



Mercy Corps/E Millstein

Situation Analysis

THE POTENTIAL IMPACT OF BLACK SEA ESCALATIONS ON FOOD SECURITY IN THE MIDDLE EAST AND NORTH AFRICA

SEPTEMBER 2023



Executive summary

Countries in the Middle East and North Africa have contended with food insecurity for decades as their populations grow alongside increased demand for imported foodstuffs. This has left many countries across the region heavily or partially dependent on imported grains, in particular those exported through the Black Sea. This dependency came to the forefront in 2022 when grain shipments from Ukraine were at risk of being completely halted prior to the Black Sea Grain Initiative (BSGI) being struck.¹ This paper examines the risks facing Middle Eastern countries in light of a series of conflict escalations affecting Black Sea grain exports following Russia's withdrawal from the BSGI in July, with a focus on immediate and longer-term consequences. It draws particular attention to Lebanon, Syria, and Yemen, all net importers of grain, in addition to other states across the region. Should a major escalation take place, it is likely that significant international grain shortages or price increases could threaten and/or exacerbate food security across the region. Accordingly, while this paper does not project an immediate crisis, its authors suggest that food security contingency planning should account for possible worst-case scenarios.



¹ Mercy Corps '[Secondary Impacts of Ukraine Conflict In the Middle East](#)' June 2022.

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Introduction

The Russian Federation's exit from the Black Sea Grain Initiative (BSGI) on July 17, and subsequent escalations in the war in Ukraine during the summer of 2023 risk potentially severe essential commodity price and supply shocks in the coming months. In such a scenario, there is a high likelihood that the availability of grain becomes increasingly limited, and in turn, prices could rise, particularly if critical export infrastructure and assets continue to be targeted in the Black Sea. Currently, stability in wheat and other critical commodity prices is a positive indication that markets have not chosen to respond poorly to recent escalations.² De-escalation is also possible in the coming weeks; for instance, following an anticipated meeting between Russian President Vladimir Putin and Turkish President Recep Tayyip Erdogan, agreements intended to ensure continuity of trade through the Black Sea could be brokered. However, events following the suspension of the BSGI (see figure 1) indicate that conflict escalations in the Black Sea could further impact both Ukrainian and Russian food and other commodity exports. Irrespective of how events unfold in the coming months, decreased grain supply and price volatility will remain a risk as long as the war in Ukraine continues without a meaningful cessation of hostilities.



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This report examines the potential impact of continued escalation in the Black Sea disrupting grain markets and how this could affect the Middle East, a region marked by multiple ongoing conflicts, economic crises, high levels of food insecurity, and heavy dependence on imported foodstuffs, including wheat. The report focuses on the cases of three countries currently experiencing severe economic crises and/or conflict: Lebanon, Syria, and Yemen. It also touches on potential impacts in Jordan, Iraq, and occupied Palestinian Territories (West Bank and Gaza), as well as brief assessments of North African states, notably Tunisia and Egypt. While not going into detail, this analysis also takes into consideration broader global system dynamics by identifying other potential risks that could, in concert with an escalation of conflict in the Black Sea, exacerbate or sustain severe price shocks across a range of essential food commodities. It is important to note that even if a de-escalatory trajectory plays out in the coming months, events since July will nonetheless continue to have negative consequences for trade through the Black Sea, namely through the high risk and associated costs posed to commercial shipping.

This report was produced by Crisis Analysis at Mercy Corps, and is a collaboration between Crisis Analysis teams based in the Middle East and Ukraine.³ It seeks to draw attention to broader food insecurity in many of the contexts in which the international aid community is engaged in the Middle East. The report assesses country-specific vulnerabilities to global commodity shocks, and the need for sustained attention to and analysis of potential ramifications. Specifically, this focus should include robust contingency planning to account for the possibility of global food price shocks and grain shortages in the fragile contexts in which aid actors work, which will drive needs and stretch available capacities to respond in an increasingly constricted funding landscape.

² Current downward pressure on wheat prices is also driven by Northern hemisphere summer harvests, notably higher than expected yields in Russia.

³ Crisis Analysis at Mercy Corps seeks to leverage data and analysis to support context-appropriate, conflict-sensitive, and forward-thinking responses to complex crises. Crisis Analysis provides the rich contextual backdrop to Mercy Corps' humanitarian, development and peacebuilding programming, as well as the timely, dynamic and granular data and analysis that static needs and risk assessments alone cannot. By considering the root causes and systemic drivers of fragility in a holistic manner, Crisis Analysis can support the crafting of truly transformative solutions, through enabling innovative analytical tools and methodologies to unpack complex contextual phenomena, and support decision making across the larger aid ecosystem operating along the Humanitarian Development and Peace (HDP) nexus.

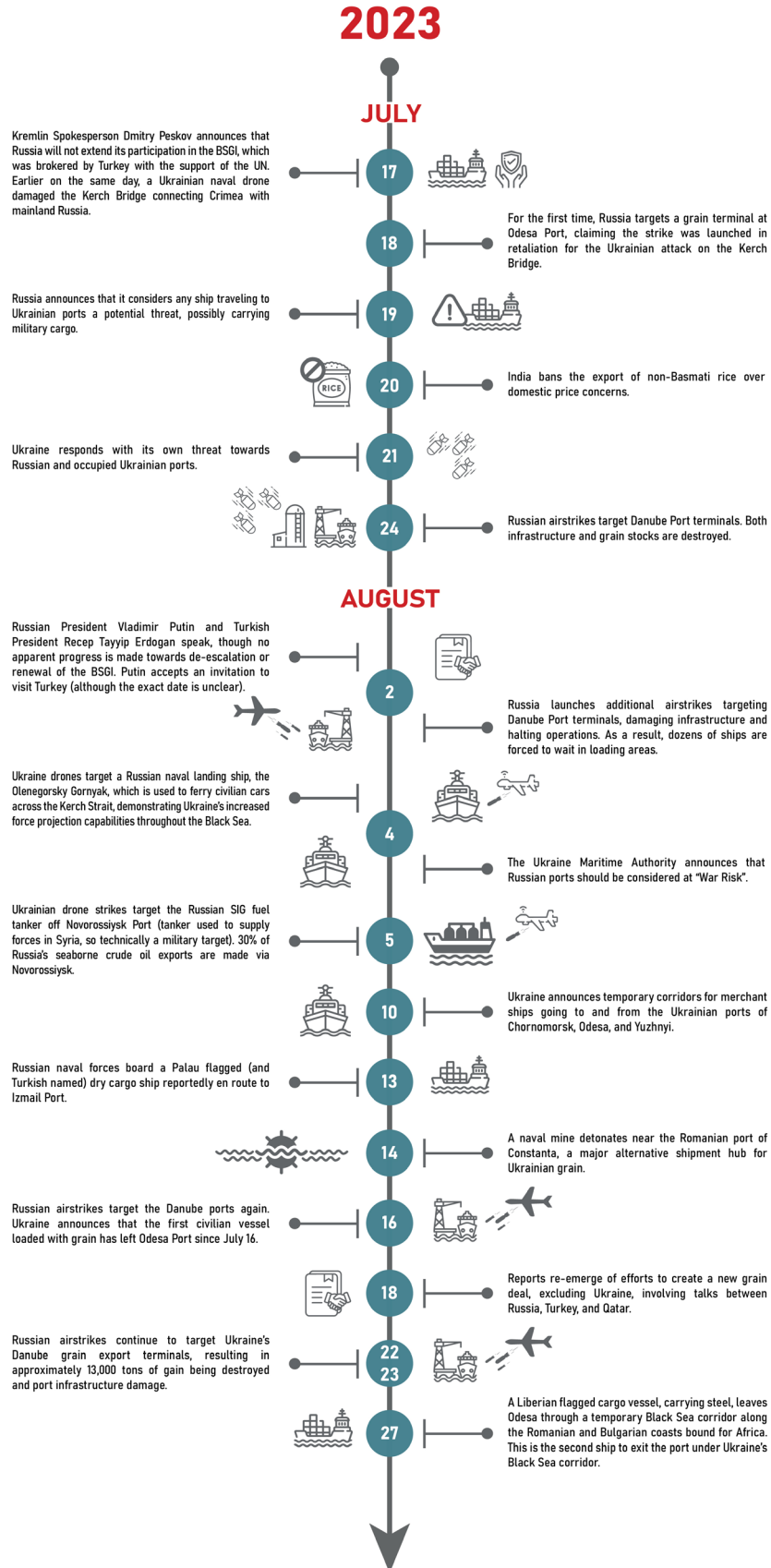


FIGURE 1: TIMELINE OF EVENTS FOLLOWING THE END OF THE BLACK SEA GRAIN INITIATIVE

Current situation and analysis

The end of the BSGI, and alternative avenues for exporting Ukrainian grain

One year after the BSGI came into effect on July 17, 2022, Russia announced that it would not extend its participation in the agreement. The United Nations joint grain export regime between Russia, Ukraine, and Turkey facilitated the shipment of 32 million tons⁴ of Ukrainian grain over approximately one year to world markets.⁵ The BSGI enabled Ukraine to export over half of its agricultural exports through the Black Sea ports.⁶ This played an essential role in stabilizing wheat markets and lowering global food prices. Wheat prices jumped over 10% following the expiration of the BSGI, but have since recovered, although they remain higher than before the war in Ukraine.⁷

