CLIMATE CRISIS NEWSLETTER

A fortnightly newsletter brought to you by XR Gairloch

ISSUE 117 6/8/22

Editorial

July 28 was Earth Overshoot Day.......

Earth Overshoot Day is the milestone day by which we as humans have consumed all earth can sustainably produce for this year.

In 1971, Earth overshoot day was 21st December which means we used up the resources 10 days more quickly than they were able to be regenerated in a year. Today, this has increased to 156 days. For the rest of 2022, what we take from nature will not be regenerated.

From January 1 to July 28, humanity has used as much from nature as the planet can renew in the entire year. That's why July 28 is Earth

Country Overshoot Days 2022

For a full list of countries, sit overhood obey reproduced April 20, 2022 beginning to the Countries, sit overhood obey org/countries, sit overhood obey org/forece.

*Forace Overshoot Day updated April 20, 2022 beginning to the Countries, sit overhood obey org/forece.

*Source: National Footprint and Biocapacity Accounts, 2022 Edition data.footprintnetwork.org



Overshoot Day. The UK's overshoot day was even worse at the 19 May.

With almost half a year remaining, we have already used up our quota of the Earth's biological resources. If we need reminding that we're in the grip of a climate and ecological emergency, Earth Overshoot Day is it.

It would now take 1.75 Earths to provide for the world's population in a sustainable way and in Scotland, our consumption of materials is more than double our fair share of the Earth's resources.

Alarm as Earth hits 'Overshoot Day' Thursday: NGOs. Read article.

In historic move, UN declares healthy environment a human right.......



The United Nations General Assembly declared on the 28 July that everyone on the planet has a right to a healthy environment, a move backers say is an important step in countering the alarming decline of the natural world.

In a resolution passed at UN headquarters in New York City, the General Assembly said climate change and environmental

degradation were some of the most pressing threats to humanity's future. It called on states to step up efforts to ensure their people have access to a "clean, healthy and sustainable environment."

The resolution is not legally binding on the 193 UN Member States. But advocates are hopeful it will have a trickle-down effect, prompting countries to enshrine the right to a healthy environment in national constitutions and regional treaties, and encouraging states to implement those laws. Supporters say that would give environmental campaigners more ammunition to challenge ecologically destructive policies and projects

In historic move, UN declares healthy environment a human right. Read article.

New North Sea gas project to generate more CO2 than annual emissions from Ghana, lawsuit claims.....

UK government accused of 'astonishing dereliction of duty' in giving Shell go-ahead to drill Jackdaw gas field.

A week after the UK endured its hottest recorded temperatures in history, the government faces legal action for allegedly failing to take into account the climate-altering greenhouse gas emissions from a recently approved North Sea gas project.

Greenpeace is taking the government to court claiming it is illegal.



Greenpeace takes government to court over Jackdaw gas field. Read article.

More failures by the UK government......



Overall, the relative abundance of key animal and plant species in England is down 17.2% against a 2013 baseline, and the distribution of these species has also fallen - by 9.3% since 2011.

UK way off-track to deliver key nature, water and waste targets, Defra confirms. Read article.

Taking more and more of our money while destroying the planet.......

The basic philosophy of fossil fuel companies seems to be make as much money as you can at any cost. That cost seems to be at the expense of the general publics standard of living and the degradation of the planet.

Governments throughout the world must therefore do their job and protect us from extortionate profiteering and the destruction of our planet for our future generations.

Households are having to brace themselves for energy bills to rise to £3,359 a year on average from October and keep rising to as much as £3,729 a year by next April, with energy bills likely to keep rising until 2024.



Energy bills have already risen to average a record £1,971 a year from April and the energy cap that limits tariffs for most households is due to be updated every three months from October.

The cost of producing gas and electricity have not increased, in fact recent evidence suggests that the cost of producing electricity has drastically reduced due to renewable energy being cheaper to produce. Meanwhile Oil and Gas companies make huge profits.

BP sees earnings hit 14-year high amid anger over energy firm profits. Read article.

'Insult to millions': Shell and Centrica profits cause outrage as energy bills soar. Read article.

Big oil is wringing humanity dry. We need a fossil fuel non-proliferation treaty. Read article.

