

# CLIMATE CRISIS NEWSLETTER

A fortnightly newsletter brought to you by XR Gairloch

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## Editorial

### Yet another UN COP Summit last minute deal, but was it worth it.....

As is usual with UN COP summits it goes down to the wire and the COP15 Biodiversity summit was no different. A deal was eventually done at 3.30 am on Monday morning, but was it. The Democratic Republic of Congo (DRC), who are one of the biodiverse countries in the world, said it didn't agree with the document but the COP president just overruled them and declared the deal was done anyway. The DRC were later persuaded by Brazil and Indonesia (another two major biodiverse countries) to back down and sign the agreement. So did that mean the deal done at COP15 was a major success. No unfortunately not.



Since the Biodiversity COP summit was first established some 30 years ago, they have failed to accomplish any meaningful gains in its mission. In fact a recent U.N. report showed that not a single target from the summit's previous 2010 agreement has been met.

This year nearly 5,000 delegates from 196 countries around the world gathered during the December 7-19 summit aiming to secure a new deal: a 10-year framework aimed at saving Earth's forests, oceans and species before it's too late.

A last minute deal was agreed which featured 23 action-oriented targets to be delivered by 2030 of which the most important was probably the target of protecting 30% of land and sea, but unfortunately the agreement was thought by many environmentalists to be weak and flawed, some of these being:

- The targets and actions are not legally binding
- Weak on how it is implemented and monitored. The agreement is doomed without clear mechanisms for implementing targets, Similar factors were widely blamed for the failure of the last 10-year biodiversity deal, adopted in 2010 in Aichi, Japan, which was unable to achieve nearly any of its objectives.
- It is said to be the biodiversity equivalent to the Paris 2015 agreement for Climate Change and that has been a failure.
- The use of weak wording like -"eliminate, phase out or reform incentives, including subsidies harmful for biodiversity" and "progressively

- reducing" these subsidies
- Weaken language regarding corporate and non-state disclosure. During COP15, almost 500 companies voiced support for mandatory disclosure of nature-related impacts through the Business for Nature group's "Make it Mandatory" campaign. However, the final text does not require mandatory disclosure, meaning many corporates will need to involve themselves with voluntary disclosure initiatives.
- Vague, unambitious language on halting species extinctions at some point before 2050, instead of 2030.

'Flawed but a turning point for humanity': Green groups react to COP15's global biodiversity agreement. [Read article.](#)

The fact is human civilisation depends on a healthy and diverse natural environment to survive and flourish. It's a tragedy that we're living in one of the most nature-depleted countries in the world—and a travesty that the impetus to turn this around just isn't there. Those with the power to make change are moving too slowly and are pushing the disaster down a road that's rapidly running out.

UK accused of hypocrisy over environment protection targets. [Read article.](#)

Scotland's rarest animals face being wiped out warns expert. [Read article.](#)

**Is "Nature Positive" the new "Carbon Neutral" of biodiversity greenwash, and why were fossil fuel delegates at COP15.....**

What does 'nature positive' mean - and can it rally support to stop biodiversity loss? [Read article.](#)



**Humanity has become a weapon of mass extinction.....**

The UN biodiversity talks, held every two years, have never garnered the same attention as the world's main environmental focus - the annual UN talks on climate change.

UN Secretary-General Antonio Guterres has slammed multinational corporations for turning the world's ecosystems into "playthings of profit" and warned failure to correct course would lead to catastrophic results. "We are treating nature like a toilet," Guterres said. "And ultimately, we are committing suicide by proxy," with the effects felt on jobs, hunger, disease and death.

As the human population tops 8 billion, the rest of life is being decimated. We've destroyed two-thirds of the rainforests, half the coral reefs, and a million species are now facing oblivion, one-third of all land is severely degraded and fertile soil is being lost, while pollution and climate change are accelerating the degradation of the oceans.

Species are vanishing at a rate not seen in 10 million years. As much as 40 per-cent of Earth's land surfaces are consid-ered degraded, according to a 2022 UN Global Land Outlook assessment.

196 governments signed the agreement to protect 30% of the planet by 2030 -- but scientists say it isn't enough. For na-ture to regenerate, and to save our planet's life-support systems, we have to protect half the Earth, inspired by EO Wilson's Half-Earth project - and we need a global treaty to enforce action. Currently, 17% of terrestrial and 10% of marine areas are protected so 30% will be a significant in-crease if it is achieved.



Half Earth Project. [See site.](#)

Ultimately, this is about our survival. Even as the planet withers, the chain-saws, diggers, and polluters are charging ahead, pulverising the planet into a bar-ren, lifeless tundra. All in the name of economic growth .



Scientists have warned that with forests and grasslands being lost at unprecedented rates and oceans under pressure from pollution and over-fishing, humans are pushing the Earth beyond safe limits. This includes increasing the risk of diseases, like SARs CoV-2, Ebola and HIV, spilling over from wild animals into human populations

What happens to the natural world, happens to us all. We are not separate from nature; we are part of it, connected to the very trees, rivers, and oceans that are being decimat-ed.



The COP15 summit in Montreal was regarded as a "last chance" to put nature on a path to recovery. Let us hope that the human race stands by what it agreed at the summit and improves on it to ensure we are not putting a death sentence on nature and ourselves.



## Renewable energy in the UK.....

The UK government weren't keen on dropping the ban on onshore wind turbines in England which had been in place since 2015, when they were still being used onshore all around the world including Scotland.

