

CHASING CARBON UNICORNS:

THE DECEPTION
OF CARBON MARKETS
AND "NET ZERO"



FRIENDS OF THE EARTH INTERNATIONAL, LA VÍA CAMPESINA, INDIGENOUS ENVIRONMENTAL NETWORK, CORPORATE ACCOUNTABILITY, ASIAN PEOPLES' MOVEMENT ON DEBT AND DEVELOPMENT, THIRD WORLD NETWORK, GRASSROOTS GLOBAL JUSTICE ALLIANCE, CLIMATE JUSTICE ALLIANCE, JUSTIÇA AMBIENTAL

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**Friends of
the Earth
International**

CHASING CARBON UNICORNS: THE DECEPTION OF CARBON MARKETS AND “NET ZERO”



mobilize resist transform

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JUSTIÇA AMBIENTAL (JA I) works to reduce the environmental and social impacts of Mozambique's unsustainable development, and to create new sustainable systems. We aim to build awareness and solidarity. We are committed to a better, safer and healthier environment for Mozambique, for the world and for current and future generations. [HTTPS://JA4CHANGE.ORG](https://JA4CHANGE.ORG)

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Right: Activists at the climate justice march on the streets in Poland on 8 December 2018.

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Below: Climate justice activists protest against Shell inside the COP24 climate negotiations in Katowice in 2018.

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INTRODUCTION

To keep global average temperature rise below 1.5°C requires deep and immediate cuts in the burning of fossil fuels. It requires the complete phase-out of fossil fuel burning before mid-century, first in the developed countries that created the crisis, then followed by developing countries. In short, we must “keep the oil in the soil and the coal in the hole.” We have to accomplish this while addressing the inequality and inequity at the core of the climate crisis, and while protecting peoples and the planet. This is no small task. But for the sake of justice and survival, we need to take on this challenge of planetary proportions.

“Keep the oil in the soil
and the coal in the hole.”
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Powerful actors, particularly those most responsible for emissions, such as the fossil fuel industry and agribusiness, continue to obscure the need for the phase-out of fossil fuels and greenhouse gas emissions with the distractions and seductions of the carbon market. “Net zero” pledges are a new addition to the strategy basket of these actors who are fighting hard to maintain the status quo. And the status quo will certainly worsen the climate catastrophe.

These deliberate corporate strategies:

- distract attention from the undeniable and urgent need to eliminate fossil fuel emissions;
- obscure the responsibility of corporates and elites for their carbon emissions, and the responsibility of governments to regulate them; and
- continue the financialisation of nature, reducing the incredible diversity of the planet’s forests, grasslands, and wetlands to carbon that will be traded, and triggering a massive new resource grab from Indigenous Peoples, peasants and local communities, mainly in the global South.

Forests, lands, ecosystems are so much more than the carbon stored in them. They are living, breathing ecosystems, cultural and spiritual sites, and life-giving for millions of people across the planet.

The growth in “net zero” pledges of companies and governments, coupled with strategies that rely on offsetting to fulfil those pledges, is leading to a growth in demand for offsets. Governments are aiding this effort, with a clear intent to use the biodiversity and climate summits in 2021 to further scale up carbon offset markets.

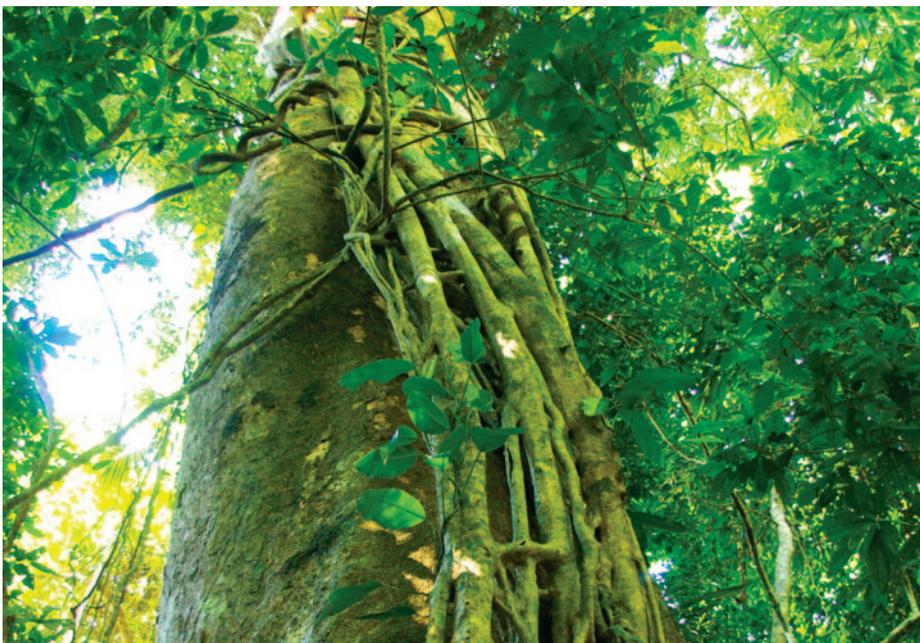
Given the intense emphasis that private actors are putting on the scaling up of voluntary carbon offset markets, it is likely that the emissions trading sector is making its own plan B of increasing voluntary carbon offset schemes, in case governments fail in ongoing negotiations on carbon market rules under Article 6 of the Paris Agreement. Of course many civil society groups are opposing carbon markets in the Article 6 negotiations and in other fora.

But offsets do not actually reduce atmospheric concentrations of carbon dioxide (CO₂). At best they lead to no net increase in atmospheric concentrations. However, in fact global emissions, and therefore CO₂ concentrations, continue to rise at a deadly pace.

“Net zero” is a smokescreen, a conveniently invented concept that is both dangerous and problematic because of how effectively it hides inaction. We have to unpack “net zero” strategies and pledges to see which are real and which are fake. Fake zero strategies rely on offsets, rather than real emission reductions. Real zero strategies require emissions to really go to zero, or as close to zero as possible.

BOX 1: DEMANDS FOR REAL ZERO

1. Governments must urgently begin to cooperate on a coordinated phase-out of fossil fuel production and consumption, with equity at the core of that phase-out.
2. We must accelerate the transformation towards a climate-just world by transforming our energy system including principles such as energy sufficiency for all, energy sovereignty, energy democracy, energy as a common good, 100% renewable energy for all, and community-owned, low-impact renewable energy.
3. We demand that the rights of Indigenous Peoples, peasants and local communities are granted and implemented so that the traditional practice of Community Forest Management (CFM) can be fully implemented to stop climate change and biodiversity loss.
4. We demand support for peasant agroecology and support for the small farmers who still feed 70% of the people on our planet.
5. We demand a new economics for people and planet which values the care system and the reproduction of life, recognises our interdependence as human beings, and re-organises the care and domestic work traditionally undertaken by women (sharing the responsibility between men, women and the State). This transformation is essential to building our resilience against health and environmental crises.
6. We must reclaim the public sphere and political arena from the perspective of economic, social and gender justice and ensure peoples' rights. Public services can be used to guarantee peoples' access to water, health, energy, education, communication, transport and food. To pay for these public services we need fair, transparent and redistributive tax systems.
7. We demand binding rules on big business, allowing us to rein back the power of transnational corporations (TNCs) and provide victims with access to justice, compensation and restoring of their livelihoods wherever crimes occur.
8. Our governments must build a just recovery on environmental, social, gender, racial, economic and people-centred justice.
9. We demand a climate-just world that is free from patriarchy and all systems of oppression, domination and inequality.