'Grotesque greed': immoral fossil fuel profits must be taxed, says UN chief. Read article.

You can change your name but you are still what you are......

Over the last couple of years Oil and Gas companies and related organisations have found it beneficial for their public image to change their names or reband themselves. Oil and gas companies like Shell and BP suddenly became energy companies (because they did a token amount of renewable energy). Other organization like the UK' governments Oil and Gas Authority magically became the North Sea Transition Authority (but still give out new oil and gas licenses) and the Oil and Gas Technology Centre which is now the Net Zero Technology Centre, although it boldly states on its website "New name, same purpose".



So lots of greenwash but basically "business as usual" with the Net Zero Technology Centre (NZTC) being a great example of this as they currently have an extensive amount of projects which aid and abet the oil and gas industry. Only 5 out of 66 of the net zero tech centre's live projects are designed to 'reduce emissions', and these 5 projects seek to do so by making oil extraction more efficient and cost effective, rather than by decarbonising Scotland's energy sector. The other 61 support the maximum economic recovery of North Sea oil.

In its current form, the NZTC is a talking shop. Meanwhile, its reports tout blue hydrogen and Carbon Capture and Storage (CCS) as viable technologies for curbing the climate crisis, ignoring scientists' concerns that the production of blue hydrogen produces 18% more emissions than gas, and that CCS is unlikely to work at scale. Luckily for the oil and gas industry, CCS infrastructure provides huge opportunities for 'enhanced oil recovery' from mature oil fields that lack the gas pressure that they need to extract the oil.

Scotland's Net Zero Technology Centre to work with partners in Japan and Egypt. Read article.

The Problem With Blue Hydrogen Energy. Read article.

Top 5 Reasons Carbon Capture And Storage (CCS) Is Bogus. Read article.

Heat Pumps and the Boiler Upgrade Scheme

Friends of the Earth has this week published a note obtained from Department of Business, Energy and Industrial Strategy (BEIS) confirming that the Boiler Upgrade Scheme has received a total of 4,100 applications - 2,500 of which have been approved and vouchers issued - since it opened on 23 May.

The £450 Scheme was first confirmed in last year's Heat and Buildings Strategy and provides homeowners with a grant to replace their gas boiler with a heat pump.

BEIS has stated plans to issue as many of its 30,000 voucher allocations for this year as possible, but Friends of the Earth believes the way the scheme operates won't be suitable to encourage most homes to participate. Applicants will be able to claim up to £5,000 towards the upfront cost of a heat pump, covering the product and the installation, but these costs can be up to £10,000.



Other common deterrents from heat pumps include concerns about the price of electricity and the perceived ability of the technologies to heat water and space efficiently. Homeowners must also consider the need for digging around their properties.

""Given the rise in energy bills, there will be fewer and fewer people who will feel as though they can afford to spend £5,000 on a heat pump right now," said Friends of the Earth's head of science, policy and research Mike Childs.

"It is right that we are investing with this scheme but the grants are not big enough and times are hard. They need to be more generous so more people can afford heat pumps. Unless that happens, there is little chance of the Government hitting its target of 600,000 installations annually by 2028."

Rishi Sunak, who is running for Conservative Party leader, cut VAT on heat pumps to zero as Chancellor. However, he has stated during TV debates that his preference as Prime Minister would be to scrap the boiler upgrade scheme and divert the funding to home insulation. Opponent Liz Truss has made no specific mention of energy efficiency or low-carbon heating in TV debates thus far, stating instead that she'd remove green levies from dual-fuel bills for homes.

UK's slow heat pump efforts will take 600 years to meet 2050 target. Read article.

System Change not Climate Change....

Bicycle is the slow death of the planet by Emeric Sillo

"Bicycle is the slow death of the planet."

"A banker made the economists think this when he said:

"A cyclist is a disaster for the country's economy: he doesn't buy cars and doesn't borrow money to buy. He doesn't pay insurance policies. Don't buy fuel, don't pay to have the car serviced, and no repairs are needed. He doesn't use paid parking. Doesn't cause any major accidents. No need for multi-lane highways.



He is not getting obese.

Healthy people are not necessary or useful to the economy. They are not buying the medicine. They don't go to hospitals or doctors.

They add nothing to the country's GDP.

