

Four myths the food industry wants you to believe...

...and why they are wrong!



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Cover photo: A small scale farmer growing crops from climate resilient seeds distributed in Maralal, Kenya

Introduction

It has been said that we live in a 'golden era' for food access and affordability. After all, we can go into a supermarket and cheaply buy products from around the world. Extreme hunger and malnutrition have also fallen hugely over the past few decades.

This may be true. But there is a problem. Those malnutrition rates, after decades of falling, have begun rapidly rising again.¹ The systems that brought such cheap food come at the expense of huge greenhouse gas emissions and environmental devastation. Our unbalanced, highly-processed diets are leading to massive increases in diseases such as obesity. And farmers, agricultural workers, and consumers have never been as powerless in the face of multinationals and volatile global markets.

The current food system is not sustainable. But you wouldn't think so if you listened to the multinationals that hold most influence over the food system. They assure us that the current system of input-intensive, corporate agriculture works efficiently and is the only way we can feed the world's growing population. They tell us that sustainable alternatives like agroecology cannot work.

They argue that the only way for smallholder farmers to escape poverty is by competing in a global marketplace dominated by multinationals.

And they prescribe cheap food, not better incomes, as the way to end poverty. All four of these assertions are myths. In this report, we take a close look at the received wisdom on the global food system, and tell the far more complex story of how things really are.

Because the reality is that the current system is both inefficient and damaging. Agroecology has been shown to work and is actually far more efficient in the long term.

Trade is not the one-size-fits-all solution for farmers in the global south it's made out to be.

And the way to reduce poverty is not cutting food prices (and farmers' incomes) to artificially low levels, but raising incomes and securing a right to food for all. The truth matters. We hope that this report will help campaigners, policy professionals, and activists push for the policy changes that will bring about a fairer food system.

MYTH ONE: "Intensive industrial agriculture is always more efficient than the alternatives"



Summary

- Intensive farming is not efficient once you factor in the huge energy, water, and soil resources it needs to work
- Intensive industrial agriculture benefits multinationals but is harmful for people and the planet
- There is an effort to pretend that new technologies have made intensive farming sustainable
- Industrial agriculture only works with support from huge subsidies and at the expense of environmental degradation

Key figures

\$635 billion: Amount spent on agricultural subsidies – much of which goes on chemical fertiliser - to keep the intensive agricultural system going²

21–37%: Estimated proportion of global greenhouse gas emissions attributable to the current food system³

5: The number of multinational companies that control around 80 per cent of the global grain market⁴

THE MYTH

In farming, there is a common perception that big is beautiful. To feed a fastgrowing world population, we're told that we need to squeeze more food out of less land. We need to 'modernise' (code for intensify) agriculture to make it productive and efficient enough to feed ever more people. That means fewer, bigger, corporate farms rather than "inefficient" smaller-scale food production.

The model here is often based on large-scale US industrial agriculture. Mile upon mile of intensive monoculture, with proprietary multinational-produced chemical fertilisers, pesticides and herbicides applied to ensure ideal conditions. Modern equipment is used to save on expensive labour inputs. All of this, the argument goes, has been so successful in maximising crop yields that it has made the USA the world's biggest food exporter.⁵

But now this model is not just being sold to us as a way of feeding the world cheaply. It is also being promoted as the greenest, most sustainable way to do so. Buzz phrases such as 'climate smart agriculture' and 'sustainable intensification' are used to argue that if only we could further increase the efficiency of industrial agriculture, this model (and the huge multinationals who profit from it) can be part of the solution to climate change and environmental degradation, as well as feeding the world's growing population.

The evangelists of 'green' corporate agriculture

The US-based Breakthrough Institute thinktank is a prominent example of how supporters of the corporate agriculture model are trying to paint themselves green and frame themselves as allies of the environmental movement.

Ted Nordhaus and Dan Blaustein-Rejto, both staff at Breakthrough, describe themselves as 'ecomodernists' and argue that "in a modern and affluent economy, the food system could not be anything other than large-scale, intensive, technological, and industrialized".6

Nordhaus has produced controversial articles with titles like "Want to save the planet? Say bye-bye to nature" and has defended fracking for natural gas.7

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THE REALITY

Industrial agriculture is surprisingly inefficient

A deceptively simple, but somewhat misleading, way of visualising the environmental argument for intensive agriculture is the Borlaug Hypothesis. Norman Borlaug is often dubbed the father of the so-called 'Green Revolution' of intensive farming in the 1960s and 70s.