Above: Ibu Rumsiah from Kalimantan, Indonesia resisting the Indramayu coal fired power plant. © Luka Tomac / Friends of the Earth International

Left: Mabu forest in central Mozambique. © Justiça Ambiental / FoE Mozambique

THE SCIENCE AND POLITICS OF "NET ZERO"

01



Coal power station at night in Poland.
© shutterstock/REDPIXEL.PL

Article 4.1 of the Paris Agreement states: **“In order to achieve the long-term temperature goal set out in Article 2,¹ Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.”**

The basic concept of “net zero” can be captured in an equation: greenhouse gas emissions minus removals of greenhouse gases, balancing out to zero. To reach zero, emissions over a period of time cannot be greater than the amount of CO₂ that can be taken out of the atmosphere over that same period of time.

Whether or not we can get to zero is not all that matters in thinking about the implications of this equation. Both one hundred minus one hundred and ten minus ten are equal to zero. The first element in the equation is obviously more important than the second. Without doubt it would be easier to remove ten units of carbon dioxide from the atmosphere than one hundred units; limiting the overall level of emissions first is clearly critical to achieving zero.

100-100=0
10-10=0 **ZERO**

¹ Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.



But this example and these numbers are just abstractions that hide more than they reveal. When the focus is only on the flows of carbon – carbon emitted and carbon removed – the cumulative nature of carbon dioxide is hidden. CO₂ remains in the atmosphere for hundreds to thousands of years, so any imbalance of additions over removals adds to atmospheric concentrations which will persist. The time frame over which “net zero” strategies are pursued is also extremely consequential. If the balance between emissions and removals is only achieved by mid-century, a huge amount of additional greenhouse gases will be added every year until that balance is reached – an amount that would somehow need to be removed to keep the temperature rise below 1.5°C.

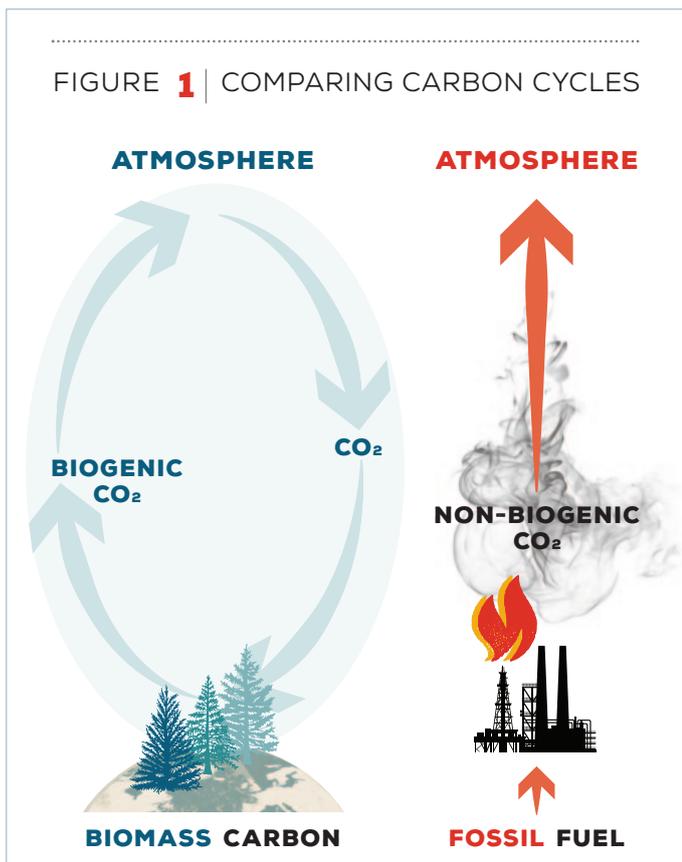
A DEEPER DIVE INTO THE SCIENCE OF “NET ZERO”

Theoretically “net zero” is “achieved” when there is a balance between sources of greenhouse gas emissions and sinks.² The simple equation hides important differences between sources and sinks of carbon. Those differences are further obscured when reducing the entire conversation (and entire ecosystems) to molecules of carbon and units of CO₂.

Scientists distinguish between two different sources of carbon dioxide: from carbon that cycles through active pools – atmosphere, ocean, and land – and from carbon released by the burning of material that has been stored underground for millions of years, or fossil carbon (see Figure 1). It is critical to understand some of the reasons why scientists care about where carbon comes from.

Above all, time frames matter. The active carbon cycle and interchange between the three active pools operate on time frames of hours (think photosynthesis) and days to centuries. In contrast, the fossil carbon “cycle” operates on the time frame of thousands to tens of thousands of years – that is, on geological time scales. To actually “cycle” fossil carbon out of the atmosphere would require processes that will sequester and store carbon for *hundreds to thousands of years*. See Figure 1.

Many of the “solutions” currently being promoted incorrectly and dangerously assume that all those fossil emissions might be captured in natural ecosystems. But the carbon dioxide from fossil fuels being dug up and burned is **additional to** the carbon that is already cycling between the active pools. We are putting significant stress on all these pools by pushing them to take up additional fossil CO₂, as their capacity to do that is very limited and the impacts of that continued uptake are huge. For example, the additional fossil CO₂ taken up by the oceans is dramatically increasing their acidity, with disastrous consequences for animals with carbonate in their bodies, like corals and shellfish. And we are all well aware of the impacts of increasing CO₂ concentrations in the atmosphere, which were 410 ppm in 2019 and of course are still rising.³



Source: IEA Bioenergy, <https://www.ieabioenergy.com/iea-publications/faq/woodybiomass/biogenic-co2/>

Carbon cycles through the three active pools (left). The fossil carbon cycle happens over time frames much longer than humans experience – in the order of millions of years – so it is not represented here as a cycle. The three active carbon pools all interact with one another: the atmosphere, oceans, and terrestrial or biomass carbon, which includes the carbon in soils.

2 According to the UNFCCC, a “sink” is any process, activity, or mechanism that removes a greenhouse gas from the atmosphere.

3 NOAA, Climate.gov. 2020. Climate change: atmospheric carbon dioxide. August 14. <https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>



It is certainly the case that over the past centuries, human activity has depleted the carbon in the land pool, in particular through deforestation and industrial agriculture, which has also led to increased carbon dioxide concentrations in the atmosphere, while reducing the potential for uptake of CO₂ in these degraded ecosystems. Restoration of ecosystems – while protecting the rights of Indigenous Peoples, peasants and local communities that protect and inhabit these ecosystems – can enhance the potential for carbon drawdown, and some of the land carbon that had been released can be captured again.⁴

However, what restoration – or even the planting of a trillion new trees – cannot physically do is compensate for **ongoing, additional** fossil fuel emissions. Paraphrasing Professor Peter Smith of the University of Aberdeen, we cannot just stuff the geosphere (i.e., CO₂ from the burning of fossil fuels) into the biosphere. Carbon dioxide accumulates in the atmosphere and resides there for hundreds to thousands of years, so any mitigation strategies must take into consideration addressing ongoing accumulations.

