

DESTRUCTION

~~energy~~ is at the
heart of everything
we do

Chevron's junk climate action agenda
and how it intensifies global harm





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Acknowledgments (all listed in alphabetical order)

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1. Introduction – Chevron at the forefront of destruction !

On the eve of Chevron’s annual report back to its investors on its business and climate progress, this exposé brings into question Chevron’s proclaimed climate action and ‘green’ image. Analysis of the activities associated with Chevron’s ‘net zero’ climate action plan raises significant concerns about whether its ‘climate action’ is displacing the needed emissions reductions to avoid climate catastrophe, spurring harm to communities and ecosystems, and further hindering the likelihood of meaningful climate action globally.

Key findings this research yielded:

More than 90% of the carbon offsets Chevron has retired through the voluntary carbon market to ‘cancel out’ its emissions seem to be worthless—presumed ‘junk’ until proven otherwise.

A major proportion of the schemes it’s investing in as part of its ‘net zero’ plan are linked to claims of local community abuse, environmental degradation, and/or may even be fueling further emissions. Almost all of the harm claimed to have been inflicted is on communities in the Global South.

The technological ‘low carbon’ schemes appear to be failing to capture the emissions promised, in some cases missing targets by as much as 50%.

Chevron’s ‘net zero’ pledge – even if fully implemented to the greatest effect without causing harm – overlooks 90% of the total emissions associated with its business practices.

Chevron is ignoring the scientifically founded need for a fossil fuel phase out, projecting emissions for 2022 – 2025 equivalent to that of 10 European countries during a similar period.

It invests millions annually to manipulate the political will for climate action, seeking to shape climate policy to its will.

If these findings sound alarming, they should, especially in light of what recent scientific findings illustrate about the urgency of the climate crisis. In March 2023, the Intergovernmental Panel on Climate Change (IPCC) released a report synthesizing the latest climate science.¹ The findings proffer a sobering moment of reckoning—perhaps our final such opportunity to avert total climate catastrophe. In the words of the United Nations Secretary-General António Guterres, the “climate-time bomb is ticking.”² This science unequivocally documented how breaching 1.5 degrees Celsius warming would have irreversible consequences and how perilously close to the cliff’s edge we are. It also makes clear that for the world to have any shot at ensuring a livable planet, we must urgently and equitably phase out fossil fuels.³

Against this dire backdrop of urgency, Chevron – a fossil fuel industry frontrunner – seems to be advancing an agenda with destruction at its heart. In 2022, the investor-owned fossil fuel corporation that is responsible for the greatest share of global emissions⁴ raked in its highest-ever profit – net US\$36.5 billion.⁵

This is more than double the previous year, and it does not appear to be slowing down any time soon. Chevron relies on a P.R. campaign that assures its shareholders, the public, and decisionmakers that it is aligned with climate action and the Paris Agreement, hyping up its aspiration to achieve ‘net zero’ as evidence of this.^{6,7} Its CEO, Mike Wirth, insists “climate change is real.... We accept the climate science... for the IPCC... We’re working to deliver a lower carbon energy system.”⁸

At Chevron’s Annual Meeting of Stockholders on May 31 2023, we will likely hear about the record profits – and associated record paybacks – to shareholders. We can expect to hear about Chevron’s investment in a ‘lower carbon future,’ how it is helping to spur this global transition, and how it is a company committed to advancing climate action at low cost to society.

It’s imperative that shareholders, policymakers, and the public see Chevron’s green claims for what they are – greenwashed destruction. As this exposé illustrates, Chevron appears to be continuing its legacy of *preventing*, not *promoting*, the legally binding regulations, the rapid deployment of real solutions and the fast track to Real Zero emissions that needs to happen to avert climate catastrophe.

Chevron’s gameplan to us looks like deceit and deception wrapped up in a list of ‘net zero’-related pledges; one that is not operating in isolation. It’s a telling glimpse of how the fossil fuel industry and polluters more broadly are ramping up expansion, increasing emissions, and using dubious methods to erode the political will and muddy the necessity to act urgently. Chevron and its peers use their tremendous power to derail meaningful policies and pathways. As a result, the industry’s schemes – such as carbon offsets – are now increasingly used by decisionmakers as the key components of global climate action in lieu of proven, cost effective, and equitable remedies.

Keeping fossil fuels in the ground. Stopping emissions at source. Rapidly deploying real and proven solutions at scale and decreasing emissions to Real Zero.⁹ These are the steppingstones to draw back from the cliff’s edge that fossil fuel corporations like Chevron have led us to. The days of business-more-than-usual are over. And the days of allowing fossil fuel corporations to self-regulate and greenwash with their ‘net zero’ pledges must end.



2. Chevron's 'net zero' climate action plan: Hollow and fueling harm?

Chevron's public assurances around taking climate change seriously are most often backed by its aspiration to achieve 'net zero' upstream emissions by 2050 (notably only for its Scopes 1 & 2 emissions).¹⁰ It primarily relies on Carbon Capture Utilization and Storage (CCUS) and carbon offset schemes to create the illusion that emissions are being 'canceled out' or 'sucked back out,' but NOT reduced. Such schemes are deeply flawed and risk great harm, not to mention they have yet to work on the scale or timeline required (see Box 1 for more info on why). In addition, even if these schemes were able to be credible, this research suggests Chevron's use of them is more of a smokescreen.

As this exposé reveals:

1. Nearly all – 93% – of the offsets Chevron has purchased and counted towards its climate targets from voluntary carbon markets between 2020 – 2022 look problematic. These offsets were found to be of low environmental integrity and therefore appear to be junk, until or unless proven otherwise (see Methodology below for how we assessed low environmental integrity). This research calls into question the legitimacy of these offsets, and particularly whether they really lead to the intended emissions reductions without causing harm.
2. In addition, we found that at least 42% of these offsets are linked to claims or allegations of inflicting harm on communities and spurring degradation of ecosystems, particularly in the Global South or on the climate crisis frontlines.
3. It appears that about half of Chevron's carbon offsets purchased through the voluntary carbon market are associated with large hydropower dam projects that don't lead to new emissions reductions.
4. By its own admission, Chevron's CCUS projects are failing to achieve even close to the amount of emissions removals promised, in some cases even failing to meet the targets by 50%.
5. As of 2021, Chevron's 'net zero' "aspiration" (yes, that's the word it uses)¹¹ only applied to 10% of its emissions and does not address the part of its business chain that accounts for 90% of its emissions.

Chevron uses junk offsets credits to meet 'net zero' climate target

Over 2020, 2021, and 2022, Chevron retired (e.g., cashed in) 5,834,022 carbon credits, or 5.83 MtCO₂e,¹² via the voluntary carbon market. Analysis of data available on the AlliedOffsets database¹³ shows these credits were purchased primarily through four of the prominent voluntary carbon market project registries (see Figure 1).

Our analysis concludes that at least 93% of these credits can be presumed to be junk until proven otherwise – either because a) they are retired through projects that appear to have low environmental integrity and thus are likely flawed and unreliable; or b) they appear to have low environmental integrity and they are linked to projects that are accused of causing negative social and environmental impacts (see Figures 2 and 3 for a breakdown of these credits and Methodology for an overview that explains how we categorized these offsets).

Figure 1: Breakdown of Chevron’s offsets credits between 2020 – 2022 per provider

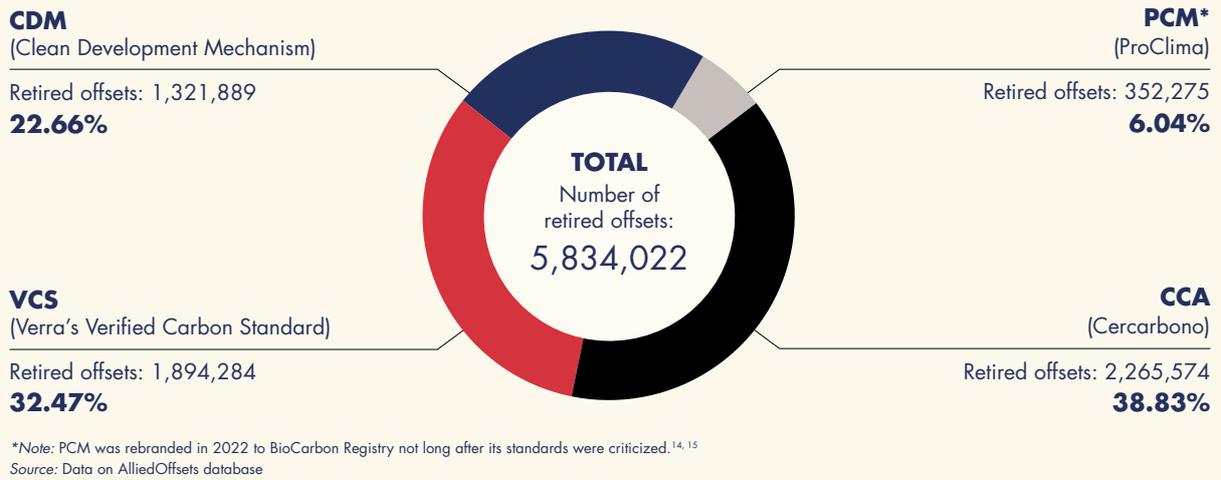
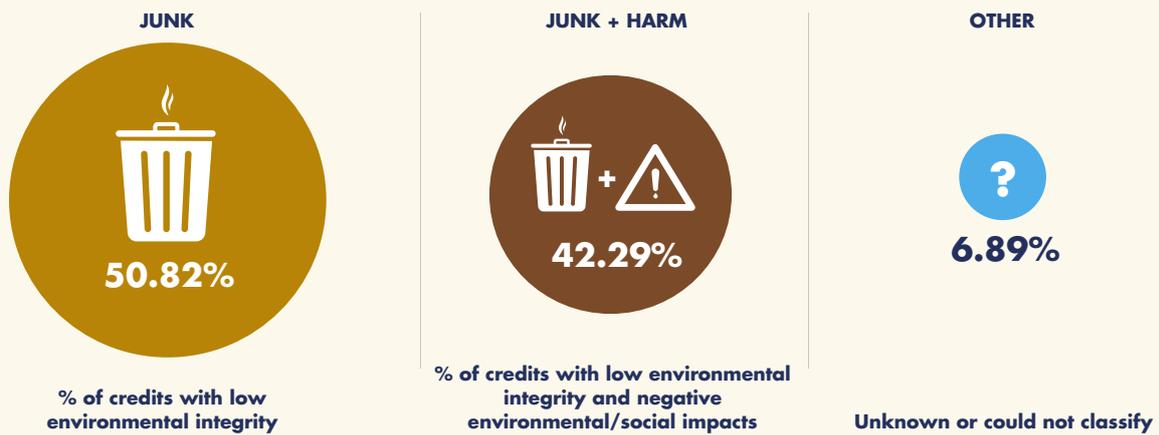
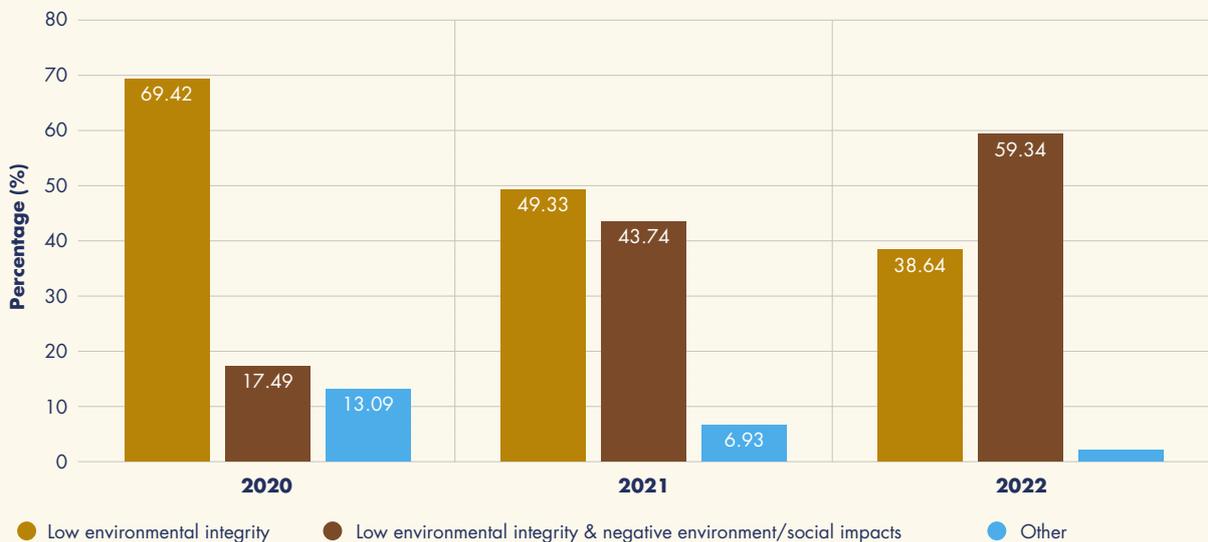


Figure 2: Majority of Chevron’s voluntary carbon offsets between 2020 – 2022 were junk or associated with harm



Source: Corporate Accountability analysis based on data from AlliedOffsets database. See Methodology for details on how these offsets were defined and assessed.