One potential reason why markets may not be reacting poorly to the cessation of the BSGI is the large amount of wheat Russia is bringing to market, which can serve large export markets in Egypt, Turkey, Saudi Arabia, Iran, Kazakhstan, and Nigeria.⁸ Following a record 2022 harvest of over 100 million tons, Russia is expected to harvest 78 million tons in 2023.⁹ The United States Foreign Agricultural Service forecasts that Russian wheat exports will reach a record 45 million tons in 2023, an increase of 36% compared to 2022.¹⁰ An additional reason why markets are relatively stable is the alternative arrangements by which Ukrainian wheat has been able to access markets (noting that Ukrainian production has simultaneously declined, year on year, by around 20%, due to the war).¹¹

The BSGI has not solely been responsible for protecting Ukraine's grain export capacity, with several alternative options increasingly utilized. Since the outset of the war in Ukraine, a large portion of Ukraine's export capacity has shifted to overland transport, or via the Danube terminals, where export capacity has been expanded.¹² These included rail, maritime freight, and road shipments.¹³ Ships also continue to use the territorial waters of Turkey, Bulgaria, and Romania to access Ukraine's Black Sea Ports.

There are plans to improve these alternative export paths, including recent commitments by Romania to nearly double the amount of Ukrainian grain it can export via its own ports.¹⁴ However, the extent to which these alternative routes can be used is limited. Russia has the capacity to target infrastructure such as the Danube terminals and railroads in Ukraine, and overland options are prohibitively expensive, creating a logistical bottleneck and increasing domestic political tensions in multiple Eastern European states.^{15,16} Ukraine's Agriculture Ministry has suggested that utilizing alternative overland routes could increase costs by (US)\$30 to \$40 per metric ton, or approximately an additional 10% based on 2023 prices.¹⁷

4 For the purposes of this report, the term "ton" refers to metric tons (1,000 kilograms).

5 UN '[Secretary-General's press encounter on the Black Sea Initiative](#)' July 2023.

6 This compares to 90% of 2021/2022 exports, totaling around 56 million tons, going through this route. DW '[Five facts on grain and the war in Ukraine](#)' November 2022.

7 The Guardian '[Turning food into a weapon: how Russia resorted to one of the oldest forms of warfare](#)' August 2023.

8 US Department of Agriculture '[International Agricultural Trade Report | Russia grain and oilseed exports](#)' May 2023.

9 Reuters '[Russian grain harvest seen at 123 million tonnes in 2023 - agriculture minister](#)' April 2023.

10 US Department of Agriculture '[International Agricultural Trade Report | Russia grain and oilseed exports](#)' May 2023.

11 Gro Intelligence, '[Russia Suspends Ukraine Export Deal in Potential Blow to Global Grain Supply Chains](#)' July 2023

12 Over 32 million tons were exported via the BSGI over the course of the last year, while about 35 million tons were exported via more expensive alternative routes during the same period.

13 Financial Times '[Grain exports back in Russia's sights in Ukraine war](#)' August 2023.

14 Reuters '[Romania aims to double Ukrainian grain transit capacity - minister](#)' August 2023.

15 BBC '[Russia's new tactic for cutting off Ukraine's grain](#)' August 2023.

16 Reuters '[Explainer: How does central Europe's ban impact Ukrainian grain exports?](#)' August 2023.

17 Reuters '[Inside EU, no clear financial options to reduce Ukraine grain transport costs](#)' July 2023.

The end of the BSGI presents a challenge to humanitarian responses more broadly in countries facing severe food insecurity, economic instability, and a reliance on imports. The United Nations World Food Program (WFP) will face challenges funding more expensive alternative options to the wheat obtained under the BSGI, exacerbating ongoing funding shortfalls currently faced globally, and ultimately contributing to cuts both in participants numbers reached by WFP's programs and in assistance levels.¹⁸ For example, over the past year, WFP has been forced to substantially decrease rations and caseloads in Yemen as a result of higher prices and a dramatic reduction in available funding.

Almost half of WFP's wheat in 2022 was procured from Ukraine under the BSGI. According to WFP data, no purchases have been made since July 3, 2023.¹⁹ WFP Chief Economist, Arif Husain, emphasized the risk to the Financial Times, stating that "a single mis-step by either party could have disastrous consequences simply because there is no substitute for all the grain exported by Russia and Ukraine from the Black Sea".²⁰ The WFP maintains that it will now need to purchase more expensive wheat, which also requires longer and more costly shipping routes, such as from the US, Canada, and Australia.²¹



› Russia ends Black Sea Grain Initiative

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Photo: El Pais, 2023

Escalatory events since the end of the BSGI: A dangerous new phase?

Since the end of the BSGI, both Ukraine and Russia appear to be pursuing unilateral and mutually exclusive efforts toward sustaining exports through the Black Sea, risking an escalatory cycle that may worsen in the coming months. Given the amount of Black Sea grain exported outside of the framework of the BSGI – from Russia or from Ukrainian ports not requiring transit through international waters – the prospect of conflict in the Black Sea, including tit-for-tat attacks on commercial shipping, is perhaps even more concerning than the end of the BSGI itself. Such actions would affect grain exports that have not fallen under the initiative. Emphasizing this, on July 19, Russia stated that all ships entering Ukraine's ports would potentially be targeted.²² On August 13, Russian marines fired warning shots before boarding and inspecting a Palau-flagged dry cargo ship en route to the Ukrainian port of Izmail. While the ship was allowed to continue into Ukraine's territorial waters, the Russian operation is indicative of Moscow's aim to control access to Ukraine's territorial waters.²³

18 WFP 'Tight funding forces WFP to reduce food assistance for Syrian refugees in Jordan, including in camps' July 2023.

19 UN 'Black Sea Grain Initiative | Data' [Data refreshed August 2023].

20 Financial Times 'Grain exports back in Russia's sights in Ukraine war' August 2023.

21 UN News 'One year of the Black Sea Initiative: Key facts and figures' July 2023.

22 France 24 'Russia warns Ukraine-bound ships on Black Sea' July 2023.

23 Reuters 'Russian warship fires warning shots at cargo ship in Black Sea' August 2023.



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In a significant escalation, Russia has also recently begun targeting Ukrainian grain terminals and reportedly destroyed up to 220,000 tons of grain in two strikes alone at the end of July and early August.²⁴ These attacks have continued, with the most recent taking place on August 22.²⁵ Continued targeting of Odesa and the Danube terminals will have significant consequences for Ukraine's ability to export grain above and beyond what was supported under the BSGI.

According to statements by Putin, the motivation for these attacks appears to not just be punishing Ukraine by destroying critical infrastructure and further degrading Ukraine's already battered economic capacity, but also to intentionally raise wheat prices – in turn increasing the profit reaped from record Russian harvests.²⁶ Furthermore, in a potential attempt to shore up international support and further sideline Ukraine as a key agricultural exporter, a new grain deal is reportedly being discussed between Russia, Turkey, and Qatar, suggesting Russia intends to both leverage emerging and historical relationships with countries in Africa, and capitalize on the wheat surplus.²⁷ These conversations occur amid, and are likely linked to, concurrent Ukrainian efforts to secure its ability to export grain without Russian approval.²⁸

Reiterating the potential for a devastating cycle of escalation, Ukraine quickly threatened retaliation in response to Russia's attacks targeting Ukrainian ports, stating it would respond in kind by attacking Russian port facilities. On August 5, Ukraine struck a Russian warship and a fuel tanker supporting Russia's military deployment in Syria.²⁹ In perhaps an even stronger message, Ukrainian forces targeted anchorages just outside of the port of Novorossiysk, one of Russia's largest export terminals. Of note, due to being ice-free year round and their proximity to producing regions, Black Sea ports handle about 70% of Russia's grain exports.³⁰ Ukrainian attacks on Russian ships near export terminals are a clear indication that the Ukrainian military has the capacity to begin attacking Russian trade fleets and export infrastructure, with major potential consequences for both Russian grain and oil exports, and by extension, global commodity markets.

Potential implications of further deterioration in the capacity of both Ukraine and Russia to export via the Black Sea

Ukraine is bolstering its ability to launch air and sea drone attacks deep into Russian territory, with the potential to target critical economic infrastructure, and by extension exert greater cost on Russia for the ongoing conflict.³¹ Russia exports a large portion of its wheat, oil, and other commodities, such as fertilizers, through the Black Sea. Other countries, such as Kazakhstan, tranship through Russian ports. While Ukraine has targeted dual-use (both

24 The Guardian '[Turning food into a weapon: how Russia resorted to one of the oldest forms of warfare](#)' August 2023.

