

How Big Polluters are advancing a "net zero" climate agenda to delay, deceive, and deny

KEY STRATEGIES

MOTE: WE WANT PEOPLE TO THINK IT; POSSIBLE TO POLLUTE
AND OUT EMISSIONS AT THE SAMETIME.

- 1: LOBBY TO LOCK IN NET ZERO POLICIES NATIONALLY
- 2: MAKE SUPE UNFCCC IS FOCUSED ON OFFSETS AND NOT SMISSIONS CUTS.
- 3: FUND ACADEMIA SO WE HAVE SCIENTIFIC FOUNDATION FOR NET ZERO.

ENSUFE PLANS ...

1+1=0

- ARE TOO VAGUE TO BE USED AGAINST US
- OBSCUFE OUR GROWING EMISSIONS/PRODUCTION
- RELT ON MAPPOVEN TECHNOLOGY (THIS WILL GIVE INS AND "OUT" WHEN WE FAIL TO DELIVER AND ENSURE WE MAKE & IN THE MEANTIME)
- IGNORE SCIENCE OR SHAPE OUR OWN SCIENCE
- PELT ON EXPANSION AND EXTRACTION
- CONTINUE THE STATUS QUO \$ \$ \$ \$ OF GARAGE

NET ZERO DISTRACTION PLAN

- 1) Make het zero commitments that are heavy on the TR and light on the detail.
- 2) Make sure timeline is far off the laker the better so we don't adjually have to reduce emissions.
 - 3) Use announcements to greenwash our image.

GOAL: HAVE OUR CAKE AND EAT IT TOO.

FOCUS SHOULD BE PR - MAKE SUFE KEY MARKETS SEE OUR ADS

BUT CONVINCE POLICYMAKERS AND PEOPLE THAT NE'FE CHANGING?

The Big Con:

How Big Polluters are advancing a "net zero" climate agenda to delay, deceive, and deny

June, 2021







In collaboration with:































And:





































EcoNexus









































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INTRODUCTION

In 2020, natural disasters were occurring three times more often than half a century ago.¹ Already, 2021 is on track to have some of the most extreme climaterelated disasters yet.³ In just the first four months of the year, record-breaking typhoons,⁴ deadly low temperatures,⁶ devastating swarms of locusts,⁷ and unprecedented flooding⁸ have all plagued different corners of the globe. The common denominator in all these extreme events is climate change.

The rate at which the climate is now changing is spurring a crisis that risks billions of lives. The impacts of this crisis are nothing new to Indigenous and frontline communities. These communities and countries have contributed least to the crisis but bear its consequences first and worst, heaped on top of centuries of colonialist, racist systems. But as the impacts on lives and the planet worsen around the globe, people in the Global North are becoming more aware of the realities of the climate crisis—as well as other crises, such as hunger, health, and poverty that it exacerbates. In recent years more and more people are joining with young people, Indigenous Peoples, frontline communities, women and youth, and people of colour who have been leading the way to demand climate justice.

This surge in activism around the globe—from school strikes⁹ to sit-ins at U.N. climate talks¹⁰—has forced the multiple existential crises we face to the top of the priority list for governments, with corporations and financiers also proclaiming climate action. These actors are now scrambling to respond, before this demand for action grows even louder. But Big Polluters are responding with the same tricks they have used as part of a decades-long campaign that involves greenwashing themselves as the solution on one hand and deceiving the public while delaying real action on the other. Instead of offering meaningful real solutions to justly address the crisis they knowingly created and owning up to their responsibility to act beginning with drastically reducing emissions at source, polluting

corporations and governments are advancing "net zero" plans that require little or nothing in the way of real solutions or real effective emissions cuts. Furthermore, and as this report helps illustrate, they see the potential for a "net zero" global pathway to provide new business opportunities for them, rather than curtailing production and consumption of their polluting products.

After decades of inaction, corporations are suddenly racing to pledge to achieve "net zero" emissions.

These include fossil fuel giants like BP, Shell, and Total; tech giants like Microsoft and Apple; retailers like Amazon and Walmart; financers like HSBC, Bank of America, and BlackRock; airlines like United and Delta; and food, livestock, and meat producing and agriculture corporations like JBS, Nestlé, and Cargill. Polluting corporations are in a race to be the loudest and proudest to pledge "net zero" emissions by 2050 or some other date in the distant future. Over recent years, more than 1,500 corporations have made "net zero" commitments, an accomplishment applauded by the United Nations Framework Convention on Climate Change (UNFCCC)¹¹ and the U.N. Secretary General.¹²

But is "net zero" something to be celebrated? Can these corporations with dismal records of blocking progress and failing to take meaningful action be trusted? Are their pledges backed by plans for real action, and are their plans strengthening democracy and supporting the priorities of frontline and Indigenous communities?

In investigating the answers to these questions, this report presents clear evidence that "net zero" climate plans are simply the latest attempt by polluting industries, and the neoliberal governments doing their bidding, to escape responsibility to act to address climate change or to repair the damage they've imposed on ecosystems and frontline communities. Their proposed plans could even worsen the climate crisis.

In the first section, this report summarizes existing analysis of the ways that "net zero" plans, rather than representing a credible approach to climate policy, are a vehicle for corporate greenwashing by Big Polluters. Then, in analysing the "net zero" plans of an array of polluting corporations across sectors, the report documents in section 2 how these plans are dangerously masking further pollution and distracting from real action. And in section 3, through a series of illustrative examples, the report sheds light on why the focus on "net zero" by polluters is by design: It is the culmination of corporate capture of climate policy by Big Polluters, secured in part through vast corporate influence via lobbying, financial contributions, influence in academia, and public relations campaigns.

Finally, this report serves as an urgent call to action for all involved in global policymaking to change course now. "Net zero" schemes risk supplanting proven and meaningful action and instead locking in a polluting and destructive economy for decades to come. The planet and its people depend on world governments doing everything they can now to cut emissions to real—not net—zero. Anything else will have deadly consequences for billions of people's lives and livelihoods.

"NET ZERO": THE BIG CON

WHAT IS "NET ZERO"?

Increasingly, the concept of "net zero" is being misconstrued in political spaces as well as by individual actors to evade action and avoid responsibility. The idea behind Big Polluters' use of "net zero" is that an entity can continue to pollute as usual—or even increase its emissions—and seek to compensate for those emissions in a number of ways. Emissions are nothing more than a math equation in these plans; they can be added one place and subtracted from another place. This equation is simple in theory but deeply flawed in reality: These schemes are being used to mask inaction, foist the burden of emissions cuts and pollution avoidance on historically

exploited communities, and bet our collective future through ensuring long-term, destructive impact on land and forests, oceans, and through advancing geoengineering technologies, like those listed in the box on Dangerous Distractions. These technologies are hugely risky, do not exist at the scale supposedly needed, and are likely to cause enormous, and likely irreversible, damage.¹³ ¹⁴

CARBON COLONIALISM (CO2LONIALISM)

Historically exploited communities have rightly been warning that many of these polluters' schemes, like offsets and REDD+, entail a new carbon colonialism. By labelling them with claims of "net zero," Big Polluters are following similar patterns of historic domination, attempting to paper over neo-colonialism by using the language of environmental sustainability. They also shift the burden of climate action from the countries and corporations responsible for producing and consuming emissions, to frontline communities. 15 But the polluting actors that paid for the projects retain the credit for cutting emissions. This can create a dynamic where the countries doing the offsets removal projects disproportionately shoulder the burden of climate action while getting little to none of the credit toward their own Paris Agreement goals. In the geopolitical context, it also corners countries in the South into turning to carbon markets for finance, since the climate finance that is owed to them from countries historically responsible for emissions is being repeatedly denied. They also risk displacing people from their land, giving way to land grabs, and robbing people, particularly Indigenous Peoples, smallholder farming communities and women that steward the land, of their right to food, their cultures and livelihoods. 16 For communities already suffering the multi-faceted effects of the COVID-19 pandemic, a rush of offsets would likely spur compounded disaster.

WHAT ARE BIG POLLUTERS?

Big Polluters are the industries, made up of corporations and business or trade associations that represent them, whose operations are predominately responsible for the emissions that have caused and continue to drive the climate crisis. 17 Just 100 corporations are responsible for 70 percent of historical emissions.¹⁸ While the fossil fuel industry is a lead actor in this group, the term also includes other high-emissions and polluting industries, such as industrial food and agribusiness (responsible for one-third of global emissions),19 aviation (a top ten global emitter),²⁰ logging,²¹ retail,²² and technology,²³ as well as the groups that advance those industries' agenda. This also includes financial institutions and insurers that invest trillions into polluting and extractive business models.

Not only are these industries responsible for the majority of global emissions to-date, they are also central to the machine of denial, delay, and deceit that has led to a global failure to act to equitably address the climate crisis. For decades, Big Polluters have spent untold sums denying climate science, spurring doubt, and blocking almost every single meaningful climate policy put on the table. ²⁴ ²⁵ ²⁶ ²⁷ They have a proven track record of delaying, deceiving, and denying, and a financial interest in continuing to pollute, no matter the costs to people or the planet.

One of the most rigorously documented examples is the fossil fuel industry's climate denial. As far back as the 1960s, ExxonMobil and the fossil fuel industry knew the impact of its operations on the climate.²⁸ ²⁹ It buried the truth, embarking on a decades-long

campaign to muddy the debate, mislead policymakers, and ultimately stave off action for generations.³⁰ In the years to come, the fossil fuel industry was joined by automobile manufacturers,³¹ the freight industry,³² the aviation industry,³³ utilities,³⁴ industrial food and agribusiness,³⁵ and many more in funding and lobbying against common-sense environmental policy in order to maintain business as usual.

The cynical efforts of these industries have proven successful: for decades, attempt after attempt to advance just and meaningful climate policy has failed to deliver. This is why hundreds of thousands of people around the world have called on government officials to address Big Polluters' conflicting interests and protect climate policymaking from the undue influence of Big Polluters.



BIG POLLUTERS' DANGEROUS DISTRACTIONS

Big Polluters use "net zero" climate plans to unite a variety of risky technologies, including geoengineering technologies, and deeply flawed schemes. Some of the most common dangerous distractions are below. The bottom line is that each of them is a smokescreen that allows for continued emissions, and, if deployed at large scale, will have significant detrimental social, equity, and environmental consequences. Equally fundamentally, they distract from the rapid implementation of real solutions that are needed.

Burning Trees or Biomass (dubbed Bioenergy):

Spinning the burning of trees to produce bioenergy as a carbon neutral form of renewable energy and therefore a "net zero" solution. Evidence suggests that burning trees emits more greenhouse gas emissions than coal or natural gas, when taking into account the lifecycle of the emissions and when implemented at commercial scale.³⁶ ³⁷ ³⁸ If carried out at the scale suggested by Big Polluters, burning trees for energy is also likely to give way to land grabs, biodiversity loss, and rights violations for Indigenous Peoples, local communities, women, and frontline communities.³⁹

Carbon Capture and Storage (CCS): One of the two technological proposalses that makes up BECCS (see below), CCS—also called Carbon Capture and Storage (CCS) or Carbon Capture, Utilization and Storage (CCUS) is the proposition by Big Polluters that it's ok to continue to pollute, if they can somehow suck up that carbon dioxide, and store it in the ground or use it in other production to postpone emissions. However, nearly all existing CCS is used in service of Enhanced Oil Recovery (EOR), a process developed by the oil industry to reach deep oil reserves that would otherwise be inaccessible and non-viable. 40 "Because of this, the rebranding of 'Carbon Capture and Storage' is misleading and because it portrays CCS as a net benefit to the climate when it is mostly used to exploit more oil and because the process itself requires fossil fuels to carry out and to power CCS, the consumption of fossil fuels could increase by up to 40 percent."41

Bioenergy and Carbon Capture and Storage

(BECCS): A combination of two large scale theoretical technologies that involve growing and burning biomass, such as trees, to produce energy and then simultaneously sucking the emissions back out of the air and somehow storing it underground with Carbon Capture and Storage (CCS). Not only is it unproven to be energetically and ecologically viable and therefore essentially guaranteed to fail, it is also a threat to human rights, environmental justice, and food security given the amount of land that would be needed to grow enough biomass to burn, as well as the particulate matter and harmful pollution that arises from the combustion of biomass to produce energy.⁴² ⁴³ As with CCS, Big Polluters intend to use this process not only to continue polluting but for Enhanced Oil Recovery (EOR) to reach and extract oil in hard-toreach places, leading to even more emissions.

Carbon markets: These allow Big Polluters to continue polluting and supposedly achieve their emissions reductions by purchasing "carbon credits" from other countries or actors that have contributed less to climate change. They are proven to lead to fraud and speculation, and haven't substantially reduced emissions. 44 45 Not only do they attempt to compensate for emissions after the fact and fail to hold Big Polluters accountable, they often provide a further moneymaking opportunity for corporations. For example, Cargill is seeking to become a carbon offset developer itself, selling these dangerous schemes to others. 46 47

Direct Air Capture (DAC): The notion that Big Polluters can keep polluting and develop technology down the line that sucks the carbon dioxide from back out of the air. Like BECCS, this technology is untested at large scale, is very risky and extremely energy-intensive, 48 and is unlikely to ever work at the scale required on the timeline needed in a fair manner. 49 In order to store the carbon dioxide once it has been extracted from the atmosphere, DAC technology will likely need to work in combination with CCS or CCUS. It is therefore additionally dependent on yet more technologies that may never be effective at scale.

Nature-Based Solutions (NBS): When used by Big Polluters, this is a new name for the old idea of promoting large scale plantations and conservation

projects as an "offset" for continued fossil fuel use. It is used by Big Polluters to commodify nature, by allowing a corporation or government to compensate for their emissions by funding projects meant to absorb carbon emissions (by creating carbon sinks through, for instance, monoculture plantations and other forms of afforestation and agricultural practices) and claim that the carbon removal via these projects can balance out their continued high levels of emissions. Many of these schemes have been widely discredited and shown to not only fail to offset the emissions in question or only do so temporarily, 50 but also often drive human rights abuses. 51 52 For more info, see more on REDD+ below.

Carbon offsets: The idea that a polluting actor can "cancel out" its emissions by investing in projects that store or reduce carbon, such as forest "conservation" schemes, that often displace communities, claiming to reduce deforestation that is usually insignificant, not permanent or verifiable, as well as monoculture plantations that once cut down for logging, re-emit the carbon dioxide into the atmosphere. These have been

proven to not provide real benefit,⁵³ and risk the same abuses on people and the environment as the other Dangerous Distractions above.

Hydrogen: This is the latest silver bullet promoted by Big Polluters, which they claim will decarbonise the economy. But in reality, industries' 'hydrogen hype' is about ensuring they can carry on with business as usual. Big Polluters insist that hydrogen is 'green' and will be produced using renewable electricity, but globally less than 0.1 percent of hydrogen production is 'green', 54 with the rest coming mainly from fossil gas. Big Polluters claim that CCUS technology will make hydrogen 'clean' and 'low carbon', while maintaining their destructive business models—and even receiving massive public subsidies to do so.55 So-called 'green' hydrogen is also highly problematic: Northern countries and their corporations are planning to exploit Southern communities and their resources to produce it for their own 'green' consumption. Hydrogen is now a main stay within the "net zero" plans of all Big Oil and Gas majors.⁵⁶



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CASE STUDY- WHY REDD+ IS JUST ANOTHER DANGEROUS DISTRACTION

Reducing emissions from deforestation and forest degradation (or REDD+, with the "+" representing "forest conservation and enhancing forest carbon stocks"), is a program launched under the UNFCCC more than 15 years ago. ⁵⁷ The idea was that it would reduce emissions by financially incentivising actors to avoid deforestation and forest degradation. But in the one and a half decades since it began being implemented, it has proved hugely controversial and anything but a success. ⁵⁸ ⁵⁹ ⁶⁰ ⁶¹ ⁶² Through seeking to financialize nature and put a tradeable price on it, it has also failed to deliver its vision of reducing emissions to the scale suggested. ⁶³

Since its launch, more than 350 REDD+ projects across 53 countries have been established with a price tag of more than 24 billion euros in public finance.⁶⁴ Collectively, these projects cover a land area the size of Morocco.