Figure 3: Annual breakdown of Chevron’s voluntary carbon offsets between 2020 – 2022



Source: Corporate Accountability analysis based on data from AlliedOffsets database. See Methodology for details on how these offsets were defined and assessed.

Chevron's shady credits fail to reduce emissions, don't actually conserve forests, and risk land grab

Nearly one-third, or 32.47%, of Chevron's voluntary carbon market credits utilized between 2020 – 2022 were retired through Verra's Verified Carbon Standard registry (VCS) (see Figure 1). An investigation released by *The Guardian* in early 2023 revealed that more than 90% of VCS credits are "worthless," though Verra has not accepted the findings.¹⁶ We did not uncover anything in our research that demonstrated Chevron's offsets purchased through VCS would be the exception to this investigation. On the contrary, the investigation and associated studies particularly highlight the major shortfalls of the VCS standard in using Reducing Emissions From Deforestation and Forest Degradation in Developing Countries, or REDD+, projects. The studies specifically focus on these projects in tropical regions, concluding that the vast majority fail to meaningfully reduce greenhouse gas emissions. Notably, 99% of the 1,894,284 credits Chevron retired from VCS covering the period of analysis were REDD+ projects in the tropical region of Colombia, fitting the profile of those found to be "worthless" in the investigation.

A previous investigation by Carbon Market Watch claimed that two of the biggest REDD+ projects in Colombia – Mataven (a Verra project) and Kaliawiri (a PCM project) – were "hot air" – neither leading to "real environmental benefits" or "forest conservation".¹⁷ Though Verra has unsurprisingly rebuked this claim in relation to the Mataven project that's part of its registry,¹⁸ as far as we are aware it has not been able to disprove the claim. Both of these projects have been part of Chevron's carbon offset projects on and off since 2018.¹⁹ In addition to the low environmental integrity of the VCS standard for REDD+ projects in tropical regions, REDD+ projects are also notorious for their negative impacts on Indigenous peoples and local communities worldwide due to risks of land grabbing and loss of land tenure rights,^{20, 21, 22} among other challenges (e.g. failing to reduce deforestation). As a result, REDD+ projects are largely not effective and overstate impacts on avoided deforestation and mitigation.^{23, 24, 25, 26} To make matters worse, REDD+ and other offset projects in Colombia have also been at the root of tax avoidance schemes for many multinationals retiring offsets there, a practice Chevron is well acquainted with.^{27, 28, 28, 29, 30}

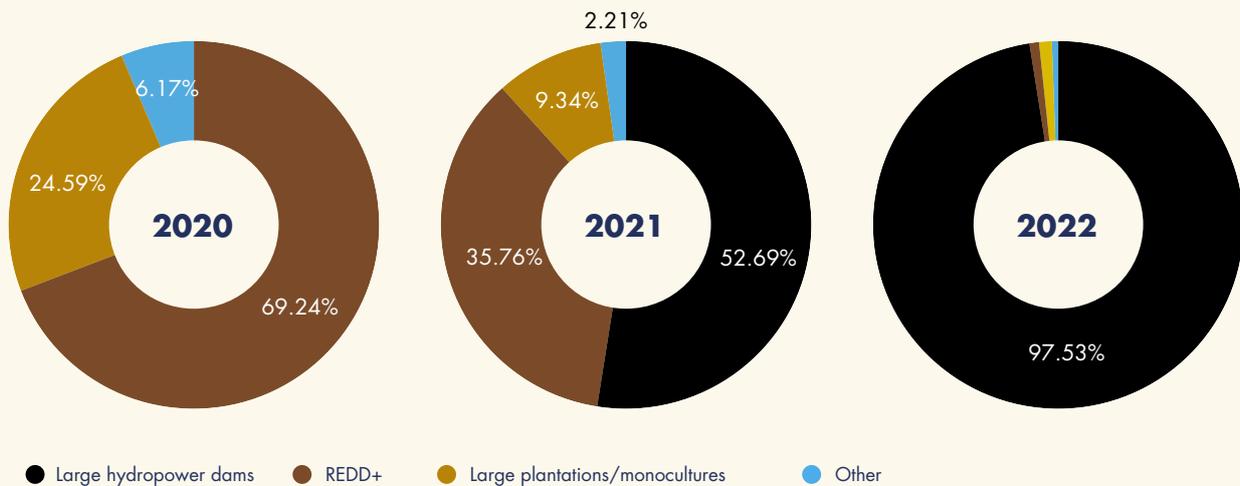
Chevron has also purchased substantial credits through other voluntary carbon market project standards and registries, such as Cercarbono³¹ (CCA), ProClima (PCM, which rebranded in 2022 to BioCarbon Registry not long after its standards were criticized),^{32, 33} and Clean Development Mechanism (CDM), the credibility of which has been so widely debunked³⁴ to the point that Article 6.4 of the Paris Agreement had to re-establish a newly branded "Sustainable Development Mechanism" to distract from the failures of the CDM.

Chevron's offsets purchased through hydropower dams don't lead to new emissions reductions

Nearly 54% (3,143,499) of Chevron's voluntary offsets credits (purchased through the CCA and CDM) were large hydropower dam offsets which deliver meaningless offsets since they are not actually additional offsets.^{35, 36} As noted by the GHG Management Institute and Stockholm Environmental Institute, "GHG emissions reductions are additional if they would *not* have occurred in the absence of a market for offset credits. If the reductions would have happened anyway – i.e., without any prospect for project owners to sell carbon offset credits – then they are not additional... if their associated GHG reductions are not additional, then purchasing offset credits in lieu of reducing your own emissions will make climate change worse."³⁷ Projects like these are also known to give way to social and environmental harm.³⁸

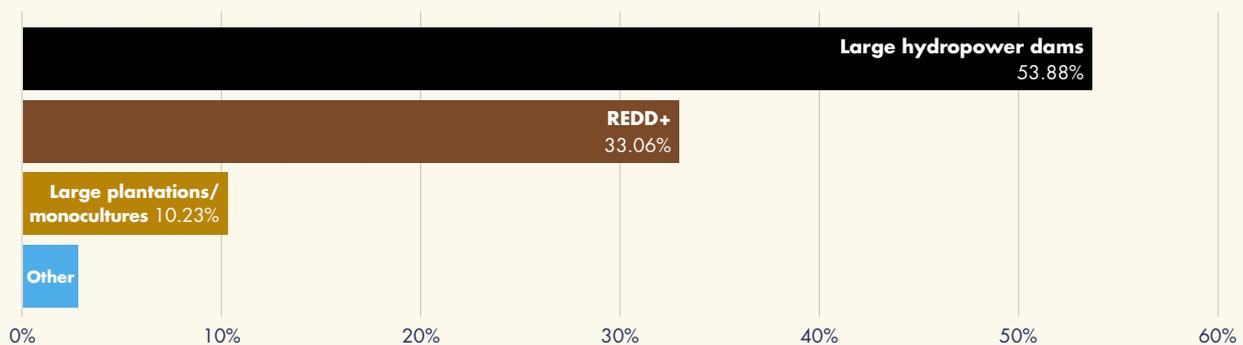
It's telling that Chevron has prioritized offsets purchased through these meaningless large hydropower dam projects more and more in recent years. In 2020, large hydro projects barely featured in its voluntary carbon offsets portfolio. One year later, they made up over half (52.69%) of their voluntary carbon offsets. And in 2022, almost all (97.53%) of Chevron's voluntary carbon offsets were large hydro projects (see Figures 4 and 5).

Figure 4: Type of voluntary carbon market offsets Chevron has purchased 2020 – 2022



Source: Corporate Accountability analysis based on data from AlliedOffsets database. See Methodology for details on how these offsets were defined and assessed.

Figure 5: Majority of Chevron’s voluntary carbon offsets between 2020 – 2022 were large hydropower dam projects (i.e. not new emissions reductions)



Source: Corporate Accountability analysis based on data from AlliedOffsets database. See Methodology for details on how these offsets were defined and assessed.

Investigations continue to expose the fundamental weaknesses of offsets, poking holes in the belief that they are a viable way to deliver on global emissions reductions.^{39, 40} This includes an academic report released in March 2022 that found that many of the major carbon market registries are “systematically over-crediting projects and delivering dubious carbon offsets.”^{41, 42}

» Chevron’s offsets not only junk, but linked to harm in the Global South, spurring a racist and neo-colonial legacy

It’s bad enough that Chevron’s offsets aren’t likely to lead to reliable emission reductions. What’s even worse is that many of these offsets projects have been publicly claimed to be linked to harm, suggesting that these projects are prone to spur negative social and environmental impacts, especially in the Global South.

These include projects like Proyecto Hidroeléctrico El Quimbo, Sogamoso Hydropower Project, Proyecto de Conservación Kaliawiri REDD+, Reforestation with Rubber on degraded lands of Colombia, and Proyecto Forestal MAVALLE en plantaciones de Caucho natural (see below) – all of which are in Colombia (where the majority of Chevron’s offsets are purchased).

Proyecto Hidroeléctrico El Quimbo

Sogamoso Hydropower Project

Combined, these two projects make up over 37% of Chevron’s retired voluntary carbon offsets between 2020-2022.⁴³



Photo credit: radionacional.co

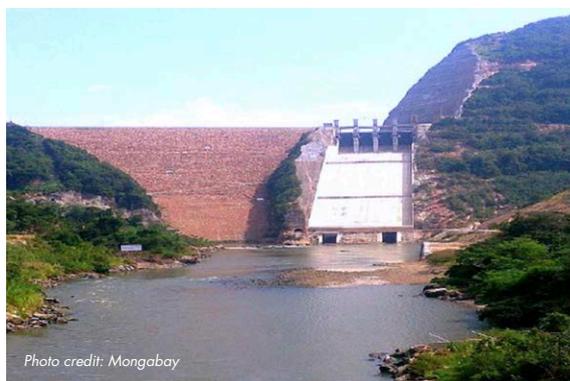


Photo credit: Mongabay

Proyecto Hidroeléctrico El Quimbo makes up 15.59% of Chevron’s voluntary carbon offsets for 2020 – 2022, despite its low environmental integrity as a large hydropower dam. It’s also being accused of environmental and social compliance failures, as well as harmful damages to the community who are still demanding that their rights be met.^{44, 45, 46}

Making up 21.7% of Chevron’s voluntary offsets between 2020 – 2022, the low environmental integrity Sogamoso Hydropower Project has also been at the root of reported environmental and social violations for the past decade. Reportedly, more than 16,000 people from local communities have been affected – with 1,000 having to relocate. Those that have resisted report having endured threats, disappearances, and even killings reportedly associated with opposition to the dam.^{47, 48, 49}

Proyecto de Conservación Kaliawiri REDD+

Reforestation with Rubber on degraded lands of Colombia

Proyecto Forestal MAVALLE en plantaciones de Caucho natural

According to Carbon Market Watch, the Kaliawiri REDD+ project has an inflated baseline due to significantly incorrect information about its plot area. For example, the project design documentation claims to be in an area where Indigenous peoples are not, while it is actually on Indigenous lands. According to Carbon Market Watch, the project also claims to be at the edge of the rainforest, in zones which are traditionally at risk of logging and deforestation. Instead, the actual plot area is deep into the forest and away from these zones of vulnerability. Finally, the project’s documents indicate an area where there are more roads than in the actual area. Combined, all these factors suggest that the project’s baseline is inflated, thereby creating a false sense of heightened risk for deforestation in an area that is already being protected by Indigenous peoples per Colombian forest tenure laws and already removed from deforestation threats.⁵⁰

Chevron’s offsets also include supposed reforestation projects which are large rubber plantation monocultures for latex extraction (*Reforestation with Rubber on degraded lands of Colombia*, via VCS, and Proyecto Forestal MAVALLE en plantaciones de Caucho natural, via PCM). A 2018 study found that carbon credits used to discourage deforestation were erroneously priced between \$5 and \$13, noting that “in order to match the revenue generated by converting a forest to a rubber plantation, that number would need to be upped to between \$30 and \$51 per ton of CO₂.”^{51, 52} Between the two projects above, Chevron retired over 300,000 tons of CO₂e at a meagre \$5-\$12 per ton of CO₂e,⁵³ effectively underpaying its offsets by millions of USD and likely contributing to deforestation. Furthermore, much like the VCS standard, the ProClima standard and its associated PCM registry, for which the MAVALLE rubber plantation project is registered through, had already been accused in 2021 of setting artificial prices to “generate millions of extra carbon credits which are unlikely to represent any real environmental benefits.”^{54, 55} To make matters worse, large plantations such as these, unlike natural or even secondary forests (e.g., those that are replanted and left to grow naturally), require sterile habitats, frequent harvesting and sometimes clearing, which releases stored carbon back into the atmosphere.⁵⁶ These plantations can actually create cumulatively worsening conditions for local ecosystems and biodiversity and are not effective carbon offsetting strategies.⁵⁷

By no means are the few examples of community impact listed here comprehensive. They only begin to paint a picture of the humanity that's on the line with projects like these. Our research suggests that at least **40% of Chevron's offsets purchased through the voluntary carbon market are not only junk, but are also linked to claims of negative social and environmental impacts.**

Notably, essentially all of Chevron's offsets projects are based in the Global South (e.g., Colombia, India, Sierra Leone, to name a few), which has racist and neo-colonial implications worth unpacking. Communities in the Global South are already experiencing devastating impacts as a result of a climate crisis that Chevron has played a significant role in fueling (Chevron is one of twenty fossil fuel corporations collectively responsible for one-third of global emissions).⁵⁸ It invests in Global South-based offsets projects that take up land and natural resources, and potentially displace communities. As this analysis shows, these projects may not be contributing meaningfully to greenhouse gas emissions mitigation, and many of them are linked to claims of various harms to communities or local ecosystems.