25 Reuters '[Russia hits grain facilities at Ukrainian Danube River port](#)' August 2023.

26 Russia is currently the world's largest exporter of wheat and has had a record harvest this year (approximately 25% above average), with silos brimming. Please see: Financial Times '[Grain exports back in Russia's sights in Ukraine war](#)' August 2023; Financial Times '[Rouble hits 16-month low as military spending rises and exports fall](#)' August 2023.

27 Cumhuriyet '[German media report that Russia, Turkey and Qatar are working on a new grain deal](#)' August 2023.

28 Reuters '[Ukraine may use new Black Sea route for grain shipments -producers](#)' August 2023.

29 Reuters '[Ukrainian drones hit key Russian port, damage naval ship: Kyiv official](#)' August 2023.

30 *ibid*

31 BBC '[Ukrainian drone destroys Russian supersonic bomber](#)' August 2023.

military and civilian) infrastructure such as the Kerch bridge, recent attacks on Russian shipping seem to be focused on vessels affiliated with the Russian military. It is not currently clear whether Ukraine wishes to escalate further, although it has proven it can do so. Hope of a return to the BSGI and de-escalation continue to rest on an expected – yet unconfirmed – meeting between Putin and Erdogan in September.³²

Should a de-escalatory trajectory play out in the coming weeks, events since July will nonetheless have consequences for trade in the Black Sea. Insurance premiums and broader demurrage costs for shipping and freight actors will continue to increase as international wheat traders view the area as high risk for commercial operations, possibly prompting them to identify alternative markets. On August 23, it was reported that war risk premiums were increased on shipping to Russian ports.³³ According to a Reuters report, ships trading with Russian Black Sea ports cost more than \$10,000 per day higher than those working out of other Black Sea ports due to the cost of “hidden sanctions”, entailing higher insurance premiums, freight charges, and using smaller and older ships.³⁴

Some efforts have been made to mitigate additional shipping costs. For example, Ukraine is in the process of finalizing a plan with major global insurers to cover commercial vessels shipping grain from Ukrainian ports, with the costs shared between insurers and a local state-owned bank.³⁵ Such an arrangement could reduce the cost of insurance for Ukrainian Black Sea shipping, but will only go so far.

The war in Ukraine may still enter a new and dangerous phase in the Black Sea, with significant negative repercussions not only for grain prices, but also possibly for other essential commodities, such as fertilizer. Russia is one of the world’s largest exporters of essential fertilizers such as muriate of potash (MOP), urea, and potassium-based fertilizers, and produces about 15% of total global fertilizer supply.³⁶ While fertilizer exports are not under sanction, disrupted supply routes through the Black Sea may lead to further bottlenecks and increased transport costs.³⁷ Although global fertilizer prices have eased since 2022, they remain unaffordable in many parts of the Global South due to domestic inflation.³⁸



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Photo: Hakan Akgun/Getty 2022

32 Middle East Eye '[Erdogan to visit Russia to meet Putin in September: Reports](#)' August 2023.

33 Reuters '[Exclusive: Insurers raise premiums for Black Sea tankers as tensions mount - traders](#)' August 2023.

34 Reuters '[After attacking Ukraine wheat exports, Russia faces own shipping challenge](#)' August 2023.

35 Financial Times 'Ukraine nears deal with global insurers to cover grain ships' August 2023.

36 Reuters '[Explainer: Have Western sanctions on Russia impacted its fertilizer exports](#)' May 2023.

37 Russia is one of the world’s leading ammonia exporters. Resumption of ammonia exports through Odesa port was a Russian demand in exchange for extensions of the Grain Deal. Following an explosion at the pipeline on June 5, which Moscow blamed Ukraine for, the Kremlin stated the extension of the Deal became more complicated. Please see: BBC '[Ukraine war: Russia says ammonia pipeline blast may end grain deal](#)' June 2023; [Fertilizers - Observatory of Economic Complexity](#)

38 International Food Policy Research Institute '[The Russia-Ukraine war after a year: Impacts on fertilizer production, prices, and trade flows](#)' March 2023.

Adding risk, global food production faces uncertainty

Concurrent developments in global food systems paint a confusing and worrying picture. Global food systems dynamics could, combined with Black Sea conflict escalation, create a perfect storm of supply shocks and sustained price increases. The Food and Agriculture Organisation (FAO) predicted a downward trend for food prices in both value and volatility of prices during 2023, but highlighted this is contingent on no further escalations linked to the war in Ukraine.³⁹

Global food yields are expected to be inconsistent across different regions in 2023. While some producing regions, such as Russia, have potentially higher crop yields compared to 2022, natural disasters, severe weather events, and the impact of El Niño are affecting crops across multiple other regions.⁴⁰ According to NASA, July 2023 was hotter than any other month on record.⁴¹ Increasing rice prices are notable in this regard. In response to concerns about rising global prices affecting domestic markets, India, responsible for 40% of the global rice trade, recently implemented an export ban on most rice varieties to protect local supply and maintain low prices, raising fears of similar actions by other countries.⁴² Rice is a key alternative carbohydrate source when other grain prices are high. Concurrent high wheat and rice prices could present a greater food security risk than the price rises seen at the start of the war in Ukraine.⁴³ Additional risks to global food systems should be carefully tracked in light of any additional escalations in the Black Sea affecting grain exports, especially amidst severe WFP funding cuts and broader global funding constraints for humanitarian actors.⁴⁴



Global food systems dynamics could, combined with Black Sea conflict escalation, create a perfect storm of supply shocks and sustained price increases.



39 World bank '[April 2023 Commodity Markets Outlook](#)' April 2023.

40 Reuters '[Analysis: Weather woes, Russia upend outlook for global wheat suppliers](#)' August 2023; FAO '[Crop Prospects and Food Situation #2](#)' July 2023.

41 NASA '[NASA Clocks July 2023 as Hottest Month on Record Ever Since 1880](#)' August 2023.

42 While India is responsible for 40% of the global rice trade, the type of rice that is restricted for exports accounts for around 75–80% of Indian rice exports. In smaller amounts, Russia has also extended a pre-existing ban on exports. These protectionist policies could, in theory, proliferate to other food-producing and exporting countries, should the supply of food globally become increasingly unstable. Please see: CNN '[India's recent rice ban sent people into a panic. Here's what's going on now](#)' August 2023; Al Jazeera '[How India's ban on some rice exports is ricocheting around the world](#)' August 2023; S&P Global '[Russian medium grain rice: a difficult year for exports](#)' [Commodity Insights](#)' June 2023; International Food policy Research Institute '[India's new ban on rice exports: Potential threats to global supply, prices, and food security](#)' July 2023.

43 Reuters '[Analysis: Weather woes, Russia upend outlook for global wheat suppliers](#)' August 2023.

44 WFP '[WFP forced to scale down operations in Syria, as donors gather in Brussels ahead of a major conference](#)' June 2023.

Potential impact on the Middle East: Three case studies

Food systems in the Middle East are particularly impacted by the war in Ukraine. Some countries in the region, such as Iraq and Yemen, have managed to reduce their dependence on Black Sea grain exports following the initial crisis in 2022; however, for others, this dependence persists. Despite the easing of global cereal prices in 2023, national import bills continue to increase due to rising demographic-driven demand and weakened currencies.