REDD+ has been described as "one of the most controversial environmental policies that has ever existed. It has divided governments, civil society and Indigenous Peoples' organizations, and proved to be highly controversial within the United Nations itself".⁶⁵ Though polluters and some conservation NGOs continue to promote REDD+ as a climate solution, human rights groups and Indigenous Peoples' organizations have consistently reiterated its role as a "facilitator of dispossession and resource extraction, and a false solution to the climate crisis," ⁶⁶ and as a "scheme that consolidates corporate control over territory and expands profits". ⁶⁷

REDD+'s shortcomings include that it:

1 Reduces the complex ecosystems of forests to 'sticks of carbon.' This shifts the focus away from conserving biodiversity and instead to the dangerous approach of prioritizing the planting of fast-growing trees on the fastest timeline possible

- in the greatest number possible, regardless of whether this approach works in the context of natural ecosystems.
- Violates the rights and disrespects the cultures of Indigenous forest communities. They can be displaced from their traditional land and left out of decision-making processes that directly impact their livelihoods.
- 3 Lacks mechanisms that consistently address systemic weaknesses, such as how to ensure that protecting forest in one place doesn't simply shift the deforestation to another, as well as questions of accurately quantifying and accounting for emissions.
- 4 Can lead to or promote a variety of devastating impacts, including land grabs, forced displacement, militarization, and loss of livelihoods and biodiversity. These varying impacts have been documented through published reports and media coverage.

Despite these shortcomings and its consistent controversy, REDD+ has continued to be propped up as a solution to the climate crisis by polluting countries and corporations.



THE FOUR CONCEPTUAL FLAWS OF "NET ZERO" CLIMATE PLANS

The problems with Big Polluters' "net zero" emissions plans are numerous, but there are four profound flaws worth highlighting here.

First, the vast majority of these plans are centred on a "net zero" by 2050 timeline with little action taken to reduce emissions at source for decades—far too long a timeline for a credible emissions reduction plan that ensures we keep global temperature rise to below 1.5 degrees Celsius. 68 Many of these plans lack real benchmarks between now and 2050, which allows business as usual for decades before any action is required⁶⁹ and ignore basic principles of global equity, which demand that wealthier entities act fastest to reduce emissions and provide support for others to follow. And yet, when these plans are announced, those behind them receive the brand benefit or credibility without ever having to do the work of cutting emissions. In both cases, that's far too little, far too late, 70 given we need to undertake the transformative work necessary to drastically decrease emission by 2030 at the latest.71

Second, these plans rely on highly improbable schemes to make the emissions disappear, as if by magic. (See the Dangerous Distractions box.) In some instances, this looks like technofixes that don't yet exist, or don't exist at scale, like carbon capture and storage.⁷² These technologies have numerous challenges, not the least of which is that they are likely to sustain or increase emissions and consumption of emissions-intensive products like fossil gas, and spur tremendous harm to communities that risk being displaced or adversely affected. They would also ensure the continuation of a host of other ecological and human rights abuses associated with fossil fuels, such as methane emissions and water contamination from fracking and oil drilling, as well as pipeline leaks and explosions. Furthermore, they may not work—in some cases capturing only 10 percent of actual emissions rather than the unfounded claims of 85 - 90 percent.73

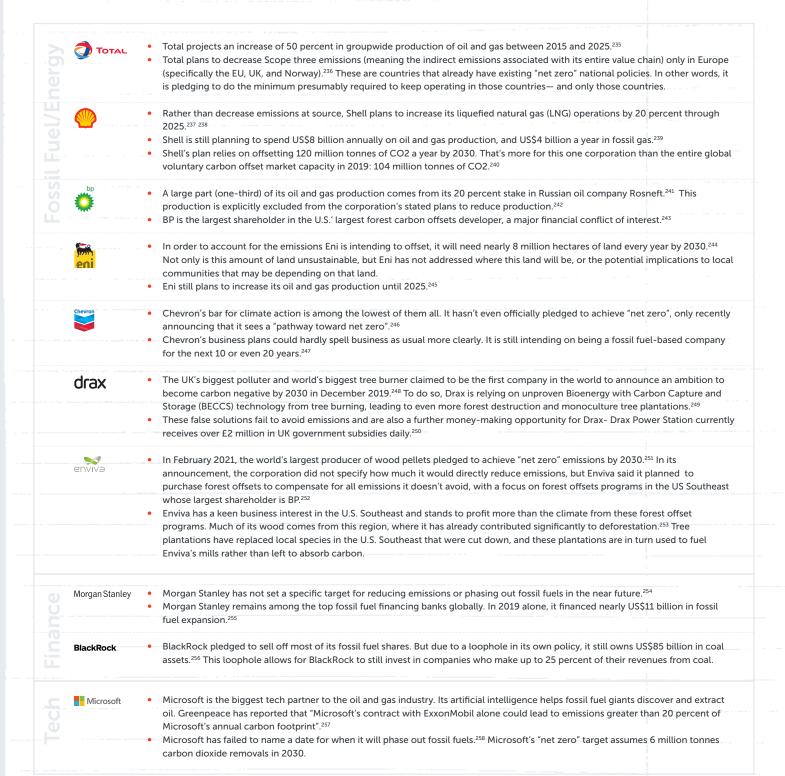
In other instances, suggesting these emission can disappear looks like so-called "Nature Based Solutions". These schemes overlook the reality that the world's natural carbon sinks such as forests cannot be forced to absorb more carbon, or absorb it faster, just because Big Polluters are burning fossil fuels at a reckless rate.⁷⁴ ⁷⁵ There's also the reality that Earth's nature does not have enough capacity to absorb the amount of carbon that all these "net zero" commitments imply. In addition, some of the programs Big Polluters invest in have been found to invest in projects that would have happened regardless, and in others are found to cause an overall increase in emissions. A recent investigation by the Guardian and Unearthed found that carbon offsets in the form of forest preservation being used by major airlines to claim "carbon-neutral flying" were "based on a flawed and much-criticised system" —a situation justifiably described as "scandalous".76

Thirdly, the concept of "net zero" as enshrined in the Paris Agreement assumes one tonne of carbon emitted from any source has the same value as one tonne of carbon sequestered. But this ignores profound differences between the longevity and stability of geological and terrestrial carbon stocks (from burning fossil fuels).⁷⁷ "Net" targets based on this assumption are, therefore, inherently flawed and perpetuate the myth that business as usual emissions can continue in one sector and be removed somewhere else.⁷⁸

Finally, and perhaps most importantly, "net zero" schemes ignore the simple truth that the climate crisis is not a problem of technology but a problem of political will and entrenched power relations. We have the just solutions we need to address the climate crisis. ⁷⁹ 80 81 82 Communities on the front lines of the crisis have been demanding these solutions for years. What we lack are the policies that would require drastic emissions reductions and fast track the implementation of these solutions. And we lack them because the same polluters now pushing "net zero" have spent decades interfering in climate policy and muddying the public discourse. ⁸³ 84 85 86 87

TABLE 1: A FEW EXAMPLES OF THE MANY FLAWS OF BIG POLLUTER "NET ZERO" CLIMATE PLANS

The Fine Print: How we know their plans to go "net zero" means more polluting and Dangerous Distractions





- United's plan does not detail any specific action it will take to reduce its emissions time before 2030.²⁵⁹ Instead, its plan assumes the vast use of Direct Air Capture (DAC) technology that doesn't yet exist at scale to capture carbon dioxide from the air and store it in the ground.
- United's investment in DAC could even lead to greater fossil fuel extraction—and greater profit for it and other corporations.²⁶⁰ The program United is partnering with intends to use this process to continue for Enhanced Oil Recovery, i.e., to extract even more fossil fuels in hard-to-reach places
- To put the feasibility of this plan into perspective if the same geoengineering plants were to be built to offset the world's emissions in 2019, this would require four million acres of land²⁶¹

- ▲ DELTA Delta announced its intention to invest US\$1 billion over next 10 years to help compensate for its emissions.²⁶² This amount (notably, only a fraction of its profits) is in many ways a catch-all fund that encompasses much of the spending it was already intending to make to support its business growth, such as new planes.
 - Delta is offering Deloitte and corporate customers "sustainable" air travel packages for these corporate customers to offset their own emissions.²⁶³ It counts these flights as part of its own reduction even if supposedly more sustainable biofuels aren't being used
 - One of the programs in Zimbabwe Delta buys credits from to offset its emissions is "undermin[ing] livelihoods" and is "strongly opposed" by local communities, 264 despite Delta insisting it "protects forests...while supporting the wellbeing of local communities" 265

- easyJet plc EasyJet is opting to buy offsets to compensate for its emissions, at a price so low it has no incentive to reduce emissions anytime soon: US\$4.3/tCO2.266 This is a fraction of the price currently used under the EU-ETS, an emissions trading scheme that has resulted in massive profits for Big Polluters and not reduced emissions as promised.²⁶⁷
 - EasyJet is using political interference to stop climate action: It lobbied against environmental taxes on flights—until it was offered £600m (approx. US\$770 million) from the UK government as part of COVID-19 relief.²⁶⁸

Walmart : Walmart's plan entirely overlooks its Scope three emissions, or all the emissions that occur further down its value chain. 269 270 A September 2020 analysis estimated that this category of emissions actually accounts for 95 percent of its carbon footprint.²⁷¹

- amazon Amazon has pledged to be "net zero" by 2040. Its climate investments suggest it is backing Dangerous Distractions (see Box) as central to this. Amazon's founder has announced a \$10billion Bezos Earth Fund to help save the climate. Its first round of granting included giving hundreds of millions of dollars to some of the biggest proponents of carbon offsetting programs, rife with loopholes and major risks for local communities.²⁷² ²⁷³
 - Like Microsoft, it remains a critical tech partner to the fossil fuel industry, enabling further oil and gas production.²⁷⁴

- JBS pledged to invest US\$1 billion over the next decade in its "net zero" program (without detailing what this program entails) and to allocate US\$100 million by 2030 in "research and development projects" for carbon capture and "on-farm emissions mitigation technologies" - in other words, carbon offsets, 275
- JBS' commitment to eliminate deforestation in its supply chain by 2035 in effect means it will continue contributing to deforestation for the next 14 years (until 2035), instead of immediately ending the deforestation associated with its supply chain arguably one of the most effective and quickest ways for JBS to decrease its emissions.

- Rather than decreasing the production of its most emission-intensive products such as industrial meat and dairy, analysis by Grain found that Nestlé is planning on increasing production of dairy, livestock, and commodity products by 68 percent by 2030.²⁷⁶ It's intending to rely primarily on offset credits to make up for this drastic increase in emissions.
- The US\$1.2 billion Nestlé has pledged to invest in "regenerative agricultural practices", which can include destructive practices and is questionable in terms of carbon sequestration, is a miniscule 1.5 percent of the sum it transferred to shareholders in 2020.²⁷⁷
- · One of the programs Nestlé has invested in to improve agriculture practices, 4R Nutrient Stewardship Programme, led to more inefficiency and greater use of fertilizers.²⁷⁸

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CORPORATE "NET ZERO" FRENZY: THE GREAT GREENWASH

In 2020, analysis by Oil Change International evidenced the total failure of climate plans of eight Big Oil and Gas majors to meet even the basic pillars of real climate action in line with the Paris Agreement's commitment of keeping global temperature rise to 1.5 degrees Celsius.⁸⁸ But this failure goes way beyond Big Oil and Gas, as analysis by contributors of this report and others of the "net zero" climate action plans of major polluters across sectors reveals.

Table 1 summarizes just some of the facts that illustrate why 17 corporate "net zero" climate commitments spanning the fossil fuel, energy, food, agriculture, technology, finance, aviation, and retail industries are anything but real action. Across the board, while these corporations are proclaiming climate championship in the form of "net zero" promises, the fine print of their plans tells a very different story—that they will stop at nothing to continue to pocket a profit, and that they have little to no intention of decreasing emissions. In addition to Table 1, additional case studies provide a deeper dive into the specific loopholes of the "net zero" plans of JBS, Shell, and Total SA.

Initially, this report was intended to analyse the quantifiable aspects of Big Polluters' "net zero" climate action plans collectively. The authors set out to examine the details of these plans as a whole and quantify the amount of land that would be needed to offset the intended emissions, to determine whether such plans were possible within planetary constraints. (Others such as ActionAid International⁸⁹, Grain⁹⁰ and Greenpeace⁹¹ have tried to do some of this quantification with individual corporate "net zero" plans). But collectively, the plans of these Big Polluters are so vague that it was impossible to understand how the corporations are planning on achieving "net zero". Therefore, this calculation was impossible without making too many assumptions. The lack of detail further drives home the reality that these plans represent corporate lip service with no clear pathway not real action.

For example, United Airlines is counting on building carbon direct air capture plants to be able to use Direct Air Capture (DAC) technology that doesn't exist yet to literally hope to suck carbon out of the air and pump it into the ground (a process, by the way, that is intended to be used for Enhanced Oil Recovery to extract even more oil in hard-to-reach places). Walmart's climate plan entirely overlooks Scope three emissions (meaning the emissions associated with the products it sells), a type of emissions that counts for an estimated 95 percent of its carbon footprint. Fossil gas will continue to represent 90 percent of oil major Eni's production and it is still planning to increase oil and gas production over the coming years, a feat that the corporation proposes will be compensated for through reforestation schemes that have been criticised as fake forests. 92 93 BlackRock, the world's largest asset manager, has pledged to reach "net zero" emissions in its portfolio by 2050. But despite pledging in 2020 to sell off most of its fossil fuel shares "in the near future", it still owns US\$85 billion in coal assets due to a "loophole" in its policy. The list of failings goes on and on and on.



EIGHT FUNDAMENTAL FAILINGS

As Table 1 and these deeper dives help illustrate, the flaws of these Big Polluter "net zero" plans are vast. But central to most of them are eight fundamental failings:

Too vague to mean anything: Their systematic failure to detail concrete plans to decrease emissions at source. This vagueness is likely designed to deflect deeper scrutiny.



Rely on Dangerous Distractions, not real solutions: The plans rely primarily on mechanisms that don't reduce emissions, such as carbon offsetting, as well as on futuristic, unproven, and dangerous geoengineering technologies such as Bioenergy with Carbon Capture and Storage (BECCS) and Direct Air Capture (DAC) that are unlikely to ever work at scale and guaranteed to cause great harm to communities, ecosystems, and biodiversity.

Ignorant of science and logic: The lack of credible science and data suggests the authors of these plans know and choose to ignore the fact that these "net zero" plans, combined with continued growth projections and lack of decreasing emissions at source, are not possible at the scale suggested.

Investment in the status quo: The plans channel corporate finance into funding organizations and initiatives that are focused on dangerous schemes, rather than proven real solutions and real emissions reductions controlled and led by frontline communities.



Impossible arithmetic: There is literally not enough available land for all the proposals to remove by various means (tree planting, ecosystem reforestation, etc.) all of the corporate and government emissions that they propose to maintain or increase.



Profit over people and the planet: The plans blatantly disregard the needs and priorities of Indigenous Peoples, frontline, peasant, and historically exploited communities whose lands, livelihoods, cultures, and lives will be directly impacted and undermined as a result of these plans.



Rejection of systemic change: Globally, people recognize that corporate power, structural racism, colonialism, and other systemic issues are driving climate change and other crises—and are demanding systems change. But through these "net zero" plans, the exploiters, abusers, and extractors that built a broken system that destroys the planet for their profit are attempting to position themselves as the "fixers". In doing so, they plan to lock in, rather than transform, these broken systems.

Across sectors, Big Polluters have no intention of real climate action now, or anytime soon. And as this analysis makes clear, their "net zero" promises are as empty as all the countless others they have made over the past decades and are being used to attempt to trick the public into believing that they can still supposedly be the solution to the very crisis they caused.





CASE STUDY- JBS' "NET ZERO" PLAN: A COMMITMENT TO CONTINUE DEFORESTATION BY THE WORLD'S LARGEST MEAT PRODUCER

In March 2021, and the day after it announced record profits, ⁹⁴ JBS, the world's biggest meat producer, committed to eliminate deforestation across its global supply chain by 2035, and to address emissions throughout its supply chain (Scope 1-3) to reach "net zero" emissions by 2040.⁹⁵

JBS pledged to invest US\$ 1 billion over the next decade in its "net zero" program (without detailing what this program entails) and to allocate US\$ 100 million by 2030 in "research and development projects". The two kinds of projects it highlighted as a priority include carbon capture and "on-farm emissions mitigation technologies" - in other words, carbon offsets. ⁹⁶ (For more information about why these schemes are not real solutions that avoid emissions, see the Dangerous Distractions box). Beyond this, the details are fuzzy as JBS has yet to provide a roadmap to detail exactly how it will fulfil the components of its "net zero" pledge.