These constraints are further emphasized in the graphic (Figure 2) which is adapted from a graphic produced by the Intergovernmental Panel on Climate Change (IPCC). The IPCC notes: “To halt warming, we need to **turn off** the human-made CO₂ emissions tap” (emphasis added).

The bathtub graphic distinguishes the natural carbon cycle (the left-hand side of both Figure 1 and Figure 2) from the half-finished cycle of human disturbance, the one-way arrow of fossil emissions from the right-hand side of the first graphic. Fossil emissions pour into the bathtub (the atmosphere) but unless there is a carbon sink, or in the metaphor of the tub, a drain, that can absorb all those emissions, the tub continues to fill. The graphic text notes that to halt warming “**any inflow coming from that [fossil] tap needs to be matched by an equal outflow**” through a “drain” of engineered and natural “negative emissions” (emphasis added).

This right-hand unfinished human disturbance cycle is a graphical illustration of the “net zero” concept – any inflow must be matched by an outflow. It is also an illustration of how the concept of “net zero” does not address the existing excess and growing concentrations of CO₂ already in the atmosphere – the level of water found in the bathtub.

“Negative emissions” is another term used for the idea of pulling carbon out of the atmosphere. The IPCC graphic emphasizes that engineered “negative emissions” technologies, such as bioenergy carbon capture and storage (BECCS) or direct air carbon capture and storage (DACCS), are untested.⁵ They also suggest that “natural” negative emissions approaches, which would include afforestation, reforestation, and soil carbon sequestration, are uncertain. For example, as temperature continues to rise, forests and the carbon that they store will be increasingly threatened by drought and associated land degradation, fires, and pests.

The IPCC very explicitly does not show **additional** fossil emissions as being absorbed into the natural carbon cycle.

To summarize the most important points here about reaching “net zero”:

- we cannot fit the fossil carbon that we are emitting into the natural carbon cycle;
- we do not have the negative emission technologies of the second drain that are tested and/or certain to store fossil emissions in the time frame that matters to the climate (of hundreds to thousands of years);
- and the fossil tap keeps pouring carbon into the bathtub at rates that are rapidly filling the tub far beyond what would lead to 1.5 °C of warming.

Going back to our first equation, reaching “real zero” – where we have a real chance of staying below 1.5 °C – requires us to get fossil emissions to zero as soon as possible. Small amounts of emissions that are difficult to eliminate can be taken up through negative emissions (the right-hand cycle) and our degraded ecosystems can be restored and enhanced to help bring atmospheric levels back down (the left-hand cycle). There are no saviour ecosystems around the planet, nor fairy godmother technologies, that will suck up continued fossil fuel emissions.⁶

⁴ Mackey, B. et al. 2013. Untangling the confusion around land carbon science and climate change mitigation policy. *Nature Climate Change* 3: 552-557; Steffen, W. 2016. Land carbon is no substitute for fossil fuels. The Climate Council, Australia.

⁵ Geoengineering technologies raise a huge number of issues and concerns, too numerous to mention in this brief. Useful resources to help explore these issues further can be found at: <https://www.boell.de/en/geoengineering> and <http://www.geoengineeringmonitor.org/>.

⁶ Anderson, K. 2015. Talks in the city of light generate more heat. *Nature* 528: 437.



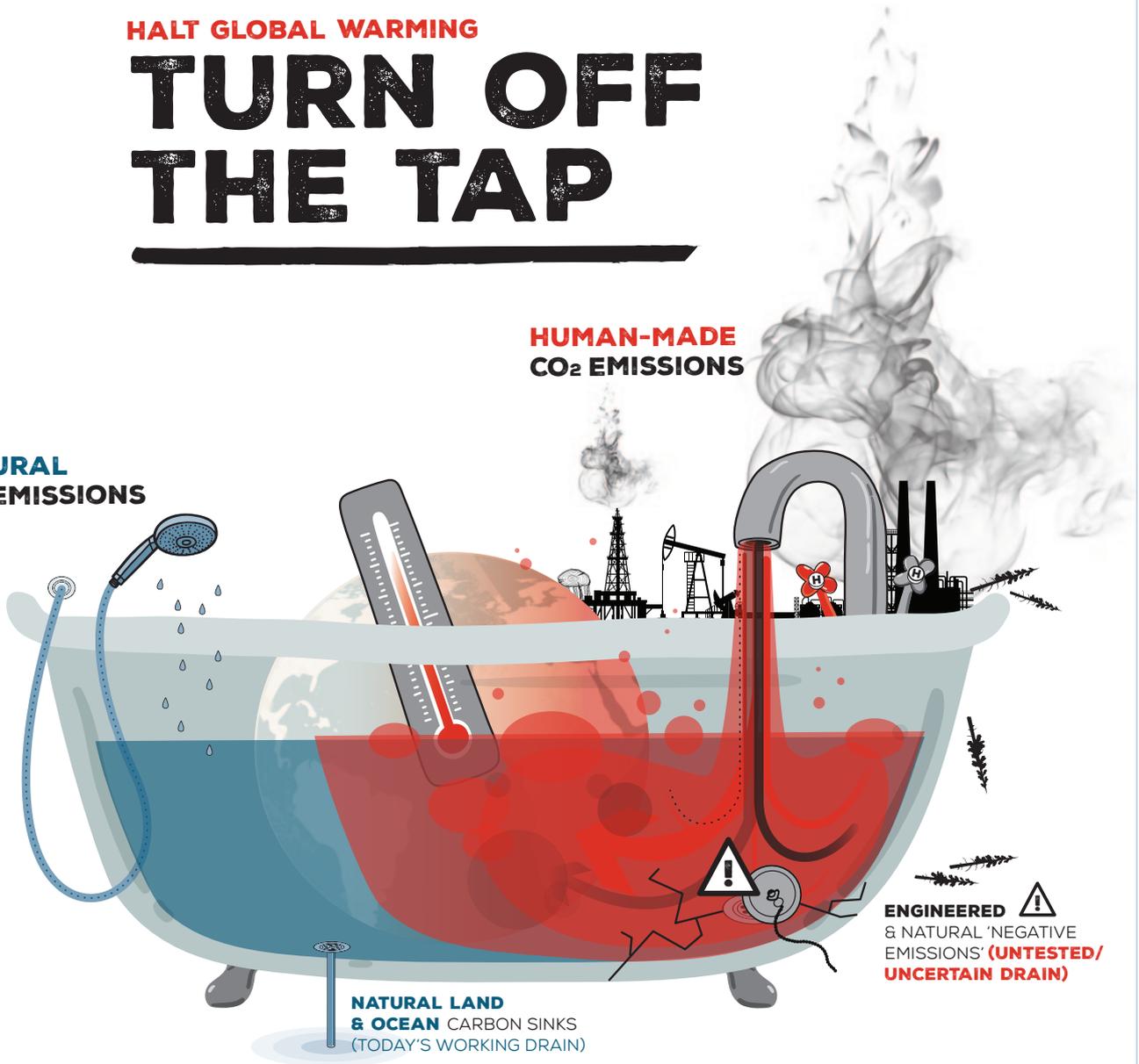
FIGURE 2 | ACCUMULATING GLOBAL CO₂ EMISSIONS
& CARBON CYCLE DRAINS

HALT GLOBAL WARMING

TURN OFF THE TAP

NATURAL
CO₂ EMISSIONS

HUMAN-MADE
CO₂ EMISSIONS



This figure is adapted from the bathtub graphic of the Intergovernmental Panel on Climate Change (IPCC). The graphic uses a bathtub to distinguish the active carbon in what they term the “natural carbon cycle” from fossil carbon in its one-way (non) cycle. It also accurately shows that there is no reliable “engineered and natural ‘negative emissions’ drain.”