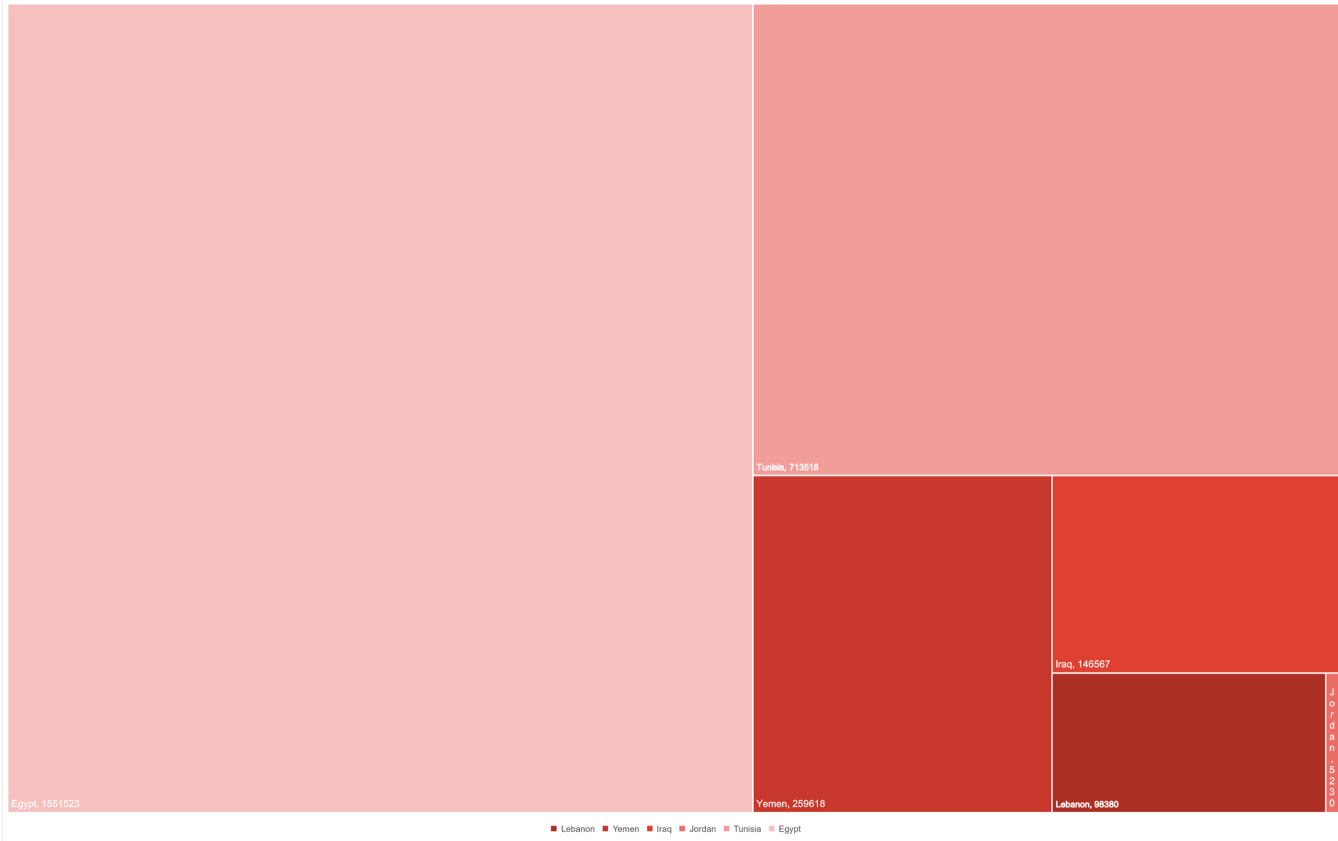


FIGURE 2: TOTAL METRIC TONS OF WHEAT EXPORTED TO SELECTED MENA COUNTRIES UNDER BSGI⁴⁵

This section explores three case studies – Syria, Lebanon, and Yemen – as these countries are particularly exposed to food security and economic risks stemming from Black Sea grain shipment dynamics. Heavy dependence on imported foodstuffs, state fragility, political and economic obstacles, limited potential for domestic production, and the absence of effective government-led mitigation measures are likely to exacerbate the impact of escalations in the Black Sea on these countries. More broadly, fragile economies may experience problems with their domestic balance of payments, potentially leading to currency depreciation and a loss of purchasing power, or see the capacity of subsidy regimes eroded should global commodity prices surge as they did in February 2022.⁴⁶ Impacts fall into three broad categories: direct due to partial or full cessation of Ukrainian or Russian grain exports; indirect through sustained higher global prices combined with pre-existing vulnerabilities;

⁴⁵ UN 'Black Sea Grain Initiative | Data' [Data refreshed August 2023].
⁴⁶ A caveat should be made for oil exporting countries, given strong crude prices thus far in 2023

or relative insulation against external supply and price shocks thanks to domestic grain production, ability to easily access additional markets, strategic reserve capacity, and/or strong balances of payment.

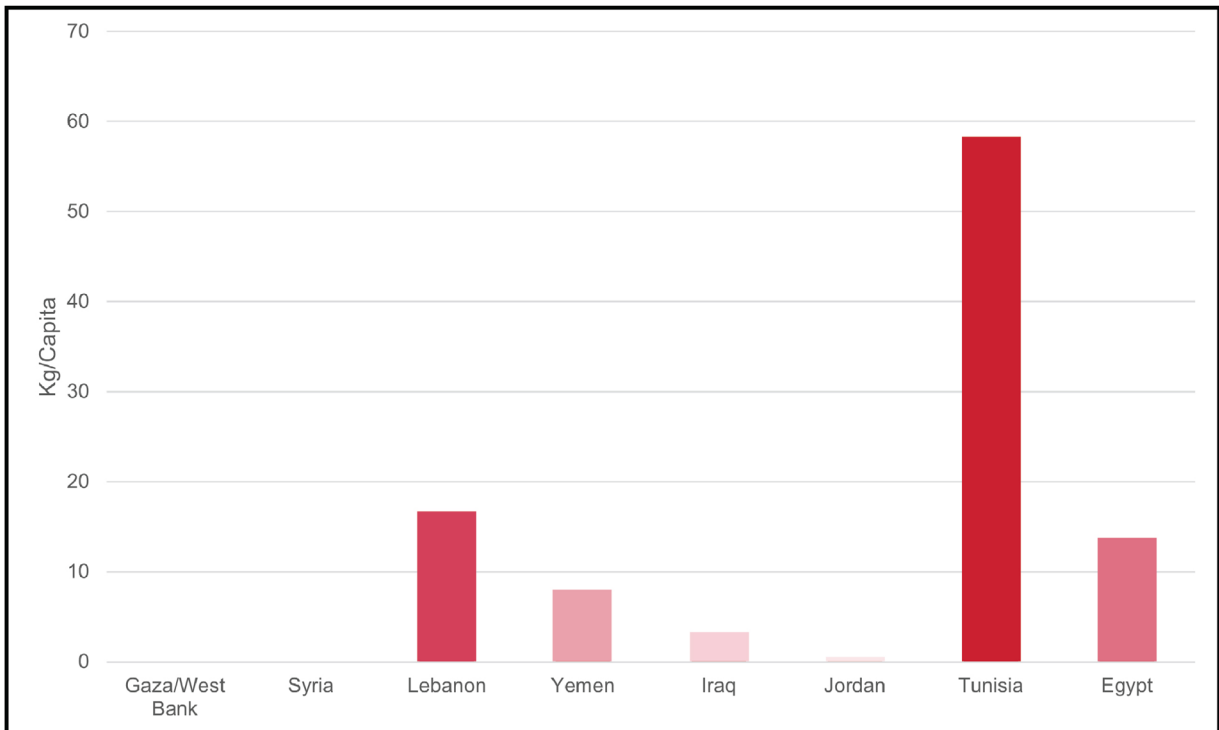


FIGURE 3: KILOGRAMS PER CAPITA OF WHEAT RECEIVED BY SELECTED MENA COUNTRIES FROM UKRAINE VIA THE BSGI⁴⁷

47 UN 'Black Sea Grain Initiative | Data' [Data refreshed August 2023].

Syria

- **Vulnerability to external supply shocks due to limited domestic production, lack of easy access to additional markets, and/or strategic reserve capacity: High**

Northwest Syria, with an extremely high degree of humanitarian need and dependence on grain imported from Turkey, is the most vulnerable region of Syria to supply shocks, should Turkey be similarly affected. Pressure on Syrian government-held central and south Syria's wheat supply has partially eased due to an improved 2023 harvest, but is still largely dependent on Black Sea grain and continues to struggle to cover demand with sufficient supply – whether domestically produced or imported.

- **Vulnerability to price shocks stemming from a Black Sea escalation: Severe**

Syria is currently experiencing a severe economic crisis driven by years of conflict and economic isolation. A large portion of the population is food insecure and is highly exposed to moderate price increases of essential commodities due to rampant pressure on household purchasing power and continually depreciating currencies (Syrian pound and Turkish lira).

Syria continues to be geographically, economically, and politically fractured into three primary zones of control, each with specific characteristics that influence the impact of fluctuating global grain markets on local communities; this ranges from domestic sufficiency (albeit volatile) in northeast Syria, dependency on Turkey in northwest Syria, and continued reliance on imports in Syrian government-controlled areas. Low household purchasing power, food unaffordability, monetary depreciation, and rationing due to protracted price and supply shocks plague a strikingly high proportion of Syrian communities throughout the country, regardless of the controlling actor. As the Syrian pound and Turkish lira (the predominant currency used in northwest Syria) have depreciated by 55.22% and 30.99% in 2023, respectively, the unaffordability of food and non-food items has become increasingly severe. As of June 2023, WFP reported a 74% annualized increase in the average cost of its minimum expenditure basket; this metric has increased by 160% since September 2021.⁴⁸ A relative increase in 2023's domestic grain harvest may provide, at least partially, insulation against supply shocks this year (in the zones of control other than northwest Syria), and is estimated to cover about half of consumption needs in most of the country.

