

CLIMATE CRISIS NEWSLETTER

A fortnightly newsletter brought to you by XR Gairloch

ISSUE 132

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Editorial

'Final Warning'- Act Now or it's too late,,,,,,,,,,,,,

What aren't we getting when over 97% (plus) of all climate scientists are telling us that it is now or never and still we let governments and private companies do the exact opposite to what is required to stop the climate catastrophe happening.

The IPCC finalized the Synthesis Report for the Sixth Assessment Report during the Panel's 58th Session held in Interlaken, Switzerland from 13 - 19 March 2023



Two statements from the report which are extremely frightening are:

"Climate change is a threat to human well-beings and planetary health (*very high confidence*)."

"There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (*very high confidence*)."

And yet we as a planet are still letting powerful and greedy people continue to take us to these two outcomes. What is wrong with us?

SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT REPORT (AR6) Summary for Policymakers. [Read report.](#)

Scientists deliver 'final warning' on climate crisis: act now or it's too late. [Read article.](#)

Five things we've learned from UN climate report, [Read article.](#)

UN chief: rich nations must achieve net zero carbon quicker, by 2040. [Read article.](#)

This warming has driven widespread and rapid global changes, including sea level rise and climate extremes - resulting in widespread harm to lives, livelihoods and natural systems.

It's increasingly clear that vulnerable people in developing countries - who have generally contributed little to greenhouse gas emissions - are often disproportionately affected by climate change.

Fifteen years ago, a 1.5C limit on global warming—championed by small island nations worried about sea level rise—was rejected by most scientists as unrealistic and by most countries as unnecessary. A 2C "guardrail" was assumed to be safe enough.

Today, the 1.5C target is enshrined in everything, everywhere, all at once. While technically no more than an "aspirational" goal, it has become the de facto North Star for UN climate talks, national climate plans and the business world.

You can draw a straight line from 1.5C to the science-based imperative to nearly halve global emissions by 2030 and achieve net zero around mid-century, meaning any residual carbon pollution must be offset by removals.

Both of these targets are set in the report summarising six years of climate science, released by the UN's Intergovernmental Panel on Climate Change (IPCC).

So what will happen when the world experiences its first full year at or above 1.5C, which the IPCC says could easily happen within a decade,. Will we:

- wake up and hold the people who knowingly caused this for the last 40 years to account and charge them with ecocide.
- confiscate the financial assets of all the major polluters that have caused the emissions.
- compensate the countries effected the most by climate change.
- accept all the climate refugees that have to relocate as their countries are inhabitable.
- tell our children and grand children, sorry we never realised what was happening

Or will we just say why did we set ourselves such an impossible target of 1.5C when we knew we were never going to achieve it. Lets set ourselves one like 2.7C which is much more realistic and to hell with the consequences, as long as we are seen to be on target and it looks like we are achieving something.

The IPCC report had the concluding statement:

"It must be done. It can be done. By and large, we know how to do it - and it makes economic sense to do so. In this report, the governments of the world have acknowledged as much."

The reality is we are still doing the exact opposite.

- Australia's 116 new coal, oil and gas projects equate to 215 new coal power stations. [Read article.](#)
- Biden officials back Alaska oil project that critics call a climate catastrophe. [Read article.](#)
- Chinese coal boom a 'direct threat' to 1.5C goal, analysts warn. [Read article.](#)
- UK planning to launch watered down net zero strategy in oil capital Aberdeen. [Read article.](#)
- TotalEnergies' bet on gas means no big emissions cut by 2030. [Read article.](#)

Nuclear isn't green and isn't cheap.....

Chancellor Jeremy Hunt's Spring Budget had some hefty ambitions and funding for carbon capture, nuclear and energy relief support, but the green measures announced didn't come close to delivering wider climate and nature goals. The obvious choice would have been green, cheap renewables but instead, in the main, the Chancellor funded the promotion of unclean and expensive technologies such as nuclear and fossil fuels with carbon capture and storage (CCS).



Hunt confirmed that £20bn would be ringfenced to support the early development of CCS technologies, starting with projects on the East Coast, Merseyside and North Wales. Hunt claimed that the funding will support around 50,000 jobs and help capture 20-30 million tonnes of CO₂ per year by 2030. A claim which is very dubious knowing the past record of CCS projects to date. No CCS project has yet lived up to its capture predictions or been commercially viable. Also Carbon capture, usage and storage (CCUS) has been described by the government's own watchdog the Climate Change Committee as a "non-optional" component of the UK's net-zero transition.

The new innovation funding for nuclear is now officially moving forward.

Can we be sure that these new kinds of nuclear reactors which, being new, have zero track record to look back on - are safe too?

Having lots of small modular reactors (SMR) around a country would mean that nuclear material was present in many more places than it is currently, where it only exists in a very small number of large, well-secured nuclear plants. That's a risk: many nuclear researchers worry about SMRs, especially in states with weaker security infrastructure, where the fuel could be an attractive target for terrorist or other groups who might wish to get their hands on the necessary materials for a nuclear weapon.

UK support for the nuclear industry:

- UK to redefine nuclear as 'green' and is classed as "environmentally sustainable" in bid for private investment
- Move comes as government is set to provide £80m in seed funding for launch of Great British Nuclear.
- EDF extends life of two UK nuclear plants by two years
- Hartlepool and Heysham 1 nuclear plants will remain in operation until March 2026 amid the continuing gas crisis.

