



ANOTHER PERFECT STORM?

How the failure to reform food systems has allowed the war in Ukraine to spark a third global food price crisis in 15 years, and what can be done to prevent the next one

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TABLE OF CONTENTS

1. A rapidly unfolding food security crisis	2
2. Four structural weaknesses that are leaving food systems vulnerable to price shocks	4
2.1 Food import dependencies	5
2.2 Path dependencies in production systems	8
2.3 Opaque, dysfunctional, and speculation-prone grain markets	10
2.4 Vicious cycles of conflict, climate change, poverty and food insecurity	15
3. The dangers of ignoring the structural flaws and adopting short-sighted solutions	17
4. Avoiding the next ‘perfect storm’: actions that can address immediate needs and kick-start food system transformation	20

SUMMARY

This Special Report takes stock of the impacts of the Ukraine crisis on global food security. It identifies underlying vulnerabilities and rigidities in terms of food production patterns and import dependencies, in a context of declining international solidarity and systematic climate-induced supply strains. It also identifies grain hoarding and commodity speculation as key factors in turning the current shocks into a full-blown food price crisis. A number of these structural weaknesses were already identified following the 2007-2008 food price crisis, but were essentially left unaddressed. The Special Report warns against opportunistic and short-sighted responses to the crisis, including backsliding on food system reform commitments. It calls instead for urgent action to: support food importing countries (including through debt relief); tackle commodity speculation and enhance market transparency; reduce reliance on fertilizers and fossil energy in food production; accelerate the development of regional grain reserves and food security response systems; and diversify food production and restructure trade flows. Although the Special Report does not discuss in detail the critical food security situation within Ukraine or in the world's many conflict zones, it highlights the vicious cycles of climate change, conflict, poverty, and food insecurity that are leaving millions of people highly vulnerable to shocks. This makes it all the more critical to act now to rebuild food security on a new and lasting basis. Failure to do so means sleepwalking into the catastrophic and systematic food crises of the future.

1. A rapidly unfolding food security crisis

With spring crop planting down by at [least a third](#), supply routes heavily disrupted by fighting, and over 10 million people now displaced, the Ukrainian population is facing dire food security threats in the wake of Russia's invasion. As in the world's many conflict zones – Yemen, Afghanistan, Syria, Ethiopia, and across the Sahel – hunger is a systematic consequence of violence.

The war in Ukraine is also having major impacts on global agri-food markets, thanks to the disruption of Ukrainian and Russian grain exports. Supply interruptions in the Black Sea region have combined with [export restrictions](#) imposed in 20 countries to create temporary

shortages, [stalled shipments](#), and panic buying. The result has been dramatic food price spikes that are exacerbating hunger in many of the world's poorest and most vulnerable regions. Wheat export prices hit a [14-year peak](#) in March, rising 20% above February prices; meanwhile, maize hit its highest price levels since records began, as the invasion of Ukraine combined with poor harvest forecasts. On April 8, the UN Food and Agriculture Organization (FAO) registered a third consecutive record food price index, with [prices 34% higher](#) than a year previously. As this note was published (May 6), the FAO was expected to report another month of record-breaking price spikes.

The situation could deteriorate further if the conflict affects the summer harvesting of Ukrainian wheat. Although some are optimistic about potential shortfalls being [made up by other countries](#), with [India](#) already upping wheat exports, [drought](#) in a number of wheat producing countries is raising questions about their ability to buoy global supplies. Global grain production could also be hampered by [record spikes in fertilizer prices](#), following supply interruptions from Russia and Belarus.

Over [30 countries](#) depend on Russia and Ukraine for at least 30% of their wheat import needs, and at least 20 countries source over [50% of wheat imports](#) from those two countries – and are therefore highly vulnerable to price shocks and/or supply shortfalls. [Almost 40% of total African wheat imports](#) come from Russia and Ukraine. Grain from the Black Sea region accounts for a huge share of imports for Eritrea (100%), Somalia (>90%), and DRC (>80%). Countries which are highly dependent on wheat for caloric intake, and reliant on imports to meet those needs, are particularly exposed to global grain price spikes. In Eastern Africa, as much as a third of average cereal consumption is from wheat/wheat products, [84% of which is imported](#), largely from Ukraine and Russia.¹

Rising wheat prices have already caused the price of bread to nearly [double in Sudan](#), and to [increase by 70% in Lebanon](#). The cost of importing wheat has increased by 33% in [Kenya](#) and [Egypt](#), with Cairo – the world's largest wheat importer – now [requesting IMF assistance](#).

Price shocks are rippling out well beyond those regions – with global food prices pre-invasion already [20% higher](#) than the previous year on the back of [rising energy prices and shipping](#)

¹ In [Egypt and Djibouti](#), wheat accounts for as much as 35% of caloric intake, and they are reliant on imports to meet 79% and 100% of needs, respectively.

costs, and sanctions contributing to global inflationary pressures.² Price volatility is already spilling over into soy, maize, and rice markets as importers substitute one commodity for another. FAO modeling suggests that in a ‘severe shock’ scenario, which is looking increasingly likely, the global number of undernourished people will increase by 13.1 million in the short term (2022/23) – including 6.4 million in Asia-Pacific and 5.1 million in Sub-Saharan Africa.

Progress on reducing hunger has already been stagnating since 2014-2015, and went fully into reverse in 2020 as the pandemic drove hunger up by 8.4%, leaving up to 811 million people undernourished. In 2021, 40 million more people than the previous year faced acute food insecurity, according to new data from the UN/EU-led Global Network Against Food Crises. The current price shocks come on top of severe drought in the Horn of Africa, which has left 20 million people at the risk of starvation. The Ukraine crisis therefore risks making rising global food insecurity into a lasting trend, further undermining hopes of eradicating hunger by 2030, a key milestone in achieving the UN Sustainable Development Goals (SDGs).

2. Four structural weaknesses that are leaving food systems vulnerable to price shocks

It is clear, therefore, that the Ukraine crisis is sparking major disruptions in global agri-food markets and threatening access to food for millions of people. But was a global food price crisis and food security crisis the inevitable impact of this conflict? Below, **we argue that a number of underlying rigidities, weaknesses, and flaws in global food systems are amplifying the effects of the Ukraine conflict on food security**, including:

1. Food import dependencies
2. Path dependencies in production systems
3. Opaque, dysfunctional, and speculation-prone grain markets; and
4. Vicious cycles of conflict, climate change, poverty, and food insecurity

² Although sanctions have not been imposed on Russian exports of food or fertilizer, sanctions on energy and other sectors may have knock-on effects on the global economy. However, these impacts and their implications for food security are hard to isolate from the disruptions caused directly by the conflict, and from the food export restrictions introduced by some 20 countries.

These flaws were already visible in the 2007-2008 global food price crisis, the subsequent 2010-2012 price spikes, and in the [2020-2021 COVID-induced disruptions](#). The failure to reform food systems and address these flaws has left millions of people critically vulnerable to shocks, which are likely to mount and intensify over the coming years.