The idea is that by concentrating agriculture on less land, intensive methods mean that more land can be left free for nature. Borlaug estimated that if we had continued to use 1950s technology, by the year 2000, an additional 540 million hectares of land would have been needed.⁸

But the reality is much more complicated.

It's true that if you disregard a whole range of factors such as soil degradation, energy use, and social sustainability, then intensive agriculture - and the short-term boost in yields that it sometimes brings - looks artificially good. However, once you factor in those other things, the picture is less rosy.

Advocates of industrial farming tend to focus solely on increasing productivity at the expense of true sustainability. The question for them is often, 'How much food can we produce from a given amount of land?' - to the exclusion of everything else. This leads to a view of 'efficiency' that tends to be limited to discussions around issues such as making the best use of chemical fertiliser.

A more inclusive view of efficiency needs to include both concepts of eco-efficiency (achieving maximum output with the least use and depletion of land, water, labour and energy) ⁹ and social efficiency (the optimal distribution of resources in society, taking into consideration a diverse range of costs and benefits, including the welfare of future generations).¹⁰



Once these broader systemic factors are considered, it becomes clear that modern intensive agriculture is a huge resource sponge. It requires enormous quantities of fossil fuel-based fertiliser, designer seeds, herbicides and other artificial interventions to work. It also causes soil quality to decline, leaving farmers locked into, and dependent on, these expensive methods.

Despite all this, there is evidence that crop yields similar to, or even higher than, industrial farming methods can be achieved with agroecological, organic alternatives. In fact, a study of global crop yields between 1961-2008 found that yields of key crops in some world regions have declined during the intensification process.¹¹ This is probably because of side effects of input-intensive farming, such as degradation of soil fertility, soil salination, soil erosion, and falling groundwater levels.

Another study of family farmers in Uruguay showed that yields actually improved when they abandoned intensive farming, diversified their crops, and adopted agroecological methods such as crop rotation.¹²

Industrial agriculture wastes energy and water

In an era of climate emergency, it should matter that industrial agriculture can be immensely energy and water inefficient.

In the US state of Arizona - the very heartland of 'successful' industrial agriculture the amount of fossil fuel energy and water required to grow crops is sobering.

In 2009, a group of academics studied the full energy and water requirements for a range of crops. They found that just one head of cabbage could need up to 107 US gallons (405 litres) of water to produce. When you factor in the energy needed to pump this water to irrigate the crops, to work the farm equipment, and to produce the fertiliser and other chemicals required, intensive farming looks extremely energy inefficient.¹³

Another study found that the energy efficiency of Bangladeshi farming decreased between 1990-2005 as agricultural production intensified.¹⁴ The very opposite of what intensive farming's advocates would contend.

Subsidies: the REAL secret to industrial agriculture's success

So, if industrial agriculture isn't efficient, and is damaging to the environment, what explains its apparent success?

A big part of the answer is government subsidies.



Industrial agriculture has not prevailed because it is inherently superior; it is stupendously wasteful, damaging to the environment and human health, surprisingly inefficient, and it is inexorably prone to overproduction. It exists, in a nutshell, because it is subsidized"

Professor Glenn Stone, Washington University¹⁵

In the 2023 financial year, India alone had a fertiliser subsidy budget of over US\$25 billion, which was predicted to fall short of what was needed.¹⁶ In the US, the Biden Administration approved a \$500 million handout to US fertiliser producers in 2022.17

Subsidies are also given to developers of proprietary seed that require large amounts of chemical fertiliser. For example, the US Department of Agriculture's National Institute of Food and Agriculture (NIFA) regularly gives tens of millions of dollars a year to genetically modified (GM) or other proprietary seed development projects.18

All of this does not include the impact of broader direct and indirect subsidies for fossil fuels (from which fertiliser is produced) which have been estimated to total \$5.8 trillion in 2020.19

Industrial agriculture: Great for corporations, bad for people and planet

Intensive, industrial agriculture has been great news for a handful of big corporations. Just four companies control over 60 per cent of the global market for agrochemicals and over half the market for seeds.²⁰ Just five companies control between 70 and 90 per cent of the global trade in commercial grains.²¹

But the results for the majority of the world's population, and the environment, have been less profitable. The one-size-fits-all model of agriculture has been revealed to be a one-size-fits-billionaires model.

