 percent within a single year before easing to 130.9 points in 2023 and 113.5 points in 2024 as Black Sea shipments partially resumed and global supply conditions normalized (FAO, 2024; PotatoPro, 2024).

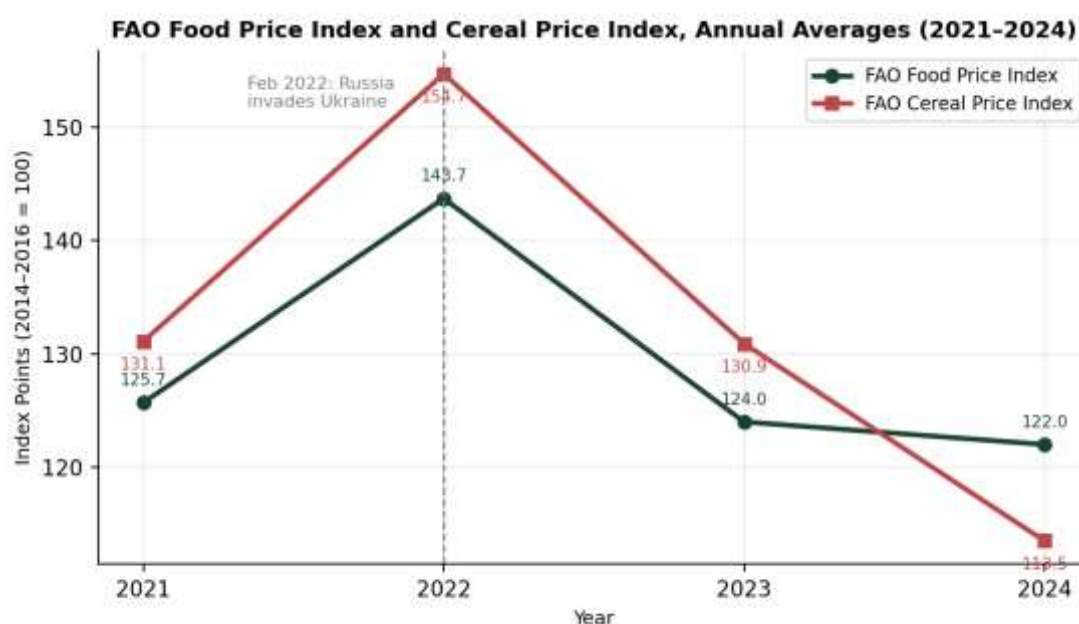


Figure 1. FAO Food Price Index and Cereal Price Index, Annual Averages (2021–2024)

Source: Compiled by the author from FAO Food Price Index bulletins (2023, 2024, 2025).

This global price transmission interacted with West Africa's structural import dependence to produce acute regional effects. The region's wheat self-sufficiency is minimal Nigeria alone imports over 90 percent of the wheat it consumes (Emergency Digest, 2022) meaning that global cereal price inflation is transmitted almost directly into domestic flour, bread, and pasta prices with limited buffering capacity from domestic production. The consequence, documented through the Cadre Harmonisé food security analyses coordinated by CILSS and disseminated by WFP, was a sharp and sustained deterioration in regional food security outcomes. Table 2 and Figure 2 present the trajectory of acute food insecurity (Cadre Harmonisé/IPC Phase 3 or above) in West and Central Africa across the war period.

Table 2. Acutely Food-Insecure Population, West and Central Africa (2019–2025)

Period	People in Crisis or Worse (millions)	Key Driver Noted in Source
2019 (baseline)	10.7	Pre-war baseline
Jun–Aug 2022	41.0	War-driven price shock layered on Sahel conflict (WFP, 2022)
Oct–Dec 2023	~47.0 (94M in Stress, Phase 2)	Post-BSGI collapse volatility (UNICEF, 2023)
Post-harvest 2024	40.0+	Marginal improvement; elevated emergency-phase share (WFP, 2024)
Jun–Aug 2025 (projected)	52.7	Compounding conflict, climate, and economic shocks (WFP, 2025)

Source: Compiled by the author from WFP (2022, 2024, 2025) and UNICEF (2023) Cadre Harmonisé reporting.