2.1 Food import dependencies

Much has been made of Russia and Ukraine's importance as global grain producers. But to understand why the current disruptions are having such acute outcomes, it is crucial to break down the figures. A number of countries are highly vulnerable because of a **double dependency**: i) on imports of staple crops, and ii) on a handful of exporters for a high percentage of those imports.

Ultimately, food import dependencies have arisen from **changing dietary patterns**, and notably a shift towards a handful of staple crops. By 1995, wheat, rice and maize – just 3 of the 7,000 plants consumed by humans – accounted for [more than 50%](#) of the world's plant-derived food energy intake. Consumption of these and other globally traded crop commodities [rose faster](#) than other foods as a share of national food supplies over the past 50 years. Access to these foods has helped to ensure food security, and in some cases to [diversify diets](#) – particularly in urban areas in the Sahel and other Global South regions.

However, the focus on staple crops since the colonial period has also **eroded traditional diets** and left countries heavily reliant on imports for what are now their staple foods. In many countries, **cash crops** have taken the place of more diverse food cropping and nutritionally important foodstuffs. For example, tobacco farming is considered to have [displaced](#) vegetables and pulses in Bangladesh, as well as cassava, millet, and sweet potatoes in a number of African countries. The development of high-yielding wheat varieties during the 'Green Revolution' has also accelerated production and dietary shifts, leading for example to the [replacement of rice-pulse intercropping](#) with wheat monocultures in India. Public distribution systems, notably in South Asia, have tended to [focus on wheat and polished rice](#), further changing dietary preferences over time.

African countries have become especially [food import dependent](#) following the adoption of **Structural Adjustment Programs** in the 1980s, which promoted cash crops exports and cheap grain imports, scaled back state support programmes, and dismantled the structural foundations of food production in many African countries. The continent's food import bills

tripled over recent decades, although import volumes have started to stabilize since 2011 and agricultural exports have also risen fast – primarily for non-food cash crops. While most countries continue to produce staple crops for domestic consumption, many do not produce enough of them to meet their needs, and have become reliant on large volumes of imports. And with **populations becoming accustomed to wheat-based diets** in regions that are not capable of producing it, a handful of countries are now 100% dependent on imports of staple foods.

Food importing countries have also become **dependent on a limited number of grain exporters**. Global trade in staple crops is dominated by a handful of countries and corporations – leading to significant disruptions when a major exporter goes offline. According to USDA data, just 7 countries plus the EU account for 90% of the world’s wheat exports, and only 4 countries account for 87% of the world’s maize exports. Together, Russia and Ukraine account for over 25% of world wheat exports, 15% of world maize exports, and over 60% of world sunflower oil exports. Meanwhile, just four companies control 70-90% of the global grain trade, including exports from the Black Sea region. Although exemptions from sanctions have allowed these firms to continue to operate in Russia, the war has seriously curtailed their ability to move grain from the region. These highly consolidated global trade flows amplify the repercussions of supply shocks in exporting countries.

The impacts of supply/price shocks on food import dependent countries are also exacerbated when additional countries enact **export bans**. Countries restricting grain and vegetable oil exports since the conflict began include not just Ukraine and Russia, but also Indonesia, Hungary, Moldova, Serbia, and Argentina. As of early May 2022, some 20 countries had imposed food export bans. These and other export restrictions (e.g. licensing requirements) affect 17% of globally traded food calories, i.e. a similar magnitude to the export restrictions invoked in 2008.³ Countries that impose such restrictions are typically seeking to shore up their access to domestic supplies and to keep prices low at home in the face of global market instability. However, export bans further limit the sourcing options for food import dependent countries, and generate market uncertainty and exacerbate price spikes on world markets, particularly when introduced unilaterally and at short notice. For example, the unexpected expansion of Indonesia’s export restrictions to all forms of palm oil on April 27 caused US soy oil futures to jump 4%.

³ The WTO estimated that a 1% surge in global restrictions over 2008-2010 increased global food prices by 1.1%.

Furthermore, **most food import dependent countries are already highly indebted**: before the start of the crisis, developing countries were spending an average of 16% of export earnings on debt servicing. Countries often face a vicious cycle: the need to service debts and to pay high food import bills (generally in USD) requires them to generate high levels of foreign exchange. To do so, countries may seek to ramp up exports of cash crops rather than shift towards growing staples for domestic consumption or diversifying their agriculture – thereby reinforcing their reliance on staple food imports in the longer term. With central banks around the world facing pressure to raise interest rates, net food importing countries are now facing above-average spikes in borrowing costs, and this new borrowing will saddle countries with ever-greater debt, reducing their ability to make crucial investments for the future (*inter alia* in rebuilding food production capacity, and providing basic social protections).

In addition, many of the biggest food producing and exporting countries are **heavily reliant on fertilizer imports from a handful of suppliers** in order to sustain their food production, reflecting problematic path dependencies in agriculture (see Section 2.2). Fertilizer prices are now skyrocketing and shortages are looming, with Russia, Ukraine, China and Kyrgyzstan all placing restrictions on fertilizer exports, and Belarussian fertilizer exports sanctioned since 2021. Russia and Belarus combined supply 40% of the world's potash fertilizer; in 2021, Russia was also the leading exporter of ammonium nitrate fertilizer (49% of global export markets) as well as NPKs (38%), ammonia (30%) and urea (18%) products. Within Russia and Ukraine, food production is dependent on a handful of input companies, and how they respond is another unpredictable factor that could disrupt production this year and beyond.

In the wake of the 2007-2008 food price crisis, which sparked **food riots** in a number of countries, heavy dependency on staple food imports was identified as a major weakness that countries must address. However, **little action has been taken since**. Although a Common Framework for Debt Treatments was established in 2020 to reduce debt burdens in the face of COVID-19, this has not led to debt cancellation for any of the participating countries. In 2020, 62 developing countries in fact spent more repaying debt than they did on healthcare during the pandemic.

2.2 Path dependencies in production systems

In response to mounting food prices and growing food security concerns, calls have grown for countries to **shift production patterns** – from fuel to food, from feed to food, or from export-oriented cash crops to locally-consumed staples. For example, Greenpeace has urged the EU to shift feed crop production for factory farms into food crops for human consumption, arguing that diverting just 8% of EU feed crops would be enough to offset the loss of grain imports from Ukraine and ensure access to food for the bloc's poorest inhabitants. Meanwhile, a letter signed by hundreds of scientists suggests that shifting to organic agriculture on 25% of EU land – as mandated by the EU ‘Farm to Fork Strategy’ – would allow Europe to drastically reduce its nitrogen fertilizer imports and thereby reduce exposure to fertilizer price spikes/shortages.

