



# Feeding a Fractured World: U.S. Policy Response to the Global Food Price Crisis

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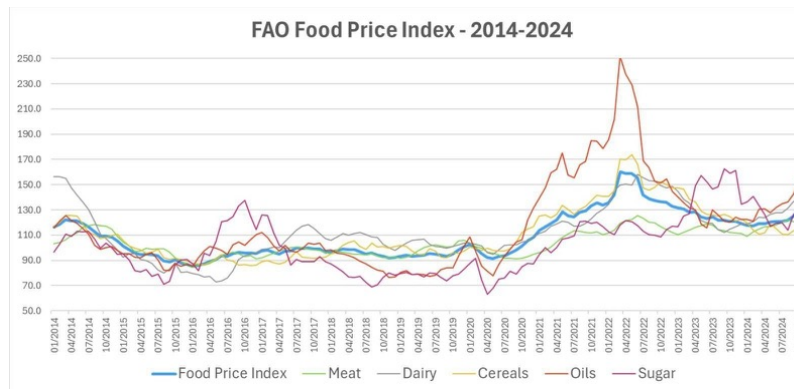
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This paper proposes the launch of a Global Fertilizer Security Initiative that will position the United States to lead a global coalition, ensuring an affordable fertilizer supply for developing regions, averting crop yield collapses, and stabilizing food production.

This timely recommendation will help address significant concerns over global food security. Over 122 million more people have been pushed into hunger since 2019. Rising grocery prices and supply chain disruptions have exacerbated domestic inflation, while hunger-driven migration and conflict undermine diplomatic efforts abroad.

This surge has been driven by the COVID-19 pandemic, Russia's invasion of Ukraine, and the destruction of the nation's agricultural sector, climate-related disasters, energy price volatility, and protectionist trade policies, especially between the United States and China (World Health Organization, 2023). Globally, this crisis strains food-importing and exporting nations and poses urgent humanitarian and geopolitical challenges. To the world and the U.S., higher food costs fuel hunger, instability, and inflation worldwide, undermining economic stability, national security, and global leadership.

The FAO Food Price Index (FFPI), a measure of the monthly change in international prices of a basket of food commodities, remains 27% above pre-pandemic averages, with wheat and maize supplies being critically constrained (FAO, 2025). The FAO reported that by early 2022, food prices had risen by 20% than the year before. By March 2022, it had surged another 40%. Spikes in the prices of staples, including cereals and vegetable oils, were driven by Russia's invasion of Ukraine, a key producer of agricultural products. Although these prices have fallen somewhat today, they remain significantly higher than pre-war levels (Angel, 2022).



This sustained price inflation is unprecedented in recent decades, and the FAO warns that food price inflation will persist in many countries despite stabilization in the global commodity markets. The spikes in food costs have driven hunger to a crisis level worldwide. The United Nations World Food Program (WFP) estimated that roughly 345 million people, in over 70 countries (World Food Program, 2024), are facing severe hunger, nearly double the number

before the COVID-19 pandemic (World Food Program USA, 2023). Among the 70 countries, import-dependent nations in Africa, the Middle East, and Asia have been hit the hardest, and food-exporting countries are also grappling with volatility and domestic food inflation.

The rising food prices constitute not only a humanitarian crisis but a strategic concern for the U.S. The global food inflation has contributed to a domestic price increase in the U.S., straining the American household budgets. Moreover, food insecurity abroad can provoke instability, conflict, and migration flows that impact U.S. economic and security interests. Rising food prices threaten global economic stability and security, and addressing this crisis aligns with the national interests of the U.S. (Price et al., 2023).

This paper explores the root causes of the worsening global food insecurity crisis, its repercussions, and 1 targeted policy solution the U.S. can champion to help foster long-term food system resilience.

## ROOT CAUSES OF CONTEMPORARY FOOD INSECURITY

### Climate Disruption: Droughts, floods, changing seasons, disrupting yields

Increasingly erratic climate patterns thus cut food production and tightened supply, setting up the stage for price hikes. Severe droughts, floods, and heat waves in recent years have led to the disruption of harvests around the world. For example, the Horn of Africa has suffered an unprecedented multi-year drought, and the United States' hurricane season is changing, characterized by growing numbers of storms, more severe storms, larger volumes of rainfall, and earlier and longer storm seasons (U.S.

Environmental Protection Agency, 2025; Gilford et al. 2024).

