

# CLIMATE CRISIS NEWSLETTER

A fortnightly newsletter brought to you by XR Gairloch

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## Editorial

### The Impossible dream.....

It feels impossible. The world has to slash carbon emissions by almost half in the next seven years to remain on track for just 1.5C of global heating and avoid the worst of climate impacts. Yet emissions are rising.

So we are now 66% sure that we are going to go over the 1.5 degrees target by 2027, set at the Paris agreement in 2015, which was set because if we went over it there would be a climate catastrophe. So you would think that that is fairly definitive that we have failed in achieving the target and should now be looking at adaptation strategies and ways of keeping the temperature for getting even higher. But no the World Meteorological Organisation (WMO) are saying that breaching 1.5 degrees in the next 5 years is only temporary and " that temperatures would have to stay at or above 1.5C for 20 years to be able to say the Paris agreement threshold had been passed". Which would mean if we had temperature increases of 1.5 or above for 19 years out of the next 20, we could still say we were within our target. Tell that to the people who are suffering from droughts, extreme weather, forest fires and rising sea levels.



Global warming set to break key 1.5C limit for first time. [Read article.](#)

### Have we learned nothing.....

I think we can all probably remember being told by our parents when we did something wrong - "How many times do I have to tell you don't do that". I wish we had listened then and I wish we were listening now but obviously we didn't learn anything then because we are still doing bad things but now we haven't got any excuses, we are grown up now and educated and responsible adults. Aren't we.

Almost all safe and just Earth boundaries now breached, say scientists. [Read article.](#)

The world is at 'tipping point' and we must all fight together for common good of saving our one and only home, planet Earth.

Countries must put aside national interests for climate crisis, UN says. [Read article.](#)

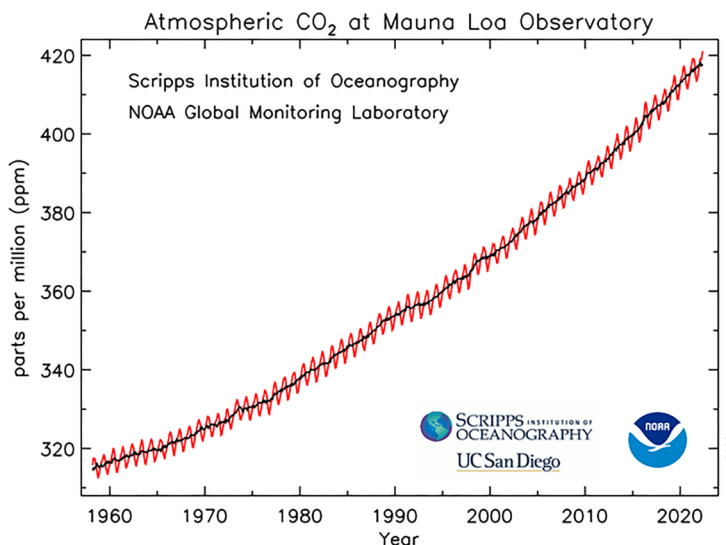
Carbon dioxide levels in the air are now the highest they've been in more than 4 million years because of the burning of oil coal and gas. The last time the air had similar amounts was during a less hospitable hothouse Earth before human civilization existed.

Amount of warming triggering carbon dioxide in air hits new peak, growing at near-record fast rate. [Read article.](#)

Carbon dioxide levels are now more than 50% higher than they were before the onset of the industrial era.

The National Oceanic Atmospheric Administration announced that the carbon dioxide level measured in May in Hawaii averaged 424 parts per million (ppm). That's 3 parts per million more than last year's May average. Scientists say 350 ppm is the safe limit which we have now gone well beyond. Before the Industrial Revolution it was less than 280ppm.

Broken record: Atmospheric carbon dioxide levels jump again. [Read article.](#)



**Carbon capture is not financial viable without huge government subsidies.....**

So why are we the tax payers subsidising fossil fuel companies to produce non green energy and then subsidising them again through carbon capture schemes to inefficiently capture the CO<sub>2</sub> and store it in the ground for hundred of years? Carbon capture is being used by the fossil fuel companies purely as a false method of extending the life of the fossil fuel industry.

