



Unchecked, unregulated and unaccountable: Who are the hunger profiteers?



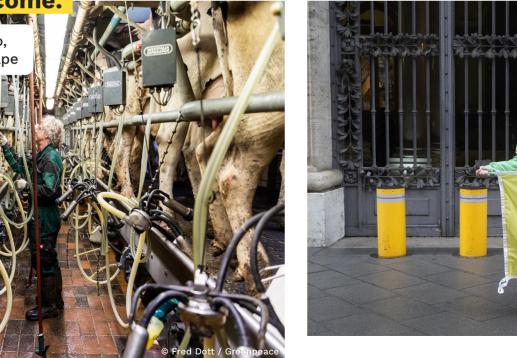
"I don't think malnutrition is a clinical condition, I think

it's a political outcome."

Scholar-activist Busiso Moyo, University of the Western Cape



This Greenpeace International report delivers a broad picture of how 20 agribusiness corporations across the globe – the largest in grain, fertilisers, meat and dairy sectors – use their power to deliver outrageous profits to their shareholders while millions starve. The system must be changed to achieve the UN's Sustainable Development Goal of "Zero Hunger." This report goes on to reassert Greenpeace's vision – shared by La Via Campesina and other NGOs – of food sovereignty, and calls for "an international trade order based on cooperation and human rights instead of competition and coercion,"¹ as well as bold and transformative policy progress, empowering small-scale farmers and reining in multinational companies.





Food Injustice 2020-2022 / Abstract



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FAMILY FARMS

GREENPEACE

Introduction: A vulnerable system

The global food system touches the lives of almost everyone on earth. Estimates vary,^{2,3} but somewhere around a third of the world's population is engaged in food sector work, and the system is increasingly dominated by multinational companies. Around one quarter of the food consumed worldwide crosses an international border before it is eaten.³ The supply chains which deliver food are increasingly controlled by a small number of large corporations. The outsized influence these companies wield make the system more vulnerable to shocks which can disrupt essential processes, breaking the chain and pushing people into hunger. In the last two years, two major crises – the COVID-19 pandemic and the Russia-Ukraine war – have disrupted global food supply chains and had exactly this effect. If urgent action is not taken to transform the global food system, then as climate disruption progresses, future crises will continue to deepen existing inequities.

In 2015, the UN announced its programme of 17 Sustainable Development Goals (see fig. 1), ostensibly a "shared blueprint for peace and prosperity for people and the planet, now and into the future". Goal 2 of the agenda, also known as SDG2, is the achievement of "zero hunger". This goal entails a plan that aims to "[e]nd hunger, achieve food security and improved nutrition and promote sustainable agriculture". A report by the World Bank outlining its Agenda for the Global Food System emphasises the need for transformation. "Urgently, we need a food system that is more resilient and that shifts from being a major contributor to climate change to being part of the solution. All these aspects are closely interlinked, calling for a more comprehensive approach to delivering a healthier and more prosperous future."⁴



"Cargill sells seed and chemicals to farmers, buys their grain, transports it to Cargill feedlots, kills the cattle and sells the beef. They're not part of the food chain; they are the chain."

Dan Basse, president of Chicago-based research firm AgResource Co.



World Hunger Continues Dramatic Rise

Number of undernourished people worldwide from 2005 to 2021*

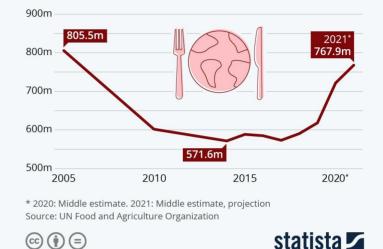


Figure 2: Change in rate of undernourished people worldwide.⁶

Citing past progress in reducing the global rate of food insecurity, the UN's Food and Agriculture Organization (FAO) was initially optimistic that the goal of achieving zero hunger by 2030 was achievable. Nonetheless, many consumers remain structurally vulnerable. In Kenya, food imports rocketed by more than 650 per cent between 2008 and 2022⁷ while Senegal remained heavily dependent on rice imports despite growing its domestic production.⁸ Since 2015, the global rate of hunger has once again climbed (see fig. 2) The UN estimates that in 2020, "between 720 million and 811 million persons worldwide were suffering from hunger, roughly 161 million more than in 2019."⁹ In South Africa, for example, in 2021 the proportion of the population at risk of hunger remained at just below ¹/4.¹⁰

For this report, Greenpeace International commissioned a research analysing 20 agribusiness corporations across the globe, the largest in each of four sectors. All research was based on publicly available data. Table 1 shows the companies analysed, within each sector, their revenue for the trailing twelve months (TTM) leading up to the outset of this research, and the country they are headquartered in.

