

10 MYTHS ABOUT OUR...

GLOBAL FOOD SYSTEM

Sorting facts from fiction.



How much do you know about how food is produced, consumed and wasted?

Explore 10 common myths about the agri-food industry, GMOs and consumer 'pester power'.

Photo: by United Soybean Board available at [flickr.com/people/unitedsoybean/](https://www.flickr.com/people/unitedsoybean/) used under Creative Commons (CC BY 2.0)

INTRODUCTION

Will it ever be possible to transform the way we produce and consume food on this planet?

Long before the Covid-19 pandemic, conflict, ecological degradation, climate change, land use competition and economic crises threatened global food security and efforts to end hunger and malnutrition. This is one of the UN Sustainable Development Goals to be achieved by 2030.

Today, world food systems contribute to around a third of global greenhouse gas emissions. These are even further off track as the number of those undernourished worldwide fast approaches one billion.

The world faces the unprecedented challenge of pursuing human development and ensuring the right to adequate food for all on a planet where the population is estimated to increase to over 9 billion people by 2050. And we must do this in ways that don't breach essential ecological and planetary boundaries, while tackling poverty and extreme inequality.

At a global level, agriculture, forestry, and other land usage accounts for 23% of all greenhouse gas emissions. Add in other emissions from the food chain, from farm to consumer, and the estimate rises towards 34%. And yet a third of all food produced is wasted at either production or consumer level.

Trócaire and Oxfam's research on Sustainable Food Systems noted the challenges:



“The focus now, on food systems’ thinking, presents an opportunity to holistically address diverse but interconnected social, economic, and environmental challenges. Underpinned by rights-based approaches, countries’ agriculture and food policies must be framed in ways that foster social equity, women’s empowerment, economic productivity and prosperity, environmental regeneration, and resilience building at all levels.”

The balance sheets at the heart of our food systems are unjust, unfair and unsustainable. Cheap food and food waste carry a cost, most often paid far away from forks. Many myths exist and flourish in this context, which this myth buster seeks to confront.

WHY THINKING ABOUT GLOBAL FOOD SYSTEM MATTERS

1. **Our food systems touch every aspect of human existence.**

The health of our food systems profoundly affects the health of our bodies, as well as the health of our environment, our economies and our cultures. When they function well, food systems have the power to bring us together as families, communities and nations. But when our food systems fail, the resulting disorder threatens our education, health and economy, as well as human rights, peace and security.

2. **The world’s global hunger crisis is not being resolved quick enough.** This is despite global food production going up by nearly 300% over the last 50 years, thanks to our incredible ability to innovate. Yet there are rising numbers of people going to bed

hungry each night: 690 million people in 2019. There is nothing 'natural' about this balance sheet reflecting realities of our current food systems.

- 3. Climate change and climate 'shock' events such as heatwaves, storms, droughts and flash floods will only worsen food security challenges.** The way we produce food is also responsible for about a third of the greenhouse gases heating up the earth's climate.
- 4. It is important that we sort fact from fiction.** The growth of inequalities experienced by millions of people across the world as they try to secure access to healthy nutritious food is on the rise. The basic dignity of a person cannot be attained by having at least \$1.90 per day income – an emergency international poverty line measure. Despite the poverty line taking on a status almost similar to 'natural laws' or rules, ones that many believe cannot be altered or even challenged, they should be.



The Sustainable Development Goals (SDGs) are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. The Goals interconnect and in order to leave no one behind, it is important that we achieve each Goal and target by 2030.

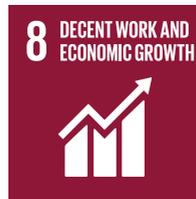
The Goals **interconnect** and therefore it is essential to work together on the targets established for each individual goal. Despite the many critiques of the SDGs, mainly for lacking real ambition and for being limited in addressing key issues, they represent a useful platform for debating the agenda.

The **Food Systems Summit** in 2021 launches bold new actions to deliver progress on all 17 **SDGs**, each of which relies to some degree on healthier, more sustainable, and equitable **food systems**.

WHAT DO WE MEAN BY “FOOD SYSTEMS”?

The term includes every person and every process involved in growing, raising or making food, right through to consuming and what we do with our waste. This is from farmers to fruit pickers to supermarket cashiers; from flourmills to refrigerated trucks to neighbourhood composting facilities. Billions of people earn their livings from the world’s food systems. In 2017, farming alone accounted for 68% of rural income in Africa, and about half of rural income in South Asia. Economists at the World Bank have estimated that the global food system is worth roughly \$US 8 trillion – about one tenth of the entire world economy.

