



Addressing the food shortages in vulnerable regions due to problems with the Black Sea Grain Initiative



HRC

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Introduction

Food shortages are extremely dangerous for nations and communities regardless of their location or economic standpoint. Food shortages mean that people lack access to some of their basic human needs which are essential for survival. If these shortages occur in nations that are already vulnerable due to being less economically developed, or their geographical location, the effects of this only compound. By struggling with potential conflicts that may occur in the region or with other struggles such as natural disasters, food shortages become increasingly more difficult to control. Food shortages in vulnerable nations like this occurred recently with the world at an official food crisis due to the Russian invasion of Ukraine in February 2022. This invasion consequently led to the complete halt of grain shipments from Ukraine which had previously been a major exporter via the Black Sea which is located between Ukraine, Russia, Türkiye, Romania and other eastern European countries. In addition to this Russia also stopped its grain exports which worsened the effect of the situation even further. With two of the main grain exporters completely stopping their shipments, it naturally led to a rise in world food prices as grain is essential for agriculture and other sectors. Moreover, it increased the threat of famine in Lesser Economically Developed Countries (LEDCs). To tackle this growing issue, an agreement was conjured up called The Black Sea Grain Initiative which included nations such as Russia, Ukraine, Turkey, and the United Nations. The agreements began with discussions between these nations in April 2022 hosted by Türkiye, who was in control of the maritime routes from the Black Sea. These discussions were also supervised and supported by the United Nations. As a result of these discussions, an agreement was signed which was initially set to be legally binding and valid for a period of 120 days (about 4 months). This agreement created procedures to safely export grain from certain ports to address the worldwide food crisis that emerged from this situation. This agreement was successful and extended repeatedly until it expired on the 18th of July 2022 as no new agreement to renew the deal was reached. This deal, whilst active, provided 45 countries with essential resources with more than 1000 voyages leaving Ukrainian ports which carried nearly 33 million tons of grain and other food products. Despite the

success of this agreement the severity of the shortages cannot be understated. In 2022, 47 million people were estimated to be suffering from severe hunger due to the world's food costs rising rapidly. This ongoing war between Russia and Ukraine has not only affected Europe but most notably developing countries in Africa, Asia, and Latin America due to their dependence on imported grain and fuel. Since this issue has affected almost all corners of the globe, it is imperative that solutions are found to reduce the food shortages and provide the millions of people affected with the basic human needs that they are entitled to.

Definition of Key Terms

Admiralty Jurisdiction

A case or agreement can be under admiralty jurisdiction if it arises from an accident on navigable waters and involves some aspect of a maritime accident such as when two vessels collide with one another, or injuries that occur on a vessel in service.

Black Sea Grain initiative

An agreement among Russia, Ukraine, Türkiye, and the United Nations during the Russian invasion of Ukraine in February 2022. This agreement aimed to restart grain exports from both Ukraine and Russia which had stopped because of the invasion which affected millions across the globe due to their roles as major exporters.

Exporter

A person, country, or company that sends goods or services to another country for sale. In this case Ukraine and Russia are exporters as they sell the grain produced in their countries to other nations in order to earn profits as well as to supply nations with the necessary resources for food production.

Food Shortages

Food shortage refers to a lack of available food which can mean famine or extreme scarcity of food. Food shortages occur when food supplies within a region do not provide the energy and nutrients needed by that region's population. Food shortages can also occur when nations depend on others for resources because if problems occur in the country of production, the countries that import these goods will be affected.

Maritime routes & agreements

A maritime contract is an agreement between two or more parties that creates requirements for these parties which can be forced by law. The contract is named 'maritime' if it addresses a subject that is within the scope of admiralty jurisdiction. Maritime routes refer to coordinated routes related to the sea and to ships. These routes can be for trade, for example exports via boats from one coastal nation/area to another.

Quota

A quota is a limit on the quantity of a particular good or product that can be imported into a nation. A quota can also be a limit on a particular good for the amount that can be produced or exported.

