

A DANGEROUS DISTRACTION

**Why offsetting will
worsen the climate and
nature emergencies**



**Friends of
the Earth**
England, Wales &
Northern Ireland

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UK Chancellor of the Exchequer Rishi Sunak wants to see “the UK and the City of London as the leader of the global voluntary carbon markets”. Yet carbon offsetting will worsen the climate emergency and threaten the integrity of any global climate agreement because it is a fundamentally flawed approach to cutting carbon emissions, as we show in this report.

The UK government should abandon its carbon offsetting ambitions. And the forthcoming international climate negotiations (COP26) must reject carbon offsetting as a solution.

We show how carbon and nature offsetting does not work. And we argue that it cannot be made to work at scale, undermining the claims that offsets are a valid part of net-zero strategies.

This report provides 10 case studies of how carbon and nature offsetting – where carbon emissions or harm to nature in one area is offset by promised protection, conservation, or restoration elsewhere – are being proposed or used in order to perpetuate business as usual by corporations and others.

Offsetting is also being seen as a way to fund nature restoration, as the world realises the risks posed to human welfare from habitat destruction, species loss, and ecosystem damage.

Both carbon offsetting and nature offsets, including what many describe as “nature-based solutions”, are founded on assumptions of equivalence – that it is possible to trade off harm in one location with good intentions elsewhere. But it is clearly not the case for nature, if only because each habitat is unique and not replaceable.

Burning fossil fuels releases geological carbon from what is essentially a permanent carbon store. But capturing carbon biologically in natural habitats and ecosystems – by tree planting, peatland restoration and so on – is very different, because carbon is retained for a much shorter duration¹. The carbon offsetting market is dominated by this temporary biological capture of the carbon released by burning fossil fuels².

The other main carbon offsetting approach is to fund renewable energy, but since it is now the cheapest energy source available, it is difficult to see how offsetting this way would be additional to what would happen anyway.

According to researchers from Lancaster University, if we rely on carbon offsetting and the hope of future technologies to extract carbon from the atmosphere, rather than reducing emissions at source, then up to 1.4°C extra warming could occur.³

Offsetting could also lead to higher food prices – as much as 80% according to Oxfam⁴ – as land is switched from food production to afforestation

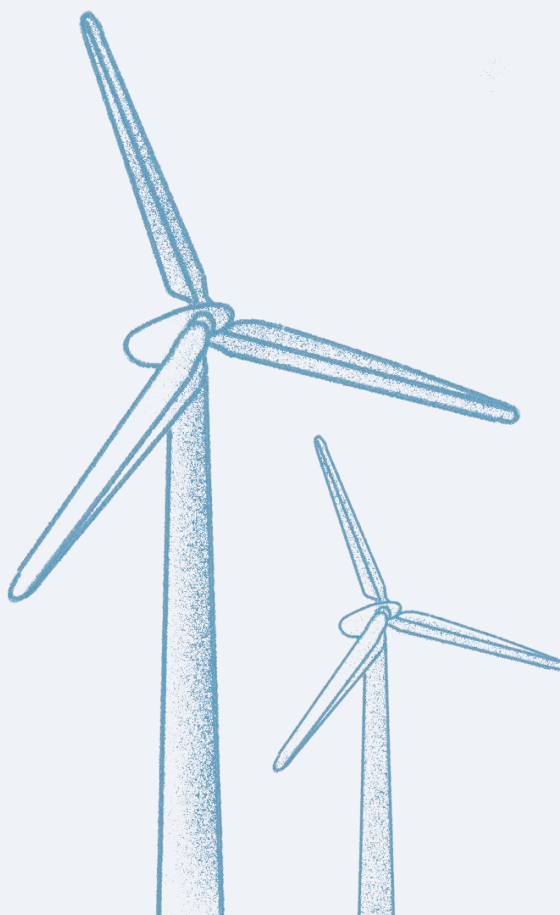
for the offset market. And the use of nature offsets could lead to further avoidable loss of wildlife and a failure to create the habitats and nature corridors needed if nature is to survive in a fast-warming world⁵.

The real and credible solutions to the environmental emergencies we face are clear. We must rapidly stop using fossil fuels. And we must fund the proper protection, conservation and restoration of nature.