Indeed, **shifts in what countries produce and how they produce it are urgently needed** – not only to address immediate food security threats, but also to advance the transition towards sustainable, resilient, diversified food systems (see Section 4). **A number of entrenched obstacles**, however, hold back farmers’ ability to shift and diversify their production in response to global market instability and food security needs, including the following:

- Individual farms and entire regions – for example the US ‘corn belt’ or the Argentine ‘soy belt’ – have become **highly specialized in the production of specific commodity crops**. Accumulated investments in these specialized commodity systems create ‘path dependencies’⁴: commodity-specific skills, training, equipment, networks, and retail relationships are costly to obtain, and may no longer be relevant if farmers shift to different crops or different modes of production. The economics of specialized commodity production (high costs, high volumes, low margins) generally encourages farms to scale up and reduce labour intensity – creating further path dependencies. Additionally, specialized processing and transportation infrastructures have been developed at the regional or national level, facilitating large commodity outflows from the world's major “breadbasket” regions. Government policies have reinforced specialized commodity production and discouraged diversification, including: research and breeding programmes that focus on specific crops; commodity-linked farm subsidies and biofuel

⁴ In IPES-Food's 2016 report, From Uniformity to Diversity, the path dependencies of highly specialized agriculture are identified as one of the eight ‘lock-ins’ of industrial food systems.

mandates in the US, the EU, and elsewhere; public distribution programs in developing countries; and trade policy incentives (e.g. low tariffs on fertilizer/pesticide imports to ensure competitive crop production, or low/zero feed grain tariffs to allow specialization in meat and dairy).

- **Different authorizations and treatments** for biofuel crops, feedstocks and food crops also present a [significant barrier](#) to any rapid shifts towards staple food crop production. Furthermore, current incentives are pointing towards *increased* biofuel production: oil and gas prices are rising in tandem with food prices, creating incentives for energy production from other sources. The US government has added further incentives for biofuel crops by temporarily [relaxing seasonal ceilings on bioethanol](#) in fuel blends.
- Production patterns are also determined and locked in by the **preferences of commodity buyers and investors**. The fact that commodities like wheat and maize can be readily traded through existing global exchanges, and have high substitution potential as ingredients in processed foods, reinforces the focus on these specific commodity crops. These preferences are reinforced by major agri-business firms, which have invested heavily in infrastructure for storage and trade and thus prefer to have production concentrated in regions where they can control that trade. These trends reflect the outsized role of investors and agribusiness players in determining how food systems are structured, and the [concentration of power](#) at key nodes of the agri-food chain.
- Farmers around the world have become increasingly **reliant on synthetic fertilizers**. Global demand for the three main fertilizers (nitrogen, phosphate, and potash) [increased by 8.5%](#) from 2002-2016, with only [six crops](#) (led by maize and wheat) accounting for two thirds of demand, and a handful of exporting countries dominating fertilizer trade (see Section 2.1). Farmers' exposure to fertilizer price volatility (with fertilizer closely linked to fossil energy prices) now threatens to drive down production as farmers struggle to afford or access those inputs. Fertilizer reliance also locks farmers into current production systems and holds back diversification. Although rebuilding soil fertility ultimately requires different practices (e.g. integrating nitrogen-fixing crops), the loss of soil microbiota through intensive fertilizer usage reinforces the need for synthetic fertilizer to sustain yields in the short-term.

2.3 Opaque, dysfunctional, and speculation-prone grain markets

Another underlying flaw that has turned the Ukraine crisis into a global food security crisis is the opaque and dysfunctional nature of grain markets. It is important to note that the [FAO food price index](#) had already hit levels as high as 2008 peaks back in January of this year. In this context, it was inevitable that a supply shock affecting two of the world's major grain exporting countries would destabilize global markets on some level.

However, **the scope and scale of current price volatility can only be partially explained by market fundamentals**. Although losing Ukrainian grain production for a number of years could present real supply problems, and fertilizer shortages could significantly affect 2023 production, this year's wheat shortfalls are [likely to be made up by other countries](#) (some of whom were already expanding wheat planting in anticipation of the Russian invasion) and the release of grain reserves following recent bumper harvests. The [global cereals stock-to-use ratio](#) is at 29.7% (down fractionally from 29.8% in 2020/2021), and remains comfortable and [only slightly below previous years for wheat](#) (35.3%) and maize (25.8%); at 37%, rice stock-to-use ratios are actually above previous years. Supply disruptions are occurring as [new/rerouted grain shipments are awaited](#), leading to [temporary shortages](#) and rising prices – but **there is not a global food supply shortage at the present moment**.

These price shocks are clearly being exacerbated by a number of dysfunctions in global grain markets, including **commodity speculation**. Commodity futures markets play an important role in the determination of grain prices, bringing together: i) *hedgers*, i.e. commercial operators who either grow commodities (farmers), store commodities (grain elevators), or buy them (food processing companies); and ii) *speculators*, i.e. non-commercial operators who buy and sell futures contracts with the aim of making a profit. Reliance on futures is part of what provides liquidity to markets and thus makes them function.

However, **'excessive speculation'** can make upward swings higher than would have been the case based on supply and demand conditions alone. Where for other commodities this may simply result in bigger gains/losses for investors, **for food this translates into higher real-world prices that affect the world's poorest people**. In 2007-2008, a massive influx of speculative financial investment contributed to surging futures prices and what is now referred to as a global food price crisis (see Box 1).

As noted by an April 2022 Agricultural Market Information System (AMIS) [Market Monitor report](#), there has been increased investment in commodity futures and commodity-linked funds since the Ukraine conflict began, while historical volatility for agricultural commodities has climbed in both the US and Europe. A number of developments in fact suggest that the types of ‘excessive speculation’ seen in 2007-2008 may well be back:

- Immediately following the invasion of Ukraine, [investors rushed](#) into **wheat and corn futures** especially for May delivery. [Trade volumes on the Chicago Mercantile Exchange](#) rose with the outbreak of the war, with futures trades for soft red wheat soaring on the first day of the Russian attack and again in early March when prices peaked. In just 9 days, the price of wheat on futures markets jumped [54%](#), and then retreated nearly as quickly, albeit remaining at a high level. At a hearing on March 31, the U.S. Commodity Futures Trading Commission (CFTC) noted that volatility was [20% beyond what is normal](#) since the Russian invasion of Ukraine.
- There have also been [major capital influxes](#) into **agriculture-linked exchange traded funds (ETFs)**, including commodity index funds that bundle food and fuel investments together. One ETF, Teucrium Wheat Fund ([WEAT](#)), saw huge demand for shares from investors, with its price rising [nearly 40%](#) in the space of a week from late February to early March 2022 and its assets under management jumping from just over \$75 million USD in the fourth quarter of 2021 to over \$500 million USD by early April 2022. [WEAT's volume of daily trades](#) increased up to 100-fold from January to early March and continued throughout March and April at levels around 10 times above average daily volumes prior to the outbreak of the war.
- Soon after the invasion of Ukraine, wheat futures prices shot up so high that some **grain elevators** in the US [stopped buying futures contracts](#) from farmers because they feared prices would fall again by the time they sold. In this case, the cash and futures prices were not converging – and failure to do so is a telltale sign of factors beyond supply and demand at play.
- The **share of speculators** (i.e. non-commercial managed money operators) in the wheat and maize markets has increased markedly since the end of 2020, when the pandemic started to drive food prices up. According to a recent [ZEF report](#), the share of speculators

holding long positions (i.e. buying) in the market was around 50% in April – similar to their share during the 2007-08 crisis. This suggests that prices may be reflecting financial market sentiment rather than grain market fundamentals.