Grant Shapps the Secretary of State for Business, Energy and Industrial Strategy (BEIS) said its because they can't transport the wind turbines on the roads,



Business Secretary Grant Shapps criticised for 'nonsense' claims that "these turbines are now so large, they can't even be constructed onshore. They are so big, the turbines wouldn't be able to be carried by roads. They have to be put offshore." [Read article.](#)

Or was it:

- A lot of powerful land owners don't want them spoiling their view
- Or is it maybe that as onshore wind is the cheapest for of producing energy, would eventually finish fossil fuel energy off once and for all by bring in such a cheap, clean and renewable energy as onshore wind. As a lot of the Conservative party have financial interests in fossil fuels this would not be in their financial interest to have such a better alternative to fossil fuel energy. The Conservative Party also have an organisation of MP's called the Net Zero Watch group who are actively seeking to slow down the transition away from fossil fuels.

But fortunately after public, political and wind industry pressure the UK Government has performed another U turn and is now going to allow onshore wind turbines in England.

No 10 set to allow new onshore wind projects in England in U-turn. [Read article.](#)

The UK government wants 50 gigawatts (GW) of the UK's electricity to be generated by offshore wind by the end of the decade - 5GW of which it's hoped will come from floating platforms in deeper seas off the UK coast.

To this end it's speeding up the time it takes for new projects to be given the go-ahead, including cutting the approval time needed for new offshore wind farms from four years to one.

How many wind turbines does the UK have?

There are now almost 11,500 wind turbines in the UK:

- Onshore there are 8,827 turbines on 2,604 farms
- Offshore there are 2,652 turbines on 43 farms

Overall, the offshore farms generate more energy because the turbines tend to be bigger.

Together they produced 24% of UK electricity in 2020, although that fell to 21% in 2021 because of the wind conditions.

### Scottish Renewable Energy for Communities in Scotland.....

Foreign Governments and big private companies shouldn't be allowed to make huge amounts of profit from Scotland's resources and charge the Scottish people high energy bills in the process.

Where these companies are foreign government owned companies like Equinor (Norway), Orsted (Denmark), Vattenfall (Sweden) EDF (France), etc this means that communities in these foreign countries are benefiting financially from Scotland's natural resources through the high energy prices we are paying.



Nearly half of UK's offshore wind capacity owned by state-owned foreign entities, analysis shows. [Read articles.](#)

So why is this happening in Scotland when plans by the Welsh Government for a publicly owned energy company could see bills reduced and renewable supplies directly benefit communities.

State-owned wind farm 'could cut bills'. [Read article.](#)

Free renewable wind electrical energy forecasted in the future. [See video.](#)

Why are blankets being handed out when we produce so much energy?

Caithness produces ten times the energy it needs - but charity is handing out record number of blankets. [Read article.](#)

The UK government haven't learned anything from how we badly dealt with the oil boom in the 1970's compared to countries like Norway who now have the largest sovereignty wealth fund in the world. When oil was struck in Norway, that country lacked the skills, manufacturing capability and - to a large extent - the financial stability to fully exploit it. Like Scotland and the UK, it had to build up that capacity. Unlike here where the industry was essentially sold off to private companies who had the skills and capacity to exploit the oil, Norway took the path of hiring those companies to train their workers and build the capacity but, crucially, on the proviso that Norway would retain ownership of the assets. The sharp divergence between the fates of Scotland and Norway is evident and well understood. In Scotland we now have a second chance to potentially replicate what Norway did with oil and gas, to do with wind and hydro but unfortunately that is currently not happening.

Highland Council: Windfarms could generate 'equivalent of Norway oil fund' for rural communities. [Read article.](#)

Highland Council Approve Pentland Offshore Planning Application. [Read article.](#)

With energy costs and CO2 levels both still rising the only logical way forward is for community based energy schemes (in joint ventures with the Council) where the community is in control of where they are sited, how they are run and managed and the community benefit directly with low energy bills and generating income for the community to improve local infrastructure and services rather than large private energy companies charging expensive energy bills and making huge profits at the expense of our communities. Octopus Energy are doing a similar type scheme—Fan Club, with local communities and therefore there is no reason why the Scottish government or Councils could not do similar schemes themselves benefiting the country and communities even more.

The energy provider Octopus [runs a similar scheme](#) (Fan Club).

Scotland only uses around 5 gigawatts of electricity annually and the most recent bids for licenses for offshore wind turbines in the North Sea could produce approximately 25 gigawatts which means Scotland could be a major exporter of green energy.



Therefore if Scotland nationalised the energy it produces and was in direct control of it's energy industry it would have huge financial gains for its economy, its energy security, low energy bills and be in control of a Just Transition to green jobs in the renewables industry for the workers.



**United Nations COP: Even some of the politicians losing faith in the process.....**

Democratic senators warn UN secretary general of eroding public trust in Cop. [Read article.](#)

**UK government blocks release of CO2 figures behind transport plan.....**

The Department for Transport (DfT) is refusing to publish carbon emission figures, which campaigners say could make new road projects unviable.

UK government blocks release of CO2 figures behind transport plan. [Read article.](#)

**BP up to no good.....**

This year, Greenpeace found BP was linked to a huge toxic emissions scandal in Iraq. They pored over emissions data in the country and compared it to the oil giant's published figures - and realised something didn't add up.

Gas released during oil production is usually processed and used for power. But Iraq's lack of infrastructure means it's just burned off in a process called flaring, releasing pollutants straight into the atmosphere. And it turns out, BP failed to declare these emissions on their official reports.

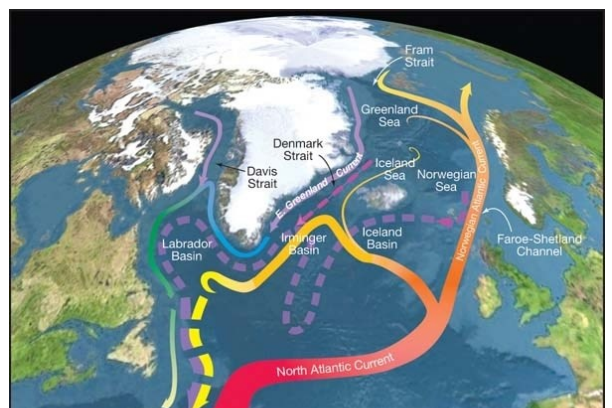


There investigators revealed the devastating human cost of gas flaring. In Basra, a town near a massive BP-linked oil field, cancer is becoming "like the flu".