Sector	Company	TTM Revenue (USD)	Country
Grain	Archer-Daniels Midland	98,707,000	United States
	Bunge Ltd	67,255,000	United States
	Cargill Inc.	165,000,000	United States
	Louis Dreyfus Company	Unavailable (49,600,000 in 2021)	Netherlands
	COFCO Group	Unavailable	China
Fertiliser	Nutrien Ltd	35,454,000	Canada
	Yara International ASA	21,899,000	Norway
	CF Industries Holdings Inc	10,159,000	United States
	The Mosaic Company	16,555,000	United States
Meat	JBS S.A.	71,626,085	Brazil
	Tyson Foods	52,356,000	United States
	WH Group	27,293,000	China
	Marfrig Global Foods	20,055,365	Brazil
	BRF S.A.	9,814,858	Brazil
	NH Foods Ltd	8,869,073	Japan
Dairy	Lactalis	Unavailable (26,000,000 in 2021)	France
	Nestlé	87,174,297	Switzerland
	Danone	27,035,447	France
	Dairy Farmers of America	Unavailable (19,300,000 in 2021)	United States
	Yili Group	17,830,166	China

Table 1: 20 companies comprising Greenpeace International research focus. TTM: trailing twelve months (to August 2022). The research set out in this report shows a systemic failure of public policy, which has allowed a select group of multinational corporations to record huge profits, enriching the individuals that own them and transferring wealth to shareholders, of which the majority are located in the Global North. This demonstrates the broad direction of wealth transfer in the current food system, from producers and growers largely in the Global South, to countries and individuals that are already better off.

This report is a warning and a call to action. A warning, because the COVID-19 pandemic and Russia's war in Ukraine will not be the last major crises the world will need to weather in the 21st century. A call to action because future crises should not result in the hunger and immiseration of millions.

Greenpeace International supports a shift to a model of 'food sovereignty' over attempts to increase food security. We hold that food security is a fundamentally flawed concept, as even increasing the number of people worldwide with "secure" access to food does not solve the problem at the heart of the crisis: that people need control over the systems and resources that feed them.

Our vision of food sovereignty is based on a system of sustainable, ecological farming that "supports a world where producers and consumers, not corporations, control the food chain," focusing on the way food is produced, and by whom.¹¹

Over the course of the 20th century a massive shift took place, towards "a global food system based on principles of industrial production,"¹² in which fewer people have meaningful control over or involvement in the production of the food that they eat. Instead, the system is dominated by huge multinational corporations, with disastrous effects on farmer autonomy, emissions, biodiversity and food security worldwide.¹³ The concentration of food markets in the hands of a few big companies results in a less resilient supply chain, increasing the propensity for chains to be broken by the shocks that result from global instability.



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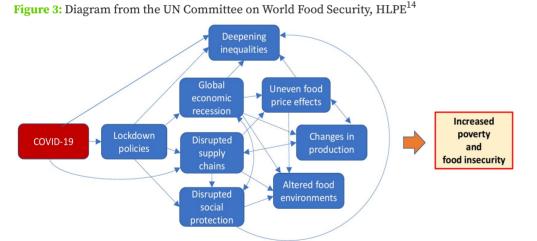
"It is incumbent on policy makers to transform the global food system into one that prioritises justice and food sovereignty for all, rather than the enrichment of a handful of a few powerful companies."







In 2020, as the COVID-19 virus swept the globe and governments began to introduce lockdowns to curb the spread, a combination of illness and legal restrictions on trade and movement resulted in a severe shock to global supply chains. This shock, coupled with a global economic slowdown, resulted in a crisis of lower incomes combined with higher food prices, "putting food out of reach for many, and undermining the right to food and stalling efforts to meet Sustainable Development Goal 2." (See fig. 3)¹⁴



Food prices became unstable from the pandemic's outset, though they did not follow a uniform trend across the sector. Consumers who could stockpile stayed at home, buying fewer perishable items and more store cupboard staples. Essentially, consumers were buying a similar amount of food, but the kinds of food bought differed from their usual purchasing habits. By way of example, in the UK the CPI's food price data showed an average increase of 5p (0.06 USD) for dry spaghetti and pasta, cereal bars, baked beans and biscuits, while the prices of bread, minced meats, chicken and potatoes dropped as much as 20p (0.25 USD)¹⁵. This averaged out to an overall decrease in prices.