Jeremy Hunt accused of '£20bn gamble' on nuclear energy and carbon capture. [Read article.](#)

'Come clean' over cost of Sizewell C nuclear power station, ministers told. [Read article.](#)

BBC caving into UK government pressure again.....

You would have thought after the Gary Lineker controversy the BBC would have avoided, at least for a little while, bowing down to Conservative party pressure but no here we go again.

BBC will not broadcast Attenborough episode over fear of 'rightwing backlash'. [Read article.](#)

PCC: the climate handbook for a 'liveable' future. [Read article.](#)



Increase hostility towards campaigners and charities as UK government clamps down on public protest.....

The UK has been downgraded in an annual global index of civic freedoms as a result of the government's "increasingly authoritarian" drive to impose restrictive and punitive laws on public protests.

'Hostile, authoritarian' UK downgraded in civic freedoms index. [Read article.](#)



Highland Councils feeble attempt to address climate change.....

When are they really going to tackle the issues? Another feeble attempt at turning things around.

Highland Council declared a climate and ecological emergency on 9 May 2019 with members committing to achieving a carbon neutral Highland by 2025. With only two years to go Highland Council have still to publish a plan on how they are going to achieve this. Further more they recently voted to drastically cut any major funding recommended by their own Climate Change Committee and are now promoting this pitiful project as a way of cutting emissions i.e. 3 e-cargo bikes on trial for 12 months.



Council embarking on E-Cargo bike pilot in bid to further reduce fleet emissions. [Read article.](#)

MPs demand Britain quits climate-wrecking Energy Charter Treaty.....

What is the Energy Charter Treaty?

The Energy Charter Treaty (ECT) is an international agreement from the mid-1990s. Investor rights apply to 53 countries stretching from Western Europe through Central Asia to Japan, plus the EU and the European Atomic Energy Community. It grants corporations in the energy sector enormous power to sue states at international investment tribunals for billions of dollars, for example, if a government decides to stop new oil or gas pipelines or to phase out coal.



Negotiations for this treaty mostly took place away from the public eye. This means the ECT has so far largely escaped the global storm of opposition which has otherwise hit investor-state dispute settlement in the past decade. Now many more countries in Africa and the Middle East, Asia, and Latin America are in the process of joining the treaty, often without any public debate.

The fossil fuel industry's secret weapon: the Energy Charter Treaty. [See video.](#)

On the 21st March 2023 MPs debated in the UK parliament whether we should leave the Energy Charter Treaty.

The debate was led by a former Conservative energy minister, Chris Skidmore, who said the Energy Charter Treaty is a "relic of a bygone age" that is "being weaponised by fossil fuel companies". Green MP Caroline Lucas pushed the government on the urgency of withdrawing from the treaty and Nia Griffith from Labour's shadow trade team said "the sooner we get out the better".

And the response from the government was ... potentially hopeful!

Bear with me here, because this is going to sound like the most tiny change. For months the government has blankly been saying it is "monitoring the situation" and refusing to give any other answer. But the junior minister, Andrew Bowie, has now said they have been listening to civil society and parliament, and are making an assessment "right now" of how the UK should respond.

There are now serious moves, across Europe, to leave the energy charter treaty as a matter of political priority. It is clear that any chance of reforming the treaty is over. The modernisation talks proposed last year have failed, because several European countries, including Germany, France, Spain and the Netherlands, have decided to leave the treaty due to reforms not going far enough to bring it in line with the Paris agreement. Even the European Commission, which previously led the modernisation process, has announced plans for a full EU withdrawal from the treaty.

So the UK should now follow the rest of Europe and leave the treaty.

Highlights from debate in parliament. [See video.](#)

Greenwash, misinformation, hypocrisy and deceit

Catastrophic Carbon Removal. How the 'Big Solution' is failing badly. [See video.](#)

Liquid Gas Industry Fights to Weaken EU Climate Plans Ahead of Key Vote. [Read article.](#)

Corporate greenwashing—misusing 'net zero' pledges. [Read article.](#)

Pesticide Giant Criticised for 'Greenwashing' Partnership with French Influencer. [Read article.](#)



Influential UK net-zero sceptics funded by US oil 'dark money'. [Read article.](#)

MPs push for 'redress' for investors duped by greenwashing. [Read article.](#)

Conservative MP Set to Pocket £153,600 from Fossil Fuel-Linked Firms. [Read article.](#)

UK government lets airlines off the hook for £300m air pollution bill. [Read article.](#)

Toyota accused of trying to keep Australia "stuck in petrol powered dark ages". [Read article.](#)

Revealed: Policing bill was dreamed up by secretive oil-funded think tank. [Read article.](#)

Corrupt Politicians and Climate Criminals.....

Linda Cook CEO of Harbour Energy and former CEO of Shell Gas and Power.

Energy economist accuses Harbour Energy of 'fancy accounting' to get headlines.

In a Twitter thread, Greg Muttitt, who works for IISD Energy, accused the North Sea's biggest producer of counting "all of its windfall tax payments for the next 5 years into this year's accounts".

Harbour Energy is also targeting fresh exploration and production in North Sea and in Asia while buying up mature oil and gas assets from Shell and BP.



Events/Actions/Education and Information

FILM/SERIES

Filmmaker and writer Scott Z. Burns is not known for science fiction, but he has an uncanny track record of foretelling the future.