Box 1. What role did speculation play in the 2007-2008 food price crisis, and what was done about it?

In the 2007-2008 food price crisis, many analysts [pointed](#) to financial speculation on commodity markets as a driver of food price volatility. In a [2010 briefing note](#), then UN Special Rapporteur on the right to food and current IPES-Food co-chair, Olivier De Schutter, concluded that a significant portion of the price volatility observed over 2007-2008 “can only be explained by the emergence of a speculative bubble”, pointing to the entry onto commodity derivatives markets of “large, powerful institutional investors such as hedge funds, pension funds and investment banks, all of which are generally unconcerned with agricultural market fundamentals”.

These conditions were facilitated by a weakening of the regulatory framework for commodities trading since the 1980s. The ‘[financialization of the food system](#)’ was expedited by the US Commodity Futures Modernization Act in 2000, which made it easier for banks and other financial traders to sell commodity index funds and exchange traded funds that tracked agricultural commodity prices. When prices for energy and food began to climb after 2005, many financial investors piled into these new commodity investment products, hoping to profit from higher and more volatile commodity prices, i.e. speculating. In response to public outcry, governments acted on speculation in the wake of the 2007-2008 food price crisis, but those reforms are generally seen to have been insufficient. The EU passed new financial market legislation in 2014, [MiFID II](#), which introduced position limits and reporting requirements. Some governments immediately granted exemptions to the rules, however, and critics countered that the [position limits were set far too high](#) to have a meaningful impact. The US tried to put in place stronger regulation to rein in commodity speculation as part of the Dodd-Frank financial reform act after the last crisis, but the legislation was [watered down](#) following industry resistance, and like in Europe, analysts consider [position limits to be too high](#) to have any impact.

These are indicators that **financial investors are cashing in on rising food prices** – although with so many factors at play and the situation still unfolding, it is too early to say to exactly what extent. While noting unusual volatility, the CFTC played down its implications, citing “a

relative balance in buying and selling, indicating that trading has not been panic driven” and recalling that “markets have been able to clear the volumes without significant market disruption”. Nonetheless, a [G7 Agriculture Ministers communiqué](#) on the invasion of Ukraine called out “artificially inflated prices” and “speculative behaviour”, and committed to “closely monitoring markets affecting the food system, including futures markets, to ensure full transparency”.

In the wake of the 2007-2008 world food price crisis, **governments committed to increasing market transparency and addressing commodity speculation** – including in adopting the 2011 CFS [Recommendations on Price Volatility and Food Security](#), which called on governments to “improve transparency, regulation and supervision of agricultural derivative markets”. But nearly 15 years later, **it is clear that the steps taken have been insufficient** (see Box 1). Indeed, the failure of the CFTC to successfully regulate commodity futures exchanges is now having [global repercussions](#) due to the market power of US futures trading exchanges, the size of US production and exports, and the role of the US dollar as the principal currency of global trade. Furthermore, lack of transparency on who is driving current futures investments – and lack of publicly available data from the CFTC – is preventing clarity on whether/to what extent the current crisis is speculation-driven and thus holding back effective remedial actions.

Speculation is also enabled by a broader **lack of transparency on global grain markets**, and notably on **stock levels**. [AMIS](#) was established by the G20 in 2010 to provide information on commodity stocks, prices, and utilization – and thus to avoid a repeat of the market uncertainty and rampant speculation that contributed to the 2007-2008 global food price crisis. AMIS is now up and running, allowing a basic picture of global grain markets to emerge, including the stock-to-use ratios mentioned above. Public grain reserves – that are accrued when prices are low and released when they start to rise – also re-emerged post-2008 as a key tool for [stabilizing markets and protecting against shocks](#).

However, as a [2021 AMIS Outlook report](#) notes, what matters is the **distribution and nature of those stocks, and reliable information on them**. In the absence of this transparency, price volatility is more likely to occur. As the post-2008 apparatus comes under its first major test, major cracks are appearing:

- Significant grain reserves are held by **private companies**, from the ‘ABCD’ of grain trading giants – Archer-Daniels Midland, Bunge, Cargill, Dreyfus – to the operators of local silos, and even individual farmers. Although their newfound position as ‘[cross-sectoral value chain managers](#)’ allows the grain trading giants to compile huge amounts of market data, these firms are under no obligation to disclose what they know about global markets, including their own grain stocks. With the ABCD accounting for [70-90% of global grain trade](#), their reserves are likely to be sizable. And with commodity speculation mounting, they have a clear incentive to hold stocks back until prices are perceived to have peaked. As the AMIS 2021 outlook report notes, “the stockholders (e.g. private traders) might be reluctant to disclose their positions to competitors, which weakens the reliability of their information”.
- Information on global grain stocks is also incomplete as a result of a **strategic lack of transparency from a number of governments**. For example, China is assumed to hold roughly 50% of global cereal stocks, but these are crude estimates – with [legal obstacles](#) standing in the way of Beijing disclosing its reserves.⁵ Global figures on stocks/stock-to-use ratios are also of limited value in a context where China keeps its reserves almost exclusively for domestic food security purposes. Furthermore, collecting and collating data on public and private stocks is complex and costly, and most countries [fail to conduct regular, comprehensive stock surveys](#).
- Grain stocks in developing countries more than doubled between the mid-2000s and 2021, reversing the trend that had seen governments wind down stockpiles since the Structural Adjustment Programs of the 1980s. In spite of continued challenges at the World Trade Organization (WTO), countries like India have been able to maintain **strategic food security reserves** through public stockholding schemes. Strategic/emergency reserves appear to be helping countries like India and [China](#) to weather the present price shocks. Furthermore, a multi-pronged food security storage system, involving coordinated management of national and regional stocks, is being [piloted in West Africa](#); the ASEAN+3 [emergency rice reserve](#) (‘APTERR’) has also been developed to coordinate food security responses in Southeast Asia. However, these regional initiatives may not yet be sufficient in scope and scale to provide low-income countries with a real safety net or the ability to buffer against regional/global price spikes. [More than 75%](#) of

⁵ [Data on public central stock levels](#) cannot be made public by Chinese law. Chinese reserves in AMIS’s database are estimations derived from (crudely) calculating the residual of grain utilization & trade subtracted from supply.

global cereal stocks are still held by just five countries. In contrast, by 2021 (5 years into the scheme), only [42,000 metric tonnes](#) of cereals had been accrued in West African regional reserves, only 10% of stocks had been procured from local producer organizations, and repeat crises were making it difficult for countries to replenish the reserves they have drawn on. Although regularly invoked, APTERR's interventions in Southeast Asia are limited to emergency responses, and to a specific commodity (rice). Although proposals have been made for the World Food Programme (WFP) to maintain centralized stockpiles (inter alia for buffering against price shocks), the WFP continues to rely on ad hoc procurement of stocks (from markets and via donations) to conduct emergency interventions – and is currently [struggling to meet burgeoning needs](#).