The markets recovered from May 2020 onwards, and prices went on to rise steadily over the first year of the pandemic. This has been attributed mostly to supply chain disruptions, strong demand and poor harvests in some countries.¹⁶ While government-enforced lockdown policies were less widespread from mid-2020, labour shortages continued beyond this period, and restrictions notably remained in place in China for much longer including a restriction on the export of fertilisers, which had a knock on effect. Experts noted that the closure of restaurants had a significant impact on the demand for specific perishable commodities and some luxury goods such as chocolate and meat.^{17,18} Market instability in either direction produces adverse outcomes for those most at risk of hunger, as while price decreases make food more affordable for consumers, the contraction in the range of goods purchased had a knock on effect for producers reliant on the market for these goods - for example cocoa producers (a group already widely affected by poverty and food insecurity) were then unable to sell their products and therefore unable to buy food themselves. In this way, marketisation means that it is not only nutritional staples that are implicated in access to food, instead the system's complexity and the cuts taken by large multinational companies mean that farmers bear the brunt of instability when it arises.

Section 1a: The COVID-19 pandemic 8

By May 2021, most commodities had reached a plateau 10-35% above their pre-pandemic positions, with only modest month-to-month gains afterward throughout the rest of the year. An exception were plant oils, which climbed to 100 index points above their lowest levels in April 2020 and continued to climb even before Russia attacked Ukraine in February 2022. Those values exploded to 250 index points in March 2022 with all other commodities reaching new heights as well. By July 2022, the general Food Price Index had fallen back to 140.9 index points, only slightly higher than the 135.1 in January 2022. Cereals rose by about the same level. Meat and dairy remained above January levels by 11.85 and 13.79 index points respectively. Sugar prices fell to about the same value as before the war while plant oil prices fell by almost 15 points to their lowest value in 2022 (see fig. 4).^{19,20,21}

The daily figures from the International Grains Council paint a similar picture of spike and decline (see fig. 5). With the exception of rice, all commodities analysed underwent price spikes of up to 200 index points

FAO Food Price Index, Meat, Dairy, Cereals, Oils, Sugar



following the onset of the pandemic, continuing to climb especially when exacerbated by the war in Ukraine.²² With regard to grain prices however, the initial shock of the invasion appears to have already worn off at time of publication, as all prices have fallen to or below their pre-war levels.^{23,24}

Figure 5: International Grains Council Grains and Oilseeds Index and Segments 2018-2022 (100 = Jan 2000)

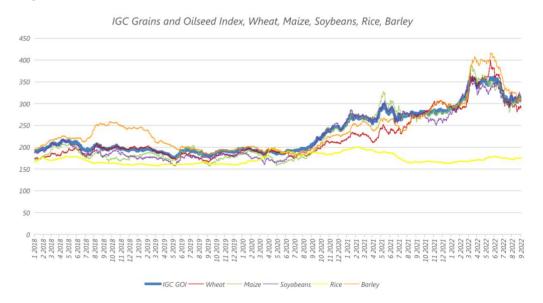


Figure 4: FAO Food Price Index and Segments 2018-2022 (100 = 2014-2016)

0.00

Meat Dairy

- Cereals

Food Price Index

Section 1a: The COVID-19 pandemic 9

The effect on the global rate of hunger over the course of the pandemic was stark. According to the FAO, the number of people facing hunger grew by more than 150 million in 2021 compared with 2019. Between 702 and 828 million people were affected by hunger in 2021. After having remained relatively unchanged since 2015, the share of undernourished people on the planet rose from 8 to 9.3 % in 2020 and at a slower pace to an estimated 9.8 % during 2021.

Examples of wide variation in local food price changes in the context of COVID-19.

Country	Local food price % change from 02/14/20 to 07/09/20	
Switzerland	+ 0.7	
Kenya	+ 2.6	
United Kingdom	+ 2.9	
Canada	+ 3.6	
USA	+ 4.5	
Indonesia	+ 4.9	
India	+ 5.3	
Brazil	+ 6.2	
Nigeria	+ 6.2	
Mexico	+ 6.5	
South Africa	+ 7.8	
Tanzania	+ 14.1	
Botswana	+ 16.5	
Haiti	+ 16.5	
Ghana	+ 20.0	
Sudan	+ 21.8	
Zambia	+ 29.0	
Venezuela	+ 47.0	
Guyana	+ 49.8	

Source: FOA Big Data Tool on Food Chains under the COVID-19 Pandemic https://datalab.review.fao.org/dailyprices.html#.