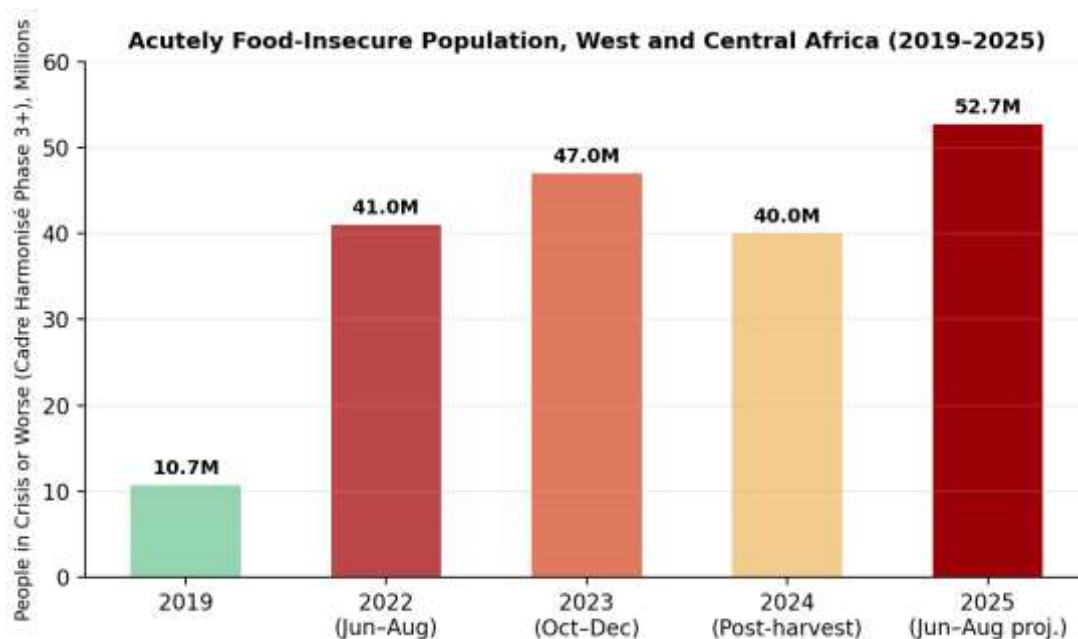


Figure 2. Acutely Food-Insecure Population, West and Central Africa (2019–2025)

Source: Compiled by the author from Cadre Harmonisé data reported in WFP (2022, 2024, 2025) and UNICEF (2023).

The nearly four-fold rise in acute food insecurity between 2019 and the 2022 war-shock period and the further climb toward 52.7 million people projected for mid-2025 cannot be attributed to the war alone; recurrent jihadist violence in the Sahel, displacement in the Lake Chad Basin, and increasingly frequent flooding (which affected over six million people across the region in 2024 alone) are independently significant drivers (WFP, 2025). Nonetheless, the coincidence of the sharpest single-year increase in food insecurity with the 2022 cereal price spike, together with the qualitative attribution in WFP and HRW situation reports, supports the conclusion that the war acted as a substantial compounding shock on an already fragile regional food system (HRW, 2022; WFP, 2022).

4.3 Rise in Food, Fertilizer, and Agricultural Equipment Prices as a Result of the Russia–Ukraine War

Beyond grain markets narrowly defined, the war generated a compounding cost shock across the broader agricultural input system fertilizer, fuel, and mechanization costs that further undermined food security by raising the cost of domestic food production, not merely of imported food. Because Russia is the world's leading fertilizer exporter and Belarus a major potash supplier, both subject to Western financial sanctions and shipping-insurance withdrawal after February 2022, global fertilizer markets experienced price increases even sharper, in percentage terms, than grain markets. The St Louis Federal Reserve (2023), citing World Bank data, reports that world fertilizer prices rose 80 percent in 2021 (reflecting pre-war pandemic-era supply disruption) and a further 30 percent by early 2022 following the invasion, with the Bloomberg Green Markets Weekly North America Fertilizer Price Index peaking at an all-time high of 1,270.4 points on 25 March 2022 surpassing the prior 2008 crisis record of 932.3 points.