Incomplete information on global grain markets therefore leaves food systems vulnerable to grain hoarding and financial speculation, while low-income countries appear to have limited scope at present to buffer against price shocks and supply shortages.

2.4 Vicious cycles of conflict, climate change, poverty, and food insecurity

Another structural weakness that the current crisis has laid bare is the fact that **hundreds of millions of people lack the income or resources to adapt to sudden shocks**. More than [50% of farmers and rural workers live below the poverty line](#) in several countries in the Global South with the largest rural populations. The poorest populations in low income countries spend over [60% of their income on food](#), and as such, even small price rises can have devastating impacts – vulnerabilities that were [cruelly exposed](#) by the COVID-19 pandemic. Up to [811 million people](#) went hungry in 2020 as the COVID pandemic hit. In India, for example, many of the country's [139 million migrant workers](#) were internally displaced when sudden lockdowns and economic closures cut them off from their livelihoods. In addition, [women](#) continue to bear the brunt of crises due to discrimination at the societal level and within their own households. In recent years, the gender inequalities of food insecurity [have only grown](#), with women facing moderate or severe food insecurity 10% more often than men in 2020 compared to 6% in 2019.

Climate change and conflict are locking in persistently high levels of poverty and hunger. In its reporting on '[hunger hotspots](#)', the World Food Programme (WFP) identified **violent conflict as the main driver of global hunger**. Although the war in Ukraine is unique in its extensive impacts on global grain markets, there are over 40 active conflict zones around the world today, affecting over two billion people – half of whom live in extreme poverty. **Climate**

shocks are already afflicting agriculture regularly enough to create persistent vulnerability, as well as injecting a permanent layer of uncertainty into global markets. The IPCC estimates that [climate change has reduced agricultural productivity growth by 21%](#) since 1961, and by up to 34% in Africa and Latin America. Key agricultural regions are currently [facing the worst droughts](#) for decades, including in much of West Asia and North Africa, the [Horn of Africa](#), parts of Brazil and [Argentina](#), and the [North American Midwest](#). **Unsustainable resource management** and extractive economic development strategies reinforce the likelihood of conflict and leave countries more vulnerable to climate shocks, while climate change, in turn, increases competition for land and resources and pushes people into poverty. Around the world, [millions of people are being displaced](#) and forced to migrate as a result of large infrastructure projects, land grabs, climate stresses, and conflicts.

This **nexus of mutually reinforcing and persistent threats** leaves millions of people increasingly vulnerable to hunger. After four years without rain, and years of unsustainable resource management (including through extractive mining practices), [Madagascar](#) is now facing famine. Meanwhile, [Sri Lanka](#) is facing its worst economic crisis in 70 years – including food shortages and power cuts – as global food price spikes have combined with economic mismanagement, including a botched transition to organic agriculture. Meanwhile, Sahel countries (Burkina Faso, Mali, and Niger particularly), Kenya, Ethiopia, Sudan, and South Sudan were already experiencing **socio-economic instability** and climate-related shocks before the Ukraine crisis, and are now particularly vulnerable to import disruptions, price spikes, and unrest. According to the [UN Global Crisis Response Group](#), some 69 countries – home to 1.2 billion people – are severely or significantly exposed to food, energy, and finance-related instability.

There is a **major risk that dire food security risks become the new normal** for a growing number of regions if these cycles are not broken.⁶ Over the coming years, as countries move to shore up food supply routes across vast economic corridors, [geopolitical tensions are likely to grow](#) – and with them the risk of further conflicts, retaliatory measures, and supply disruptions. In particular, the increasing volume of commodities flowing through key trade chokepoints is creating severe and ‘[under-explored risks to food security](#)’. Future food security risks are likely to be particularly acute in [sprawling urban areas](#), where poor

⁶ A [new report by FIAN](#) (May 2022) provides in-depth reflections on the implications of increasing conflict and how to respond to them.

populations do not even have access to the subsistence production and local exchange that can buffer against shocks in rural zones.

These vulnerabilities have been visible for years: calls for renewed investment in social protection systems and poverty alleviation were among the imperatives emerging from the 2007-2008 food price crisis and the global recession that followed. But actions on this front have clearly been insufficient, as evidenced by the failure to prevent the reversal of progress on world hunger over the past 6-7 years. Facing even higher debt burdens post-COVID, and rising food import bills, low-income nations continue to face near insurmountable barriers to building social protection systems. For the growing number of populations facing persistent, critical hunger risks, the response is typically to look to the WFP. But under-funded aid agencies are struggling to keep pace with the growing number of people suffering from the triple threats of the climate crisis, COVID-19, and conflict: globally, a total of [274 million people](#) are expected to require some humanitarian assistance by the end of 2022 (up 17% from 2020). Social safety nets are also at breaking point in a number of wealthy and middle-income countries, where rampant inequalities have created a ‘cost of living crisis’ for low-income households. In the UK, the world’s 5th biggest economy, [1 in 10 families are likely to draw on food banks](#) as food prices ratchet up in the coming months.

3. The dangers of ignoring the structural flaws and adopting short-sighted solutions

The crisis has offered a window of political opportunity for change in food systems. Unfortunately, many of the solutions currently presented to policymakers, particularly those in the Global North with access to substantial funding, are ones that are likely to exacerbate current trends, or solutions that have demonstrably failed. These include the following:

- **Suspending environmental regulation and ramping up production to ‘feed the world’.** Addressing the G7 in April 2022, World Bank President David Malpass told advanced economies to [ramp up production of food, energy, and fertilizer](#). Echoing this message, [IFPRI](#) has called on grain producers to do everything they can to increase production. A number of governments are already taking up the challenge. The EU had, through its [Farm2Fork initiative](#), proposed by 2030 to halve pesticide use, reduce fertilizer usage by 20%, put 25% of cultivated land in organic production, and [restore 30% of](#)

peatlands. Those proposals are now under threat: in response to the Ukraine crisis and demands from agricultural lobbies, the European Commission has deferred two key legislative proposals – the Sustainable Use of Pesticides regulation (SUR) and the nature restoration targets – and allowed member states to grow food (including by using chemicals) on land previously designated as ‘ecological focus areas’. Similar measures have been proposed in the US. But as 800 French food security experts warned in an op-ed for Le Monde, doubling down on industrial agriculture, with its huge reliance on fossil fuels and chemical inputs, is an illogical response to a crisis that has laid bare Europe’s damaging dependency on Russian oil, gas and fertilizer. Furthermore, there is little scope for raising grain production on Europe’s marginal (non-cultivated) lands, and major risks of undermining productivity (in the short and medium term) by further disrupting ecosystems and pollinators. In Brazil, President Jair Bolsonaro has argued that the spike in fertilizer prices justifies continued exploitation of the Amazon, including on Indigenous lands, in search of minerals. This highlights the way that crises are systematically used to roll back social and environmental progress – what Naomi Klein has referred to as the ‘shock doctrine’.