Table 2: Variations of local food price changes during the first months of the pandemic²⁵



The regional disparities are appalling: in Africa 20.2 % of the population was facing hunger in 2021, in Asia and Latin America these figures sat at 9.1 and 8.6 %. Meanwhile in Europe and North America less than 2.5 % of the population was affected by hunger. Updated projections suggest that by 2030 nearly 670 million people will still be undernourished – 78 million more than in a scenario in which the pandemic had not occurred.²⁶ According to the World Food Programme about 345 million people are experiencing acute food insecurity compared with 135 million before the COVID-19 pandemic. The WFP reports that the Horn of Africa, Afghanistan and Yemen have been particularly badly hit.^{27,28,29}



The FAO notes that in the years preceding the pandemic, many of the countries already affected by high levels of food insecurity were reliant on importing staples to feed their populations.³⁰ Trade restrictions and the effects of the global economic slowdown therefore meant that these already vulnerable countries bore the brunt of the food crisis.

The causes and effects are complex, however. Not all countries whose restrictions induced hunger elsewhere are themselves in the Global North. In several cases, countries acting quickly to protect their populations and offset their own vulnerabilities simply had effects elsewhere for which they should not be directly blamed. India, Vietnam, Cambodia and Myanmar all imposed restrictions to ensure they could continue to feed their populations, with the unintentional knock-on effects of "immediate scarcities and hunger in large parts of Africa."³¹

This illustrates a key point: that food prices do not tell the whole story. A food system with a large focus on stabilising prices rather than building secure and sustainable supply chains will remain vulnerable, even if prices



return to stability over the longer term. Hunger in the short term has a long tail, affecting development throughout the lives of those who experience it, especially in childhood.³²

A global food trade undoubtedly brings benefits, allowing for variance in diets and helping to offset more localised risks like droughts or blights. However, **excessive and uncontrolled financialisation clearly does not produce efficiency here in the sense of delivering food to all.** Global trade must exist alongside shorter and simpler food chains too: returning power to growers so they are able to sell their products directly to consumers, rather than through powerful companies which act as middlemen and take outsize cuts of profit.

While low income countries suffered, countries in the Global North (such as the United States and Canada) that were already net exporters of food were better placed to offset the worst effects of the pandemic with restrictions. These countries also experienced much less fluctuation in prices (see table 2), suggesting that any stability gained through the commodity markets disproportionately benefits the Global North. Proponents of financialisation in the global food system argue that capitalism delivers "efficiencies" such as economies of scale, established global trading routes and the supposed "price finding" effect of commodities trading. We would counter by concurring with food systems expert Jennifer Clapp's analysis: Clapp argues that the emphasis on economic efficiency in the latter part of the 20th century has prevented us from exploring the many other metrics we could use to conceptualise efficiency. There can be efficiencies of sustainability, of diversity and of resilience.

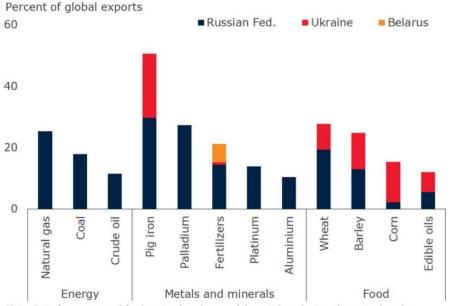
"The creation and extraction of value is the wrong way to measure the success of our global food system: as long as people are going hungry, the system is failing."



Section 1b Russian invasion of Ukraine

As COVID restrictions were lifted in many countries, a new crisis loomed. In February of 2022, Vladimir Putin announced a "special military operation" which amounted to a full-scale invasion of Ukraine, beginning with airstrikes and then a ground invasion. As Ukrainian forces scrambled and experts warned of a humanitarian crisis, global commodity markets responded with spiking prices for a second time in two years.

Russia and Ukraine's share of commodity exports



Note: Data for energy and food are trade volumes while metals and minerals are trade values. Fertilizers are phosphate rock and potash minerals, and ammonia-based non-minerals. Data are for 2020.