Unearthed—Iraq's oil industry. [Read article.](#)

**Abrupt collapse of the Atlantic Meridional Overturning Circulation.....**

An abrupt collapse of the Atlantic Meridional Overturning Circulation, or AMOC, was the plotline for the 2004 hit movie 'The Day After Tomorrow'. Thankfully the apocalyptic scenes depicted in that film are not going to happen, but the AMOC system has been weakening for decades and it is likely to grind to a halt at some point in the not too distant future, with profound effects on our planetary systems. So, can we do anything about it?



Abrupt global ocean circulation collapse. [See video.](#)

## A trial to end underheating By Olivia Rudgard

Underheating can be fatal: It's the cause of roughly 10,000 deaths in the UK every winter, giving the country the sixth highest rate of excess winter deaths in Europe. People living in overly cold homes also cost Britain's taxpayer-funded National Health Service an estimated £860 million (\$1 billion) each year.

Now, an NHS pilot program aims to tackle both problems at once.

Between November 2022 and March 2023, the trial program is covering the heating costs of 1,000 vulnerable patients selected by the NHS based on pre-existing conditions and their hospital-admission track record. The program, being run in the Tees Valley in the north of England and Aberdeenshire in Scotland, was designed by nonprofit Energy Systems Catapult, and is financed by the social impact fund of oil giant BP. Its goal is to determine whether such an approach is more affordable than the status quo, and more effective at saving lives.

A similar concurrent trial involving 150 people in Gloucestershire, funded by the government, builds on a program that ran from December 2021 to March 2022, in which heating for each of 28 participants cost an average of £647 (\$788).

The risks of underheating are significant this year. Thanks to a Europe-wide energy crisis, utility bills in Britain are up more than 100% over last winter, and anxiety about the cost of keeping warm is widespread. Publicity campaigns are also encouraging Brits to use their energy as efficiently as possible, prompting many to turn down the thermostat.

"We know that children's educational achievement and attainment can be improved if they go from living in a cold home to living in a warm home," says Dr. Rose Chard, fuel poverty and consumer vulnerability lead at Energy Systems Catapult. "We know that people are more likely to be able to stay in work if they are well, if they are warm at home. There is real opportunity for this sort of innovation because the effects of living in a cold home are so widely spread across the population."

There could also be longer-term benefits. During last year's Gloucestershire trial, participants were more likely than others to engage with efforts to improve the energy efficiency of their homes. Evidence from a separate UK initiative, the Warm Front, which funded heating and insulation retrofits between 2000 and 2013, suggests that even when people spent more on heating after home improvements, they were still happier.

The UK trials also highlight the possibility of changing how people pay for heat. The current system in most of Britain, where customers pay per kilowatt hour of heating gas or electricity, isn't the only option. "Heat as a service," for example, lets utilities sell customers an agreed level of warmth rather than units of fuel. The heating mechanism, such as a heat pump or boiler, is leased from the energy company rather than owned by the customer.

There's evidence that heat as a service also increases people's interest in low-carbon technologies, and incentivizes utilities to improve the efficiency of customers' homes. The UK government's current energy price guarantee, a publicly funded subsidy that caps household energy bills, could have a similar effect: The government now has a financial interest in lowering people's usage.

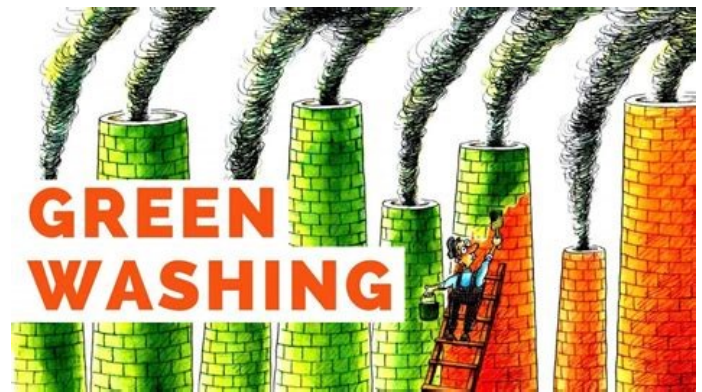


# Greenwash, misinformation, hypocrisy and deceit

House Committee Wraps Up Historic Investigation Into Oil Industry. [Read article.](#)

HSBC to end asset financing for new oil and gas fields and coal mines but companies with oil and gas expansion plans may still be backed by HSBC for more general purposes. [Read article.](#)

Pesticide Industry 'Helped Write' Disinformation Playbook Used by Big Oil and Big Tobacco, Report Reveals. [Read article.](#)



New Study Reveals Billions of Dollars in Political Spending by US Trade Associations, Most of It on PR. [Read article.](#)

Men's FIFA World Cup in Qatar—Offsets caught offside. [Read article.](#)

Flagship EU Green Farming Reforms in Peril as Lobbyists Exploit Ukraine War. [Read article.](#)

Gazprom 'Anticipates' Further North Sea Gas Exploration Amid Bumper Profits. [Read article.](#)

Climate boss Mark Carney's firm linked with deforestation. [Read article.](#)

Google 'gaslighting' users by taking big oil advert money, says study. [Read article.](#)

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

Thérèse Coffey Conservative MP for Suffolk Coastland Secretary of State for Environment, Food and Rural Affairs. Who has had a very checkered career with regards to supporting people involved in the news media phone hacking scandal, breaking Covid lockdown rules, supporting the sell off of forestry and woodland in public ownership, not supporting free school meals during Covid, proposing pensioners pay national insurance etc.