- **Doubling down on AGRA and Feed the Future.** The Alliance for a Green Revolution in Africa (AGRA) was launched in 2006 and aimed by 2020 to “reduce food insecurity by 50 percent in at least 20 countries, and double the incomes of 20 million smallholder families”. In late March 2022, USAID’s director and AGRA’s president met to discuss how AGRA might support African countries’ resilience to food price shocks in the wake of the Ukraine war. But a recently published internal evaluation of its goals showed that goals for hunger reduction were unlikely to have been met, a fact corroborated by independent analysis showing a 31% increase in hunger in the countries in which AGRA operated between 2006-2018, a figure certainly higher in 2021 because of COVID-19.⁷ Although the lion’s share of AGRA’s funding comes from the Bill and Melinda Gates Foundation, about a third of the billion dollars spent over the past decade comes from other multilateral agencies, including USAID, UKAID, and Germany’s department for development

⁷ There is little evidence to demonstrate that AGRA is meeting its stated goals of raising yields, incomes, and food security. A 2020 report assessing AGRA’s performances since 2006 found that yield increases for staple crops (a 1.5% average annual growth rate) had not risen more than in the years predating AGRA’s involvement. Productivity growth was even found to have declined in 8 out of 13 AGRA countries. The report cites minimal improvement to rural poverty and hunger, including in countries where production of staple foods has increased. It stresses the ongoing hardship of small-scale producers, who continue to suffer from high levels of debt, poverty, and hunger. It also found that the production of highly nutritious and resilient traditional crops has declined steeply as a result of shifting towards maize and other staple crops under AGRA initiatives.

cooperation (BMZ). AGRA is currently looking for a further billion dollars for its budget to 2030, with little sign that programming is taking account of past failures. AGRA is closely aligned with the US' Feed the Future⁸ program, which some are also suggesting should be expanded in the face of the Ukraine crisis, including in a [New York Times op-ed](#) co-authored by the former head of USAID. But with fertilizer prices at record highs, and Feed the Future having offered [limited returns](#) on huge private sector investment to date, calls to ramp up these types of schemes are surely misguided.

- **Fast-tracking unaccountable new bodies and fragmenting global responses.** In late April, the German Development Minister called for the creation of a [new alliance for global food security](#), bringing together donor countries, international organizations and the private sector to address the effects of the Ukraine war and coordinate food aid distribution. A [UN Global Crisis Response Group \(GCRG\) on Food, Energy, and Finance](#) has also been rapidly assembled. Additionally, the crisis has sparked [renewed calls](#) for creation of a scientific panel – an ‘IPCC for Food’ – to fast-track scientific advice to policymakers. Mechanisms for global coordination and well-informed decision-making are critical (see Section 4). However, new bodies formed rapidly in response to crises often have limited participation and accountability, and end up undermining existing bodies with whose remits they overlap. In particular, the German proposal has echoes of the G7 ‘New Alliance for Food Security and Nutrition’ (NAFSN). Hastily constructed following the 2007-2008 food price crisis, NAFSN was subsequently [disowned by some of its founding members](#) for its failure to consult civil society and consider the true needs of beneficiary countries. Although the cross-sectoral coordination it aims to provide is badly needed, the UN GCRG [has been critiqued](#) for mirroring the structure of the 2021 UN Food Systems Summit (UNFSS), in which [hundreds of civil society groups refused to engage](#) in light of its failure to ensure inclusive participation and governance mechanisms. Proposals for a new science body are also [tied to the UNFSS](#) and its limited vision of who should be involved in governing food systems, and what constitutes valid science – and have failed to address the overlap with existing bodies.⁹ The proliferation of new

⁸ Created in response to the 2008 food price crisis, the USAID-led [Feed the Future](#) initiative aims to combat global hunger “by boosting agriculture-led growth, resilience, and nutrition” across its 12 target countries and at the regional level. An [independent analysis](#) of the Initiative conducted in 2021 found that weak data and lack of proper monitoring tools make it unclear whether the Initiative is meeting its goals.

⁹ In 2021, [IPES-Food](#) criticized efforts to use the UNFSS to fast-track a new science body, highlighting the dangers of undermining the inclusive mechanisms that already exist through the HLPE of the CFS. In response to renewed calls for establishing an ‘IPCC for Food’, it has been highlighted that [at least 11 such panels](#) already exist. Arguably, what is lacking is “[an intergovernmental mechanism by which policymakers are given independent assessments of the literature and commit to acting on these findings](#)”, with evidence from under-represented groups. It is worth noting that robust analysis and clear

initiatives also serves to circumvent the UN Committee on World Food Security (CFS). Civil society groups have called on the CFS – which was revived post-2008 – to [lead responses](#) to the current shocks, while its High Level Panel of Experts (CFS-HLPE) has been identified as key in helping to guide food security [responses](#) and [weigh trade-offs](#) between the recommendations coming out of the GCRG.

4. Avoiding the next ‘perfect storm’: actions that can address immediate needs and kick-start food system transformation

A number of urgent steps are needed to address immediate food security risks, and to do so in ways that kick-start transformation of food systems, rather than reinforcing today’s damaging dependencies and power relations.

The structural flaws and weaknesses described in Section 2 have allowed the Ukraine crisis to become a full-blown global food price crisis and a major threat to the food security of millions of people. Although some positive steps have been taken, **governments did not ultimately heed the warnings of the 2007-2008 food price crisis**. 15 years later, markets are still plagued by structural opacity and lack of transparency, and are vulnerable to grain hoarding and excessive commodity speculation. Production systems remain over-specialized and face the same barriers to shifting and diversifying production. The world’s poorest countries and populations remain critically dependent on imports of staple foods from a handful of exporting countries and corporations. And vicious cycles of conflict, climate change, poverty, and hunger have tightened – leaving millions of people completely exposed to the current food price shocks, as they will be to the next disruptions.