Figure 6: Share of commodity exports from Russia, Ukraine and Belarus³³



The war has been a major driver of instability globally because of both Russia and Ukraine's status as crucial exporters of food and energy. Before the 2022 invasion, both countries combined supplied 30% of global wheat exports, and 20% of global maize exports, as well as up to 80% of sunflower seed oil exports. Russia, Belarus and Ukraine are also world leading exporters of nitrogen, potassium and phosphorus fertilisers.³⁰

All of these commodities saw steep increases in price after the 2022 invasion (see figs. 4 & 5), exacerbated by rising energy costs, making them unavailable for people on the lowest incomes.^{34,33} Africa and the Middle East in particular are heavily dependent on food imports from Russia and Ukraine.

By the closing quarter of 2022, the initial price spikes caused by the invasion subsided. The United States Department of Agriculture attributes this stabilisation in no small part to the expected record grain export volume by Russia of 38 million tonnes in 2022/23, some 2 million tonnes more than in the previous season. Peter Schmidt, President of the European Economic and Social Committee's (EESC) Sustainable Development Observatory, has called for the regulation and even banning of commodity index funds, which allow outside speculation by banks removed from the food chain itself, which therefore have vastly less interest in maintaining accuracy or stability when it comes to prices.³² Even some actors involved in the financial sector admit this: an investment banker from Renaissance Capital told The Economist that most likely speculators had gotten ahead of themselves with the high prices early in the year, precipitating a downturn later on.²⁴



For example, wheat stocks before the war were reportedly "extremely high" and did not justify the price spikes, which were based on an assumption of scarcity following the outbreak of war. Schmidt emphasises that transparency in this area would make such outsize speculation impossible.

The huge volume of speculation at the war's outset was fed too by the expectations of sanctions against Russia, and concerns that vast amounts of Ukrainian grains intended for export would now sit rotting in silos, unable to be taken to market. Existing regulations aimed at curbing the effect of such speculation on food prices are not always effective. Michael Greenberger, a professor at the University of Maryland and a specialist in financial regulation, noted that 'rules limiting speculation are routinely avoided by American banks,' which transfer balances between jurisdictions to avoid penalties.²⁴

The overall price indices also mask divergent trends for different food groups and regions. In particular, countries dependent on food imports saw steeper increases in both the first year of the pandemic and the period immediately after the invasion of Ukraine, while producing countries only suffered moderate increases or hardly any.³⁶



Section 2: Mass transfer of wealth

While the twin crises of the COVID pandemic and the war in Ukraine plunged millions more into hunger and food insecurity, multinational corporations recorded enormous profits that enabled them to further tighten their grip on the global food system, and deliver enormous profits back to owners and shareholders. This section charts the ways that these two issues in particular allow for the unequal and unjust global food system as it currently stands to proliferate.

Section (2a) Market concentration

The concentration of ownership means that a small group of companies have disproportionate control, not only over the supply chains for food itself, but over *information* about those supply chains, which allows for greater extraction of wealth to the benefit of owners and shareholders. Grain reserves are one example of this: as noted in Section 1b, opacity around the true amounts of grain in storage was a factor in the development of a speculative bubble following Russia's invasion of Ukraine.

A report from the International Panel of Experts on Sustainable Food Systems (IPES) notes that four companies – Archer-Daniels Midland, Bunge, Cargill and Dreyfus, known by the initialism ABCD – control 70-90% of the world's grain trade, but are under "no obligation to disclose what they know about global markets, including their own grain stocks."³⁷ This allows companies to withhold information that would help to stabilise prices, were it published with full transparency.

In fact, employees from Cargill (by far the world's largest agriculture company, with 155,000 employees and the latest annual revenue closing in on US\$170 billion)³⁸, are on record bragging about how valuable their information is to hedge funds, "because they know where to invest, when and how much".³⁹ The black box surrounding how commodities prices relate to actual commodities storage is leveraged for the benefit of companies, traders and shareholders in the Global North. In this way, market concentration and corporate control allows for the use of insider knowledge – without it being considered illegal insider trading.^{40,41}