When Chevron's actions don't demonstrate a commitment to meaningfully decrease its emissions at source and stop expansion of fossil fuels, it produces avoidable emissions that will help lock in further temperature warming that in turn will spur more deadly and more frequent climate change related disasters, with some of these same Global South and frontline communities being most adversely impacted. In this manner, the legacy of racism and carbon colonialism continues through Chevron's wanting version of 'climate action.'

Chevron's main CCUS project a failure

In addition to junk offsets, Chevron also promotes its investment in CCUS as central to achieving its 'net zero' target (See Box 1 for a reminder of the many failings of CCUS). In 2021, it even launched an additional arm – Chevron New Energies – alongside the proclamation that it would invest US\$10 billion in "lower carbon projects,"⁵⁹ with a heavy emphasis on CCUS.⁶⁰ But Chevron's deployment of CCUS has not been proven to consistently lead to the emissions reductions promised. One of the projects it leads and features most prominently on its website – the Gorgon project off the northwest coast of Australia –⁶¹ is the perfect illustration of why.

By Chevron's own admission, the Gorgon project has failed to come anywhere close to achieving its targeted captured CO₂,⁶² underperforming by about 50%.⁶³ More recently, the project is actually associated with an increase in emissions; in April 2023, news broke that "Emissions from Chevron's Gorgon gas development off Western Australia have increased by more than 50% despite it being home to the world's largest industrial carbon capture and storage system."⁶⁴

As noted by the Institute for Energy Economics and Financial Analysis (IEEFA) in its environmental reports on the Gorgon project between 2015 – 2020, the failures of the Gorgon project are "typical of the technical risks involved in CCS projects.... The extent of the technical failure of Gorgon CCS cannot be overstated. It prompts the question: if the engineers from the project backers – the super major oil companies Chevron, Shell and Exxon – cannot get CCS to work as forecast, who can?"^{65, 66}

Box 1: The many failings of carbon offsets and Carbon Capture Utilization and Storage

For more information about why carbon offsets and Carbon Capture Utilization and Storage (CCUS) are not viable climate solutions, and why they risk great harm to communities and ecosystems, check out the following resources:

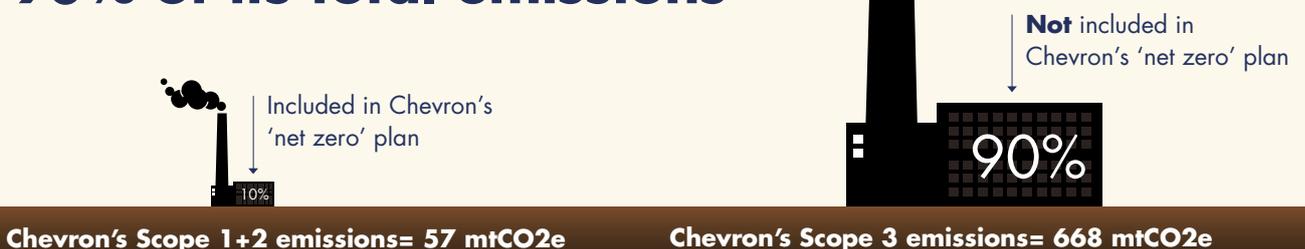
1. [The Land Gap Report \(2022\)](#).
2. [Fossil futures built on a house of cards- Report on the voluntary carbon market \(2022\)](#).
3. [Chasing carbon unicorns: The deception of carbon markets and “net zero”\(2021\)](#).
4. [The carbon capture crux: Lessons learned \(2022\)](#).
5. [Top 5 reasons Carbon Capture and Storage \(CCS\) is Bogus \(2021\)](#).
6. [On the sustainability of CO2 storage through CO2-enhanced oil recovery \(2020\)](#).

» Chevron omits over 90% of its emissions in its ‘net zero’ “aspiration”

Underlying the absurdity of all of this is the relatively minute proportion of Chevron’s emissions that these faulty offsets and CCUS schemes are intended to address. Though Chevron is quick to proffer its ‘net zero’ commitment as proof of its commitment to address climate change, its ‘net zero’ pledge is 1) only an “aspiration”, as carefully stated on its website;⁶⁷ and 2) only applies to its Scope 1 emissions (that result from operating the facilities/equipment/vehicles/buildings that Chevron owns) and Scope 2 emissions (produced from the energy Chevron uses), not its Scope 3 emissions (caused by the end-use of Chevron’s products – sold oil and gas) – see Figure 6 below.

Figure 6:

Chevron’s ‘net zero’ plan overlooks more than 90% of its total emissions



Even if the plethora of failings associated with these offsets schemes and CCUS projects could be addressed in totality, and even if environmental integrity, human rights, and community care could be entirely assured and the claimed amount of emissions fully reduced, because its 'net zero' pledge only addresses its Scope 1 & 2 emissions, these emissions reductions would at the very best only address 10% of Chevron's entire GHG emissions footprint – leaving 90% of Chevron's emissions in principle to continue expanding without any emissions-reducing activities.

But the reality is even bleaker than this. According to its own recently released 2022 Corporate Sustainability Report,⁶⁸ its emissions are up from the previous year. In 2022, Chevron's total greenhouse gas emissions were 725 million tonnes CO2 equivalent, up from 672 the previous year.⁶⁹ At the same time as it is ramping up its emission-intensive production, it is planning to offset less than 2% of this, only 10 million tonnes CO2 equivalent (down from the 13 million promised the previous year) – just the tip of the iceberg.

Instead of being taken at face value, Chevron's 'net zero' promises can be presumed to not lead to meaningful emissions reductions and risk causing harm, until or unless proven otherwise. And as the next section shows, this misleading climate action agenda is masking a broader deception at play: that Chevron is intending to maximize expansion in a reckless pursuit of profits.



Methodology for determining the quality of Chevron's voluntary carbon market offsets

Throughout 2020, 2021, and 2022, Chevron's retired carbon offsets in the voluntary carbon market amounted to 5,834,022, or 5.83 MtCO_{2e}.⁷⁰ Using data from the AlliedOffsets Database, we first analyzed how many retired offsets Chevron had purchased for which projects, by registry. After this, we categorized the projects based on whether they had low environmental integrity presumed to be junk and/or whether there were claims, evidence, or accusations of negative environmental or social impacts. To help us categorize, the following definitions and assessments were used to determine whether these projects were linked to low environmental integrity and presumed to be junk credits, and/or linked to negative environmental or social impact, or "other":

Low environmental integrity offsets projects (e.g. presumed junk) are projects that are:

Certified by a standard with demonstrated low environmental integrity

Cases matching: VCS standard

Following an international investigation in 2022, which is based on three different peer-reviewed studies assessing 79 VCS-certified projects,^{71, 72, 73} 90% of VCS credits were found to be of low environmental integrity due to shortfalls regarding additionality and leakage.⁷⁴ The studies particularly expose shortfalls within REDD+ projects in tropical regions. In this data, 1,894,284 of Chevron's offsets were under Verra's Verified Carbon Standard registry (VCS), and 99% of these are REDD+ projects in tropical regions. The final data was adapted to factor in the 90% shortfall, and the difference was shifted from "low environmental integrity" to "other" (e.g., not able to be graded as having low environmental integrity or having negative social or environmental impacts.)

Presumed to be of low environmental integrity due to their failure to demonstrate their delivery on market integrity, additionality, leakage and/or permanence

Cases matching: Large hydropower; Large scale plantations/monocultures; Price or project integrity

Large hydropower dams:

Large hydropower dams are historically known for their failure to ensure additionality, given that the vast majority have been and would be implemented regardless of their affiliation to a carbon offset scheme or registry.^{75, 76, 77} A hydropower power plant is considered large if it has a capacity of 30 or more MW.⁷⁸ In this data, Chevron has retired 3,146,039 hydropower project offsets. With the exception of *Providencia III: 9.11MW Small Hydro Power Generation Plant* (2,540 credits), Chevron's remaining hydropower projects (3,143,499 credits) between 2020-2022 have a capacity of 30 or more MW. This means that 99.9% of Chevron's hydropower carbon offsets are linked to large hydropower power plants, and are presumed to be low environmental integrity offset projects.

Large scale plantations / monocultures:

Large scale plantations of commercial trees can be found in three of Chevron's offset projects; rubber plantation monocultures for latex extraction (*Reforestation with Rubber on degraded lands of Colombia, via VCS, and Proyecto Forestal MAVALLE en plantaciones de Caucho natural, via PCM*) and pine and eucalyptus plantations for harvesting SKCarbono via CCA. Large plantations such as these, unlike natural or even secondary forests (e.g. those that are replanted and left to grow naturally), require sterile habitats, frequent harvesting and sometimes clearing, often every 10-20 years, which releases stored carbon back into the atmosphere.⁷⁹ Large scale plantations for harvesting are not an effective carbon offsetting strategy due to these issues around non-permanence and the potential for emissions from land use change.^{80, 81} In the case of SKCarbono, this is a project for Smurfit Kappa's (SK) pine and eucalyptus plantations across Colombia, and conducted via its subsidiary Reforestadora Andina S.A.⁸² In addition to its presumed low environmental integrity, these trees are also invasive and exotic to Colombia's flora and fauna.⁸³ SKCarbono's project description not only states that the purpose of its plantation is for harvesting, but also that the duration for project is only from 2010-2039.⁸⁴ This is far from the environmental integrity needed to meaningfully store carbon for long periods, and consequently far from qualifying as meaningful offsets.

Price or project description integrity:

According to Carbon Market Watch, proponents of the *Kaliawiri REDD+ project* have inflated the project's baseline by providing significantly incorrect information about its plot area.⁸⁵ For example, the project design documentation claims to be in an area where Indigenous peoples are not, while it is actually on Indigenous lands. The project also claims to be at the edge of the rainforest, zones which are traditionally at risk of logging and deforestation. The actual plot area is in fact deep into the forest and away from these zones of vulnerability. Finally, the project's documents indicate an area where there are more roads than Kaliawiri's actual area. Combined, all these factors suggest that the project's baseline is inflated, thereby creating a false sense of heightened risk for deforestation in an area which is in fact already protected by Indigenous peoples per Colombian forest tenure laws, and in fact quite far from threats to deforestation.

Chevron's offsets also include reforestation projects which are in-fact rubber plantation monocultures for latex extraction (*Reforestation with Rubber on degraded lands of Colombia* via VCS, and *Proyecto Forestal MAVALLE en plantaciones de Caucho natural*, via PCM). A 2018 study found that carbon credits used to discourage deforestation were priced between \$5 and \$13, noting that "in order to match the revenue generated by converting a forest to a rubber plantation, that number would need to be upped to between \$30 and \$51 per ton of CO2."⁸⁶ Between the two projects above, Chevron retired over 300,000 tons of CO2 at a meagre \$5-\$12 per ton of CO2, effectively underpaying its offsets by millions of USD and likely contributing to deforestation instead. Furthermore, much like the VCS standard, the ProClima standard and its associated PCM registry, for which the MAVALLE rubber plantation project is under, had already been accused in 2021 of setting artificial prices in order to "generate millions of extra carbon credits which are unlikely to represent any real environmental benefits."^{87, 88}

Negative environmental and social impact is defined as projects where there is evidence, accusations, or claims based on existing data or publicly available information of:

Environmental degradation or destruction; negative social or economic impacts; displacement; social or community-level opposition due to the project's failure to respect community rights or resources; or violence against communities.

