

Focus | The far-reaching impact of the war in Ukraine



Focus | The far-reaching impact of the war in Ukraine

Damages and losses to Ukraine's agriculture sector as a result of the war are having significant repercussions at the domestic, regional and international levels, with impacts on acute food insecurity and malnutrition.

Prior to the war, agriculture contributed 11 percent of Ukraine's GDP, accounted for over 40 percent of exports, and employed 15 percent of the population (FAOSTAT, January 2024). In 2021, Ukraine was among the world's top ten producers and exporters of wheat and oilseeds, especially sunflower (USDA, April 2022). However, as the war continues unabated, Ukraine's position as a major agricultural producer and exporter is coming under increasing pressure.

In 2023, the number of air strikes increased, primarily targeting Ukrainian civilian infrastructure. These attacks, as well as the subsequent disruptions to economic flows and production, have been particularly severe on Ukraine's agriculture sector, causing an estimated USD 10 billion in damages and USD 70 billion in losses (RDNA3, February 2024).

Huge damage to agricultural infrastructure and abandonment of cropland

Grain storage facilities, irrigation systems, farms and agricultural machinery have either been stolen, damaged or destroyed, exacerbating issues with supply chains and export logistics (including

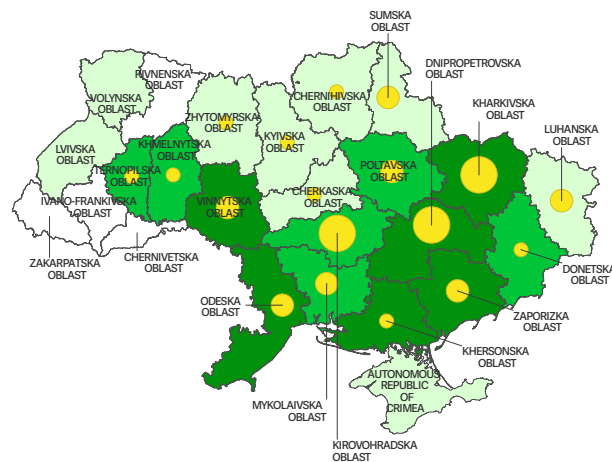
lack of sea access in the early months of the war and then frequent delays in processing of vessels) and increasing production costs. Arable land has been contaminated by mines. The June 2023 attack that destroyed the Kakhovka Dam impacted agriculture, fisheries, commerce and industry, with consequences for the economy of the region. Irrigation damage from the dam breach led to USD 377 million of crop losses (PDNA, October 2023).

The damages and losses to Ukraine's agriculture sector are changing the nature and scale of the country's agricultural activities. The total planted area decreased in 2023, with 7 percent of Ukraine's total cropland – mostly along the

frontlines – being abandoned. This now-fallow land is primarily located in the southern and eastern oblasts where the majority of Ukraine's two largest crops for export were harvested and produced: wheat and sunflower seed. This land would have been worth USD 2 billion in wheat and oilseeds in 2023 (NASA Harvest, December 2023). Frontline oblasts (Kharkivska, Khersonska and Zaporizka) experienced the largest losses. The Vinnytska oblast in central Ukraine also experienced large losses without being directly affected by ground battles (RDNA3, February 2024).

Small and medium-sized agricultural enterprises reported a 9 percent reduction in the cultivated area for grain and oilseed crops compared with

MAP 2.10 Average wheat and sunflower seed production, 2016–2020

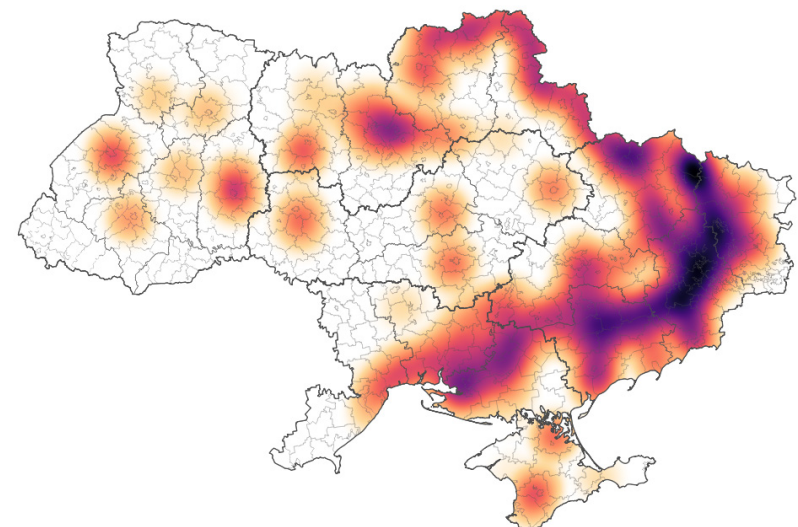


Production five-year average, 2016–2020 ('000 metric tonnes)



Source: US Department of Agriculture/State Statistics of Ukraine.