JBS' commitment to eliminate deforestation in its supply chain by 2035 is both worrying and overdue. It's overdue because JBS is already linked to over 100,000 hectares of deforestation in Brazil (more than any other meat producer in the Brazilian Amazon), an estimated 3/4 of which might be illegal.⁹⁷ It's worrying because in effect the timeline for this essentially means it will continue contributing to deforestation for the next 14 years (until 2035), instead of immediately ending the deforestation associated with its supply chain, arguably one of the most effective and quickest ways for JBS to decrease its emissions.

The corporation's worrying track record goes well beyond its alleged illegal deforestation. In 2017, its parent company agreed to pay US\$3.2 billion to settle a case that claimed it bribed 1,900 politicians in Brazil.98 This is one of the biggest fines in corporate history.

CASE STUDY- SHELL'S "NET ZERO" COMMITMENTS: A ROADMAP FOR BUSINESS AS USUAL

Shell has committed to becoming a "net zero emissions energy business by 2050" and claims that its total carbon emissions peaked in 2018.⁹⁹ It has also committed to reduce emissions from consumers burning the fossil fuels that it extracts and refines. But an analysis of the details of its plans belies its claims and exposes chinks in its armour. As do the words of its own chief executive Ben van Beurden, who was quoted as recently as 2019 saying, "Despite what a lot of activists say, it is entirely legitimate to invest in oil and gas because the world demands it".¹⁰⁰

Shell has committed to gradually reduce oil production by around 1-2 percent each year through divestments and natural decline. Yet Shell's communication to its shareholders indicate that the corporation's oil and gas production will continue to make up a large share of its budget at US\$8 billion.¹⁰¹ In addition, it will still spend US\$4 billion on its liquefied natural gas (LNG) business and up to US\$5 billion on chemicals and refining. Shell plans to increase liquefied natural gas (LNG) volumes and markets to deliver more than 7 million tonnes per annum of new capacity by 2025.

To achieve its "net zero" by 2050 commitment, Shell aims to rely on the use of Nature-Based Solutions (NBS) to compensate for its emissions. By 2035, Shell will also need to capture and store 25 million tonnes of carbon a year. Shell also proposes to compensate for a total emissions of around 120 million tonnes a year by 2030, and wants to establish a global NBS market. This is unrealistic, given the entire voluntary carbon offset market (meaning the offsets available to purchase by all global actors) in 2019 was only 104 million tonnes. The sheer magnitude of Dangerous Distractions Shell is relying on to achieve "net zero" clearly points to its intention to continue to pollute rather than decrease emissions at source.

According to Carbon Brief, Shell's global energy vision "Sky 1.5" lays out a vision for the world that plans for the continued use of oil, gas, and coal until the end

of the century, which is also indicative of its own intention. This global scenario also proposes a major reforestation programme that will require 700 million hectares of land over the century, an area close to the size of Brazil. 104

Shell is hiding its business as usual scenario behind a façade of "net zero". In the words of Professor Wim Carton of Lund University: "If we start normalising the use of these planetary scale negative emissions, it allows a company like Shell to basically claim they are in line with apparently whatever climate target you come up with, just by assuming large-scale negative emissions and at the same time saying we need to invest in oil and gas development". 105

CASE STUDY- TOTAL SA: GRABBING LAND IN THE CONGO TO REACH "NET ZERO" AND AVOID REDUCING EMISSIONS

Total SA has pledged to achieve "net zero" emissions by 2050. 106 Part of its plans involves eyeing up more than 10 million hectares of land reserve in Africa to plant trees. 107 But where will this land come from, and is it Total's to take? And can any number of trees scientifically or morally accommodate for Total's intention to continue to pollute?

On 16 March 2021, Total SA and French consultancy firm Forêt Ressources Management (FRM) signed an agreement with the Republic of Congo to plant a 40,000-hectare forest on the Batéké Plateaux. 108 Total's intention was that the planted trees would serve as a carbon sink that will sequester more than 10 million tons of carbon dioxide over 20 years. This is just one of many deals Total will need to strike in order to claim it is "compensating" for its continued emissions.

But much of this land in this area of the Congo is home to Aka Indigenous Pygmies and Bantu farmers. Mapping of this land suggests that it is used to sustain the lives and cultures of these communities and is looked after by them. 109 It is likely that they would be evicted from these lands by Total or the government. Total has not publicly addressed this, claiming only that

its offsetting projects will spur jobs and have "a positive impact on several thousand people". 110 It also pledged to start a fund to support health and education in neighbouring villages. But it has disclosed no details about these plans, nor whether any of this has even been discussed with these communities, or if they are even aware of the potential that they may be evicted from this land.

The type of trees Total plants are also problematic. In their projects in the Congo, they have reportedly used foreign trees from Australia or Asia, that undermine local biodiversity and risk destroying the natural ecosystem. Moreover, Total intends to cut down the trees and process them for wood or energy. So there is little, if any, environmental benefits. In reality, Total is likely creating a wood farm using invasive species of trees under the guise of climate action.

Total's eagerness to demonstrate its commitment to climate action in the Congo is likely not coincidental. In 2019, it acquired a permit for further oil exploration, a deal that has been described as a "death-knell for this globally important habitat for people and wildlife". 112

HOW BIG POLLUTERS ARE OF CHESTRATING THEIR WAY DUT OF THEIR CLIMATE CRIMES WITH "NET ZERO"

How did we get here? In a matter of years, "net zero" has gone from a concept in scientific discussion to increasingly forming the foundation for weak "net zero" plans have taken hold of mainstream discourse—and become the predominant approach for corporations and governments alike. Beyond examining corporate "net zero" plans and their loopholes, this report aims to shed light on how "net zero" came to be the climate buzzword of the day. The findings indicate that, more than simply using "net zero" pledges to greenwash their plans to continue to pollute, Big Polluters play a key role in shaping "net zero" as a distraction—working behind the scenes to displace real solutions. "Net zero" is the final play in their great escape from responsibility for the climate crisis.

Though there's absolutely no excuse for this manipulation and neglect, the multitude of loopholes of these so-called corporate climate action plans shouldn't come as a surprise, given who these actors are and what their track record is. Big Polluters have a decades-long, evidenced history of delaying, deceiving, and denying. Some of them knew more than half a century ago about the dangerous implications of their products and business practices.

Big Polluters have deployed a variety of tactics to keep polluting and profiting. Our analysis illustrates that "net zero" is simply the latest, nefarious evolution of Big Polluters' campaign of obstruction and delay. The strategies outlined here will be familiar to anyone who has studied Big Polluters'—or Big Tobacco's—playbook. What's new is how they've applied this playbook to position "net zero" squarely at the centre of the policymaking table—displacing real solutions in the process.

Strategy 1: The buy off: Buy political goodwill to help secure "net zero" policies Strategy 2: The lobbyist lock-in: Influence policy to lock in "net zero" agenda Strategy 3: The deck stacking: Shape academic research to validate "net zero"

STRATEGY 1: THE BUY OFF: BUY POLITICAL GOODWILL TO SECURE "NET ZERO" POLICIES

The lobbying machine of the industries pushing "net zero" schemes is formidable. It is the same machine that undermined and weakened the Kyoto Protocol¹¹³ ¹¹⁴ ¹¹⁵—not to mention just about every concerted effort to advance meaningful climate policy in countries like the United States that are the most responsible for historic emissions. It counts on individual corporate lobbyists alongside some of the most powerful trade associations in the world, like the American Petroleum Institute¹¹⁶ ¹¹⁷ ¹¹⁸ and the US Chamber of Commerce. ¹¹⁹ ¹²⁰ ¹²¹ These groups are so effective and influential that they have not only been able to stop real solutions from taking hold, but also they've advanced policies that enhance the profits of their members and clients.

Securing a "net-zero" tax credit in the U.S.

One such example of a policy that undermines real solutions while propping up profits of polluters via "net zero" related schemes is a tax credit in the United States called the 45Q tax credit. The development of the 45Q tax credit provides a snapshot of the ways Big Polluters shape political conditions that are favourable to their "net zero" scheming. The United States Internal Revenue Code Section 45Q credit subsidises corporations for activities associated with Carbon Capture and Storage, even if this process itself is used to extract more oil or gas. 122 In other words, this policy financially incentivises polluters for tinkering with false solutions instead of making the adjustments necessary to stop polluting, advance real solutions, and decrease emissions. Between 2010 and 2019, just ten corporations claimed 99.9 percent of the US\$1 billion that was credited for claiming to capture carbon. 123

In 2020, an investigation by the United States Inspector General for Tax Administration found that the 45Q credit was being hugely misused, especially by the handful of corporations that had claimed almost all the tax credit to-date. 124 The investigation found that only three of these ten corporations had some mechanism in place to qualify for the credit. While the Internal Revenue Service has refused to disclose the names of these corporations, 125 because of their stated intent to rely on these technologies and thus continue pollution, it is reasonable to assume that many of the polluting corporations discussed elsewhere in the report make up part of these ten, especially given the lobbying for this credit that is documented below. Congressional staff members were reported saying that they had reason to believe the largest credit went to Exxon, and estimates suggest Exxon could be positioned to claim up to US\$70 million a year through this credit for just one of its CCS plants. 126

Even with the tax credit's proven misuse, and its fundamental flaw of incentivising the continued use of fossil fuels, a policy proposal was tagged onto the Consolidated Appropriations Act 2021 that sought to extend this tax credit through 2025.¹²⁷ This policy

paved the way for climate inaction under the guise of "net zero" and displaced policies focused on real solutions that sought to address the climate crisis.

Big Polluters didn't leave the passing of this "net zero" centred legislation to chance. Instead, they pulled the puppet strings to help see the bill through to passage. For starters, the likes of Exxon, ¹²⁸ Chevron, ¹²⁹ BP, ¹³⁰ Shell, ¹³¹ American Airlines, ¹³² Amazon, ¹³³ Walmart, ¹³⁴ BlackRock ¹³⁵ and Microsoft ¹³⁶ all lobbied in relation to the bill.

Big Polluters financially cosied up to the sponsor and four co-sponsors of the bill over the course of 2019 and 2020*:

- The oil and gas industry contributed more than U\$\$227,000 to the sponsor's, Rep. Henry Cuellar, campaign—more than any other industry.¹³⁷ This included U\$\$12,500 from Chevron, and U\$\$10,000 from Exxon.¹³⁸
- Co-sponsor Rep. Michael McCaul received over US\$190,000 from the oil and gas industry and well over US\$50,000 from both the retail and air transport industries.¹³⁹ This included individual contributions from Exxon, Chevron, Amazon, and Delta Airlines.¹⁴⁰ Chevron ranked the 8th highest individual contributor.¹⁴¹
- Co-sponsor Rep. Vicente Gonzalez received nearly US\$150,000 from the oil and gas industry¹⁴²
 —including contributions from Exxon and Chevron¹⁴³—more than from any other industry.

These sums may seem small, especially compared to the mammoth profits these corporations turn. But this in and of itself is telling- how much influence they secure for relatively so little. Ultimately their puppeteering seemed to do the trick, and the impacts for people and the planet are anything but small. In December 2020, the bill passed, formally extending this tax credit for false solutions through at least 2025 despite is misuse already being systematically documented.

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^{*} According to data registered on OpenSecrets.org

Even so, these corporations are wasting no time celebrating their success. Just months after the passage of the bill, in March 2021 bipartisan legislation was introduced to the United States Senate to extend the 45Q tax credit through 2030. 144 The sponsor of the amendment act for extension of the tax credit, Sen. Shelley Moore Capito, has received over US\$300,000 from the oil and gas industry and nearly US\$170,000 from the air transport industry. 145 She received contributions from companies, including over US\$100,000 in contributions from Exxon, 146 Chevron, 147 American Airlines, 148 Delta Airlines, 149 Amazon, 150 Microsoft, 151 DuPont, 152 and Walmart. 153

This is just one example of political manipulation in one country where many polluting corporations are headquartered. Consider that similar strings are almost certainly being pulled in countries around the globe, on a daily basis. For a comparable example of how Big Polluters are advancing similar policies to displace real solutions with dangerous distractions like CCS in the EU, read "The Hydrogen Hype". 154 By pulling these strings, polluting corporations are orchestrating their great "net zero" escape.

STRATEGY 2: THE LOBBYIST LOCK-IN: INFLUENCE POLICY TO LOCK IN "NET ZERO" AGENDA

For as long as the UNFCCC—the main international space for global collaboration on climate policy—has existed, Big Polluters have undermined equitable and strong policy proposals from climate justice activists.

They are able to influence and undermine climate policy by securing access to policymakers and decision-making processes through sponsorship of negotiations and high-profile events, 155 156 lobbying in corridors via their industry trade groups, 157 158 or even negotiating on behalf of government delegations. 159 They also aggressively lobby at the national level to advance their interests. This phenomenon—called corporate capture—is the biggest contributor to undermining political will and the largest barrier to accomplishing a strong and equitable global response

to climate change. 160 161 At the UNFCCC, their puppeteering has helped lead to a Paris Agreement that is much weaker than it needs to be. Among other outcomes, it is voluntary rather than binding, doesn't require specific emissions cuts or even mention oil or gas, and doesn't commit to the needed levels of climate finance. Big Polluters have publicly admitted to their interference: David Hone, Shell's Climate Change Advisor, was quoted "tak[ing] some credit" for successfully embedding carbon markets into the Paris Agreement. 162 He went as far as to say that the policy proposals they developed are even reflected in the Paris Agreement itself and its guidelines for implementation.

One of the leaders of this push at the UNFCCC is the International Emissions Trading Association (IETA). IETA was founded and is still run by fossil fuel giants like BP, Shell, and Chevron. 163 It's funded by more than 170 corporations, banks, and firms. Its expressed mission is to advance carbon markets, and it does so very successfully on behalf of its Big Polluter members. And its primary objective at the UNFCCC has been to force weakly regulated carbon market mechanisms into the centre of international climate policy, most recently via a section of the Paris Agreement, called Article 6. Carbon markets are directly related to "net zero" pathways, as in the words of IETA, the "voluntary carbon market has an important role to play in delivering the goals of the Paris Agreement and supporting the journey to "net zero". 164

When world governments come together at the UNFCCC's 26th Conference of the Parties (COP26) currently set to be held in Glasgow at the end of 2021, governments are meant to agree to the rules for how Article 6, and thus carbon markets, can be used in the delivery of the Paris Agreement commitments. If IETA, polluting corporations, and wealthy polluting countries like the United States, Australia, and EU countries are successful, then carbon markets will continue displacing the real, proven, and equitable solutions we need to justly address the climate crisis. If this happens, we are guaranteed to far surpass the 1.5 degrees Celsius threshold.

A bird's eye view of IETA's presence at the UNFCCC reveals that it leaves nothing to chance in key moments where Big Polluters' interests and carbon markets can be advanced in international policymaking spaces.

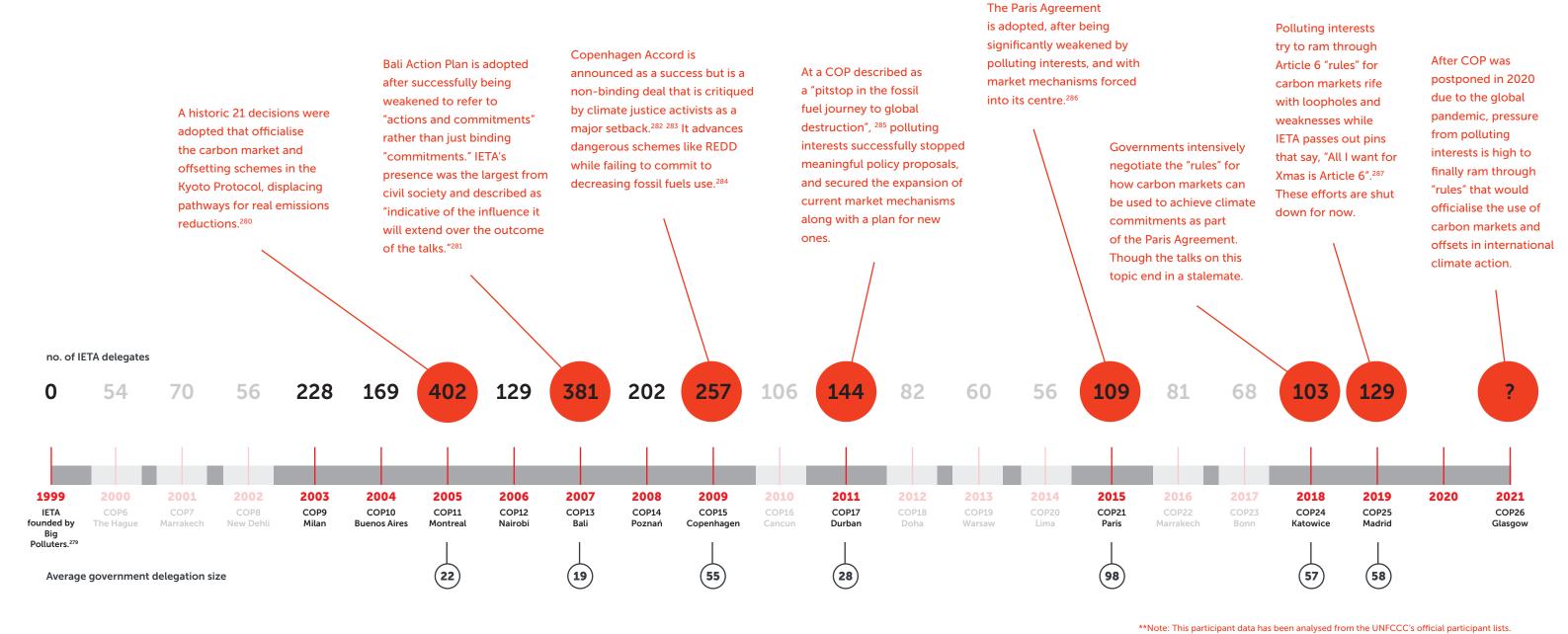
Figure 1 shows the number of individuals IETA brought to the UNFCCC during key moments where carbon markets could be advanced. It also compares this to the average size of government delegations, illustrating how IETA can position itself to have outsized power and influence during these negotiations. For example, at COP11 in Montreal, where 21 historic decisions were adopted that officialised carbon markets and offsetting schemes in the Kyoto Protocol, IETA brought 402 people to the talks, while the average government delegation size was only 15.