Delivering these solutions needs governments that are willing to use regulations, taxation, and spending, just as they have done through the coronavirus pandemic. It also needs governments to face up to the vested interests – the fossil fuel giants, the aviation sector and others – that are slowing progress toward a nature-rich and carbon-zero future.

Offsetting is being used as a convenient excuse for governments, businesses and individuals that want to avoid potentially tough decisions.

At the pivotal global conferences (COPs) on biodiversity and climate change, governments must pledge to be “ready to do whatever is necessary”, as UK Chancellor Rishi Sunak promised on coronavirus. The COPs must reject offsetting – both voluntary and in international carbon markets – as a dangerous distraction from the actions needed to secure a safe and stable climate and a thriving natural environment.



The state we're in

Citizens of Germany, the north-west of North America, and Henan province in China don't need to be told about the climate emergency we are all facing. They have had first-hand experience of climate change in 2021. In 2020, Australia experienced the worst bushfires ever recorded, with 126,000 square kilometres in flames. Central America, the Caribbean and the southern US are experiencing more frequent and more extreme hurricanes.



Wildfires ravage the Leiria district of Portugal

It is not just NGOs that are sounding the alarm. The International Energy Agency, once a cheerleader for the fossil fuels industry, has said: "We are approaching a decisive moment for international efforts to tackle the climate crisis – a great challenge of our times ... The gap between rhetoric and action needs to close if we are to have a fighting chance of reaching net zero by 2050 and limiting the rise in global temperatures to 1.5°C."⁶

Public understanding of the dangers of climate breakdown is high across the globe, according to research by the Pew Research Center⁷. In the UK, recent polling by YouGov has found that over 60% of people agree that "Climate change is the biggest threat to civilisation"⁸.

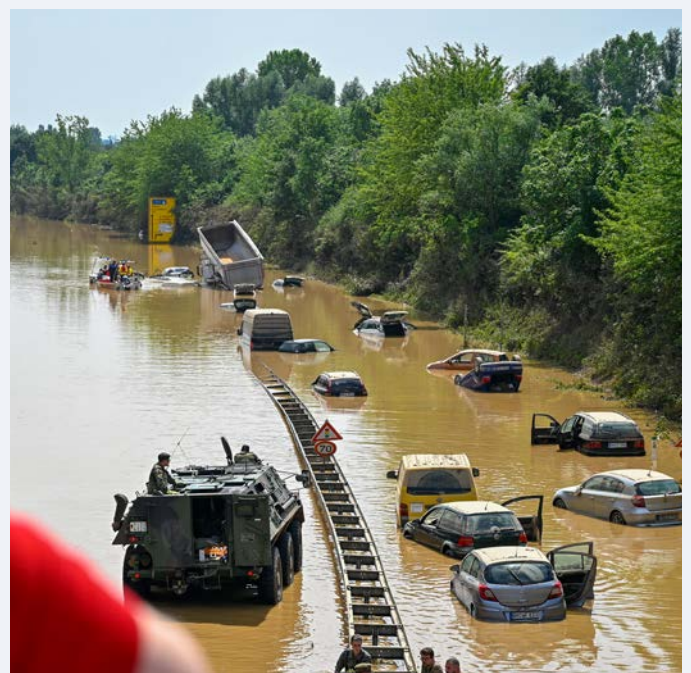
The understanding that declining nature is also an existential threat to humankind is lagging

behind that of climate breakdown. But people are not stupid. They hear about and witness the decline of bees and the other insects. They understand the important role bees play in food production and pollination. They see bee decline as the latest warning that we can push nature only so far without the consequences impacting humankind.

Scientists are increasingly warning how the ongoing destruction of nature is mirroring climate breakdown. The Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) says "The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide."⁹

Most recently, our understanding of the impact of nature loss on humankind has been made even clearer with the emergence of Covid-19. In a special report on pandemics, the IPBES warns of 631,000-827,000 unknown viruses that could infect people, and how the continued destruction of nature will lead to more frequent, deadly, and costly pandemics. The IPBES says the cost of nature restoration to prevent these pandemics is 100 times less than the cost of the consequences of failing to do so¹⁰.