Source: <https://www.ipcc.ch/sr15/multimedia/worlds-apart/>

"NET ZERO", CARBON MARKETS, AND CARBON OFFSETTING

02



Climate Justice allies protest against threats to food, land and water at COP24 in 2018.
© Richard Dixon/ Friends of the Earth Scotland

Carbon markets were established for trading in invisible atoms of carbon and molecules of carbon dioxide.⁷ In carbon markets, entities – governments, corporations, and individuals – can buy and sell carbon in the form of either avoided greenhouse gas emissions (for example, through taking a coal power plant offline and reducing demand and/or switching to renewable energy sources) or carbon removals (planting trees or restoring ecosystems).

There are two sets of distinctions that are useful to keep in mind when learning about carbon markets and their impacts on people and the planet: the difference between cap-and-trade and offsetting, and the difference between voluntary and compliance markets. **Compliance** markets are those where emission reduction is mandated by law, and **voluntary** markets are those where the emission reductions are undertaken voluntarily, for example by corporations that are not currently subject to any legal emission reduction obligations.

Compliance market rules typically include a **cap**, which is a target for maximum emissions. Companies that are subject to such rules usually have several options for keeping below their own individual cap, or permitted emissions. They can reduce their emissions to what they are permitted. Or, they can **trade** emission permits with other regulated companies: if they are unable to reduce their own emissions, they can buy extra permits from companies that successfully reduced below their own cap. This is the essence of a **cap-and-trade** system.

Some compliance markets and all voluntary markets allow the buying and selling of offsets. In a compliance market, companies with emission reduction obligations can go outside of the regulated area and pay unregulated entities to reduce emissions or remove atmospheric carbon. What they purchase is an **offset** credit. The definition of offsetting is

⁷ Useful references on carbon markets include: Carbon markets at COP25, Madrid: a threat to people, politics, and planet, <https://www.foei.org/resources/carbon-markets-briefing-cop25>; Trading carbon: how it works and why it's controversial, <https://www.fern.org/publications-insight/trading-carbon-how-it-works-and-why-it-is-controversial-651/>; and Gilbertson, T. and O. Reyes. 2009. Carbon trading: how it works and why it fails, <https://www.tni.org/en/publication/carbon-trading-how-it-works-and-why-it-fails>.



quite important when considering this practice in the context of “net zero” strategies. In the case of offsets, **one entity keeps emitting carbon** while another reduces their own emissions or sequesters CO₂, theoretically by an equivalent amount. Because one entity continues emitting, **at best there are no overall emission reductions from an offset**.⁸

Compliance markets such as the European Union (EU) Emissions Trading System (ETS) set hard limits on the amount of offsets that can be used to satisfy emission reduction obligations. The Clean Development Mechanism of the UNFCCC has been the main provider of offsets for the EU system. CDM projects are primarily avoided emissions projects. Only afforestation and reforestation projects for carbon removal are allowed under CDM rules, although carbon removal offsets are not allowable within the EU ETS due to concerns over the permanence of carbon stored in trees, or lack thereof.

The justification for carbon markets cited most often comes from neoclassical economic theory, which assumes that markets can efficiently allocate goods (in this case, emission reductions) through the use of price signals. Actors seeking to reduce their emissions will search for the least-cost emission reductions. Everyone apparently wins – actors reduce their emissions at a lower cost and the planet, theoretically, sees less CO₂.

But for whom are these emission reductions cheap? Certainly not the planet. Neither cap-and-trade nor offsetting will lower the overall costs to stop the burning of fossil fuels. Indeed, why should actors such as fossil fuel companies get to choose cheap trading and offsetting options, while continuing to explore for and extract fossil fuels, and continuing to increase their fossil CO₂ emissions? Once these inexpensive options are used up, who is going to invest in **actually stopping the burning of fossil fuels**?⁹

Box 2: Unpacking strategies for real zero and fake zero: differentiating between negative emissions and carbon offsets

Negative emissions are what results when carbon dioxide is pulled out of the atmosphere – simply put, the opposite of emissions. Both engineered and natural processes for **carbon dioxide removal** can theoretically lead to negative emissions if there are net removals of CO₂ from the atmosphere after other greenhouse-gas emitting aspects of the processes are accounted for.

Carbon offset credits may be generated through avoiding or reducing emissions to below a projected baseline, or removing carbon from the atmosphere.

Unpacking these two terms – negative emissions and carbon offsets – helps point out where confusion might be generated, and how powerful actors are taking advantage of the imprecise and fuzzy use of the terms to deceive, and hide their actions.

Confusion can result with a less technical use of the word “offset,” which can sometimes be defined as “compensate for”. In the case of carbon offsetting, the word describes one entity who continues to emit greenhouse gases while another entity undertakes some emission reductions or removals to “compensate for” the first party’s emissions. In this instance, the first entity purchases an offset credit, and the action of the second entity is said to “offset” the emissions of the first.

“Real zero” strategies require emitters to reduce their emissions to zero as soon as possible. In some sectors there are legitimate reasons for not being able to get to absolute zero, such as in the agriculture sector, where tilling soils and practices to increase fertility will be associated with emissions. Actors who are unable to get emissions to absolute zero would then have to “compensate for” their “residual emissions” by investing in carbon removal, that is, by generating negative emissions – either in their own jurisdiction or supply chain or externally. Very often the word “offset” is used in this context as well, but in the more generic sense of the term, not related specifically to carbon offsets.

This is a crucial set of conflated concepts. Fossil fuel corporations are boasting of their “net zero” pledges, while pursuing a strategy that relies on **offsetting** the emissions from their **continuing** business-as-usual operations and their products – not reducing as close to zero as possible and then “compensating for” residual emissions. This is a strategy to continue emissions-as-usual – continued exploration, exploitation, production, sale, and burning of fossil fuels, increasing output, all the while showing beautiful photos of the nature-based offsetting projects of their “fake zero” strategies.

⁸ Carbon neutrality is the best-case scenario, rarely if ever actually achieved. The devil is in the details. See for example, Trading carbon: how it works and why it's controversial, <https://www.fern.org/publications-insight/trading-carbon-how-it-works-and-why-it-is-controversial-651/>;

⁹ Clare, D. 2019. Carbon markets will not help stop climate change. <https://www.climatechangenews.com/2019/12/13/carbon-markets-will-not-help-stop-climate-change/>



OFFSETTING AND "NET ZERO"

The IPCC bathtub graphic makes it very obvious that carbon offsetting won't address the situation of a rapidly filling tub. The bathtub is close to overflowing. We need to turn off the fossil tap, full stop. Offset schemes allow the tap to keep flowing and that makes no sense in the zero sum game of the bathtub. **Temperatures keep rising, those least responsible suffer the greatest impacts, and corporates and the elites of the world are continuing their emissions-as-usual.**

More critically, offsetting does not reduce overall atmospheric concentrations of CO₂.¹⁰ To stop the "IPCC bathtub" from filling and keep atmospheric concentrations below those that will take us above 1.5°C, we need to turn off the fossil tap first and foremost and enhance the natural carbon cycle on the left hand side of the graphic.