These climate change-driven events can have devastating impacts on agriculture, especially in countries that serve as global or regional food exporters. In the summer of 2022, extremely heavy rains in Pakistan submerged approximately a tenth of the country, including essential farmlands (U.S. Environmental Protection Agency, 2025). The USDA Foreign Agricultural Service revised estimated crop outputs from 9 million tons to 6 million tons, the lowest production since 2012-2013. Pakistan is also

one of the world's largest exporters of rice and wheat; the floods threatened Pakistan's ability to sell excess product to the World Food Program to shore up relief efforts to famine-stricken regions (Burke et al., 2023). Indeed, exports of rice, just one of the many vital crops impacted by flooding, dropped from 4.8 million tons to 3.1 million tons—a decrease of approximately a little over a third (Mahmood, 2023). Domestically, Pakistan also saw increased protests and riots amid worsening food shortages in the fall of 2022 (Hossain & Hollock, 2022).

The impacts of these increasingly frequent climate events have steadily eroded global grain reserves. Climate change amplifies the frequency of such events, making the food system inherently more vulnerable and less resilient to the pressures of other systems stressors.

### **COVID-19 Aftershocks: Supply chain disruptions, labor shortages**

The after-effects of the COVID-19 pandemic continue to roil food supply chains. Despite lockdowns being eased, supply networks have struggled to normalize. Distribution facilities such as ports, along with distribution systems such as trucking, had continued to face COVID-related backlogs. Heavy labor shortages continued to persist in the agricultural and food processing industries. The shortages of labor in crucial food-related fields have compounded food supply chain issues. For instance Baladi bread is a major cornerstone of the national diet of Egypt, where approximately 250 million loaves are consumed a day (Mostafa et al., 2004). However the country is extremely reliant on importing wheat, making Egypt one of the world's largest net importers of wheat and thus vulnerable to any disruptions within the global trade in the foodstuff (Mostafa et al., 2004). Simulation modeling from the COVID-19 pandemic period revealed a significant drop in bread availability and extended lead times owing to regional lockdowns, health measures, and disruptions to wheat imports from eastern Europe, especially Ukraine and Russia (Mostafa et al., 2004).

Furthermore, the sluggish economic recovery in many countries after the massive downturn in 2020 has meant that the production and distribution of food have not quickly caught up to resurgent

demand (World Food Program, 2024). The WFP has highlighted that a slow pandemic recovery constrained the growth in many poor countries, which further impeded investments in social protection at a time when food prices remained high. Thus, the logistical bottlenecks and macroeconomic constraints had set the stage for a fragile food supply situation.

### **War in Ukraine: Loss of Ukrainian/Russian wheat, grain, fertilizer exports**

As the “breadbasket of Europe” (Emediegwu, 2024), Ukraine plays a significant role as the global exporter of agricultural commodities, including grains and sunflower oil. It also plays a pivotal role in meeting the food demands of numerous nations. At the time of the invasion, Ukraine was the fourth-largest exporter of corn and wheat, and the world's largest exporter of sunflower oil. Combined, Russia and Ukraine were responsible for 27% of the world's wheat exports and 53% of the world's sunflowers and seeds (Yusuf, 2022). That being said, the price of grains had increased drastically by 23% from March 2021 to March 2022, the period immediately after the war broke out (Laborde & Mamun, 2023). Moreover, since the war, it has blocked the Black Sea's export routes, spiking wheat prices to their highest levels since. Other items like corn and barley also plummeted, creating a huge shortage. For countries in the Middle East and Africa, such as Egypt, which imports over 70% of its wheat from Russia and Ukraine, this has provoked fears of unrest (How Tensions in Ukraine Could Rile Egypt, 2022).

Moreover, since the annulment of the Black Sea Grain Initiative (BSGI), of which many food-insecure countries were huge beneficiaries, the UN reports that Russia's attacks on Ukraine's ports and export facilities have seen the destruction of about 60,000 metric tonnes of grains—enough to feed about 270,000 people a year (Emediegwu, 2024).

The Ukraine war's supply shocks to grain, vegetable oil, and fertilizers have been a primary driver of the global food price spike, causing a ripple effect worldwide.

COVID-19's impact on supply lines and Russia's invasion of Ukraine—similarly caused prices for nitrogen fertilizer to soar beginning in 2022 (Vos et

al., 2025). Economic sanctions against Russia and its ally Belarus, both exporters of potash, made it difficult for countries to import the compound, which is crucial to manufacturing fertilizer (Vos et al., 2025). Many farmers, especially in developing countries, simply could not afford enough fertilizer for the upcoming 2022/23 season, forcing them to use less. The FAO had projected that global fertilizer import costs jumped nearly 50% in 2022, which has forced countries to buy and use less fertilizer. This will inevitably lead to lower productivity, lower domestic food availability, and “negative repercussions for global agricultural output and food security” (Angel, 2022).