A significant portion of Syria's population depends on food assistance, as the number of food-insecure individuals in the country is estimated to be 12.1 million (roughly 50% of the population).⁴⁹ As of June 2023, WFP provided direct aid to 5.5 million recipients, before announcing a decrease to 2.5 million recipients due to funding constraints “instead of scaling up or even keeping pace with increasing needs,” according to WFP representative and Syria Country Director Kenn Crossley.⁵⁰ The increased cost of wheat, amid global funding shortfalls, would create further challenges for humanitarian actors in effectively assisting those in need, exacerbating the broader impact of potential price and supply challenges stemming from a further disruption to Black Sea grain exports.

South and central Syria: The inability to finance imports due to low foreign currency reserves, unsustainable subsidies, international sanctions, and exclusion from global market access continues to put pressure on wheat supply and consumption. Most wheat imported to Syria is exported from Russia; in 2022, the FAO estimated that 2.7 million tons were imported.⁵¹ Import requirements for 2023 were optimistically estimated at 800,000 tons, before being revised to between 1 million and 1.4 million after grain production within Syrian government-

48 WFP [via ReliefWeb] '[WFP Syria Market Price Watch Bulletin, June 2023 - Syrian Arab Republic](#)' August 2023.

49 WFP [via ReliefWeb] '[Half of Syria's population faces hunger as conflict passes 12-year milestone and earthquakes deepen economic woes - Syrian Arab Republic](#)' March 2023.

50 WFP [via ReliefWeb] '[WFP forced to scale down operations in Syria, as donors gather in Brussels ahead of a major conference \[EN/AR\] - Syrian Arab Republic](#)' June 2023.

51 FAO '[FAO GIEWS Country Brief on Syrian Arab Republic](#)' January 2023.

controlled areas fell short of initial estimates.⁵² The government's reliance on bilateral support for many commodities and foodstuffs is more constrained than for other countries, and is often dependent on one-off deals, loans, and gifts from a narrow base of geostrategic allies, rather than conventional participation in global markets. This is driven by sanctions and a reluctance among private-sector actors to accept the Syrian pound for wheat procurement. In 2022, indications that Russian wheat producers were reluctant to accept the fledgling currency arose, and were accompanied by rumors that Russia facilitated the smuggling of Ukrainian wheat as an alternative.⁵³

Northwest Syria: Host to 4.55 million people, including 2.87 million internally displaced persons (IDPs), and 1.9 million in IDP camps, northwest Syria is almost entirely reliant on cross-border Turkish trade for wheat imports,⁵⁴ given the ongoing stalemate between the Syrian government and armed opposition groups. Due to this, market dynamics are closely linked to Turkey and, by extension, fluctuations and shocks to global grain markets; approximately 90% of northwest Syria's wheat supply is via cross-border trade with Turkey. Turkish inflation and currency depreciation have also devastated household purchasing power in a region with staggering livelihoods needs; as of July 2023, Turkish annualized inflation reached 47.83%.⁵⁵ As of June 2023, WFP's standardized food basket price increased by 90% year-on-year in Idlib, while other food staples rose by 70% to 140%. A large proportion (3.3 million) of the population is food insecure and the economy was further devastated by the February 2023 earthquakes.⁵⁶ It is therefore highly vulnerable to any shift in prices and supply.

Northeast Syria: While 2023 is expected to yield sufficient domestic grain supply, northeast Syria has been affected by a protracted five-year drought that has severely impacted wheat cultivation. The de-facto governing actor in northeast Syria, the Autonomous Administration, has indicated there is a sufficient supply from the 2023 harvest, and has reportedly collected 1.15 million tons of wheat. However, the socio-economic circumstances in northeast Syria run parallel to the rest of the country, as household purchasing power is hampered by Syrian pound depreciation and a lack of sustainable income and livelihood opportunities. Cross-line wheat trade with the Syrian government could potentially resume, given the 2023 harvest, although this could also lead to an increase in prices, smuggling, and localized conflict.⁵⁷ Over 12 years of conflict and damage to critical water infrastructure, unaffordable and/or low-quality agricultural inputs, and decreasing water availability threaten food security into the future.



52 While this was an optimistic projection as of Spring 2023, as of mid Summer there is some indication that this may be an underestimation of the required import amount. Domestic grain production in Syrian government controlled areas has increased year-on-year by approximately 60%. However, in July 2023 the head of the Syrian Grain Establishment (a Syrian government entity) stated that domestic grain production in government-controlled areas would cover three to four months of Syria's estimated 2.5-million-ton consumption, requiring imports of 1 to 1.4 million tons of wheat. Please see: Crisis Analysis – Syria '[July Monthly Report](#)' August 2023

53 Crisis Analysis – Syria '[June 2022 Monthly Report](#)' July 2023.

54 Notably, in 2022 Turkey imported the highest global percentage of wheat from Ukraine, as 17.8% of Ukraine's wheat went to Turkish silos. Please see; DW '[Grain prices stable, but jitters remain amid Ukraine war](#)' August 2023.

55 Hürriyet Daily News '[Annual inflation climbs to 47.8% in July](#)' August 2023. In late July 2023, Turkey's Central Bank raised their end-of-year 2023 annualized inflation estimate from 22.3% to 58%.

56 OCHA '[Northwest Syria Situation Report](#)' [Updated July 21, 2023].

57 In years past, cross-line grain trade from northeast Syria was brokered between the Syrian government and the Autonomous Administration; in 2022, largely due to poor production, the Administration banned all exports in an attempt to protect domestic supply. Potential arrangements in 2023 have not emerged. However, the Administration is using US dollar pricing, meaning wheat will be increasingly expensive for the Syrian government while the purchase of wheat in dollars (rather than SYP) will likely deter grain traders from smuggling into government markets.

Lebanon

- **Vulnerability to external supply shocks due to limited domestic production, lack of ability to easily access additional markets, and/or strategic reserve capacity: High**
Lebanon continues to procure a large portion of its wheat imports from Black Sea producers. Local cereal production remains low, at about 20% of consumption needs.⁵⁸
- **Vulnerability to sustained price shocks stemming from a Black Sea escalation: Moderate to High**
An ongoing \$50 million World Bank loan to support imports will insulate Lebanon from short-term price hikes. However, sustained high commodity prices would shorten the lifespan of the loan, and subsequently erode Lebanon's ability to continue bread subsidy regimes, with negative consequences for residents' food security.



Unlike Syria, Lebanon's domestic wheat supply is insignificant, leaving it heavily dependent on grain imports and uniquely vulnerable to both supply and price shocks. At the outset of the war in Ukraine, Lebanon had the greatest dependence on Ukrainian wheat globally. Lebanon's current supply routes could easily be disrupted by further escalations, especially if shipping routes from Danube terminals are constrained.

Photo: Mercy Corps/E Millstein

Unlike Syria, Lebanon's domestic wheat supply is insignificant, leaving it heavily dependent on grain imports and uniquely vulnerable to both supply and price shocks. At the outset of the war in Ukraine, Lebanon had the greatest dependence on Ukrainian wheat globally.⁵⁹ With such heavy dependence on Ukrainian wheat, Lebanon's current supply routes could easily be disrupted by further escalations, especially if shipping routes from Danube terminals are constrained. A small economy with no dedicated grain reserves, Lebanon is also acutely vulnerable to sustained price increases in the global wheat market. The ongoing World Bank Wheat Supply Emergency Response Project,⁶⁰ a loan to the government worth \$150 million, is expected to cover wheat imports over the next six to nine months. However, once the loan is depleted, declining foreign currency reserves, in addition to heavy dependence on other imported commodities such as fuel and fertilizers, threaten to erode the small remaining buffer against price spikes.⁶¹

58 Domestic cereal production covers, on average, less than 20% of the consumption needs and the country relies heavily on imports. FAO Country Briefs: Lebanon

59 LCAT, Effects of the Ukraine conflict on Lebanon's economic and humanitarian crisis – one year on February 2023.

60 World Bank '[Lebanon: Wheat supply emergency response | Project](#)' [Approved May 2022].

61 Mercy Corps '[Food security in Lebanon following Russia's withdrawal from the Black Sea Grain Initiative](#)' July 2023.