Burns wrote the 2011 movie *Contagion*, which anticipated the Covid-19 pandemic. Before that, he was a producer of Al Gore's prescient 2006 climate change documentary, *An Inconvenient Truth*. And next week will see the arrival of *Extrapolations*, Burns' Apple TV+ series dramatizing a near-future in which carbon levels continue their inexorable rise.

Set between 2037 and 2070, *Extrapolations*' eight interconnected episodes. *Extrapolations* is pointedly not a dystopian tale of the climate apocalypse; it's more like the present dialed up to 111. Burns says he chose to open the series in 2037 because it's "close enough to where you're sitting right now, you can't look at it and dismiss it." At the same time, he wanted *Extrapolations* to extend far enough into the future so "that we could show people the upshot of many of the things that are already in process and where they're likely to lead."

The writers also looked to journalist and activist Bill McKibben, who wrote the first book on climate change for a general audience, *The End of Nature*, in 1989, and served as a technical consultant on *Extrapolations*. McKibben says a scripted series on climate is long overdue. "Where is all the art about climate change?" he asks, pointing to Adam McKay's *Don't Look Up* as one of few examples. "Why has climate change not yet done what the AIDS epidemic [did] and produced a wave of remarkable art, operas and screenplays that really helped change people's perceptions?"

"For most of us, climate change isn't just experienced when you walk out on a very hot day or a day where there's a hurricane," Burns says. "It's actually seeping into every aspect of your life. And I wanted to connect those dots."

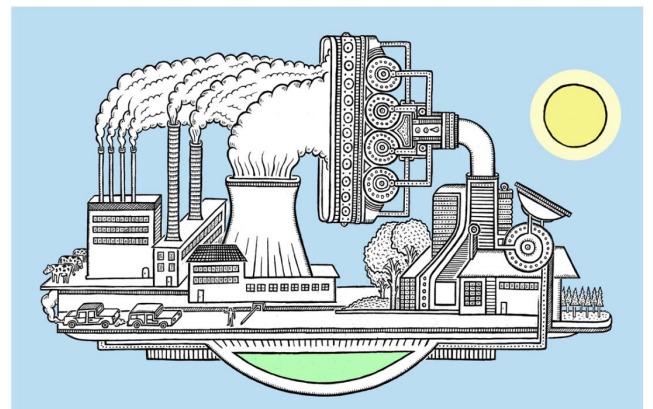
See trailer.

Technological Advances

Newly discovered enzyme that turns air into electricity, providing a new clean source of energy. **Read article**

Flow Batteries: The 144 Year Old Tech That Will Solve Grid Scale Storage! **See video.**

'Green-life technology': Biodegradable, recyclable glass is finally here. **Read article.**



Sustainable Farming/Food

Fungi-tree planting could feed millions while capturing tonnes of carbon - study. [Read article.](#)

High-tech, soil-less, and brimming with life: the vertical farms of tomorrow. [Read article.](#)

How big a garden would you need to be self-sufficient for a family of four? [Read article.](#)



The Scales of Justice

Some lawyers vow to not prosecute climate activists. [Read article.](#)

Top U.S. Law Schools Accused of Creating a Student 'Pipeline' into Firms Serving Fossil Fuel Industry. [Read article.](#)

Lawsuit filed in bid to halt Alaska oil drilling project. [Read article.](#)

Lawyers and activists build pressure on Korean court to rule on climate. [Read article.](#)



Eco'omic Recovery—Building Back Better

\$136trn investor coalition pushes big businesses for environmental information. [Read article.](#)

Net-Zero Industry Act: European Commission unveils new vision for clean energy revolution. [Read article.](#)

IMF approves first batch of climate resilience loans. [Read article.](#)

IPCC report: Climate scientists call for dramatic increase in funding for deep emissions cuts. [Read article.](#)



The Fight Against Fossil Fuels

Top UK Pension Funds Intend To Vote Against BP And Shell Directors. [Read article.](#)

Argentina secures funding boost to kickstart gas exports from 'carbon bomb'. [Read article.](#)

Oil giant Saudi Aramco records historic \$161bn profit in 2022. [Read article.](#)



The Amazon Rainforest Is Still Burning

Recovering tropical forests offset just 25% of carbon emissions from new tropical deforestation and forest degradation. [Read article.](#)

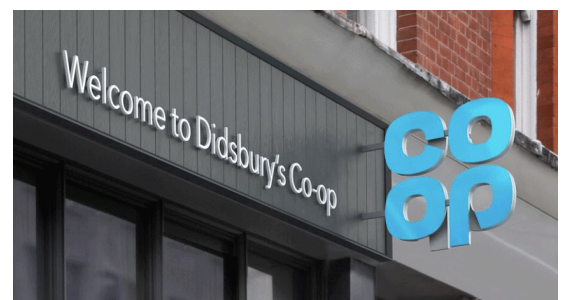
Dry forests and savannas vital for Brazil's climate goals. [Read article.](#)

Rainforests pump water round the tropics—but the pulse of this heart is weakening. [Read article.](#)



The Circular Economy

Co-op extends tech recirculation offer to keep devices out of landfill. [Read article.](#)



A ton of fossil carbon isn't the same as a ton of new trees: Why offsets can't save us

By Wesley Morgan

This week, the Albanese government is attempting to reform the safeguard mechanism to try to make it actually cut emissions from our highest polluting industrial facilities.