"On the contrary, each new McDonald's store creates at least 30 jobs—actually 10 cardiologists, 10 dentists, 10 dietitians, and nutritionists—obviously as well as the people who work in the store itself."

Choose wisely: a bike or a McDonald's? It's something to think about.

PS: walking is even worse. Pedestrians don't even buy a bicycle!"

Climate Camp Scotland (28th July to 1st August 2022).........



Climate Camp Scotland are an autonomous group organising nationally against fossil fuels and for climate justice in Scotland. They aim to:

- prevent the expansion of Scotland's oil & gas industry and ultimately shut it down,
- ensure a just transition for workers in the fossil fuel industry;



- 3) build bridges between workers, front-line communities, and the climate movement; and
- 4) normalise mass direct action for climate justice.

This years Climate Camp Scotland was in Saint Fittick's Park, Torry, Aberdeen.

The camp was a safe space in the lovely St Fittick's Park(which Aberdeen Council and the

Harbour Authority are trying to turn into an industrial area) where there was a series of inspiring workshops/talks on climate and global justice issues. And where people could eat, learn and live together as well as take action against the corporate greed and profiteering of oil and gas that is keeping people in poverty and destroying our planet. The camp is also a response to the recent UK government approval for Shell to drill the Jackdaw gasfield in the North Sea, and comes as Aberdeenshire Council prepares to decide on proposals for a new gas-fired power station at Peterhead.



The actions involved a march into the center of Aberdeen with speeches from locals campaigners from Friends of St Fittick's Park, trade unionists and MSP Maggie Chapman protesting against the destruction of some of St Fittick's Park (the last green space in Torry, Aberdeen). This was followed by 100 climate activists undertake mass trespass in Aberdeen harbour protesting fossil fuel industry's 'corporate land grab' and in defence of St Fittick's Park, a local green space threatened by industrial development.



Activists were calling for a worker and community-led transition away from fossil fuels, and criticise a proposed 'Energy Transition Zone', spearheaded by oil tycoon Ian Wood, as a 'corporate land grab' that will industrialise the last accessible green space in Torry.

Activists are calling for a worker and community-led transition away from fossil fuels, and criticise the proposed 'Energy Transition Zone' (ETZ) as a 'corporate land grab' that would industrialise the last accessible green space in Torry. They are concerned that the ETZ

would prioritise hydrogen and carbon capture, expensive and unproven technologies, over policies to expand publicly owned renewable power and reduce energy demand.

Campaigners also want the UK government to cancel plans for new oil & gas fields, Aberdeenshire council to reject a new gas-fired power station at Peterhead, and the Scottish government to ensure communities and workers have a greater say in how money from its 'Just Transition Fund' is spent in the region. The camp follows UK government approval for Shell to drill the Jackdaw gas field in the North Sea, and coincides with Shell posting record profits of nearly £10 billion, as well as payouts to shareholders of £6.5 billion, in the past three months.



Steve Gray, a member of Aberdeen Trade Union Council said:

"What Aberdeen needs is a just transition for all its people. If we have a home retrofitting programme for the North East of Scotland, we can cut people's home heating bills by over 90%. This will support local supply chains and local people to have good, high quality jobs, far more than the so-called 'Energy Transition Zone', which is really a Freeport in disguise. The last thing that people in Torry need is an industrial wasteland on their doorstep. Instead, they desperately need the park that they've created over the last 20 years, for their physical, mental and community health."

Richard Caie, a spokesperson for Friends of St Fittick's Park said:

"We are very grateful to Climate Camp Scotland for helping to highlight the very unjust way the "energy transition" is being managed in North East Scotland and for their support for our campaign to save St Fittick's Park".

Jessica Gaitan Johannesson, a spokesperson for Climate Camp Scotland, said:

'As an increasing number of people experience the dire reality of climate collapse, and soaring energy prices victimise the most vulnerable, we need to remember that fossil fuel companies do not work for us. The proposed Energy Transition Zone in Torry is a stark example of their priorities: to exploit communities for profit for as long as possible. We're here in solidarity with the people of Aberdeen, making the vital connection between local and global climate justice.'

About Friends of St Fittick's Park

Friends of St Fittick's Park are a community campaign group based in Torry, Aberdeen. They are fighting to save St Fittick's Park for Torry residents and protect the wildlife of East Tullos Burn from industrialisation through a proposed 'Energy Transition Zone'.