Lebanon has been subject to interwoven economic, fiscal, and monetary challenges and crises since late 2019. These have manifested in severe domestic currency depreciation, limited state economic interventions, and infrastructure deterioration. Compounding this, Lebanon faces the prospect of descending into an inflationary spiral, exacerbating the already burdensome effects of Lebanon's economic, fiscal, and monetary malaise on households, particularly low-income households with limited access to US dollars. Bread prices and/or shortages have the potential to drive conflict and exacerbate tensions between the Lebanese and Syrian refugee populations, as was experienced in 2022.⁶² According to a recent IPC acute food insecurity analysis, about 1.46 million Lebanese residents and 800,000 Syrian refugees were estimated to be in IPC Phase 3 (Crisis) or above between January and April 2023, a roughly 13% increase compared to 2022.⁶³

Lebanon currently relies on local private companies to import grain, which is primarily purchased using the World Bank loan.⁶⁴ This ensures that grain continually flows into Lebanon, even though Lebanon no longer has a dedicated domestic strategic grain reserve storage, and diminished foreign currency reserves.⁶⁵ In 2022, Lebanon depended overwhelmingly on Ukrainian wheat shipped through the Black Sea (77% of total wheat imports) and this has continued throughout 2023. The import concentration is due to the characteristics of Ukrainian wheat that make it appropriate for Lebanese flatbread (*khobz*) and geographical proximity. World Bank sources have indicated that this trend is unlikely to change in the near future, assuming that Danube export routes are still operational.⁶⁶ Due to Lebanon's size and proximity to the Black Sea, wheat shipments are mostly made using smaller ships docking at ports such as Izmail, Pivdenny, and Reny in Ukraine and Novorossiysk in Russia.⁶⁷ Therefore, a major escalation affecting Black Sea exports from both Russia and Ukraine would likely disrupt supply for Lebanon in the short run. While Lebanon's importers could shift sourcing it will likely be substantially more expensive.⁶⁸

As has become a recurring theme throughout Lebanon's overlapping crises, the impact of price increases and potential supply shocks would disproportionately affect Lebanon's most vulnerable residents. Policymakers and aid practitioners should be aware of the fragility of Lebanese households' access to wheat and wheat-based products and that Lebanon's so-called 2023 "summer recovery" has done little to benefit vulnerable individuals.⁶⁹ The illusion of recovery – premised upon a short-term inflow of foreign currency brought by tourists



and returning expatriates – is dangerous because it masks larger structural issues that are likely to re-emerge as future crises hit. In this context, once the World Bank loan is expended, a combination of more expensive supply routes and upward pressures on wheat markets could result in inaccessibly high bread prices for vulnerable Lebanese households. While the World Bank project underpinning the loan officially ends in May 2024, some observers believe that the loan will be depleted towards the end of 2023.⁷⁰

62 Save the Children [via ReliefWeb] '[Lebanon: Bread shortages fuelling tensions with Syrian refugees](#)'. August 2022.

63 FAO '[Crop Prospects and Food Situation #2](#)' July 2023.

64 World Bank '[Rwanda Priority Skills for Growth \(PSG\) - P252350 | Project](#)' Approved May 2022.

65 The Beirut Port grain storage facility has yet to be refurbished after sustaining damage in the August 2020 port blast, limiting options of local supply chains and distribution.

66 Key informant interview with World Bank staff working closely with the Wheat Supply Emergency Response Project, August 22, 2023. See also: No risk of wheat supply interruption to Lebanon

67 Key informant interview with journalist in communication with the World Bank Office in Lebanon.

68 Historically Lebanon imported US grain, before shifting to Black Sea sources in the early 2000s.

69 During the Summer of 2023 there has been a relative stabilization in the Lebanese lira compared to 2022, and high levels of tourism and remittance inflows. Some media outlets and commentators have misleadingly equated these largely anecdotal impressions of high prices in affluent areas of the country with an economic recovery. AP, '[Four years into crisis, Lebanon's leaders hope tourism boom will help bypass reforms in IMF bailout](#)' August 2023

70 Key informant interview with WFP employee familiar with the terms of the loan

Yemen

- **Vulnerability to external supply shocks due to limited domestic production, lack of ability to easily access additional markets, and/or strategic reserve capacity: Low**
Yemen has diversified its grain imports away from the Black Sea since 2022, and is therefore less susceptible to supply shocks. However, Yemen continues to almost entirely depend on imports for its wheat consumption
- **Vulnerability to price shocks stemming from a Black Sea escalation: High**
Given a continuing high dependence on imported food and fuel, sustained price increases in key commodities would further compound Yemen's ongoing food security crisis.

Yemen continues to suffer from years of conflict and economic collapse, with about 65% of the population requiring humanitarian assistance, and millions facing high food insecurity.⁷¹ This exposes Yemen's population to sudden and prolonged changes in international market dynamics, such as price hikes and supply disruptions.⁷² The outbreak of the Yemen conflict in 2015 exacerbated pre-existing macroeconomic vulnerabilities, resulting in a severe balance of payments crisis for a country dependent on imports for much of its food needs. Yemen remains heavily dependent on food imports with a 70% reliance on imported staple foods – this includes 97% of grain imports.⁷³ Severe currency depreciation has also eroded the purchasing power of the population and is a major factor in driving dependence on humanitarian assistance for much of the population. The need to source foreign exchange to finance the import of essential commodities has resulted in a dependence on external assistance, with much of the funds sourced from international aid, remittances, or direct support by countries such as Saudi Arabia. While the likelihood of a comprehensive peace settlement has increased, progress is slow, and conflict escalations – such as attacks by Ansarallah on Government of Yemen oil exports in late 2022 – continue to have profound implications for Yemen's economy.⁷⁴

Within this context, the initial onset of the war in Ukraine raised concerns over access to markets, with the greatest impact felt in Yemen's increased import bill for both food and fuel. This in turn exacerbated food price inflation in the market, reducing the purchasing power of a population already experiencing high levels of food insecurity.⁷⁵

Unlike Lebanon and Syria, Yemen is relatively insulated from any potential supply shocks driven by a loss of access to Black Sea wheat, aside from humanitarian imports through WFP.⁷⁶ Yemen imported only 108,618 tons of wheat from Ukraine through the BSGI, about 3.5% of the nearly 3 million tons imported annually.⁷⁷ Yemen imported 20% of its wheat requirements from Ukraine prior to the war in Ukraine but has since largely shifted to imports from Australia, India, and the US.⁷⁸ Wheat imports from Russia are also significant, but have declined from 25% of total imports in 2021 and 2022 to about 18% in the year to May 2023.⁷⁹ Securing shipments of wheat will likely not be problematic for the foreseeable future but higher prices will place a greater burden on consumers. Due to its heavy import dependence, Yemen is extremely vulnerable to sustained price hikes such as food or fuel.

71 Between January and May 2023, 3.2 million people were classified as in IPC Phase 3 or above (Crisis and Emergency). A total of 781,000 people are in IPC Phase 4 (Emergency), and 2.45 million people in IPC Phase 3 (Crisis), in areas under the control of the Internationally Recognized Government. However, data from the De-Facto Authorities areas in northern Yemen, where the majority of the population resides, has not been published yet. Projection numbers from 2022 estimated that 17 million people will be classified as IPC Phase 3 or above during 2023.

72 ACAPS '[Yemen: food supply chain update](#)' August 2023.

73 ACAPS [via ReliefWeb] '[Food affordability in conflict-torn Yemen in light of the Ukraine war 2023](#)' June 2023.

74 Al Jazeera '[Houthis attack Yemeni oil terminal in latest assault](#)' November 2022.

75 ACAPS '[Yemen: food supply chain update](#)' August 2023.

76 WFP purchased and imported 151,000 tons of wheat from Ukraine under the Black Sea Grain Initiative from July 2022 to July 2023.

77 WFP '[Yemen Food Security Update](#)' April 2023.

78 Although imports from Ukraine and Russia have both resumed since October, the percentage of the total remains low. Please see: ACAPS '[Yemen: food supply chain update](#)' August 2023; ACAPS '[Global wheat supply dynamics and their impact](#)' August 2023.

79 ACAPS '[Yemen: food supply chain update](#)' August 2023.

Regional impacts: Structural vulnerabilities or relative insulation?

The occupied Palestinian Territories (oPT), Tunisia, and Egypt are vulnerable to Black Sea grain export disruptions, both due to a historical dependence on exports from Russia and Ukraine for supply, and the cost of high commodity prices amid fragile domestic macroeconomic environments. These countries were also severely impacted by the economic effects of the Covid-19 pandemic as well as commodity price hikes caused by the start of the war in Ukraine in February 2022. While still somewhat exposed to disruptions to grain exports through the Black Sea, relative food security in the case of Jordan and stable oil revenues in Iraq promise considerable resilience to supply and price shocks to these countries, notwithstanding environmental, economic and displacement pressures.

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Photo: Mercy Corps/E Millstein



Occupied Palestinian Territories

Prior to the war in Ukraine, the West Bank and Gaza imported 90% of their wheat supply, nearly one-third of which was sourced from Ukraine. The oPT's imported food supply chain first passes through, and is therefore largely controlled by, Israel, which depends on Black Sea imports for a large portion of wheat imports. While Israel has received about 744,000 tons of grain through the BSGI, and can secure alternative sources, it is unclear how much of this has entered oPT markets.⁸⁰ As a result of occupation-imposed economic constraints, climate impacts on agricultural production, and high levels of poverty, the Palestinian population is especially vulnerable to global and corresponding local price increases. One-third of the Palestinian population experiences food insecurity, 50% of whom are refugees. Out of 2 million people living in Gaza, 1.3 million are considered food insecure, accounting

80 UN 'Beacon on the Black Sea | Black Sea Grain Initiative' July 2023.

for 63% of Gaza's population.⁸¹ Despite high levels of humanitarian needs, funding for the humanitarian response architecture is insufficient, leaving many without support.