Thérèse Coffey accused of undermining Cop15 talks with weak targets. [Read article.](#)

UK's 'peanuts' pledge for land and ocean conservation faces criticism at Cop15. [Read article.](#)

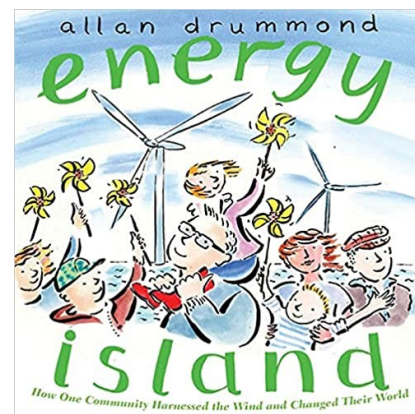
'Weak and unambitious': Green groups criticise Defra's legally binding environment targets. [Read article.](#)



## Events/Actions/Education and Information

### Children's Book

Energy Island: How One Community Harnessed the Wind and Changed their World (Green Power) Picture Book, Reading age 6 - 10 year by Allan Drummond



At a time when most countries are producing ever-increasing amounts of greenhouse gasses, the rather ordinary citizens of Samsø have accomplished something extraordinary—in just ten years they have reduced their carbon emissions by 140% and become almost completely energy independent. A narrative tale and a science book in one, this inspiring true story proves that with a little hard work and a big idea, anyone can make a huge step toward energy conservation. The inspiring first book in the author's acclaimed series about real-world communities going green.

Samsø: An Island Community Pointing to the Future. [Read article.](#)

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## COP 15 Montreal (UN Biodiversity Conference)

The biodiversity crisis in numbers - a visual guide. [Read article.](#)

Without Indigenous leadership, attempts to stop the tide of destruction against nature will fail. [Read article.](#)

COP 15: Delegates agree to protect 30 per cent of the world by 2030. [Read article.](#)



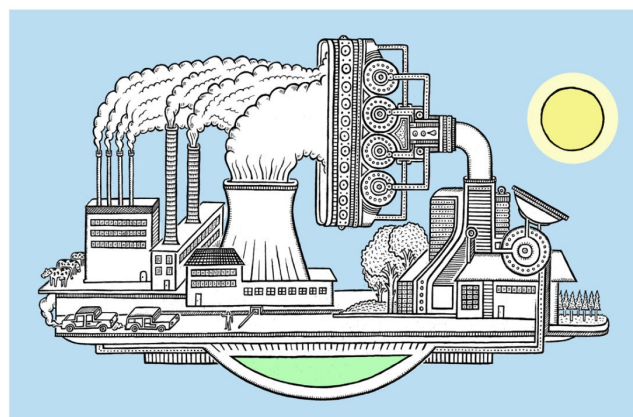
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## Technological Advances

A novel sodium-sulphur battery has 4 times the capacity of lithium-ion batteries. [Read article.](#)

How do floating wind turbines work? With 5 companies winning the first US leases to build wind farms off California's coast, let's take a look. [Read article.](#)

Paper-thin solar cell can turn any surface into a power source. [Read article.](#)



'Major scientific breakthrough': US recreates fusion. [See video.](#)

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## Sustainable Farming/Food

Mapping the world's food production footprint on climate and environment. [Read article.](#)

Nature-based farming-subsidies scheme given green light. [Read article.](#)



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## The Scales of Justice

EU agrees law to crack down on deforestation in supply chains. [Read article](#)

UK ministers face legal challenge over North Sea oil and gas licences. [Read article.](#)

EU Passes Law To Make Electric Car Batteries Cleaner. [Read article.](#)



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## Eco'nomiC Recovery—Building Back Better

Major international deal struck for \$15.5bn of clean energy transition finance for Vietnam. [Read article.](#)

UK Government's £500m investment in energy-efficient schools branded 'a sticking plaster'. [Read article.](#)





## The Fight Against Fossil Fuels

Cumbria coal mine: empty promises of carbon capture tech have excused digging up more fossil fuel for decades. [Read article.](#)

Plans unveiled for investments of \$20.4 billion in ten oil & gas projects. [Read article.](#)

100 UK universities pledge to divest from fossil fuels. [Read article.](#)



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## The Amazon Rainforest Is Still Burning

Brazil sees area burned by fire nearly double in November. [Read article.](#)

Destruction of Brazil's Cerrado savanna soars for third year in a row. [Read article.](#)

Brazil's incoming government set to scrap gas pipelines and power plants. [Read article.](#)

Returning To Our Origins To Continue Being Siekopai. [Read article.](#)

The Amazon reef that may be threatened by oil drilling. [Read article.](#)

Seven reasons to be cheerful about the Amazon in 2023 - and three to be terrified. [Read article.](#)



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## The Circular Economy

Changing Scotland's material use: a year of progress. [Read article.](#)





# Just Stop Oil's message to Suella Braverman: threaten us all you like – we're not listening

By Indigo Rumbelow

It's a strange paradox. The tougher that Tory home secretaries talk, the faster law and order seems to break down. Whoever's in the role – Grant Shapps, Priti Patel, Suella Braverman – the same rhetoric grinds on, day after day: cracking down, clamping down, demanding tougher action. Now the prime minister, Rishi Sunak, has joined in, reportedly launching "Operation Get Tough" and demanding the police use all the new powers available to them through the latest sweep of anti-protest laws.



Who's listening? Certainly not us. Just Stop Oil knows first-hand that the legal system is collapsing. Some of our supporters' cases can't even be heard until 2024. Many of my friends will spend this Christmas in prison, most held without a trial, on remand. Jan Goodey, the first person to be convicted under the government's new Police, Crime, Sentencing and Courts Act 2022, was sentenced to six months in prison just last week, the first of many protesters who will probably be criminalised for caring. Instead of facing up to the challenge of ending new oil and gas, the government would prefer to silence the alarm bells.