Increased concentration of market share correlates with rising profits for companies across the sector. This creates a vicious circle of increasing control: companies with more market share make greater profits, which enable them to acquire smaller companies, tightening their control on the market further. In mid 2022 the Canadian fertiliser and seed giant Nutrien acquired Casa do Adubo, a trader of agricultural inputs including seeds, fertiliser and pesticides - its sixth such transaction since 2019. Once approved by authorities, Nutrien will have 180 commercial units with 3,500 employees across Argentina, Brazil, Chile and Uruguay.⁴² Meanwhile, in the three financial years prior to 2021, Nutrien recorded profits⁴³ of \$4.6 billion. JBS S.A., now the world's largest meat processor, has followed a similar trajectory in the last decade and a half. The company has grown massively through acquisitions from a revenue of just R\$4 billion in 2007 to R\$400 billion today. In 2021 it announced seven acquisitions, the most notable of which were UK pork producer Randall Parker and Irish Kerry Group's meats and meals operations through its subsidiary Pilgrim's Pride⁴⁴ and Australia's biggest pork processor Rivalea.^{45,46}

Section 2b Cash dividends and shareholder buyback programmes

Research commissioned by Greenpeace International shows an enormous transfer of wealth to shareholders and company stakeholders in the period analysed. In the financial years 2020 and 2021, four⁴⁴ of the grain industry companies in our study paid out a total of \$2.7 billion in cash dividends, and at least \$3.3 million in share buybacks, though the true figure is likely much higher.⁴⁸

For the same period, the four companies in our study which dominate the fertiliser industry paid out a total of \$4.9 billion in cash dividends, and \$2.9 billion in share buybacks, putting the total wealth transfer figure for the companies studied for the years 2020-21 in the region of \$7.8 billion. In the meat industry, the total cash dividends paid out by the six companies surveyed totalled more than \$4 billion, and repurchased shares to the value of \$2.4 billion, bringing the total to \$6.4 billion returned to shareholders over the same two year period.

The figures for the largest companies operating in the dairy industry⁴⁹ are even more astronomical. Data for the five companies surveyed shows that cash dividend payouts in 2020-21 were in the region of \$21.4 billion, and shares repurchased (for which we have transparent data) totalled just under \$15.2 billion, giving a total of \$36.6 billion worth of profit transferred back to shareholders. Adding together these figures gives some idea of the scale of this transfer of wealth. In the financial years 2020-21, the companies in Greenpeace International's study (which comprise only a slice of the market) delivered around \$53.5 billion to shareholders, and these profits continue to rise. **To put this into context, in December of last year, the UN estimated that the amount needed in 2023 to feed 230 million of the world's most vulnerable people is \$51.5 billion.**⁵⁰

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Section 3: Remedies and recommendations

The most impactful structural change we can make to the global food system is working to bring about food sovereignty. Food sovereignty movements seek to return autonomy back to food producers, shortening and strengthening supply chains to reverse the damage done by unsustainable farming, to communities, nature, and our diets. It promotes an alternative vision of a more collaborative, socially just and ecological food system, where communities have control and power over how it's shaped.⁵¹

In the meantime, we must work to loosen the grip of corporate farming companies on the global food system. There is a role to play here for regulators and governments as well as for campaigners. Ensuring equity in the global food system necessitates two broad directional shifts in policy; our recommendations for governments and policy makers reflect this.

First, policymakers must *empower* **consumers and especially producers of food.** Measures to achieve this include:

- Treating food as a common good and human right, rather than just another commodity.
- Ensuring the right to healthy food for all, by adopting social measures like universal basic income to help tackle poverty and redistribute wealth.
- Governments must leverage labour protections to ensure that people growing, producing, sharing, and distributing food receive a decent income proportionate to their vital functions.
- Relocalisation measures such as requiring local governments to procure food from local producers, rather than outsourcing production to other countries.
- Introducing lower VAT on goods that fulfil certain criteria, such as being produced for their own local populations, in an environmentally friendly way, upholding workers' rights, etc.

Secondly, we call upon policymakers and governments to adopt measures to *curtail* the power of the corporations that currently dominate the system. Measures to achieve this aim:

- Tax the windfall profits of corporations during crises with an ambitious and sector-wide windfall tax.
- Crack down on regulation avoidance, whereby banks evade regulations meant to curb speculation.
- A massive shift towards transparency in food sector trade and operations is essential to limit the abuses wrought by large corporations. As discussed in sections 1b, 2a and 2b, the secrecy around physical commodity holdings (such as grain storage) and financial reporting of profits both allow corporations to leverage their own information for further financial gain, further rigging the market in their own favour and disempowering producers and consumers.
- Regulators should push to ensure that trading, especially when granting mergers and acquisitions, comes with further regulations to ensure transparency, to guard against the cudgel of secrecy these companies currently wield against the rest of us.
- We echo the EESC's call for tighter regulation of the commodity futures market to curb price movement, as well as banning commodity index funds which allow for speculation from outside of the market itself, further alienating growers and food sector workers from the value created by their labour.
- Governments also have the power to intervene when there are rapid price changes by enforcing trading halts, curbing transfer of wealth and insulating growers and consumers from market instability.
- Taxation on dividend payouts to wealthy stockholders should be set at much higher rates. Tax on income from dividends should be at least as high as tax on income from wages.
- Finally, we call upon governments to implement one-off solidarity wealth taxes on the top 1% of earners, in acknowledgement of the massive global wealth transfer precipitated by these recent crises.

