



The Ukraine War and Food Security Crisis

Ukrayna Savaşı ve Gıda Güvencesi Krizi

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Abstract

Russia's invasion of Ukraine has caused a humanitarian crisis, while simultaneously disrupting global agricultural markets and energy systems. Developing countries, especially those highly dependent on imported grains and fertilizers from Ukraine and Russia are expected to be mostly affected. The crisis is expected to have serious consequences for European food supply and further exacerbate an already challenging situation for European farmers.

Limiting the conflict's impacts on global agri-food systems requires effective national policies and global collaboration. Policy initiatives should trigger a short-term response through keeping trade open and supporting consumers (especially the vulnerable) and farmers. But they should also keep a medium- and longer-term outlook towards improving the resilience of food systems to future shocks; systems that are also inclusive and deliver food and guarantee nutrition security. This short paper aims to highlight the likely impacts of the current food crisis and propose policy options for food security at the country level. Both short- and medium-to-long-term policy actions should be implemented at the country level to further improve food security. Policy actions should deal with the risks emanating by the crisis, and at the same time, align with the strategic aim to promote a sustainable, resilient, and inclusive agri-food sector.

Targeted short-term actions should contribute to facilitating free trade and to supporting consumers and vulnerable households and farmers. Trade restrictions on agri-food exports must be avoided and assistance must be provided to farmers so that they can cope with higher costs. Targeted measures should aim at reducing consumer exposure to the crisis and providing relief to most vulnerable groups, including refugees.

Longer-term actions should be structural and transformative, aiming at a more productive, resource-efficient, diverse, and nutritious food system. Public spending must be better targeted, coupled by private funding mobilization. Investments on innovation and R&D must be pursued. International and domestic supplier networks should be diversified. Productive partnerships between local agricultural producers and buyers downstream the agri-food value chain should be supported. The sustainable intensification of high potential crop land through precision agriculture technologies and climate smart agricultural practices should be incentivized. Integrated agricultural knowledge and innovation systems that deliver advisory support services to producers for sustainable productivity growth and resilience should be developed. Finally, local consumption patterns should shift towards healthier and more sustainable diets.

Article Info:

Author(s):

Demetris Psaltopoulos

Received: 11/10/2022

Accepted: 23/10/2022

Keywords:

Food security,

Ukrainian war,

Food crises



1. Introduction

Russia's invasion of Ukraine has caused a humanitarian crisis and triggered a global disruption of agricultural markets and energy systems. With Ukraine and Russia being major global producers of wheat, maize, oilseeds, fertilizer and fuel, production and trade disruptions are expected to be severe. Consequently, a food price crisis is expected to have grave consequences for food systems already fragile from COVID-19 disruptions, climate change, currency devaluations and fiscal constraints (Pangestu, 2022).

Developing countries, especially those highly dependent on imported grains and fertilizers from Ukraine and Russia are expected to be mostly affected. A decline in global exports of grains and oilseeds together with production constraints triggered by rises in the prices of fertilizer and energy could keep food prices elevated. Limited economic activity and soaring food prices would further undercut the purchasing power of local populations and push millions of people into poverty and hunger.

The crisis is expected to have serious consequences for European food supply and further exacerbate an already challenging

situation for European farmers. The EU is largely self-sufficient for several key crop and animal products and a main exporter of wheat and barley. However, the dependence of the EU on imports of energy, fertiliser and animal feed could increase production costs and food prices and affect the purchasing power of consumers (especially vulnerable groups) and producer incomes.

Limiting the conflict's impacts on global agri-food systems requires effective national policies and global collaboration. Policy initiatives should trigger a short-term response through keeping trade open and supporting consumers (especially the vulnerable) and farmers. But they should also consider medium- and longer-term options for transformation of food systems towards greater resilience to future shocks, rendering them more inclusive and able to deliver food and nutrition security.

This paper aims to highlight the likely impacts of the current food crisis. First, it provides a brief account of the likely impacts of the current conflict for global agriculture markets. The next section briefly deals with current international policy responses to the crisis aiming to shield countries from the effects of the crisis. Finally, in response to the emerging

challenges, the last section presents policy options which could address food security.