Drax pauses £2bn carbon capture project. [Read article.](#)

World's biggest carbon capture plant running at one third capacity, Chevron Australia reveals. [Read article.](#)

Carbon Capture Project Is 'Band-Aid' to Greenwash \$10 Billion LNG Plant. [Read article.](#)

Cop28 host UAE's approach is 'dangerous', says UN's ex-climate chief Christiana Figueres stating that focusing on carbon capture is a direct threat to the survival of vulnerable countries. [Read article.](#)

**Read the small print.....**

What do they say about an offer that looks too good to be true, it normally isn't. In this cases that's certainly true once you read the fine detail.

ONGC (Indias state owned oil and gas company) unveils \$12 billion investment plan for energy transition projects, targets net zero by 2038. [Read article.](#)

Unfortunately this pledge doesn't include scope 3 emission which is the bulk of the carbon they produce i.e. the burning of the oil and gas,

## No new oil and gas in the North Sea.....

All the scientific facts state we cannot start extracting new oil and gas from the North Sea. The UN, IPCC and the International Energy Authority (IEA) also have confirmed we should not be developing any further new oil and gas fields but the UK government and the fossil fuel companies have different ideas.

Graham Stuart, the minister for climate and net zero, said the Government is committed to new oil and gas licences in the North Sea but also recently stated "We would never license oil and gas development in the UK that wasn't compatible with net zero and 1.5C." His illogical argument for promoting new oil and gas is the same one used by the coal industry in the UK. that we should be producing our own oil and gas instead of spending tens of billions on foreign-produced fossil fuels. This is nonsense as oil and gas produced in the North Sea is not UK oil and gas they belong to large companies, the majority of them foreign, who sell the oil and gas on the international markets.



Climate minister Graham Stuart

Oil and gas emissions predicted to rise for North Sea companies. [Read article.](#)

Government committed to new North Sea oil and gas licences. [Read article.](#)

Developing new gas projects is 100 per cent the wrong answer. [Read article.](#)

No it's because the Conservative Party get large donations from fossil fuel companies and work for fossil fuel organisations or Banks with large fossil fuel investments.

Cabinet Ministers Join Outspoken Climate Science Deniers at National Conservatism Conference. [Read article.](#)



Poor UK government policy.....

Only two onshore wind turbines were built in England last year.

The number of heat pumps that are being installed is woefully behind its ambition - the target is for 600,000 low-carbon heat pumps to be installed every year within five years; currently it's only 50,000 - less than 10%.

Just this week the world's fourth-biggest auto manufacturer Stellantis said the government's post-Brexit trade deal needed to change, otherwise it would have to reconsider building electric cars here.



The boss of the battery firm that went bust, Britishvolt, claimed the government foot-dragging was partly to blame for it going under - although that was denied by ministers.

And National Grid, not exactly prone to hyperbole, said "unprecedented" and "transformative" change was needed right now.

The statistics they published this week about what's needed by 2030 illustrate that in a pretty jaw-dropping way. They calculate the UK needs:

Thirteen times as many heat pumps

Twenty-three times as many electric vehicles

Four times as much solar power and onshore wind

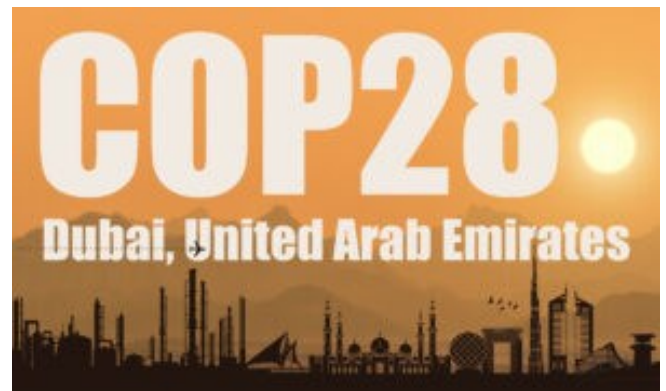
Five times more overhead or underground cabling than has been built in the last 30 years

UK lacks 'coherent plan' for clean electricity grid by 2035. [Read article.](#)

UK firm given £430m green transition loan then expanded oil and gas business. [Read article.](#)

**Why continue with the annual COP process.....**

The COP process has now failed a previous 27 times and has now been taken over by the very people that are causing the climate crisis i.e. there was over 600 delegates from fossil fuel companies at the last COP (COP27) which was held in a major oil and gas producing country. But to put the final nail in the coffin of COP28 it is to be held in the United Arab Emirates (UAE) and even larger producer of oil and gas than Egypt is. In fact oil and gas exports, account for around 90% of UAE government revenue,



This week, the UAE made headlines by inviting the murderous Bashar al-Assad president of Syria to Cop28, They have also been accused of

The UAE's climate envoy Sultan Al-Jaber called for a "phase out of fossil fuel emissions" rather than fossil fuels. [Read article.](#)

Absolute scandal': UAE state oil firm able to read Cop28 climate summit emails. [Read article.](#)

There is now mounting opinion that Al Jaber should be removed from the role of President of COP28.