For West Africa, this fertilizer shock had direct consequences for cereal yields in the subsequent planting seasons, given the region's high reliance on imported urea, NPK blends, and DAP. IFPRI's (2024b) trade-flow analysis estimates that fertilizer consumption in sub-Saharan Africa outside South Africa may have declined by as much as 25 percent in the 2022 fertilizer year relative to prior trend, reversing roughly a decade of gains in fertilizer-use intensity. This affordability-driven demand destruction directly threatens the availability pillar of food security by constraining future harvests, even where global fertilizer availability itself later recovered.

In Nigeria, the interaction between the war's price shock and pre-existing domestic vulnerabilities — an oil-import-dependent, subsidy-constrained fuel market and, from mid-2023, fuel-subsidy removal and naira devaluation — produced a particularly acute cost-of-production crisis. National Bureau of Statistics data show that the average retail price of Automotive Gas Oil (diesel), the fuel overwhelmingly used to power irrigation pumps, milling equipment, and the diesel generators on which Nigerian agro-processors depend given unreliable grid electricity, rose from N254.07 per litre in October 2021 to N801.09 per litre in October 2022 a 215.3 percent increase within twelve months (Nairametrics, cited in ThisDay/Pressreader, 2022). Because imported agricultural machinery, spare parts, and irrigation equipment are priced and often shipped in foreign currency, this cost shock

was compounded by freight-rate increases and by the naira's depreciation. Table 3 and Figure 3 summarize the principal food and input price movements documented for Nigeria across the war period.

Table 3. Selected Food, Fuel, and Fertilizer Price Movements, Nigeria (2021–2024)

Indicator	Baseline	Post-Shock Value	% Change	Period
Diesel/AGO retail price (Nigeria)	N254.07/litre	N801.09/litre	+215.3%	Oct 2021 – Oct 2022
Bread price, family loaf (Abuja)	N600	N850	+41.0%	Dec 2021 – Apr 2022
Bread price, national average	—	—	+52.7%	2022 – 2023 (12-month)
Global fertilizer price index	Pre-2021 baseline	Peak, Mar 2022	+100% (2021) then +30% further (early 2022)	2021 – early 2022
Nigeria headline inflation rate	18.0% (2022)	32.70% (Sep 2024)	+14.7 pp	2022 – 2024

Source: Compiled by the author from National Bureau of Statistics data (cited in Pressreader/ThisDay, 2022; Nairametrics, 2023), Daily Trust (2022), St Louis Federal Reserve (2023), and Inquirer.ng (2024).