Cases matching: Proyecto Hidroeléctrico El Quimbo; Sogamoso Hydropower Project; SKCarbono

Large hydropower dams have frequently been associated with negative social and economic impacts within a 50km radius.⁸⁹ Organizations worldwide have repeatedly advocated to remove large hydropower projects from carbon market schemes given their regular social and environmental harms.⁹⁰ Chevron's offsets are no exception – our research suggests the vast majority of its hydropower offset credits are linked to projects that have been deemed harmful for communities and biodiversity. For example, the **Proyecto Hidroeléctrico El Quimbo** makes up 15.59% of Chevron's voluntary carbon offsets for 2020-2022, despite failing to meet high environmental offset integrity standards and being accused of environmental and social compliance failures, as well as harmful damages to the community who are still demanding that their rights be met.^{91, 92, 93} Another major hydropower dam making up an enormous 21.7% of Chevron's voluntary offsets during this same period is the **Sogamoso Hydropower Project** has also been at the root of environmental and social violations for the past decade for over 16,000 community members, many of which have reportedly faced threats, disappearances, and even killings for their opposition to the dam.^{94, 95}

Chevron's **SKCarbono** offset project via the CCA registry, is a carbon offset project of Smurfit Kappa (SK) (via its subsidiary Reforestadora Andina S.A.⁹⁶), one of the largest product packaging companies responsible for decades worth of deforestation and pollution in Colombia.^{97, 98} In 2021, the company issued green bonds, as part of an increasingly common industry trend allowing other companies to purchase these in exchange for offsetting emissions.^{99, 100} However SK's bond program only considers Scopes 1 and 2,¹⁰¹ meaning the company can continue logging rainforests in exchange for monocultures, damaging ecosystems, and violating human and collective rights across its supply chain – per concerns raised by the OHCHR's Special Rapporteur on Human Rights Defenders – all while providing worthless credits to buyers like Chevron.^{102, 103} Large plantations such as these, unlike natural or even secondary forests (e.g. those that are replanted and left to grow naturally), require sterile habitats, frequent harvesting and sometimes clearing, often every 10-20 years.¹⁰⁴ These plantations can actually create cumulatively worsening conditions for local ecosystems and biodiversity.¹⁰⁵

Other:

Projects that were categorized as "Other" were not able to be graded as having low environmental integrity or having negative social or environmental impacts. Some of these could be carbon offset projects of higher environmental integrity, or ones of low environmental integrity that we did not have enough information to categorize. The projects were disregarded primarily due to the fact that they were associated with very small offset amounts; therefore, according to our analysis of the AlliedOffsets Data they made up a small portion of Chevron's total offsets. Due to lack of adequate information to assess some of these projects, however, it is likely this research underestimates the total percentage of Chevron's voluntary carbon market offsets that have low environmental integrity.

3. Head in the (tar) sands: Chevron's plans for reckless expansion ignore need for fossil fuel phase-out

Chevron pours millions into trying to persuade decisionmakers, shareholders, and the public that it is serious about climate action.^{106, 107} Yet a closer inspection of the finer details of its business plans points to a very different story—what looks like a greenwashed P.R. narrative that disguises business plans deeply misaligned with the dire warnings underscored by climate science.

According to the *Investing in Disaster* report released in November 2022, analysis of Chevron's final investment decisions indicates that the corporation's cumulative Scope 3 emissions from oil and gas expansion for 2022 – 2025 is projected to be approximately 1,499 Mt CO₂.¹⁰⁸

Chevron's projected emissions are equivalent to the emissions from 364 coal-fired power plants annually,¹⁰⁹ and more than the emissions of 10 European countries combined for a similar three-year period (see Figures 7 and 8).

Figure 7:

Chevron's projected emissions (2022-2025) dwarf emissions of 10 European countries combined (2017-2020)

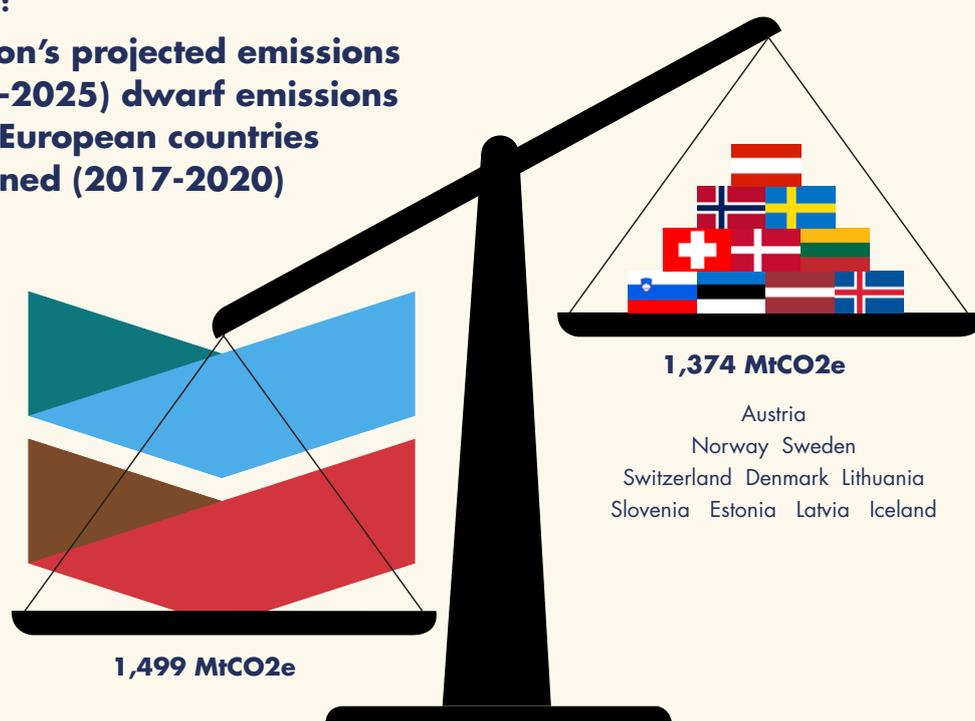


Figure 8: Projected three-year emissions for Chevron (2022 – 2025) compared to emissions of countries (2017 – 2020)

Polluter	Emissions (MtCO ₂ e)
Chevron 2022 – 2025	1,499.00

Compared to:

	Emissions (MtCO ₂ e)
Countries 2017 – 2020	
Spain	1,260.67
Netherlands	719.92
Czech Republic	494.97
Belgium	457.57
Greece	348.35
New Zealand	320.36
Austria	313.68
Portugal	258.77
Hungary	256.88
Ireland	241.99
Finland	211.63
Norway	206.07
Sweden	202.35
Denmark	189.61
Switzerland	183.28
Slovak Republic	161.08
Lithuania	81.23
Slovenia	68.21
Estonia	67.28
Latvia	43.52
Iceland	18.85

Emissions are presented in MtCO₂e.
Source: Organization for Economic Cooperation and Development.¹¹⁰

It's clear that there can be no further expansion of fossil fuels in order to have any shot at ensuring a livable planet.^{111, 112} Yet, by the end of 2030, Chevron is planning to invest US\$57.4 billion in oil expansion – second only to Exxon-Mobil.¹¹³ To put this in perspective, Chevron is planning to allocate the equivalent of two-thirds of Sri Lanka's Gross Domestic Product (GDP) in 2021, which was US\$88.93 billion, only to the expansion part of its portfolio.¹¹⁴

The extent of its intended expansion hits home when one looks at the global reach of this production. As illustrated in Figure 9, in the most recent reported period at the time of writing (July 1 2020 – June 30 2021), Chevron was currently producing hydrocarbons to the tune of 1,322.28 million barrels of oil equivalent per day (mmboe) in 21 countries, expanding its oil operations in eight countries estimating a further 5,421.96 mmboe, and exploring in 24 countries.¹¹⁵ This reckless expansion includes, among others, plans to increase crude oil production both in the U.S. Permian Basin and Kazakhstan by 42% (700,000 barrels per day to 1 million)¹¹⁶ in 2023.

All in all, this activity implies an overshoot of at least 52.4% when compared to the International Energy Agency's Net Zero by 2050 Scenario, a number that is optimistic and therefore likely conservative.^{117, 118}

Overexaggerated renewables and green investments

Chevron's self-professed 'green image' in part comes from its P.R. that insists it is investing in a low-carbon future. Chevron has been touted as "the first U.S. oil major to invest in offshore wind power."¹¹⁹ In 2022, it even acquired a renewable energy corporation.¹²⁰

According to InfluenceMap, almost half of Chevron's public communications includes green claims.¹²¹ Take, for example, a December 2022 video advertisement for Chevron Renewable Energy Group, which in the span of 75 seconds claims it is a "frontrunner in innovation and a positive force for good" that is "dedicated to change and committed to the promise of a lower carbon planet," underscored by its commitment "to lead the transformation to renewable fuels" and "speed the transformation to renewable fuel" while "fuel[ing] positive change around the world."¹²²

These are quite the claims for a corporation that is investing a paltry 0.23% of its capital expenditure on low-carbon investments—approximately half of which cannot credibly be classified as "low-carbon" since it includes Carbon Capture and Storage technologies, which are widely disputed as viable (see Box 1 for why).¹²³ It's no wonder a Federal Trade Commission (FTC) complaint has been filed against Chevron, suggesting it has been "unlawfully deceptive" with its claims that hyperbolize its investment in renewable energy and pollution-reducing plans.¹²⁴ Though its P.R. paints an image of an environmental- and humanity-conscious corporation, its oil and gas expansion plans, especially in light of the latest climate science, could not be further from this.

Figure 9: Map of Chevron's current oil production, intended expansion, and exploration.

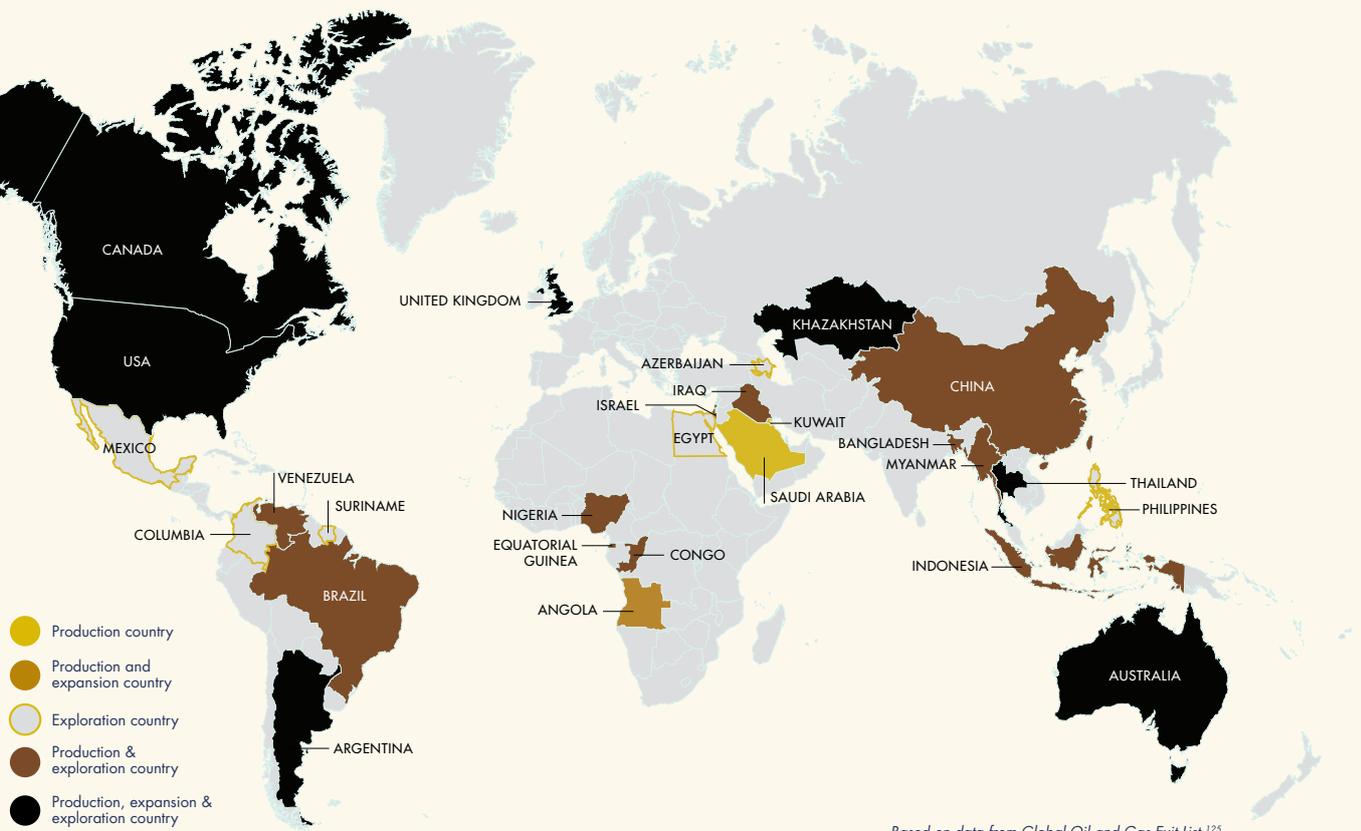


Photo by Chris LeBoutillier on Unsplash

4. Climate action? Think again. Chevron is one of the worst climate policy obstructors

Chevron – the investor-owned fossil fuel corporation responsible for the greatest share of global emissions¹²⁶ – appears to be using its empty ‘net zero’ promises and its purchase of junk offsets to bury climate science and recklessly expand fossil fuels. These tactics, underhanded though they are, may be moves in an even dirtier game.

Not only does Chevron seem to be misleading the public and its shareholders about its ‘climate friendliness,’ it also plays a central role in weakening the global response to climate change, eroding it as much as possible.

