



HOW FACTORY FARMING EMISSIONS ARE WORSENING CLIMATE DISASTERS IN THE GLOBAL SOUTH



Greenhouse gas emissions are worsening climate disasters like floods, heatwaves and droughts. Everyone is impacted, but the poorer regions of the world are suffering the most.

The way we produce food – and cruel factory farming in particular – is mostly overlooked in the climate change debate.

Factory farming is not only cruel, but it is also a hidden climate culprit. Our research finds that factory farming is responsible for 11% of global greenhouse gas emissions. What this means is more intense and frequent heatwaves, droughts, fires, floods and storms.

Factory farming emerged from the developed countries of the Global North where meat consumption rates remain high. Emissions from factory farming in the Global North are disproportionately influencing climate disasters felt in the Global South.

Left unchecked, our research finds that emissions from factory farming will lead to more than USD100 billion worth of

destruction from climate disasters annually by 2050 as the impacts of climate change intensify and factory farming grows around the world.

Governments are left to foot the bill to clean up the damage whilst big meat companies continue to make record profits.

We need to stop supporting factory farming systems and their growth around the world.

It's time to end government subsidies that support factory farming. Governments should impose a moratorium on new factory farms. The biggest polluters, including the world's biggest factory farming companies, must be held to account for the damage associated with climate induced weather disasters in the Global South.

We don't need factory farming to feed the world. We can choose a humane and sustainable food future instead. Better for animals, people and our planet.



Factory farming and climate change

2023 has been a year of climate extremes with temperature records tumbling across the world.

As governments look the other way on factory farming's role in the climate crisis, it continues to expand around the world in response to urbanisation, a growing population and increasing demand for meat. This growth comes with significant cost: to our climate, environment, health and to billions of animals caught up in cruel factory farms.

Factory farming releases vast quantities of greenhouse gas emissions across the supply chain – it is very energy intensive, relies on significant quantities of fossil fuel-based fertilizers and drives deforestation, compromising a vital carbon sink. The spread of factory farming to the Global South also threatens traditional pastoral, agroecological and smallholder livestock systems that support livelihoods.

This report identifies how emissions from factory farming in the Global North contributes to the frequency and intensity of droughts, heatwaves, wildfires, storms and flooding in Africa, Asia, and South America.

Identifying factory farming's role in disasters

We focused on identifying how emissions from the Global North – where factory farming initially emerged and where per person rates of meat consumption remain high – are influencing climate disasters felt in the Global South.

Based on climate attribution science and estimates of the economic impacts of climate disasters on the Global South caused by the most damaging climate induced weather disasters over 5 years (2018 – 2022), we attributed the

proportion of these negative impacts (known as 'loss and damage') to factory farming globally and from factory farming emissions from the Global North specifically.

The worst impacts of climate induced weather disasters are felt by the poorest and most vulnerable communities in the Global South, particularly Africa and Asia, who contribute the smallest share of global emissions.

Drought impacts agriculture the most, sustaining 82% of all drought impact, compared to 18% in all other sectors. Traditional pastoral and smallholder livestock systems contributes to the livelihoods of about 1.7 billion poor people and 70% of those employed in the sector are women meaning that climate-induced droughts threaten lives, livelihoods, food security and gender advancement.

Pakistan floods, 2022

After weeks of non-stop rain, severe flooding devastated much of Pakistan affecting over 33 million people, destroying 1.7 million homes, and killing 1739 people. Pakistan received 243% more rainfall than usual during this period and it stands as the wettest August since records began in 1961. 750 000 livestock were killed and around 18 000 square kilometres of cropland were ruined, including roughly 45% of the cotton crop - one of the nation's key exports. Climate attribution modelling highlighted that climate change may have increased the rainfall intensity by up to 50%.

Based on our analysis and estimates, the economic costs of this event attributable to climate change were at least US\$15 billion with the cost attribution of factory farming emissions from the Global North estimated to be at least US\$0.64 billion.