At the UNFCCC, IETA is also remarkably savvy at cosying up to climate policymakers, government delegates, and in some cases even the secretariat of the UNFCCC itself. At COP25 in Madrid in 2019. IETA held a side event giving an update on Article 6. A legal officer from the UNFCCC Secretariat staff presented alongside IETA, a public illustration of their partnership.¹⁶⁷ ¹⁶⁸ In another IETA sponsored event about carbon markets and Article 6 during COP25, the same Shell executive who bragged about influencing the Paris Agreement presented alongside a Head of Division for EU Climate and Energy Policy, Federal Ministry for the Environment. 169 IETA also presented the United Kingdom with an "IETA Net Zero Award" in "recognition of its outstanding approach to enabling private sector finance to meet a net zero emissions goal".170 These are just a few illustrations of the conflicting relationship between policymakers and these polluting interests—and how IETA uses those relationships to trumpet its "net zero" narrative. IETA's engagement at the UNFCCC is littered with more of the same, and an IETA honorary board member and former president Andrei Marcu has actually negotiated on behalf of a country. 171

When it comes to Big Polluters' stranglehold over international policy, IETA is just one of countless

industry and trade associations that use their direct access to these negotiations to advance their corporate interests. Other industry groups representing Big Polluter interests with deep influence in policymaking processes include the likes of the International Chamber of Commerce, BusinessEurope, the United States Chamber of Commerce, and the World Business Council for Sustainable Development. 172 173 174 175 Their collective influence is a critical reason why across the board, the global response to address climate change is grossly inadequate and wholly unjust. Instead of real, affordable, and people-centred solutions, the world's response to the climate crisis rests on a crumbling foundation of false solutions like carbon markets, offsetting schemes, and "Nature Based Solutions".

FIGURE 1: IETA - BIG POLLUTERS' INSIDE JOB AT THE UNFOCC



IETA's influence at the U.N. climate talks is in part illustrated through the sheer dominance of its official delegations- i.e., the number of people it takes to negotiations. Often it has among the largest delegations of any non-governmental organization, and its delegations often significantly overshadow delegations from some of the countries hardest hit by climate change. This timeline illustrates the size of IETA's delegation at the U.N. climate talks since the industry group was founded, compared to the average government delegation size in key moments where carbon markets were advanced.

STRATEGY 3: THE DECK STACKING: SHAPE ACADEMIC RESEARCH TO VALIDATE "NET ZERO"

Research and innovation coming out of the world's leading academic institutions play a critical role in setting the bar for what climate ambition looks like, as well as in shaping national and international climate policy. If prestigious academic experts produce research and launch initiatives in favour of "net zero", then policymakers and governments are likely to follow this lead—especially if this research provides policy pathways that require little change. This undermines academic integrity and weakens the political will to address the climate crisis and reduce emissions. And, of course, it props up Big Polluters' interests and continues business as usual.

Some of the world's most known academic institutions have deep ties to some of the world's biggest polluters, even receiving hundreds of millions of dollars in funding for climate or "net zero"-related research. Exxon alone, which hasn't even gone as far as to publicly commit to reach "net zero", has formal relationships with more than 80 academic institutions around the world. ¹⁷⁶ Cargill has more than 63 such relationships, ¹⁷⁷ Chevron ¹⁷⁸ and Amazon ¹⁷⁹ ¹⁸⁰ ¹⁸¹ each around 10, as do many other polluting corporations.

When we take a closer look at what these relationships look like in just a few of the world's leading academic institutions, it's easy to see the clear impacts these conflicting relationships have on shaping "net zero"-related academic research. Figures 2-5 break down some examples of what the impacts of these polluter partnerships translate into, using Princeton University, Stanford University, Imperial College London, and Massachusetts Institute of Technology (MIT) as examples. They are far from isolated cases of what these relationships look like and how they play out.

In some cases, the amount of influence polluters have over the research being produced is astounding. From 2002 to 2019, Stanford's Global Climate and Energy Project (GCEP) produced research on Carbon Capture and Storage as part of its portfolio. The agreement GCEP makes with its corporate sponsors—

such as Exxon, which has contributed US\$100 million to GCEP¹⁸⁴—allows corporate sponsors to formally review research projects (including academic articles) before they are completed, and also allows them to be part of the project development team as affiliates.¹⁸⁵ This hardly seems to embody academic integrity and independence.

Fortunately, more and more scientists are now speaking out about the big con that "net zero" represents, ¹⁸⁶ ¹⁸⁷ including 41 scientists that collectively published a piece debunking myths about "net zero" targets and offsetting.¹⁸⁸

Rather than allowing partnerships with the polluters driving the climate crisis, academic institutions should partner with experts, including movements, on the frontlines of the climate crisis. Such partnerships can advance and improve the viability and accessibility of real climate solutions—such as keeping fossil fuels in the ground and conserving and restoring ecosystems—to keep global temperature rise to well below 1.5 degrees Celsius.



FIGURES 2-5: HOW BIG POLLUTERS SHAPE ACADEMIC RESEARCH TO VALIDATE "NET ZERO"

Polluter funded pro "net zero" research:

• Funded by BP and Exxon as recently as 2020¹⁸⁹

Dark Money- Polluter funded "net zero" related institutions or initiatives:

- Andlinger Center for Energy + the Environment has received over US\$5 million from Exxon since 2015.¹⁹⁰
- Between 2000 and 2020, Carbon
 Mitigation Initiative (CMI) received over
 US\$31 million from BP.¹⁹¹
- Since 2000, Exxon and BP together have given over US\$35 million to these two initiatives¹⁹²

two initiatives¹⁹²

PRINCETON UNIVERSITY

Corporate gifts from polluters:

 Amazon's founder gifted US\$15 million in 2011 for a neuroscience institute.¹⁹³

Polluter participation at academic events:

- 2018 Annual Meeting for Andlinger Center included a scientific advisor from Exxon.¹⁹⁴
- 2019 Princeton event had an Exxon employee as keynote speaker.¹⁹⁵

Polluter-linked pro "net zero" research:

- In 2018, the current co-director of the Stanford Center for Carbon Storage and the Stanford Carbon Removal Initiative,¹⁹⁶ co-authored a paper on "net zero" with a University of California, Davis professor with links to Chevron, Shell, and BP.¹⁹⁷ ¹⁹⁸ ¹⁹⁹
- The Global Climate and Energy Project (GCEP), funded by Exxon, has produced more than over 900 papers in leading journals and more than 1,200 presentations at conferences. ²⁰⁰ According to GCEPs' portfolio, its second and third most funded projects have been focused on bioenergy and carbon capture and storage. ²⁰¹

Dark Money- Polluter funded "net zero" related institutions or initiatives:

- In 2018, Exxon committed to contribute US\$200 million to the Stanford Strategic Energy Alliance.²⁰² Other members include Bank of America, Shell, Total.²⁰³
- Stanford's Global Climate and Energy Project (GCEP) has received US\$100 million since 2002 from Exxon.²⁰⁴

STANFORD UNIVERSITY

Employees with Polluter past working on "net zero" related topics:

- Research affiliate with the Stanford Center for Carbon Storage (SCCS) worked with
 Exxon for more than two decades.²⁰⁵
- Professor and Co-Director SCCS has conducted research studies for National Petroleum Council and served on Advisory Committee for Statoil (now Equinor).^{206 207}
- Another professor serves as advisor to Shell's New Energy Group.²⁰⁸

Polluter participation at academic events:

 2020 event on carbon management featured speakers from Exxon, Shell, and Total.²⁰⁹ ²¹⁰ ²¹¹ ²¹²

33

Polluter-linked pro "net zero" research:

 An academic paper published in 2018 titled "Carbon capture and storage (CCS): the way forward" was produced as part of a program funded by Shell and Imperial College London. ²¹³

Polluter partnerships:

- Imperial has a "long-standing and fruitful partnership" with Shell that has led to "an impressive and diverse research portfolio, spanning nine departments and involving over 100 academics researchers". 214 The Qatar Carbonate and Carbon Storage Research Centre, one of Imperial's many partnerships, "is the result of a 10-year, US\$70 million strategic collaboration between Imperial College London, Qatar Petroleum, Shell and the Qatar Science and Technology Park, part of Qatar Foundation". 215 The program has the backing of nearly US\$10 million, with "[c]arbon capture and storage (CCS) [at] the heart of [their] research". 216
- Shell co-leads a £12 million program with Imperial, called InFUSE, which focuses in part on technologies for carbon capture and storage.²¹⁷
- BP has a long-standing collaboration with Imperial. Over recent years, this has led to the coauthorship of "23 journal and conference papers and strong connections with academics from nine of Imperials' departments".²¹⁸

Polluter funded "net zero" related research:

- Research that supported the development of a 2020 paper on agricultural markets was supported by the MIT Joint Program on the Science and Policy of Global Change, a program funded by Cargill, Chevron, Exxon, Shell, and Total at the time of this research.²²³ ²²⁴
- A 2017 report on "net zero" was coauthored with a Shell employee.²²⁵

Polluter partnerships:

- Launched in 2021, the Climate & Sustainability Consortium works with industry leaders to advance "net zero" carbon commitments.²²⁶ Its Members include polluter Cargill.²²⁷
- Since 2008, Cargill has been a sponsor of the MIT Joint Program on the Science and Policy of Climate Change.²²⁸

IMPERIAL COLLEGE LONDON

Employees with Polluter Past working on "Net Zero" related topics:

- One professor has past and present collaborations with corporations, including BP and Shell.^{219 220} This professor co-authored a paper with two BP employees where he did not disclose these industry ties.²²¹
- Another professor previously worked as Head of Structuring and Valuation for Global Power at BP.²²²

MASSACHMSETTS INSTITUTE OF TECHNOLOGY



CONCLUSION

The "net zero" plans of Big Polluters are the latest iteration of the decades-long push by Big Polluters to find a way to continue to pollute and extract profits at the expense of people and the planet. "Net zero" pledges represent Big Polluters' and Global North governments' attempts to escape their climate crimes by having others serve their sentence.

At the end of the day, "net zero" schemes are Big Polluters' reinvigorated attempt to preserve business as usual and keep profiting. They must not be allowed to get away with this Big Con.

After decades of denial, it's no coincidence Big
Polluters are pushing "net zero" into the centre of
climate action—it provides an avenue for boosting
profits and talking about "climate action" without even
mentioning a managed fossil fuel decline or decreasing
the production and consumption of emissionsintensive products. On the contrary, many "net zero"
projects are based on making new profits from utilising
and storing carbon, while using that process to make
even more money from further oil exploitation, all
while requiring more energy than the present level.

Perhaps one of the gravest consequences of this era of corporate-driven climate commitment around "net zero" and offset schemes is not what they will do to the world but the real solutions that they are preventing from being implemented. According to the Intergovernmental Panel on Climate Change (IPCC)—the U.N.'s expert body on climate science—the global community has only less than a decade left to change the course of climate change.²²⁹ And most of the groundwork for this change needs to be laid this year.²³⁰

If "net zero" plans remain the centre of global climate action, this precious time will be wasted on inaction.

And, thanks to Big Polluters, global leaders will have

squandered perhaps our final opportunity for the world to act to drastically decrease emission to the scale needed and commit to the real solutions that people from historically exploited communities, Indigenous communities, and others have been demanding for decades. If polluters are successful, people and the planet will be suffering climate catastrophe for decades to come, and we will face the consequences of an existential crisis.

But that legacy doesn't have to continue. It can stop here. And it must.

WE NEED REAL SOLUTIONS AND CLIMATE JUSTICE

The best, most proven approach to justly addressing the climate crisis is to significantly reduce emissions now in an equitable manner, bringing them close to Real Zero by 2030 at the latest.²³¹ The cross-sectoral solutions we need already exist, are proven, and are scalable now (see "Real Solutions, Real Zero" in the resources Box). All that is missing is the political will to advance them, in spite of industry obstruction and deflection.

People around the globe have already made their demands clear. Meaningful solutions that can be implemented now are already detailed in platforms like the People's Demands for Climate Justice, ²³² the Liability Roadmap, ²³³ the Energy Manifesto, ²³⁴ and many other resources that encompass the wisdom of those on the frontlines of the climate crisis.

Leaders can listen to the people and once and for all prioritise people's lives and the planet over engines of profit and destruction. To avoid social and planetary collapse, they must heed the calls of millions of people around the globe and pursue policies that justly, equitably transition our economies off of fossil fuels and advance real solutions that prioritize life- now.