STV news coverage of Climate Camp Scotland. **See video**.

Climate Camp march in through Torry. See video.



Greenwash, misinformation, hypocrisy and deceit

Failure to spot greenwash gives 'false confidence climate crisis is being addressed,' regulator warns. Read article.

Climate disinformation leaves lasting mark as world heats. Read article.

When Extreme Weather Reigns, Disinformation Pours. Read article.

Fossil fuel companies have been quietly leveraging their wealth to manipulate climate research. Read article.

Fashion brands pause use of sustainability index tool over greenwashing claims. Read article.

Boohoo, Asos and Asda face greenwashing investigations from UK regulator. Read article.

Coca-Cola among brands greenwashing over packaging, report says. Read article.

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

Steve Baker the MP for Wycombe and founder of the Conservative back bench anti-net zero group— Net Zero Scrutiny Group (NZSG) is at it again, becoming a regular in this section.

Aviation Tycoon Paid for Anti-Net Zero MP's Tory Gala Ticket. Read article.

Steve Baker Reboots Libertarian Bloc With Funding From Head of Climate Denial Group. Read article.

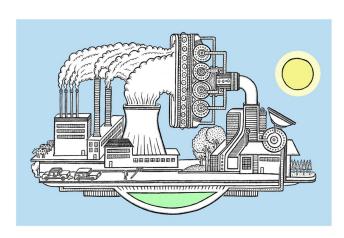


Technological Advances

Switzerland's 20 million kWh 'water battery' is now operational. Read article.

A new breakthrough could turn windows into active solar panels. Read article.

Gravity Energy Storage. See video.



Sustainable Farming/Food

Using far less chemical fertiliser still produces high crop yields, study finds. Read article.

Exploring the connections between Agroecology and Regenerative Agriculture. Read article.

Driest July in memory imperils Europe's crops. Read article.



The Scales of Justice

Indonesian islanders sue cement producer for climate damages. Read article.

Glencore pleads guilty to bribery related to African oil operations. Read article.

Scotland to ban oil and gas-fired boilers in all new homes from 2024. Read article.



Eco'nomic Recovery—Building Back Better (Mostly Not)

Government urged to unlock new finance streams to help local authorities reach net-zero. Read article.

Germany's €177bn climate budget to focus on building retrofit. Read article.



The Fight Against Fossil Fuels

Why The West Is Easing Its Sanctions On Russia. Read article.

Mining Giant Glencore Strikes One of Japan's Most Expensive Ever Coal Deals. Read article.

Revealed: oil sector's 'staggering' \$3bn-a-day profits for last 50 years. Read article.

Leaked: US power companies secretly spending millions to protect profits and fight clean energy. Read article.

The world is ablaze and the oil industry just posted record profits. It's us or them. Read article.



The Amazon Rainforest Is Still Burning

Report: Brazil Officials Ignore Deforestation. Read article.

Fires increase in Brazilian Amazon in July. Read article.

Tesco, Waitrose and Sainsbury's back \$11m initiative to tackle soy-led deforestation. Read article.



And the Congo rainforest....

Congo peat swamps store three years of global carbon emissions - imminent oil drilling could release it. Read article.

The Circular Economy

Dead solar panels are the hottest new recyclables.

Read article.

Circular economy in action around the world . Read article.



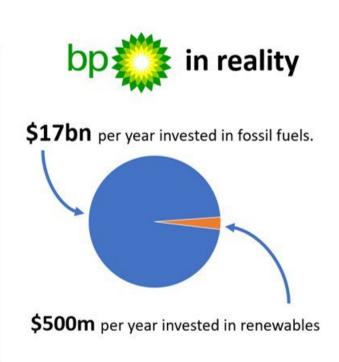
How to Think About Your Carbon Footprint

By Zahra Hirji

It's been nearly two decades since the oil giant BP released a calculator to help consumers figure out all the ways carbon was creeping into their lives, from commuting to work to buying food. The PR campaign was wildly successful: It popularized the very idea of an individual "carbon footprint."