2. War in Ukraine: Implications for Global Agricultural Markets and Food Security

Russia and Ukraine are significant global producers and exporters of agricultural commodities. Between 2016/17 and 2020/21, the two countries together accounted for 19, 14 and 4% of global output of barley, wheat, and maize respectively, while their share of global sunflower seed production stood at around 50% (FAO, 2022). Both countries are net exporters of agricultural products. In 2021, Russia and Ukraine accounted for 18 and 10% of global exports of wheat and meslin, respectively. They were also among the top-10 exporters of barley (accounting for a combined 26% of global exports), maize (12%) and sunflower seed products. Between 2018/19 and 2020/21 the combined share of Ukraine and Russia in global exports was 24% for sunflower seed, 78% for sunflower oil and nearly 77% for sunflower meal (FAO, 2022). Russia is also the top global exporter of fertilizer, with very significant global market shares for N-fertilizer (18%), P-fertilizer (17%) and K-fertilizer (22%) (FAO, 2022). Overall, more than 30 net importers of wheat (mostly LDCs) depend on Russia and Ukraine for more than 30% of their wheat imports. Around 21 net importers of fertilizer depend on Russia for more than 20% of their imports, while several countries in Latin America, Eastern Europe and Central Asia have a dependency of over 30% on Russian fertilizers. Russia is also a major supplier of natural gas which is a critical

input for N-fertilizer production (World Bank, 2022).

The disruption of production in Ukraine and the logistic and financial restrictions imposed on Russian exports have affected the already tight global markets for grains, vegetable oils and fertilizers. In end-July 2022, the World Bank Agricultural Price Index was 19% higher compared to January 2021. Maize and wheat prices were 16% and 22% higher compared to January 2021. Sunflower and rapeseed oil markets traded at near-record high levels. In February 2022, fertilizer prices which had spiked before the war reached their highest levels since 2008 and have recently risen sharply by 30% since the start of the year, following the threat of trade disruptions and the high increase in gas prices (World Bank, 2022).

Agricultural commodity and fertilizer market disruptions pose a significant risk to global food security. Prices for basic foodstuffs were already high because of the pandemic. Further pressure due to the war would put food security at risk in many low-income countries at a time of increasing debt and devaluation of currencies. According to the 2022 State of Food Insecurity in the World report, the number of people affected by hunger rose in 2021 to 828 million, an increase of about 46 million since 2020 and 150 million since 2019, before the outbreak of the COVID-19 pandemic. In addition, WFP and FAO have warned that acute food insecurity could worsen in 20 countries or areas during June to September 2022.

Food price inflation is and will remain high. According to the World Bank (2022), between March and June 2022, food price inflation was high in almost all low- and middle-income countries¹, while 79% of high-income countries are also experiencing high food price inflation. This challenges food security in many economically vulnerable countries and generates pressure on low-income households in high-income countries. In parallel, uncertainty in the fertilizer supply response and limited raw materials have led to projections for very tight fertilizer supplies and high prices over the short- to medium-term (World Bank, 2022)². Consequently, agricultural production could be negatively affected, and food price spikes could persist. According to the World Bank's April 2022 Commodity Markets Outlook, food prices are expected to be at historically high levels through the end of 2024.

Consequences of the Ukraine conflict already seem grave. By June 2022 the number of acute food insecure people – whose access to food in the short term has been restricted to the point that their lives and livelihoods are at risk – increased to 345 million in 82 countries according to WFP. Making matters worse, 34 countries have reacted to higher food prices by adopting export restrictions affecting over 8% of global food trade. These actions are self-defeating because they reduce global supply, driving food prices even higher. Other countries respond by imposing restrictions of their own,

fueling an escalating cycle of trade actions that have a multiplier effect on prices. In addition, complicating the food supply response is the doubling of fertilizer prices over the last twelve months, reflecting record-high costs of inputs such as natural gas. Global stocks, which steadily increased over the last decade, need to be released to bring prices down. All this is happening at a time when fiscal space for government action is already constrained following the COVID-19 pandemic.