For more, visit <https://sdgs.un.org/goals>.



[MYTH 01]

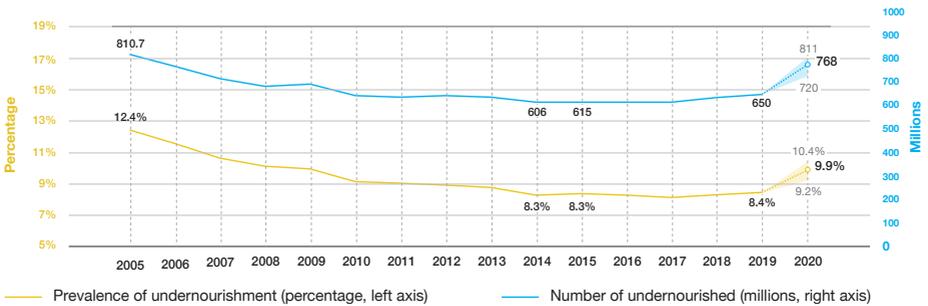
THERE IS NOT ENOUGH FOOD TO CURRENTLY FEED EVERYONE ON EARTH.

* **Graphic (right):** The number of undernourished people in the world continued to rise in 2020. Between 720 and 811 million people in the world faced hunger in 2020. Considering the middle of the projected range (768 million), 118 million more people were facing hunger in 2020 than in 2019 - or as many as 161 million, considering the upper bound of the range. (Note: project values for 2020 are shown as dotted lines. Shaded areas show lower and upper bounds of the estimated range.)

FICTION

There is enough food being produced today to feed everyone on the planet, yet by 2020 over 820 million people are considered “chronically undernourished”. Global hunger is on the rise, despite the world producing 17% more food per person today than 30 years ago as reported by Oxfam.

Graphic: The number of undernourished people in the world continued to rise in 2020 *



The crucial issue is about access as well as production. A lack of access to sufficient nutrition is more of a systemic problem than a production problem. The scale of global food waste suggests that increasing production would not reduce world hunger as roughly one-third of all food produced is either lost or wasted, according to the UN’s Food and Agriculture Agency. What’s more, people in developed countries consume a great deal more (particularly meat and dairy) than they need or that’s good for the planet.

Source: FAO website at <https://www.fao.org/sustainable-development-goals/goals/goal-2/en/>; There is enough food to feed the world by Oxfam, at <https://www.oxfam.ca/publication/there-is-enough-food-to-feed-the-world/>

[MYTH 02]

**WE HAVE TO CHOOSE
BETWEEN NUTRITION
OR PROTECTING THE
ENVIRONMENT.**

FICTION

Red meat, dairy and pork emit more than [70% of greenhouse gases from agriculture](#), while consisting of just 10% of calorie intake. Not only does the production of these foods harm the environment, but here in Ireland, for example, the amount of meat we are eating is harmful to our health.

Increasing our intake of grains, starches, beans and nuts, are beneficial to both our health and the environment.

Research collected in the UN's flagship Food Security and Nutrition in the World Report leaves little room for disagreement.

A global switch to healthier diets would:

- be more cost-effective (preventing the health costs of malnutrition),
- reduce world hunger, and
- cut the cost diet-related greenhouse emissions by up to 75%

Source: Four food myths that we need to tackle for a healthier planet by the World Economic Forum, at <https://www.weforum.org/agenda/2019/09/food-myths-environment-sustainable-agriculture/>

[MYTH 03]

**PLANT-BASED
ALTERNATIVES ARE
ALWAYS GOOD FOR THE
ENVIRONMENT.**

FICTION

Despite the undeniable benefits of reducing global consumption of meat and dairy, not all plant-based alternatives are created equal.

The production of some plant-based milks, for example, which have been gaining popularity in recent years, is not very sustainable. One common milk substitute is almond milk. **Almonds**, the majority of which are grown in California, are very water-intensive crops, making their environmental impact disproportionately large. A study funded by the Almond Board of California in the journal Ecological Indicators found in 2019 that the average almond grown in the US state requires 12 litres of water. That's over 10,000 litres for a kilogram of nuts.

Essential to the food chain, the impact of pesticides and methods used in industrial agriculture have also been linked to the increasing destruction of **bee colonies**.

Soya, another common dairy alternative, is causing deforestation in areas of Brazil, Paraguay and Argentina. The Brazilian Government estimates that carbon dioxide emissions associated with conversion of the Cerrado are equivalent to more than half the total emissions from the United Kingdom for 2009.