Despite these challenges, according to the WFP, the suspension of the BSGI is unlikely to immediately affect wheat flour and commodity prices in the short term in the oPT. Importers have been proactive in diversifying sources to include alternative eastern European countries, India, and other countries.⁸² However, without additional support from humanitarian agencies and donor countries to enhance resilience, Palestinians' vulnerability to global price shocks and a reduction in humanitarian funding may further exacerbate what is an already dire food security situation. After recent cuts to humanitarian assistance, 97% of affected beneficiaries reported a change in food consumption patterns, with many reducing or halting their consumption of certain food groups including dairy products, wheat, rice, and meat.⁸³ Similar coping strategies were reported as a result of substantial price increases in basic commodities before the signing of BSGI in July 2022.⁸⁴ Such negative coping strategies are likely to increase in prevalence if global prices rise.

Egypt

A \$3 billion International Monetary Fund (IMF) loan approved at the end of 2022 helped support Egypt's balance of payments and curb waves of local currency devaluation, but the country continues to face major macroeconomic challenges. During the 2021/2022 cycle, Egypt imported the largest amount of wheat in the world, a position it lost in 2022 due to import challenges, but is expected to regain in 2023/2024.⁸⁵ In 2022, about 57% of Egyptian wheat imports were sourced from Russia and 9% from Ukraine, (compared to 50% and 28% respectively the previous year).⁸⁶ Meanwhile, Egypt is facing a major balance of payments crisis, and thus complications supporting wheat imports, which remain heavily subsidized on the local market.⁸⁷ In August, Egypt positioned itself to shore up domestic reserves and insulate itself from future volatility, with the country currently stocking over five months of wheat reserves partially bolstered by 3.8 million tons purchased from local farmers.⁸⁸ In August, Egypt secured a five-year \$500 million agreement with the Abu Dhabi Fund for Development to finance wheat imports and increase storage capacity.⁸⁹ These short-term mitigations will likely provide some insulation against supply and price shocks in the coming months; however, underlying economic vulnerabilities and a significant dependence on imported wheat still present risks in the face of any Black Sea escalations and knock-on price increases.

Tunisia

Tunisia's economy faces vulnerabilities that could undermine its ability to access wheat and other grain derivatives in the event of sustained price increases and supply challenges. Illustrating its dependence on imported grain, under the BSGI Tunisia imported the largest amount of grain per capita. Rapidly rising inflation, a public debt crisis, rising global commodity prices, and the failure to secure a long-sought loan from the IMF

81 The Palestinian economy was heavily affected by Covid-19, and high commodity prices driven by the war in Ukraine. Please see: WFP '[Palestine | Country Brief](#)' June 2023.

82 WFP '[Monthly Market Dashboard: Palestine](#)' July 2023.

83 *ibid*

84 Oxfam '[Fears that wheat stocks could run out in the occupied Palestinian Territories within weeks](#)' April 2022.

85 Forbes '[World's Largest Wheat Producer Now World's Largest Wheat Importer Too](#)' April 2023; The Observatory of Economic Complexity '[Wheat in Egypt](#)' [last updated 2021].

86 Reuters '[Egypt relied on competitive Russian wheat as imports dipped in 2022 | Data](#)' January 2023.

87 This includes defaults and major delays on import payments and deferring letters of credit to importers. Some importers have reported delays of up to 6 months. This leaves the General Authority for Supply Commodities (GASC) in an unsustainable position, relying on a fragile understanding with suppliers and importers that could break down if Russian exports, which Egypt is increasingly relying on to replace Ukrainian wheat, are interrupted, or reduced. Please see: Reuters '[Exclusive: Egypt defers payments for wheat imports amid dollar crunch](#)' May 2023.

88 DW '[Grain prices stable, but jitters remain amid Ukraine war](#)' August 2023.

89 Ahram Online '[Egypt secures \\$500 mln wheat-import financing from Abu Dhabi Fund for Development](#)' 15 August.

resulted in shortages of several staple goods throughout 2022 and 2023.⁹⁰ Credit rating agencies have warned that Tunisia may default on its foreign loan repayments, due to a rapidly increasing import bill, in turn threatening a full-blown balance of payments crisis.⁹¹ In June, currency reserves fell to a four-year low (\$6.78 billion), enough to cover 91 days of imports, compared with 123 days in the same period one year prior.⁹² A below-average harvest (a decrease of 66% in collected wheat in comparison with the same period last year⁹³) caused by severe ongoing drought conditions presents additional, compounding risks.

However, there are a few reasons to expect that Tunisia will be more resilient to price increases than Egypt and Palestine in the short term. Tunisia's food trade balance improved in the first six months of 2023 in comparison to the same period in 2022, including a 33% increase in olive oil exports and a 15% decrease in grain imports. Moreover, a multimillion-euro financial assistance package – a portion of which is designated to supposedly deter human trafficking and smuggling from Africa through the coasts of Tunisia – and \$500 million in assistance from Saudi Arabia (split as 20% grant and 80% soft loan) will provide some macroeconomic stabilization, but only in the short term.⁹⁴



Import dependency combined with high poverty and food insecurity rates results in Iraq being vulnerable to increased global wheat prices, with associated risks to food security indicators.

Photo: Mercy Corps/E Millstein

Iraq

While Iraq is a major oil exporter, about one quarter of Iraq's population lives under the poverty line, significant conflict-driven internal displacement is widespread, and the severe impact of environmental and climate-related challenges on domestic agricultural production persist (upon which a large portion of its population depend for their livelihoods).⁹⁵ As a result, Iraq is highly dependent on imported grains for the majority of its domestic consumption needs.⁹⁶

90 Delays on the IMF agreement are driven by disagreement over Tunisia's subsidy frameworks. This led to shortages, and the introduction of rationed distribution, for several subsidized goods such as milk, cooking oil, and flour. Currently, the country is facing shortages in bread.

91 World Bank '[The World Bank in Tunisia | Overview](#)' Updated March 2023.

92 Tunisia's foreign reserves fall to lowest level in four years.

93 Republic of Tunisia, Department of Agriculture [FR] '[Evolution de la collecte des céréales à l'échelle nationale à la date du 9 juillet 2023](#)' July 2023.

94 Reuters '[Saudi Arabia to give Tunisia \\$500 million as soft loan and grant](#)' July 2023.

95 OCHA [via ReliefWed] '[Iraq Humanitarian Transition Overview 2023 \(February 2023\) \[EN/AR/KU\] - Iraq](#)' February 2023; World Bank '[Economic Monitor, Spring/Summer 2023: Reemerging Pressures: Iraq's Recovery at Risk \[EN/AR\]](#)' July 2023.

96 According to the US of Agriculture (USDA), Iraqi wheat grain imports for 2023-2024 are expected to reach 3.8 million tons, with the majority imported from the US, Canada, and Australia. Please see: US Department of Agriculture '[Iraq: Grain and Feed Annual - Iraq](#)' May 2023. Furthermore, private sector-dominated wheat flour imports are expected to

Import dependency combined with high poverty and food insecurity rates results in Iraq being vulnerable to increased global wheat prices, with associated risks to food security indicators. Oil export revenues and diversification of grain suppliers in 2022, when compared to regional neighbors such as Lebanon and northwest Syria, provide some insulation against market volatility due to the disruption of Black Sea grain exports. Despite this, high levels of poverty, internal displacement, and unemployment rates, combined with reduced humanitarian funding and the impact of a severe drought in 2022 mean that a large portion of the population remains vulnerable to food price increases.⁹⁷ In 2022, this necessitated heavy market interventions by the government through agricultural and market subsidies on seeds, fertilizer, and other essential inputs. However, currency fluctuations and environmental concerns have since forced the government to reduce some subsidies on agricultural inputs.⁹⁸

Jordan

Jordan is moderately exposed to a disruption of Black Sea grain exports and is considered a relatively food-secure country, with a score of 8.8 on the 2020 Global Hunger Index. The Jordanian government can implement policies that mitigate the impact of any major wheat price or supply shocks, as it did when the war in Ukraine broke out last year.⁹⁹ However, water scarcity, limited arable land, climate change, and minimal resources all contribute to the country's heavy reliance on imports to meet its food needs. Economic challenges such as high levels of poverty and unemployment could exacerbate – to a limited degree – food insecurity in the country. Notably, Jordan's large refugee population is also facing high food insecurity levels and a concurrent reduction in humanitarian assistance, which additional sustained shocks could further aggravate.¹⁰⁰

Conclusion

While it remains unclear how and if events will escalate in the Black Sea enough to severely impact global food systems, even modestly pessimistic scenarios demand serious attention from aid actors, donors and policymakers alike. Many states in the Middle East are experiencing severe food security crises predominantly driven by an inability to afford food, and are particularly exposed to the negative repercussions of conflict and trade dynamics in the Black Sea, compounded with continuously decreasing levels of humanitarian funding allocations. Combined with another unexpected shock – such as India's recent announcement of a ban on rice exports – Russia's withdrawal from the BSGI and subsequent escalations may mark the beginning of an era of unprecedented food inflation and essential commodity volatility. The dynamic and unpredictable nature of the war in Ukraine will continue to present some risk of this negative scenario eventuating, if not now, then later, with grave repercussions for global food security, including already food insecure, conflict-affected and/or structurally vulnerable countries in the MENA region.

reach 1.5 million tons in 2023-2024, with significant amounts imported from Turkey and Iran, and smaller amounts from Jordan and Russia.