However, the private sector and governments are proposing to rely on offsetting as their main strategy for how "net zero" will be reached, maintaining emission levels while searching for carbon dioxide removal "solutions". (For more detail on this strategy and its consequences, see the box on **unpacking strategies for real zero and fake zero.**) Powerful actors are working to consolidate the rules, infrastructure, and markets for offsets so that they can continue emissions-as-usual, disguised as "net zero" pledges. One prominent strategy to further confuse and greenwash their actions is to use "nature-based" offsets.

Offsets are meant to distract attention from those doing the emitting to those photogenic projects doing the offsetting. They are also designed to deflect attention from the burning of fossil fuels and towards the activities that are supposedly drawing down carbon dioxide: a trillion trees, soil carbon sequestration, or the new catch-phrase, "nature-based solutions (NBS)".¹¹ Lohmann calls these two related processes "deresponsibilisation" and "defossilisation".¹² Offsets, and carbon markets more generally, distract attention from the need to eliminate fossil fuel emissions, and they obscure the responsibility of corporates and elites for their carbon emissions and the burning of the planet, and the responsibility of governments to regulate them.

NEW STRATEGIES TO MAKE OFFSETS GREAT AGAIN

If offsetting is the main corporate strategy for continuing emissions-as-usual, cloaked in fake "net zero" pledges, there will be a growing need for offsets. Mark Carney, currently the UN special envoy on climate action and finance and the UK Prime Minister's Finance Adviser for COP26, asserts that "we can't get to zero net GHG emissions without robust voluntary carbon [offset] markets".¹³

Yet offsets have earned a bad reputation over the past two decades, for very legitimate reasons.¹⁴ Stories of fraud, double counting, corruption, and perverse incentives for offsetting have had an impact; many former buyers of offsets have come to realise they do not actually reduce emissions or atmospheric concentrations of greenhouse gases. Prices for voluntary offsets are so low as to be meaningless and useless as (theoretical) incentives for emission reductions. Tarnishing the reputation of offsets even further are the many scandals of landgrabbing and dispossession of Indigenous Peoples, peasants and local communities related to offset projects.¹⁵

A number of influential groups and initiatives are currently working to rehabilitate the image of offsets. Mark Carney is heading a new Taskforce on Scaling Voluntary Carbon Markets (TSVCM), which is working to develop standards for "credible offsets" and build consensus on their legitimacy. A group of Oxford academics has developed the "The Oxford Principles for Net Zero Aligned Carbon Offsetting".¹⁶ The International Union for the Conservation of Nature (IUCN)

- 10 Becken, S. and B. Mackey. 2017. What role for offsetting aviation greenhouse gas emissions in a deep-cut carbon world? *Journal of Air Transport Management* 63: 71-83.
- 11 "Nature-based solutions" is a relatively new concept, first defined by the International Union for the Conservation of Nature (IUCN) in 2016. They define it as "actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits". The devil is certainly in the detail, with such a broad and vague definition, and as we see later in this brief, "nature-based solutions" are being used to serve the political and economic agendas to commodify and financialise carbon and the carbon drawdown potential within natural ecosystems.
- 12 Lohmann, L. 2012. Beyond patzers and clients – Strategic reflections on climate change and the 'Green Economy.' *Development Dialogue*, September 2012, pp. 295-326.
- 13 Task Force on Scaling Voluntary Carbon Markets. 2020. Webinar, October 14. <https://www.iif.com/tsvcm/Main-Page/Publications/ID/4135/Operating-Team-Announces-Expanded-Taskforce-And-Consultative-Group>
- 14 See for example: Davies, N. 2007. The inconvenient truth about the carbon offset industry. *The Guardian*, 16 June, <https://www.theguardian.com/environment/2007/jun/16/climatechange.climatechange>; Song, L. 2019. An even more inconvenient truth: why carbon credits for forest preservation may be worse than nothing. *ProPublica*, 22 May, <https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/>; Cavanagh, C. and Benjaminsen, T.A., 2014. Virtual nature, violent accumulation: The 'spectacular failure' of carbon offsetting at a Ugandan National Park. *Geoforum*, 56, pp.55-65.
- 15 Importantly, Indigenous lands are increasingly targeted by forest offset project developers creating pressure and division in Indigenous communities.
- 16 Allen, M. et al. 2020. The Oxford Principles for Net Zero Aligned Carbon Offsetting. September. <https://www.smithschool.ox.ac.uk/publications/reports/Oxford-Offsetting-Principles-2020.pdf>



has developed standards for their fuzzy category of “nature-based solutions,” clearly with the intent that NBS will be used as offsets in an extension of their existing initiatives on biodiversity offsetting.¹⁷

The dismal performance of both voluntary and compliance carbon markets during the past two decades has undoubtedly been disappointing for the finance sector. But financial interests are not giving up on the profit-making opportunities they see in markets for carbon and for financial assets, such as securities and derivatives, based on carbon.¹⁸

About that task force on scaling up voluntary carbon markets: it is sponsored by the International Institute of Finance. Mark Carney, who established the task force, is the former governor of the Bank of Canada, and after that governor of the Bank of England until 2020. The chair of the task force, Bill Winters, is CEO of the bank Standard Chartered. The operational lead for the task force is Annette Nazareth, a former commissioner of the US Securities and Exchange Commission. The financial sector is not messing around. They are determined to use the rationale of “net zero” in order to build a “bigger and better” voluntary carbon offset market. Apparently there is money to be made and the bankers and financiers do not seem interested in leaving this task up to amateur climate policy experts. And one gets the impression that they do not have much confidence in a useful or speedy outcome to the negotiations on rules for regulated global carbon markets under way at the UNFCCC. They are planning to launch their own pilot voluntary carbon offset market in 2021.¹⁹

The world’s major emitters – including fossil fuel corporations, agribusiness, aviation and shipping industries – are well aware of the value of offsets for meeting their “net zero” pledges. One merely needs to glance at Shell’s website on nature-based solutions to understand the strategy of distraction and seduction.²⁰ Shell is clearly intent on continuing to explore, extract, and sell fossil fuels. It distracts from its intention to keep on selling fossil fuels by focusing attention on its program to include forest offsets with each litre of petrol it sells to consumers. It seduces with photos of forests and commitments to support the preservation of biodiverse ecosystems, such as the Cordillera Azul in Peru. Shell includes these stories alongside its pledge to achieve “net zero” in its facilities and operations, conveniently ignoring any promise to reduce fossil fuel exploration, production, or sales.