General Overview

Located in southeast Europe, the Black Sea is bordered by Ukraine to the north, Russia to the northeast, Georgia to the east, Türkiye to the south, and Bulgaria joined with Romania to the west (See Figure 1). This sea is fully encapsulated between these nations and does not lead out to any oceans. The Black Sea gets its name from the dark color of the water and vessels travel along it daily. This sea has been essential to the distribution of grain and other resources for decades and so nations became dependent on it. Due to the security of the exports that travelled along the Black Sea many nations trusted its safety and became reliant upon it. With the Russian invasion of Ukraine this whole flow of resources was disrupted which sent shockwaves throughout the world as so many nations became dependent on the transportation of goods over these waters. The invasion caused the complete halting

of grain and wheat exports from Ukraine and Russia who had been responsible for 10 percent of the world's production of these goods. This meant that the supply of these essential goods decreased and due to the fact that demand remained the same, the price of food climbed rapidly. The demand for grain and wheat is price inelastic as they are considered basic needs to produce food. This means that a change in the price of these goods will not affect the demand very much resulting in a near 'constant demand' for these goods. More economically developed countries can afford to pay higher prices for food and grain in order to fulfill their inelastic demand, however developing countries lack this ability to adjust to extraordinarily high prices. This means that despite the demand for food in developing countries remaining the same, this demand cannot be met due to a lack of food supply that these nations are able to purchase. This in turn leads to a food shortage (As seen in Figure 2) which can affect millions of people around the globe. This is exactly what happened with the disruptions to trade across the Black Sea and so it is of utmost importance to address these issues.



Figure 1 - Map of Black Sea Area

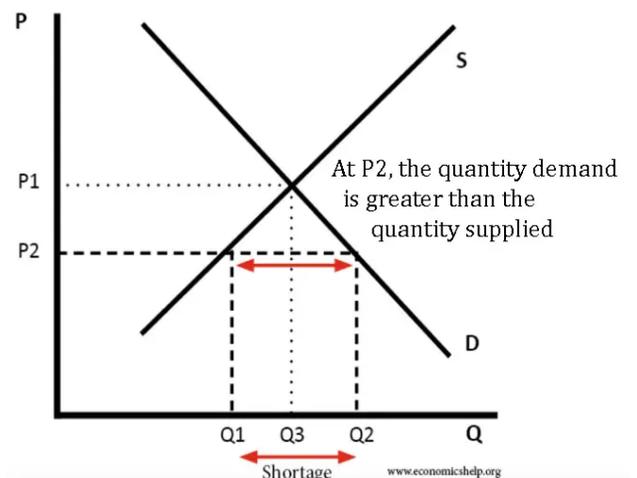
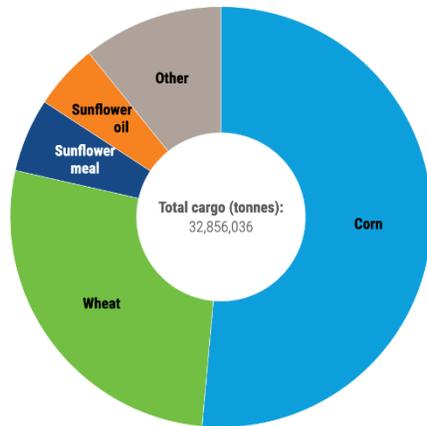


Figure 2 - Shortage Economics Diagram

Humanitarian implication of complication with the black sea initiative

What has been shipped?

■ Corn (51%)
 ■ Wheat (27%)
 ■ Sunflower meal (6%)
 ■ Sunflower oil (5%)
 ■ Other (11%)



Complications with the Black Sea Grain Initiative have exacerbated the ongoing global food crisis, amplifying challenges in food production, distribution, and access. The disruption in Ukrainian grain exports, coupled with reduced export capacity from both Ukraine and Russia, has significantly contributed to rising food prices and heightened threats to global food security. The termination of the Black Sea Grain Initiative, which included the establishment of a safe maritime humanitarian corridor, has led to a reduction in essential food supplies reaching world markets, intensifying the impact on vulnerable populations. The humanitarian implications extend beyond disruptions in food