MAP 2.11 Spatial evolution of the war, February 2022–31 December 2023



Source: Map based on Armed Conflict Location and Event Data (ACLED), considering average monthly conflict events.

before the war, rising to a 20 percent reduction for those in frontline areas (FAO, April 2023). The total planted area of wheat declined by over 750 000 hectares while that of sunflower declined by 90 000 hectares between 2022 and 2023. There was a concomitant drop in the area harvested, but favourable weather conditions throughout 2023 allowed for an increase in yields and production relative to 2022 for both wheat and sunflower (NASA Harvest, December 2023).

However, remote sensing indicated that almost 30 percent of the 2023 wheat output was produced in the occupied eastern oblasts, meaning that Ukraine's overall agricultural production remained below 2021 levels and the five-year average (NASA Harvest, December 2023). Reductions in productivity coupled with high input costs (namely for fertilizers and fuel) led to significant reductions in farm gate prices, limiting farmers' profits and liquidity (FAO-GIEWS, July 2023).

The effect of the war on Ukraine's agriculture sector is obstructing the production of export-oriented commodities critical to Ukraine's economy and livelihoods (RDNA2, March 2023). If these damages and losses continue to accumulate it could dramatically impact Ukraine's agricultural production outlook for years to come, and may,

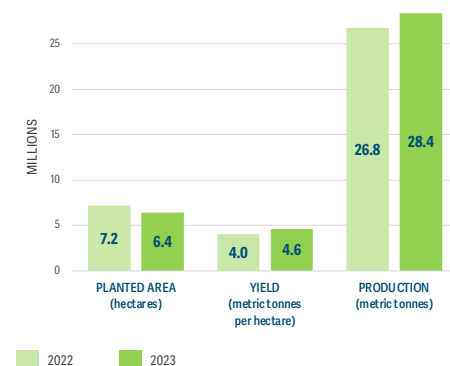
in the worst-case scenario, lead to agricultural production being unable to meet domestic and export demand (UN, November 2023). This concern is particularly apt for wheat as farmers are adapting to the war context by altering which crops are produced. In the occupied oblasts, farmers primarily sowed winter crops (wheat), and those in the government-controlled areas shifted towards sunflower seed and rapeseed, which require fewer inputs and therefore have lower production costs than wheat or other cereals (NASA Harvest, December 2023).

Limitations on Ukraine's export capacity affected food-crisis countries

Both Ukraine and global markets were forced to adjust to Ukraine's constrained export capacity.

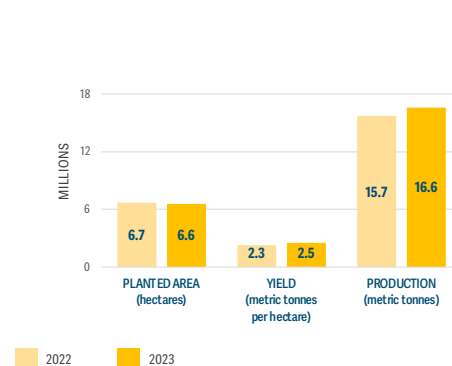
The blockade of Ukraine's Black Sea ports following the full-scale invasion in February 2022 severely limited Ukrainian farmers' ability to export agricultural products to their intended markets. With limited access to efficient export routes, many Ukrainian farmers have been unable to sell already-harvested crops, reducing their incomes and curbing their capacity to pay debts and invest in future activities.

FIG. 2.39 Wheat: planted areas, yield and production, 2022 versus 2023



Source: NASA Harvest, December 2023.

FIG. 2.40 Sunflower seeds: planted areas, yield and production, 2022 versus 2023



Source: NASA Harvest, December 2023.

Ukraine's limited maritime export capacity has caused its export patterns to shift towards Europe, sometimes at the expense of markets in low-income countries. In 2023, more than half of Ukrainian wheat and maize exports were destined for European markets, which posed a food security risk for people living in Low-Income Food-Deficit Countries (LIFDCs) that are highly dependent on imported foodstuffs from Ukraine, particularly in the Middle East, North Africa, East Africa and Southeast Asia. Many of these countries saw their imports of Ukrainian wheat halved between 2021 and 2023 (IFPRI, February 2024).

In early 2023, the limited supply of wheat and sunflower seed increased the cost of importing those goods, pushing up retail food prices (FAO, July 2023), although in many cases those countries managed to switch to alternative suppliers.

Ukrainian exporters sought alternative safe export routes

The EU introduced solidarity lanes in May 2022 to facilitate the movement of Ukrainian goods through rivers and over land via rail and roadways instead of the maritime shipping routes in the Black Sea, which at the time were not viable. Between March 2022 and January 2024, over 61 million tonnes of Ukrainian grain, oilseeds and related products were transported through the lanes, enabling the export of around 60 percent of Ukraine's grain since the start of the war (EU, February 2024).