US, EU lawmakers push to depose UAE's Jaber from climate talks. [Read article.](#)

The COP process has now proved itself to be a non legitimate event for taking resolving the climate crisis forward. We now need an alternative method which cannot be hijacked by politicians and fossil fuel companies. It needs to be a science led organisation with actions taken on scientific facts and not based on money and greed.

Stand by your principles to cave in to pressure Mr Starmer.....

The Labour Party proudly announced last week that if it was voted into power it would stop all new oil and gas developments in the North Sea which is exactly what the science is telling us and what protest groups like Extinction Rebellion and Just Stop Oil are trying to convince the government to do.

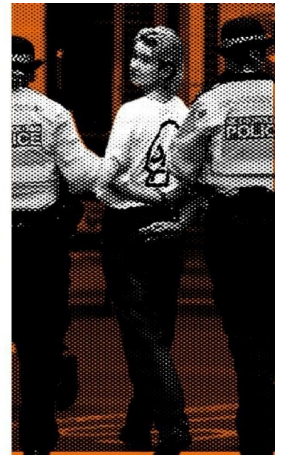


Daily Mail

## FURY AT STARMER'S £1.5M FROM JUST STOP OIL DONOR

Labour under pressure to return money donated by green energy millionaire

KEIR Starmer was last night under fire over donations to Labour from a key Just Stop Oil donor. The Labour leader is under pressure to return the money to the donor, a green energy millionaire, after the party's announcement that it would stop all new oil and gas developments in the North Sea.



But when Dale Vince founder of Ecotricity a supporter of Just Stop Oil makes sizable donations to the Labour Party the right wing media and Tory MPs are demanding the money should be given back.

Dale Vince said "I was on the front page of Monday's Daily Mail and Radio Four this morning for supporting Just Stop Oil, like that's a crime or something. Along with thousands of others, I am proud to donate vital funds to the cause. Right-wing tabloids can say what they like, I won't be intimidated. Nothing is more important than stopping new oil and gas in 2023."

"I started Ecotricity, the world's first green energy company, in 1995. Even then we could see the imperative to move away from fossil fuels. We've since led the transition to renewable energy, using Britain's abundant wind, sun and, lately, grass (to make the gas we need). We led the electric vehicle revolution, with Britain's first electric car and the Electric Highway charging network, and have been active in plant-based living. Energy, Transport and Food are the three areas of life we must change. It's my entire focus."

"Winning this argument is all that matters. The ordinary people powering Just Stop Oil need our support to keep on doing what they are doing so effectively - and ultimately bring about the change we all demand."

This is obviously all a mud slinging tactic by the Tory party to divert things away from their own flagging popularity and on going scandals which is bizarre as they receive donations from fossil fuel companies and associated groups all the time.

But whether Keir Starmer gives the money back or not is probably not going to effect the eventual outcome but it does raise the question if fossil fuel companies are making donations to influence Tory MPs to promote new fossil fuels. then shouldn't genuine clean renewable energy companies be donating to protest groups to help them in their fight to stop this happening.

Just after Dale Vince funding pledge, Adam McKay, the Hollywood director of the film "Don't Look Up", pledged to triple all donations made to Just Stop Oil in a 48 hours.

Labour government would stop new North Sea oil and gas projects - reports. [Read article.](#)

Labour backer to match donations to Just Stop Oil after Tory criticism. [Read article.](#)

## Greenwash, misinformation, hypocrisy and deceit

World's Biggest Banks Poured \$673 Billion Into Fossil Fuels Last Year. [Read article.](#)

Australian banks lending billions to fossil fuel projects despite supporting emissions reductions, analysis suggests. [Read article.](#)

'Worthless': Chevron's carbon offsets are mostly junk and some may harm, research says. [Read article.](#)



Claiming gas boilers are 'hydrogen-ready' risks greenwashing, UK watchdog warns. [Read article.](#)

Petrol and diesel carmakers spend \$4.5 billion on sport sponsorship, much of it greenwash. [Read article.](#)

Shell has 'misleading' ads banned in the UK. [Read article.](#)

A sea of misinformation': FTC to address industry greenwashing complaints. [Read article.](#)

Greenwash Revealed: 1 in 3 GB News Hosts Spread Climate Denial On Air in 2022. [Read article.](#)

### Corrupt Politicians and Climate Criminals.....

Al Jaber is CEO of Adnoc (the world's 12th largest oil and gas producer), the state oil producer and the President of this year's COP28 UN Climate Change Conference.