Braverman talks tough to hide the reality of the collapsing justice system. After 12 years of tough talk on law and order, we have less of it than ever. About 75% of prisoners reoffend within nine years of release, and prisons are so full that some male inmates have been held in police cells. Meanwhile, women and people of colour are at risk from the very law enforcers who are supposed to keep them safe.

The faster law and order breaks down, the more Braverman ramps up the rhetoric, desperate to hide the cracks in case anyone notices. Well, Suella, we've all noticed. We've noticed you haven't cut crime; instead you've filled prisons close to breaking point. You can't clamp down on floods and you can't arrest your way out of wildfires. The only way for ordinary people to salvage any hope of a stable, ordered society is to break the spell of the rhetoric and expose the decay this government is trying to hide.

When a kind, peaceful, brave man like Jan Goodey is sentenced to six months in prison for taking part in a Just Stop Oil action, the violence, thuggery and corruption of our government is exposed for all to see. The rightwing press might try to prop up this con, celebrating an eco-loon getting what he deserves, but this fiction looks increasingly weak and desperate. The reality of climate breakdown is inescapable, and something that most people in Britain are worried about.

So what can we do? As ordinary citizens, we have a duty to resist injustice. Sometimes this may involve breaking the law in order to expose the rot at the core of the system. In

Britain we're immensely privileged to have a legal profession that is able to speak out and join us in rescuing the rule of law from chaos and collapse. This autumn, more than 170 lawyers signed a powerful open letter stating that breaching the Paris Agreement will directly threaten law and order. "A stable climate is the foundation for a stable civilisation and the rule of law," they wrote. "Breaching the 1.5C Paris temperature goal thus threatens disorder and the end of the rule of law."

So it is an absurdity for Braverman and Sunak to rant about law and order while they issue licences for new fossil-fuel exploration. That's why no one is paying attention. There's absolutely no alignment between what they say and what is really happening. They use words the way an amateur magician uses misdirection, trying and failing to distract us from the government's core purpose: to pursue short-term power and profit, no matter what the cost.

Let them posture away. Once you've seen through the show, the words are easy to ignore. For us, the tougher the rhetoric, the more encouraged we feel. We know it's a direct reflection of how hard the government needs to work to cover up its betrayal of the public. And as ordinary citizens witness the betrayal, they're increasingly taking matters into their own hands. The result is a resurgence of justice itself - taking place before our very eyes as the government rants on in the background, ignored, failing and desperate.

So join a Just Stop Oil talk online or in your area and stand up to injustice with us. The time is now.

# Greta Thunberg on the climate delusion: 'We've been greenwashed out of our senses. It's time to stand our ground'

By Greta Thunberg

Governments may say they're doing all they can to halt the climate crisis. Don't fall for it - then we might still have time to turn things around.

Maybe it is the name that is the problem. Climate change. It doesn't sound that bad. The word "change" resonates quite pleasantly in our restless world. No matter how fortunate we are, there is always room for the appealing possibility of improvement. Then there is the "climate" part. Again, it does not sound so bad. If you live in many of the high-emitting nations of the global north, the idea of a "changing climate" could well be interpreted as the very opposite of scary and dangerous. A changing world. A warming planet. What's not to like?



Perhaps that is partly why so many people still think of climate change as a slow, linear and even rather harmless process. But the climate is not just changing. It is destabilising. It is breaking down. The delicately balanced natural patterns and cycles that are a vital part of the systems that sustain life on Earth are being disrupted, and the consequences could be catastrophic. Because there are negative tipping points, points of no return. And we do not know exactly when we might cross them. What we do know, however, is that they are getting awfully close, even the really big ones. Transformation often starts slowly, but then it begins to accelerate.

The German oceanographer and climatologist Stefan Rahmstorf writes: "We have enough ice on Earth to raise sea levels by 65 metres - about the height of a 20-storey building - and, at the end of the last ice age, sea levels rose by 120 metres as a result of about 5°C of warming." Taken together, these figures give us a perspective on the powers we are dealing with. Sea-level rise will not remain a question of centimetres for very long.

The Greenland ice sheet is melting, as are the "doomsday glaciers" of west Antarctica. Recent reports have stated that the tipping points for these two events have already been passed. Other reports say they are imminent. That means we might already have inflicted so much built-in warming that the melting process can no longer be stopped, or that we are very close to that point. Either way, we must do everything in our power to stop the process because, once that invisible line has been crossed, there might be no going back. We can slow it down, but once the snowball has been set in motion it will just keep going.

"This is the new normal" is a phrase we often hear when the rapid changes in our daily weather patterns - wildfires, hurricanes, heatwaves, floods, storms, droughts and so on - are being discussed. These weather events aren't just increasing in frequency, they are becoming more and more extreme. The weather seems to be on steroids, and natural disasters increasingly appear less and less natural. But this is not the "new normal".

What we are seeing now is only the very beginning of a changing climate, caused by human emissions of greenhouse gases. Until now, Earth's natural systems have been acting as a shock absorber, smoothing out the dramatic transformations that are taking place. But the planetary resilience that has been so vital to us will not last for ever, and the evidence seems to suggest more and more clearly that we are entering a new era of more dramatic change.

Climate change has become a crisis sooner than expected. So many of the researchers I've spoken to have said that they were shocked to witness how quickly it is escalating. But since science is very cautious when it comes to making predictions, maybe this should not come as a big surprise. One result of this, however, is that very few people actually knew how to react when the signs started becoming obvious in recent years. And fewer still had planned how to communicate what is happening. It seems like the vast majority of people were preparing for a different, less urgent scenario. A crisis that would take place many decades into the future. And yet here we are. The climate and ecological crisis is not happening in some faraway future. It's happening right here and right now.