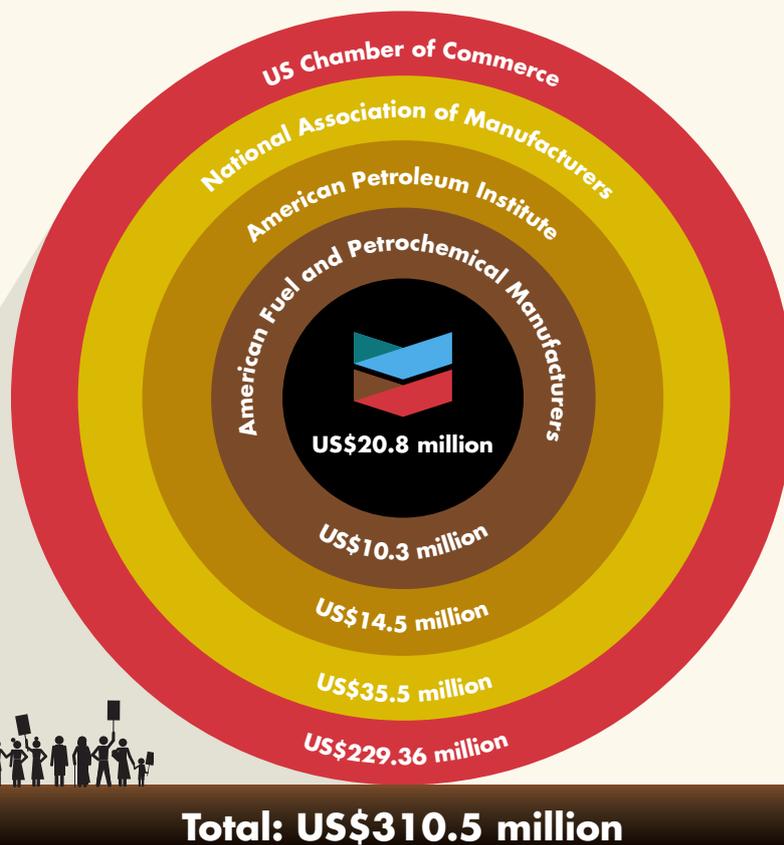
Hundreds of millions of lobby dollars at its disposal

Though the fossil fuel industry generally is infamous for its dark money, buying of political systems, and manipulation of policy,^{127, 128, 129} Chevron stands out as among the dirtiest¹³⁰ – it is the fossil fuel corporation most mis-aligned with the Paris Agreement and ranks among the top three least climate responsible lobbyists among major fossil fuel corporations.¹³¹

A brief look at its lobbying expenditure provides only one glimpse of a deeper, more insidious lobbying machine. Between 2020 – 2022, its lobbying disclosures show that Chevron individually spent US\$20.8 million (US\$20,780,000) lobbying only within the U.S.¹³² But this only reflects what Chevron directly lobbied on, in just one country. It does not reflect the broader lobbying muscle of the industry groups Chevron helps direct and is a member of, which is where much of the fossil fuel industry lobbying happens.^{133, 134, 135}

For example, the U.S. Chamber of Commerce, of which Chevron sits on the board of directors,¹³⁶ spent US\$229.4 million (US\$229,360,000) lobbying in the same period.¹³⁷ The combined total of lobbying dollars for three of the trade association Chevron boasts its partnership with on its website¹³⁸ adds another US\$60.3 million (US\$ 60,297,618)¹³⁹ – see Figure 10. While all of these lobbying dollars do not go exclusively towards advancing Chevron’s agenda alone, we know that industry trade groups are a primary tool fossil fuel corporations have at their disposal to weaken climate policy, and that the groups it is either on the governance of or boasts partnership with are likely to spend a significant amount of time working on Chevron’s behalf.

Figure 10:
A snapshot of
Chevron's mighty
lobbying muscle
(2020 – 2022)



» Drilling down on the policy details: Chevron lobbied on 150+ U.S. bills or issues in 2022

Analysis of its lobbying disclosures reveals that in 2022, Chevron lobbied the U.S. government on more than 150 bills or issues. Many of the policies it lobbied on would either have strengthened climate accountability and emissions-reducing activities, or conversely stood to displace real solutions in favor of schemes like carbon offsets and CCUS that Chevron relies on to advance its deception. Box 2 below summarizes a few of the bills Chevron directly lobbied on in 2022, and their potential implications for climate action.

Box 2: Sample of U.S. policies Chevron lobbied on in 2022 and their implications

In 2022, Chevron directly lobbied the U.S. government on more than 150 policies or policy issues. Here's a closer look at three of them, and what Chevron stood to gain or lose.

Save Our Future Act

The Save Our Future Act is a proposed federal legislation introduced by Senator Sheldon Whitehouse in 2021. If passed, the bill would impose a fee on fossil fuels including coal, petroleum products and natural gas, as well as on GHG emissions including carbon dioxide and methane emissions, thus targeting large corporations. The revenue collected would be disbursed across the U.S. to, among others, Tribal Nations, environmental justice communities (those most impacted by environmental harms and risks), and millions of American households to help offset costs associated with the transition to clean energy. Ultimately, the goal of the act is to reduce GHG emissions and address the most severe impacts of climate change on the environment, public health, and the economy.^{140, 141}

Fossil fuel giants like Chevron have been lobbying on this act. If passed, this legislature threatens Chevron's cost-benefit ratio. Not only would the act impose a carbon fee on fossil fuel products, but it would also increase Big Polluters' business costs. Ultimately, the act would help discourage the use of fossil fuels and incentivize a shift towards renewable energies; thereby, threatening Chevron's entire business model as a company that has been profiting off pollution for decades.

Offshore Pipeline Safety Act

The Offshore Pipeline Safety Act is a bill that would require the Bureau of Safety and Environmental Enforcement (BSEE) "to improve regulations for offshore oil and gas pipelines, to ensure active pipeline integrity, and to address safety and environmental risks associated with decommissioning pipelines."¹⁴²

The United States coastline is riddled with thousands of miles of old oil and gas pipelines that have not been properly decommissioned. For example, 18,000 miles of pipelines have been left stranded on the seafloors of the Gulf of Mexico,¹⁴³ a region where Chevron is one of the top leaseholders.¹⁴⁴ These pipelines are a major risk to marine ecosystems, and oil and gas companies have had no legal obligations to properly remove them let alone address these risks. The act's proposed regulatory changes with the BSEE would require pipeline owners such as Chevron and its subsidiaries to provide regular inspection and detect leakage, charge these companies US\$1,000 – 10,000 annually per mile of pipeline on the seafloor and, amongst other provisions, add stronger environmental risk assessments and safeguards for oil and gas operations.¹⁴⁵ The act is not only a financial burden to Chevron's business but a potential source of greater scrutiny to existing environmental hazards that it has very likely neglected for decades, which could explain why it has regularly lobbied on this proposed legislation.

Inflation Reduction Act

The Inflation Reduction Act (IRA) partly directs federal spending towards energy industries, amongst other sectors, through various provisions. One notable provision in the law is that a ton of CO₂ removed from a smokestack and pumped back into the ground for enhanced oil recovery – a practice familiar to oil and gas giants to just pump out more oil that they couldn't have otherwise reached – would now be worth US\$60 in credits instead of US\$45.¹⁴⁶ That amount rises to US\$85 in credits for carbon that is permanently stored. The result is that in 2022, 29 oil, gas and petrochemical facilities across the US have proposed new CCS projects eligible for these credits.¹⁴⁷

However, the IRA doesn't sufficiently consider long term environmental risks of CCS, and in fact lowers the barriers for many CCS facilities to qualify for these credits. The reason for this oversight is in many ways due to the heavy lobbying of oil and gas giants,¹⁴⁸ not least of which Chevron has been a part of.¹⁴⁹ In fact, oil majors have seen this act as another business opportunity to ramp up their profit margins.^{150, 151}

When we look at Chevron's lobbying expenditure and policy priorities, underscored with the analysis in the above sections on its expansion and distraction plans, its lobbying expenditure indicates that it is lobbying on policies that would allow it to continue to pollute, and likely seeking to dismantle or stall policies that would actually seek to hold it and other fossil fuel corporations accountable for taking needed action.

5. Conclusion – The triple threat: Junk offsets, reckless expansion, and policy obfuscation

Like many fossil fuel and other polluting corporations, Chevron does not seem serious about climate action. Its actions reveal it still disregards climate science – as it has for decades – as well as the preciousness of human life, countless of which will be lost if Chevron’s business plan is allowed to be implemented uncontested.

Upon inspection, Chevron’s ‘net zero’ promises seem to be rather empty, and this research suggests it is relying on junk offsets that are not proven to meaningfully lower emissions, and may well spur tremendous harm to Global South and frontline communities. Chevron’s planned expansion of oil and gas make it increasingly likely we will soon cross irreversible tipping points and lock-in temperature rise beyond 1.5 degrees Celsius. And its vast lobbying on climate-related policies could be blocking the strong policy we so desperately need. All this suggests it is deeply invested in the polluting status quo, at a time when systemic transformation is no longer ideal but is now a necessity.

Chevron’s negligence is indicative of a broader contagion of fossil-fueled destruction

Chevron is not alone in advancing a polluter-first strategy. Fossil fuel corporations have spent decades denying that climate change was real and funded junk science to hide the real science to prove otherwise. When the truth could no longer be buried, they invested billions to undermine attempts to take action. In 2022, the oil and gas industry spent US\$124.4 million lobbying the U.S. government to undermine meaningful climate action,¹⁵² as part of a broader agenda to advance a co-opted ‘net zero’ agenda that seeks to convince us that they are the ‘solution’ to the global crisis they caused while actually delaying action, undermining urgency, and maximizing profits.¹⁵³ Today, they are projecting continued expansion and are raking in record profits (over US\$200 billion for the five largest oil and gas corporations alone).¹⁵⁴

Real Zero, not greenwashed ‘net zero,’ provides the key to 1.5 °C

This is why activists, scientists, experts, and people around the world are calling on world governments and decisionmakers to reject this Big Polluter-manipulated ‘net zero’ agenda and embrace a Real Zero pathway that rapidly deploys real solutions, equitably phases out fossil fuels, and provides the finance, technology, and capacity building needed to justly address the climate crisis.^{155, 156}

We should be locking in commitments that will bring emissions to Real Zero by 2030 at the latest. Real Zero benchmarks that will help get us there include:

1. Committing to end all new and additional fossil fuel expansion. This includes exploration and infrastructure, but also expansion of existing projects.
2. Concretizing a clear trajectory and date by which all fossil fuel use will be justly phased out.
3. Redirect public resources away from fossil fuels and into the scaling up of real solutions,¹⁵⁷ as well as advancing the technology sharing and capacity needed to assist others in being able to do so.
4. Replace fossil fuel use with community-controlled renewable energy, in accordance with the principles of a just transition.
5. Decreasing emissions at source across all sectors or, in the case of a corporation, all parts of its supply chain and operations (Scope 1, 2, and 3).
6. Setting concrete, periodic emissions reductions targets for every 5 years – not just a “net zero by 2050” catch-all target that does not require deep emissions cuts in the interim, or actually reducing emissions ever (since in a ‘net zero’ scenario emissions can largely be “offsetted”).
7. All action taken should reflect the level of commitment necessary when taking into account the corporation’s, government’s, or actor’s contribution to climate change and global greenhouse emissions – a concept called ‘fair shares’.
8. Achieving emissions reductions targets must not rely on offsets, carbon markets, or unproven technologies like Carbon Capture and Storage, Bioenergy with Carbon Capture and Storage, or geo-engineering.
9. All actions taken to reduce emissions must not spur any harm to local communities, Indigenous Peoples, human rights, or ecosystems. Actors should elaborate “do no harm” plans as part of their climate action plans and be explicit about where and how they will ensure this, working directly with the communities at risk to guide this.
10. All actors engaging in climate action or pledges must demonstrate that their lobbying activities and political engagement are clearly aligned with advancing the need for strong, equity-centered, climate-science-aligned policy.

» Recommendations: Hold Big Polluters liable, phase out fossil fuels, implement real solutions to get to Real Zero

The good news is that collectively, we have the power to end the impunity of fossil fuel corporations like Chevron and take the future of the planet back into our hands. There is so much action that can be taken when fossil fuel corporations are not allowed to write the playbook, but we must act now.

We know what the real and proven solutions are, and they are cost effective, emissions-reducing, community-centered, and just.¹⁵⁸ These include things like holding corporations liable and using these funds to unlock real solutions and support local communities in responding to climate change; transitioning to 100% renewable energy systems that are democratically controlled (while creating new jobs and protection for workers); investing in electric mass public transport; shifting from industrial agriculture to agroecological practices; ending subsidies for emissions-intensive industries and shifting this public finance to real transformation; transitioning to less energy-intensives lifestyles; and so much more. When implemented across sectors and globally, they provide the very best opportunity to keep global temperature rise to below 1.5 degrees Celsius.