Al Jaber's claimed that the UAE has embraced the energy transition. That's not true. The UAE has plans for oil and gas production expansion, the third worst in the world according to Rystad Energy data.

Adnoc fires starting gun on \$3 billion-plus oilfield expansion scheme. [Read article.](#)

Cop28 host UAE tried to weaken global shipping's climate ambition. [Read article.](#)

Cop28 president's team accused of Wikipedia 'greenwashing'. [Read article.](#)





## Events/Actions/Education and Information

### EVENTS

#### The Great Big Green Week

10th to the 18th June. Events happening in every corner of the UK.

**For more information and events near you..**



#### Hebridean Celtic festival, Lewis, Outer Hebrides

The Proclaimers will conclude 2023's Hebridean Celtic festival, on the island of Lewis. Taking place from 12-15 July, and also starring celtic-fusion outfit Talisk and trad-rock faves Sker-ryvore, it's an event with a green soul. Not only are zero-carbon alternatives favoured over generators - saving the equivalent of 27 return car journeys to Edinburgh - but equipment haulage is minimised and there's been no single-use plastic since 2018.



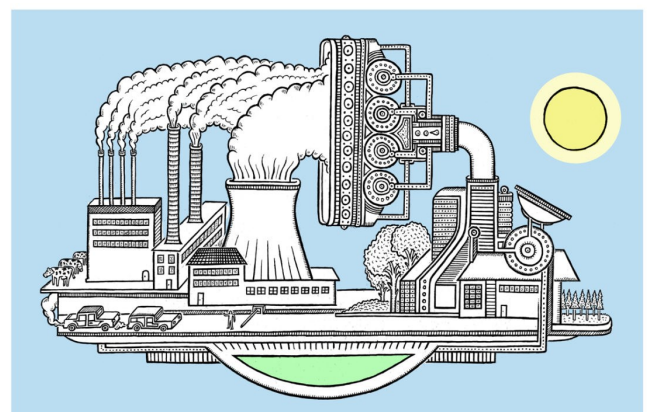
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## Technological Advances

How Dead EV Batteries are Perfect for Energy Storage . **See video.**

Inductive charging: Stretch of highway converted to allow EVs to charge as they move. **Read article.**

Perovskite: new type of solar technology paves the way for abundant, cheap and printable cells. **Read article.**



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## Sustainable Farming/Food

New research shows practices from the past will be key to future soil carbon solutions.

[Read article.](#)

Farmers in Cornwall working to reduce carbon footprint. [Read article.](#)



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## The Scales of Justice

Italian oil firm Eni faces lawsuit alleging early knowledge of climate crisis. [Read article.](#)

'Bombshell' 1989 Shell Memo Features in New Court Filing Alleging Climate Deception. [Read article.](#)

Delta Air Lines faces lawsuit over \$1bn carbon neutrality claim. [Read article.](#)

UK sued over plan to import more polluting Australian beef. [Read article.](#)



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## Eco'omic Recovery—Building Back Better

Oxfam report says only \$11.5bn (£9.2bn) of climate finance in 2020 devoted to helping vulnerable states and rich nations undermining work to help poor countries adapt to the climate crisis. [Read article.](#)

Pension funds neglecting biodiversity in investment decisions. [Read article.](#)





## The Fight Against Fossil Fuels

As the toxic legacy of opencast mining in Wales shows, operators get the profits, and the public get the costs. [Read article.](#)

Cleaning Up After the North Sea Oil Industry Will Cost Billions - But Nobody Wants to Pay. [Read article.](#)

The EU's 'dirty list': Which countries are burning the most coal? [Read article.](#)

Exxon's new 'advanced recycling' plant raises environmental concerns. [Read article.](#)



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## The Amazon Rainforest Is Still Burning

Brazil's Lula lays out plan to halt Amazon deforestation, make country "global reference" on climate. [Read article.](#)

Amazon gateway city Belém will host Cop30 climate talks. [Read article.](#)

Britain pledges funding for carbon dioxide measurement project in Brazilian Amazon. [Read article.](#)

In the Amazon, Brazilian ecologists try new approach against deforestation and poverty. [Read article.](#)

Oil project near Amazon River mouth blocked by Brazil's environment agency. [Read article.](#)



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## The Circular Economy

Report: Economic benefits of circular economy for the Global South 'underestimated'. [Read article.](#)



# Un Happy Anniversary— Climate change first 'went viral' exactly 70 years ago

By Marc Hudson

We have grown so used to many things. To the pictures of wildfires and cremated animals, to the ice sheets calving into the ocean, to the promises of world leaders that they will heed the "last chance" warning of the scientists.