The story of the modern world is no longer as much malnutrition due to food shortages, but malnutrition in spite of plenty. We have more food, but it is less healthy, distributed unequally and produced at a high environmental cost. The world now faces what has been called a 'triple burden' of malnutrition as hunger and micronutrient deficiencies (also known as 'hidden hunger') have been joined by illnesses associated with unhealthy diets and the over-consumption of unhealthy food, such as excess weight and obesity, diabetes, and hypertension.

The industrial agriculture model is not only less efficient than claimed and disastrous for the planet, but the food that it is producing is actually contributing to a growing health crisis.

MYTH TWO:

"Agroecology can't feed the world so there is no alternative to corporate agriculture"



Summary

- Agroecology isn't a one-size-fits-all, pre-packaged solution. What it looks like will depend on the local context
- Alternative agricultural approaches have been shown to be more socially equitable than the mainstream industrial model
- Agroecology is not 'anti-science' or 'anti-technology' but instead seeks to find ways technology can be used to work with nature rather than against it
- Agroecological approaches work in practice and are often highly productive

Key figures

150%: The proportion of the world population we could feed with current food production – we have enough food for 1.5 Earths²²

Up to 70%: The proportion of the world's food produced by small-scale farms²³

96 million hectares: Amount of land farmed organically in 2022²⁴

What is Agroecology?

Agroecology is guite a diffuse concept that resists easy definition. The most broadly accepted definition by the UN's Food and Agriculture Organisation (FAO) calls it:

"A holistic and integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of sustainable agriculture and food systems. It seeks to optimize the interactions between plants, animals, humans and the environment while also addressing the need for socially equitable food systems within which people can exercise choice over what they eat and how and where it is produced"25

While this FAO definition is lengthy, it is also an over-simplification. This is why the FAO has identified ten elements of agroecology including responsible governance and co-creation of knowledge. The High-Level Panel of Experts on Food Security (HLPE), of the World Committee on Food Security, further translated these ten elements into thirteen operational principles including participation, fairness, and economic diversification.

This complexity allows some critics to paint a straw man picture of what agroecology is - often casting it simplistically as anti-modern or ideological. The kernel of truth in that is that agroecology is indeed both a scientific school of thought and a social movement with political implications. But critics who try to use agroecology's association with social justice as an argument against it tend to ignore how deeply political and ideological today's corporate-dominated industrial food system is.

At its heart, agroecology is an approach that rejects one-size-fits-all solutions and accepts that the optimal approach in coastal Brazil may look very different to what may work best in Belgium or Botswana. Given the huge diversity and complexity of nature on our planet, it makes sense that the optimal agricultural system is similarly diverse and complex.

THE MYTH

The dominant discourse peddled by multinationals regarding industrial agriculture largely implies that there is no alternative to the status quo. When alternatives like agroecology are discussed, they are often caricatured as being against progress.

Kip Top, agribusiness tycoon and Donald Trump's envoy to the FAO, often displays this attitude.

He has described agroecology as "an explicit rejection of the very idea of progress - extolling 'peasant' farming and promoting 'the right to subsistence' agriculture"²⁶ and as an "endless cycle of back-breaking labour and low-yield production."27

There is also a perception, strongly pushed by advocates of the status quo, that agroecology is somehow anti-science and ideologically motivated. They point at the focus on social justice underlying much of the discussion around agroecology as evidence that it is more about ideology and politics than the bread and butter of delivering higher crop yields.

THE REALITY

Beyond yields – a food system that works for people and the planet

Much of the criticism of agroecology rests on the idea that agroecological methods can't produce the crop yields needed.