supply chains. Ukraine has played a vital role in providing humanitarian aid, with the World Food Program heavily relying on Ukrainian wheat. The termination of the grain deal has disrupted the availability and affordability of food aid for countries like Ethiopia, Yemen, Afghanistan, and Turkey, exacerbating the challenges faced by populations already grappling with food insecurity. The reduction in Ukrainian grain exports has triggered a cascade of consequences, including export restrictions imposed by various countries. Importing nations, especially those heavily reliant on Ukrainian grains, such as Ethiopia, Yemen, Afghanistan, and Turkey, now confront difficulties in accessing affordable food and delivering essential aid to their populations. This situation has led to an increase in global food prices, with the grain deal's termination causing a more than 23% rise since March 2022. Moreover, the termination of the Black Sea Grain Initiative and the reduction in grain exports have intensified the global hunger and malnutrition crisis. The number of people facing acute levels of food insecurity has surged, with millions uncertain about their next meal. The reduction in grain exports, coupled with export bans imposed by various countries, has heightened the threat to food security, particularly in low-income countries where vulnerable populations are disproportionately affected. Recognizing the severity of the situation, calls for action have emerged, emphasizing the need to treat Ukrainian grain exports as a humanitarian issue. Proposals for establishing a humanitarian food corridor have gained traction, aiming to address the global food crisis by facilitating the continued export of Ukrainian grain. In this complex landscape, urgent international cooperation is crucial to mitigating the multifaceted humanitarian challenges posed by the termination of the Black Sea Grain Initiative and its profound impact on global food security.

Trade routes and global trading systems



Under ordinary circumstances, Ukraine, recognized as a major global grain exporter, intricately relies on established international trade systems and maritime routes to efficiently transport its agricultural products to global markets. Key to this process are the Black Sea ports, particularly Odesa, Chornomorsk, and Yuzhny/Pivdennyi,

serving as vital gateways for shipping grains to destinations worldwide. The Black Sea, with its strategic location, facilitates maritime routes connecting to the Mediterranean through the Bosphorus Strait. This maritime passage is pivotal for transporting Ukrainian grain to markets spanning the Middle East, North Africa, and Europe. Leveraging international shipping lanes, Ukraine gains access to major routes linking the Black Sea to the Atlantic Ocean and the Mediterranean. Participation in global trade agreements and initiatives, such as the now-terminated Black Sea Grain Initiative, further enhances the nation's connectivity and trade prospects. Ukrainian grain competes in global markets, reaching diverse destinations in the Middle East, Asia, Africa, and Europe. The logistics networks associated with these global grain trades involve intricate coordination between shipping entities, port authorities, customs offices, and transportation infrastructure. The efficiency of these logistics is crucial for the timely and cost-effective export of Ukrainian grains. However, the ongoing conflict in Ukraine, coupled with the termination of the Black Sea Grain Initiative, has introduced significant complications to these established trading systems and routes. The need to find alternative pathways for transporting large volumes of grain has become imperative amid disruptions in the usual maritime and trade routes, challenging Ukraine's traditional and highly efficient grain export processes.

The ongoing conflict in Ukraine, accompanied by the termination of the Black Sea Grain Initiative, has disrupted traditional trade routes, compelling the exploration of alternative pathways for exporting Ukrainian grain. Alternative routes, such as overland transportation through roads or railways, and river and canal routes through neighboring countries like Poland or Romania, are not as viable due to several factors. These alternatives lack the capacity and efficiency of Black Sea maritime routes,

leading to logistical challenges and increased transportation costs. The disruption of established global trading systems for grain export from Ukraine has far-reaching implications for the world economy. As one of the world's top grain exporters, Ukraine plays a crucial role in global food security. The inability to smoothly transport its grains to international markets contributes to a reduction in the overall global supply of grains, leading to increased prices and potential shortages. This, in turn, affects various sectors of the global economy, exacerbating food insecurity, and impacting countries that heavily rely on Ukrainian grain imports. The interconnectedness of the global economy and dependence on stable agricultural exports make disruptions in Ukrainian grain exports a critical factor in the broader economic landscape.

Timeline of Key Events

Understanding the events leading to the Ukrainian invasion is vital for comprehending its broader impact on global affairs, particularly in the context of this issue; world food insecurity. The invasion disrupted Ukraine's significant role as a major grain exporter, influencing the global food supply chain. This interconnectedness reveals the fragility of global trade systems, affecting not only the involved nations but also those reliant on their exports, such as the EU and the Global south. A thorough grasp of these events and their consequences allows for proactive measures and informed decision making.

