

Food Insecurity and Social Instability in Light of the Ukraine-Russia War

The Russian invasion of Ukraine has far-reaching humanitarian consequences. Beyond the immediate death and destruction occurring in Ukraine, the war also has significant implications for global food insecurity and the potential for food-related unrest. Ukraine is a major global exporter of wheat and sunflower oil, and this trade has been dramatically reduced by Russia's blockade of Ukraine's ports. Exports of fertilizer from Russia and Belarus have also been affected in the aftermath of the invasion. In this policy brief, we examine the impact of the Ukraine-Russia war on the potential for unrest due to food insecurity. Through identifying which countries are most vulnerable to rising prices of imported wheat, sunflower oil and fertilizer, we pinpoint the likely hotspots for social instability.

Brief Points

- Increasing food insecurity, especially in the form of increasing food prices, is found to increase the likelihood of protests and armed conflict.
- Vulnerable countries to higher food prices comprise firstly those that have long-lasting and destructive conflicts, dependent on food through aid. The main concern for these types of countries is increased risk of starvation.
- Secondly, import-dependent middle-income countries with a limited agricultural sector are likely to be hit hard by increasing food prices. These populations are not on the brink of starvation but require attention because they are dependant on large-scale food imports and so are vulnerable to social upheaval should global food prices dramatically increase.

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Introduction

When Russia invaded Ukraine in February 2022, world food prices were already at very high levels due to poor harvests, increasing demand and pandemic-related supply chain issues. Ukraine is a significant exporter of wheat and vegetable oil, and the war has prevented that trade as sea ports have been blockaded by Russia, impacting global food security. The Food and Agriculture Organization of the United Nations (FAO) has warned that global food prices will increase dramatically in 2022, and the FAO Food Price Index in April 2022 was almost 30 percent higher than in April 2021. The World Bank has forecasted that the price of wheat is to increase by more than 40 percent in 2022, and the war is a significant contributor. Food supply problems have been exacerbated by high prices for fertilizer, something which increases the costs of production, or leads to lower yields if farmers cannot afford to use it. Increasing food prices have the potential to lead to food insecurity, a condition in which people lack the physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food insecurity can lead to social unrest such as protests, strikes and demonstrations, especially if food insecurity is combined with other grievances. While such actions are not a problem in themselves, such unrest has the potential to escalate, especially if protests are ruthlessly repressed, or anger over food prices is combined with pre-existing conflicts.

This brief explains what is understood about the relationship between food insecurity and unrest. It then highlights countries that may experience unrest, based upon an assessment of food import dependency, population and average incomes.

What Do We Know?

First, while unrest can be triggered by sharp increases in consumer prices, the literature on food insecurity and conflict points to deeper political and socioeconomic issues of a more fundamental nature as underlying causes of unrest, where the increasing food prices function as a trigger for mobilization. Thus, food-related unrest is seldom about food prices alone and tends to be connected to low economic development, unemployment and corruption. Research on food insecurity and conflict points to the importance of increased grievances in the population

when food prices become increasingly unaffordable, both due to the fundamental nature of food and the increasing share of income spent on acquiring food at the cost of other expenditures.

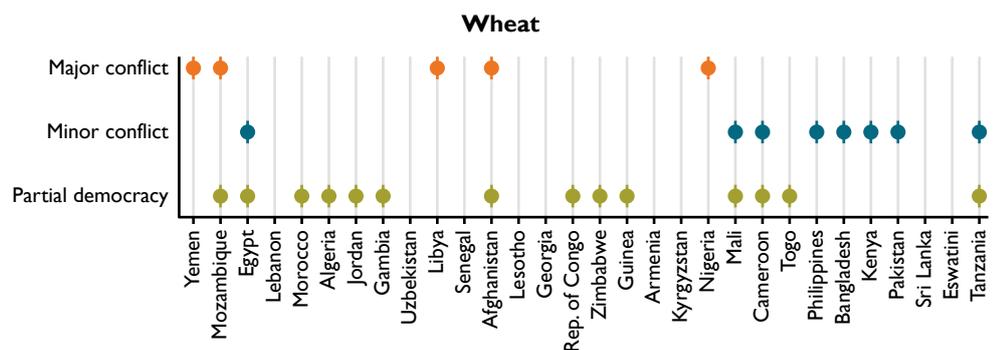
Second, elite capture of resources, food hoarding by merchants in times of crisis, lack of redistribution and social security nets, and situations where some groups benefit disproportionately from higher food prices have previously shown to be potent drivers for food-related unrest. These aspects are linked to group inequality, which can be a contributing factor when increasing food prices exacerbate already existing differences between social groups.