Experts and commentators see Labor's plan as a cautious, incremental change that doesn't yet rise to the urgency of the intensifying climate crisis. But it could generate momentum after a wasted decade of climate denial and delay under the previous government. Done right, it could set our biggest industrial polluters on a pathway to cut their emissions and be a springboard for more ambitious changes.



But there's one glaring problem. Under the government's proposed rules, there is still no requirement for polluters to actually cut their emissions at the sites where they are released into the atmosphere. Instead, companies can choose to buy carbon credits or offsets to meet their obligations. Incredibly, there would be no limit on the number of offsets companies can use.

You've probably heard about Australia's rubbery offset schemes and questions of integrity. But there's an even more fundamental problem. One ton of carbon dioxide pumped into the atmosphere by burning fossil fuels is not the same as one ton of carbon stored in the tree trunks of a newly planted forest.

The carbon in coal, gas and oil has been safely stored underground for extraordinary lengths of time. But when trees take carbon dioxide back out of the atmosphere, they may only store it for a short period.

There is simply no way around it. Avoiding the worst of climate change means stopping the extraction and burning of fossil fuels. Offsets will not save us. In fact, unlimited use of offsets could see even more emissions, if coal and gas companies "offset" emissions and ramp up exports.

Why can't we rely on nature to pull carbon dioxide from the air?

In 2023, many policymakers still believe we can adequately offset emissions. It would certainly be easier if we could keep burning fossil fuels and offsetting them by planting forests. But it doesn't work. It's simply not possible to fully "offset" billions of tons of greenhouse gas emissions from burning of coal, oil and gas by regrowing forests, increasing the amount of carbon in soils or other measures.

That's because the carbon dioxide released by burning fossil fuels is fundamentally different to the way carbon is stored above ground in trees, wetlands and in the soil.

Carbon is everywhere on Earth — in the atmosphere, the ocean, in soils, in all living things, and in rocks and sediments. It is constantly being cycled through these different parts. Carbon is also being continually exchanged between the atmosphere and the ocean's surface. Together these processes make up the earth's "active" carbon cycle.



The only long term storage solution for fossil fuels like coal is to leave them precisely where they are.

When we burn fossil fuels, we release carbon locked away for millions of years (hence "fossil" fuels), pumping vast new volumes of carbon into the active carbon cycle. This is very clearly altering the balance of carbon in the Earth system and faster than ever recorded in the Earth's geological history. Planting trees does not lock carbon away again deep underground. Instead, the introduced fossil carbon remains part of the active carbon cycle.

To compound the problem, much of the carbon stored in land-based offsets does not stay stored. Forests can easily be destroyed by fire, disease, floods and droughts, all of which are increasing with climate change.

Offsets are a last resort - nothing more

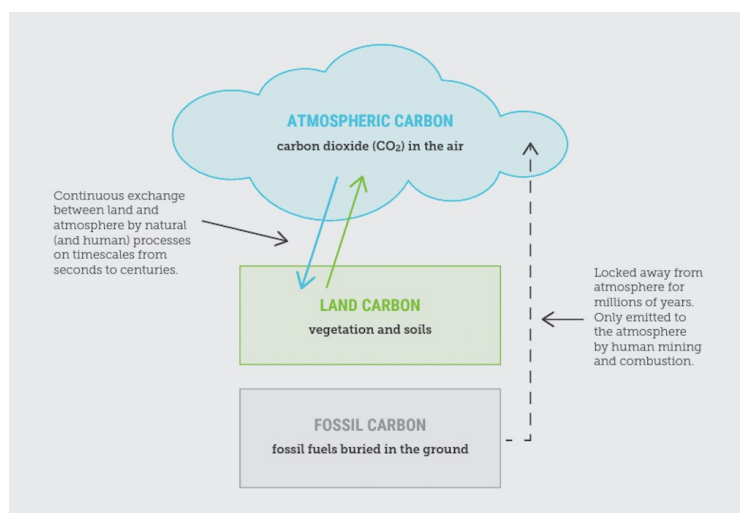
Despite these issues, offsets will still have a small role. Some emissions cannot be avoided or reduced at present, given low-emissions technologies for industries like steelmaking are still scaling up. But these offsets must be strictly limited and set to progressively decline over time, as opportunities for genuine emissions reductions - at the source - are developed and rapidly scaled.

Unfortunately, paying for offsets is the first and only thing many large companies are doing about their harmful emissions.

If we allow fossil fuel companies to offset their emissions without limit, they will keep along a business as usual track or even expand their operations. That, in turn, will mean significantly more emissions when Australian fossil fuels are burned overseas.

Our leaders must avoid the offset trap

It's taken Australia decades too long, but we're finally past climate denial, perhaps due to unprecedented fire and floods. Our leaders tell us it's now about finding solutions. Well, offsets are not a solution. There is no substitute to actually ending the routine burning of fossil fuels.



Carbon is continually exchanged between the land and the atmosphere on timescales of seconds, days, decades and centuries, whereas fossil carbon has been locked away from the atmosphere for millions of years.

We all want our comfortable lives to continue with a minimum of change. Offsets seem to deliver that. But all they really do is offset our guilt and responsibility. They cannot solve the central problem which is that every year, we add another 33 billion tonnes of carbon dioxide to the atmosphere by burning fossil fuels.

The atmosphere doesn't respond to good intentions or clever schemes. All it responds to is the volume of greenhouse gases which trap ever more heat.

If Labor is to make the safeguard mechanism fit for purpose, it must focus on genuine emissions reductions at the source.