As we saw in Myth one, it is far from clear that, even in terms of yields, intensive corporate agriculture is always more efficient than more sustainable approaches, especially when environmental and social costs are accounted for. While it may be possible to boost yields in the short term, industrial agriculture is devastating for the soil and comes with huge environmental costs. The UN estimates that a third of the Earth's soil is degraded because of industrial farming.²⁸

But the benefits of agroecology extend far beyond crop yields alone. It is a system that promotes ecosystems, sustainability, and the welfare of everyone involved, producers and consumers alike. Far from "promoting subsistence", agroecology can, as a study in Guatemala showed, actually improve farmers' access to commercial markets and boost incomes.²⁹ It also creates greater community cohesion and social capital,³⁰ and agroecological methods can be more conducive to gender equality.³¹

The tendency of agroecological farms to be smaller-scale is no impediment to them feeding the world either. According to one recent estimate, small-scale farmers already produce around 70 per cent of the world's food.³²

As for the need to lower greenhouse gas emissions in the fight against climate change, agroecology is vital. In fact, if we are to have any hope at all of staying well below 2°C of warming, there is no alternative. About 21 – 37 per cent of total greenhouse gas emissions are currently attributable to the food system. This includes emissions from fertiliser and pesticide production and from transport, refrigeration and processing, all of which are heavily associated with the industrial food system. This is simply not sustainable.³³ Aside from avoiding the huge carbon footprint that industrial agriculture generates from fossil-fuel based fertiliser and high energy use, there is evidence that diversified agroecological farms actually promote carbon storage in healthy soils.³⁴

Agroecology can also help farmers to adapt to climate change. One study showed that agroecology and farm diversification created positive impacts on pollination, pest control, nutrient cycling, water regulation, and soil fertility.³⁵

Agroecology as science

Detractors of agroecology often cast it as being an anti-technology movement based on a romantic attachment to peasant agriculture. But nothing could be further from the truth. Agroecology is as much a scientific movement as a social justice one. And where modern technology can empower food producers rather than enslave them, there is no contradiction between agroecology and modernity.

It is sadly true, however, that more agricultural research money goes into trying to make the existing industrial model slightly less damaging than into agroecology. Some research into technology designed for agroecological and organic farming contexts is also taking place.

An example of this is open-source farming robots - being developed by a team in California - that automate many of the tasks needed in traditionally labour-intensive organic farms.³⁶ The robots are designed to be low-cost and are free of any intellectual property restrictions to enable access to farmers in the global south who can build their own versions locally.

Far-from being attached to "back-breaking labour", agroecology is about maximising the welfare of food producers and consumers. If robots (or any other technology) can help with that, great!



Agroecology in practice in Brazil's Zona da Mata

Perhaps the most important argument in favour of agroecology is that there are many examples of it working in practice. Brazil's Zona da Mata is a hilly region situated in the state of Minas Gerais. It is famed for its coffee, but it is also home to a strong agroecological movement. As such there have been several studies looking at whether the model works here.

One such study found that "the reduced use of industrial inputs and reduced weeding intensity in agroecological coffee fields did not significantly reduce soil fertility and crop yield."37

Another found that "agroecological farms, on average, have a value of Net Present Value (NPV) twice bigger than conventional farmers (US\$ 54,060/ha against US\$ 19,034/ha) for the average price scenario."38

Another study found that "social capital was also stronger amongst agroecological farms, which is reflected in higher group participation and gender equity."39

What this means is that farmers using agroecological methods are not only socially and environmentally more resilient, but are also financially better off with crop yields just as high as other farms. What's more, agroecological farms, because they include multiple crops instead of monocultures, are more resilient to market price shocks as a crash in the price of one crop can be compensated with others.

A key part of the success of agroecology in Minas Gerais is institutional support from community organisations and the state. Examples of this include the Centre for Alternative Technology which since 1984 has been active in advising, defending and guaranteeing the rights of farming communities and promoting agroecology.⁴⁰ At the state level, Brazil has had a National Plan for Agroecology and Organic Production (PLANAPO) since 2012.41

Agroecology even works in cities where the right community and institutional support is in place. Belo Horizonte, the capital of Minas Gerais state, is a city of 2.3 million people (which makes it bigger than Paris). But it hosts five Agroecological Experience Centres where food is grown and access to fresh vegetables is ensured in some of the poorest districts of the city.⁴² If agroecology can work in this kind of environment, it can work anywhere.