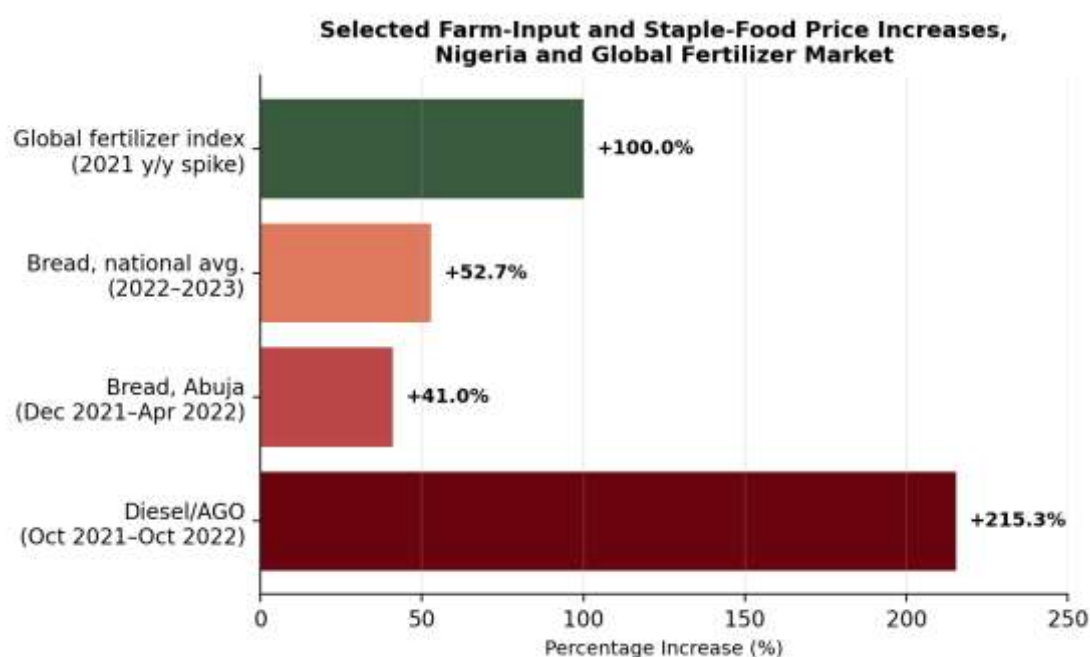


Figure 3. Selected Farm-Input and Staple-Food Price Increases, Nigeria and Global Fertilizer Market

Source: Compiled by the author from the sources cited in Table 3.

These figures illustrate that the war's impact on food security operated not only through the retail price of imported staples but, arguably more corrosively, through the cost structure of domestic agricultural production itself. Rising diesel costs increase the price of land preparation, irrigation, and post-harvest milling; rising fertilizer costs suppress yields when farmers reduce application rates in response, as documented for comparable East African markets by Growing Africa (2026); and elevated freight and foreign-exchange costs raise the landed price of imported tractors, ploughs, and irrigation equipment, constraining the mechanization gains that Nigeria's National Agricultural Mechanization Programme has sought to promote (Knowledge Sourcing Intelligence, 2025). While Nigeria's headline inflation rate cannot be attributed to the war alone the 2023 removal of the petrol subsidy and

the managed float of the naira were domestically driven policy shocks that substantially compounded food inflation, which reached 40.9 percent by June 2024 (IFPRI, 2026) — the coincidence of the war-driven 2022 spike with the subsequent domestic shocks produced a uniquely severe, multi-year cost-of-living and cost-of-farming crisis.

4.4 Failure of the Black Sea Grain Deal and Food Security in West Africa

The Black Sea Grain Initiative (BSGI), brokered by Türkiye and the United Nations and signed by Russia and Ukraine in Istanbul on 22 July 2022, established a maritime humanitarian corridor permitting the safe export of grain and foodstuffs from three Ukrainian Black Sea ports (IFPRI, 2024c). Over its year of operation, the BSGI facilitated the export of approximately 32 to 32.8 million metric tonnes of grain and oilseeds, including 725,000 tonnes of humanitarian grain distributed through the World Food Programme, and is credited with contributing to a 23 percent decline in global food prices between March 2022 and July 2023 (Al Jazeera, 2023; Parley Policy, 2023). Slightly over half of the grain exported under the BSGI reached developing countries, with the WFP receiving Ukrainian wheat shipments destined in part for African and Middle Eastern recipients (Al Jazeera, 2023).

The initiative was, however, structurally fragile from the outset, requiring renewal at 120-day and subsequently 60-day intervals, with Russia repeatedly threatening withdrawal over grievances concerning Western sanctions on its own agricultural export and banking sectors (IFPRI, 2024c). Russia briefly suspended participation in October–November 2022 before formally terminating the agreement on 17 July 2023, citing unmet demands including the reconnection of a subsidiary of the Russian Agricultural Bank to the SWIFT international payments system (UN News, 2023; European External Action Service, 2023). Following the termination, the Russian Ministry of Defense declared that all vessels transiting Black Sea shipping lanes toward Ukrainian ports would be considered legitimate military targets from 20 July 2023, effectively closing the corridor to further commercial shipping (Parley Policy, 2023).

IFPRI's (2024c) shipment-data analysis, drawing on real-time World Trade Organization and International Grains Council data through June 2023, provides the clearest quantification of the BSGI period's supply effect and its asymmetric unwinding. As shown in Figure 4, total wheat exports to sub-Saharan Africa in the 2022/23 marketing year were approximately 7 percent (1.4 million metric tonnes) below the pre-war 2021/22 level, driven overwhelmingly by declines in Ukrainian and, to a lesser extent, Russian wheat shipments to the region. Russia's wheat exports to sub-Saharan Africa fell by approximately 13 percent (600,000 tonnes) and Ukraine's by 55 percent (870,000 tonnes) over the same period, even while the BSGI remained formally in effect.