6. Recommendations

Governments:

1. Phase out fossil fuels. End fossil fuel subsidies and redirect these public resources into renewable energy transformations and supporting local communities in responding to climate change. End fossil fuel expansion. Do not approve any new oil and gas leases. And detail plans to equitably phase out fossil fuels and transition to renewable energy.
2. Update national climate action plans that seek to rapidly and justly reduce emissions at source, in line with the country's 'fair share' of climate action and enshrine Real Zero benchmarks into these climate action plans.
3. Pass legislation that implements binding emission reduction targets for polluting corporations, in accordance with the Real Zero benchmarks above.
4. Take action to hold polluting corporations legally and financially liable for their deception and climate harms. Use funds received through these liability measures to implement real solutions such as democratically controlled renewable energy, and support local and frontline communities responding to climate change.

Shareholders:

1. Pass resolutions that require fossil fuel corporations like Chevron to commit to Real Zero action plans that incorporate the Real Zero benchmarks above. This means things like setting emission reductions targets that address Scope 1, 2, and 3; setting concrete, periodic emissions reductions targets for every 5 years; and setting emission reductions targets that do not rely on offsets, carbon markets, or unproven technologies.
2. Require corporations to demonstrate through the public disclosure of documents that their lobbying activities and political engagement are clearly aligned with the Paris Agreement.
3. Refuse to accept fossil fuel corporations' greenwash and P.R. at face value. Ask hard questions, demand proof, seek disclosure, transparency, and public availability of information.
4. If you are a shareholder for a fossil fuel financier, demand the financial institution to align itself with climate science by divesting from fossil fuels.

Parties to the United Nations Framework Convention on Climate Change:

1. Formally commit to an equitable phase out of fossil fuels, through decisions adopted at COP28 in December 2023.
2. Protect climate policymaking from the undue interference of polluting corporations by passing an Accountability Framework.¹⁵⁹
3. Update Nationally Determined Contributions (NDCs) to reflect the Real Zero benchmarks above. This means commitment to reduce emissions at source, in an urgent timeline that aligns with science and equity, and deliver on these targets without relying on industry-based schemes like carbon markets, offsets, and risky technologies.
4. Reject the deeply flawed market mechanisms enshrined in Article 6.2 and 6.4 of the Paris Agreement, and advance collaboration via Article 6.8 that ramps up the technology, finance, and capacity necessary to implement real solutions and keep global temperature rise to below 1.5 degrees Celsius.

Fossil fuel corporations like Chevron cannot be allowed to continue fueling destruction. We can no longer wait for them to self-regulate their way to a climate-safe future. We cannot allow their junk offsets and deceptive schemes to form the bedrock of climate action. Too much is at stake.

Destruction might be at the heart of what corporations like Chevron do, but urgency, equity, and action must be at the heart of the global response to climate change. It's time for shareholders, the public, policymakers, and governments to end the ability of the fossil fuel industry to rob us of a world where people and the planet can thrive.

Annex: Scope and limitations

When compiling and analyzing data for this report, we used the most current versions of disclosures, databases, materials, or publications available at the time of research and writing (which ranged from January – April 2023). Where possible and available, we cross-referenced and triangulated data and claims with other primary or secondary sources. The findings detailed here may not be exhaustive or the most up to date, in part because we had to conduct our research largely with what was available in the public domain and do not have access to all the information corporations do about their operations.

Communicating directly with the corporations listed in this publication was outside the scope of this research, though we do encourage any press covering this research to do so. We also welcome the corporations listed in this publication – and specifically Chevron – to share with us any information or evidence that can clarify exactly how the efficacy and environmental integrity of these voluntary carbon market offsets are assured; to respond to any of the claims of wrongdoing or harm by others that were cited here and used to assess how many of these offsets may be linked to negative social or environmental harm; or to provide verifiable information that sheds light on the questions and concerns posed in this research.

The challenges confronted in collecting and analyzing data elucidate the overall opacity of corporate disclosures, lack of standardized reporting, and absence of full accountability of these corporations to the public.

References: All weblinks were accessed April 2023 prior to publication

1. Intergovernmental Panel on Climate Change, "Sixth Assessment Report," March 2023, <https://www.ipcc.ch/assessment-report/ar6/>
2. United Nations, "Secretary-General Calls on States to Tackle Climate Change 'Time Bomb' through New Solidarity Pact, Acceleration Agenda, at Launch of Intergovernmental Panel Report," March 2023, <https://press.un.org/en/2023/sgsm21730.doc.htm>
3. Center for International Environmental Integrity, "Lost in Translation: Lessons from the IPCC's Sixth Assessment on the Urgent Transition from Fossil Fuels and the Risks of Misplaced Reliance on False Solutions," March 2023, <https://www.ciel.org/reports/lost-in-translation-lessons-from-the-ipcc-sixth-assessment/>
4. Matthew Taylor and Jonathan Watts, "Revealed: the 20 firms behind a third of all carbon emissions," *The Guardian*, Oct 9 2019, <https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions>
5. Sabine Valle, "Chevron annual profit hits record but Q4 miss hits shares," *Reuters*, January 27 2023, <https://www.reuters.com/business/energy/chevron-annual-profit-doubles-record-365-blm-misses-estimates-2023-01-27/>
6. Chevron, "Climate change resilience: advancing a lower carbon future," October 2021, <https://www.chevron.com/-/media/chevron/sustainability/documents/climate-change-resilience-report.pdf>
7. Chevron, "Chevron sets new net zero aspiration and new GHG intensity target," October 11 2021, <https://www.chevron.com/newsroom/2021/q4/chevron-sets-net-zero-aspiration-and-new-ghg-intensity-target>
8. CNN, "This is what Chevron's CEO thinks about climate change," September 13 2022, <https://www.cnn.com/videos/business/2022/09/13/chevron-ceo-mike-wirth-climate-change-harlow-vpx.cnnbusiness>
9. ActionAid, Corporate Accountability, Friends of the Earth International, Global Campaign to Demand Climate Justice, Third World Network, and What Next?, "NOT Zero: How 'net zero' targets disguise climate inaction- Joint technical briefing by climate justice organisations," October 2020, <https://corporateaccountability.org/wp-content/uploads/2020/10/NOT-ZERO-How-net-zero-targets-disguise-climate-inaction-FINAL.pdf>
10. Chevron, "Lower carbon intensity of our operations," <https://www.chevron.com/sustainability/environment/lowering-carbon-intensity>
11. Chevron, "Chevron sets new net zero aspiration and new GHG intensity target," October 11 2021, <https://www.chevron.com/newsroom/2021/q4/chevron-sets-net-zero-aspiration-and-new-ghg-intensity-target>
12. 1t CO₂e retired = 1 credit
13. The AlliedOffsets database covers 99% of the voluntary carbon market. <https://alliedoffsets.com/>
14. Carbon TradeXchange, "World First Web/Cloud-based Exchange Interfaced with Blockchain Registry: BioCarbon Registry- South America's New Global Credit Standard," April 1 2022, <https://ctxglobal.com/ctx-cloud-based-exchange-biocarbon-registry/>
15. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
16. Patrick Greenfield, "Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows," *The Guardian*, Jan 18 2023, <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>
17. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
18. Verra, "Carbon Market Watch Report on Colombian REDD+ Projects Contains Flawed Allegations," June 2021, <https://verra.org/carbon-market-watch-report-on-colombian-redd-projects-contains-flawed-allegations/>
19. Chevron retired 180 credits via the Kaliawiri project between 2020-2022, and 691 credits via the Mataven project in 2018, according to data from AlliedOffsets database.
20. Anne M Larson et al, "Land tenure and REDD+: The good, the bad and the ugly," *Global Environmental Change*, Vol 23: Issue 3, June 2013, <https://www.sciencedirect.com/science/article/abs/pii/S0959378013000447>
21. World Rainforest Movement, "REDD+: A Scheme Rotten at the Core," Sept 30 2019, <https://www.wrm.org.uy/bulletin-articles/redd-a-scheme-rotten-at-the-core>
22. Global Forest Coalition, "15 years of REDD+: Has it been worth the money?" Sept 2020, <https://globalforestcoalition.org/wp-content/uploads/2020/09/REDD-briefing.pdf>
23. Thales A.P. West, Jan Börner, Erin O. Sills, and Andreas Kontoleon, "Overstated carbon emission reductions from voluntary REDD+ projects in the Brazilian Amazon," *PNAS*, Vol 117: No. 39, Sept 14 2020, <https://www.pnas.org/doi/10.1073/pnas.2004334117>
24. Lasse Loft, Thuy Thu Pham, Grace Yee Wong, Maria Brockhaus, Dung Ngoc Le, Januarti Sinarra Tjajadi, and Cecilia Luttrell, "Risks to REDD+: potential pitfalls for policy design and implementation," *Cambridge University Press*, Nov 2 2016, <https://www.cambridge.org/core/journals/environmental-conservation/article/risks-to-redd-potential-pitfalls-for-policy-design-and-implementation/2E385DDDE2526A2A2AB3765FC28D7D6C>
25. Mucahid Mustafa Bayrak and Lawal Mohammed Marafa, "Ten Years of REDD+: A Critical Review of the Impact of REDD+ on Forest-Dependent Communities," *Sustainability*, July 2 2016, <https://www.mdpi.com/2071-1050/8/7/620>

26. REDD Monitor, "REDD: An introduction," Feb 2011, <https://redd-monitor.org/redd-an-introduction/>
27. Voaventura Monjane et al, "15 Years of REDD: A Mechanism Rotten at the Core," World Rainforest Movement, 2022, https://www.wrm.org.uy/sites/default/files/2022-05/REDD_15_%20years_ENG.pdf
28. Patrick Greenfield, "Offsets being used in Colombia to dodge carbon taxes – report," *The Guardian*, June 30 2021, <https://www.theguardian.com/environment/2021/jun/30/offsets-being-used-in-colombia-to-dodge-carbon-taxes-report-aoe>
29. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
30. AlliedOffset data shows that Chevron uses carbon offsets to financially offset the Colombian carbon tax. One publicly available example is available at <https://www.ecoregistry.io/projects/46> (see "carbon credits")
31. "CCA" is presumed to refer to Cercarbono since all the projects listed under the CCA standard that Chevron purchased credits through are listed on Cercarbono's website. See <https://www.cercarbono.com/> and this project registry: <https://www.ecoregistry.io/projects>
32. Carbon TradeXchange, "World First Web/Cloud-based Exchange Interfaced with Blockchain Registry: BioCarbon Registry- South America's New Global Credit Standard," April 1 2022, <https://ctxglobal.com/ctx-cloud-based-exchange-biocarbon-registry/>
33. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
34. Dr. Martin Cames et al, "How additional is the Clean Development Mechanism?" March 2016, https://climate.ec.europa.eu/system/files/2017-04/clean_dev_mechanism_en.pdf
35. Derik Broekhoff, Michael Gillenwater, Tani Colbert-Sangree, and Patrick Cage, "Securing Climate Benefit: A Guide to Using Carbon Offsets," GHG Management Institute and Stockholm Environment Institute, Nov 13 2019, http://www.offsetguide.org/wp-content/uploads/2020/03/Carbon-Offset-Guide_3122020.pdf
36. CDM Watch, "Hydro Power Projects In The CDM: Policy brief," Feb 2012, https://carbonmarketwatch.org/wp-content/uploads/2009/07/120228_Hydro-Power-Brief_LR_WEB.pdf
37. GHG Management Institute and Stockholm Environment Institute, "Carbon Offset Guide: Additionality," <https://www.offsetguide.org/high-quality-offsets/additionality/>
38. Amazon Watch et al, "JOINT STATEMENT: 10 Reasons Why Climate Initiatives Should Not Include Large Hydropower Projects," Dec 3 2015, <https://www.internationalrivers.org/news/civil-society-manifesto-10-reasons-why-climate-initiatives-should-not-include-large-hydropower-projects/>
39. Climate Analytics, "Why offsets are not a viable alternative to cutting emissions," Feb 2023, https://climateanalytics.org/media/why_offsets_are_not_a_viable_alternative_to_cutting_emissions.pdf
40. Dooley K., Keith H., Larson A., Catacora-Vargas G., Carton W., Christiansen K.L., Enokenwa Baa O., Frechette A., Hugh S., Ivetic N., Lim L.C., Lund J.F., Luqman M., Mackey B., Monterroso I., Ojha H., Perfecto I., Riamit K., Robiou du Pont Y., and Young V., "The Land Gap Report 2022," 2022, <https://www.landgap.org/>
41. Barbara K. Haya et al, "Comprehensive review of carbon quantification by improved forest management offset protocols," *Frontiers for Global Change, Vol 6*, March 21 2023, <https://www.frontiersin.org/articles/10.3389/ffgc.2023.958879/full>
42. Emma Newburger, "Major registries in the carbon offset market are allowing dubious credits, report says," *CNBC*, Mar 21 2023, <https://www.cnn.com/2023/03/21/registries-in-carbon-offset-market-allowing-dubious-credits-report.html>
43. Based on our analysis of data from the AlliedOffsets Database
44. International Commission of Jurists, "El Quimbo: megaproyectos, derechos económicos, sociales y culturales y protesta social en Colombia," 2016, <https://www.refworld.org/es/pdfid/57f795ac1c.pdf>
45. Rafael Trujillo, "Comunidades en Huila reclaman compensaciones por operación de hidroeléctrica El Quimbo," *Radio Nacional de Colombia*, Oct 18 2021, <https://www.radionacional.co/regiones/andina/el-quimbo-huila-comunidades-reclaman-compensaciones>
46. Environmental Justice Atlas, "El Quimbo hydropower project, Colombia," April 2019, <https://ejatlas.org/conflict/el-quimbo-hydroelectric-project-colombia>
47. Defensoría del Pueblo, "IMPACTOS SOCIOAMBIENTALES Y POSIBLE AFECTACIÓN DE DERECHOS DERIVADA DE LA GENERACIÓN HIDROELÉCTRICA EN COLOMBIA," August 2017, https://publicaciones.defensoria.gov.co/desarrollo1/ABCD/bases/marc/documentos/textos/Informe_hidroelectricas_sep.pdf
48. Jane K Feeny, "Displaced by a dam, women defenders fight for their land rights in Colombia," *Mongabay*, Jul 13 2022, <https://news.mongabay.com/2022/07/displaced-by-a-dam-women-defenders-fight-for-their-land-rights-in-colombia/>
49. Environmental Justice Atlas, "Hidrosogamoso dam, Colombia," April 2019, <https://ejatlas.org/conflict/hidrosogamoso-dam-colombia>
50. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
51. Morgan Erickson-Davis, "Carbon credits too low to protect forests from rubber, study finds," *Mongabay*, March 8 2018, <https://news.mongabay.com/2018/03/carbon-credit-prices-too-low-to-protect-forests-from-rubber-study-finds/>
52. Eleanor M. Warren-Thomas et al, "Protecting tropical forests from the rapid expansion of rubber using carbon payments," *Nature Communications*, Mar 2 2018, <https://www.nature.com/articles/s41467-018-03287-9#MOESM1>