Date	Event
25th of February 2010	Viktor Yanukovich wins presidential election (pro Russia)
18th of March 2014	Crimea annexation
24th of February 2022	Russian invasion of Ukraine
April 2023	Discussions to address the completely halt of maritime grain shipments begins in Turkey
22th of July 2022	The Black Sea Grain Initiative (BSGI) was signed
18th of November 2022	BSGI is Renewed for another 120 days

24th of March 2023

BSGI is Extended for another 60 days

17th of July 2023

BSGI Expires and is not renewed for a third term

Major Parties Involved

Ukraine

The conflict in Ukraine, stemming from Russia's annexation of Crimea in 2014, has developed to produce profound implications on global agricultural dynamics. Ukraine has historically been a significant exporter of grains, including wheat, corn, and barley. The ongoing conflict has severely impacted Ukraine's ability to maintain its status as a major exporter. Due to recent events Ukraine has had difficulties meeting its typical quotas. The Black Sea Grain Initiative, negotiated in July 2022 between Türkiye, the UN, and Russia, aimed to address these challenges by facilitating the safe transportation of Ukrainian grain through its southern ports via the Bosphorus. The initiative was a crucial lifeline for Ukraine, given that alternative transportation methods were insufficient to export the required quantities of grain. The resumption of Ukrainian grain exports via the Black Sea was considered a beacon of hope amid the ongoing conflict, emphasizing the vital role of the initiative in supporting global food security. However, Russia's withdrawal from the Black Sea Grain Initiative on July 17, 2023, citing hidden Western sanctions impacting its own food and fertilizer exports, dealt a significant blow to the agreement. This move by Russia was particularly impactful for Ukraine, as the initiative was instrumental in allowing the country to export tens of millions of tons of grains and oilseeds to the wider world. The termination of the Black Sea Grain Initiative had immediate implications for Ukraine's agricultural exports and reverberated in the global food market. The initiative's collapse underscored the challenges posed by geopolitical tensions on crucial initiatives aimed at ensuring the safe transportation of essential commodities. Talks between Turkish President Recep Tayyip Erdoğan and Ukrainian President Volodymyr Zelenskyy hinted at the possibility of the Turkish navy escorting grain ships if Russia refused safe passage through the Black Sea. Ukraine's pivotal role in the Black Sea Grain Initiative reflects its determination to overcome obstacles and contribute to global food security and its own economic security. Grain exports make up a considerable portion of its economy. The initiative's breakdown, influenced by geopolitical complexities, highlights the intricate interplay between conflicts, diplomacy, and the global agricultural landscape. The ongoing conflict in Ukraine continues to shape the

dynamics of the Black Sea region, impacting not only the involved nations but also resonating in the broader context of food security and international relations.

Russia

Russia's involvement in the Black Sea Grain Initiative and subsequent withdrawal significantly impacted Ukraine's ability to transport its agricultural products efficiently through the Black Sea. The withdrawal, influenced by concerns about hidden Western sanctions affecting Russia's food and fertilizer exports, hindered Ukraine's export of tens of millions of tons of grains and oilseeds. Talks between Turkish and Ukrainian leaders raised the possibility of the Turkish navy escorting grain ships if Russia denied safe passage. The conflict between Russia and Ukraine, both key players in the global agricultural sector, has broader implications for global agricultural markets. Russia's military aggression and withdrawal from initiatives like the Black Sea Grain Initiative affect regional stability, trade, and food security. Decisions made by Russia impact grain exports, prices, and supply chains, influencing the global agricultural landscape. Ukraine's agricultural sector, a major global breadbasket, suffered severe consequences due to the conflict. Destruction of key infrastructure disrupted transportation routes, reducing seaport capacity. Alternative methods like rail, road, and river routes were employed, impacting export efficiency. Destruction of grain silos, railways, food warehouses, and ports exacerbated challenges. The conflict led to rising commodity prices globally, particularly for grains and vegetable oils. Reduced availability of cereals and oilseeds from Ukraine contributed to these increases, with implications for global food security and market stability, including in the United States. The situation underscores the interconnectedness of agricultural developments and policies in these countries with the broader context of global food security and market stability.