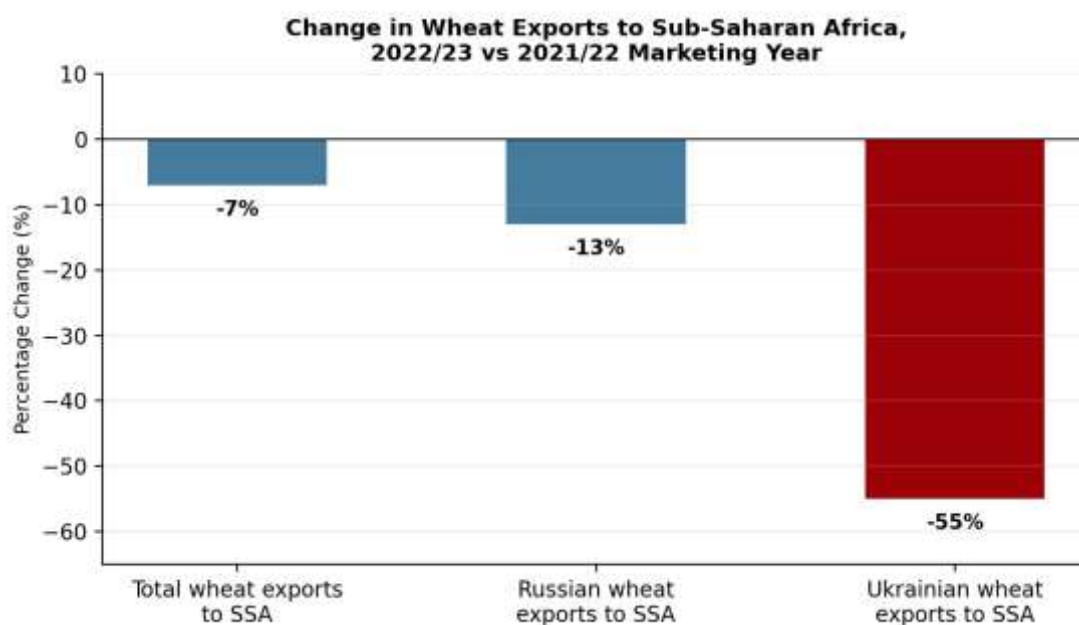


Figure 4. Change in Wheat Exports to Sub-Saharan Africa, 2022/23 vs 2021/22 Marketing Year

Source: Compiled by the author from IFPRI (2024c) shipment-data analysis based on WTO/International Grains Council data.

This finding is analytically important: it indicates that even during the period when the BSGI was formally operational, structural obstacles reduced Ukrainian planted area, war-risk shipping-insurance premiums, and the

diversion of a large share of BSGI-facilitated grain toward higher-income European and Asian markets rather than the food-insecure states the initiative was intended to serve had already eroded the corridor's benefit for West Africa specifically (IFPRI, 2024c). The formal collapse of the BSGI in July 2023 therefore represented not the sole cause but a further, sharply destabilizing acceleration of a supply constraint already underway. Its immediate consequence in global markets was renewed price volatility: wheat export prices rose in the weeks following the termination amid renewed Black Sea security tensions (PotatoPro, 2024), while WFP officials publicly warned of the risk of further reductions to humanitarian food assistance amid tightening budgets and rising commodity costs (Al Jazeera, 2023).

For West Africa, the compounding effect of the BSGI's collapse was felt primarily through the stability pillar of food security rather than through an outright supply collapse, since alternative exporters (the United States, Argentina, Australia, and the European Union) partially absorbed displaced demand. The October–December 2023 Cadre Harmonisé cycle recorded approximately 94 million people across West and Central Africa under food-security "Stress" (Phase 2) conditions at elevated risk of sliding into Crisis or Emergency phases in the absence of continued support a period coinciding directly with the BSGI's termination and the subsequent global cereal-price uptick (UNICEF, 2023). The persistence of elevated food insecurity through the 2024 post-harvest season and into the 2025 lean-season projection of 52.7 million acutely food-insecure people (WFP, 2025) suggests that the loss of the BSGI's stabilizing function has had durable, rather than transitory, consequences for regional food-security volatility, reinforcing this study's Food-Regime-Theory-informed argument that West Africa's structural dependence on a narrow set of external, geopolitically exposed suppliers constitutes a persistent not merely conjunctural vulnerability.