What Australia does matters a great deal to the world's efforts to tackle the climate crisis. If Australia became the first major fossil fuel exporter to embrace a future as a clean energy superpower, it will demonstrate it is possible - and that it comes with benefits like new industries, cleaner air and energy security.

First, though, we have to give up on offset pipe dreams. The only thing that matters is cutting emissions.

Is 1.5C still realistic? The crumbling consensus over key climate target

By Attracta Mooney

Sultan al-Jaber, chief executive of Abu Dhabi's state oil company, has put one message front and centre since being named president of the UN COP28 climate summit: the world must not give up on the 1.5C target for curtailing rising temperatures. Ahead of the 28th gathering of world leaders to discuss climate change, which will take place in Dubai this year, Jaber has embarked on a global tour during which he has repeatedly emphasised the importance of meeting the targets embedded in the 2015 Paris climate accord. That agreement, signed by 195



parties, strove to limit the rise in global average temperatures since pre-industrial times to well under 2C and ideally to 1.5C. The figure has become the blueprint for global action on climate change, underpinning government and business plans to slash greenhouse gas emissions and becoming a rally cry for climate activists. Paris signatories have pledged to reach net zero greenhouse gas emissions, many of them by 2050. But that entails emissions falling 43 per cent by 2030 using 2019 as a baseline: a huge feat for a world reliant on fossil fuels. Jaber has said that the goal of limiting temperature rises to 1.5C "is just non-negotiable". But more than seven years after that momentous evening in Paris and with just seven years until 2030, the viability of the 1.5C target is under intense scrutiny. Some climate scientists think 1.5C is no longer feasible while others believe we can get back on track, but only with far more drastic action. There are those in the business community, particularly in fossil fuel production, who want to scrap it because retaining it would mean limits on the expansion of their industry.

There is already widespread debate, much of it in private, about what would happen if the world fails to meet the 1.5C goal, whether it is time to reassess, and who the winners and losers would be if the target were scrapped or watered down. Later this month, the IPCC will issue a report that will focus heavily on the 1.5C target. It comes after carbon dioxide emissions hit a record high in 2022, partly because of the energy crisis caused by Russia's invasion of Ukraine. Scientists estimate that the world has already warmed by at least 1.1C compared with pre-industrial levels. For Sheldon Whitehouse, a Democratic senator who has spent years making weekly speeches on climate change in the Senate, the outlook is bleak. "At this point it is virtually certain we will blow through [the 1.5C] target," he says, while warning that it is "much more dangerous to go beyond it". Business figures — including some of Jaber's peers in the hydrocarbon industry — are starting to argue in private that it would be better to put more emphasis on planning for a world with warmer temperatures than to focus on what is now likely to be an unachievable goal.

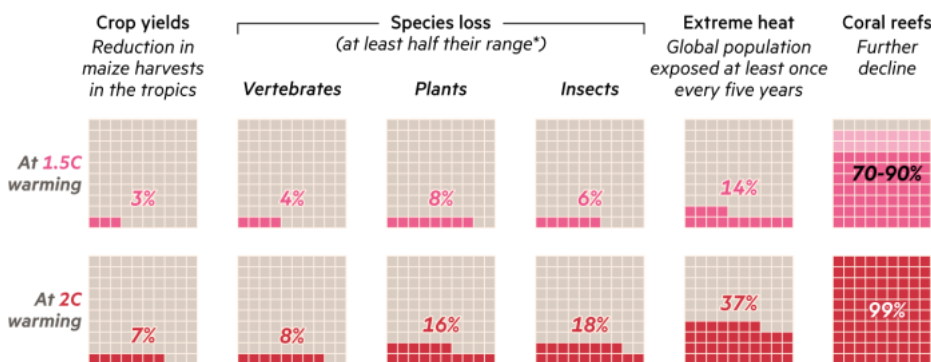


Bill Gates, whose investment firm Breakthrough Energy invests in climate change innovations, has repeatedly said the 1.5C target is no longer achievable. He argues that as well as trying to limit warming, we will need to prepare for a hotter world. For some, Jaber's own support for retaining the 1.5C goal sits awkwardly with his role as chief executive of the Abu Dhabi National Oil Company, where in 2021, he pledged to rapidly increase the oil output capacity of the United Arab Emirates by 2030 while also arguing emissions can be reduced. That puts him at odds with the world's scientific community, which has warned that existing and planned fossil fuel projects are already putting the world on course to miss the 1.5C target.

But many scientists and campaigners worry that admitting defeat in the battle to limit warming to 1.5C is a way of justifying slower action from countries and companies. "The solution is not to change the target. The science hasn't changed, the evidence hasn't changed," says Mark Howden, vice-chair of the Intergovernmental Panel on Climate Change, the influential UN group that pulls together scientists and specialists around the world. "What we have to do is accelerate the emissions reductions." The rise of 1.5C goal was in large part the work of the Alliance of Small Island States, an organisation made up of 39 members including the Maldives, Belize and the Cook Islands concerned about the huge dangers climate change posed to them. They feared their homes and livelihoods could be destroyed by unabated global warming. Some, such as the Solomon Islands, had already lost islands to rising sea levels. At the make-or-break Paris climate talks, most western countries and large emitters of carbon were focused on a 2C target. But AOSIS issued a proposal for a 1.5C goal ahead of the meeting. "The '1.5 to stay alive' moto has long been the AOSIS rally cry," says Fatumanava-o-Upolu III Pa'olelei Luteru, current chair of AOSIS, who is from Samoa. "It represents that level beyond which many small islands will be overwhelmed by climate change . . . for us, 1.5 is our red line." The 1.5C and 2C targets "were informed by science but also political need", says Howden, who is also director of the Institute for Climate, Energy and Disaster Solutions at the Australian National University. "If it was just down to the science we might have slightly different numbers, if it was down to the politics we might have had different numbers." The inclusion of 1.5C in the final agreement was a big victory for the small islands. Since then, it has morphed into the de facto standard for the climate movement, thanks in part to a 2018 IPCC report that revealed the stark increase in damage to the world if it warmed by 2C rather than the lower number. While half a degree might not sound like much, Howden says "there is a surprising amount of increased damage by going to 2C rather than limiting to 1.5C".