MYTH THREE: "Local farmers need global markets to escape poverty"



Summary

- Global trade in food is not a level playing field, with rules skewed in favour of multinationals and rich countries
- Access to global markets can be beneficial to some farmers if the terms are right and it is well-managed
- Sometimes integration into global markets can actually harm smallholder farmers
- Trade must be balanced with food security and alternative approaches that strengthen local markets

Key figures

0.02%: The proportion of global total consumer spending accounted for by fair trade certified products43

80%: The proportion of the €387 billion European agricultural subsidy that goes to just the 20% of (mostly large) farms⁴⁴

71%: The amount of agricultural produce that is not traded internationally⁴⁵

THE MYTH

The idea that access to global markets is the key to prosperity for food producers has become an article of faith for many governments, development consultants, and international institutions.

The Alliance for a Green Revolution in Africa (AGRA) defines agricultural transformation as a process by which individual farms "shift from diversified, subsistence production to more specialized, market-oriented production" and achieve "increased integration of agriculture with other sectors of domestic and international economies."46

The idea here is that by specialising in specific, high-value 'cash crops' and selling to the global market, producers can make more money and escape poverty. In this view, highly diversified, less commercial, organic farming is more difficult to turn into a large-scale export industry.

However, in a world in which the agricultural sector is more globalised and integrated than ever, it is obvious that this has not always benefited small-scale producers, many of whom remain in poverty. This has led to the idea that 'inclusive' global value chains must be set up to ensure that smallholder farmers benefit. But the broader idea that the path out of poverty must run through global trade and integration into global value chains is rarely challenged.

THE REALITY

The risk of adverse inclusion in global markets

The view that more integration into global value chains is necessarily and always good springs from an ideological attachment to market-based solutions, and the belief that specialising in one crop for export and trade is more efficient than diversified production. The problem is that things are rather more complicated than this. Export-oriented, intensive monoculture comes with many environmental and social costs. And farmers selling to a global market are not necessarily doing better than those selling exclusively to local markets.

In fact, the opposite can be the case. This has been called "adverse inclusion"⁴⁷ which is when food producers are rendered worse off as they are exposed to the whims of the global market and become dependent on major corporate buyers or middlemen.

For wealthier farmers, this might not be so terrible. But for smaller-scale, less wealthy producers, being dependent on the global market for one cash crop can increase risk and vulnerability. These farmers are just one failed crop, or one market crash, away from destitution. Whereas if they were less dependent on global markets, and maintained a more diversified range of crops, they might be more resilient.

For example, as one 2010 study pointed out, a low-wage worker picking fruit for export in sub-Saharan Africa is actually very well integrated into global value chains. But, given their extremely low wages and lack of bargaining power to improve their working conditions, it is difficult to believe they are better off as a result.48

Conversely, farmers might fare better outside the global marketplace, as the same study put it: "Small farmers opting out of production for a global value chain, and choosing instead to produce for less lucrative but less risky local markets, are in one sense becoming more marginal but may experience relatively more market leverage."49

What's more, less than 30 per cent of agricultural produce is traded internationally, and that trade is dominated by a few wealthy countries, with Africa's combined share amounting to only 4 per cent of global exports.⁵⁰ So, there is a question of how necessary it is for every small family farm to be plugged into global supply chains when there is plenty of need for healthy and nutritious food at home.

Such 'inclusion' into global markets can also have an adverse effect on the planet. Transport accounts for 19 per cent of food systems' greenhouse gas emissions, with transport of fruit and vegetables accounting for nearly twice the emissions associated with their production.⁵¹

Unfair trade

The risks of inclusion into global markets are exacerbated by the fact that the playing field is rigged in favour of multinationals and the richer countries they tend to be based in.

World Trade Organisation (WTO) rules tend to allow subsidies which are only affordable to rich countries, but ban import tariffs that would be the only way poorer countries could protect their own agricultural producers from the unfair competition of subsidised foreign produce. This means rich countries can often dump huge amounts of subsidised produce on poorer countries, while small, local producers cannot compete.