Türkiye

Türkiye's strategic importance in the Black Sea Grain Initiative is evident through its control over the Bosphorus and the Black Sea, governed by the Montreux Convention. As the overseer of these critical international waters, Türkiye's influence over these maritime routes is pivotal in ensuring the smooth flow of grain exports through the Black Sea. This aligns with the goals of the Black Sea Grain Initiative, reinforcing Türkiye's economic standing. Active participation in the initiative allows Türkiye to leverage its geopolitical position, promoting economic cooperation and trade for itself and the countries

involved in grain exports. The strategic significance of the initiative extends beyond conflict resolution, emphasizing Türkiye's economic gains by facilitating the unhindered movement of essential commodities in international waters under its control. Within the Ukraine conflict, Türkiye's function in the Ukraine conflict is as a mediator. While providing military support to Ukraine, Türkiye simultaneously maintains energy ties with Russia, a key player in the conflict. Crucially, Türkiye acts as a diplomatic mediator between Ukraine and Russia, leveraging its unique position. This mediation extends to the Black Sea Grain Initiative, where Türkiye played a pivotal role in its creation. Beyond immediate concerns, Türkiye's participation in the Black Sea Grain Initiative aligns with broader regional power aspirations. Strengthening economic and political ties with Ukraine enhances Türkiye's influence in the Black Sea basin, EU and global politics, embodying a proactive strategy toward becoming a significant regional power. The intricacies of Türkiye's involvement display its commitment to stability, economic collaboration, and active mediation in conflict resolution, reinforcing its standing as a key player in the evolving dynamics of the Ukraine conflict.

UN world food program (WFP)

The UN World Food Program (WFP) stands as the largest humanitarian organization globally, dedicated to saving lives in emergencies and promoting peace and prosperity through food assistance. Feeding nearly 80 million people in about 75 countries annually, the WFP addresses global hunger, working collaboratively with governments, the private sector, UN agencies, and numerous non-governmental organizations. Operating in diverse contexts, including emergencies and development programs, the WFP facilitates grain exports from Ukraine through the Black Sea, actively participating in the Black Sea Grain Initiative. This initiative, crucial for global food security, involves the WFP in procuring a significant portion of its wheat supply, exceeding 50%, underlining its commitment to stabilizing grain prices worldwide. Canada, among other entities, plays a significant role in supporting the WFP's efforts. The organization's involvement in logistics operations, passenger air transport, and collaboration with UN agencies showcases its multifaceted approach to addressing urgent needs beyond food aid. The Black Sea Grain Initiative's establishment of the Joint Coordination Centre (JCC) is monitored by the UN, acting as the Secretariat. This international collaboration, including representatives from Russia, Turkey, Ukraine, and the UN, exemplifies the WFP's commitment to overseeing the initiative's implementation. Overall, the WFP's extensive engagement in facilitating grain exports, supporting global food security, and procuring wheat under the Black Sea Grain Initiative

underscores its pivotal role in addressing the complexities of global food challenges and humanitarian crises.

The United Nations office for the coordination of humanitarian affairs (OCHA)

OCHA, is a key mediator and organizer of the Black Sea Grain Initiative. OCHA's involvement is integral as it leads and coordinates the implementation of the initiative in collaboration with other UN agencies and partners. Specifically, OCHA assumes a key leadership role within the Joint Coordination Centre (JCC), a component established under the initiative. The JCC oversees the safe export of grain and foodstuffs through a maritime humanitarian corridor and includes representatives from Ukraine, Russia, Türkiye, and the United Nations. UN inspectors within the JCC are responsible for inspecting ships, ensuring adherence to safety and humanitarian standards. OCHA's engagement aligns seamlessly with its humanitarian mandate, aiming to coordinate responses and enhance global food security. Through the Black Sea Grain Initiative, OCHA facilitates the secure transportation of essential food supplies, contributing significantly to addressing food insecurity on a global scale. In essence, OCHA's leadership in the Joint Coordination Centre underscores its commitment to humanitarian efforts, reinforcing the initiative's impact on global food security and humanitarian needs.