Similarly, high fuel prices have driven up the cost of farm operations and food transport systems, affecting systems from tractors to the export costs for grains, highlighting the adverse effects of increases in energy and fertilizer prices and their inflationary impacts on food prices.

#### **Trade Protectionism: Export bans, stockpiling by food-producing countries**

Geopolitical trade tensions between the US and China have significantly contributed to the escalation

of global food prices by disrupting export flows, inflating costs, and fostering protectionist policies. On April 9th 2025, the U.S. imposed steep tariffs on Chinese imports, reaching 145% (Huld, 2025). This directly increases costs for American businesses reliant on Chinese goods. These tariffs have been passed on to consumers, resulting in higher prices for groceries and restaurant meals. In retaliation, China levied tariffs on US agricultural exports such as soybeans and pork, adversely affecting American farmers (Glauber et al., 2025). This dispute is leading to shortages and increased volatility in the commodity market. This disruption not only affects bilateral trade but also reverberates through global markets, causing price volatility and uncertainty. The uncertain trade policies have prompted many countries to adopt protectionist policies, enacting food and export restrictions since 2022, further exacerbating supply constraints and price inflation (Laborde & Mamun, 2023). Recently, Chinese and American officials announced a 90 day pause on the implementation of tariffs, lasting until early August, in hopes that further trade discussions will yield a mutually agreeable trade solution.

## **GLOBAL AND GEOPOLITICAL IMPACTS**

The ramifications of surging food prices are profound, from humanitarian emergencies to geopolitical tensions. This section explores key impacts, including the rise in global hunger and malnutrition, civil unrest and political destabilization, and U.S. economic implications.

#### **Rise in global hunger and malnutrition**

The most severe and immediate consequence is a surge in worldwide hunger. The WFP had reported that the number of people facing acute hunger has climbed significantly, to over 340 million people in 74 countries in need of urgent food assistance (World Food Program, 2024). Nearly 328 million people in 48 countries were in a crisis or underwent acute food insecurity by mid-2023, up from 216 million the year prior (Bjoern Rother et al., 2023). Worst of all, innocent children suffer the most, with rates of acute child malnutrition spiking in many hunger hotspots around East Africa.

In multiple countries, the extreme cause of famine is

a real threat. Countries part of East Africa, such as Somalia, Ethiopia, and Kenya, are all experiencing their worst drought in decades due to climate change. And, with global food prices remaining elevated due to the confluence of factors discussed in the previous section, these countries struggle to supplement these shortages with imported food supplies, leaving millions at catastrophic levels of food insecurity.

#### **Civil Unrest and Conflict Risk**

Historically, spikes in food prices and hunger are accompanied by social unrest and ultimately violence. In 2008 and 2011, escalating food prices led to riots in dozens of countries, for example Arab Spring uprisings across North Africa and the Middle East. Researchers reported at least 12,514 food and fuel-related protests between November 2021 and October 2022, with Pakistan, Ecuador, India, Indonesia, and Nepal seeing the highest numbers of disturbances (Hossain & Hollock, 2022). Pakistan alone saw nearly



1,400 incidents of riots and protests relating to food affordability and fuel prices, and countries like Iran and Indonesia saw widespread demonstrations against soaring grocery prices (Nangoy, 2022). In Sri Lanka, where its government collapsed due to protests sparked by severe food inflation. In other countries, such as Peru, riots had erupted over fertilizer and fuel shortages.

### **Repercussions for the US Economy and Humanitarian Response**

Despite the US being a leading food producer, the country has not been immune to the effects of the global price surge. In 2022, food prices in the US rose at their fastest pace in over 40 years. Low-income Americans were hit the hardest as their purchasing power decreased drastically.

From 2020-2024, the all-food Consumer Price Index (CPI) rose 23.6% (Davidenko & Sweitzer, 2025). Despite this rise, the U.S. government is struggling to keep up with increased cost of delivering aid. Take the WFP's operating costs, which faced a 60% funding gap in 2023 (Rother et al., 2023). Food security poses significant regional and global security threats. Hunger-driven displacement, famines and localized conflict over food resources can destabilize entire regions, creating or deepening humanitarian and refugee crises. In Sudan, which has been embroiled in a civic war and interrelated famine since 2013, hunger and unrest have caused approximately 13 million people to flee their homes, with millions seeking refuge in neighboring countries like Egypt, Chad, South

Sudan, Libya, Uganda and Ethiopia. With many host nations struggling to muster the resources or political will to care for so many displaced people, many of these refugees have begun to seek asylum across the Mediterranean in Europe. Numbers of Sudanese nationals seeking asylum in Europe has continued to grow across consecutive month since the fighting and famine began, with 10,000 applicants in 2024, up from 2,600 in 2022 (European Union Agency for Asylum, 2025; European Union Agency for Asylum, 2022).