While the solidarity lanes have facilitated the export of Ukrainian cereals and oilseeds (among other goods), they are a rather imperfect solution. Onward transport and storage infrastructure in the countries that border Ukraine (Hungary, Poland, Romania and Slovakia) has been unable to absorb the additional volume of goods, increasing the cost of Ukrainian exports. As a result, significant quantities of Ukrainian products remained in these bordering countries' domestic markets rather than being transported to third countries, which contributed to prices in those markets decreasing (IFPRI, April 2024).

Farmers in Bulgaria, Hungary, Poland, Romania and Slovakia began protesting against Ukrainian goods flooding their domestic markets, filling up storage facilities and putting local producers at a disadvantage in 2023. Governments imposed temporary import bans on Ukrainian grains and oilseeds. This further pushed down prices in Ukraine and reduced producers' profitability (IFPRI, April 2024). The EU and Ukraine collaborated to alleviate the market distortions in these countries and stabilize the situation through diplomatic means, and it was agreed that the solidarity lanes would remain open with provisions to safeguard against import surges (European Commission, September 2023; IFPRI, February 2024).

The lack of safe maritime shipping routes for Ukrainian products through the Black Sea since the onset of the war has impacted global food markets. From July 2022 to July 2023, the shipments facilitated by the Black Sea Grain Initiative (BSGI), brokered by the United Nations and Türkiye, eased pressure on international supplies, and most importantly, on humanitarian food aid. Nearly 33 million tonnes of grains, maize and other agricultural commodities were exported from Ukraine through this agreement, with over half going to low and middle-income countries and humanitarian operations in Afghanistan, Ethiopia and Somalia (UN, July 2023).

The Russian Federation's termination of the BSGI led Ukraine to create a "humanitarian corridor" that hugs the western coast of the Black Sea beside Bulgaria and Romania in August 2023. The corridor, as of November 2023, had allowed 151 ships carrying a total of 4.4 million tonnes of cargo, including 3.2 million tonnes of grain, to pass through safely (Reuters, November 2023).

Despite these efforts, export volumes have been limited throughout 2023, which could have longer-term implications for domestic production. It could also negatively impact availability in global food markets and contribute to price volatility should there be any unforeseen shocks (WFP/FAO, November 2023).

Is the war in Ukraine still impacting food inflation in food-crisis countries?

The supply disruptions caused by the onset of the war in Ukraine in February 2022 sent shockwaves through global food markets as they magnified pre-existing international market vulnerabilities created by the COVID-19 pandemic. This led to high inflation that exacerbated macroeconomic instabilities and aggravated already-elevated levels of acute food insecurity and malnutrition in food-crisis countries/territories (GRFC 2023).

After peaking in March 2022, global food prices on aggregate declined thereafter with strong agricultural production and reductions in the cost of energy, fertilizers and shipping (FAO, January 2024; IMF, October 2023). Nonetheless, they remained high by historical standards, with large differences also prevailing across different commodity groups, and rice and sugar particularly elevated.