Source:

- Why the vegan diet is not always green on BBC News (Feb 13, 2020), <https://www.bbc.com/future/article/20200211-why-the-vegan-diet-is-not-always-green>
- World Wildlife Foundation 'soy' industry overview, <https://www.worldwildlife.org/industries/soy>
- 'Like sending bees to war': the deadly truth behind your almond milk obsession, The Guardian (Jan 2020), <https://www.theguardian.com/environment/2020/jan/07/honeybees-deaths-almonds-hives-aoe>

[MYTH 04]

GENETICALLY MODIFIED ORGANISMS PROMOTE FREE CHOICE.

Why do genetically modified organisms (GMOs) dominate?

GMOs are protected by intellectual property laws, meaning that large corporations control their growth and distribution. Producers of GMOs make farmers that buy their seeds sign agreements that stop them saving seeds to resow or exchange the following year.

In many countries, varieties grown and developed by farmers themselves cannot be certified as seeds, due to laws on production. Often, the only option for farmers is to buy from corporate agri-business.

FICTION

Seed diversity, which is essential to a secure and resilient food system, is under serious threat. The development of hybrid seed types and genetically modified organisms (GMOs), alongside patents and global trade agreements have eroded seed diversity.

Vandana Shiva, Environmentalist, scientist and author, has tracked and challenged debates on GMOs and the food system and take-up of GMOs by corporate agriculture.

“*The myth of “free choice” begins with a “free market” and “free trade.” When five transnational corporations control the seed market, it is not a free market, it is a cartel. When corporations write the rules of “free trade,” it is corporate dictatorship, not free trade.*

When enforcing patents and intellectual property rights (IPR) laws written by themselves, corporations prevent farmers from saving seed; it is not “free choice,” it is seed slavery.

In India, Monsanto has locked local seed companies into licensing agreements to only sell Bt cotton. The labels have different names, but they are all “Bollgard,” Monsanto’s Bt cotton. This is illusionary “free choice”: the reality is seed monopoly.

When corporations spend millions to prevent the labelling of GMOs and deny citizens the right to know and the right to choose, free choice is being stifled.”

Source: 7 GMO Myths Debunked by Vandana Shiva in her book ‘Seed Sovereignty, Food Security: Women in the Vanguard of the Fight against GMOs and Corporate Agriculture’.

[MYTH 05]

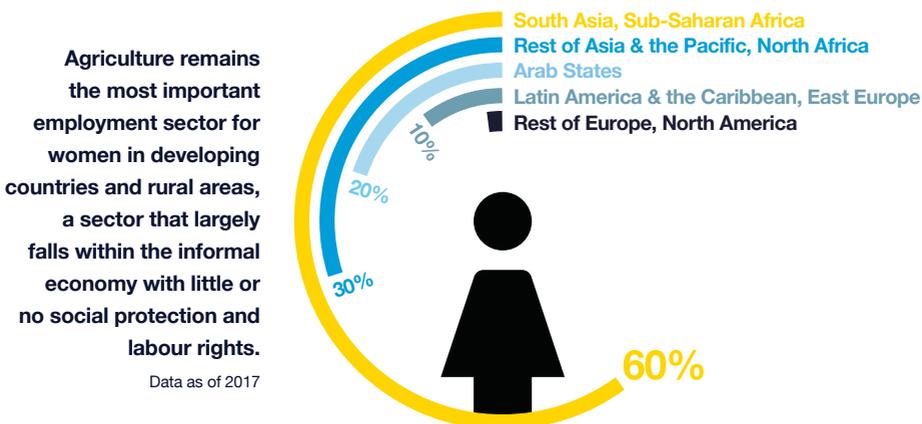
**THE MAJORITY OF FOOD
PRODUCERS ARE MEN.**

FACT...FICTION

Globally, women have more responsibility for food production. In general, more women are in unpaid, seasonal and in part-time work, and are often paid less for the same work as men. This means that cannot verify empirically the amount of food produced by women. This sentence needs an edit. Perhaps: As a result, the amount of food produced by women cannot be completely measured or verified

Combining data from publicly available sources shows that [women make up 43% of the global agricultural labour force](#), and in sub-Saharan Africa, this proportion is as high as 90%. This figure of 43% does not include the unpaid domestic tasks related to food production undertaken by women, such as processing food crops, collecting fuel, and preparing and cooking food.

Graphic: Labour - the share of women working in agriculture by region



Source: State of Food and Agriculture, 2011, at <http://www.fao.org/family-farming/detail/en/c/273446/>.