ENDNOTES

- 1 United Nations, "Natural disasters occurring three times more often than 50 years ago: new FAO report," March 18, 2021, https://news.un.org/en/sto-rv/2021/03/1087702.
- World Meteorological Organization, "State of the Global Climate 2020," April 20, 2021, https://public.wmo.int/en/our-mandate/climate/wmo-statement-state-of-global-climate.
- 3 Sudhanshu Malhotra, "2021's Climate Emergencies," Greenpeace, May 3, 2021, https://www.greenpeace.org/international/story/47545/climate-emergencies-in-2021/.
- 4 "Thousands flee homes as storm Dujuan hits southern Philippines," Aljazeera, February 21, 2021, https://www.aljazeera.com/news/2021/2/21/tens-of-thousands-evacuated-as-storm-hits-southern-philippines.
- 5 Richard Martin-Barton, "Strongest tropical cyclone ever recorded for April hits Pacific," The Guardian, April 29, 2021, https://www.theguardian.com/weather/2021/apr/29/strongest-tropical-cyclone-ever-recorded-for-april-hits-pacific-philippines.
- 6 Erum Salam, "Millions without power and 21 dead as ferocious winter weather sweeps US," The Guardian, February 17, 2021, https://www.theguardian.com/us-news/2021/feb/16/texas-weather-snow-storm-latest-news-power-outages-deaths.
- 7 Jason Beaubien, "Locust Swarms Threaten Parts Of East Africa," NPR, January 19, 2021, https://www.npr.org/2021/01/19/958543535/locust-swarms-threaten-parts-of-east-africa?t=1620900598220.
- Hannah Beech and Muktita Suhartono, "Floods and Mudslides in Eastern Indonesia Leave at Least 41 Dead," The New York Times, April 4, 2021, https://www.ny-times.com/2021/04/04/world/asia/floods-landslides-indonesia.html.
- 9 Fiona Harvey, "Young People Resume Global Climate Strikes Calling for Urgent Action," The Guardian, September 25, 2020, https://www.theguardian.com/environ-ment/2020/sep/25/young-people-resume-global-climate-strikes-calling-urgent-action-greta-thunberg.
- 10 "Climate change: Protesters stage sit in at UN climate talks," BBC News, December 12, 2019, https://www.bbc.co.uk/news/av/world-europe-50756133.
- "Commitments to Net Zero Double in Less Than a Year," United Nations Climate Change, September 21, 2020, https://unfccc.int/news/commitments-to-net-zero-double-in-less-than-a-year.
- 12 United Nations, "2021 Must be Year World Leaps into Net-Zero Future, Secretary-General Tells High Level Climate Meeting, Outlining Six Strategies," December 8, 2020, https://www.un.org/press/en/2020/sgsm20480.doc.htm.
- Friends of the Earth International, "Chasing Carbon Unicorns: The deception of carbon markets and "net zero," February 2021, https://www.foei.org/resources/publications/chasing-carbon-unicorns-carbon-markets-net-zero-report.
- 14 Nathan Thanki, "Not Zero: How "Net Zero" Targets Disguise Climate Inaction," Global Campaign to Demand Climate Justice, November 18, 2020, https://demand-climatejustice.org/2020/11/18/not-zero-how-net-zero-targets-disguise-climate-inaction/.
- 15 Friends of the Earth International, "Chasing Carbon Unicorns: The deception of carbon markets and "net zero," February 2021, https://www.foei.org/resources/publications/chasing-carbon-unicorns-carbon-markets-net-zero-report.
- "ActionAid, Corporate Accountability, Friends of the Earth International, Global Campaign to Demand Climate Justice, Third World Network (TWN), and WhatNext?, "Not Zero: How 'net zero' targets disguise climate inaction," October 2020, https://www.corporateaccountability.org/wp-content/uploads/2020/10/NOT-ZERO-How-net-zero-targets-disguise-climate-inaction-FINAL.pdf.
- 17 "Carbon Majors," Climate Accountability Institute, accessed May 16, 2021, https://climateaccountability.org/carbonmajors.html.
- Tess Riley, "Just 100 companies responsible for 70% of global emissions, study says," The Guardian, July 10, 2017, https://www.theguardian.com/sustainable-busi-ness/2017/jul/10/100-fossil-fuel-companies-investors-responsible-71-global-emissions-cdp-study-climate-change.
- M. Crippa, E. Solazzo, D. Guizzardi, F. Monforti-Ferrario, F. N. Tubiello, and A. Leip, "Food Systems Are Responsible for a Third of Global Anthropogenic GHG Emissions," Nature Food 2, no. 3 (2021): 198–209, https://doi.org/10.1038/s43016-021-00225-9.
- "Contribution of the global aviation sector to achieving Paris Agreement climate objectives," Climate Action Network (CAN) and International Coalition for Sustainable Aviation (ICSA), accessed May 16, 2021, https://unfccc.int/sites/default/files/resource/156_CAN%20ICSA%20Aviation%20TD%20submission.pdf
- 21 Michael Le Page, "Logging study reveals huge hidden emissions of the forestry industry," New Scientist, September 10, 2019, https://www.newscientist.com/arti-cle/2215913-logging-study-reveals-huge-hidden-emissions-of-the-forestry-industry/.
- 22 Eric Pandey, "The climate stakes of speedy delivery," Axios, June 21, 2019, https://www.axios.com/fast-delivery-climate-change-amazon-walmart-target-40d0b733-ad06-4b88-9a07-5ac9b6a5c03b.html.
- 23 Laurie Clarke, "Big Tech's carbon problem," New Statesman, November 26, 2020, https://www.newstatesman.com/spotlight/energy/2020/11/big-techs-carbon-problem.
- 24 Corporate Accountability, "Polluting Paris: How Big Polluters are undermining global climate policy," 2017, https://www.corporateaccountability.org/wp-content/uploads/2017/10/PollutingParis_COP23Report_2017.pdf.
- 25 Corporate Europe Observatory, "Yara: Poisoning our soils, burning our planet: A profile of EU lobbying by the Norwegian fertilizer company," Corporate Europe Observatory, September 17, 2019, https://corporateeurope.org/en/2019/09/yara-poisoning-our-soils-burning-our-planet.
- Tamar Lawrence-Samuel, Rachel Rose Jackson, and Nathan Thanki, "13. The pivot point: realizing Sustainable Development Goals by ending corporate capture of climate policy," Spotlight on Sustainable Development (2017), https://www.2030spotlight.org/en/book/1165/chapter/13-pivot-point-realizing-sustainable-development-goals-ending-corporate-capture.
- 27 Influence Map, "Big Oil's Real Agenda on Climate Change: How the oil majors have spent \$1Bn since Paris on narrative capture and lobbying on climate," Influence-Map, March 2019, https://influencemap.org/report/How-Big-Oil-Continues-to-Oppose-the-Paris-Agreement-38212275958aa21196dae3b76220bddc.
- Neela Baneerjee, John Cushman Jr. David Hasemeyer, and Lisa Song, "CO2's Role in Global Warming Has Been on the Oil Industry's Radar Since the 1960s," Inside Climate News, April 13, 2016, https://insideclimatenews.org/news/13042016/climate-change-global-warming-oil-industry-radar-1960s-exxon-api-co2-fossil-fu-els
- 29 Damian Carrington and Jelmer Mommers, "'Shell knew': oil giant's 1991 film warned of climate change danger," The Guardian, February 28, 2017, https://www.theguardian.com/environment/2017/feb/28/shell-knew-oil-giants-1991-film-warned-climate-change-danger.
- 30 "#ExxonKnew," Exxon Knew, accessed May 16, 2021, https://exxonknew.org.
- Dave Cooke, "Automakers Turn to Climate Deniers in Quest to Lower Fuel Economy Regulations," Union of Concerned Scientists, March 19, 2018, https://blog.ucsusa.org/dave-cooke/automakers-turn-to-climate-deniers-in-quest-to-lower-fuel-economy-regulations.
- Robinson Meyer, "A Major but Little-Known Supporter of Climate Denial: Freight Railroads," The Atlantic, December 13, 2019, https://www.theatlantic.com/science/archive/2019/12/freight-railroads-funded-climate-denial-decades/603559/.
- Bob Burton, "The Airline Industry's Global Warming Denial," PR Watch, December 1, 2009, https://www.prwatch.org/node/8720.
- "Utilities Knew: Documenting Electric Utilities' Early Knowledge and Ongoing Deception on Climate Change From 1968-2017," Energy and Policy Institute, July 2017, https://www.energyandpolicy.org/utilities-knew-about-climate-change/.
- Timothy A. Wise, "Big Ag Is Sabotaging Progress on Climate Change," Wired, August 28, 2019, https://www.wired.com/story/big-ag-is-sabotaging-progress-on-climate-change/.
- 36 Michael Grunwald, "The 'Green Energy' That Might Be Ruining the Planet," Politico, March 26, 2021, https://www.politico.com/news/magazine/2021/03/26/bio-mass-carbon-climate-politics-477620.
- Qun Yi, Yingjie Zhao, Yi Huang, Guoqiang Wei, Yanhong Hao, Jie Feng, Usama Mohamed, Mohamed Pourkashanian, William Nimmo, Wenying Li, "Life cycle energy-economic-CO2 emissions evaluation of biomass/coal, with and without CO2 capture and storage, in a pulverized fuel combustion power plant in the United Kingdom," Applied Energy 25, no.225 (2018): 258-272, https://doi.org/10.1016/j.apenergy.2018.05.013.
- 38 "Letter Regarding Use of Forests for Bioenergy," Woodwell Climate Research Center, February 11, 2021, https://www.woodwellclimate.org/letter-regard-ing-use-of-forests-for-bioenergy/.
- 39 Rachel Smolker, "Wood Bioenergy: Green Land Grabs For Dirty 'Renewable' Energy," Biofuelwatch (2013), https://globalforestcoalition.org/wp-content/up-loads/2013/10/GFC-wood-bioenergy-update-FINAL-OCT.pdf.

- 40 "Carbon Capture and Storage (CCS)," Geoengineering Monitor (January 2021): 1-4, https://www.geoengineeringmonitor.org/wp-content/uploads/2021/04/carbon-capture-and-storage.pdf
- 41 "Expanding Subsidies For Co2-Enhanced Oil Recovery: A Net Loss For Communities, Taxpayers, And The Climate," OilChange International (October 2017): 1-12, http://priceofoil.org/content/uploads/2017/10/45g-analysis-oct-2017-final.pdf.
- 42 "BECCS: A Dangerous Distraction," ActionAid (2019), https://www.actionaidusa.org/wp-content/uploads/2019/06/BECCS-Explainer.pdf.
- 43 "Six problems with BECCS," Fern, September 15, 2018, https://www.fern.org/publications-insight/six-problems-with-beccs-57/.
- 44 Corporate Accountability, "Polluting Paris: How Big Polluters are undermining global climate policy," 2017, https://www.corporateaccountability.org/wp-content/uploads/2017/10/PollutingParis_COP23Report_2017.pdf.
- 45 Friends of the Earth International, "Chasing Carbon Unicorns: The deception of carbon markets and "net zero," February 2021, https://www.foei.org/resources/publications/chasing-carbon-unicorns-carbon-markets-net-zero-report.
- 46 Cargill, "Careers: Global carbon offset business development," May 15, 2021, https://careers.cargill.com/job/geneva/global-carbon-offset-business-development/23251/8079897760
- 47 Cargill, "Understanding carbon offsets," Accessed May 25, 2021, https://www.cargill.com/carbon/carbon-solutions/understanding-carbon-offsets.
- 48 "Direct CO2 capture machines could use 'a quarter of global energy' in 2100," CarbonBrief, July 22, 2019, https://www.carbonbrief.org/direct-co2-capture-machines-could-use-quarter-global-energy-in-2100.
- 9 David Roberts, "Sucking carbon out of the air won't solve climate change," Vox, July 16, 2018, https://www.vox.com/energy-and-environment/2018/6/14/17445622/direct-air-capture-air-to-fuels-carbon-dioxide-engineering.
- 50 Lisa Song and James Temple, "The Climate Solution Actually Adding Millions of Tons of CO2 Into the Atmosphere," ProPublica, April 29, 2021, https://www.pro-publica.org/article/the-climate-solution-actually-adding-millions-of-tons-of-co2-into-the-atmosphere?utm_source=sailthruθutm_medium=emailθutm_campaign=majorinvestigationsθutm_content=feature.
- Connor Cavanagh, Tor A. Benjaminsen, "Virtual nature, violent accumulation: The 'spectacular failure' of carbon offsetting at a Ugandan National Park," Geoforum 56 no.1 (2014): 55-65, https://doi.org/10.1016/j.geoforum.2014.06.013.
- Juan Pablo Sarmiento Barletti and Anne M. Larson, "Rights abuse allegations in the context of REDD+ readiness and implementation: A preliminary review and proposal for moving forward," Center for International Forestry Research no. 190 (2017): 2-8, https://doi.org/10.17528/cifor/006630.
- 53 Grayson Badgley, Jeremy Freeman, Joseph Hamman, Barbara Haya, Anna Trugman, William R L Anderegg, and Danny Cullenward, "Systematic over-crediting of forest offsets" CarbonPlan, April 29, 2021, https://carbonplan.org/research/forest-offsets-explainer.
- 54 "The Future of Hydrogen," IEA, June 2019, https://www.iea.org/reports/the-future-of-hydrogen.
- 55 Corporate Europe Observatory, "The Hydrogen Hype: Gas industry fairy tale or climate horror story?", 2020, https://corporateeurope.org/sites/default/files/2020-12/hydrogen-report-web-final_3.pdf.
- Corporate Europe Observatory, "The Hydrogen Hype: Gas industry fairy tale or climate horror story?", 2020, https://corporateeurope.org/sites/default/files/2020-12/hydrogen-report-web-final_3.pdf.
- 7 "REDD+ Web Platform," United Nations Framework Convention on Climate Change, accessed May 17, 2021, https://redd.unfccc.int.
- 8 "RETHINKING REDD+," Centre for Science and Environment, December 13, 2018, https://www.cseindia.org/rethinking-redd--9198.
- 59 Jessica L. DeShazo, Chandra Lal Pandey, and Zachary A. Smith, "Why REDD will Fail," Journal of Forestry 115, no. 4 (July 2017): 323, https://doi.org/10.5849/jof.2016-079.
- 60 Mucahid Mustafa Bayrak and Lawal Mohammed Marafa, "Ten Years of REDD+: A Critical Review of the Impact
- of REDD+ on Forest-Dependent Communities," Sustainability 8, no.7 (2016): 1-22, https://doi.org/10.3390/su8070620.

 Friends of Earth International, "The great REDD gamble," October 2014, https://www.foei.org/wp-content/uploads/2014/09/The-great-REDD-gamble.pdf.
- Joanna Cabello and Tamra Gilbertson, "A colonial mechanism to enclose lands: A critical review of two REDD+-focused special issues," Ephemera Journal 12 no.1: 162-180, http://www.ephemerajournal.org/sites/default/files/12-1cabellogilbertson.pdf.
- 63 Lisa Song and Paula Moura, "An Even More Inconvenient Truth: Why Carbon Credits For Forest Preservation May Be Worse Than Nothing," ProPublica, May 22, 2019, https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/.
- 4 "Study On EU Financing Of Redd+ Related Activities, And Results-Based Payments Pre And Post 2020: Sources, Cost-Effectiveness And Fair Allocation Of Incentives," European Commission (September 2018): 1-302, https://op.europa.eu/en/publication-detail/-/publication/6f8dea1e-b6fe-11e8-99ee-01aa75ed71a1.
- Global Forest Coalition, "15 years of REDD+ Has it been worth the money?" 2020, https://globalforestcoalition.org/wp-content/uploads/2020/09/REDD-briefing.
- Global Forest Coalition, "15 years of REDD+ Has it been worth the money?" 2020, https://globalforestcoalition.org/wp-content/uploads/2020/09/REDD-briefing.
- La Via Campesina, "Volume 44.6: La Via Campesina in Action for Climate Justice," Henrich Böll Stiftung Publication Series Ecology, 2018, https://www.boell.de/sites/default/files/radical_realism_for_climate_justice_volume_44_6_1.pdf?dimension1=ds_radicalrealism.
- ActionAid, Corporate Accountability, Friends of the Earth International, Global Campaign to Demand Climate Justice, Third World Network (TWN), and WhatNext?, "Not Zero: How 'net zero' targets disguise climate inaction," October 2020, https://www.corporateaccountability.org/wp-content/uploads/2020/10/NOT-ZERO-How-net-zero-targets-disguise-climate-inaction-FINAL.pdf.
- Friends of the Earth International, "Chasing Carbon Unicorns: The deception of carbon markets and "net zero," February 2021, https://www.foei.org/resources/publications/chasing-carbon-unicorns-carbon-markets-net-zero-report.
- 70 Aryn Baker, "If This Task Was Urgent Before, It's Crucial Now.' U.N. Says World Has 10 Months to Get Serious on Climate Goals," Time, February 26, 2021, https://time.com/5942546/un-emissions-targets-climate-change/.
- 71 "Global Warming of 1.5°C," Intergovernmental Panel on Climate Change (2018): 1-32, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.
- 72 "Report: Fossil fuel carbon capture & storage," Friends of the Earth Scotland, January 11, 2021, https://foe.scot/resource/report-carbon-capture-storage-energy-role/.
- 73 Taylor Kubota, "Stanford study casts doubt on carbon capture," Stanford News, October 25, 2019, https://news.stanford.edu/2019/10/25/study-casts-doubt-carbon-capture/.
- 74 "Forest Cover," Global Forest Coalition no. 61 (May 2020): 1-23, https://globalforestcoalition.org/wp-content/uploads/2020/05/forestcover-61-EN.pdf.
- 75 GRAIN, "Corporate greenwashing: "net zero" and "nature-based solutions" are a deadly fraud, "GRAIN, March 17, 2021, https://grain.org/en/article/6634-corporate-greenwashing-net-zero-and-nature-based-solutions-are-a-deadly-fraud.
- Joe Sandler Clarke and Luke Barratt, "Top airlines' promises to offset flights rely on 'phantom credits'," Unearthed, April 05, 2021, https://unearthed.greenpeace.org/2021/05/04/carbon-offsetting-british-airways-easyjet-verra/.
- 77 Friends of the Earth International, "Chasing Carbon Unicorns: The deception of carbon markets and "net zero," February 2021, https://www.foei.org/resources/publications/chasing-carbon-unicorns-carbon-markets-net-zero-report.
- 78 Global Forest Coalition, "Roll up, roll up! The Net Zero Circus is coming to a forest near you," September 30, 2020, https://globalforestcoalition.org/net-zero-circus/.
- 79 "Liability Roadmap," Liability Roadmap, accessed May 17, 2021, https://liabilityroadmap.org.
- 80 "The People's Demands For Climate Justice," accessed May 17, 2021, https://www.peoplesdemands.org.
- 81 "Real Solutions, Real Zero: How Article 6.8 of the Paris Agreement Can Help Pave the Way to 1.5°," Working Group for Real Solutions (2019): 1-4, https://www.corporateaccountability.org/wp-content/uploads/2019/11/Article-6.8-of-the-Paris-Agreement-A-Non-Market-Approach-to-1_5_v4_FINAL.pdf.
- 82 Friends of the Earth International, "People. Power. Now. An Energy Manifesto," 2018, https://www.foei.org/wp-content/uploads/2018/11/14-FoEI-PPN-manifesto-ENG-lr.pdf.
- 83 Corporate Accountability, "Polluting Paris: How Big Polluters are undermining global climate policy," Corporate Accountability, 2017, https://www.corporateac-countability.org/wp-content/uploads/2017/10/PollutingParis_COP23Report_2017.pdf.
- Tamar Lawrence-Samuel, Rachel Rose Jackson, and Nathan Thanki, "13. The pivot point: realizing Sustainable Development Goals by ending corporate capture of climate policy," Spotlight on Sustainable Development (2017), https://www.2030spotlight.org/en/book/1165/chapter/13-pivot-point-realizing-sustainable-development-goals-ending-corporate-capture.