Eni is even bolder in putting its “net zero” and offsetting claims right alongside its intentions to carry on with business as usual. In a recent press statement, Eni notes its intention to increase oil and gas production by 3.5% per year until 2025 and then reduce its carbon footprint by 80% by 2050, by using 30 million tons a year by 2050 of carbon offsets from primary and secondary forest conservation projects.²¹

Total has committed to being “net zero” across its worldwide operations, but not products, by 2050. It is only pledging to reach “net zero” for emissions from energy products sold in Europe by that time.²² In the meantime, it is celebrating its first shipment of “carbon neutral” liquid natural gas (LNG) to China. It claims it has offset the entire carbon footprint of the shipment – including production, liquefaction, shipping, regasification, and end-use – by providing financing for the Hebei Guyuan Wind Power Project in China and the Kariba REDD+ Forest Protection Project in Zimbabwe.²³ And at the same time, Total is planning to build a US\$3 billion LNG pipeline from Uganda across Tanzania.

17 IUCN. Business key areas of work. <https://www.iucn.org/theme/business-and-biodiversity/our-work/business-key-areas-work>

18 The process to turn a commodity such as carbon into securities and derivatives is called financialisation. Larry Lohmann (footnote 12) identifies the financialisation of nature as a third key process facilitated by carbon markets, in addition to deresponsibilisation and defossilisation. See also Seufert, P., et al. 2020. Rogue capitalism and the financialisation of territories and nature. [https://www.fian.org/files/files/Rogue_Capitalism_and_the_Financialization_of_Territories_and_Nature_\(1\).pdf](https://www.fian.org/files/files/Rogue_Capitalism_and_the_Financialization_of_Territories_and_Nature_(1).pdf)

19 Hook, L. and P. Temple-West. 2020. Carney calls for ‘\$100bn a year’ global carbon offset market. Financial Times, 3 December.

20 Shell Nature-Based Solutions. <https://www.shell.com/energy-and-innovation/new-energies/nature-based-solutions.html#frame=L3dlYmFwcHMvMjAxOV9uYXR1cmVfYmFzZWRFc29sdXRpb25zL3VwZGF0ZS8>

21 <https://www.eni.com/en-IT/media/press-release/2020/02/long-term-strategic-plan-to-2050-and-action-plan-2020-2023.html> & <https://ja4change.org/2019/05/13/climate-criminals-eni-and-shell/>

22 <https://www.total.com/media/news/total-adopts-new-climate-ambition-get-net-zero-2050>

23 <https://www.total.com/media/news/communiqués-presse/total-delivers-its-first-carbon-neutral-Ing-cargo>. Both projects are for avoided emissions rather than carbon removal.



Hundreds of companies are rushing to create “net zero” pledges, similar to those of Shell, Eni, and Total. They are intending to convince us, the public who are clearly worried about climate change, that they are serious about the climate crisis, while using attractive-sounding offsets to get to “net zero”. As is evident from the previous three examples, these companies are also planning to continue to emit at scale for the foreseeable future, using “nature-based” offsets to greenwash their activities.

Hundreds of “net zero” pledges will require a huge growth in the quantity and availability of “credible”, standardised offsets. Bill Winters, chair of the TSVCM, worries that “as a result of a lack of standardization the voluntary offset market cannot grow fast enough to meet the booming demand fuelled by big multi-national companies, including oil giants and airlines, pledging to get their emissions to net zero”²⁴

But where exactly are all these offsets going to be found? Indeed the geosphere cannot be stuffed into the biosphere. If fossil emissions continue to rise, corporate demand for their “net zero” offsets will continue to grow, far beyond the capacity of our land and forests, threatening communities, food production, and the world’s biodiversity. The task force assumes that net emissions must fall to 23 Gt CO₂ per year by 2030. They note a need for at least 2 Gt CO₂ in carbon removal or sequestration offsets as part of this 2030 net number, or 15 times the amount of offsets currently available, and estimate this offset figure might be much greater if offsets for reducing or avoiding emissions are included.²⁵ Winters speculated that by 2050 the amount of offsets available might need to be up to 160 times larger than in 2020, should corporates rely on offsetting rather than emissions reductions.²⁶

How much of the surface area of the planet are the “net zero” champions anticipating being able to colonise to satisfy their “net zero” pledges? The most recent estimates from Oxford scientists for the potential annual contribution of “natural climate solutions” provides some figures that are useful to contextualise the 2 Gt CO₂ per year near-term goal of the task force for carbon removal and sequestration offsets. The Oxford estimate of a practically possible annual contribution of *all* natural climate solutions is around 10 Gt CO₂, which includes avoided emissions by protecting intact lands and forests, carbon removal through the restoration of ecosystems, and reduced emissions and carbon removal from improved management of croplands, forests, and grasslands.²⁷ Of that 10 Gt, approximately 5 Gt is from avoided emissions and 5 Gt of carbon removal, with 2 Gt of removal from ecosystem restoration and the rest from improved management of existing productive lands. The area of land required to sequester just 2 Gt CO₂ through ecosystem restoration is estimated at 678 million hectares – about twice the land area of the country of India.²⁸

Fossil futures require carbon unicorns.²⁹



NO REDD
meeting in Maputo,
Mozambique in 2013.
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FoE Mozambique

- 24 Task Force webinar: <https://www.iif.com/tsvcm/Main-Page/Publications/ID/4135/Operating-Team-Announces-Expanded-Taskforce-And-Consultative-Group> and Telegraph article: <https://www.telegraph.co.uk/news/2020/10/16/exclusive-mark-carney-set-credible-carbon-market-beginning-next/>
- 25 Task Force on Scaling Voluntary Carbon Markets. 2020. Consultation document. November. https://www.iif.com/Portals/1/Files/TSVCM_Consultation_Document.pdf
- 26 Shankleman, J. and W. Mathis. 2020. Carbon offsets risk Labor moment without tougher rules. Bloomberg.com, 2 September. <https://www.bloomberg.com/news/articles/2020-09-02/carbon-offsets-risk-labor-moment-without-tougher-rules>
- 27 Girardin et al. in review. As described in the presentation found here <https://www.youtube.com/watch?v=2ZFoVtgzedk>
- 28 Girardin et al. in review.
- 29 Carton, W. 2020. Carbon unicorns and fossil futures. Whose emission reduction pathways is the IPCC performing? In Sapinski, J.P. et al. (eds.), *Has it come to this? The pitfalls and promises of geoengineering on the brink*. Rutgers University Press.



LEADING ACTORS AND SUPPORTING PLAYERS

There are no surprises among the members of the TSCVM. BP, Shell, and Total represent the oil majors; Bunge, Nestlé, and Unilever are there for agribusiness; Boeing, easyJet, and Etihad, the aviation sector. Bank and finance industry members include Bank of America, BlackRock, BNP Paribas, Goldman Sachs, Itaú Unibanco, and Standard Chartered.³⁰

Other supporting players are brought in to assist in responding to this need for offsets, and lack of an adequate supply of “nature-based” offsets. The authors of the Oxford Principles for Net Zero Aligned Carbon Offsetting argue for mobilising resources to geoengineering approaches through offset markets, by moving away from avoided emissions offsets and towards carbon dioxide removal (CDR) offsets. They would prioritise geoengineering offset projects where long-term carbon storage could be (theoretically) guaranteed: direct air carbon capture and storage (DACCS), bioenergy carbon capture and storage (BECCS), mineralisation, and enhanced weathering.³¹

No one knows whether or when any of those geoengineering technologies will actually be feasible, or if great harm can be avoided while using them. At present they are carbon unicorns, fanciful imaginings of how we might solve the climate crisis without needing to eliminate the burning of fossil fuels. They will not deliver offsets in the near term, nor will they eliminate the ongoing violence against human and non-human nature at sites of extraction and combustion.