Global South (Latin America, Asia, Africa, and Oceania)

The global reliance on Ukraine's grain exports, particularly evident in countries of the global south, underscores the significance of Ukraine's role as a major exporter of grains, including wheat, corn, barley, and others. The disruption caused by the Russian invasion in 2022 has reverberated globally, with profound implications for food security and prices. Many developing nations heavily depend on Ukraine's grain exports, encompassing staples like wheat and sunflower oil. The suspension of these vital exports has precipitated a surge in prices, exacerbating the prevailing global food crisis. Prior to the conflict, Ukraine held a substantial share in world corn and wheat exports, accounting for 15% of world corn trade and 10% of world wheat trade. In response to the disruption, the Black Sea Grain Initiative emerged as a crucial intervention, aiming to establish a safe maritime corridor for the transportation of millions of tons of grain and foodstuffs from Ukrainian ports through the Black Sea. This initiative played a pivotal role in addressing the constraints imposed by the conflict, ensuring the flow of essential food supplies from Ukraine. The ramifications of the disruption in Ukrainian grain

exports resonate prominently in the global south, where access to affordable food is paramount. The ensuing rise in food prices and increased food insecurity in these regions underscores the interconnectedness of global agricultural dynamics and the livelihoods of nations grappling with socio-economic challenges. In navigating these challenges, the Black Sea Grain Initiative has emerged as a critical mechanism to mitigate the impact and reinstate the flow of crucial food resources to vulnerable regions.

European Union (EU)

The European Union's agricultural dependence on Ukraine faces considerable challenges, notably exacerbated by the disruptions caused by the war in Ukraine. The maritime export route for Ukrainian grain, vital for supplying the EU, has been significantly impeded as Russia withdrew from the United Nations-sponsored Black Sea Grain Initiative, leading to a blockade of the route. Ukraine, in response, has navigated alternative land routes and increased trade through smaller Danube River ports, introducing logistical challenges and disrupting supply chains for grain imports into the EU. This disruption is compounded by the temporary ban on Ukrainian grain imports by some EU countries, posing concerns for the integrity of the European single market and the EU's common trade policy. While this ban proved ineffective in the long run, as Ukrainian grain entered through other EU customs union member states, it impacted regional crops and prices in Central and Eastern European states, triggering protests by farmers in countries like Poland and Romania. The suspension of Ukrainian grain exports also raises global food security concerns, given Ukraine's pivotal role as a major grain exporter. The EU's reliance on Ukrainian grain imports, coupled with the need to seek alternative sources, contributes to the broader challenges of ensuring global food security amidst rising food prices and potential shortages in the global food market.

Possible Solutions

Seeing as this issue is a current and ongoing one, there are many viable solutions to this issue. The effects of the Russian invasion into Ukraine and the war have caused major disruptions throughout the whole world. This war has affected countries in Africa, Asia, and other regions that are dependent on grain exports. The worst hit nations were developing countries as the food shortages have caused

them to now suffer from famine and other related health issues on top of their existing issues. In previous instances international organizations have offered aid to nations that struggle with food supplies. However, for something of this scale it is difficult to tackle this problem. Due to the fact that so many nations have been affected by the problems with the Black Sea Grain Initiative it is certain that a complete solution to this won't occur in the short term. Instead, we must take small steps striving towards improving the situations in developing countries and over time eventually the effects of this conflict will be mitigated. Although international organizations have helped with issues similar to this on a smaller scale, they also don't completely solve the issues within individual nations meaning that the issue still looms. With a lack of previous examples of how to tackle this issue it is difficult to identify the most effective solutions to this problem. Some alternative ideas that could be applicable for addressing the food shortages in vulnerable regions due to problems with the Black Sea Grain Initiative include:

- Humanitarian aid and Emergency relief
- Local agriculture support
- Diversifying food sources will reduce the dependence of other on individual nations
- Financial support
- International collaboration
- Trade facilitation and negotiations to resolve trade disputes and to improve relations between countries involved in the conflict and the Black Sea Grain Initiative.

There are many more potential ways of solving this issue however since this problem is still ongoing, there is no definitive idea and answer for which direction to focus on when addressing the food shortages in vulnerable regions, as well as developing countries, due to the problems with the Black Sea Grain Initiative.

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