39

- 85 InfluenceMap, "Big Oil's Real Agenda on Climate Change: How the oil majors have spent \$1Bn since Paris on narrative capture and lobbying on climate," March 2019, https://influencemap.org/report/How-Big-Oil-Continues-to-Oppose-the-Paris-Agreement-38212275958aa21196dae3b76220bddc.
- Felicity Lawrence, David Pegg and Rob Evans, "How vested interests tried to turn the world against climate science," The Guardian, October 19, 2019, https://www.theguardian.com/environment/2019/oct/10/vested-interests-public-against-climate-science-fossil-fuel-lobby.
- 87 Greenpeace, "Exxon's Climate Denial History: A Timeline," accessed May 17, 2021, https://www.greenpeace.org/usa/ending-the-climate-crisis/exxon-and-the-oil-industry-knew-about-climate-change/exxons-climate-denial-history-a-timeline/.
- 88 Oil Change International, "Discussion Paper: Big Oil Reality Check Assessing Oil And Gas Climate Plans," September 23, 2020, http://priceofoil.org/2020/09/23/big-oil-reality-check/.
- 89 ActionAid International, "Not-Their-Lands: The land impact of Royal Dutch Shell's net zero climate target," May 17, 2021, https://actionaid.org/sites/default/files/publications/Not-Their-Lands_Media%20Briefing.pdf.
- GRAIN, "Corporate greenwashing: "net zero" and "nature-based solutions" are a deadly fraud," GRAIN, March 17, 2021, https://grain.org/en/article/6634-corporate-greenwashing-net-zero-and-nature-based-solutions-are-a-deadly-fraud.
- 91 Greenpeace, "Net expectations: assessing the role of carbon dioxide removal in companies' climate plans," January 11, 2021, https://www.greenpeace.org.uk/resources/net-expectations-cdr-briefing/.
- 92 Dominick A.DellaSala, "'Real' vs. 'Fake' Forests: Why Tree Plantations Are Not Forests," Encyclopedia of the World's Biomes, 2020, https://www.sciencedirect.com/science/article/pii/B9780124095489116847?via%3Dihub.
- 93 JA! Justica Ambiental, "Climate Criminals: Eni and Shell, Keep the Fossil Fuels in the ground! We Don't Want your False Forests!", May 13, 2019, https://ja4change.org/2019/05/13/climate-criminals-eni-and-shell/.
- 94 Dom Phillips, "Brazil meat giant JBS vows net zero by 2040 amid record profits," The Guardian, March 25, 2021, https://www.theguardian.com/environment/2021/mar/25/brazil-meat-giant-jbs-vows-net-zero-by-2040-amid-record-profits.
- 95 JBS, "Net Zero," accessed May 22, 2021, https://jbs.com.br/netzero/en/.
- 96 JBS, "Net Zero," accessed May 22, 2021, https://jbs.com.br/netzero/en/.
- 97 Mighty Earth, "Soy & Cattle Deforestation Tracker," accessed May 22, 2021, https://www.mightyearth.org/soy-and-cattle-tracker/.
- 98 Ricardo Brito, Tatiana Bautzer, "Brazil's J&F agrees to pay record \$3.2 billion fine in leniency deal," Reuters, May 31, 2017, https://www.reuters.com/article/us-brazil-corruption-ibs-idUSKBN18R1HE.
- 99 Shell, "Shell accelerates drive for net-zero emissions with customer-first strategy," February 11, 2021, https://www.shell.com/media/news-and-media-releas-es/2021/shell-accelerates-drive-for-net-zero-emissions-with-customer-first-strategy.html.
- 100 Ron Bousso, Dmitry Zhdannikov, "Exclusive: No choice but to invest in oil, Shell CEO says," Reuters, October 14, 2019, https://www.reuters.com/article/us-shell-climate-exclusive/exclusive-no-choice-but-to-invest-in-oil-shell-ceo-says-idUKKBN1WT2JL.
- 101 Ron Bousso and Shadia Nasralla "With oil past peak, Shell sharpens 2050 zero emissions goal," Reuters, February 11, 2021, https://www.reuters.com/article/us-shell-strategy-idUSKBN2AB0LT.
- Reuters Staff, "Shell turns to forests and the earth to soak up its emissions," Reuters, February 11, 2021, https://www.reuters.com/article/us-shell-strategy-carbon-capture-carbonof/shell-turns-to-forests-and-the-earth-to-soak-up-its-emissions-idUSKBN2ABOTU.
- 103 "Analysis: Shell says new 'Brazil-sized' forest would be needed to meet 1.5C climate goal," CarbonBrief, February 12, 2021, https://www.carbonbrief.org/analysis-shell-says-new-brazil-sized-forest-would-be-needed-to-meet-1-5c-climate-goal.
- 104 CarbonBrief, "Analysis: Shell says new 'Brazil-sized' forest would be needed to meet 1.5C climate goal," February 12, 2021, https://www.carbonbrief.org/analysis-shell-says-new-brazil-sized-forest-would-be-needed-to-meet-1-5c-climate-goal.
- 105 CarbonBrief, "Analysis: Shell says new 'Brazil-sized' forest would be needed to meet 1.5C climate goal," February 12, 2021, https://www.carbonbrief.org/analysis-shell-says-new-brazil-sized-forest-would-be-needed-to-meet-1-5c-climate-goal.
- 106 Total, "Total Adopts A New Climate Ambition To Get To Net Zero By 2050," May 05, 2020, https://www.total.com/media/news/total-adopts-new-climate-ambition-get-net-zero-2050
- 107 Total, "Total And Forêt Ressources Management To Plant A 40,000-Hectare Forest In The Republic Of The Congo," March 16, 2021, https://www.total.com/media/news/press-releases/total-and-frm-to-plant-forest-in-congo.
- 108 Total, "Total And Forêt Ressources Management To Plant A 40,000-Hectare Forest In The Republic Of The Congo," March 16, 2021, https://www.total.com/media/news/press-releases/total-and-frm-to-plant-forest-in-congo.
- 109 Simon Counsell, "Anatomy of a 'Nature-Based Solution': Total oil, 40,000 hectares of disappearing African savannah, Emmanuel Macron, Norwegian and French 'aid' to an election-rigging dictator, trees to burn, secret contacts, and dumbstruck conservationists," REDD-Monitor, April 16, 2021, https://redd-monitor.org/2021/04/16/anatomy-of-a-nature-based-solution-total-oil-40000-hectares-of-disappearing-african-savannah-emmanuel-macron-norwegian-and-french-aid-to-an-election-rigging-dictator-trees/.
- 110 Total, "Total And Forêt Ressources Management To Plant A 40,000-Hectare Forest In The Republic Of The Congo," March 16, 2021, https://www.total.com/media/news/press-releases/total-and-frm-to-plant-forest-in-congo.
- Simon Counsell, "Anatomy of a 'Nature-Based Solution': Total oil, 40,000 hectares of disappearing African savannah, Emmanuel Macron, Norwegian and French 'aid' to an election-rigging dictator, trees to burn, secret contacts, and dumbstruck conservationists," REDD-Monitor, April 16, 2021, https://redd-monitor.org/2021/04/16/anatomy-of-a-nature-based-solution-total-oil-40000-hectares-of-disappearing-african-savannah-emmanuel-macron-norwegian-and-french-aid-to-an-election-rigging-dictator-trees/.
- 112 Counsell, "Anatomy of a 'Nature-Based Solution': Total oil, 40,000 hectares of disappearing African savannah, Emmanuel Macron, Norwegian and French 'aid' to an election-rigging dictator, trees to burn, secret contacts, and dumbstruck conservationists."
- 113 Climate Investigations Center, "Global Climate Coalition Documents," accessed May 17, 2021, https://climateinvestigations.org/global-climate-coalition-documents/
- 114 Felicity Lawrence, David Pegg and Rob Evans, "How vested interests tried to turn the world against climate science," The Guardian, October 19, 2019, https://www.theguardian.com/environment/2019/oct/10/vested-interests-public-against-climate-science-fossil-fuel-lobby.
- 115 Greenpeace, "Exxon's Climate Denial History: A Timeline," accessed May 17, 2021, https://www.greenpeace.org/usa/ending-the-climate-crisis/exxon-and-the-oil-industry-knew-about-climate-change/exxons-climate-denial-history-a-timeline/.
- 116 Nick Cunningham, "Oil Industry's Public Climate Denial Campaign Dates Back to at Least 1980, Nearly a Decade Earlier Than Previously Thought," DeSmog, January 15, 2021, https://www.desmog.com/2021/01/15/api-american-petroleum-institute-oil-industry-public-climate-denial-campaign-1980/.
- 117 Robinson Meyer, "The Oil Industry Is Quietly Winning Local Climate Fights," The Atlantic, February 20, 2020, https://www.theatlantic.com/science/archive/2020/02/oil-industry-fighting-climate-policy-states/606640/.
- 118 Climate Investigations Center, "American Petroleum Institute," accessed May 17, 2021, https://climateinvestigations.org/trade-association-pr-spending/american-petroleum-institute/.
- 119 Kate Sheppard, "Chamber: Global Warming Is Good for You," Mother Jones, October 2, 2009, https://www.motherjones.com/politics/2009/10/more-chamber-commerces-climate-denial/.
- 120 David Roberts, "These senators are going after the biggest climate villains in Washington," Vox, November 18, 2019, https://www.vox.com/energy-and-environ-ment/2019/6/7/18654957/climate-change-lobbying-chamber-of-commerce.
- 121 Climate Investigations Center, "United States Chamber of Commerce," accessed May 17, 2021, https://climateinvestigations.org/trade-association-pr-spending/united-states-chamber-of-commerce/.
- Nicholas Kusnetz, "Exxon Touts Carbon Capture as a Climate Fix, but Uses It to Maximize Profit and Keep Oil Flowing," Inside Climate News, September 27, 2020, https://insideclimatenews.org/news/27092020/exxon-carbon-capture/.
 U.S. Department of the Treasury, TIGTA Memo, J. Russell George, April 15, 2020, https://www.menendez.senate.gov/imo/media/doc/TIGTA%20IRC%2045Q%20
- Response%20Letter%20FINAL%2004-15-2020.pdf.
- 124 U.S. Department of the Treasury, TIGTA Memo, J. Russell George, April 15, 2020, https://www.menendez.senate.gov/imo/media/doc/TIGTA%20IRC%2045Q%20 Response%20Letter%20FINAL%2004-15-2020.pdf.
- 125 "Following Ig Investigation Findings That Fossil Fuel Companies Improperly Claimed Nearly \$1b In Clean Air Tax Credits, Menendez Urges IRS Commissioner To

- Audit & Examine All Claimants Of The Credit," Bob Menendez, June 30, 2020, https://www.menendez.senate.gov/newsroom/press/following-ig-investigation-find-ings-that-fossil-fuel-companies-improperly-claimed-nearly-1b-in-clean-air-tax-credits-menendez-urges-irs-commissioner-to-audit-and-examine-all-claimants-of-the-credit
- 126 Nicholas Kusnetz, "Exxon Touts Carbon Capture as a Climate Fix, but Uses It to Maximize Profit and Keep Oil Flowing," Inside Climate News, September 27, 2020, https://insideclimatenews.org/news/27092020/exxon-carbon-capture/.
- 127 Consolidated Appropriations Act, 2021, 116th Congress, (2019-2020), https://www.congress.gov/bill/116th-congress/house-bill/133.
- 128 Exxon Mobil Corp, Lobbying Report, 2020 Q4, https://disclosurespreview.house.gov/ld/ldxmlrelease/2020/Q4/301240226.xml.
- 129 Chevron, USA, Inc., Lobbying Report, 2020 Q4, https://disclosurespreview.house.gov/ld/ldxmlrelease/2020/Q4/301235444.xml.
- 130 ProPublia, "Lobbying by BP America, Inc.," Accessed May 25, 2021, https://projects.propublica.org/represent/lobbying/301020101.
- 131 Shell Oil Company, Lobbying Report, 2020 Q4, https://lda.senate.gov/filings/public/filing/772ac01b-3530-486b-a179-a3c905a7cd6e/print/.
- American Airlines, Inc., Lobbying Report, 2020 Q4, https://lda.senate.gov/filings/public/filing/2dc8bf0b-30ce-4401-9f49-23b1dc2334a2/print/.
 Amazon.com, Lobbying Report, 2020 Q4, https://lda.senate.gov/filings/public/filing/0cb5ea09-6308-4fad-8962-2751441fba11/print/.
- 134 Walmart Inc., Lobbying Report, 2020 Q4, https://lda.senate.gov/filings/public/filing/159a5316-7b2b-4fd8-b556-0bd3ca62392c/print/.
- 134 Wathfalt His., Lobbying Report, 2020 Q4, https://tda.senate.gov/filing/public/filing/86d7b162-1d1a-42d4-996b-fdb1e9d739b4/print/.
- History fillings/public/filling/0906668-20f7-4e95-a649-68381ad16c87/print/.
- 37 OpenSecrets.org, "Rep. Henry Cuellar- Texas District 28: Top Industries 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/henry-cuellar/industries?cid=N00024978θcycle=2020θtype=C.
- 138 OpenSecrets.org, "Rep. Henry Cuellar- Texas District 28: Contributors 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/henry-cuellar/contributors?cid=N00024978&cycle=2020&recs=100&type=I.
- OpenSecrets.org, "Rep. Michael McCaul- Texas District 10: Top Industries 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/michael-mccaul/industries?cid=N00026460&cycle=2020&type=C.
 OpenSecrets.org, "Rep. Michael McCaul- Texas District 10: Contributors 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-con-
- gress/michael-mccaul/contributors?cid=N00026460&cycle=2020&recs=100&type=C.
- 141 OpenSecrets.org, "Rep. Michael McCaul- Texas District 10: Contributors 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/michael-mccaul/contributors?cid=N00026460&cycle=2020&recs=100&type=I.
- 142 OpenSecrets.org, "Rep. Vicente Gonzalez Texas District 15: Top Industries 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-con-gress/vicente-gonzalez/industries?cid=N00038809&cycle=2020&type=C.
- OpenSecrets.org, "Rep. Vicente Gonzalez Texas District 15: Contributors 2019-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/vicente-gonzalez/contributors?cid=N00038809&cycle=2020&recs=100&type=C.
- "U.S. Senators Smith, Capito Lead Bipartisan Senate Effort to Reduce Greenhouse Emissions with Carbon Capture Legislation," Tina Smith United States Senator for Minnesota, March 25, 2021, https://www.smith.senate.gov/us-senators-smith-capito-lead-bipartisan-senate-effort-reduce-greenhouse-emissions-carbon-capture.
- 145 OpenSecrets.org, "Sen. Shelley Moore Capito West Virginia: Top Industries 2015-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/shelley-moore-capito/industries?cid=N00009771&cycle=2020&type=C.
- 146 "Exxon Mobil," Open Secrets, accessed May 17, 2021, https://www.opensecrets.org/orgs/exxon-mobil/recipients?id=d0000001296t2-search=shelley.
- 147 "Chevron," Open Secrets, accessed May 17, 2021, https://www.opensecrets.org/orgs/chevron/recipients?id=D000000015t2-search=shelley.
- "American Airlines Group," Open Secrets, accessed May 17, 2021, https://www.opensecrets.org/orgs/american-airlines-group/recipients?id=D0000676976t2-search=shelley.
- 149 OpenSecrets.org, "Sen. Shelley Moore Čapito West Virginia: Contributors 2015-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/shelley-moore-capito/contributors?cid=N00009771&cycle=2020&recs=100&type=C.
- 150 "Amazon.com," Open Secrets, accessed May 17, 2021, https://www.opensecrets.org/orgs/amazon-com/recipients?id=D000023883&t2-search=shelley.
- 151 "Microsoft Corp," Open Secrets, accessed May 17, 2021, https://www.opensecrets.org/orgs/microsoft-corp/recipients?id=D000000115&t2-search=shelley.
- 152 OpenSecrets.org, "Sen. Shelley Moore Capito West Virginia: Contributors 2015-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/shelley-moore-capito/contributors?cid=N00009771&cycle=2020&recs=100&type=C.
- 153 OpenSecrets.org, "Sen. Shelley Moore Capito West Virginia: Contributors 2015-2020," Accessed May 25, 2021, https://www.opensecrets.org/members-of-congress/shelley-moore-capito/contributors?cid=N00009771&cycle=2020&recs=100&type=C.
- 154 Corporate Europe Observatory, "The Hydrogen Hype: Gas industry fairy tale or climate horror story?", 2020, https://corporateeurope.org/sites/default/files/2020-12/hydrogen-report-web-final_3.pdf.
- 155 Corporate Accountability, "FACTFILE: COP25 Bankrolled by Big Polluters," 2019, https://www.corporateaccountability.org/resources/cop25sponsors/.
- 156 Corporate Accountability, "FACTFILE: COP24 Corporate Sponsors," 2018, https://www.corporateaccountability.org/resources/factfile-cop24-corporate-sponsors/.
- 157 Corporate Accountability, "Inside job: Big Polluters' lobbyists on the inside at the UNFCCC," 2017, https://www.corporateaccountability.org/resources/inside-job-big-polluters-lobbyists-in-the-inside-at-the-unfccc/.
- Corporate Europe Observatory, "Corporate interests still come first at UN climate talks," November 22, 2017, https://corporateeurope.org/en/climate-and-energy/2017/11/corporate-interests-still-come-first-un-climate-talks.
 Corporate Accountability, "IETA, Big Polluters, and the UNFCCC," 2018, https://www.corporateaccountability.org/resources/primer-ieta-big-polluters-and-the-un-
- fccc/.