Major big green conservation organisations are also engaged in the effort to rehabilitate offsetting and help to dramatically increase the supply of “nature-based” offset credits. Four organisations sit on the consultative group of the TSCVM: Conservation International (CI), Environmental Defense Fund (EDF), The Nature Conservancy (TNC), and World Wildlife Fund (WWF). All four are prominent advocates for “nature-based” solutions / offsets. All four have active projects in the developing world that are set to generate carbon-offset credits, sometimes including direct alliances with fossil fuel majors.³² All four have been avid proponents of carbon markets, reducing emissions from deforestation and forest degradation (REDD+), and specifically markets for carbon that is supposedly “stored” in nature.³³

In the short-term, until their carbon geoengineering unicorns appear, the Oxford principles argue for prioritising “nature-based” carbon dioxide removal, of the kind that the conservation organisations are planning to deliver.

The narrative logic being constructed makes no sense for people or the planet. Indeed it borders on the absurd: Eni plants trees and tells shareholders it plans to expand oil exploration and production until at least 2025, and Heathrow congratulates itself for saving peat bogs while planning runway expansions.

The Oxford estimate of a practically possible annual contribution of all natural climate solutions is around 10 Gt CO₂, which includes avoided emissions by protecting intact lands and forests, carbon removal through the restoration of ecosystems, and reduced emissions and carbon removal from improved management of croplands, forests, and grasslands. Of that 10 Gt, approximately 5 Gt is from avoided emissions and 5 Gt of carbon removal, with 2 Gt of removal from ecosystem restoration and the rest from improved management of existing productive lands. The area of land required to sequester just 2 Gt CO₂ through ecosystem restoration is estimated at 678 million hectares – about twice the land area of the country of India.

30 Task Force on Scaling Voluntary Carbon Markets. 2020. 2 September. <https://www.iif.com/tsvcm/Main-Page/Publications/ID/4061/Private-Sector-Voluntary-Carbon-Markets-Taskforce-Established-to-Help-Meet-Climate-Goals>

31 Allen, M. et al. 2020. The Oxford Principles for Net Zero Aligned Carbon Offsetting. September. <https://www.smithschool.ox.ac.uk/publications/reports/Oxford-Offsetting-Principles-2020.pdf>

32 <https://www.conservation.org/blog/carbon-offsets>; <https://www.terrapass.com/terrapass-on-edfs-carbonoffsetlistorg>; <https://www.shell.com/sustainability/our-approach/environmental-and-community-partners.html#iframe=L3dlYmFwcHMvRWFydGh3YXRjaC92Ml8wLWw>; <https://help.worldwildlife.org/hc/en-us/articles/360007906454-Carbon-Offset-Program>

33 <https://www.conservation.org/blog/carbon-offsets>; <https://www.edf.org/climate/deforestation-solved-carbon-markets>; <https://www.nature.org/en-us/magazine/magazine-articles/carbon-capture/>; <https://www.worldwildlife.org/initiatives/saving-forests-with-redd>

SETTING NATIONAL "NET ZERO" TARGETS

03



Activists protest REDD and land grabs ahead of the signing of the Paris Agreement at the COP21 climate negotiations in Paris in December 2015. © Friends of the Earth International

National governments are also setting “net zero” targets, as part of the actions they are taking in the context of the Paris Agreement, often in the context of their nationally determined contributions (NDCs). The strategies for fulfilling these are more varied than using offsets bought on the carbon market.

Government “net zero” targets also obscure fossil emissions and the responsibility for reducing those emissions, as do the “net zero” pledges of the private sector. **The targets are really just accounting tricks that dissolve positive fossil emissions and negative emissions in the land sector into a single number: zero.** Governments do not need to disclose whether they intend to reach their target of zero with the equation of *ten minus ten or one hundred minus one hundred* – hiding whether their strategies are real zero or fake zero strategies.

The principles used to evaluate these actions and targets, however, must be the same principles we use to evaluate corporate action or inaction. A “net zero” target has to be built on **a transparent set of targets to reach zero fossil fuel emissions.** At the national level, this will actually require setting separate and distinct targets for industrial emission reductions and for enhancing the natural carbon cycle, including through forest protection, Indigenous sovereignty, and forest and ecosystem restoration. And it will require fulfilling these targets through domestic action alone, rather than through international offsetting.

LINKING NATURE & CARBON MARKETS: CONVENTION ON BIOLOGICAL DIVERSITY (CBD) COP15 AND UN FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC) COP26

04



Activists protest carbon markets inside the COP25 climate negotiations in Madrid in December 2019.
© Victor Barro/Amigos de la Tierra

There are numerous processes under way to bring nature into carbon markets to satisfy “needs” generated by the adoption of “net zero” pledges, targets, and rationales. These include the voluntary processes described above with the Taskforce on Scaling up Voluntary Carbon Markets (TSVCM) and formal intergovernmental negotiating processes, in particular under the UN Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC).³⁴

The CBD is preparing its post-2020 Global Biodiversity Framework (post-2020 GBF), which is anticipated to be adopted at CBD COP15. The framework is an opportunity for the Global North to secure commitments from the Global South to protect an adequate amount of nature that might be made into a carbon commodity. Major actors, from the UK COP26 Presidency to WWF International, have been clear and explicit about the need to include reference to NBS in the post-2020 GBF outcome and to link that with parallel NBS language in UNFCCC COP26 decisions.

The main task being undertaken by Parties to the UN Framework Convention on Climate Change related to carbon markets and “net zero” is the negotiation of rules for carbon trading under the agreement in Article 6. The Paris Agreement can only directly regulate the behaviour of Parties to the agreement. Parties are debating rules for the trading of emissions between entities in regulated markets,

say between companies in New Zealand and the European Union. They are also debating rules for a new mechanism for trading offset credits, a sort of successor to the Clean Development Mechanism.

Those negotiations have gone quite slowly. Switzerland and Peru recently struck their own bilateral deal, related to Article 6, giving the impression that at least some governments do not think it necessary to wait until the conclusion of negotiations on rules. It is conceivable that the emissions trading sector is making its own plan to scale up voluntary carbon markets, rather than waiting for Article 6 rule-making to conclude. That said, even with clear rules, the Paris Agreement lacks the binding targets which, at least in neoclassical economic theory, are essential to generate a market price for carbon. The burden for setting up market-generating rules remains at sub-national, national, and supra-national, levels.

However, even in the absence of an agreement on global carbon market rules, or perhaps because key actors assume there will not be useful language coming out of those negotiations, a process is under way under the UNFCCC Standing Committee on Finance to discuss financing NBS at the 2021 Standing Committee Forum.³⁵ The results of the forum will likely be captured in a COP26 decision, with the possibility to reference links with the CBD and its post-2020 GBF.