It's hard for anyone under the age of 40 to remember a time when carbon dioxide build-up, whether it was "the greenhouse effect," or "global warming" or "climate change" or now "climate crisis," wasn't in the news.

The long hot summer of 1988—35 years ago—is held as the moment that world leaders began to mouth the right pieties.

Presidential candidate (and soon to be president) George H.W. Bush said he would use the "White House effect" to fix the Greenhouse Effect (he didn't). UK prime minister Margaret Thatcher warned of a giant experiment being conducted "with the system of this planet itself."

Thirty-five years. But it was actually 35 years before that—fully 70 years ago this month—that the danger of carbon dioxide build-up in the atmosphere first traveled around the world.

That carbon dioxide trapped heat was uncontroversial. Irish scientist John Tyndall (possibly drawing on the work of an American, Eunice Foote) had shown that it did back in the mid-1800s.

In 1895, Swedish Nobel prize winner Svante Arrhenius had suggested that—over hundreds of years—the build-up of carbon dioxide released when humans burn oil, coal and gas might trap so much heat as to melt the tundra and make freezing winters a thing of the past.

His work was challenged, but the idea occasionally popped up in popular journals. In 1938 English steam engineer Guy Callendar suggested to the Royal Meteorological Society in London that warming was underway.

But it was in early May, 1953, at a meeting of the American Geophysical Union, that Canadian physicist Gilbert Plass—who had been corresponding with Callendar—told the gathered scientists that trouble was afoot.

Plass said that: "The large increase in industrial activity during the present century is discharging so much carbon dioxide into the atmosphere that the average temperature is rising at the rate of 1.5 degrees per century."

Established 1845 **SCIENTIFIC AMERICAN** July, 1959 Volume 201 Number 1

## Carbon Dioxide and Climate

*A current theory postulates that carbon dioxide regulates the temperature of the earth. This raises an interesting question: How do man's activities influence the climate of the future?*

by Gilbert N. Plass

This got picked up by the Associated Press and other wire services and appeared in newspapers all around the world (even as far afield as the Sydney Morning Herald). Plass's warning also popped up in Newsweek on May 18 and in Time on May 25.

The fact that the world was warming was already uncontroversial among scientists. But the emphatic connection with carbon dioxide made by Plass, as opposed to competing theories such as orbital wobbles or sunspot activity, was newsworthy.

Plass had become interested in the question of carbon dioxide buildup while working for the Ford Motor Company. He looked at how carbon dioxide actually functions in the real world, not just at sea level (without getting too technical. Many scientists had dismissed Arrhenius's earlier work on the basis of false confidence that carbon dioxide worked the same there as in the stratosphere).

Plass kept working on the issue, with technical and popular publications through the rest of the 1950s. In 1956, he had an academic article on "the carbon dioxide theory of climate change" published in the Swedish scientific journal *Tellus*, and also a popular article in the *American Scientist*. And he was present at the first major meetings to discuss carbon dioxide build up.

Meanwhile, the carbon dioxide theory started getting more coverage among science journalists. One, George Wendt, wrote up the findings in the then well-regarded *UNESCO Courier*, and this got excerpted in the *Irish Times* in 1954, the same year that British journalists started mentioning it.

In 1957 the then-new magazine *New Scientist* mentioned it. By the end of the 1950s, anyone who read a newspaper could have been aware of the basic idea.

Throughout the 50s and 60s US, Swedish, German and Soviet scientists were examining the issue. In 1965 President Lyndon Johnson even namechecked carbon dioxide build-up in an address to Congress.

By the end of the 1960s international collaboration was beginning, though there was caution still. For instance, in April 1969 the American scientist Charles Keeling, who had been measuring atmospheric carbon dioxide concentrations at a Hawaiian observatory, revealed that he had been asked to change the title of a lecture from, "If carbon dioxide from fossil fuels is changing man's environment, what will we do about it?" to "Is carbon dioxide from fossil fuel changing man's environment?"