Finally, the level of unrest related to food insecurity is dependent on countries' internal capacity and government institutions. The degree to which consumers are affected by higher international prices is determined by the state's capacity to shield its citizens from price shocks and food shortages through more expansive food policies. Thus, the state's ability or willingness to provide relief to the population is an important moderating factor between food insecurity and social unrest. Also, the type of regime affects whether the population has the opportunity to engage in collective action such as protests. Partially democratic states tend to be more prone to unrest during food price spikes than more authoritarian regimes, as autocracies often repress public protests or demonstrations. Higher international food prices can be an early warning for governments to increase barriers to and repress collective action. Food-related unrest tends to cluster in areas where communities are able to organize politically and engage in collective action, often the urban middle class.

However, while rising cost of food stuffs is likely to cause hardship and pressure on household budgets, increasing food prices do not necessarily lead to higher food insecurity. Consumers may have alternative coping mechanisms, and rural producers may benefit from selling their wares at higher prices. Also, farmers can engage in subsistence farming that is less affected by market fluctuations, while urban residents tend to be dependent on the market for food through purchase. Nonetheless, an increasing number of rural residents net consumers and are therefore likely to be impacted by increasing food prices as well.

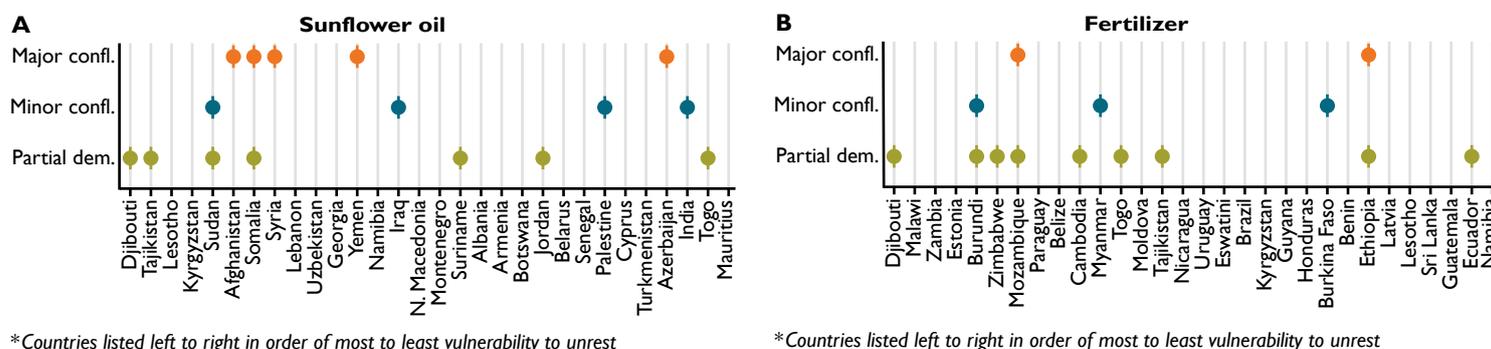
Where Are the Likely Hotspots for Social Instability?

There are two groups of countries that are most vulnerable to food insecurity.¹ The first type of vulnerable countries comprises those that have long-lasting and destructive conflicts and are dependent on food through aid distribution. These are least developed countries (LDCs), which are significantly vulnerable to drought and other extreme weather events due to a limited, rain-fed agricultural sector, weak storage capacity, and the lack of weather early warning systems. Countries such as Ethiopia, Somalia, Nigeria, South Sudan and Yemen are particularly vulnerable, where part of the population either experiences or is projected to experience starvation. Drought also affects food production in North Africa, which will likely impact food security in conflict-affected regions in the Sahel and in Libya. In these countries, there is an extreme level of food insecurity with long-lasting conflicts as a backdrop. The main concern for this type of country is increased risk of severe



*Countries listed left to right in order of vulnerability to unrest, where Yemen is the most vulnerable and Tanzania the least

Figure 1: Vulnerability to unrest based upon wheat import dependence, population and GDP per capita, 2020. Conflict and regime type may exacerbate vulnerability



*Countries listed left to right in order of most to least vulnerability to unrest

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Figure 2: Vulnerability to unrest based upon sunflower oil (A) and fertilizer (B) import dependence, population and GDP per capita, 2020. Conflict and regime type may exacerbate vulnerability

and widespread malnutrition and starvation. This is because there is not a monotonic relationship between food insecurity and unrest, where those most hungry are most likely to engage in contentious actions. The very poor and food insecure often lack the means to engage in unrest, but rather focus time and energy on securing the next meal. For example, in Afghanistan, in light of the long-lasting armed conflict, drought, and increasing fuel and food prices, almost half of the population are facing acute hunger. High prices for imported wheat put pressure on Afghanistan's food supply, and access to seeds and fertilizers are strained. Before the invasion, Yemen imported around 40 percent of its wheat from Russia and Ukraine. While Yemen may be able to find other sources of wheat, record global prices since the Russian invasion and Yemen's dependence on imports mean that the war in Ukraine is likely to impact the ongoing humanitarian crisis in Yemen.