If everyone lived like we do in Sweden, we would need the resources of 4.2 planet Earths to sustain us. And the climate targets set in the Paris agreement would be but a very distant memory - a threshold that we would have crossed many, many years ago. The fact that 3 billion people use less energy, on an annual per capita basis, than a standard American refrigerator gives you an idea of how far away from global equity and climate justice we currently are.

The climate crisis is not something that "we" have created. The worldview that largely dominates the perspective from Stockholm, Berlin, London, Madrid, New York, Toronto, Los Angeles, Sydney or Auckland is not so prevalent in Mumbai, Ngerulmud, Manila, Nairobi, Lagos, Lima or Santiago. People from the parts of the world that are most responsible for this crisis must realise that other perspectives do exist and that they have to start listening to them. Because when it comes to the climate and ecological crisis -



just like most other issues - many people living in rich economies still act as if they rule the world. By using up the remains of our carbon budgets - the maximum amount of CO<sub>2</sub> we can collectively emit to give the world a 67% chance of staying below 1.5C of global temperature rise - the global north is stealing the future as well as the present. It is stealing not only from its own children but, above all, from those who live in the most affected parts of the world, many of whom are yet to build much of the most basic modern infrastructure that others take for granted. And still this deeply immoral theft does not even exist in the discourse of the so-called developed world.

Saving the world is voluntary. You could certainly argue against that statement from a moral point of view, but the fact remains: there are no laws or restrictions in place that will



force anyone to take the necessary steps towards safeguarding our future living conditions on planet Earth. This is troublesome from many perspectives, not least because - as much as I hate to admit it - Beyoncé was wrong. It is not girls who run the world. It is run by politicians, corporations and financial interests - mainly represented by white, privileged, middle-aged, straight cis men. And it turns out most of them are terribly ill suited for the job. This may not come as a big surprise. After all, the purpose of a company is not to save the world - it is to make a profit. Or, rather, it is to make as much profit as it possibly can in order to keep shareholders and market interests happy.

This leaves us with our political leaders. They do have great opportunities to improve things, but it turns out that saving the world is not their main priority, either.

Approaching the issues of the climate and ecological crisis inevitably involves confronting numerous uncomfortable questions. Taking on the role of being the one who tells the unpleasant truth, and thereby risking one's popularity, is clearly not on any politician's wish-list. So they try to stay clear of the subject until they absolutely cannot avoid it any longer - then they turn to communication tactics and PR to make it seem as if real action is being taken, when in fact the exact opposite is happening.

It gives me no pleasure whatsoever to keep calling out the bullshit of our so-called leaders. I want to believe that people are good. But there really seems to be no end to these cynical games. If your objective as a politician truly is to act on the climate crisis, then surely your first step would be to gather accurate figures for our actual emissions to get a complete overview of the problem, and from there start looking at real solutions? That would also give you a rough idea of the changes needed, the scale of them and how quickly they need to be put in place. This, however, has not been done - or even suggested - by any world leader. Or, to my knowledge, by any one single politician.

Journalist Alexandra Urisman Otto describes how she started investigating Swedish climate policies and found that only a third of our actual emissions of greenhouse gases were included in our climate targets and the official national statistics. The rest were either outsourced or hidden in the loopholes of international climate accounting frameworks. So whenever the climate crisis is debated in my "progressive" home country, we conveniently leave out two-thirds of the problem. An investigation by the Washington Post in November 2021 has shown that this phenomenon is far from unique to Sweden. Though the figures vary from case to case, this process and the overall mentality of constantly trying to sweep things under the carpet and blame others is the international norm.

So when our politicians say that we must solve the climate crisis, we should all ask them which climate crisis they are referring to. Is it the crisis that contains all our emissions or the one that contains only a part of them? When politicians go a step further and accuse the climate movement of not offering any solutions to our problems, we should ask them what problems they are talking about. Is it the problem that is caused by all our emissions or just by the ones they didn't manage to outsource or hide in the statistics? Because these are completely different issues.

It will take many things for us to start facing this emergency - but, above all, it will take honesty, integrity and courage. The longer we wait to start taking the action needed to stay in line with our international targets, the harder and more costly it will get to reach them. The inaction of today and yesterday must be compensated for in the time that lies ahead.

For us to have even a small chance of avoiding setting off irreversible chain reactions far beyond human control, we need drastic, immediate, far-reaching emission cuts at the source. When your bathtub is about to overflow, you don't go looking for buckets or start covering the floor with towels - you start by turning off the tap, as soon as you possibly can. Leaving the water running means ignoring or denying the problem, delaying doing anything to resolve it and downplaying its consequences.

Our politicians do not need to wait for anyone else in order to start taking action. Nor do they need conferences, treaties, international agreements or outside pressure. They could start right away. They also have - and have had for a long time - endless opportunities to speak up and send a clear message about the fact that we must fundamentally change our societies. And yet, with very few exceptions, they actively choose not to. This is a moral decision that will not only cost them dearly in the future, it will put the entire living planet at risk.

**According to the United Nations' emissions gap report, the world's planned fossil fuel production by the year 2030 will be more than twice the amount that would be consistent with keeping to the 1.5c target.** This is science's way of telling us that we can no longer reach our targets without a system change, because meeting our targets would literally require tearing up contracts, valid deals and agreements on an unimaginable scale. This should, of course, be dominating every hour of our everyday news feed, every political discussion, every business meeting and every inch of our daily lives. But that is not what is happening.

The media and our political leaders have the opportunity to take drastic and immediate action, and still they choose not to. Perhaps it is because they are still in denial. Maybe it is because they do not care. Maybe it is because they are unaware. Maybe it is because they are more scared of the solutions than of the problem itself. Maybe it is because they are afraid of causing social unrest. Maybe they are afraid of losing their popularity. Maybe they simply did not go into politics or journalism to uproot a system they believe in - a system they have spent their lives defending. Or maybe the reason for their inaction is a mixture of all these things.