The 2000s were a big time for climate accountability. That's when Hurricane Katrina flooded New Orleans, putting climate change front and center within the world's single biggest emitter and largest economy. Former US Vice President Al Gore released his Academy Award-winning film An Inconvenient Truth, and there was a big push to get climate legislation passed through Congress (it failed in 2010, in a cycle that appears to have just repeated itself). Today the framework of the individualized carbon footprint is everywhere: Thanks to the power of campaigns like BP's (which still exists), you could be forgiven for thinking that the burden of tackling the crisis rests squarely on your shoulders.





Drawing consumer choices into the center of climate outcomes helped fossil fuel companies look "like part of the solution rather than part of the problem," says Duncan Meisel, director of the Clean Creatives activist campaign, which pushes advertisers to cut ties with fossil fuel companies. "I think you can look at this as a way of BP, and the oil industry more generally, trying to take some of that really intense energy and momentum towards climate action and steer it in a way that won't impact their bottom line."

Today, as 20 years ago, systemic and broad-scale action, such as governments adopting aggressive climate policies and companies weaning themselves off fossil fuels, are the most important way to fight climate change. But the fact that Big Oil popularized the idea of individual responsibility doesn't mean there isn't truth to the notion that people can make a difference. The false dichotomy is in thinking the answer is one or the other.

"The responsibility is with every person and every institution," says Mike Berners-Lee, an environment professor at Lancaster University in the UK. "As an individual, the question to be asking is: What can I do to help create the conditions under which the world is capable of the big systematic change that we so urgently need?"

One big lever is voting for politicians who take climate change seriously. Another, if you can afford it, is spending your money on greener products and services. In addition to reducing your personal emissions, this helps normalize the use of such goods in your community, Berners-Lee says.

Moreover, purchasing power sends a message to businesses that you support their investment in a climate-friendly world. There's even public opinion polling to back this up. "For years, we've been asking, 'Would you reward or punish companies for their actions?" says Anthony Leiserowitz, director of the Yale Program on Climate Change Communication, whose team has identified a growing consumer base that is "rewarding and punishing companies for their action or inaction on climate change." Even more people would like to do this, Leiserowitz says, but they don't know how. "When we asked, 'Why don't you?', the number one answer by far is: 'I don't know what companies to reward or punish."

Taking individual action also gives the people pushing for systemic change more authority.

"We're hypocrites if we just live high-emission lifestyles while talking about needing to stop carbon-dioxide emissions," says John Cook, a research fellow at Monash University's Climate Change Communication Research Hub. "That reduces our effectiveness as messengers because we aren't consistent."

Recent research adds new gravity to the significance of individual climate responsibility. Consumers in rich countries, especially the super-wealthy, are so disproportionately driving climate change that their personal decisions have global consequences.

Solving the climate crisis won't happen unless everyone — including big fossil fuel companies — cuts their own pollution footprint. But individual action, as Cook puts it, is "one slice" of the climate action pie. It's also the slice you can control.

What is 'committed warming'? A climate scientist explains why global warming can continue after emissions end

By Julien Emile-Geay

By now, few people question the reality that humans are altering Earth's climate. The real guestion is: How quickly can we halt, even reverse, the damage?

Part of the answer to this question lies in the concept of "committed warming," also known as "pipeline warming."

It refers to future increases in global temperatures that will be caused by greenhouse gases that have already been emitted. In other words, if the clean energy transition happened overnight, how much warming would still ensue?



Earth's energy budget is out of balance

Humans cause global warming when their activities emit greenhouse gases, which trap heat in the lower atmosphere, preventing it from escaping out to space.

Before people began burning fossil fuels to power factories and vehicles and raising methane-emitting cattle in nearly every arable region, Earth's energy budget was roughly in balance. About the same amount of energy was coming in from the Sun as was leaving.

Today, rising carbon dioxide concentrations in the atmosphere are more than 50% higher than they were at the dawn of the industrial age, and they're trapping more of that energy.

Earth's delicate energy balance. See video.

Those carbon dioxide emissions, together with other greenhouse gases such as methane, and offset by some aspects of aerosol air pollution, are trapping energy equivalent to the detonation of five Hiroshima-style atomic bombs per second.

With more energy coming in than leaving, Earth's thermal energy increases, raising the temperature of land, oceans and air and melting ice.