The second type is comprised of import-dependent middle-income countries with a limited agricultural sector. These countries are not on the brink of starvation but require attention because they are vulnerable to fluctuations on the international market and are likely to experience social upheaval due to consumers' incomes being eroded by increasing food prices. Countries frequently mentioned in this regard are Tunisia, Egypt, Kazakhstan, India, Turkey and South Africa, amongst others. While demonstrations over food access do not constitute a problem in and of themselves, such mobilization and collective action in response to increasing food prices may be ruthlessly repressed, exploited by more violent or armed groups, or escalate into armed conflict. Many states subsidize staples in an effort to curtail unrest, especially in North Africa and the Middle East. Middle-income countries

are more likely to experience food-related unrest because they have previously been able to offer food subsidies or safety nets for their population to keep costs of basic goods low. But, with strained economies due to the COVID 19-pandemic and higher energy costs, it is increasingly challenging to keep prices low and social spending high. For example, Argentina has already experienced widespread demonstrations due to higher food prices and inflation. Also Iran has experienced unrest after the government cut food import subsidies, leading to sharp price increases in some staple commodities. Some import-dependent countries are able to cope with higher food prices. For example, oil-producing countries such as Saudi Arabia and the United Arab Emirates can use incomes from energy prices to offset rising food prices.

We also see a new tendency in that unrest is initiated by both consumers and producers. Historically, it has been consumers who protest when food prices go up, and farmers who protest when they do not get expected revenue for their produce. Now, however, we see both groups protesting. Consumers protest over increasing food and fuel prices, whereas farmers protest over higher fertilizer prices. For example, Prime Minister Rajapaksa resigned in Sri Lanka on 9 May 2022 after widespread anti-government strikes and protests over a growing economic crisis and economic mismanagement. Also, we see farmers engage in various forms of unrest over expensive fertilizers, fearing loss of income in the future due to failed crops. For example, rising fertilizer prices led to the declaration in Peru of a state of emergency in the agricultural sector. Like so many other countries, Peru was already struggling with high inflation and the impacts of the pandemic when rising fuel and food prices triggered widespread unrest.

Most Vulnerable Countries to Social Instability from High Import Prices

We provide an indicative list of those states which are likely to be at greatest risk of social unrest caused by an increase in prices for wheat, sunflower oil and fertilizer.²

In 2022, Ukraine was responsible for 39 percent of global exports of seed oils (almost all of which was sunflower seed) and 9 per cent of exports of wheat. Export of both products has been dramatically reduced by the Russian capture and blockade of Ukrainian sea ports. Prices for both had been rising since mid-2020 and there was a further dramatic rise following the invasion. In 2020, Russia was the world's largest exporter of fertilizer, with Belarus the second largest, and collectively they accounted for 17 per cent of global exports. Fertilizer prices rose during 2021, and again during the first four months of 2022. Part of the latter rise has been blamed on supply disruptions caused by sanctions implemented after the invasion of Ukraine. Other reasons for rising fertilizer prices are increasing costs of natural gas and other inputs used to make fertilizer and export restrictions imposed by China.

In general, there are three means by which citizens may notice the effects of rising prices for imported wheat and sunflower oil. Firstly, they may pay more directly for flour or bread, or for sunflower oil used in cooking. High prices of imported products are likely to also lead to higher prices for domestically made products. Secondly, high prices for imported wheat and sunflower oil may result in people substituting for other foods, such as rice or soya oil. Prices for the substitute foods will also rise so long as the increased demand for products such as rice does not occur along with increased supply. In the

event, around the world there has been a general rise in food prices, suggesting that substitution is not an easy way to avoid increases in the cost of living. Thirdly, rising costs of wheat or edible oils may prompt a government response, for example by increasing subsidies, or reducing taxation. Doing so may also precipitate social unrest if increased spending on food results in higher taxes or reduced spending elsewhere.