Further, the war in Ukraine could soon deliver a tragic blow to many of the world's poorest countries, as many of the countries at greatest risk of a debt crisis are now grappling with the threat of a food crisis as well. Food-import bills are surging faster for poor countries that already in debt distress or at high risk of it. Over the next year, the tab for imports of wheat, rice, and maize in these countries is expected to rise by the equivalent of more than 1% of GDP. That is more than twice the size of the 2021-2022 increase and, given the relatively small size of these economies, it's also twice as large as the expected increase for middle-income economies. But several middle-income countries are at risk as well, including some that are already in the midst of a simultaneous debt and food crisis.

Projections on the impacts of the conflict on economic growth are bleak. There is uncertainty related to the duration, scale, and

¹ 94% of low-income countries, 89% of lower-middle-income countries and 89% of upper-middle-income countries are experiencing inflation over 5% and many of them have double-digit inflation.

² Six months to 2-3 years and perhaps even more (World Bank, 2022).

destruction caused by the conflict on infrastructure and productive assets; impacts on global economic growth are estimated as substantial. OECD estimates suggest that global economic growth could be reduced by over a percentage point (i.e., to less than 3.5% from a December 2021 estimate of 4.5% for 2022), while inflation could rise by approximately 2.5 percentage points (OECD, 2022). In Ukraine, the economic damage is already substantial, while the Russian economy is expected to be hardly hit by international sanctions. European economies, especially those with a common border with Russia or Ukraine, are projected to be the hardest hit due to energy price rises and relatively strong pre-war business and energy links with Russia. Commodity-producing emerging-market economies may record stronger growth, but commodity-importing economies could record deeper declines and higher inflation rates. An alleged cease of energy exports from Russia to the EU would trigger substantial inflationary pressures and further reduce economic growth in Europe.

Projections on the impacts of the crisis on agricultural markets are also unfavorable. FAO (2022) estimates on the impacts of a steep reduction in grain and sunflower seed exports by the two countries indicate a considerable supply gap which could raise food and feed prices by 8 to 22% above their current levels. In the short term (2022/23 marketing season) the simulations assume that many exporting countries would not be able to increase output and exports due to high production and input costs (UNCTAD, 2022). However, beyond the current season, a

persistence of high energy prices and a continuation of reduced exports from the two countries would lead to a considerable supply gap in global grain and sunflower seed markets, keeping global prices high, even if other producing countries increase their output. Further, as an energy-consuming sector (especially in developed countries), agriculture will be very likely affected by high energy prices. Increases in the prices of fertilizers, feedstuff and other inputs would result in lower affordability for farmers, lower input use and lower yields, while higher production costs will translate to even higher prices for a wide range of farm products. Finally, high energy prices would make agricultural foodstuffs competitive for bio-energy production. This could lead to further pressure on global food prices.

3. International and National Policy Responses

The risks associated with the Ukraine conflict have mobilized policy makers, with international response being very active and rapid. The WFP has mobilized an Emergency Package aiming to assist 3.1 million crisis-affected and internally displaced people (IDPs) on the move inside Ukraine with in-kind and cash distributions, as well as 300,000 refugees and asylum seekers from Ukraine in neighboring countries (WFP, 2022). The package corresponds to a cost of US\$590 million, while WFP urgently needs US\$464 million to sustain its operations until the end of June. FAO has activated a Rapid Response Plan aiming to respond to the food insecurity and livelihood needs of over 100,000 vulnerable households

affected by the crisis in Ukraine. The plan will cost US\$50 million over the next three months. It sets out key emergency agricultural interventions and immediate cash transfers to help sustain lives and agricultural livelihoods amid the escalating nationwide crisis. The UN has launched coordinated Flash Appeals for a combined US\$1.7 billion to urgently deliver humanitarian support to people in Ukraine and refugees in neighboring countries. UNHCR's response to the most pressing needs of refugees includes protection, access to basic services, provision of core-relief items and multi-purpose cash assistance. UNHCR aid aims to reach 300,000 people in the first three months and is urgently seeking US\$510 million to meet the most urgent humanitarian needs of the displaced population inside Ukraine and in the immediate neighboring countries (UNHCR, 2022). The World Bank Group has already mobilized more than US\$925 million for Ukraine, including fast-disbursing budget support to help the government provide critical services to Ukrainian people, of which US\$350 million has been disbursed. It has also set-up a multi-donor trust fund to facilitate channeling grant resources. The Bank is also preparing a US\$3 billion package of support for Ukraine in the coming months and additional support to neighboring countries receiving Ukrainian refugees. In its just-completed fiscal year 2022, the World Bank Group responded with unprecedented scale to overlapping global crises of COVID-19 and the Ukraine War, providing advice and financing in response to the sharpest economic slowdown in eight decades, rising