5. Conclusion and Recommendations

5.1 Conclusion

This study has provided a data-driven analysis of the Russia–Ukraine war's impact on food security in West Africa across four interlocking channels: grain production, supply-chain transmission, input-cost inflation, and the collapse of the Black Sea Grain Initiative. The evidence assembled from FAO, WFP, IFPRI, USDA, and Nigerian National Bureau of Statistics data demonstrates a consistent pattern: the war generated a severe, if partially transitory, spike in global cereal and fertilizer prices in 2022, which was transmitted with limited buffering into West African markets given the region's structural import dependence and minimal domestic wheat production. This price shock compounded a pre-existing regional food-security crisis rooted in Sahelian conflict, climate variability, and pandemic-era economic scarring, contributing to a near four-fold increase in the acutely food-insecure population of West and Central Africa between 2019 and 2022, and to a further climb toward a projected 52.7 million people by mid-2025. The July 2023 termination of the Black Sea Grain Initiative removed a critical, if imperfect, stabilizing mechanism, reintroducing price volatility precisely as the region's Cadre Harmonisé indicators showed an escalating share of the population sliding from Stress into Crisis-level food insecurity. Applying Food Regime Theory and the FAO's four-pillar framework, the analysis concludes that West Africa's vulnerability is not solely a function of the war's magnitude but of the region's structural embeddedness within a narrow, geopolitically exposed global grain and fertilizer regime—a structural condition that will continue to expose the region to comparable shocks from future conflicts or trade disruptions unless addressed through deliberate policy intervention.

5.2 Recommendations

Based on these findings, the study proposes the following policy recommendations for national governments, the Economic Community of West African States (ECOWAS), and international development partners:

- 1. Diversify import sourcing and strengthen regional grain reserves.** West African governments and ECOWAS should accelerate the operationalization of the ECOWAS Regional Food Security Reserve and encourage bilateral diversification of wheat and fertilizer sourcing beyond Black Sea suppliers, reducing single-region dependence that leaves the region exposed to bilateral conflicts between two exporting states.
- 2. Invest in domestic and regional fertilizer production capacity.** The expansion of domestic fertilizer manufacturing capacity, exemplified by Nigeria's Dangote urea facility, should be replicated and scaled regionally, alongside blending and distribution infrastructure investment, to reduce the pass-through of international fertilizer price volatility to smallholder farmers.
- 3. Expand domestic wheat and substitute-crop production.** Given persistent wheat-import dependence, governments should invest in climate-adapted wheat varieties where agronomically feasible and, more broadly, incentivize substitution toward regionally produced staples such as cassava, sorghum, and millet in flour blends to reduce reliance on a single, externally sourced cereal.
- 4. Strengthen agricultural mechanization financing.** Public mechanization programmes (such as Nigeria's National Agricultural Mechanization Programme) should be insulated from foreign-exchange volatility through

local-currency financing instruments and local assembly of farm equipment, reducing exposure to imported-machinery price shocks of the kind documented in this study.

5. Enhance early-warning and social-protection systems. Cadre Harmonisé and national early-warning systems should be resourced to trigger pre-emptive social-protection disbursements when global cereal or fertilizer price indices cross defined volatility thresholds, rather than responding only after acute food-insecurity phases are reached.

6. Pursue multilateral engagement to restore stable Black Sea shipping. West African and ECOWAS diplomatic engagement, in coordination with the African Union and United Nations, should continue to press for the restoration of a durable, verifiable Black Sea grain-export mechanism, given the demonstrated stabilizing effect of the 2022–2023 BSGI on regional food prices.

Taken together, these measures address the study's four analytical channels directly: diversified sourcing and reserves respond to supply-chain fragility; fertilizer and mechanization investment respond to input-cost inflation; and multilateral engagement responds to the structural risk exposed by the Black Sea Grain Initiative's collapse. Implementing them would not eliminate West Africa's exposure to distant geopolitical shocks, but would materially reduce the speed and severity with which such shocks translate into regional food insecurity.

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