

Letter to the Editor

Ukraine War and Food Crisis



Ameneh Marzban¹, Negar Fani², Reza Faraji³, Abed Khanizade¹, Mohsen Dowlati^{1*}

1. Department of Health in Disasters and Emergencies, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran.

2. Department of Health Education and Health Promotion, School of Health, Tehran University of Medical Sciences, Tehran, Iran

3. Department of Environmental Health Engineering, School of Health, Shahrekord University of Medical Sciences, Shahrekord, Iran.



Citation Marzban A, Fani N, Faraji R, Khanizade A, Dowlati M. Ukraine War and Food Crisis. *Journal of Research & Health*. 2023; 13(3):149-152. <http://dx.doi.org/10.32598/JRH.13.3.2083.3>

doi: <http://dx.doi.org/10.32598/JRH.13.3.2083.3>

Dear Editor

The Food and Agriculture Organization of the United Nations (FAO) has stated that the world may face a food crisis with rising prices and products at risk due to the war in Ukraine. Food prices have already increased due to climate change and the coronavirus epidemic. After the war, the cost of wheat has risen more [1]. About a third of the world's wheat is supplied by Russia and Ukraine, known as Europe's breadbasket. Wheat shortages may occur as farmers in Ukraine cannot grow their crops [2].

Finding different suppliers now means that prices are rising, and the cost of wheat is now at an all-time high. More than 50 countries depend on these two countries for their grain; this main ingredient makes up about one-fifth of the world's calories and protein [3].

A shortage in wheat storage and an increase in its cost will impact essential foods such as bread, pasta, and cereals. Apart from wheat, Russia and Ukraine account for about 70% to 80% of world exports of sunflower oil. Sunflower is the national flower of Ukraine. Supermarkets in Spain and Italy have begun selling sunflower oil rations after the invasion of Ukraine [4, 5].

Corn is another staple food commonly grown in Ukraine and Russia. As the fourth and fifth largest exporters of corn, the two countries together account for about one-fifth of total exports. Corn also has many uses, and beyond food shortages, it can affect meat production. It is used as animal feed in many parts of the world, and rising prices could mean rising meat costs [6].

Vital shipments of agricultural products from Ukraine, including corn, wheat, and barley, are known as the world's breadbasket. The shipments are stuck in the war-torn country as Russian authorities block the port of Odesa and neighboring ports [7]. Sunflower oil and semolina are also important export products of Ukraine. If the ports are not activated as soon as possible, Ukraine's agriculture will collapse [8].

These ports are vital to the Ukrainian economy and the nutrition of the world's population, and if the ports are not opened, Ukraine will be landlocked [9]. Approximately 20 million tons of Ukrainian agricultural products are stuck in Black Sea ports. These foods are the only suppliers in some African countries. Many African people will starve to death if these shipments do not reach African countries [7].

The impact of these changes varies from country to country and their dependency on imports or consumption.

*** Corresponding Author:**

Mohsen Dowlati, PhD.

Address: Department of Health in Disasters and Emergencies, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran.

Phone: +98 (917) 2458896

E-mail: mohsenedowlati.69@gmail.com

In Lebanon, for example, nearly 90% of wheat is imported from Ukraine, so a difficult future is predicted [10].

In the United States, wheat prices rose 5% in just one day, to 40% since the beginning of the Ukraine crisis. The United States is facing the worst inflation in decades. In Tunisia and Indonesia, the wheat situation is also worrying, and in Germany, the market is preparing for a 30% increase in flour prices. Ukrainian wheat importers, including Egypt, seek supplies from other countries such as India, and Japan has officially announced that it will replace China with Russia. Countries that do not have much of a problem with drought, such as Ireland, have decided to encourage farmers to grow more grain by adopting protectionist policies [3].

These conditions have defined a new position for wheat producers and highlighted their role in global markets. In just a few months, wheat exports from Brazil and Argentina have doubled, and Australian exports have risen by about 80% [11].