53. Based on data from AlliedOffsets
54. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
55. ProClima rebranded to the BioCarbon Registry in 2022: <https://ctxglobal.com/ctx-cloud-based-exchange-biocarbon-registry/>
56. Simon L. Lewis, Charlotte E. Wheeler, Edward T.A. Mitchard, and Alexander Koch, "Comment: Restoring natural forests is the best way to remove atmospheric carbon," *Nature*, April 2 2019, <https://www.nature.com/articles/d41586-019-01026-8#ref-CR4>
57. Carolyn Gramling, "Why planting tons of trees isn't enough to solve climate change," July 9 2021, <https://www.sciencenews.org/article/planting-trees-climate-change-carbon-capture-deforestation>
58. Matthew Taylor and Jonathan Watts, "Revealed: the 20 firms behind a third of all carbon emissions," *The Guardian*, Oct 9 2019, <https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions>
59. Chevron, "Chevron invests in carbon capture and removal technology company, svante," Dec 15 2022, <https://www.chevron.com/newsroom/2022/q4/chevron-invests-in-carbon-capture-and-removal-technology-company-svante>
60. Chevron, "Chevron: new energies- accelerating carbon capture, utilization, and storage solutions," 2022, <https://www.chevron.com/-/media/chevron/operations/documents/ccus-flyer.pdf>
61. Chevron, "Chevron's global carbon capture, utilization, and storage efforts help lower carbon intensity," March 28 2023, <https://www.chevron.com/newsroom/2023/q1/global-carbon-capture-utilization-and-storage-helps-lower-carbon-intensity>
62. Adam Morton, "'A shocking failure': Chevron criticized for missing carbon capture target at WA gas project," *The Guardian*, Jul 19 2021, <https://www.theguardian.com/environment/2021/jul/20/a-shocking-failure-chevron-criticised-for-missing-carbon-capture-target-at-wa-gas-project>
63. Bruce Robertson and Milad Mousavian, "Gorgon Carbon Capture and Storage: The Sting in the Tail," Institute for Energy Economics and Financial Analysis, April 2022, https://ieefa.org/wp-content/uploads/2022/03/Gorgon-Carbon-Capture-and-Storage_The-Sting-in-the-Tail_April-2022.pdf
64. Adam Morton, "Emissions from WA gas project with world's largest industrial carbon capture system rise by more than 50%," *The Guardian*, April 20 2023, <https://www.theguardian.com/environment/2023/apr/21/emissions-wa-gas-project-chevron-carbon-capture-system-pillbara-coast>
65. Bruce Robertson and Milad Mousavian, "Gorgon Carbon Capture and Storage: The Sting in the Tail," Institute for Energy Economics and Financial Analysis, April 2022, https://ieefa.org/wp-content/uploads/2022/03/Gorgon-Carbon-Capture-and-Storage_The-Sting-in-the-Tail_April-2022.pdf
66. Institute for Energy Economics and Financial Analysis, "If Chevron, Exxon and Shell can't get Gorgon's carbon capture and storage to work, who can?" <https://ieefa.org/articles/if-chevron-exxon-and-shell-cant-get-gorgons-carbon-capture-and-storage-work-who-can>
67. Chevron, "Chevron sets net zero aspiration and new GHG intensity target," October 202, <https://www.chevron.com/newsroom/2021/q4/chevron-sets-net-zero-aspiration-and-new-ghg-intensity-target>
68. Chevron, "2022 corporate sustainability report," May 2023, <https://www.chevron.com/-/media/shared-media/documents/chevron-sustainability-report-2022.pdf>
69. Chevron, "2021 performance data," 2022, <https://www.chevron.com/-/media/shared-media/documents/2021-sustainability-performance-data.pdf>
70. If 1 carbon offset = 1 tonne of CO₂e
71. Alejandro Guizar-Coutiño, Julia P.G. Jones, Andrew Balmford, Rachel Carmenta, and David A. Coomes, "A global evaluation of the effectiveness of voluntary REDD+ projects at reducing deforestation and degradation in the moist tropics," *Conservation Biology*, Volume 36: Issue 6, December 2022, <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cobi.13970>
72. Thales A.P. West, Jan Börner, Erin O. Sills, and Andreas Kontoleon, "Overstated carbon emission reductions from voluntary REDD+ projects in the Brazilian Amazon," *PNAS*, Vol 117: No. 39, Sept 14 2020, <https://www.pnas.org/doi/10.1073/pnas.2004334117>
73. Thales A.P. West, Sven Wunder, Erin O. Sills, Jan Börner, Sami. W. Rifai, Alexandra N. Neidermeier, and Andreas Kontoleon, "Action needed to make carbon offsets from tropical forest conservation work for climate change mitigation," Jan 5 2023, <https://arxiv.org/abs/2301.03354>
74. Patrick Greenfield, "Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows," *The Guardian*, Jan 18 2023, <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>
75. Derik Broekhoff, Michael Gillenwater, Tani Colbert-Sangree, and Patrick Cage, "Securing Climate Benefit: A Guide to Using Carbon Offsets," GHG Management Institute and Stockholm Environment Institute, Nov 13 2019, http://www.offsetguide.org/wp-content/uploads/2020/03/Carbon-Offset-Guide_3122020.pdf
76. Dr. Martin Cames et al, "How additional is the Clean Development Mechanism?" March 2016, https://climate.ec.europa.eu/system/files/2017-04/clean_dev_mechanism_en.pdf
77. CDM Watch, "Hydro Power Projects In The CDM: Policy brief," Feb 2012, https://carbonmarketwatch.org/wp-content/uploads/2009/07/120228_Hydro-Power-Brief_LR_WEB.pdf
78. Office of Energy Efficiency & Renewable Energy, "Types of Hydropower Plants," <https://www.energy.gov/eere/water/types-hydropower-plants#:~:text=LEARN%20MORE&text=There%20are%20three%20types%20of,renewable%20energy%20to%20the%20grid.>

79. Simon L. Lewis, Charlotte E. Wheeler, Edward T.A. Mitchard, and Alexander Koch, "Comment: Restoring natural forests is the best way to remove atmospheric carbon," *Nature*, April 2 2019, <https://www.nature.com/articles/d41586-019-01026-8#ref-CR4>
80. Carolyn Gramling, "Why planting tons of trees isn't enough to solve climate change," July 9 2021, <https://www.sciencenews.org/article/planting-trees-climate-change-carbon-capture-deforestation>
81. Jumpei Toriyama et al, "Effects of forest conversion to rubber plantation and of replanting rubber trees on soil organic carbon pools in a tropical moist climate zone," *Agriculture, Ecosystems, and Environment*, October 2022, <https://www.sciencedirect.com/science/article/abs/pii/S0167880921004035>
82. EcoRegistry, "SKCarbono," <https://www.ecoregistry.io/projects/46>
83. Antonio José Paz Cardona, "Colombia wants to plant 180 million trees: Is it a realistic goal?," *Mongabay*, April 23 2020, <https://news.mongabay.com/2020/04/colombia-wants-to-plant-180-million-trees-is-it-a-realistic-goal/>
84. EcoRegistry, "SKCarbono," <https://www.ecoregistry.io/projects/46>
85. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
86. Morgan Erickson-Davis, "Carbon credits too low to protect forests from rubber, study finds," *Mongabay*, March 8 2018, <https://news.mongabay.com/2018/03/carbon-credit-prices-too-low-to-protect-forests-from-rubber-study-finds/>
87. Carbon Market Watch, "Two Shades of Green: How Hot Air Forest Credits are Being Used to Avoid Carbon Taxes in Colombia," June 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf
88. Note that ProClima rebranded to the BioCarbon Registry in 2022, potentially as a response to these accusations. See <https://ctxglobal.com/ctx-cloud-based-exchange-biocarbon-registry/>
89. Peilei Fan et al, "Recently constructed hydropower dams were associated with reduced economic production, population, and greenness in nearby areas," *PNAS*, Vol 119, 2022, <https://www.pnas.org/doi/pdf/10.1073/pnas.2108038119>
90. Amazon Watch et al, "JOINT STATEMENT: 10 Reasons Why Climate Initiatives Should Not Include Large Hydropower Projects," Dec 3 2015, <https://www.internationalrivers.org/news/civil-society-manifesto-10-reasons-why-climate-initiatives-should-not-include-large-hydropower-projects/>
91. International Commission of Jurists, "El Quimbo: megaproyectos, derechos económicos, sociales y culturales y protesta social en Colombia," 2016, <https://www.refworld.org/es/pdfid/57f795ac1c.pdf>
92. Rafael Trujillo, "Comunidades en Huila reclaman compensaciones por operación de hidroeléctrica El Quimbo," *Radio Nacional de Colombia*, Oct 18 2021, <https://www.radionacional.co/regiones/andina/el-quimbo-huila-comunidades-reclaman-compensaciones>
93. Environmental Justice Atlas, "El Quimbo hydroelectric project, Colombia," April 2019, <https://ejatlas.org/conflict/el-quimbo-hydroelectric-project-colombia>
94. Jane K Feeny, "Displaced by a dam, women defenders fight for their land rights in Colombia," *Mongabay*, Jul 13 2022, <https://news.mongabay.com/2022/07/displaced-by-a-dam-women-defenders-fight-for-their-land-rights-in-colombia/>
95. Environmental Justice Atlas, "Hidrosogamoso dam, Colombia," April 2019, <https://ejatlas.org/conflict/hidrosogamoso-dam-colombia>
96. EcoRegistry, "SKCarbono," <https://www.ecoregistry.io/projects/46>
97. World Rainforest Movement, "Smurfit Kappa in Colombia: Chronicle of a Death Foretold," March 5 2020, <https://www.wrm.org.uy/bulletin-articles/smurfit-kappa-in-colombia-chronicle-of-a-death-foretold>
98. Scilla Alecci, "Environmental auditors approve green labels for products linked to deforestation and authoritarian regimes," International Consortium of Investigative Journalists, March 1 2023, <https://www.icij.org/investigations/deforestation-inc/auditors-green-labels-sustainability-environmental-harm/>
99. Smurfit Kappa, "Smurfit Kappa launches first Green Bond Report," Oct 6 2022, <https://www.smurfitkappa.com/newsroom/2022/smurfit-kappa-launches-first-green-bond-report>
100. Esteban Duarte, "Mackenzie Says Green Bond Buyers Could Get Carbon Offset Reward," *Bloomberg*, June 22 2022, <https://www.bloomberg.com/news/articles/2022-06-22/mackenzie-says-green-bond-buyers-could-get-carbon-offset-reward#xj4y7vzkq>
101. Smurfit Kappa, "Green Bond Allocation and Impact Report," Sept 2022, <https://www.smurfitkappa.com/-/m/files/documents-global/investor/smurfit-kappa-green-bond-report.pdf?rev=e16f9350b67f40b5b221b9ff368963a0&hash=AD3DC812D0D212F9F2D9F001B299108C>
102. United Nations Human Rights Office of the High Commissioner, "Colombia: Extreme risks for rights defenders who challenge corporate activity," Aug 4 2022, <https://www.ohchr.org/en/press-releases/2022/08/colombia-extreme-risks-rights-defenders-who-challenge-corporate-activity>
103. Patrick O'Donoghue, "Native groups accuse Smurfit Kappa over rainforest," *The Times*, Feb 20 2022, <https://www.thetimes.co.uk/article/native-groups-accuse-smurfit-kappa-over-rainforest-gqj3lxbkj>
104. Simon L. Lewis, Charlotte E. Wheeler, Edward T.A. Mitchard, and Alexander Koch, "Comment: Restoring natural forests is the best way to remove atmospheric carbon," *Nature*, April 2 2019, <https://www.nature.com/articles/d41586-019-01026-8#ref-CR4>
105. Carolyn Gramling, "Why planting tons of trees isn't enough to solve climate change," July 9 2021, <https://www.sciencenews.org/article/planting-trees-climate-change-carbon-capture-deforestation>