The narrative that trade is a win-win has become a core belief for many in world politics. But it is simply untrue that this is always the case. In fact, a recent study showed that between 1990 and 2014, trade liberalisation in food products actually increased food insecurity.52

This is because trade liberalisation can drive down prices to levels at which local farmers just cannot compete. It can also harm countries that import food too, as it can make it more difficult for these countries to escape dependency on imports and develop domestic agriculture.



It is also possible for a country to export more food but remain dependent on food imports as more farmers move away from producing staple foods for local markets and instead farm cash crops for export. People still need to eat and so (often lower quality) imported food comes in to bridge the gap.

Global market access can be beneficial - but it's not always the solution

Like with so much pertaining to sustainable agriculture, there is no simple answer to the question of whether inclusion in global markets is beneficial to producers. The optimal system is likely to be one in which sustainable local alternatives to international markets are supported, as well as policies and systems that allow access to those global markets in a way that is genuinely beneficial.

It is certainly possible to have global markets in agricultural goods that are not dominated by corporate monopolies. Cocoa is a good example of such a market. Up to 95 per cent of cocoa beans are sold on international commodities markets, so it is a highly globalised market. But it is estimated that 80 per cent of the global value chain for cocoa is made up of small-scale farms of five hectares or less, providing a livelihood for between 40 to 50 million farmers.⁵³ Fairtrade and other schemes have also in some cases helped to ensure more of the value of these goods is gained by these producers.

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Supporting local markets: the Woza Nami programme in South Africa

The Woza Nami programme is an example of how strengthening local demand for local products can serve as an alternative to full integration into the global supply chain.

Working through seven agroecological hubs, the programme provides training and resources to promote the production of healthy food and strengthen connections between producers and consumers. It also seeks to improve access to locally produced food, including in nearby peri-urban areas.

To boost local consumer trust and guarantee quality, a Participatory Guarantee Scheme (PGS) accredits farmers based on their involvement in local cooperatives. Local people inspect farms to ensure quality and offer support, building trust and sharing skills among producers.^{54 55}

There are also policy tools that can be used to help ensure that small-scale producers win from integration into truly inclusive global value chains.

Outgrower schemes, or contract farming systems, in which larger-scale agribusinesses promise to purchase a crop from small-scale producers for a predetermined price, are often suggested as one such tool. If designed well, they can be a way to ensure stability and equitable access to global markets. But when badly designed, they have been criticised as a way for large corporations to effectively 'land grab' in areas they otherwise would not be able to access.⁵⁶ Unless producers are able to express prior informed consent and are empowered by the process rather than just being rendered dependent on the company, these schemes can do more harm than good.⁵⁷

Sometimes, the optimal solution is not to pursue integration into global markets as an end in itself, but instead build local or regional alternatives. Strengthening local 'territorial' markets and boosting local or regional demand can often be a more realistic way for small-scale farmers to thrive than selling to the global market. Sometimes, part of this is boosting local demand for products. For example, Kenya's coffee used to be overwhelmingly grown for export, but in the last decade local demand has tripled, allowing more producers to sell to local markets.⁵⁸

There is also the important issue of food producers and consumers having agency and control over what, and how, food is produced. This is much more difficult when the producers are in hock to a global market controlled by a handful of corporations or dominated by highly subsidised industrial producers in wealthy countries.

MYTH FOUR: "We need cheap food to feed poor people"



Summary

- Cheap food comes with huge environmental and health costs
- Instead of cheap food, we need to prioritise affordable, nutritious, and sustainable food
- Reducing poverty increases access to food far more than cheap food does
- We need to establish a right to food and a better food system, rather than produce more cheap food

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Key figures

\$500: The amount that is spent by multinationals promoting unhealthy diets for every \$1 the World Health Organisation spends on promoting healthy diets⁵⁹

\$29 trillion: What the world's food actually costs if we factor in all the environmental and health costs of the current food system⁶⁰

1.58 billion: The number of people worldwide who earn less per day than the cost of a balanced diet⁶¹

THE MYTH

Cheap food sounds great in theory. And one might assume that cheaper food would lead to less malnutrition and hunger in the world. After all, food makes up a far higher proportion of the budgets of the poorest households than of the wealthiest so it would be fair to assume that cutting food prices would benefit the least wealthy the most.

Food industry multinationals have taken this idea to justify their own existence. We should be grateful, they argue, for the role they play in making food cheap enough for everyone to afford.