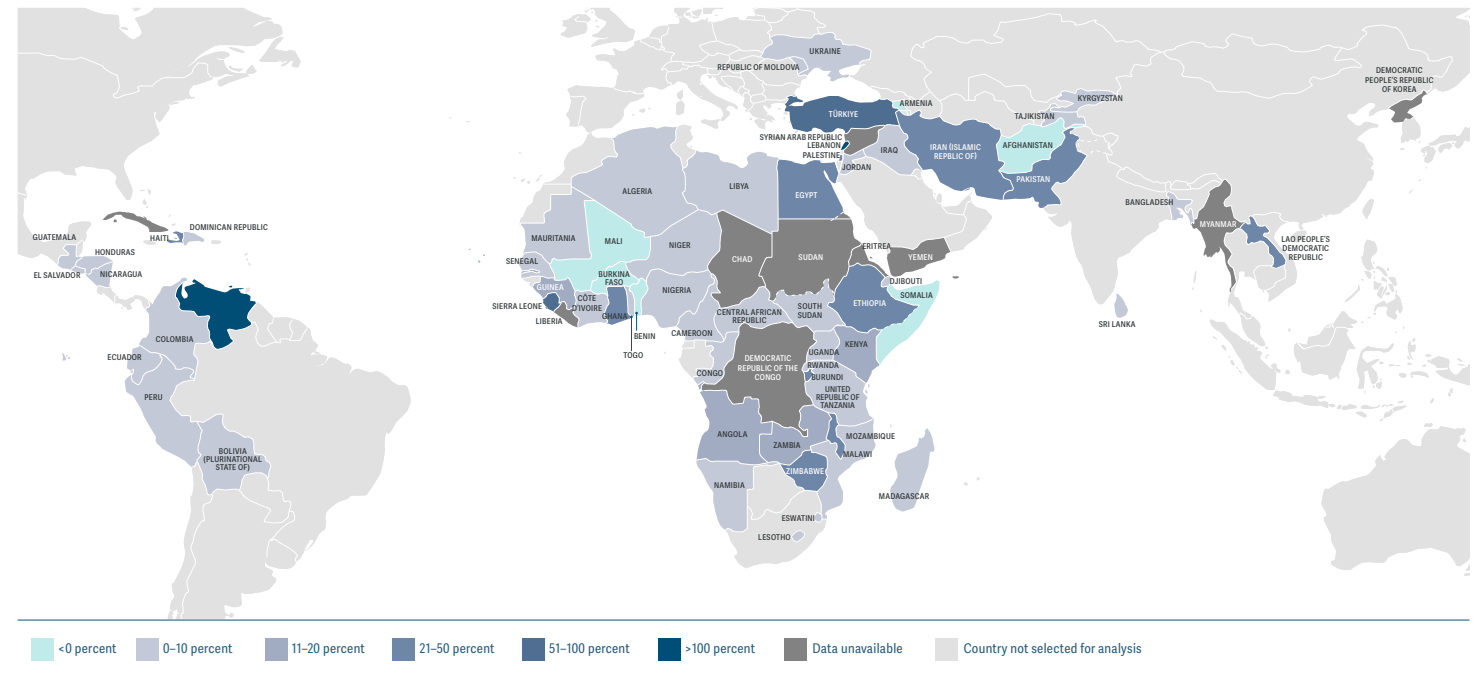
Price declines did not transmit to domestic markets at the same rate, particularly in low-income countries. Domestic food prices measured in national currencies – the prices that matter to consumers – continued to increase, feeding a cost-of-living crisis for many low-income households (IFPRI, December 2023).

Domestic market distortions, currency depreciations, weather extremes and/or conflicts as well as limited food storage capacity contributed to high prices (IMF, October 2023).

This slow price transmission was mirrored in the GRFC food-crisis countries/territories: over half (56 percent) started 2023 with double-digit domestic food inflation, dropping to 25 percent by the end of the year. These reductions often were not linear and tended to exhibit volatility (WFP, February 2024) (see map 2.12).

Several GRFC countries/territories without official food inflation figures saw evidence of increasing prices. For example, in Myanmar, the cost of a food basket increased by 80 percent over the last year (WFP, December 2023).

MAP 2.12 Annual food Inflation rates by end 2023 in GRFC-qualifying countries/territories




Source: Trading Economics and other relevant sources, 2023.


Multiple factors likely to influence food prices throughout 2024

Global suppliers will need to continue to make up for shortfalls in Ukrainian production and exports, which will keep markets tight and vulnerable to large production shortfalls elsewhere in the world (IFPRI, February 2024).


In the same context, any disturbance to the Black Sea shipping routes, including attacks on infrastructure or vessels, could result in higher insurance premiums. This increase would make the routes commercially unviable and put an upward pressure on both the level and volatility of food prices (FAO, December 2023).


In addition, other supply shocks could put upward pressure on or introduce additional volatility to international food prices in 2024.

 There will likely be production losses from El Niño conditions, resulting in lower global food availability and, in turn, higher prices. During a typical El Niño event, global declines in the production of major staple crops (wheat, rice and maize) and associated increases in their prices are observed (GRFC Mid-Year Update, September 2023).

 As of the first quarter of 2024, higher prices for crude oil could negatively affect production costs by making agricultural inputs more expensive. Brent crude oil prices were forecast to rise to over USD 80 per barrel through

the first half of 2024 due to uncertainty around shipping routes through the Red Sea, and then the price per barrel is expected to decline during the latter half of the year (EIA, February 2024).

 Shipping disruptions driven by insecurity in the Red Sea and reduced water flows in the Panama Canal due to drought could upend supply chains and increase shipping costs, with increased costs passed down to consumers (IFPRI, January 2024).

 Export restrictions imposed on important commodities, such as rice, could create additional upward pressure on food prices (IFPRI, February 2024).



Founded by the European Union, FAO and WFP in 2016, the Global Network Against Food Crises (GNAFC) is an alliance of humanitarian and development actors committed to addressing the root causes of food crises and finding lasting solutions to them, through shared analysis and knowledge, strengthened coordination in evidence-based responses and collective efforts across the humanitarian, development and peace (HDP) nexus.



The Food Security Information Network (FSIN) is a technical global platform for the exchange of expertise, knowledge and best practices on food security and nutrition analysis. Its purpose is to promote timely, independent and consensus-based information about food crises, while also highlighting and addressing critical data gaps. As a key partner of the GNAFC, FSIN coordinates the publication of the *Global Report on Food Crises*.