For climate historians like me, the 1970s are a fascinating period of intense measurement, modeling, observation and thinking which, by the end of the decade, produced a working consensus that there was serious trouble ahead. In effect, Plass had nailed it.

When Plass spoke out, the atmospheric concentration of carbon dioxide was at about 310 parts per million. Today, they're 423 or so. Every year, as we burn more oil, coal and gas, the concentration climbs and more heat is trapped.

By the time Plass's warning is 100 years old, the concentrations will be much higher. There's a very good chance we will have gone over the 2°C warming level that used to be regarded as "safe."



# 'Farming good, factory bad', we think. When it comes to the global food crisis, it isn't so simple

By George Monbiot

The solution is not more fields but better, more compact, cruelty-free and pollution-free factories.

No issue is more important, and none so shrouded in myth and wishful thinking. The way we feed ourselves is the key determinant of whether we survive this century, as no other sector is as damaging. Yet we can scarcely begin to discuss it objectively, thanks to the power of comforting illusions.



Food has the extraordinary property of turning even the most progressive people into reactionaries. People who might accept any number of social and political changes can respond with fury if you propose our diets should shift. Stranger still, there's a gulf between ultraconservative beliefs about how we should eat and the behaviour of people who hold such beliefs. I have heard people cite a rule formulated by the food writer Michael Pollan - "Don't eat anything your great-great-great-grandmother wouldn't recognise as food" - while eating a diet (Thai one day, Mexican the next, Mediterranean the day after) whose range of ingredients no one's great-great-great-grandmother would recognise, and living much the better for it.

Something is blocking us, a deep repression that stands in the way of honest conversation. It pushes food writers, celebrity chefs and some environmentalists to propose answers to the planetary crisis that are even more damaging than the problems they claim to address. Their solutions, such as pasture-fed meat, with its massive land demand, are impossible to scale without destroying remaining wild ecosystems: there is simply not enough planet. What is this inhibition and how does it arise?

It's now a year since I published *Regeneration*, a book that has incited levels of fury shocking even to me. I've spent much of this time trying to work out what makes people so angry. I think it's because the book challenges what the cognitive historian Jeremy Lent calls a "root metaphor": an idea so deeply embedded in our minds that it affects our preferences without our conscious knowledge.

The root metaphor in this case is exemplified by King Charles III's love affair with Transylvania, explored recently in the *New Statesman*. What he found there "was a perfectly bottled model of life before modernity". "It's the timelessness which is so important," the king is reported to have said. "The landscape is almost out of some of those stories you used to read as a child."

Farming in Transylvania looks (or did until recently) just as it "ought" to look: tiny villages where cows with their calves, ducks with their ducklings and cats with their kittens share the dirt road with ruddy-cheeked farmers driving horses and carts; alpine pastures where sheep graze and people scythe the grass and build conical haystacks. In other words, as

the king remarked, it looks like a children's book.

A remarkable number of books for pre-literate children are about livestock farms. The farms they imagine look nothing like the industries that produce the meat, dairy and eggs we eat, which are generally places of horror. The stories they tell are a version of an ancient idyll of herders with their animals, built across thousands of years in pastoral poetry and religious traditions. Livestock farming in this idyll is a place of safety, harmony and comfort, into which we subconsciously burrow at times of unease.

Much of the discussion of food and farming in public life looks like an effort to recreate that happy place. As a result, many of the proposed solutions to the global food crisis seek, in effect, to revive medieval production systems - to feed a 21st-century population. It cannot end well.

For instance, there's now a foodie obsession with hyper-free range chicken farming. Chickens, the new romantics propose, should follow grazing cattle, eating the insects that feed on their dung. As in the children's books, farm animals of different species interact. But the chicken is a non-native, omnivorous bird of the pheasant family. Just as we begin to recognise the damage caused by the release of pheasants into the countryside - they work through baby snakes, frogs, caterpillars, spiders, seedlings - the nostalgists seek to do the same with chickens. To the extent that chickens feed themselves in such systems, they mop up wildlife. In reality, they can't survive this way, so they continue to be fed on soy, often produced on former rainforest and Cerrado savanna in Brazil. This is what happens when people see the pictures and not the numbers. A scene that reminds us of our place of safety at the dawning of consciousness is used as the model for how we should be fed, regardless of whether it can scale. Bucolic romanticism might seem harmless. But it leads, if enacted, to hunger, ecological destruction or both, on a vast scale. Our arcadian fantasies devour the planet.