Warming in the pipeline

The effects of tampering with Earth's energy balance take time to show up. Think of what happens when you turn the hot water faucet all the way up on a cold winter day: The pipes are full of cold water, so it takes time for the warm water to get to you - hence the term "pipeline warming." The warming hasn't been felt yet, but it is in the pipeline.

There are three major reasons Earth's climate is expected to continue warming after

emissions stop.

First, the leading contributors to global warming - carbon dioxide and methane - linger in the atmosphere for a long time: about 10 years on average for methane, and a whopping 400 years for carbon dioxide, with some molecules sticking around for up to millennia. So, turning off emissions doesn't translate into instant reductions in the amount of these heat-trapping gases in the atmosphere.

Second, part of this warming has been offset by man-made emissions of another form of pollution: sulfate aerosols, tiny particles emitted by fossil fuel burning, that reflect sunlight out to space. Over the past century, this global dimming has been masking the warming effect of greenhouse emissions. But these and other man-made aerosols also harm human health and the biosphere. Removing those and short-lived greenhouse gases translates to a few tenths of a degree of additional warming over about a decade, before reaching a new equilibrium.

Finally, Earth's climate takes time to adjust to any change in energy balance.

About two-thirds of Earth's surface is made of water, sometimes very deep wa-

Warming influence of CO2 and other greenhouse gases

Radiative forcing is the heating effect caused by greenhouse gases in the atmosphere.

Measured in watts per square meter, it represents the energy imbalance.

Carbon dioxide Methane Nitrous oxide CFC-12 CFC-11 15 other gases

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ter, which is slow to take up the excess carbon and heat. So far, over 91% of the heat added by human activities, and about a quarter of the excess carbon, have gone into the oceans. While land-dwellers may be grateful for this buffer, the extra heat contributes to sea level rise through thermal expansion and also marine heat waves, while the extra carbon makes the ocean more corrosive to many shelled organisms, which can disrupt the ocean food chain.

Earth's surface temperature, driven by the imbalance of radiant energy at the top of the atmosphere, and modulated by the enormous thermal inertia of its oceans, is still playing catch up with its biggest control knob: carbon dioxide concentration.

How much warming?

So, how much committed warming are we in for? There isn't a clear answer.

The world has already warmed more than 1.1 degrees Celsius (2 F) compared to pre-industrial levels. Nations worldwide agreed in 2015 to try to prevent the global average from rising more than 1.5°C (2.7 F) to limit

Ocean temperatures warm more slowly

Land and ocean surface temperature anomalies each year compared to the 20th century averages show ocean temperatures change more slowly.

Land average — Ocean surface average

1.4°C

1.2

1.0

0.8

0.6

0.4

0.2

-0.2

-0.4
-0.6

1880

1900

1920

1940

1960

1980

2000

2020

the damage, but the world has been slow to react.

Determining the amount of warming ahead is complicated. Several recent studies use climate models to estimate future warming. A study of 18 Earth system models found that when emissions were cut off, some continued warming for decades to hundreds of years, while others began cooling quickly. Another study, published in June 2022, found a 42% chance that the world is already committed to 1.5 degrees.

The amount of warming matters because the dangerous consequences of global warming don't simply rise in proportion to global temperature; they typically increase exponentially, particularly for food production at risk from heat, drought and storms.

Further, Earth has tipping points that could trigger irreversible changes to fragile parts of the Earth system, like glaciers or ecosystems. We won't necessarily know right away when the planet has passed a tipping point, because those changes are often slow to show up. This and other climate-sensitive systems are the basis for the precautionary principle of limiting warming under 2°C (3.6 F), and preferably, 1.5°C.

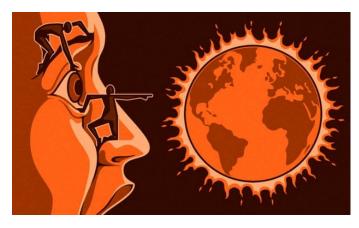
The heart of the climate problem, embedded in this idea of committed warming, is that there are long delays between changes in human behavior and changes in the climate. While the precise amount of committed warming is still a matter of some contention, evidence shows the safest route forward is to urgently transition to a carbon-free, more equitable economy that generates far less greenhouse gas emissions.