inflation, deepening food insecurity, war, and fragility. Further, over the next 15 months, the World Bank will make up to US\$30 billion available to improve food security in developing economics. Also, the G7 have pledged US\$4.5 billion towards the same goal. International funds should go to people in immediate danger—by helping governments make targeted, cost-effective cash transfers to the most vulnerable households. Such funds should also help at-risk countries make the necessary investments to improve farmers' access to fertilizers and transform domestic food systems so they can become more productive, efficient, and resilient.

European institutions have also been active. The EU's response includes military assistance (€1 bn) to Ukraine and temporary protection for Ukrainians and third country nationals fleeing the conflict (European Parliament, 2022). At a global level, the Commission is: supporting Ukraine in developing a food security strategy to ensure inputs such as cereals, seeds and fertiliser reach farms successfully; ensuring that transportation and storage facilities in Ukraine are maintained to allow Ukraine to feed its citizens; delivering an EU Emergency Support Programme of €330 million to help secure access to basic goods and services, and help with protection of the population; pledging at least €2.5 billion of humanitarian assistance for international cooperation with a nutrition objective for 2021-24; and continuing to advocate against export restrictions and export bans, as open and well-functioning global supply chains and logistics

are essential for global food security. Also, humanitarian aid has gone to Ukraine and to the neighboring countries receiving people fleeing from Ukraine, while the European Commission has announced a €1.2 billion emergency Macro Financial Assistance (MFA) loan program to Ukraine.

The consequences of the conflict on food security have led to a distinct Commission response. The adopted Communication on “Safeguarding food security and reinforcing the resilience of food systems” (EC, 2022a) which sets action in three areas, namely, global support measures; support for EU farmers; and support for EU consumers. Global support measures include support to Ukraine in developing and implementing a food security strategy, an Emergency Support Program of €330 million for Ukraine aiming to secure access to basic goods and services, and support of at least €2.5 bn to regions most affected by the crisis.

Support to EU farmers includes a package of €500 million, including the use of the crisis reserve, to support producers most affected by the conflict. EU countries can complement this support up to 200% with national funds. Support for farmers engaged in sustainable practices is prioritized, whilst also ensuring that the measures target the sectors and farmers who are the hardest hit by the crisis. It also includes advances of direct payments to address cash-flow difficulties, market safety measures to support the pig meat market, and an exceptional and temporary derogation to allow the production of crops on land set aside within the EU, while maintaining full greening payments

for farmers. Support for consumers include measures to improve the supply of food staples, provision for Member States to reduce VAT on food and to draw from EU funds such as the Fund for European Aid to the Most Deprived (FEAD) which supports actions to provide food and/or basic material assistance to the most deprived. Despite efforts from various fronts (perhaps triggered by the derogation on fallow land) and pressures to ease rules on nitrates use and reactions on the forthcoming proposal for a new Regulation on the sustainable use of plant protection, the Commission has officially declared its commitment to reinforce the resilience and sustainability of the EU food system, through adhering to the Farm to Fork Strategy, reduce dependence on fertilizers and energy without undermining productivity and promote sustainable practices through the greater use of knowledge-sharing and innovation. Further, the Commission has recently adopted a decision to gather monthly data on various agricultural commodities in the EU.