Graphic adapted from: UN Women 2018, <http://www.unwomen.org/en/digital-library/multimedia/2018/2/infographic-rural-women>

[MYTH 06]

**POOR LOCAL FARMERS
ARE RESPONSIBLE FOR
CUTTING DOWN THE
WORLD'S TROPICAL
FORESTS.**

FICTION

Commercial agriculture and global demand for meat is driving the degradation of the Amazon rainforest. **Meat linked to deforestation is exported all over the world.**

JBS is one of Brazil's leading exporters of beef and the world's largest meat company. It is potentially responsible for the destruction of between 28,000 and 32,000 hectares (280-320 sq km) of forest each year.

In 2020 allegations surfaced for the fifth time that year connecting the company to farmers operating in the Amazon linked to illegal deforestation.

Exports of Brazilian beef by the country's three meat giants – JBS, Minerva and Marfrig – have risen significantly over the last three years, and are in European supermarkets.

The Zoological Society of London reports that other 13 major companies, such as IKEA and US companies Cargill, Walmart, Mc Donalds and Starbucks have also **significantly contributed to deforestation to produce beef, palm oil and packaging** with serious human rights concerns in Malaysia, Indonesia, Brazil, Argentina, Paraguay, and Bolivia.

Source:

- 12 Major Companies Responsible for Deforestation, Earth.org, Aug 17, 2021, at <https://earth.org/major-companies-responsible-for-deforestation/>
- Revealed: new evidence links Brazil meat giant JBS to Amazon deforestation, The Guardian (27 July 2020), at <https://www.theguardian.com/environment/2020/jul/27/revealed-new-evidence-links-brazil-meat-giant-jbs-to-amazon-deforestation>

[MYTH 07]

**IMPORTS ARE CENTRAL
TO NATIONAL FOOD
SECURITY.**

A MIX OF... [FICTION & FACT]

Based on myths surrounding African food supply chains imports are not leading consumer purchasing habits across the African continent, recent research published in the Applied Economic Perspectives and Policy journal finds. The paper shows that of the 850 million tons of food consumed in sub-Saharan Africa in 2017, African farms produced 765 million tons and 612 million tons of those (or 80%) are purchased domestically. The emphasis on imports can overshadow the success of domestic production and internal trade.

Lawrence Haddad of the Global Alliance for Improved Nutrition (GAIN), believes everything matters. Looking through the details of the report, he continues:

“...so it is important to keep trade barriers open during crises as this is a critical countervailing force for maintaining food flows, indeed trade closures can be catastrophic and lead to price spikes that do a lot of damage to livelihoods and hunger. In addition, access to export markets is very important for growth among the larger farmers and traders. But to overly focus on imports undermines the importance, success and further potential of domestic production.”

The realities of food security in this context are not commonplace in all countries as the many challenges faced by small island states such as Barbados, Cuba and Dominica in the Caribbean and Fiji, Samoa and Kiribati in the Pacific.

Source: Keeping food flowing within African food systems by busting policy myths by Lawrence Haddad, Global Alliance for Improved Nutrition blog, at <https://www.gainhealth.org/media/news/keeping-food-flowing-within-african-food-systems-busting-policy-myths>

[MYTH 08]

**THE EU'S COMMON
AGRICULTURAL POLICY
PROMOTES INSECURE FOOD
PRODUCTION RATHER THAN
FOOD SECURITY.**

A MIX OF... [FACT... & FICTION]

Europe's longest running policy, the Common Agriculture Policy (CAP) continues to struggle with being fairer and greener and is fiercely debated every five years. The CAP oversees subsidies to farmers in Europe and is a complex arrangement that favours large businesses over small farmers. This pushes them towards intensive farming practices that harm the environment and lead to unemployment.

Here are some realities of the impact of the CAP in practice:

- **20% of farmers** in the EU receive approximately 80 percent of the agricultural support money.
- **Expanding agricultural land may be achieved at the expense of tropical forests.** This results in the loss of carbon stocks and the impact on high natural value landscapes. Particularly in Brazil and some Asian countries, the EU biofuel policy has resulted in diminishing natural habitats because of more agricultural production and intensification.
- **Imports of protein-rich products by the EU have steadily increased in recent years, raising concerns** about the potential negative impacts on developing countries. Increases in soybean production in Argentina, Bolivia, Paraguay and Uruguay has led to negative environmental and social impacts, including biodiversity loss, displacement of small farmers, loss of employment and increased food insecurity.