Berating climate deniers isn't enough - disruptive protest now seems the only way forward

By John Harris

The time has come to choose: do you trust the people in suits downplaying this emergency, or the activists lying in roads in an attempt to ward off catastrophe?

For the past year or so, I have been repeatedly listening to a critically acclaimed album, Ignorance, released in 2021 by the Canadian band the Weather Station. Its music



is graceful, poised and smooth, but it is also an almost conceptual set of songs about the urgency of the climate crisis and the disorientation of living in a culture that still refuses to acknowledge it. According to its chief creator, the singer-songwriter and former actor Tamara Lindeman, many of its songs evoke what happens when "this veneer of 'everything will be OK' disappears". That moment of revelation is perfectly captured in one song I have played over and over again - which is simply called Loss, and finds Lindeman recalling a conversation: "What was it last night she said? At some point you'd have to live as if the truth was true.

Amid unprecedented temperatures, fires and the grim pantomime that will eventually end with the selection of our next prime minister, I suspect more people than ever would now understand those words as a matter of direct emotional experience. For millions of us, this summer's heat is synonymous with an anxiety that is now impossible to shake off, and a renewed awareness of the small transgressions and outright hypocrisies that are required to get through each day. We perform them because of something that Lindeman's lyrics consummately describe: that very human talent for just about averting our eyes from what is directly in front of us, so as to live a quiet life; and a political culture that just about keeps the "everything will be OK" veneer in place.

These are things evident across the planet, and the UK has its own grim versions of them. One of the two remaining Tory leadership candidates has pledged to retain the current de facto ban on onshore windfarms; the other wants to reconsider some of the key policies built into the government's milquetoast 2050 net zero target (the positions of Rishi Sunak and Liz Truss, respectively). The Labour party has one big climate policy - its £28bn-a-year climate investment pledge - but is still not putting global heating anywhere near the centre of its basic message, and is thereby failing to acquire much consent for action on it.

Meanwhile, for a certain kind of media voice, the past week has been all about raging against climate sceptics and deniers and their influence on politics, as if pointing out that they are mendacious and dangerous is an act of bravery. The former BBC presenter Andrew Marr provided a good example in a monologue broadcast on his new show on LBC: "I for one have had enough of being told by pallid, shadowy, old businessmen and lazy ignorant hacks and sleazy lobbyists - who aren't real scientists, any of them - that the

science is wrong and that what is happening isn't happening," he said. "Enough!"

The key question of 2022 is not whether those people are wrong, both factually and morally: we know the answer to that. For the moment, I don't think many people need to be thinking very much about particular parties or politicians. What we surely need to focus on is the deep attachment to fossil fuels still locked into our economy and political system, and how to help the movements that definitely want to end it: Extinction Rebellion (XR), Insulate Britain, Just Stop Oil and the other forces that clearly understand the unspeakable gravity of the moment. This comes down to a question that still does not intrude on politics nearly enough: as these groups take the most direct kind of action, do you support them? And if - or, rather, as - the climate emergency deepens and the awful gap between politics and the sheer scale of what we are faced with only widens, what will you think if their actions take new, ever-more disruptive forms? To some extent, the way our media and politicians fend off the climate crisis accidentally confronts people with exactly those arguments. In one of our most regular national rituals, mainstream politics barely intrudes and instead, a protester fresh from some or other climate action is berated by Piers Morgan, Richard Madeley or one of the presenters from GB News or TalkRadio, and the only real options become clear: meaningful and radical action or nothing at all. An editorial last week in the Sun insisted that "we need a sober debate, free from the extremists' juvenile panic, on how we inch towards Net Zero in decades to come", which made panic look like much the more sensible option. In April, the Labour party demanded that the government take legal action to effectively ban climate protests that disrupt traffic and oil production. When he stood to be his party's leader, Keir Starmer took donations from a former boss of the RAC and AA, and the latter company-cum-lobby group's former chief financial officer. The people he apparently thinks should be locked up, by contrast, are motivated by a comparatively pure mission to confront the car industry and quickly finish the hydrocarbon era, and thereby avoid catastrophe. So who do you choose?