As the global food crisis escalated, India decided to ban wheat exports. The heat wave also led to a drop in production and rising prices due to strong export demand, forcing India to suspend wheat exports [8]. However, the Indian government stressed that it adheres to the previously signed documents for export to countries in dire need of food security. After the Black Sea basin exports fell due to the Ukraine war, buyers flocked to the world's second-largest producer, and India pledged a record 10 million tons of exports [4]. But an export ban order was signed a few days after the big promise. This decision will soon increase the price of wheat in the world and hit the poor consumers in Asia and Africa hard [3].

Undoubtedly, the consequences of the Ukraine war are tragic. Food crises often lead to social unrest, war, conflict, the creation of bankrupt governments, and mass migration. For example, some researchers point out that rising food prices played a key role in shaping the 2011 Arab Spring. In the long run, the world must help countries with vulnerable economies find themselves more secure in meeting their food needs. Of course, various initiatives must be presented and implemented in this regard. By pursuing a comprehensive strategy, the world can limit the scope of a hunger crisis largely resulting from the Ukraine war. In times of war, conflict, and climate change, adopting such a strategy can also create a more stable food system, reducing the scope and power of a food crisis in critical and difficult times.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical issues to be considered in this research.

Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

Authors' contributions

All authors equally contributed to preparing this article.

Conflict of interest

The author declared no conflict of interest.

References

- [1] Strange N, Geldmann J, Burgess ND, Bull JW. Policy responses to the Ukraine crisis threaten European biodiversity. *Nat Ecol Evol.* 2022; 6(8):1048-9. [DOI:10.1038/s41559-022-01786-z] [PMID]
- [2] Câmpeanu V. The effects of the war in Ukraine-the global food crisis becomes more real. *Euroinfo.* 2022; 6(1):3-15. [Link]
- [3] Behnassi M, El Haiba M. Implications of the Russia-Ukraine war for global food security. *Nature Human Behaviour.* 2022(30):1-2.
- [4] Pörtner LM, Lambrecht N, Springmann M, Bodirsky BL, Gaupp F, Freund F, et al. We need a food system transformation-In the face of the Russia-Ukraine war, now more than ever. *One Earth.* 2022; 5(5):470-2. [DOI:10.1016/j.oneear.2022.04.004]
- [5] Marzban A, Moslehi S. The Ukraine war and the bread crisis in the Middle East. *J Hum Environ Health Promot.* 2022; 8(3):172-4. [DOI:10.52547/jhehp.8.3.172]
- [6] Shams Esfandabadi Z, Ranjbari M, Scagnelli S. The imbalance of food and biofuel markets amid Ukraine-Russia crisis: A systems thinking perspective. *Biofuel Res J.* 2022; 9(2):1640-7. [DOI:10.18331/BRJ2022.9.2.5]
- [7] Osendarp S, Verburg G, Bhutta Z, Black RE, de Pee S, Fabrizio C, et al. Act now before Ukraine war plunges millions into malnutrition. *Nature.* 2022; 604(7907):620-4. [DOI:10.1038/d41586-022-01076-5] [PMID]
- [8] Glauben T, Svanidze M, Götz L, Prehn S, Jamali Jaghdani T, Đurić I, et al. The war in Ukraine, agricultural trade and risks to global food security. *Interconomics.* 2022; 3(57):157-63. [DOI:10.1007/s10272-022-1052-7] [PMCID]

- [9] Tanchum M. The Russia-Ukraine war has turned Egypt's food crisis into an existential threat to the economy. Washington, DC: Middle East Institute; 2022. [\[Link\]](#)
- [10] Balma L, Heidland T, Jävervall S, Mahlkw H, Mukasa AN, Woldemichael A. Long-run impacts of the conflict in Ukraine on food security in Africa. Kielinzie: Kiel Institute for the World Economy; 2022. [\[Link\]](#)
- [11] Oxford Analytica. Ukraine war heightens China's food security imperative. Emerald Expert Briefings. 2022. [\[DOI:10.1108/OXAN-DB269981\]](#)

This Page Intentionally Left Blank