Source:

- The Impact of the Common Agricultural Policy on developing countries, by the Policy Department, European Parliament, at [http://www.europarl.europa.eu/RegData/etudes/STUD/2018/603862/EXPO_STU\(2018\)603862_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/603862/EXPO_STU(2018)603862_EN.pdf)
- EUfactcheck.eu at <http://eufactcheck.eu/factcheck/true-80-percent-of-the-european-money-for-agriculture-goes-to-the-20-percent-largest-farmers/>

[MYTH 09]

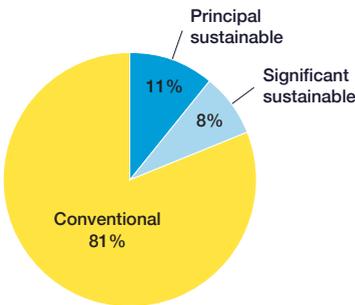
**MOST FARMING SUBSIDIES
AND STATE AID FROM
IRELAND ARE DIRECTED
TOWARDS SUSTAINABLE
AGRICULTURAL PROJECTS.**

MORE FICTION THAN FACT

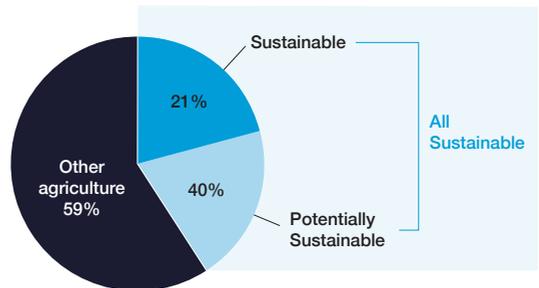
Despite progress on international development goals since 2000 and agendas such as the Paris Agreement on Climate Change heralding changes to agricultural practices, support for conventional agriculture still dominates.

Using institutional data collected by the Irish government and by the OECD (Organisation for Economic Co-operation and Development), the pattern is consistent with state aid and overseas aid in Ireland.

Domestic agricultural Schemes payments 2020



Proportion of agricultural ODA targeting sustainable vs other agricultural approaches (total, 2016-2018)



Data: OECD CRS, 2016-2018 microdata, constant 2018 USD, disbursements, and author's calculations

81% of subsidies were invested in projects in Ireland with no mention of sustainability (described as ‘agroecology’ or ‘sustainable agriculture’), and 59% through overseas aid initiatives, which could comprise industrial agricultural practices.

Source: Sustainable Food Systems Report: Steps Ireland can take to become a global leader by Oxfam Ireland and Trócaire (2021) <https://www.trocaire.org/wp-content/uploads/2021/07/SFS-Summary-and-Recommendations-1.pdf>

[MYTH 10]

**WE ARE DOING ALL WE
CAN TO SECURE A MORE
SUSTAINABLE FOOD
SYSTEM.**

FICTION

Agri-food companies do not have a great track record regarding fairness and transparency.

A survey of the world's 350 most influential food and agriculture companies by the World Benchmarking Alliance found that:

- Half of the companies assessed do not disclose targets or report on progress to reduce greenhouse gas emissions
- Over a third do not sufficiently acknowledge their responsibility to ensure that the human rights of workers in their supply chain are respected, nor do they show any intention of helping to improve the livelihoods of smallholder farmers.

A lot more can be done at an international, national, corporate and individual levels.

International bodies and national governments have the resources to regulate trade and create incentives for fairer and more sustainable food supply chains. As Myth 9 shows, state aid and overseas development aid can be directed towards sustainable practices.

The UN Global Food Systems Summit, a critically important debate aiming to direct the future of agriculture, has been accused of serving corporate interests over small-scale farmers (who produce over 70% of the world's food) and is being boycotted by organisations representing more than 500 civil society groups with more than 300 million members, small scale farmers and indigenous movements.

Clearly, **more CAN be done.**

Climate-conscious and socially responsible approaches such as Fairtrade standards show that as consumers, purchasing power can be used to our advantage.

We can use our pocket-power and our voices to:

- Support companies and products that contribute to a just and sustainable system
- Boycott ones that do not
- Write to local politicians and vote for better policies
- Protest and use your voice to demand a fair food system that protects people and the planet.

Source: Assessing the world's 350 most influential food and agriculture companies on their commitments (2020) by The World Benchmarking Alliance, at <https://www.worldbenchmarkingalliance.org/publication/food-agriculture/>

CREDITS

Written by Tony Daly and Aoife Mc Donald

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