Storybook farming never worked as the romantics claim. Widespread meat-eating in the 19th century became possible only through the colonisation and clearance of Australia and the Americas and the creation, largely by the British empire, of a global system sucking meat into rich nations. The cattle and sheep ranching that supplied our supposedly traditional diet drove the dispossession of Indigenous people and destruction of ecosystems on a massive scale, a process that continues to this day. When you challenge the story that masks these grim realities, it's perceived as an attack on our very identity.

Real solutions to our global food crises are neither beautiful nor comforting. They inevitably involve factories, and we all hate factories, don't we? In reality, almost everything we eat has passed through at least one factory (probably several) on its way to our plates. We are in deep denial about this, which is why, in the US, where 95% of the population eats meat, a survey found that 47% wanted to ban slaughterhouses.

The answer is not more fields, which means destroying even more wild ecosystems. It is partly better, more compact, cruelty-free and pollution-free factories. Among the best options, horror of horrors, is a shift from farming multicellular organisms (plants and animals) to farming unicellular creatures (microbes), which allows us to do far more with far less. King Charles would doubtless hate this. But there are 8 billion people to feed and a planet to restore, and neither can be achieved with retentive fantasies. I've found myself contesting a cruel, polluting and self-destructive mainstream farming model on one hand and, on the other, an idyllic reverie that would lead us to the twin disaster of agricultural sprawl and world hunger. It's hard to decide which is worse.

# How plastic heats the planet

By Jack Marley

Plastic waste, when it appears on the surface of the sea or at the side of a road, is a problem that's easy to recognise. Much more plastic is made each year than can be safely absorbed by the systems built to recycle it, and the result is mounting pollution. Talks are under way in Paris this week to agree the terms of an international treaty which could do something about this issue.



What is often overlooked, however, is the plastic industry's role in fuelling climate change. A study published in 2019 found that making, using and disposing of plastic accounts for 3.8% of global greenhouse gas emissions.

"That's almost double the emissions of the aviation sector," says Laurie Wright, a senior lecturer in sustainability at Solent University. "If it were a country, the 'Plastic Kingdom' would be the fifth-highest emitter in the world."

You're reading the Imagine newsletter - a weekly synthesis of academic insight on solutions to climate change, brought to you by The Conversation. I'm Jack Marley, energy and environment editor. This week we're discussing what plastic pollution and climate change have in common.

Every stage of a plastic product's lifecycle can be a potential source of climate-damaging emissions, Wright explains.

More than 99% of plastic starts life as petroleum or natural gas, and is refined by the petrochemical industry using a process which releases carbon dioxide and methane to form basic plastic building blocks such as ethylene. Transporting this resin consumes fuel, and so also generates emissions. These steps account for 61% of the total emissions originating from plastic.

A further 30% is emitted while making the plastic bags, bottles and other items we use each day. The remainder is released when plastic is thrown away. It can take centuries for plastic to decompose and slowly return its stored carbon (and other harmful chemicals) to the atmosphere. But when this waste is incinerated, as a lot of landfill waste is, the process is dramatically sped up.

Petrochemical firms at the plastic treaty negotiations favour an agreement that would aim to recycle all of that waste. But researchers like Cressida Bowyer, who studies plastic pollution at the University of Portsmouth, are sceptical.

"Only 6-9% of all plastic ever produced has been sent for recycling," she says, writing with fellow Portsmouth academics Keiron Roberts and Stephanie Northen.



"Although plastic and other waste is collected for recycling in most countries, the amount of material that is remade into the same or similar products (what is called closed-loop recycling) is extremely low.

"Only 2% of plastic waste is recycled in a closed loop and not turned into something of lower quality, which is called downcycling. Recycling cannot fully replace virgin material as it can only be recycled twice before losing necessary properties, and so most recycling results in a downgraded material that cannot be used for the same purpose."

Not only would ramping up recycling fail to curb the greenhouse gas emissions from making all that plastic, attempting to recycle it could create other kinds of pollution, the team point out. A recent study highlighted how recycling facilities can release hundreds of tonnes of microplastics each year. Another report showed how attempting to recycle plastics containing toxic additives can contaminate subsequent batches.

Pascal Scherrer, a senior lecturer in environmental science at Southern Cross University in Australia, argues that there are more reasons to be wary of recycling as a supposed solution to the plastic problem.

"I explore opportunities to reduce plastic waste in sectors such as tourism, hospitality and meat production," he says.