Half a degree makes a difference

The difference between 1.5C of global warming and 2C of global warming



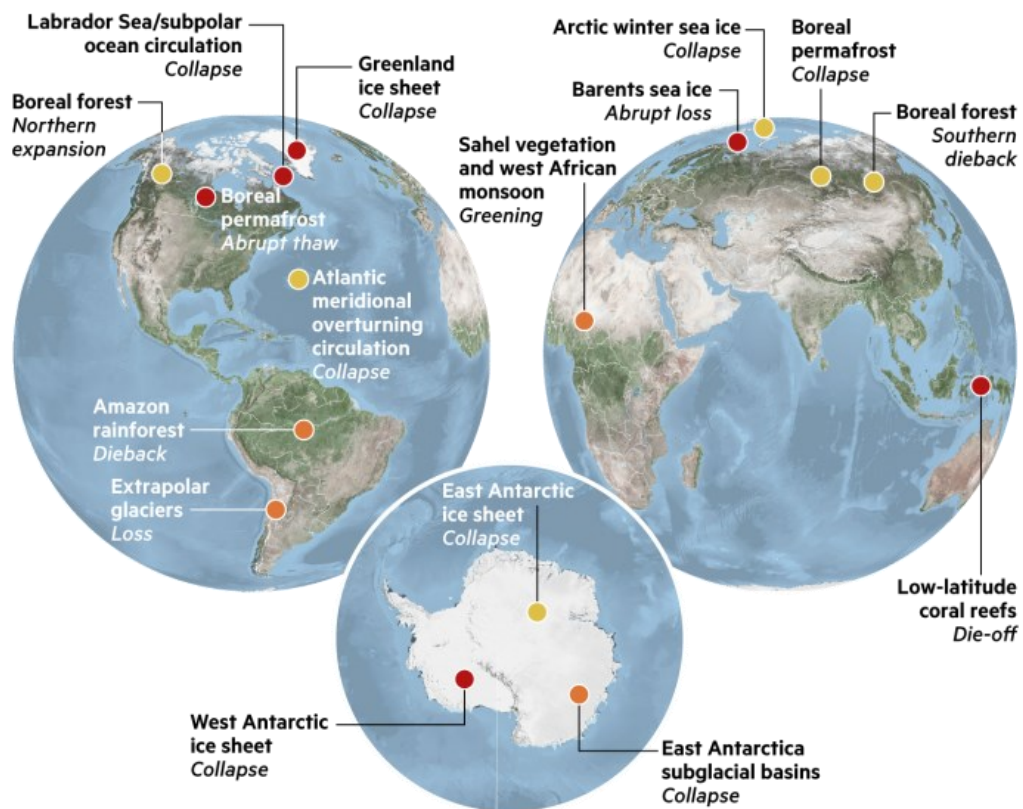
* As a species range becomes smaller and occupied habitats become more isolated, the likelihood of extinction increases. A species that has lost over half of its geographic range is classified as 'endangered', with a resulting likelihood of extinction of more than 20% in the near term (10-100 years).
Source: World Resources Institute
© FT

More warming could, according to scientists, lead to the disappearance of summer ice in the Arctic that reflects the sun's warmth back into the atmosphere and helps regulate ocean and air temperature. It could expose billions more people to more extreme weather, cause increased flooding, result in the loss of ecosystems and reduce agricultural production. Temperatures rising above the optimal 1.5C could also result in profound health effects, says Juliette White, vice-president of sustainability at pharmaceutical group AstraZeneca. At the lower number, the IPCC has estimated that 14 per cent of the population will be exposed to severe heat at least once every five years. At 2C, this figure jumps to 37 per cent. Tim Lenton, who holds the chair in climate change at the University of Exeter, says about 10mn people globally were exposed to an annual average temperature of 29C or more in the 1970s. But as the world warms, hundreds of millions more could quickly find themselves experiencing such averages, according to a working paper from Lenton and others. Scientists, including Lenton, have identified other tipping points that could be reached if average temperatures rise by more than 1.5C.

Consequences for climate tipping points

Global warming levels at which tipping points will likely be triggered

- Less than 2C
- 2C to <4C
- More than 4C



Source: David McKay et al, 'Exceeding 1.5C global warming could trigger multiple climate tipping points' © FT

These include the potential melting of the Greenland ice sheet, which could eventually lead to large rises in sea levels around the world, and changes to convection currents in the north Atlantic that could cause big temperature changes in Europe and disruption to the monsoon seasons in Africa. 'Difficult but achievable' But just as the impact of global warming has become more apparent, with the world experiencing destructive climate-related shocks such as the catastrophic flooding in Pakistan and severe wildfires in the US, Australia and Europe, doubts about the feasibility of the 1.5C target have also grown. When the Paris Agreement was signed, scientists said the world could conceivably cut

emissions sufficiently to avoid breaching 1.5C but that it would be difficult. But since 2016, emissions of carbon-based greenhouse gases have increased each year except 2020 as the world burns through its so-called carbon budget — the cumulative amount of carbon we can emit before the world risks breaching 1.5C.