Concerning fertilizer, higher prices are likely to have wide-ranging effects upon domestic production, as it is used to produce many crops (including fodder for farm animals). Higher costs of production may decrease the farmers' incomes, or may result in higher prices for the crops they produce. If high prices result in reduced use of fertilizer, then the result will likely be lower yields, something that affects both incomes for farmers and shortages faced by consumers. In this way, fertilizer prices may have an indirect effect on general foodstuffs similar to that described above concerning wheat and sunflower oil.

For all three products we sought to examine the extent to which countries were likely to be affected by increasing costs of importing wheat, seed oils and fertilizer. We first compared for every country in the world the imports and exports of these products. We identified the countries which are most highly import dependent by identifying those with the largest imports compared to exports. For example, Indonesia's imports of wheat were worth over two billion dollars more than its exports, which is a high degree of import dependence. The large quantity of Indonesia's imports is, of course, partly related to its high population (273.5 million). Our next step was to divide the financial value of import dependence by a country's population, to get an average per-capita value of how much imports exceeded exports. For example, the Netherlands' per-capita level of import dependence was worth 45 USD per year. This figure is, though, a relatively small proportion

of the Netherlands' GDP per capita, which in 2020 was USD 52,396. While consumers in the Netherlands may well notice rising prices for bread, they are unlikely to find these prices so onerous that they resort to protests. Our final step was to divide GDP per capita by the financial value of import dependence per capita. For example, in Yemen, the per-capita value of import dependence was worth circa USD 23, and 2020 GDP per capita is estimated to be USD 758, suggesting that import dependence on wheat had an equivalent value of one 33rd of GDP per capita. Of course, this figure is merely indicative and does not represent the actual amount paid by someone in Yemen (who may also have below average income). Lack of data prevented the analysis of some countries (such as South Sudan or Niger).

We suggest that vulnerability to social unrest from higher prices of wheat, sunflower oil and fertilizer is high in the countries shown in Figure 1. As described in the first part of this brief, the vulnerability caused by import dependence and rising prices is exacerbated by the existence of armed conflict and of 'partial democracies' in which protest is possible but governments are not responsive to political pressure and may respond to protests with violent repression.

Countries that appear in more than one list are: Afghanistan, Armenia, Djibouti,³ Georgia, Kyrgyzstan, Lebanon, Lesotho, Mozambique, Senegal, Sri Lanka, Tajikistan, Togo, Uzbekistan, Yemen, and Zimbabwe. These states should also be regarded as being at particular risk of social instability as a consequence of rising food prices following the war in Ukraine, in combination with other contextual factors.

It is notable that many members of the lists are middle-income countries that are not among common focuses for development assistance. As noted above, some of the least developed countries that rely upon domestic subsistence

agriculture are less vulnerable to global price shocks. Instead, the existence of millions of people who are dependent upon imported food is more of a feature of relatively more affluent states that are able to buy from abroad. However, the middle-income states presented above face being squeezed between being dependent upon scarce imports of wheat, sunflower oil and fertilizer, and at the same time being outbid in international markets by the populations of more affluent developed countries that are also dependent upon imported food. ■

Notes

1. This section draws on: Rudolfson, Ida (2020) Food insecurity and domestic instability: A review of the literature. *Terrorism and Political Violence* 32(5): 921–948. See this for references to other works.
2. Here, trade statistics for 2020 have been obtained from the The Observatory of Economic Complexity; population and GDP Per Capita data for 2020 from the World Bank; battle deaths for 2020 from the UCDP dataset; and governance type from the Polity dataset (which covers the year 2018). Comprehensive trade data for 2021 is not yet available.
3. It is possible that Djibouti may be included because it acts as a trade hub for East Africa (and imports to Djibouti are fully recorded in the data but exports from Djibouti are not).

Further Reading

FAO (2017) *The state of food and agriculture: Leveraging food systems for inclusive rural transformation*. Available at: www.fao.org/3/I7658E/I7658E.pdf.

World Bank (2022) *Compounded stress: The impact of the war in Ukraine on the Middle East and North Africa*. Available at: blogs.worldbank.org/arabvoices/compounded-stress-impact-war-ukraine-middle-east-and-north-africa.

THE AUTHORS

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THE PROJECT

The project 'Consequences of the Invasion of Ukraine for the Global South' was set up to provide rapid analysis of the wider effects of the invasion. It is led by PRIO Senior Researcher Nicholas Marsh. The project is funded by Norad and the Ministry of Foreign Affairs of Norway.

PRIO

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