97 Further limiting Iraq's capacity to reduce its dependence on imported grains are environmental hazards affecting local production capacity. While local production is recovering somewhat from the severe drought of 2022 - to 4.2 million tons, it is still 20% below average. Climate change further exacerbates volatile weather patterns, extreme heat, drought, salinization and soil erosion, which is compounded by the construction of Turkish dams on key rivers such as the Tigris and Euphrates. As such, decreasing arable land, the destruction of agriculture after conflicts, climate change, and geo-political issues will continue to raise food security challenges, and heighten future vulnerabilities to global price fluctuations.

98 Iraq Business News '[Iraqi Fertiliser Firm to Help Farmers with New Reforms](#)' August 2023.

99 Mercy Corps '[Secondary Impacts of the Conflict in Ukraine: Case Studies in the Middle East](#)' June 2022.

100 More than 760,000 refugees are registered with UNHCR, predominantly from Syria, with large groups from Iraq, Yemen, Sudan, and Somalia, UNHCR, Countries: Jordan, WFP '[Funding crunch forces WFP to scale back food assistance to refugees in Jordan](#)' July 2023.

Indicators to watch

Indicator	Detail	Impact
Global wheat prices ¹	Would be reflected in an increase in the global price of wheat. Given significant dependence on wheat grain consumption throughout the Middle East as a main source of carbohydrates, many states are highly sensitive to even minor sustained price increases. The global price of wheat is largely determined by supply and demand dynamics and is sensitive to environmental shocks, domestic harvests in major exporting and importing countries, and geopolitical dynamics affecting global trade.	Increases in global wheat prices will heighten the risk of food insecurity across the assessed countries as well as other fragile contexts around the world.
Global rice prices ²	Would be reflected in an increase in the global price of rice. To protect local consumers, India has implemented a rice export ban, restricting the export of non-Basmati rice types onto the international market. Myanmar and other major rice exports are also considering such a move. Rice prices have already risen substantially (although not as high as feared) as a result of export restrictions from major producers and the impact of climate change.	Increases in global rice prices will heighten the risk of food insecurity across assessed countries as well as other fragile contexts around the world. Aside from widespread consumption of rice across the region, rice is a major alternative carbohydrate source to wheat and other grains. During grain price spikes in 2022, many balanced consumption with more affordable rice. Concurrent high rice and wheat prices will negate the ability of consumers to adjust consumption habits.

¹ Sources: [Business Insider](#); [FAO Food Price Monitoring](#)

² Sources: [Business Insider](#); [FAO Food Price Monitoring](#).

<p>Global oil prices³</p>	<p>Would be reflected in an increase in the global price of crude/refined oils. Global oil prices increased after Russia's withdrawal from the Black Sea Grain Initiative, but have recently stabilized and begun to drop due to recent OPEC+ output cuts. Oil prices, as a key input to agricultural production and transportation costs will have severe ramifications on food prices internationally.</p>	<p>Increases in global oil prices will likely raise transportation and logistics costs of international shipping and domestic food transportation. High oil prices may also exacerbate reduced agricultural production, compounding the effect of climate change.</p>
<p>Country-specific commodity⁴ prices</p>	<p>Will be reflected in an increase/decrease in the country-specific price of key commodities such as wheat, rice, and the Standard Minimum Expenditure Basket (a basket of goods making up what a family is estimated to need to meet basic needs). Regional food prices, impacted by Russia's withdrawal from the Black Sea Grain Initiative and compounded by the global effects of climate change on agricultural production, have risen substantially over the past year.</p>	<p>Increases in local commodity prices may indicate worsening food insecurity. Affordability of food is a key driver of food insecurity, and increases in prices may exacerbate existing food security crises across the region.</p>
<p>Occurrence and results of high-level diplomatic events related to Black Sea grain exports.</p>	<p>This would be reflected in reporting on the occurrence of high-level diplomatic discussions such as Putin's visit to Turkey, advances towards a Turkey/Qatar/Russia grain deal and other events, initiatives, or statements related to the Ukraine crisis and Black Sea export environment.</p>	<p>Occurrence and positive results of high-level diplomatic events regarding the crisis may result in a lowering of global prices and improved food security indicators in fragile contexts. However, if high-level diplomatic efforts do not result in positive outcomes, this may add further pressure on global prices and accompanying food security indicators.</p>

³ Source: [Trading Economics](#).

⁴ Sources: Syria: [REACH JMMI](#); [WFP VAM](#). Lebanon: World Bank; [WFP VAM](#). Yemen: [REACH JMMI](#); Yemen [Economic Tracking Initiative](#); [WFP VAM](#).

<p>Any attacks or disruptive interdictions internationally flagged merchant shipping.</p>	<p>This would be reflected in reporting on the occurrence and regularity of attacks, boardings, and other disruptive interdictions against internationally flagged merchant shipping by either Ukraine or Russia.</p>	<p>Any attacks or disruptive interdictions against international shipping in the Black Sea will signify an escalation of the conflict, and will likely increase insurance premiums, oil prices, and global food prices, further exacerbating food insecurity in fragile contexts.</p>
<p>Attacks on Russian flagged tankers or dry export shipping in the Black Sea, and/or export infrastructure</p>	<p>This would be reflected in reporting on the occurrence of air and sea attacks against Russian shipping, especially tankers, dry export vessels, and other commercial vessels by Ukraine in the Black Sea. Reporting on the occurrence of Ukrainian air and sea attacks against Russian export infrastructure, especially Black Sea ports including Novorossiysk, Anapa, Gelendzhik, Tuapse, Sochi and Taman. This would reflect an escalation above and beyond what has already been witnessed since the end of the BSGI.</p>	<p>Due to the scale of Russian exports through the Black Sea, this would have potentially catastrophic repercussions for global commodity prices across a range of goods. Any attacks targeting Russian tankers or dry export vessels in the Black Sea would severely increase the risk of substantial escalation against shipping to and from Ukraine. Such an eventuality would increase insurance premiums, oil prices, and other transport cost determinants, as well as threaten food shipments exacerbating food security crises in fragile contexts.</p>
<p>Continued attacks by Russia on Ukrainian production and export infrastructure</p>	<p>This would be reflected in reporting on the occurrence, regularity, and losses incurred by Russian missile attacks against Ukrainian production and export infrastructure such as Odesa and other Black Sea ports, and ports on the Danube river.</p>	<p>Continued attacks by Russia against Ukrainian production and export infrastructure may increase the global price of grain, wheat, and other key commodities.</p>
<p>New shipments from/to Ukrainian ports outside of the BSGI and declared closed by Russia.</p>	<p>This would be reflected in an increase in new shipping to and from Ukrainian ports including Ismail, Reni, and Ust-Danube Sea Port. This could also include increased shipping both to and from Odesa port, which would indicate further success in Ukraine's efforts to protect its sea corridors in the face of Russia's blockade.</p>	<p>New and increased levels of shipping from/to Ukrainian ports, indicating possible corresponding confidence in the safety and security of these shipping routes may reduce the global price of wheat, grain, and other essential commodities.</p>

<p>Announcement or implementation of protectionist policies that ban exports of staple foods from major food producing countries.</p>	<p>This would be reflected in reporting on the announcement or implementation of policies that facilitate the blocking of exports of staple foodstuffs from key food exporting countries such as India's recent rice ban. This could indicate increasing momentum towards major supply and price shocks across staple foodstuffs globally.</p>	<p>Any additional protectionist food export policies by major exporters will likely drive an increase in global food prices, with corresponding increases in food insecurity in fragile contexts.</p>
<p>Insurance premiums for vessels operating in the Black Sea (pre/post insurance new deal)</p>	<p>Increase/decrease in insurance premiums for vessels operating in the Black Sea.</p>	<p>Insurance premiums indicate the level of confidence in the safety and security of Black Sea shipping, as well as understanding the trajectories of a key cost driver of international shipping. Higher premiums will drive higher end user prices for staple foodstuffs and other commodities transiting through the Black Sea.</p>

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Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.



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