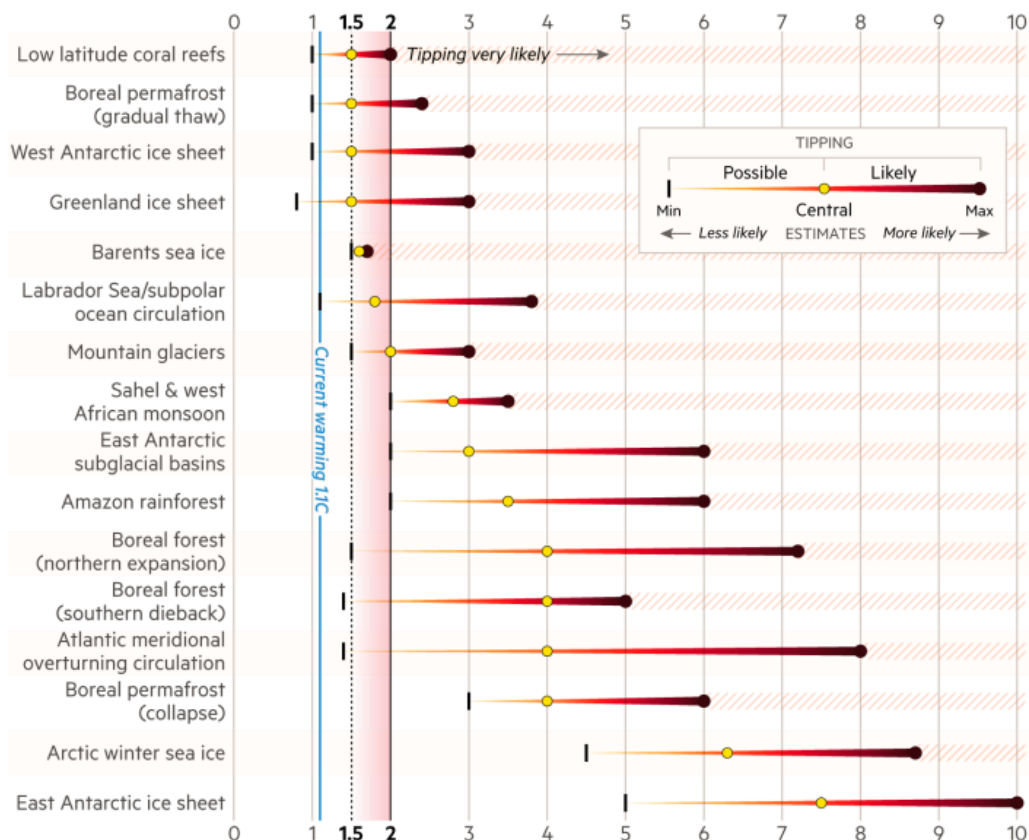
That means “something has to happen drastically in the next two to three years” if the world is to limit temperature rises to 1.5C, according to Joyeeta Gupta, professor of environment and development in the global south at the Amsterdam Institute for Social Science Research. “Everyone has been delaying action,” she says. “Now we have to go down so fast [in terms of emissions] that it is very painful.” But some scientists already believe the 1.5C target is dead. An anonymous survey of IPCC authors by Nature in 2021 found more than 75 per cent of those who responded thought heating would reach or exceed 2.5C by the end of the century.

Myles Allen, one of the key authors of the 2018 IPCC report on 1.5C, says that while it is too late for the world to stop warming simply by cutting emissions from fossil fuels, carbon capture and storage into geological formations can still play a key role in achieving the target. But Jaber told the oil executives assembled in Houston that even as new technology emerges, they needed to raise their game. “We know we are way off track,” he said. “We need a major course correction.”

Reasons for optimism Despite rising carbon emissions, Laybourn-Langton says there are signs change is afoot. Russia’s war on Ukraine has accelerated a transformation in Europe’s energy system, with a speedy roll out of renewable energy and energy-saving measures helping to offset the restart of some coal-fired power stations in response to reduced gas supplies from Russia. In the US, Joe Biden’s \$369bn Inflation Reduction Act is also propelling huge investments in green technologies.

Risk of climate tipping points escalates above 1.5C warming

Threshold estimates for global and regional tipping points (C)



Source: David McKay et al, 'Exceeding 1.5C global warming could trigger multiple climate tipping points' © FT

"People are recognising that we need to move off hydrocarbons, that they are ultimately bad for energy security and national security," says David Blood, who co-founded Generation Investment Management with former US vice-president Al Gore. "Those conversations are converging to make this [shift to decarbonise rapidly] more of a reality." Research by Exeter's Lenton and others identified three so-called positive tipping points that could trigger a cascade of decarbonisation in sectors representing 70 per cent of the world's greenhouse gas emissions. These are mandating the sale of electric vehicles, directing public-sector entities to buy plant-based proteins instead of some meat, and replacing the more polluting components of agricultural fertiliser with ammonia from renewable sources.