"A massive shift towards transparency in food sector trade and operations is essential to limit the abuses wrought by large corporations."

The states

It would be a mistake to conclude that the crises discussed in this research are aberrations, that they will give way to a future characterised by stability. Instead, as the world enters one climate catastrophe after the other, the inequities of the system are set to deepen. Unless urgent action is taken, our current trajectory points to a future of global instability caused by extreme weather events, sea level rises and other shocks, in which the existing vulnerabilities in supply chains will continue to be exposed, at the expense of millions of lives. In this sense, the crises of the COVID-19 pandemic and the war in Ukraine are more like the 'new normal.' But it's not inevitable that future shocks must come with food crises to match. Without a shift towards food sovereignty, as the pandemic and the ongoing war subside, they will be replaced by others which can be similarly exploited. The question is whether the system in place is leveraged to offset these crises, or to continue to exploit them.

Endnotes

1. La Via Campesina,'We Feed the World' | An illustrated book in defense of peasant agriculture. □

2. Food and Agriculture Organization of the United Nations (FAO). 2018. World Food and Agriculture Statistical Pocketbook, 2018. ☐ 2022.

3. FEED, A food systems podcast from TABLE, The University of Oxford, The Swedish University of Agricultural Sciences (SLU), Wageningen University & Research. 2021. Episode 5, Jennifer Clapp on Commodifying Food. December 2022.

5. United Nations. 2015. *The 17 Sustainable Development Goals*. United Nations. □

6. McCarthy, N. 2020. *Infographic: World Hunger Rises For Third Successive Year*. Statista Infographics. □

7. Data from Central Bank of Kenya 2019

8. Reuters, Senegal hones its home-grown rice to cut dependence on Asian imports ⊡

9. United Nations. 2022. *Goal 2: Zero Hunger -United Nations Sustainable Development*. United Nations Sustainable Development; United Nations. ^[] 2023.

10. Health-E News 🗹

11. Tirado, R., Baker, M., & Kramb, D. 2015. The seven principles of a food system that has people at its heart. Ecological Farming 2 Acknowledgements 02 Preface: Food for Life 04. In *Greenpeace*. ☐ 2023.

12. Clapp, J., & G. Moseley, W. 2020. This food crisis is different: COVID-19 and the fragility of the neoliberal food security order. *The Journal of Peasant Studies*, 47(7), 1–25.

13. Howard, P. 2020. The Food System:Concentration and Its Impacts.Philip H. Howard. ^[] 2022.

14. HLPE on Food Security and Nutrition. 2020. Impacts of COVID-19 on food security and nutrition: developing effective policy responses to address the hunger and malnutrition pandemic. Rome. □

15. CPI average food price data for March 2020 - Office for National Statistics. 2020, March. Office for National Statistics. []

16. Kornher, L., von Braun, J. 2022. Higher and More Volatile Food Prices – Complex Implications of the Ukraine War and the Covid-19-Pandemic. ZEF Policy Brief No. 38. Center for Development Research, University of Bonn; August 2022. []

17. Lewis, L. 2020. Coronavirus serves up a surplus of Wagyu beef. Financial Times. ^[2] cited in HLPE on Food Security and Nutrition. 2020.

18. Terazono, E. & Munshi, N. 2020. Choc waves: how coronavirus shook the cocoa market.
Financial Times, ^[]. cited in HLPE on Food
Security and Nutrition. 2020.