³⁴ Other important international venues in 2021 for further embedding nature in the carbon market and in “net zero” initiatives are the UN Environment Assembly and the UN Food Summit.
³⁵ The submissions to the SCF on the design of the Forum are illustrative, both in terms of

content and in terms of the identities of the actors that have made the effort to contribute their input. <https://unfccc.int/topics/climate-finance/events-meetings/scf-forum/the-next-scf-forum-financing-nature-based-solutions>

WHOSE NATURE? WHOSE SOLUTIONS?

05



Mabu forest in central Mozambique.
© Justiça Ambiental/FoE Mozambique

Some amount of carbon removal will be required to keep warming below 1.5°C, to address residual emissions from sectors such as agriculture that will not be able to get to absolute zero. How much removal is required will depend on how quickly global emissions reach zero, or as close to zero as possible (See Box 2 on page 11). Right now, the only approaches to deliver real carbon removal are based in nature: ecosystem restoration and ecological management of working forests, croplands, and grasslands. The term “real zero” encompasses these two requirements: reducing emissions to as close to zero as possible and using ecological approaches to remove residual emissions.

The corporate strategy that we have described above contains neither of these required elements. In sum, the strategy of corporate actors – from the most polluting fossil, agribusiness, aviation and shipping industries, among others – is to use offsets to continue to emit at scale, hiding their inaction behind nice-sounding “net zero” pledges and beautiful photos of “nature-based” offset projects. “Nature” is called on to provide a “solution” to their desire to continue with emissions as usual. Global corporations are leading the way and governments are following. This house of cards will go up in flames, with all of us in it.

The increasing global demand for “nature” to offset increasing emissions poses huge potential conflicts, negative impacts and implications for land and land tenure, and the violations of the rights, lives and livelihoods of those who live on and depend on those lands.³⁶ These are the communities who have been at the forefront of conserving and protecting nature for decades, who are currently feeding the world, protecting forests, and who already face the worst impacts of extractive, high emissions industries/ projects.

The offsets and “net zero” targets discussed above assume massive amounts of carbon dioxide removal, far more than ecosystems could theoretically provide, even if nature could sequester fossil carbon in this way. Enhancing the capacity of those ecosystems will also not deliver the amounts assumed in “net zero” targets, pledges, and the dreams for a scaled-up voluntary carbon market. To satisfy those market demands in the near term will require access to huge expanses of land and forest, lands already occupied by Indigenous Peoples, peasants and local communities. It will also require the fantastical carbon unicorns of geoengineering to satisfy demands in the long term.

Those lands will never be sufficient because the carbon pools and cycles do not function this way. First and foremost, we need to stop burning fossil fuels. The emphasis on using the offset market to incentivise the development of geoengineering technologies for carbon dioxide removal demonstrates a belief, at least among the Oxford academics, that the fossil fuel industry and governments have little intention to stop burning fossil fuels. They are anticipating that demand for negative emissions will far surpass that which even the most far-reaching land-grabbing might deliver. Market players such as those in the TSVC are positioning themselves to profit wildly from the “demand”.

What becomes crystal clear in this story is that there is no desire or ambition on the part of the largest and richest in the world to actually reduce emissions. “Greenwashing” hardly suffices as a term to describe these efforts to obscure continued growth in fossil emissions – “ecocide” and “genocide” more accurately capture the impacts the world will face.

³⁶ As we note in our carbon markets briefing: “Indigenous Peoples and local communities have long resisted carbon offsetting schemes as forms of climate colonialism. Such schemes have led to conflict, corporate abuse, forced relocation and threats of cultural genocide, particularly for Indigenous Peoples, smallholder farmers, forest dwellers, young people, women and people of colour. These communities are leading the resistance to carbon markets.” See <https://www.foei.org/wp-content/uploads/2019/11/English-carbon-markets-briefing-OK-LOW.pdf>; <https://www.ienearth.org/carbon-offsets-cause-conflict-and-colonialism/>

CONCLUSIONS



Indigenous leaders protest carbon pricing mechanisms in Article 6, REDD+ and other false solutions, in Madrid at the global climate march during the UNFCCC COP 25 meeting in December 2019. © Indigenous Environmental Network

It is clear that there is a huge economic incentive to ignore all the science presented here.

This is reflected in the growing efforts to rehabilitate offsetting as a climate solution generally, and as a “net zero” “solution” in particular.

But the numbers do not add up to any realistic “solution.” Reaching “net zero” requires a balancing of sources and sinks. The emissions-as-usual approaches of major corporate actors, supported by market-friendly academics and conservation NGOs, will lead to massive demand for lands that can soak up ongoing emissions. Those lands are now occupied; offset-dependent “fake zero” strategies will necessarily require a global offset landgrab and the dispossession of Indigenous Peoples, peasants and local communities.

A “real zero” approach requires emission reductions at sufficient scale and speed to keep warming below 1.5°C. It requires all entities to bend their emissions curve towards zero immediately. There is no space in a 1.5°C carbon budget for offsetting.

“Net zero” targets need to be turned into **Real Zero** targets. This requires governments and other actors to set two distinct targets: to phase out use of fossil fuels, and invest in and support ecosystems and the people and livelihoods dependent on those ecosystems. First and foremost they must adopt an emissions reduction target that leads to Real Zero.

Markets will not rescue us, and if we keep thinking that markets are going to deliver emissions reductions the planet is going to burn. We must stop debating how to rearrange the carbon deck chairs, while ignoring the fact that the ship is sinking as fossil emissions keep growing.

CHASING CARBON UNICORNS: THE DECEPTION OF CARBON MARKETS AND “NET ZERO”

Friends of the Earth International, La Via Campesina, Indigenous Environmental Network, Corporate Accountability, Asian Peoples' Movement on Debt and Development, Third World Network, Grassroots Global Justice Alliance, Climate Justice Alliance, Justiça Ambiental
FEBRUARY | 2021



DEMANDS FOR REAL ZERO

1. Governments must urgently begin to cooperate on a coordinated phase-out of fossil fuel production and consumption, with equity at the core of that phase out.
2. We must accelerate the transformation towards a climate-just world by transforming our energy system including principles such as energy sufficiency for all, energy sovereignty, energy democracy, energy as a common good, 100% renewable energy for all, community-owned, low-impact renewable energy.
3. We demand that the rights of Indigenous Peoples, peasants and local communities are granted and implemented so that the traditional practice of Community Forest Management (CFM) can be fully implemented to stop climate change and biodiversity loss.
4. We demand support for peasant agroecology and support for the small farmers who still feed 70% of the people on our planet.
5. We demand a new economics for people and planet which values the care system and the reproduction of life, recognises our interdependence as human beings, and re-organises the care and domestic work traditionally undertaken by women (sharing the responsibility between men, women and the State). This transformation is essential to building our resilience against health and environmental crises.
6. We must reclaim the public sphere and political arena from the perspective of economic, social and gender justice and ensure peoples rights. Public services can be used to guarantee peoples' access to water, health, energy, education, communication, transport and food. To pay for these public services we need fair, transparent and redistributive tax system.
7. We demand binding rules on big business, allowing us to reign back the power of transnational corporations (TNCs) and provide victims with access to justice, compensation and restoring of their livelihoods wherever crimes occur.
8. Our governments must build a just recovery on environmental, social, gender, racial, economic and people-centred justice.
9. We demand a climate-just world that is free from patriarchy and all systems of oppression, domination and inequality.



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