We cannot live sustainably within today's economic system. Yet that is what we are constantly being told we can do. We can buy sustainable cars, travel on sustainable motorways, powered by sustainable petroleum. We can eat sustainable meat and drink sustainable soft drinks out of sustainable plastic bottles. We can buy sustainable fast fashion and fly on sustainable aeroplanes using sustainable fuels. And, of course, we are going to meet our short- and long-term sustainable climate targets, too, without making the slightest effort.

"How?" you might ask. How can that be possible when we don't yet have any technical solutions that can fix this crisis alone, and the option of stopping doing things is unacceptable from our current economic standpoint? What are we going to do? Well, the answer is the same as always: we will cheat. We will use all those loopholes and all the creative accounting that we have conjured up in our climate frameworks since the very first conference of the parties, the 1995 Cop1 in Berlin. We will outsource our emissions along with our factories, we will use baseline manipulation and start counting our emission reductions when it suits us best. We will burn trees, forests and biomass, as those have been excluded from the official statistics. We will lock decades of emissions into fossil gas infrastructure and call it green natural gas. And then we will offset the rest with vague afforestation projects - trees that might be lost to disease or fire - while we simultaneously

cut down the last of our old-growth forests at a much higher speed.

Don't get me wrong. Planting the right trees in the right soil is a great thing to do. It eventually sequesters carbon dioxide from the atmosphere and we should do it wherever it is suitable for the soil and suitable for the people living there who care for that land. But afforestation should not be confused with offsetting or climate compensation, because that is something completely different. You see, the main problem is that we already have at least 40 years of carbon dioxide emissions to "compensate" for. It is all up there, in the atmosphere, and that is where it will stay, probably for many centuries to come. This historic CO<sub>2</sub> is what we should be focusing on when we are using our present - very limited - ways of removing CO<sub>2</sub> from the atmosphere, in various projects such as planting trees. But offsetting, as we have conceived it, is not meant to do that. It was never created for us to clean up our mess. Far too often it has been used as an excuse for us to continue emitting CO<sub>2</sub>, maintain business as usual and meanwhile send a signal that we have a solution and therefore we do not have to change.



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Words matter, and they are being used against us. These are lies. Dangerous lies that will cause further, disastrous delay. Predictions by the UN conclude that our CO<sub>2</sub> emissions are expected to rise by another 16% by 2030. The time we have left to avoid creating increasing climate catastrophes in many places around the world is rapidly running out.

We are currently on track to have a world that is 3.2C hotter by the end of the century - and that's if countries fulfil all the policies they have in place, policies that are often based on flawed and under-reported numbers. But in many cases they are nowhere near doing even that. We are "seemingly light years away from reaching our climate action targets", to quote UN secretary general António Guterres in the autumn of 2021. And there is also the matter of our previous track record of failure when it comes to delivering on all those non-binding pledges and promises. Let's just say it is not so impressive or convincing.

Even if we carried out all of our climate action plans, we'd still be in trouble. Net zero by 2050 is simply too little, too late. There is just too much at stake for us to place our destiny in the hands of undeveloped technologies. We need real zero. And we need honesty. At the very least, we need our leaders to start including all our actual emissions in our targets, statistics and policies. Before they do that, any mention of vague, future goals is nothing but a distracting waste of time. They say that we should not let the perfect be the enemy of the good. But what exactly do we do when the "good" not only fails to keep us safe but is also so far away from what is needed that it can only be described as comedy material. Very dark comedy, but still.

They say we must be able to compromise. As if the Paris agreement were not already the world's biggest compromise. A compromise that has already locked in unimaginable amounts of suffering for the most affected people and areas. I say: "No more." I say: "Stand your ground." Our so-called leaders still think they can bargain with physics and negotiate with the laws of nature. They speak to flowers and forests in the language of

US dollars and short-term economics. They hold up their quarterly income reports to impress the wild animals. They read stock-market analysis to the waves of the ocean, like fools.

We are approaching a precipice. And I would strongly suggest that those of us who have not yet been greenwashed out of our senses stand our ground. Do not let them drag us another inch closer to the edge. Not one inch. Right here, right now, is where we draw the line.

This is an edited extract from The Climate Book created by Greta Thunberg



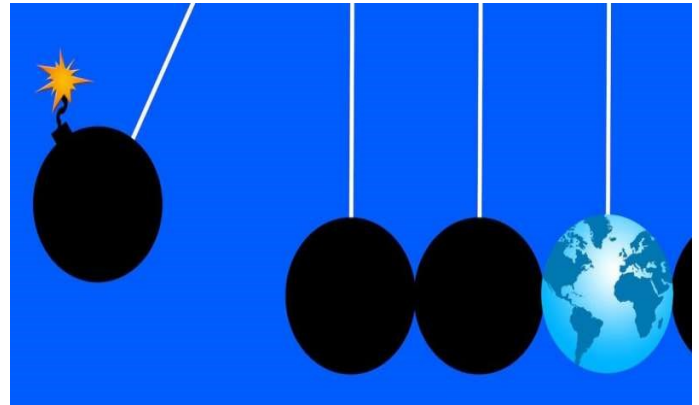


# Climate tipping points could lock in unstoppable changes to the planet. How close are they?

By David Armstrong McKay

Continued greenhouse gas emissions risk triggering climate tipping points. These are self-sustaining shifts in the climate system that would lock-in devastating changes, like sea-level rise, even if all emissions ended.

The first major assessment in 2008 identified nine parts of the climate system that are sensitive to tipping, including ice sheets, ocean currents and major forests. Since then, huge advances in climate modeling and a flood of new observations and records of ancient climate change have given scientists a far better picture of these tipping elements. Extra ones have also been proposed, like permafrost around the Arctic (permanently frozen ground that could unleash more carbon if thawed).



Estimates of the warming levels at which these elements could tip have fallen since 2008. The collapse of the west Antarctic ice sheet was once thought to be a risk when warming reached 3°C-5°C above Earth's pre-industrial average temperature. Now it's thought to be possible at current warming levels.