106. Inci Sayki and Jimmy Cloutier, "Oil and gas industry spent \$124.4 million on federal lobbying amid record profits in 2022," OpenSecrets, <https://www.opensecrets.org/news/2023/02/oil-and-gas-industry-spent-124-4-million-on-federal-lobbying-amid-record-profits-in-2022/>
107. InfluenceMap, "Big Oil's Real Agenda on Climate Change: How the oil majors have spent \$1 Bn 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>.
108. This estimate includes 2022 approvals (Table A5) and estimated Mt CO₂e from projected 2023-2025 approvals (Table A6). See https://priceofoil.org/content/uploads/2022/11/Investing_In_Disaster.pdf.
109. United States Environmental Protection Agency, "Greenhouse Gas Equivalencies Calculator," <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>
110. Organisation for Economic Co-operation and Development, "Greenhouse gas emissions," https://stats.oecd.org/Index.aspx?DataSetCode=air_ghg
111. International Energy Agency, "Net zero by 2050: A Roadmap for the Global Energy Sector," May 2021, <https://www.iea.org/reports/net-zero-by-2050>, <https://www.nature.com/articles/s41586-021-03821-8>
112. Dan Welsby, James Price, Steve Pye, and Paul Ekins, "Unextractable fossil fuels in a 1.5 C world," *Nature*, Sept 8 2021, <https://www.nature.com/articles/s41586-021-03821-8>
113. Oil Change International and Global Witness, "IPCC clarion call puts spotlight on fossil fuel industry's hypocrisy," 2022, https://priceofoil.org/content/uploads/2022/04/20220404_IPCC_fossil-fuel-industry-exploration-plans_FINAL-TEXT.pdf
114. World Bank, "GDP (current US\$)- Sri Lanka," <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=LK>
115. Based on data on the Global Oil & Gas Exit List (GOGEL) database: <https://gogel.org/>
116. Al Greenwood, "US Chevron to expand Permian oil output amid labour shortages," Independent Commodity Intelligence Services, March 6 2023, <https://www.icis.com/explore/resources/news/2023/03/06/10861641/us-chevron-to-expand-permian-oil-output-amid-labour-shortages/>
117. Based on data on the Global Oil & Gas Exit List (GOGEL) database: <https://gogel.org/>
118. Greenpeace, the International Institute for Sustainable Development, and Oil Change International, "Zeroing In: A guide for the finance sector on the IEA's Net Zero Emissions scenario and its implications for oil and gas finance," Feb 9 2022, <https://priceofoil.org/2022/02/09/zeroing-in-a-guide-for-the-finance-sector-on-the-ieas-net-zero-emissions-scenario-and-its-implications-for-oil-and-gas-finance/>
119. Palash Ghosh, "Chevron Becomes First Major U.S. Oil Company To Invest In Offshore Wind Project," *Forbes*, April 13 2021, <https://www.forbes.com/sites/palashghosh/2021/04/13/chevron-becomes-first-major-us-oil-company-to-invest-in-offshore-wind-project/?sh=2148bade834b>
120. Reuters Staff, "Chevron raises clean energy bet with \$3 billion Renewable Energy Group deal," *Reuters*, Feb 28 2022, <https://www.reuters.com/business/energy/chevron-buy-renewable-energy-group-315-deal-2022-02-28/>
121. InfluenceMap, "Big Oil's Real Agenda on Climate Change 2022," Sept 2022, <https://influencemap.org/report/Big-Oil-s-Agenda-on-Climate-Change-2022-19585>
122. Chevron Renewable Energy Group, "Welcome to Chevron Renewable Energy Group," <https://www.youtube.com/watch?v=oD7kcFpUHeY>
123. Mei Li, Gregory Trencher, and Jusen Asuka, "The clean energy claims of BP, Chevron, ExxonMobil and Shell: A mismatch between discourse, actions and investments," *PLOS*, Feb 16 2022, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0263596>
124. Global Witness, "Accountability groups file first of its kind FTC complaint against Chevron for misleading consumers on climate action," March 16 2021, <https://www.globalwitness.org/en/press-releases/joint-accountability-groups-file-first-of-its-kind-ftc-complaint-against-chevron-misleading-consumers-climate-action/>
125. Based on data on the Global Oil & Gas Exit List (GOGEL) database: <https://gogel.org/>
126. Matthew Taylor and Jonathan Watts, "Revealed: the 20 firms behind a third of all carbon emissions," *The Guardian*, Oct 9 2019, <https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions>
127. Jane Mayer, "Dark Money: The Hidden History of the Billionaires Behind the Rise of the Radical Right," *Penguin Random House*, 2017, <https://www.nytimes.com/2016/01/24/books/review/dark-money-by-jane-mayer.html>
128. ExxonKnew, <https://exxonknew.org>
129. Senate Democrats' Special Committee on the Climate Crisis, "The Case for Climate Action: Building a Clean Economy for the American People," <https://www.whitehouse.senate.gov/imo/media/doc/Dark%20Money%20Chpt%20SCCC%20Climate%20Crisis%20Report.pdf>
130. InfluenceMap, "Big Oil's Real Agenda on Climate Change 2022," Sept 2022, <https://influencemap.org/report/Big-Oil-s-Agenda-on-Climate-Change-2022-19585>
131. InfluenceMap, "Big Oil's Real Agenda on Climate Change 2022," Sept 2022, <https://influencemap.org/report/Big-Oil-s-Agenda-on-Climate-Change-2022-19585>
132. Based on data analyzed from Open Secrets and Federal lobbying disclosures
133. Union of Concerned Scientists, "How Fossil Fuel Lobbyists Used 'Astroturf' Front Groups to Confuse the Public," Oct 11 2017, <https://www.ucsusa.org/resources/how-fossil-fuel-lobbyists-used-astroturf-front-groups-confuse-public>

134. Inci Sayki and Jimmy Cloutier, "Oil and gas industry spent \$124.4 million on federal lobbying amid record profits in 2022," OpenSecrets, <https://www.opensecrets.org/news/2023/02/oil-and-gas-industry-spent-124-4-million-on-federal-lobbying-amid-record-profits-in-2022/>
135. Chris McGreal, "How a powerful US lobby group helps big oil to block climate action," *The Guardian*, July 19 2021, <https://www.theguardian.com/environment/2021/jul/19/big-oil-climate-crisis-lobby-group-api>
136. U.S. Chamber of Commerce, "Governance," <https://www.uschamber.com/about/governance>
137. OpenSecrets, "Client Profile: US Chamber of Commerce," <https://www.opensecrets.org/federal-lobbying/clients/summary?cycle=2022&id=D000019798&name=US+Chamber+of+Commerce>
138. Chevron, "lobbying and trade associations," <https://www.chevron.com/sustainability/governance/lobbying-and-trade-associations>
139. Based on data from OpenSecrets
140. Senator Whitehouse, "Whitehouse & Schatz Introduce Save Our Future Act To Charge Big Polluters For Emissions, Redirect Trillions to American Families and Communities Harmed by Pollution," June 6 2021, <https://www.whitehouse.senate.gov/news/release/whitehouse-and-schatz-introduce-save-our-future-act-to-charge-big-polluters-for-emissions-redirect-trillions-to-american-families-and-communities-harmed-by-pollution#:~:text=The%20Save%20Our%20Future%20Act%20provides%20a%20roadmap%20to%20cut,need%2C%E2%80%9D%20said%20Senator%20Schatz.>
141. Senator Whitehouse, "S.2085- Save Our Future Act," <https://www.congress.gov/bill/117th-congress/senate-bill/2085>
142. Julia Brownley, "Brownley Introduces Bill to Improve Oversight of Offshore Oil and Gas Pipelines," March 8 2023, <https://juliabrownley.house.gov/brownley-introduces-bill-to-improve-oversight-of-offshore-oil-and-gas-pipelines/>
143. United States Government Accountability Office, "Report to Congressional Requesters: Offshore Oil and Gas- Updated Regulations Needed to Improve Pipeline Oversight and Decommissioning," March 2021, Offshore Oil and Gas: Updated Regulations Needed to Improve Pipeline Oversight and Decommissioning, <https://www.gao.gov/assets/gao-21-293.pdf>
144. Chevron, "Exploration and production in North America," <https://www.chevron.com/operations/exploration-production/exploration-production-in-north-america#:~:text=Chevron%20is%20one%20of%20the, Caesar%2FTonga%20and%20Perdido%20fields.>
145. Julia Brownley, "Brownley Introduces Bill to Improve Oversight of Offshore Oil and Gas Pipelines," March 8 2023, <https://juliabrownley.house.gov/brownley-introduces-bill-to-improve-oversight-of-offshore-oil-and-gas-pipelines/>
146. International Energy Agency, "Section 45Q Credit for Carbon Oxide Sequestration," Nov 2022, <https://www.iea.org/policies/4986-section-45q-credit-for-carbon-oxide-sequestration>
147. Evan Halper, "How a pricey taxpayer gamble on carbon capture helps Big Oil," *The Washington Post*, Oct 9 2022, <https://www.washingtonpost.com/business/2022/10/09/carbon-capture-oil-gas/>
148. Kate Aronoff, "Why Is the Fossil Fuel Industry Praising the Inflation Reduction Act?" *New Republic*, March 10 2023, <https://newrepublic.com/article/171086/fossil-fuel-industry-praising-inflation-reduction-act>
149. Chevron, "Chevron U.S.A. Lobbying Report: Q4 2022," <https://disclosurespreview.house.gov/ld/ldxmlrelease/2022/Q4/301443144.xml>
150. Avi Salzman, "Exxon and 3 Other Oil and Gas Companies That Could Benefit from Inflation Bill," *Barron's*, July 28 2022, <https://www.barrons.com/articles/exxon-chevron-occidental-inflation-bill-51659028312>
151. Alejandro de la Garza, "The Inflation Reduction Act Includes a Bonanza for the Carbon Capture Industry," *TIME*, Aug 11 2022, <https://time.com/6205570/inflation-reduction-act-carbon-capture/>
152. Inci Sayki and Jimmy Cloutier, "Oil and gas industry spent \$124.4 million on federal lobbying amid record profits in 2022," OpenSecrets, <https://www.opensecrets.org/news/2023/02/oil-and-gas-industry-spent-124-4-million-on-federal-lobbying-amid-record-profits-in-2022/>
153. Corporate Accountability, Global Forest Coalition, and Friends of the Earth International, "The Big Con: How Big Polluters are advancing a 'net zero' climate agenda to delay, deceive, and deny," June 2021, <https://corporateaccountability.org/resources/the-big-con-net-zero/>
154. Oliver Milman, "'Monster profits' for energy giants reveal a self-destructive fossil fuel resurgence," *The Guardian*, Feb 9 2023, <https://www.theguardian.com/environment/2023/feb/09/profits-energy-fossil-fuel-resurgence-climate-crisis-shell-exxon-bp-chevron-totalenergies>
155. "A Global Call for Climate Action Ahead of COP26," <https://www.realsolutions-not-netzero.org/cop26>
156. ActionAid, Corporate Accountability, Friends of the Earth International, Global Campaign to Demand Climate Justice, Third World Network, and What Next?, "NOT Zero: How 'net zero' targets disguise climate inaction- Joint technical briefing by climate justice organisations," October 2020, <https://corporateaccountability.org/wp-content/uploads/2020/10/NOT-ZERO-How-net-zero-targets-disguise-climate-inaction-FINAL.pdf>
157. ActionAid, Corporate Accountability, Friends of the Earth International, Global Campaign to Demand Climate Justice, Third World Network, and What Next?, "NOT Zero: How 'net zero' targets disguise climate inaction- Joint technical briefing by climate justice organisations," October 2020, <https://corporateaccountability.org/wp-content/uploads/2020/10/NOT-ZERO-How-net-zero-targets-disguise-climate-inaction-FINAL.pdf>
158. ActionAid, Corporate Accountability, Friends of the Earth International, Global Campaign to Demand Climate Justice, Third World Network, and What Next?, "NOT Zero: How 'net zero' targets disguise climate inaction- Joint technical briefing by climate justice organisations," October 2020, <https://corporateaccountability.org/wp-content/uploads/2020/10/NOT-ZERO-How-net-zero-targets-disguise-climate-inaction-FINAL.pdf>
159. "Joint civil society submission on establishing a UNFCCC Accountability Framework to protect against undue influence of polluting interests," August 17 2022, https://corporateaccountability.org/wp-content/uploads/2022/08/Joint-civil-society-submission-on-COI-Aug-17-2022_.pdf