Also, an exceptional measure was recently adopted to support EU farmers impacted by the increase in input prices. The measure, funded by the European Agricultural Fund for Rural Development (EAFRD), will allow EU countries to make a one off payment to farmers and agri-food businesses affected by increases in input costs such as feed and fertilisers. This will allow EU countries to use up to 5% of their EAFRD budget for 2021-22 for direct support to farmers and SMEs active in the processing, marketing or development of agricultural products. Selected

farmers and SMEs could receive up to €15,000 and €100,000 respectively. In addition, acknowledging that the Russian invasion on Ukraine may have consequences on the programming of the future CAP, MS were invited to consider the need to review some of their initial proposals on CAP strategic plans. In particular, there could be scope to reinforce elements of the plans aiming to strengthen resilience of the sector. In particular, MS were urged to revise their CAP strategic plans with a view to support farmers in adopting practices optimizing the efficiency of fertilizers, thus reducing their use. This can be done specifically through precision farming, but also organic farming, agro-ecology and more efficient use through advice and training on nutrient management plays an important role. Member States should fully exploit the possibilities of their CAP Strategic Plan in this regard, as well as optimizing and reducing use of other inputs such as antibiotics and pesticides and engage in carbon farming.

Support to businesses affected by the war, especially energy-intensive ones is also a priority for the European Commission. On March 23, 2022, a Temporary Crisis Framework (TCF) for State Aid Measures was approved, providing guidance to the Member States on designing national support measures (which also cover farmers and fertilizer producers) that will be quickly approved by the European Commission (EC, 2022b). TCF provides: i) limited amount of aid to businesses affected by the crisis; ii) liquidity support through State guarantees and subsidized loans; and iii) aid to

compensate for high energy prices granted through direct grants for up to 30% of eligible costs and to a maximum of €2 million.

4. Policy Options for Food Security

Both short- and medium-to-long-term policy actions should be implemented by national governments to further improve food security conditions. Policy actions should deal with the risks emanating by the crisis, and at the same time, align with the strategic aim to promote a sustainable, resilient, and inclusive agri-food sector. Countries should utilize the international and EU support framework but also pursue relevant national policies.

Short-term actions should contribute to free trade, support consumers and vulnerable households and farmers. Trade policy restrictions on agri-food exports must be avoided as they have proved to be detrimental in similar circumstances and access to market and trade information (e.g., monitoring of intra- and extra EU commodity trade, monthly data of private stocks of essential commodities for food and feed) should be further improved. In compliance with the international guidelines on the production side, countries should consider adjusting direct support to help agricultural producers cope with high energy, fertilizer, and feed prices; also, develop financial instruments (e.g., guarantees) with commercial banks that enable access to working capital for agricultural producers, producer organizations and MSMEs required to purchase inputs and maintain stocks and operations. On the consumption side, governments should consider providing

targeted, temporary, and means-tested income support (cash transfers) to poor households through existing social safety net programs.

Longer-term policy actions should be more structural and transformative, aiming at a more productive, resource-efficient, diverse, and nutritious food system. Public spending must be better targeted, private funding mobilized and investments on innovation and R&D pursued. On *trade*, international supplier networks should diversify and administrative burdens on importers/exports of agri-food products through the increased use of digital technology (e.g., electronic processing of customs, SPS and other necessary import/export documentation), reduced. Domestic supplier networks should be diversified by improving the aggregation, storage and distribution capacities of producer organizations and supporting productive partnerships between local agricultural producers and buyers downstream the agri-food value chain. Partnerships with private sector companies (ICT, logistics) should be pursued, to set up or expand e-commerce platforms that link agricultural producers, buyers/traders, and processors. On *production*, governments should incentivize the sustainable intensification of high potential crop land through precision agriculture technologies and climate smart agricultural practices which produce more with less water and fertilizer and limit greenhouse gas emissions. Organic and regenerative practices must be scaled in less favorable areas. Also, investments in energy efficiency improvements and renewable energy sources should be supported. Livelihood opportunities for

agricultural producers both on and off-farm should be diversified. Also, integrated agricultural knowledge and innovation systems that deliver advisory support services to producers for sustainable productivity growth and resilience should be developed, together with risk management instruments (including insurance) for agricultural producers. On *consumption*, there should be an effort to pursue healthier diets which are not oriented towards foodstuffs which are prone to price spikes; governments should support public awareness campaigns using social media, digital tools, and mass media to shift local consumption patterns towards healthier and more sustainable diets, including less consumption of meat and dairy products and higher consumption of fresh fruits, vegetables, whole grains, legumes, and nuts/seeds and also consider a possible increase in unhealthy food taxation.

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