 160 Tamar Lawrence-Samuel, Rachel Rose Jackson, and Nathan Thanki, "13. The pivot point: realizing Sustainable Development Goals by ending corporate capture of climate policy." Spotlight on Sustainable Development (2017), https://www.2030spotlight.org/en/book/1165/chapter/13.pivot-point-realizing-sustainable-development
- climate policy," Spotlight on Sustainable Development (2017), https://www.2030spotlight.org/en/book/1165/chapter/13-pivot-point-realizing-sustainable-development-goals-ending-corporate-capture.
- 161 Global Forest Coalition, "Corporate contagion: How the private sector is capturing the UN Food, Biodiversity and Climate Summits," May 2021, https://globalforest-coalition.org/corporate-contagion/.
- 162 Kate Aronoff, "Shell Oil Executive Boasts That His Company Influenced The Paris Agreement," The Intercept, December 8, 2018, https://theintercept.com/2018/12/08/shell-oil-executive-boasts-that-his-company-influenced-the-paris-agreement/.
- 163 Corporate Accountability, "IETA, Big Polluters, and the UNFCCC," 2018, https://www.corporateaccountability.org/resources/primer-ieta-big-polluters-and-the-unfccc/.
- 164 "IETA/ICAP Carbon Markets Virtual Pavilion Journey to Net Zero: The Role of the Voluntary Carbon Market," IETA, November 12, 2020, https://www.ieta.org/event-4030855.
- 165 CarbonBrief, "In-depth Q&A: How 'Article 6' carbon markets could 'make or break' the Paris Agreement," November 29, 2019, https://www.carbonbrief.org/in-depth-q-and-a-how-article-6-carbon-markets-could-make-or-break-the-paris-agreement.
- 166 United Nations, "UN emissions report: World on course for more than 3 degree spike, even if climate comitments are met," November 26 2019, https://news.un.org/en/story/2019/11/1052171.
- 167 IETA, Update on Article 6 Negotiations, December 11, 2019, digital image, https://www.ieta.org/resources/Pictures/IMG_6927.jpg.
- 168 IETA, "Business Hub," December 2-13, 2019, https://www.ieta.org/resources/COP25/IETA%20COP25%20BusinessHub%20Program%20Guide_Final%20draft.pdf
- 169 IETA, "COP25 BUSINESS & INDUSTRY DAY (BINGO DAY)," December 6, 2019, https://www.ieta.org/resources/Conferences_Events/COP25/COP25_BINGO_Day_ Programme.pdf.
- 170 IETA, "United Kingdom wins Net Zero Award at COP25," December 4, 2019, https://www.ieta.org/page-18192/8176708.
- 171 Corporate Accountability, "IETA, Big Polluters, and the UNFCCC," 2018, https://www.corporateaccountability.org/resources/primer-ieta-big-polluters-and-the-unfccc/.
- 172 Corporate Accountability, "Inside job: Big Polluters' lobbyists on the inside at the UNFCCC," 2017, https://www.corporateaccountability.org/wp-content/up-loads/2017/05/cai_Bonn2017_digital_FINAL.pdf.
- 173 Corporate Europe Observatory, with research contributions by Karolina Jankowska, "Trouble always comes in threes: Big polluters; the Polish Government and the UN," Corporate Europe Observatory, November 19, 2013, https://corporateeurope.org/en/climate-and-energy/2013/11/trouble-always-comes-threes-big-pollut-

41

- ers-polish-government-and-un.
- 174 Corporate Europe Observatory, "On the cusp of a deal damning climate justice, lets take a look back at the corporate circus inside COP21," December 11, 2015, https://corporateeurope.org/en/climate-and-energy/2015/12/cusp-deal-damning-climate-justice-lets-take-look-back-corporate-circus.
- 175 Corporate Europe Observatory, "Brussels' most powerful lobbyist? Step forward BusinessEurope," November 21, 2017, https://corporateeurope.org/en/power-lob-
- bies/2017/11/brussels-most-powerful-lobbyist-step-forward-businesseurope.

 176 ExxonMobil, "Collaborating with leading universities to meet global energy demand," November 16, 2020, https://corporate.exxonmobil.com/Energy-and-innovation/University-and-National-Labs-partnerships/Collaborating-with-leading-universities-to-meet-global-energy-demand#MassachusettsInstituteofTechnology.
- 177 Cargill, "Countries & Universities,", accessed May 17, 2021, https://www.cargillglobalscholars.com/participating-countries/.
- 178 Chevron, "University partnerships and association relations," accessed May 17, 2021, https://www.chevron.com/sustainability/social/university-partnership.
- 179 Jessica Mendoza, "Why Amazon is collaborating with US universities," The Christian Science Monitor, February 2, 2015, https://www.csmonitor.com/Business/2015/0202/Why-Amazon-is-collaborating-with-US-universities.
- 180 Elin Johnson, "Virginia Goes Big on Cloud Degrees," Inside Higher Ed, October 1, 2019, https://www.insidehighered.com/digital-learning/article/2019/10/01/amazon-expands-cloud-degree-partnerships-virginia-colleges.
- 181 Sarah Perez, "Amazon partners with New York colleges on a cloud computing job training program," Tech Crunch, January 30, 2019, https://techcrunch.com/2019/01/30/amazon-partners-with-new-york-colleges-on-a-cloud-computing-job-training-program/.
- 182 "About us," The Global Climate and Energy Project (GCEP) at Stanford University, accessed May 17, 2021, http://gcep.stanford.edu/about/index.html.
- 183 ExxonMobil, "ExxonMobil to join Stanford Strategic Energy Alliance," accessed March 1, 2018, https://corporate.exxonmobil.com/News/Newsroom/News-releas-es/2018/0301_ExxonMobil-to-join-Stanford-Strategic-Energy-Alliance.
- 184 ExxonMobil, "ExxonMobil to join Stanford Strategic Energy Alliance," accessed March 1, 2018, https://corporate.exxonmobil.com/News/Newsroom/News-releas-es/2018/0301_ExxonMobil-to-join-Stanford-Strategic-Energy-Alliance.
- "Agreement for Global Climate And Energy Project (GCEP)," The Board of Trustees of the Leland Stanford Junior University (September 1, 2010): 1-87, https://gcep.stanford.edu/pdfs/GCEPAgreement_9_1_10.pdf.
- 186 James Dyke, Robert Watson, and Wolfgang Knorr, "Climate scientists: concept of net zero is a dangerous trap," The Conversation, April 22, 2021, https://theconversation.com/climate-scientists-concept-of-net-zero-is-a-dangerous-trap-157368.
- 187 Simon Lewis, "The climate crisis can't be solved by carbon accounting tricks," The Guardian, March 3, 2021, https://www.theguardian.com/commentisfree/2021/mar/03/climate-crisis-carbon-accounting-tricks-big-finance.
- 188 41 Scientists, "10 myths about net zero targets and carbon offsetting, busted," Climate Home News, December 11, 2020, https://www.climatechangenews.com/2020/12/11/10-myths-net-zero-targets-carbon-offsetting-busted/.
- 189 Eric Larson, Chris Greig, Jesse Jenkins, Erin Mayfield, Andrew Pascale, Chuan Zhang, et al., "Net-Zero America: Potential Pathways, Infrastructure, and Impacts," Princeton University Andlinger Center for Energy + the Environment (2020): 1-345, https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_ Dec 2020 FINAL.pdf.
- 190 Tom Taylor, "How much is Princeton's contract with Exxon worth? Why does it matter?," The Daily Princetonian, April 11, 2021, https://www.dailyprincetonian.com/article/2021/04/exxon-divestment-research-funding-contract-transparency-fossil-fuels.
- 191 "#breakupwithexxon," Divest Princeton, accessed May 18, 2021, https://www.divestprinceton.com/exxon.
- 192 "#breakupwithexxon," Divest Princeton, accessed May 18, 2021, https://www.divestprinceton.com/exxon.
- Ruth Stevens, "Jeff and MacKenzie Bezos donate \$15 million to create center in Princeton Neuroscience Institute," Princeton University, December 13, 2011, https://www.princeton.edu/news/2011/12/13/jeff-and-mackenzie-bezos-donate-15-million-create-center-princeton-neuroscience.
- 194 "2018 annual meeting," Princeton University Andlinger Center for Energy + the Environment, accessed May 18, 2021, https://acee.princeton.edu/about/2018-annual-meeting/speakers/.
- 195 "Princeton E-ffiliates Partnership," Princeton University (June 11, 2019), 1, https://acee.princeton.edu/wp-content/uploads/2019/06/Agenda_E-ffiliates-2019-Retreat.pdf
- 196 "Sally Benson," Stanford University Earth, accessed May 18, 2021, https://earth.stanford.edu/people/sally-benson.
- 197 Steven J. Davis, Nathan S. Lewis, Matthew Shaner, Sonia Aggarwal, Doug Arent, Inês L. Azeved, et al., "Net-zero emissions energy systems," Science 29, no.360 (2018): 1, https://doi.org/10.1126/science.aas9793.
- 198 Daniel Sperling, "Daniel Sperling," Daniel Sperling, accessed May 18, 2021, 3, https://its.ucdavis.edu/wp-content/uploads/daniel-sperling-cv.pdf.
- 199 Daniel Sperling, "Daniel Sperling," Daniel Sperling, accessed May 18, 2021, 3, https://its.ucdavis.edu/wp-content/uploads/daniel-sperling-cv.pdf.
- 200 ExxonMobil, "ExxonMobil to join Stanford Strategic Energy Alliance," March 1, 2018, https://corporate.exxonmobil.com/News/Newsroom/News-releas-es/2018/0301_ExxonMobil-to-join-Stanford-Strategic-Energy-Alliance.
- 201 "Introduction," Stanford University GCEP (2018-2019), 1, http://gcep.stanford.edu/pdfs/TechReports2018-2019/Main%20Introduction_2019.pdf.
- 202 ExxonMobil, "ExxonMobil to join Stanford Strategic Energy Alliance," March 1, 2018, https://corporate.exxonmobil.com/News/Newsroom/News-releas-es/2018/0301_ExxonMobil-to-join-Stanford-Strategic-Energy-Alliance.
- 203 Maxine Lym, "Stanford's Strategic Energy Alliance adds Shell as fourth founding member," Precourt Institute, August 27, 2019, https://energy.stanford.edu/news/stanford-s-strategic-energy-alliance-adds-shell-fourth-founding-member.
 204 ExxonMobil, "ExxonMobil to join Stanford Strategic Energy Alliance," March 1, 2018, https://corporate.exxonmobil.com/News/Newsroom/News-releas-
- 204 ExxonMobil, "ExxonMobil to join Stanford Strategic Energy Alliance," March 1, 2018, https://corporate.exxonmobil.com/News/Newsroom/News-releases/2018/0301_ExxonMobil-to-join-Stanford-Strategic-Energy-Alliance.
- 205 "John Steven Davis," Stanford Profiles, accessed May 18, 2021, https://profiles.stanford.edu/244940.
- 206 Dr. Charlotte Marshall, "Energy & Environmental Science's Impact Factor rises to 33.250," Royal Society of Chemistry, June 21, 2019, https://blogs.rsc.org/ee/page/2/?doing_wp_cron=1618956634.8336439132690429687500.
- 207 "Sally Benson," Stanford University, accessed May 18, 2021, 2-3, https://cap.stanford.edu/profiles/frdActionServlet?choiceId=printerprofile&profileversion=full&profiled=8832.
- 208 "Faculty Directors," Stanford Energy Corporate Affiliates, accessed May 18, 2021, https://seca.stanford.edu/people/faculty-directors.
- 209 "Stanford Global Carbon Management Workshop #1 Videos and Presentations," Stanford Strategic Energy Alliance, September 1-3, 2020, https://energy.stanford.edu/strategic-energy-alliance/activities/workshop/presentations.
- 210 Stanford Energy, Panel discussion of day 2 topics All speakers + Zarath Summers | Global Carbon Management Workshop, (Stanford Energy, September 29, 2020), from YouTube, video, 43:20, https://www.youtube.com/watch?v=szfvGSPeg1U.
- 211 "Stanford Global Carbon Management Workshop #1 Speakers, Moderators and Panelists," Stanford Strategic Energy Alliance, accessed May 18, 2021, https://energy.stanford.edu/strategic-energy-alliance/activities/workshop/panels.
- 212 "Stanford Global Carbon Management Workshop #1 Videos and Presentations," Stanford Strategic Energy Alliance, September 1-3, 2020, https://energy.stanford.edu/strategic-energy-alliance/activities/workshop/presentations.
- 213 Mai Bui, Claire S. Adjiman, André Bardow, Edward J. Anthony, Andy Boston, Solomon Brown, et al., "Carbon capture and storage (CCS): the way forward," Energy & Environmental Science 11, no.1062 (2018): 1149, https://doi.org/10.1039/C7EE02342A.
- 214 Imperial College London, "Our work with Shell," accessed May 18, 2021, https://www.imperial.ac.uk/engineering/industry-partnerships-and-commercialisation/shell/.
- 215 "About QCCSRC," Imperial College London, accessed May 18, 2021, http://www.imperial.ac.uk/qatar-carbonates-and-carbon-storage/about/.
- 216 "About QCCSRC," Imperial College London, accessed May 18, 2021, http://www.imperial.ac.uk/qatar-carbonates-and-carbon-storage/about/.
- 217 Caroline Brogan, "£12m partnership to help energy systems transition to net zero pollution by 2050," Imperial College London, April 7, 2021, https://www.imperial.ac.uk/news/219033/12m-partnership-help-energy-systems-transition/.
- 218 Naomi Black, "Imperial celebrates prosperous partnership with BP," Imperial College London, January 23, 2019, https://www.imperial.ac.uk/news/189833/imperials-prosperous-partnership-with-bp/.
- 219 "Professor Daniele Dini," Imperial College London, accessed May 18, 2021, https://www.imperial.ac.uk/people/d.dini.
- 220 M.S. Bodnarchuk, D. Dini, and D.M. Heyes, "Molecular Dynamics Studies of Overbased Detergents on a Water Surface," Langmuir 33, no.29 (2017): 7269, https://doi.org/10.1021/acs.langmuir.7b00827.
- 221 Bodnarchuk, Dini, and Heyes, "Molecular Dynamics Studies of Overbased Detergents on a Water Surface," 7269.