Although the pandemic rages on and the dust is still settling on the efficacy of COVID-19 response packages, it is already abundantly clear that the opportunity for transformative changes in food systems and economic systems has been missed. Following hot on the heels of the pandemic, the Ukraine crisis has sparked what is effectively the **third world food price crisis in 15 years**. It has underlined once again **the necessity of profound, structural changes across food systems**. Although it is too late for some of the world’s poorest and most vulnerable populations, who are already facing deepening poverty and acute hunger,

solutions were put forward in the wake of the 2007-2008 food price crisis (see below) and have not been sufficiently acted upon – suggesting that the problem is lack of political will, not research gaps.

much can be done to ward off the worst impacts of the current crisis and set deep changes in motion:

Recommendation 1. Provide financial assistance and debt relief to vulnerable countries

It is vital to provide financing and assistance to the low-income, food import dependent countries that are grappling with suddenly higher prices on world food markets. Actions that enhance the ability of countries to build and sustain **social protection systems** will provide the greatest and most lasting benefits – as acknowledged by governments in the wake of the 2007-2008 food price crisis.¹⁰ The establishment of a new financing mechanism, in the form of a [Global Fund for Social Protection](#), would enable poorer countries to provide social protection schemes.¹¹ Ultimately, **debt relief/cancellation** is essential in order for net food importing low-income countries to be able to pay spiraling import bills, and to put social protection systems in place. In the face of the climate, COVID, and Ukraine crises, the [UN GCRG has called for emergency debt relief](#) to “prevent a continued unsustainable build-up of debt in vulnerable countries before the world stumbles into the next round of country debt crises”. As these proposals are weighed alongside the various recommendations for increasing liquidity (e.g. extending IMF ‘Special Drawing Rights’, new import financing [loan facilities](#)), and as criteria are considered for granting debt relief,¹² the new reality of persistent food insecurity that so many countries are now facing (see Section 2.4) should guide decision-makers away from half-measures and towards decisive action. Attention should also be paid to the **impacts of sanctions** on the global economy, including knock-on effects on the food security of the most vulnerable populations, with a view to shielding food systems to the extent possible from the direct and indirect effects of sanctions. In pursuing these and further actions, it is important to draw on and implement existing commitments. The CFS [Framework for Action in Protracted Crises](#), for example, provides a **policy framework anchored in human rights** and international humanitarian law to address short-term emergency

¹⁰ The [CFS Recommendations on Price Volatility and Food Security](#), adopted by governments in 2011, stated that it is crucial to “increase the role of the state, where appropriate, to mitigate the negative impacts of volatility, including through the development of stable, long-term national social protection strategies and safety nets”.

¹¹ The proposal is currently being considered under the auspices of the International Labour Organisation following the decision taken at the June 2021 International Labour Conference, and it is also included in the “[Our Common Agenda](#)” report presented by the UN Secretary-General in September 2021.

¹² The [UN GCRG](#) notes: “We need debt sustainability analysis that is realistic and that can provide overall estimates of the nature and magnitude of the debt relief needed. Debt relief envelopes should be designed considering financing needs for recovery, climate action and the SDGs.”

assistance, long-term development and the underlying causes of food insecurity and malnutrition.¹³

Recommendation 2. Crack down on commodity speculation

Following a March 11 meeting, G7 Agriculture ministers [committed to](#) discouraging export restrictions, monitoring futures markets, and fighting against speculative behaviour that endangers food security – commitments whose follow-up should be closely scrutinized. Action will be urgently needed to complete the reforms initiated post-2008 to crack down on commodity speculation. Further measures to strengthen commodity market regulations in the US and EU are necessary, especially to **tighten position limits on key agricultural commodities** and ensure the enforcement of those limits, which many critics claim are currently too high to make any meaningful difference. In addition, **financial institutions should step back from selling agricultural commodity ETFs and CIFs** at times of heightened food prices and mounting speculation. The potential to discourage financial speculation through a **tax on commodity index funds and other derivatives trades** should also be explored, building on calls for a Financial Transaction Tax in the wake of the 2007-2008 economic crash, and more recent demands in the [US](#) and [UK](#) for a windfall tax on fossil fuel companies profiting from the current crisis. Greater transparency and reporting requirements are also needed. In a [2010 briefing note](#), the UN Special Rapporteur on the Right to Food made a number of recommendations in this regard which remain crucial in the current context. Some steps may take time to have an effect, but others could have immediate impacts in curbing speculative price bubbles and should be explored, including the following: i) **ensure that commodity trading floors report on market transparency** to governments, and that governments share that information through the CFS; ii) **require private grain traders to disclose reserves** and ensure that governments communicate that information, building on [recent commitments](#) by European governments¹⁴; and iii) ensure that the **CFS monitors the volume of futures contracts** in relevant stock exchanges, flows of

¹³ The [Framework for Action](#)'s 11 principles provide clear guidance on how to bridge humanitarian, development, and peacebuilding efforts. Moreover, they focus on strengthening the capacities to prevent and resolve crises, as well as country ownership, participation of affected communities and accountability – which are particularly crucial when it comes to meaningfully addressing the needs of food importing countries.

¹⁴ At an April 2022 meeting of EU agriculture ministers in Luxembourg, [member states agreed](#) to communicate data on private stocks of grains and oilseeds, as a first step to creating a European emergency agricultural reserve.

capital investments in land, agricultural inputs (seeds, fertilizers, pesticides) and agricultural production, and **public food stock levels**.

Recommendation 3. Build regional grain reserves and a global food aid apparatus fit for the protracted crises we face

The [challenges encountered in West Africa](#) – information gaps, lack of regional coordination mechanisms, and protracted climate and security threats – only underline the critical need for **pooled reserves** and **integrated food storage/food security strategies at the regional level**. With further investment, regional grain reserves can play a valuable dual role of mobilization during food shortages as well as contributing to market (re)adjustments as a structural preventive instrument.¹⁵ These tools will be particularly valuable if **democratic governance** can be ensured, building on the West African precedent of co-designing management tools with farmers.¹⁶ **Horizon-scanning exercises** that anticipate potentially disruptive ‘grey swan’ events can also help to inform regional food security strategies.¹⁷ By pooling risk and building solidarity mechanisms, regional food security initiatives can also help to **prevent countries from introducing unilateral export bans** that further destabilize markets – although restricting exports will remain a crucial policy option for low-income countries. Further actions are needed to ensure global flows of food exports and food aid in the face of crises. Proposals from the [UN GCRG](#) to **exempt WFP humanitarian purchases from food export restrictions** with immediate effect, are a key step. Moving forward, it is crucial to **complete the reforms of the Food Assistance Convention (FAC)**. Adopted in 2012, the FAC introduced more flexibility for donor country interventions (in-kind, cash for local food, other forms of ‘food assistance’). However, by allowing signatories to determine their

¹⁵ The [ECOWAS Commission](#) has announced broad and ambitious goals for the regional storage system, arguing that it must be “better integrated into social protection policies and the promotion of social safety nets for vulnerable households”, and that “its contribution to the promotion of sustainable food systems, the improvement of producers’ incomes and the reduction of price volatility on the regional market must be consolidated”.