US supermarket Walmart says that their company mission is "to save people money so they can live better... and help customers around the world provide for their families."⁶²

Agribusiness giant Cargill says that it exists "to nourish the world in a safe, responsible and sustainable way."⁶³

This has even been called a "golden era" for cheap food.⁶⁴ After all, we can now purchase a range of products (including from the other side of the world) for prices that would have been unimaginable just a couple of generations ago.

THE REALITY

Cheap food costs the earth ... and our health

Unfortunately, there really is no such thing as a cheap lunch. While it may be true that the prices we pay at the checkout for some items are low, this comes at a huge cost to the environment, the climate, and even our health. Very few of these costs are priced in, so the price we pay is artificially cheap.

A recent study called the True Cost of Food estimated that while \$9 trillion a year is spent on food, that cost would be \$29 trillion – over three times more – if you factor in the environmental costs (\$7 trillion), human life costs due to diseases like obesity (\$11 trillion) and economic costs (\$1 trillion).⁶⁵

As we've covered in the other sections of this report, the environmental and climate costs of the industrial agriculture system are huge. But the cost to health is also severe. Cheap calories are not necessarily healthy calories.

In the UK, the Food Foundation estimates that healthier foods cost on average £8.51 per 1,000 calories, compared to £3.25 for the same calorific value of less healthy foods.⁶⁶

Another study estimates that at least 1.58 billion people globally live in households that earn less than what a diet capable of sustaining health and protecting the planet would cost.⁶⁷

Part of the reason that unhealthy food is cheaper is the sort of foodstuffs that get subsidised are cheap carbs like wheat, rice, oil, and sugar. This is contributing to a situation in middle and lower-income countries in which hunger and malnutrition are being replaced with poor nutrition and diseases associated with Western-style diets such as obesity.

This is great news for the food industry multinationals who plough money into keeping this trend going. It has been estimated that for every \$1 spent by the World Health Organisation on preventing diseases caused by Western diets, more than \$500 is spent by the food industry promoting those diets.⁶⁸

Cheap food does not reduce poverty

The evidence is clear: lower food prices are nice where this can be achieved sustainably and fairly, but this is often not the case. But if we want to reduce poverty and increase access to nutritious food, the most effective way to do it is not by cutting food prices to artificially low levels, but by raising incomes.

A US study found that when the minimum wage was increased, food-insecure households were able to buy healthier food and that the least healthy households bought more healthy foods in response to rising minimum wages.⁶⁹

This simple logic plays out even more strongly in the global south. Another study conducted across 139 countries showed that people employed in countries with a high minimum wage or strong workers' rights were less likely to be food insecure.⁷⁰



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Cheapening is "a strategy, a practice, a violence that mobilizes all kinds of work—human and animal, botanical and geological – with as little compensation as possible"

> Raj Patel and Jason Moore: A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet

Part of the reason cheap food is possible is that the people producing the food are paid very little for their work. Agricultural work is, overwhelmingly, a low-wage and low-income sector. Even in the UK, farmers get just 1 per cent of the profit from the food products sold to consumers.⁷¹ Much of the profit goes to the big corporations that dominate our food system. A recent report showed that 54 per cent of food cost inflation in the US in 2020-1 came from increased corporate profits.⁷² And profits in the food and beverage sector reached \$155 billion in 2022.⁷³ Even in the UK, very little goes to workers employed by these corporations. In 2021, a survey by the Bakers, Food and Allied Workers Union found that one in five food workers in the UK were in food poverty, with 40 per cent reporting that they had not eaten enough due to a lack of money.⁷⁴

In the global south, this problem is even more stark. Given the fact that 70 per cent of the world's poor people live in rural areas,⁷⁵ most of whom are engaged in agriculture, what cheap food really means is paying these people less. Ensuring that producers and agricultural workers have the income to afford nutritious food themselves would be a far better way of fighting poverty than keeping the prices of the food they help produce low.

The alternative to cheap food: a right to nutritious food

So, if the corporate vision of cheap food is exploitative, environmentally unsustainable, and damaging to our health, what is the alternative?