- 222 "Charles W. Donovan," Imperial College London, accessed May 18, 2021, https://www.imperial.ac.uk/people/c.donovan.
- 223 John Reilly, Angelo Gurgel, and Elodie Blanc, "Challenges in Simulating Economic Effects of Climate Change on Global Agricultural Markets," MIT Joint Program Global Change 343 (August 2020): 21, https://globalchange.mit.edu/sites/default/files/MITJP-SPGC Rpt343.pdf.
- 224 "Our sponsors," MIT Joint Program on the Science and Policy of Global Change, accessed July 22, 2020, https://web.archive.org/web/20200722173610/https://globalchange.mit.edu/sponsors/current.
- Andrei Sokolov, Sergey Paltsev, Henry Chen, Martin Haigh, Ronald Prinn and Erwan Monier, "Climate Stabilization at 2°C and Net Zero Carbon Emissions," MIT Joint Program Global Change 209 (March 2017): 13, https://globalchange.mit.edu/sites/default/files/MITJPSPGC_Rpt309.pdf.
- 226 Lori LoTurco, "MIT convenes influential industry leaders in the fight against climate change," MIT News, January 28, 2021, https://news.mit.edu/2021/mit-convenes-influential-industry-leaders-fight-climate-change-0128.
- 227 "Members," MIT Climate & Sustainability Consortium, accessed May 18, 2021, https://impactclimate.mit.edu/members/.
- 228 "Talking agriculture and climate change at MIT," Cargill, February 12, 2014, https://www.cargill.com/story/talking-agriculture-and-climate-change-at-mit.
- 229 Intergovernmental Panel on Climate Change, "Global Warming of 1.5°C," 2018, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.
- 230 Aryn Baker, "If This Task Was Urgent Before, It's Crucial Now." U.N. Says World Has 10 Months to Get Serious on Climate Goals, Time, February 26, 2021, https://time.com/5942546/un-emissions-targets-climate-change/.
- 231 "Intergovernmental Panel on Climate Change, "Global Warming of 1.5°C," 2018, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.
- 232 "The People's Demands For Climate Justice," accessed May 17, 2021, https://www.peoplesdemands.org.
- 233 "Liability Roadmap," Liability Roadmap, accessed May 17, 2021, https://liabilityroadmap.org.
- 234 Friends of the Earth International, "People. Power. Now. An Energy Manifesto," 2018, https://www.foei.org/wp-content/uploads/2018/11/14-FoEI-PPN-manifesto-ENG-lr.pdf.
- 235 Total, "Getting to Net Zero," September 2020, https://www.total.com/sites/g/files/nytnzq111/files/documents/2020-10/total-climate-report-2020.pdf.
- 236 Total, "Total Adopts A New Climate Ambition To Get To Net Zero By 2050," May 05, 2020, https://www.total.com/media/news/total-adopts-new-climate-ambition-get-net-zero-2050.
- 237 Jillian Ambrose, "Shell to expand gas business despite pledge to speed up net zero carbon drive," The Guardian, February 11, 2021, https://www.theguardian.com/business/2021/feb/11/shell-grow-gas-business-energy-net-zero-carbon.
- 238 Shell, "Annual report and accounts 2020," accessed May 23, 2021, https://reports.shell.com/annual-report/2020/servicepages/disclaimer.php.
- 239 Shell, "Shell accelerates drive for net-zero emissions with customer-first strategy," February 11, 2021, https://www.shell.com/media/news-and-media-releas-es/2021/shell-accelerates-drive-for-net-zero-emissions-with-customer-first-strategy.html.
- 240 Reuters Staff, "Shell turns to forests and the earth to soak up its emissions," Reuters, February 11, 2021, https://www.reuters.com/article/us-shell-strategy-carbon-capture-carbonof/shell-turns-to-forests-and-the-earth-to-soak-up-its-emissions-idUSKBN2AB0TU.
- 241 Rosie Frost, "What do green campaigners think of BP's plans to reach net zero?," Euronews Green, https://www.euronews.com/green/2020/08/06/what-do-green-campaigners-think-of-bp-s-plans-to-reach-net-zero.
- 242 BP, "BP sets ambition for net zero by 2050, fundamentally changing organisation to deliver," February 12, 2020, https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bernard-looney-announces-new-ambition-for-bp.html.
- 243 Phoebe Cooke, "Shell, BP, and Easyjet: The Big Polluters Designing the Rules for Voluntary Carbon Offsets," DeSmog, January 22, 2021, https://www.desmog.com/2021/01/22/shell-bp-and-easyjet-big-polluters-designing-rules-voluntary-carbon-offsets/.
- 244 David Sheppard and Leslie Hook, "Eni to plant vast forest in push to cut greenhouse gases missions," March 15, 2019, Financial times, https://www.ft.com/content/7c4d944e-470d-11e9-b168-96a37d002cd3
- 245 Eni, "Boosting Our Transformation," accessed May 23, 2021, https://www.eni.com/en-IT/investors/strategic-plan.html#:~:text=In%20the%204%2Dyear%20 plan,2020%20at%20the%20Eni%20scenario.
- 246 Kevin Crowley and Alix Steel, "Chevron CEO Sees Path to Net-Zero, Warns on Tech, Policy Hurdles," Bloomberg, March 9, 2021, https://www.bloomberg.com/news/articles/2021-03-09/chevron-sees-path-to-net-zero-carbon-cautions-on-tech-policy.
- 247 Kevin Crowley and Alix Steel, "Chevron CEO Sees Path to Net-Zero, Warns on Tech, Policy Hurdles," Bloomberg Quint, March 10, 2021, https://www.bloombergq-uint.com/technology/chevron-sees-path-to-net-zero-carbon-cautions-on-tech-policy.
- 248 Drax, "Drax sets world-first ambition to become carbon negative by 2030," December 10, 2019, https://www.drax.com/press_release/drax-sets-world-first-ambition-to-become-carbon-negative-by-2030/.
- 249 Global Forest Coalition, "Drax and the art of corporate capture: Subsidizing the world's largest biomass power station," April 20, 2021, https://www.fossilfreepolitics.org/news-resources/drax-and-the-art-of-corporate-capture-subsidizing-the-worlds-largest-biomass-power-station.
- 250 Biofuelwatch, "#AXEDRAX CAMPAIGN," https://www.biofuelwatch.org.uk/axedrax-campaign/#C3.
- 251 Enviva, "Enviva Targets Net-Zero Operations by 2030," February 17, 2021, https://www.envivabiomass.com/enviva-targets-net-zero-operations-by-2030/.
- 252 Finite Carbon, "BP Acquires Majority Stake in Largest US Forest Carbon Offset Developer Finite Carbon," December 16, 2020, https://www.finitecarbon.com/2020/12/16/bp-acquires-majority-stake-in-largest-us-forest-carbon-offset-developer-finite-carbon/.
- 253 Michael Grunwald, 'The 'Green Energy' That Might Be Ruining the Planet," March 26, 2021, https://www.politico.com/news/magazine/2021/03/26/biomass-carbon-climate-politics-477620.
- 254 Morgan Stanley, "Morgan Stanley Announces Commitment to Reach Net-Zero Financed Emissions by 2050," September 21, 2020, https://www.morganstanley.com/press-releases/morgan-stanley-announces-commitment-to-reach-net-zero-financed-e.
- 255 Rainforest Action Network, "Banking on climate change: Fossil fuel finance report 2020," 2020, https://www.ran.org/wp-content/uploads/2020/03/Banking_on_Climate_Change__2020_vF.pdf.
- 256 Jasper Jolly, "BlackRock holds \$85bn in coal despite pledge to sell fossil fuel shares," The Guardian, January 13, 2021, https://www.theguardian.com/business/2021/jan/13/blackrock-holds-85bn-in-coal-despite-pledge-to-sell-fossil-fuel-shares.
- 257 "Oil in the cloud" Greenpeace, May 19, 2020, https://www.greenpeace.org/usa/reports/oil-in-the-cloud/.
- 258 Brad Smith, "Microsoft will be carbon negative by 2030," Microsoft, January 16, 2020, https://blogs.microsoft.com/blog/2020/01/16/microsoft-will-be-carbon-negative-by-2030/.
- 259 United, "Fuel efficiency and emissions reduction," accessed May 23, 2021, https://www.united.com/ual/en/us/fly/company/global-citizenship/environment/fuel-efficiency-and-emissions-reduction.html.
- 260 Steven Mufson, "United Airlines aims to suck carbon dioxide from the friendly skies," The Washington Post, January 12, 2021, https://www.washingtonpost.com/climate-solutions/2021/01/12/climate-solutions-united-airlines/.
- Steven Mufson, "United Airlines aims to suck carbon dioxide from the friendly skies," The Washington Post, January 12, 2021, https://www.washingtonpost.com/climate-solutions/2021/01/12/climate-solutions-united-airlines/.
 "Delta commits \$1 billion to become first carbon neutral airline globally," Delta News Hub, February 14, 2020, https://news.delta.com/delta-commits-1-billion-be-
- come-first-carbon-neutral-airline-globally.

 263 Kelly Yamanouchi, "Deloitte and Delta Partner to Cut Emissions with Sustainable Fuel," The Atlanta Journal-Constitution (TNS), March 1, 2021, https://www.ajc.com/
- news/business/deloitte-and-delta-partner-to-cut-emissions-with-sustainable-fuel/WNKW3JRFTBHJXBS6ZYVB4GCUKI/.
- 264 Chris Lang, "The Kariba REDD project in Zimbabwe: From carbon credits to EARTH tokens," REDD-Monitor, February 8, 2018, https://redd-monitor.org/2018/02/08/the-kariba-redd-project-in-zimbabwe-from-carbon-credits-to-earth-tokens/.
- Kate Modolo, "Delta offsets carbon emissions for 170,000+ customers Thursday," Delta News Hub, April 19, 2018, https://news.delta.com/delta-offsets-carbon-emissions-170000-customers-thursday.
 "EasyJet's net-zero announcement: A licence for continued pollution?," Osmosis (February 2020): 1-2, https://www.osmosisim.com/rw/wp-content/up-
- loads/2020/02/case-study-easyjet.pdf.

 267 Corporate Europe Observatory, "EU ETS myth busting: Why it can't be reformed and shouldn't be replicated," 2013, https://corporateeurope.org/sites/default/files/publications/eu_ets_myths.pdf.

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268 Zach Boren, "EasyJet lobbied against green taxes before receiving £600m government loan," Unearthed, April 30, 2020, https://unearthed.greenpeace.

- org/2020/04/30/easyjet-lobbied-green-aviation-taxes-covid-bailout/.
- 269 "Nature Commitments," Walmart Sustainability Hub, accessed May 23, 2021, https://www.walmartsustainabilityhub.com/nature-commitments.
- 270 Mark Eastham, "Walmart Continues to Prioritize Forest Conservation by Stepping Up Efforts Toward 2025," Walmart, December 22, 2020, https://corporate.walmart.com/newsroom/2020/12/22/walmart-continues-to-prioritize-forest-conservation-by-stepping-up-efforts-toward-2025.
- 271 Stephen Stapczynski and Akshat Rathi, "Walmart Aims to End Emissions From Global Operations by 2040," Bloomberg Green, September 21, 2020, https://www.bloomberg.com/news/articles/2020-09-21/walmart-aims-to-end-emissions-from-global-operations-by-2040.
- 272 Annie Palmer, "Jeff Bezos names first recipients of his \$10 billion Earth Fund for combating climate change," CNBC, November 16, 2020, https://www.cnbc.com/2020/11/16/jeff-bezos-names-first-recipients-of-his-10-billion-earth-fund.html.
- 273 Justine Calma, "Bezos' Climate Fund Faces A Reckoning With Amazon's Pollution," The Verge, February 4, 2021, https://www.theverge.com/2021/2/4/22266225/jeff-bezos-climate-change-earth-fund-amazon-pollution.
- 274 Elizabeth Jardim, "Microsoft, Google, Amazon Who's the Biggest Climate Hypocrite?," Greenpeace, January 27, 2020, https://www.greenpeace.org/usa/microsoft-google-amazon-energy-oil-ai-climate-hypocrite/.
- 275 JBS, "JBS is committing to be net zero by 2040," accessed May 23, 2021, https://jbs.com.br/netzero/en/.
- 276 GRAIN, "Corporate greenwashing: "net zero" and "nature-based solutions" are a deadly fraud," GRAIN, March 17, 2021, https://grain.org/en/article/6634-corporate-greenwashing-net-zero-and-nature-based-solutions-are-a-deadly-fraud.
- 277 GRAIN, "Corporate greenwashing: "net zero" and "nature-based solutions" are a deadly fraud," GRAIN, March 17, 2021, https://grain.org/en/article/6634-corporate-greenwashing-net-zero-and-nature-based-solutions-are-a-deadly-fraud.
- David L. Burton, Brian McConkey, and Cedric Macleod, "GHG Analysis and Quantification, Farmers for Climate Solutions, January 2021, https://static1.squarespace.com/static/5dc5869672cac01e07a8d14d/t/603cf3b3785a1a1f89ee487f/1614607284952/FCS_BudgetRecommendation2021-GHGQuantification.pdf.
- 279 Corporate Accountability, "IETA, Big Polluters, and the UNFCCC," Corporate Accountability, 2018, https://www.corporateaccountability.org/resources/primer-ie-ta-big-polluters-and-the-unfccc/.
- 280 "The Montreal Conference on Climate Change: A Brief Summary," Institute for Global Environmental Strategies, January 2006, https://www.iges.or.jp/en/pub/montreal-conference-climate-change-brief/en.
- 281 TNI, "The carbon lobby: Climate business," December 07, 2009, https://www.tni.org/es/node/13028.
- 282 Friends of the Earth, "Copenhagen," accessed May 23, 2021, https://foe.org/blog/2009-12-copenhagen/.
- 283 Third World Network, "Cancun Can Deliver A Good Outcome, But Only From A Good Process," December 3, 2010, https://www.twn.my/title2/climate/pdf/assess-ments/Cancun-Assessment/Cancun-Assessment-final1.pdf.
- 284 "What came out of Copenhagen on REDD?," REDD-Monitor, December 22, 2009, https://redd-monitor.org/2009/12/22/what-came-out-of-copenhagen-on-redd/.
- 285 Patrick Bond, "Durban's conference of polluters, market failure and critic failure," Ephemera 12 no.1 (2012): 42-69, http://www.ephemerajournal.org/contribution/durban's-conference-polluters-market-failure-and-critic-failure.
- 286 Corporate Accountability, "Polluting Paris: How Big Polluters are undermining global climate policy," 2017, https://www.corporateaccountability.org/wp-content/uploads/2017/10/PollutingParis_COP23Report_2017.pdf.
- 287 IETA: "COP25 Summary Report," December 2019, https://www.ieta.org/resources/Documents/IETA-COP25-Report_2019.pdf.

Helpful Resources

This report builds on a number of recent publications related to "net zero" and corporate capture of climate policy.

For more information about how "net zero" is being used by Big Polluters and governments to evade responsibility, shift burdens, and disguise inaction, read:

"NOT Zero: How 'net zero' targets disguise climate inaction" at bit.ly/3ueSMu1
"Chasing Carbon Unicorns: The deception of carbon markets and 'net zero'" at bit.ly/34fpW2f
"Roll up, roll up! The Net Zero Circus is coming to a forest near you" at bit.ly/30Mjfhs

For more detail about the deeply flawed climate plans of Big Oil and Gas, read "Big Oil Reality Check" at bit.ly/3fjynA0

For recent critique from scientists about the fallacies of "net zero" and offsetting, see: "10 myths about net zero targets and carbon offseting, busted" at bit.ly/2RboXxe "Concept of net zero is a dangerous trap" at bit.ly/2SLa05u

To learn more about the land impact of Shell's "net zero" climate target, read "Not-Their-Lands" at bit.ly/3uP36ZX

To learn more about the potential impacts of geoengineering proposals on the table, read the technology briefings available at bit. ly/3yRawPT

For more information about how Big Polluters are positioned to unduly influence all three major international climate and biodiversity summits in 2021, read "Corporate Contagion: How the private sector is capturing UN Food, Biodiversity, and Climate Summits" at bit.ly/3fN9Y4E

To read more about the plethora of real, equitable solutions that do exist to justly address the climate crisis and reduce emissions on the timescale needed, read "Real Solutions, Real Zero" at bit.ly/3bUvHGV

To learn more about how it is possible to equitably phase out fossil fuels on the timeline needed, read "Equity, climate justice and fossil fuel extraction: principles for a managed phase out" at bit.ly/3fGPn21