"I know how quickly we could make big changes. But I've also seen how quick-fix solutions can create complex future problems. So we must proceed with caution."

One example is swapping wood for recycled plastic. Trading a material which would otherwise be a living tree keeping carbon out of the atmosphere for something made from an abundant waste product sounds ideal. No wonder benches, tables and bollards are increasingly made from recycled plastic.

But, Scherrer cautions, wood is at least biodegradable. Plastic, even when it has been recycled, breaks down into smaller and smaller fragments which now contaminate virtually every environment on Earth - including the human blood stream.

Bowyer, Roberts and Northen suggest that the simplest solution to all this pollution is also the best: stop making so much plastic in the first place. Extending the lifespan of the average plastic item by reusing it can also help reduce demand for more plastic.

"Manufacturers must stop making so much unnecessary plastic to reduce the amount entering the economy," they say.

"There is no case for making plastics that are impossible to collect, reuse or recycle, or are toxic. Yet they are abundant: think multilayered sachets, thin films and wrappers. These should be phased out as a priority."

As with the fossil fuel industry and climate change, petrochemical companies are unlikely to willingly make and sell less of their product to reduce pollution. And the parallels between the two problems don't end there, according to Deirdre McKay, a reader in geography and environmental politics at Keele University.

"The environment appears to be drowning in plastic for the same reason that global temperatures continue to rise - fossil fuels have remained cheap and abundant," she says.

The advent of hydraulic fracturing (better known as fracking) to acquire fossil fuels such as shale gas during the first decade of the 21st century made the raw materials for plastic manufacturing significantly cheaper, McKay explains. The result has been a glut of plastic packaging on supermarket shelves that is difficult to recycle and overwhelmingly ends up in landfill, incinerators - or the environment.



As oil demand wanes with the rise of electric vehicles, McKay warns that fossil fuel companies will pivot to producing plastic instead - with all the greenhouse gas emissions and other pollution such a move entails.

"Concern about plastic pollution isn't distracting people from a more serious problem - plastic is the problem. If we see plastics as 'solid climate change', they become central to the climate crisis."

## Other regular stories in this newsletter



Good and Bad News



Reports and Research



Plastic and Pollution



Land, Sea and Ecology

## Good and Bad News

### Good News



- Ecocide Bill submitted to Congress in Brazil. [Read article.](#)
- France unveils plan to cut greenhouse gas emissions by 50 percent by 2030. [Read article.](#)
- France attempt to cut emissions by banning short flights. [Read article.](#)
- New Zealand announces its biggest emissions reduction project in history. [Read article.](#)
- Net-zero transition could create up to 725k jobs in UK, says CCC. [Read article.](#)

### Bad News

- Antarctic alarm bells: Observations reveal deep ocean currents are slowing earlier than predicted. [Read article.](#)
- Arctic could be ice-free a decade earlier than thought. [Read article.](#)
- Global heating will push billions outside 'human climate niche. [Read article.](#)
- US backs Indonesian oil refinery despite pledge to end fossil fuel finance. [Read article.](#)
- If being unable to insure your home isn't a wake-up call about climate crisis. [Read article.](#)

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## Reports and Research

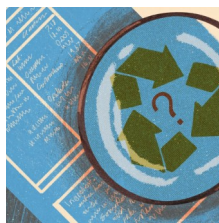


- Almost half world's species seeing rapid population decline, study finds. [Read article.](#)
- The Greenland Ice Sheet is close to a melting point of no return, says new study. [Read article.](#)
- The Upper Atmosphere Is Cooling, Prompting New Climate Concerns. [Read article.](#)



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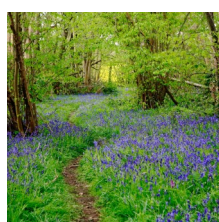
## Plastic and Pollution



- Paris plastic summit paves way for global pollution treaty. [Read article.](#)
- Global population living in areas unable to manage plastic waste to reach 60%. [Read article.](#)
- It's time to classify plastics as persistent, bioaccumulative and toxic pollutants, say researchers. [Read article.](#)
- 'We abuse plastic, it's so cheap': UN Environment chief. [Read article.](#)

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## Land, Sea and Ecology



- UK tops list for fossil fuel sites in nature protected areas. [Read article.](#)
- Old-growth forests continue to disappear despite EU protection commitments. [Read article.](#)
- As ocean oxygen levels dip, fish face an uncertain future. [Read article.](#)
- Restoring Seabird Populations Can Help Repair the Climate. [Read article.](#)

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