¹⁶ In discussing financing tools for food storage, the [ECOWAS Commission](#) concluded: “The primary role given to POs in the conduct of these processes was a major asset for the production of tools that were truly adapted to their needs. The process made it possible to develop an in-depth dialogue between the different categories of local storage operators, between organizations in coastal and Sahelian countries and to compare the practices of these different organizations, particularly between farmers and pastoralists.”

¹⁷ In their 2021 report, [A Long Food Movement](#), IPES-Food and ETC Group note: “Most of the gravest changes, such as the accelerating loss of global soil fertility and mass extinctions of species, were predictable and predicted – not so much in date and detail but in parameters and probability. The future might also be more predictable than we think. The dates and details may be uncertain, but Grey Swans arise from plausible conditions and come with relatively predictable – and usually compound – risks and opportunities: hurricanes, floods, and droughts are followed by epidemics and famines; food failures often have multiple sources.”

own annual contributions, [critics argued](#) that it opened the door for a repeat of 2007-2008, when donations to what was then the Food Aid Convention dropped as food prices spiked. Further reforms to the FAC are therefore required, including: i) **linking donations to food price indexes** rather than fixed volumes of food; ii) **integrating the FAC with the CFS**; and iii) **broadening membership** to include other major grain traders and public stockholders such as China, South Korea, and Saudi Arabia.

Recommendation 4. Diversify food production and trade systems

In the short term, countries reliant on food supplies from the Black Sea region will need to **find alternative suppliers** and will require financial assistance to mitigate the costs (see above). In parallel, steps to **rebuild domestic food production** over the coming months and years could help to mitigate price spikes and ensure access to staple foods. Although Ukrainian agriculture is dominated by large export units, the [remarkable efforts of small-scale farmers and processors](#) to sustain food production through the invasion are helping to prevent the worst food security impacts. In a number of countries around the world, and especially where there is vulnerability due to conflicts, research [has shown](#) that it is important to bolster domestic food production capacity. However, in some contexts – including in North Africa and much of Asia – water stress may make it [unsustainable to increase production](#) of crops like wheat. Moving forward, it will be crucial for all regions to rebuild more diverse production and trade systems, grounded in local and regional territories. Supplementing local supplies with imported foods provides a necessary backstop against conflicts/shocks affecting that region. By the same token, supplementing global food supply chains with stronger local and regional food systems provides insurance against food insecurity sparked by global events. Countries therefore need context-specific approaches allowing them to **rebuild a degree of self-sufficiency** in key staple foods where resources allow, **shift to more resilient traditional crops** (e.g. millet instead of rice) in tandem with **re-diversifying food consumption**, and ensure a more [diverse mix of local and global supplies](#) – for food, fertilizers¹⁸ (where needed), and energy – as well as access to emergency stocks (see above). For too long, primacy has been given to global market provisioning, with WTO rules allowing highly subsidized agriculture in the Global North to decimate domestic production in other regions. As explained by the UN Special Rapporteur on the Right to Food,

¹⁸ Some fertilizers, e.g. rock phosphate, can only be sourced from 1-2 regions of the world, underlining the need to ultimately phase out their use in order to avoid import dependencies.

Michael Fakhri, a renewed version of self-sufficiency – understanding local markets in relation to global markets, and eschewing neither – can reshape trade policy for the better.¹⁹

Recommendation 5. Rebuild resilience and cut harmful dependencies through diversity and agroecology

Dependencies and rigidities in the way current food production is structured have once again been laid bare by a crisis. As noted by the UN/EU-led [Global Network Against Food Crises](#), a paradigm shift is needed. As IPES-Food emphasized in the wake of [COVID-19](#), agroecology is a form of *crisis response*, a route to resilience, and a low-cost way to hedge against various shocks – making the shift [from industrial agriculture to diversified agroecological systems](#) more urgent than ever. Agroecology’s unique capacity to reconcile the economic, environmental, and social dimensions of sustainability has been recognized by the [FAO](#) and the [CFS](#), landmark reports from the [IPCC](#) and [IPBES](#), and the World Bank and UN agency-led global agriculture assessment ([‘IAASTD’](#)). The current crisis has underlined the urgency of food system transformation, and created opportunities for advancing it, in two key areas: i) it has provided the clearest evidence yet for the need to delink food and fuel by **reducing reliance on synthetic fertilizer** and fossil fuel energy in agriculture, and ii) it has highlighted the importance of **reducing non-food uses of crops/cropland**, and ensuring that food systems deliver food to local communities. With current production systems ‘locked in’ in multiple ways (see Section 2.2), it is hard to imagine these shifts taking place rapidly, or in all contexts. Indeed, it is crucial to proceed through carefully sequenced steps over multi-year frameworks,²⁰ to ensure that farmers are provided with the resources (inputs, advice, transition support etc.) they need to move away from monocultures and diversify their production, without compromising food security. Specific steps to reduce non-food uses of crops in the short- to medium-term could include **reduced agrofuel incorporation rates**²¹ and **managed reductions in livestock numbers** – taking inspiration in the latter case from ambitious [buy-out schemes in the Netherlands](#). Given the path dependencies at play,

¹⁹ As UN Special Rapporteur on the Right to Food, Michael Fakhri, [noted](#): “Self-sufficiency as a principle offers guidance in navigating these risks. It builds on the premise that local markets are always understood in relation to global markets (and vice versa) and invites governments to develop policies that eschew an entirely domestic or international dependence. Self-sufficiency emphasizes localized decision-making in order to ensure that policies are calibrated on a political scale at which people can effectively organize themselves and influence political outcomes.”

²⁰ See for example IPES-Food’s proposals for multi-year transitional strategies under a [Common Food Policy for the EU](#).

²¹ As noted in Section 2.2, current policy responses are going in the opposite direction, i.e. increasing the incentives for biofuel production.

overhauling policy incentives – and ultimately withdrawing public funding from non-food agricultural activities – will be critical to spark major shifts in production patterns.

To conclude, the crisis should not be considered over when food prices pass their peak. A number of **structural flaws and weaknesses in food systems have been laid bare**, and must be urgently addressed. The Ukraine crisis has underlined once again the necessity of profound, structural changes across food systems, sparking what is effectively the third world food price crisis in 15 years, and should be seen as a **third and final warning**. Failure to reform food systems at this juncture – and to rethink the broader socio-economic and political systems in which they are embedded – will leave growing numbers of people at the mercy of over-strained humanitarian aid, and vulnerable to mass starvation. It is critical to act now to **rebuild food security on a new and lasting basis**.

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ABOUT IPES-FOOD

The International Panel of Experts on Sustainable Food Systems (IPES-Food) seeks to inform debates on food systems reform through policy-oriented research and direct engagement with policy processes around the world. The expert panel brings together environmental scientists, development economists, nutritionists, agronomists, and sociologists, as well as experienced practitioners from civil society and social movements. The panel is co-chaired by Olivier De Schutter, UN Special Rapporteur on extreme poverty and human rights, and Maryam Rahmanian, independent expert on agriculture and food systems.

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