These hunger-related displacements and conflicts are humanitarian disasters, but they also contribute to global economic and social instability, increasing the potential need for United States emergency responses or even, in worst-case scenarios, military intervention. The food insecurity crisis poses a direct challenge to the US humanitarian security agenda.

Rising refugee flows place additional burdens on neighboring states and fuel political tensions in Europe and beyond, while instability in key regions can delay or derail critical cooperation on climate change, trade, and pandemic response. In turn, Washington may find itself compelled to enact costly emergency interventions—or even military deployments—far from U.S. shores in order to safeguard strategic interests and global economic stability. If left unchecked, the food crisis will not only escalate humanitarian suffering but also force a significant reallocation of U.S. resources from diplomatic and development programs toward defense spending, undermining both American and international security.

## **KEY RECOMMENDATION**

The drivers of the crisis are global and interconnected. Food insecurity in one region can quickly become a security issue worldwide. By pursuing the suggested policy outlined below and leading a global fertilizer initiative, it can mitigate immediate suffering and begin to help shepherd more resilient food systems around the world.

A central pillar of the U.S. response should be the launch of a Global Fertilizer Security Initiative. As explored above, fertilizer shortages have been

exacerbated by the war in Ukraine, along with the volatility in global energy markets. These are critical upstream drivers of reduced crop yields and higher food prices, particularly in the Global South. Without affordable fertilizer, even regions with adequate climates, rainfall, and arable land see their agricultural output decline, which deepens the dependence on imports and humanitarian aid. Rebeca Grynspan, secretary-general of the United Nations Conference on Trade and Development (UNCTAD), warned, “If we are not able to bring fertilizer prices down, the

crisis of affordability we have today will be a crisis of availability tomorrow” (Farge, 2022).

The U.S. should spearhead a multilateral Fertilizer Security Taskforce, partnering with major producers such as Canada and Morocco, and other institutions like the World Bank and the African Union. This initiative would pool resources to subsidize fertilizer purchases for low-income countries, stabilize supply chains, and enable the investment in alternatives such as biofertilizers and regenerative farming practices. This initiative would include several key components. First, it will include emergency fertilizer finance and procurement. The US, in concert with the World Bank and other regional development banks, would marshal a fund to help the most vulnerable countries purchase fertilizer. This could involve extending credit lines or grants to importers in countries at risk of production shortfalls. The goal of this is to prevent farmers in risk-prone areas like sub-Saharan Africa from skipping on fertilizer due to high prices. Second, the task force would focus on

boosting supply through diplomacy and production. For example, the U.S. can encourage countries that produce key inputs (e.g., nitrogen, phosphate) to avoid export bans and keep channels open. Where sanctions or trade barriers hinder fertilizer trade, the U.S. can work on ways to allow these necessities to reach global markets. Other components can also include technical assistance, pushing agronomic training that helps farmers get more crop per kilogram of fertilizer. Through programs and research, the initiative could seek out the best practices for fertilizer application, yielding maximum output with less fertilizer.

We need to away shift from a system that responds to food security issues retroactively, striking only after a harvest has failed or riots over food supplies have begun, and towards a more holistic and proactive effort. By addressing their core supply constraint, the US can help prevent future crises rather than merely reacting to them, while boosting diplomatic ties and supporting sustainable agricultural development.



The Center for International Affairs and World Cultures (CIAWC) was relaunched in 2023 as a new home for research and timely discussion on major world events. CIAWC is poised to be a leading venue for the discussion and investigation of global security issues, policy solutions, and timely analysis. Building on strengths in interdisciplinarity, regional expertise, and networks beyond the university, we aim to be a resource for the Northeastern community and beyond.

**Preston Chan** is a freshman studying Economics and International Affairs, with a strong interest in harnessing policy, diplomacy, and innovation to address global insecurity. Born and raised in Hong Kong, Preston brings a cross-cultural lens to economic and geopolitical challenges, with a particular focus on issues impacting marginalized communities. His academic interests are matched by a deep commitment to empowering the socioeconomic mobility of underserved youth. He is the founder of Invent Your Own Future (IYOF), a youth-led nonprofit that connects students with access to mentorship, internships, and career opportunities. Whether in policy research, nonprofit leadership, or grassroots initiatives, Preston's work is guided by a belief in inclusive progress and the power of young people to drive meaningful, lasting change.

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