18

Endnotes

19. Food and Agriculture Organization of the United Nations: FAO Food Price Index. World Food Situation. 2022. □

20. Ben Hassen, T., & El Bilali, H. (2022). Impacts of the Russia-Ukraine War on Global Food Security: Towards More Sustainable and Resilient Food Systems? *Foods*, *11*(15), 2301. August 2022. □

21. Vos, R. et al. COVID-19 and rising global food prices: What's really happening? International Food Policy Research Institute (IFPRI). 2022-02-11. September 2022. □

22. Further discussion of the war's effect can be found in Section 1b.

23. International Grain Council. Grains and Oilseeds Index. 🖸 2022.

24. The Economist. Against expectations, global food prices have tumbled. 2022. ^[] 2022.

25. Clapp, J., & G. Moseley, W. (2020). This food crisis is different: COVID-19 and the fragility of the neoliberal food security order. *The Journal of Peasant Studies*, 47(7), 1–25. □

26. FAO: The State of Food Security and Nutrition in the World 2022. 2022-07-06; □ 2022

27. Harvey, F. Windfall tax on Covid profits could ease 'catastrophic' food crisis, says Oxfam. The Guardian. 2022. ☐ 2022.

28. It's notable that exacerbating factors in these areas extended beyond the pandemic and Ukraine. The climate crisis also played a role: the Horn of Africa was hit by "the worst drought in forty years," and the ongoing civil war in Yemen is also implicated.

29. Rayment, L. B. 2022. 200 million face life-threatening hunger, says new UN report | Charity Today News. Charity Today. 🔁 2023.

30. FAO, IFAD, UNICEF, WFP & WHO. 2019. The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns. Rome, FAO.

31. van der Ploeg, J.D. 2020. From biomedical to politico-economic crisis: the food system in times of Covid-19. *The Journal of Peasant Studies*, 47(5), pp.944–972. □

32. FAO. 2011. The State of Food Insecurity in the World 2011: How does international price volatility affect domestic economies and food security? Rome, FAO. □

33. Baffes, J., & Nagle, P. 2022. The Commodity Markets Outlook in seven charts. 2022, □

34. Commodity Markets Outlook. 2022, April. Special Focus: The Impact of the War in Ukraine on Commodity Markets. 2022. □

35. Schmidt, P. 2022. Food price crisis: the role of speculation and concrete proposals for action in the aftermath of the Ukraine war. European Economic and Social Committee.
☐ 2023.

36. With the exception of Argentina, mainly for domestic reasons.

37. Jacobs, N., & Clapp, J. 2022. 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. International Panel of Experts on Sustainable Food Systems. ☑ 2022.

Endnotes

38. Reid, S. 2019. Inside the Cargill family. Creaghan McConnell Group: ☑ 2022.

39. Salerno, T. 2016. Cargill's corporate growth in times of crises: how agro-commodity traders are increasing profits in the midst of volatility. Agric Hum Values.; 34(1); S: 211–22 2017-03-01. ☐ 2022.

40. Lippert, J. 2011. Cargill Defines Food Chain While Assailing Government Hoarding. September 2022. *Bloomberg.com*. ☑

41. Murphy, S et al. 2012. Cereal Secrets: The world's largest grain traders and global agriculture. Oxfam.org. ^[] 2022.

42. Soni, R. 2022. Nutrien buys Casa do Adubo to expand retail presence in Brazil. Reuters/Yahoo! Finance. 2022.

43. Net income figures, from Greenpeace International research based on public available data.

44. Just Food: JBS-owned Pilgrim's Pride snaps up UK meat firm Randall Parker Foods. 2021 ☑ 2022.

45. Agrarheute Norbert Lehmann: Ende der Spekulation: Schlachtkonzern Tönnies bleibt in Familienhand. Agrarheute. 2021. ☐ 2022.

46. EXAME: Processadora de carne alemã Tönnies na mira da JBS. 2021. ^[] 2022.

47. Financial reporting for COFCO was unavailable.

48. The full figure for share buybacks here is masked by a gross lack of transparency, especially in the case of the privately held Cargill and historically secretive Louis-Dreyfus. See Section 3 for our recommendations in this area.

49. Greenpeace International's research focused on total profits and revenues for each of the largest companies operating in each sector. We acknowledge that these companies' operations extend beyond the sector in which we have categorised them in each case – however the complexity of the industry means some overlap in sectors will necessarily occur in our analysis. Nevertheless we have taken extreme care to ensure that financial data are at no point duplicated or distorted.

50. UN appeals for record \$51.5 billion to help 230 million on the brink in 2023. 2022. UN News. □

51. Darier, E. Greenpeace International. 2020. Food sovereignty now and beyond COVID-19. ^[] 2023.

Colophon

Greenpeace International report and commissioned research. All data available are desktop research based.

> **Revisions & Legal Assessment:** Greenpeace International