Unless governments change direction, the expansion of factory farming will inevitably contribute to the rise in global emissions and therefore the increase in severity and frequency of climate induced weather disasters impacting the Global South.

Governments will be left to foot the bill for climate disasters whilst big meat companies continue to make record profits. In the US, just four large conglomerates (Tyson, JBS, Marfrig, and Seaboard) control approximately 55-85% of the market for pork, beef, and chicken. Their gross profits have collectively increased by more than 120% since before the pandemic, and their net income has surged by 500%.

Action for a climate-safe food system

Action is needed to address emissions from factory farming and to support countries in the Global South address climate change impacts.

Our report highlights 6 key recommendations for governments and policy makers. Governments and policy makers should impose a moratorium on factory farming for the next 10 years and remove and redirect policy and subsidy support away from factory farming towards humane and sustainable livestock production. This includes countries in the Global South where factory farming is not yet widespread. Richer countries

have a moral and ethical responsibility to support countries in the Global South to promote humane and sustainable agroecological and pastoral livestock production: ultimately, they are the best solutions for long term food security, climate change mitigation and adaptation, and livelihoods.

Food and agriculture are set to take more prominence at the 2023 United Nations Climate Change Conference or Conference of the Parties (COP28) Summit, to be held in Dubai. Leaders at COP28 must deliver a strong commitment that raises climate ambition and recognises that factory farming emissions must be reduced whilst supporting the countries most impacted by climate change to adapt, including reducing their vulnerability to future climate induced weather events.

The 'polluter pays' principle should be the cornerstone of the Loss and Damage Fund that was committed to at UNFCCC COP27, with the biggest polluters, including the world's biggest factory farming companies, held responsible for the loss and damage associated with climate induced weather disasters in the Global South.

The Intergovernmental Panel on Climate Change has recognised that agroecological food production is beneficial for climate adaptation. It's time to end agriculture and other government subsidies that support factory farming and to impose a moratorium on new factory farms. We need to stop supporting factory farming systems and their growth around the world. Instead, we need investment in humane and sustainable food systems that work for people, animals and our planet.

The front cover illustration and others in this report are from the short World Animal Protection film "A cleaner, fairer, cruelty-free way to feed the world" which will premiere at COP28 in Dubai – see here www.worldanimalprotection.org for more details.





Image: Small holder farmers are on the front line of climate change. Farmers like John and Belice Kimanathi from Kenya are suffering drought and subsequent crops fails and loss of livestock. This impacts their local community's food security and undermines stability.

Life on the frontline of climate change: When the drought comes, you lose everything.

Belice Kimanathi, 61, remembers with nostalgia how her neighbourhood thrived in plenty until mid-1980s when life began to take a new twist.

Today the sleepy rural village of Kyamwalye in Kee ward of Makueni County, south-eastern Kenya, is a pale shadow of its former self. Indigenous trees have disappeared leaving behind large swathes of cracked, dry earth that radiate sweltering heat as the sun above burns acrimoniously.

"We used to have bumper harvests but the yields have dwindled. We didn't harvest anything for the last two seasons and what we got this time is barely enough to sustain us for long," says Belice as she wipes huge beads of sweat from her face.

Belice's family used to harvest about 30 bags of 90kg of maize on a good season. Other crops like beans, green peas and cassava also did well. But that was more than

10 years ago when the rainfall was frequent and the patterns predictable.

Her husband, John Kimanathi, says the rains began to dwindle while rivers and streams slowly dried up from the late 1980s affecting crop and livestock production. The family used to have between 10 and 20 cows and 30 goats, but the herd has been reduced to a mere three heifers.

"Livestock farming is no longer a viable economic activity. You can't keep enough cattle because of scarcity of grass and water. We must buy feeds and water for the animals and the costs are very high....When the drought comes you lose everything," says Kimanathi.

"If we don't change policies and habits then we are doomed. Everyone has a responsibility to take action to save the planet. Developed countries must also compensate the rural poor in developing countries by funding projects aimed at mitigating adverse effects of climate change," he stresses.



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