We need to stop thinking about food as being cheap or expensive. Food is not a luxury. We all need to eat. As such, it makes much more sense to discuss access to food in the same terms we discuss other non-negotiable needs. We need to talk about a right to food. When we move away from the consumerist view of food as a commodity, and towards food as a right, then the question stops being 'How do we make food cheaper?', instead becoming 'How do we ensure that everyone has access to nutritious, healthy food?'

This is where there is a difference between cheap food and affordable food. Cheap food is about making sure the price at the checkout is as low as possible, whatever the broader costs to society and the planet. Affordable food is about making sure everyone has access to food, balancing the needs of producers and consumers.⁷⁶

As a first step, we at least need to make sure that the cost we're paying for food reflects the actual cost of producing sustainable food. Academics have come up with many methods for calculating this. For example, true-cost accounting (TCA) is a tool for the systemic measurement of environmental, social, health and economic costs and benefits.⁷⁷

But that isn't enough. We also need to create a better food system that guarantees the right to nutritious food for all. Such a system would give both producers and consumers of food a voice in decisions related to food.

An example of such an approach is food sovereignty, which centres not just the right to food but the right of communities to make decisions about their food. It was originally defined by La Via Campesina in 1996 as "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems."⁷⁸

Since then, it has – rather like the broader agroecology movement – grown as both a social movement and a subject of scientific and practical work. Food sovereignty is more explicitly political and localist than the agroecology movement as a whole, centring social, gender, and racial justice, as well as the rights of Indigenous Peoples.

Conclusion and recommendations

In this report, we have debunked four of the most damaging myths holding back the development of a truly sustainable and fair global food system.

But these myths did not emerge from thin air. They are repeated and spread in the context of a system that doesn't listen to farmers and consumers, and tends to serve vested interests such as those of multinational agribusiness companies.

To get our food system to work for all of us, we need to make changes to ensure that the environmental and social impacts of the system are properly accounted for, and not just an afterthought. This is a huge undertaking, and it would be impossible to include anything approaching a comprehensive solution in this report. But there are some broad principles we can push for that get us moving in the right direction. These principles can be applied by both governments and private sector actors alike.

Move beyond yields. As we've seen in this report, there is much, much more to a successful food system than maximising crop yields from a given piece of land. This narrow view of 'efficiency' has done huge damage to both the environment and to the socio-economic context in which small-scale producers work. Priorities in agricultural policy and business planning should shift towards a more multifaceted assessment of priorities, that puts environmental and social impacts front and centre.

Full disclosure of the broader costs of input-intensive, industrial farming.

Large-scale producers should be obligated to disclose the full environmental and social costs of their activities. For too long, multinationals have been able to pretend that their model is sustainable by using metrics that ignore factors such as soil degradation and socio-economic impacts. All large-scale agribusiness projects must account for their full impact on ecosystem services, degradation of natural capital, and climate impact.

Boost research and development in agroecological methods and technology.

Currently, the lion's share of agricultural technology research is focussed on areas that serve the intensive, multinational-dominated status quo. It would make a huge difference if some of this money were diverted away from areas like proprietary seed and chemical fertiliser development, and put into truly sustainable alternatives. Not all of this research needs to be in new technology; more work is also needed on improving existing methods and systems and utilising existing technologies to ensure they work for smallholder farmers.

Listen to a broader array of voices. The current global food system suffers from being designed for the benefit of a few multinationals. Unless small-scale farmers and other key stakeholders are given an equal seat at the policymaking table, it is unlikely that we will see improved outcomes.

Establish and support agroecological institutions. Agroecology must be part of the solution to building a better food system. But it is a complex and multifaceted set of approaches that need institutional support to work optimally. Knowledge hubs and other educational institutions are vital for sharing knowledge and

techniques, and ensuring access to expertise. Social institutions are also vital, as agroecological approaches thrive when food production is integrated with broader community networks. And states need to be ready to provide financial support where necessary to help small-scale producers thrive.

Fair trade, not 'free trade.' We need a global trade system that recognises that integration into global markets should not be an end in itself. Where integration does happen, it needs to centre the interests of smaller-scale producers, and not be a means for multinationals to further cement their dominance of the market. More generally, food should be seen by governments and other policymakers as a resource, and not just a commodity.

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