In our new assessment of the past 15 years of research, myself and colleagues found that we can't rule out five tipping points being triggered right now when global warming stands at roughly 1.2°C. Four of these five become more likely as global warming exceeds 1.5°C.

These are sobering conclusions. Not all of the news coverage captured the nuance of our study, though. So here's what our findings actually mean.

## Uncertain thresholds

We synthesized the results of more than 200 studies to estimate warming thresholds for each tipping element. The best estimate was either one that multiple studies converged on or which a study judged to be particularly reliable reported. For example, records of when ice sheets had retreated in the past and modeling studies indicate the Greenland ice sheet is likely to collapse beyond 1.5°C. We also estimated the minimum and maximum thresholds at which collapse is possible: model estimates for Greenland range between 0.8°C and 3.0°C.

Within this range, tipping becomes more likely as warming increases. We defined tipping as possible (but not yet likely) when warming is above the minimum but below the best estimate, and likely above the best estimate. We also judged how confident we are with each estimate. For example, we are more confident in our estimates for Greenland's ice sheet collapse than those for abrupt permafrost thaw.

This uncertainty means that we do not expect four climate tipping points to be triggered

the first year global temperatures reach  $1.5^{\circ}\text{C}$  (which climate scientists suggest is possible in the next five years), or even when temperatures averaged over several years reach  $1.5^{\circ}\text{C}$  sometime in the next couple of decades. Instead, every fraction of a degree makes tipping more likely, but we can't be sure exactly when tipping becomes inevitable.

This is especially true for the Greenland and west Antarctic ice sheets. While our assessment suggests their collapse becomes likely beyond  $1.5^{\circ}\text{C}$ , ice sheets are so massive that they change very slowly. Collapse would take thousands of years, and the processes driving it require warming to remain beyond the threshold for several decades. If warming returned below the threshold before tipping kicked in, it may be possible for ice sheets to temporarily overshoot their thresholds without collapsing.

For some other tipping points, change is likely to be more dispersed. We estimate that both tropical coral reef death and abrupt permafrost thaw are possible at the current warming level. But thresholds vary between reefs and patches of permafrost. Both are already happening in some places, but in our assessment, these changes become much more widespread at a similar time beyond  $1.5^{\circ}\text{C}$ .

Elsewhere, small patches of the Amazon and northern forests might tip and transition to a savannah-like state first, bypassing a more catastrophic dieback across the whole forest. Model results that are yet to be published suggest that Amazon tipping might occur in several regions at varying warming levels rather than as one big event.

There may also be no well-defined threshold for some tipping elements. Ancient climate records suggest ocean currents in the North Atlantic can dramatically flip from being strong, as they are now, to weak as a result of both warming and melting freshwater from Greenland disrupting circulation. Recent modeling suggests that the threshold for the collapse of Atlantic circulation depends on how fast warming increases alongside other hard-to-measure factors, making it highly uncertain.

### Into the danger zone

There are signs that some tipping points are already approaching. Degradation and drought have caused parts of the Amazon to become less resilient to disturbances like fire and emit more carbon than they absorb.

The front edge of some retreating west Antarctic glaciers are only kilometers away from the unstoppable retreat. Early warning signals in climate monitoring data (such as bigger and longer swings in how much glaciers melt each year) suggest that parts of the Greenland ice sheet and Atlantic circulation are also destabilizing.

These signals can't tell us exactly how close we are to tipping points, only that destabilization is underway and a tipping point may be approaching. The most we can be sure of is that every fraction of further warming will destabilize these tipping elements more and make the initiation of self-sustaining changes more likely.

This strengthens the case for ambitious emissions cuts in line with the Paris agreement's aim of halting warming at  $1.5^{\circ}\text{C}$ . This would reduce the chances of triggering multiple climate tipping points—even if we can't.

## Other regular stories in this newsletter



Good and Bad News



Reports and Research

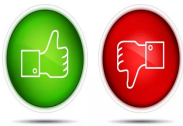


Plastic and Pollution



Land, Sea and Ecology

## Good and Bad News



### Good News

- Democrats ditch Manchin's 'dirty deal' after opposition from climate activists. [Read article.](#)
- World's largest wave power plant in frame for Turkey following 'landmark' deal. [Read article.](#)
- Scotland's Largest Offshore Wind Farm Entering Home Stretch. [Read article.](#)
- Airbus Builds a Liquid Hydrogen Refueling Station After Rolls-Royce's Breakthrough. [Read article.](#)

### Bad News

- Europe's record 2022 wildfires sent carbon emissions soaring: monitors. [Read article.](#)
- A New Era for Germany's Gas Industry Fuels Climate Fears. [Read article.](#)
- Lawmakers agree to restrict EU carbon tax to flights within Europe. [Read article.](#)
- UK Government to weaken water pollution goals in 'attack on nature. [Read article.](#)
- Greenland's glaciers might be melting 100 times as fast as previously thought. [Read article.](#)

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## Reports and Research



- Large businesses 'could generate \$700bn in annual benefits by ending exploitation of nature'. [Read article.](#)
- Europe's biggest banks not taking biodiversity crisis seriously, report warns. [Read article.](#)
- Report: Meat and dairy majors still failing to tackle deforestation, pollution and water risks. [Read article.](#)
- The climate crisis explained in 10 charts. [Read article.](#)

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## Land, Sea and Ecology



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- Australia's mountain mist frog declared extinct as red list reveals scale of biodiversity crisis. [Read article.](#)
- Climate change threatens almost 70% of puffins' nesting sites, researchers warn. [Read article.](#)
- Improvements to protected nature areas in Scotland are stalling, report finds. [Read article.](#)
- Flying insect numbers plunge 64% since 2004, UK survey finds. [Read article.](#)

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