"I am optimistic [we can reach the 1.5C target] because I still have a glimmer of hope from the positive tipping points," says Lenton. "It could be a small thing that makes a big difference." Detlef van Vuuren, a senior researcher at PBL Netherlands Environmental Assessment Agency, points out that rapid advances in electric vehicle technology mean the transport system is "on the brink of progress". Nick Stansbury, head of climate solutions at Legal and General Investment Management, argues the best policy to ensure the world meets that 1.5C target is an effective price on carbon. "You can make the carbon intensive thing more expensive by taxing it, or you subsidise everything else," he says. In the meantime there is no shortage of public support for retaining the 1.5C target at the COP28 summit, not least from the people who helped instigate it seven years ago. "If we are not able to stay within the 1.5, it is going to be devastating for many small island developing states," says Luteru of the AOSIS. "We see 1.5 as our security blanket, our shield against the devastation [of climate change]." Discussions about whether 1.5C can be achieved any longer are missing the point, says van Vuuren. "It doesn't matter too much if 1.5C is realistic enough. The lowest we can get to is the most attractive," he adds. "It should not become 2. What it should mean is if we can't reach 1.5, we don't pass 1.6." Stansbury says it is still "perfectly feasible" to put ourselves on track to achieve the 1.5C target but, like others, warns that time is running out. "Is there a point where that window closes? Yes, there is, and that point is not that far away." The IPCC's Howden acknowledges that as things stand, achieving the 1.5C target is "a low-probability event" but pushes back against abandoning it. "We need to turn around the narrative of 'we can't do to this' to 'this is something we can't afford not to do'."

See Net Zero video.

Why are we talking about Britain's cost of living crisis? The real culprit is bosses' 'greedflation'

By Sharon Graham

Soaring profits are a bonanza for executives and shareholders, but all that's on offer for workers are real-terms pay cuts.

These days there is a lot of talk about a "cost of living crisis", but as Unite's most recent research confirms, we should actually be talking about a cost of profiteering crisis. From rising supermarket prices, to energy bills, to transport costs, we are all paying the price.



Take UK Power Networks, the National Grid power distributor. Last financial year, according to Companies House, it made a staggering £1.3bn pre-tax profit. Billions in profit, bonanzas for the executives and shareholders, while there are only real pay cuts on offer for workers.

One worker told my union: "The shareholders are obviously more important than the workers that have secured the company's reputation and extreme profits. They wouldn't even notice the difference if they paid us in line with inflation, it's just outright obstinance that they choose not to."

The profiteering crisis isn't just a few "bad apples" like UK Power Networks: it's systemic. In the first half of 2022, FTSE 350 companies saw their margins up by an average of 89% on the same period in 2019. That is astonishing corporate greed on a historic level. In the US, economists call it "price gouging". Their economists have identified a "second round" of inflation as many companies raised their prices well above their costs in a conscious attempt to boost profits.

In 2021, Tesco, Sainsbury's and Asda doubled their combined profits compared with 2019 to £3.2bn. Likewise, big brand food manufacturers such as Nestlé and Unilever have seen their corporate profits soar. From energy to food, hikes in our bills are seen in these soaring profits.

George, a tunneller on the HS2 project, hasn't had a pay increase "for ages". "The money is coming in but it's not staying in the account. Food, energy and fuel prices are rocketing and it's all coming out of our pocket." There is little or no money left at the end of every week and his savings are long gone.

Less immediately obvious are the massive profit jumps at the very start of supply chains. For example, 2021 saw the four giant agribusiness corporations, ADM, Bunge, Cargill and Louis Dreyfus, reaping profits of \$10.4bn (£8.6bn) - up on pre-pandemic levels by an astonishing 255%. In petrol pump supply chains, refineries and oil companies are smashing corporate profit records. Last year, BP recorded the biggest profits in the company's history - £23bn.

Probably the most blatant examples of all this planned, untouchable corporate profiteering are the container shipping giants like Maersk, Cosco and Hapag-Lloyd. Between 2019 and 2022, the container industry boosted its profits from \$7bn to \$210bn (£5.8bn to £174bn). It may seem improbable, but in 2022 reporting, they are set for an even bigger bonanza. Port owners, such as DP World and CK Hutchison, have also seen huge profiteering gains, and the biggest road freight operators were on the same page as their profits zoomed by 149%.

How has a broken economy created so many opportunities for corporate profiteering at our expense? Failed market pricing systems have allowed some companies, such as energy firms, to reap massive windfalls while their real production costs haven't changed. State-licensed monopolies have handed historic profits to North Sea oil extractors, electricity grids, privatised water operators and transport companies.

In other cases, big retailers or suppliers have exploited their "market power" to push up prices in circumstances of high demand and a limited supply of products. But we have also seen "price gouging" when crises create opportunities for what amounts to price fixing across sectors.

We are confronted by this cost of profiteering because of the stark inequalities in wealth and power that govern Britain. Capital, boosted by favourable governments, has managed to win enormous power that in turn allows it to set the rules of the economy and reap the rewards accordingly. The system isn't only broken, it is rigged.

That must be challenged if workers are actually to get a better deal and not be forced to pay the price for a crisis they did not create. Britain is a rich country. The money is there to fund the pay rises we need and deserve. It's only by taking on the profiteers that we can end the cost of living crisis.

Meanwhile.

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Cost of living crisis sees some people considering suicide. [Read article.](#)

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