In some cases - Occupy is a good example here - sustained support for protesters and activists has bumped up against their lack of a coherent agenda. But the modern climate movement is not like that. The basic position shared by the central handful of groups is clear enough: net zero by a much earlier date than 2050. XR and the people backing the climate and ecology bill - including such politicians as the Greens' Caroline Lucas and Labour's Clive Lewis - envisage that change being driven by citizens' assemblies, set up to decide how such an aim will be reached. In the context of Westminster politics, such ideas may seem so unlikely as to be barely worth considering. But remember: Brexit is a madcap, massively disruptive project that defies just about every element of political and economic sense, but was until recently the preserve of cranks and obsessives and only became a reality when David Cameron decided to bypass MPs and ask the rest of us to decide. Less than a decade after it decisively burst into the political foreground, moreover, we are locked into it for keeps, with the support of both main parties. By comparison, is trying to set an example to other countries by doing exactly what the climate demands really so fanciful?

Activism and protest often trigger a kneejerk suspicion that they will alienate people and kill whatever cause they advocate. But experience suggests the exact opposite: just as successive waves of social reformers, the suffragettes and the anti-apartheid movement were stubborn, daring and creative enough to make their demands irresistible, so the people now lying in roads and charging into airports and refineries have conveyed the urgency of climate breakdown more successfully than anyone in a suit. There is a very good reason for that: it is only well outside centres of power that you can find the answer to a question that power and politics are dodging more than ever - how to live as if the truth is actually true.

Why can't we simply plant more trees to clean carbon dioxide from the air?.....

By Unknown writer

If we're to have any shot at meeting the climate targets set out in the Paris Agreement, scientists estimate that countries would need to remove billions of tons of CO2 from the atmosphere by mid-century. And that's just the start of things. We'd also have to continue removing increasing amounts every year thereafter.

"That's a hell of a lot of carbon to get rid of."



The reason carbon capture and storage (CCS)should exist is because trees alone won't solve the world's CO2 challenge but at the same time we shouldn't use CCS as an excuse to burn more fossil fuels as the oil and gas industry are currently proposing. We didn't get into this climate catastrophe by burning trees. Instead, we got into this mess by cheating. "We basically dug into the earth and pulled out hundreds of millions of years' worth of trees, in the form of fossil fuels, and then proceeded to burn them over a span of 100 years". There can never be enough trees in the world to rewind the amount of CO2 we've already put into our air—we are way past that point.

Planting trees is easier said than done

Even if trees could solve our CO2 problem, planting them is easier said than done. First, there's the issue of deforestation.

It's estimated that while 15 billion trees are cut down every year, only 5 billion are replanted—resulting in an annual net loss of 10 billion trees.

Companies like Drax who operate their biomass power plant in Yorkshire are being paid annually, hundreds of millions of pounds in subsides by the UK Government to burn annually, hundreds of thousands trees, a lot of which are imported from Europe and Canada.

With this in mind, some researchers suggest it would take the planting of 1 trillion trees, and then waiting for them to become fully grown, to have an effect on climate change. According to some research, 1 trillion fully grown trees would be able to capture, at best, 1,012 billion tons of CO2—about a third of all human CO2 emissions thus far.

Then there's the issue of suitable habitat. According to the EU-funded REFOREST project, one consequence of climate change is an increase in severe droughts, which happens to be a leading cause of forest decline. Thus, the more the temperature increases, the drier the land becomes, eventually reaching a point where it is inhospitable to many tree species.

Climate change also makes trees more susceptible to insect- and disease-caused damage or death—which can impact a forest's ability to sequester carbon. According to a Frontiers in Forest and Global Change study, forests damaged by insects and disease capture 69 % and 28 % less carbon respectively.

Game over?

What all of this says is that while they can play an important role in removing CO2 from the atmosphere, trees alone are not a viable solution. Natural solutions must work hand-in-hand with technological solutions, like direct air capture and permanent storage.

Yet all this discussion about trees, technology and direct air capture ignores the 36.7 billion metric ton elephant in the room: the annual industrial emissions.

All this talk is moot if we don't address the emissions coming from industrial facilities and fossil fuel-fired power plants. If we don't stop emissions at the source, we have no chance of meeting our climate targets—and it's simply game over with or without carbon removals.

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Good and Bad News



Reports and Research



Plastic and Pollution



Land. Sea and Ecology

Good and Bad News





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