We are living in extremely dangerous times for the planet and for us as a species. The scientific facts back this up. The recent IPCC report on the climate science¹¹ issued "a code red for humanity".



Search and rescue teams are seen on a flooded part of the highway on July 17, 2021 in Erfstadt, Germany

The role of governments and the appeal of offsetting

UK Chancellor Rishi Sunak said he would put ideology aside to fight the coronavirus pandemic. The UK government has been willing to use its powers to compel businesses and individuals to follow rules, and it has spent enormous sums of money on dealing with the crisis. Other countries have done the same. The pandemic has had huge impacts, killing more than 4 million people globally. But these effects will be dwarfed by the combined impacts of climate breakdown and failing ecosystems.

With some governments promoting voluntary offsetting and carbon markets as a route for reducing carbon emissions and funding nature restoration, a different approach is being signalled. The preference for carbon and nature offsets indicates an offloading of governmental responsibility and a reluctance to face potentially difficult or unpopular choices, such as ending fossil fuel extraction, curtailing aviation, or ceasing construction of high-carbon infrastructure.

Carbon and nature offsetting also bring the appeal of money. Banks, financiers, and investors like the idea of offsetting, as it creates a new trading sector where they can profit. They have been trying to build the offset market for over two decades, as the Financial Times reports¹². The UK is busy promoting carbon markets in discussions ahead of the international climate talks¹³. And in his spring 2021 budget, the Chancellor announced his establishment of a new group “with the aim of positioning the UK and the City of London as the leader of the global voluntary carbon markets”.

Former Bank of England Governor Mark Carney is leading this new group, the Taskforce on Scaling the Voluntary Carbon Market (TSVCM)¹⁴, launched with the aim of increasing the global market in carbon offsets 15-fold by 2030 and 160-fold by 2050. The TSVCM intends to ensure high standards for offsets, but these will only

be voluntary. Its governance body is dominated by directors from the UK, EU, and America, despite developing countries being the target for most offset projects¹⁵. And in any case, the high standards it says it wants would virtually eliminate the existing market, which is dominated by low-standard offsets at a time when Carney and Chancellor Sunak want rapid growth.



London Stock Exchange

For carbon-offsetting markets to work reliably, every project would need to:

- **be additional** – unlikely to happen otherwise,
- **be permanent** – preventing a similar amount of carbon dioxide being released elsewhere or guaranteeing to lock up carbon for hundreds of years,
- **not lead to emissions shifting elsewhere**, like some other forest being cut down,
- **be agreed by local people**,
- **not deter innovation**,
- **only be used for genuine residual emissions**, and not as an excuse to carry on business as usual or as a cheaper alternative to mitigation.

Projects that meet these conditions are going to be incredibly rare.

Even the International Energy Agency is sceptical, stating that “there is likely to be a limited supply of emissions credits consistent with net zero emissions globally and the use of such credits could divert investment from options that enable direct emissions reductions.”¹⁶

Why nature can't fix the climate

The interest in and enthusiasm for offsets has also started to focus on nature-based solutions (NBSs). These are seen as cheap and attractive because of the potential biodiversity benefits they provide. One paper even made the remarkable claim that NBSs can deliver a third of the global carbon reductions needed by 2030¹⁷. A study by WWF found that 90% of nations' international climate commitments include NBSs¹⁸.

There is no doubt that genuine nature conservation measures – like more of the right trees in the right place, restoration of damaged peatlands, establishment of sea grass meadows, restoration of mangroves – are important for mitigating climate change, although their greater contribution is likely to be nature's restoration.



But all these solutions risk being temporary, because they are all susceptible to damage, not least from habitat destruction and from the changing climate. For example:

- Research shows European **trees have become less resilient to pests** in recent

decades and especially since 2000¹⁹. In addition, the outbreak of pests has increased.

- Mangroves are predicted to be resilient to the low or moderate sea-level rise expected over coming decades, **but higher sea-level rises threaten the ability of these ecosystems to adapt**²⁰. Salt marshes are similarly at risk²¹. The latest IPCC report suggested that almost 2 metres of sea-level rise by the end of this century cannot be ruled out.
- Restored peatlands are less susceptible to burning than degraded ones, **but they remain at risk in an increasingly warming world**. Peat fires across the Arctic underline the dangers that global heating brings to this important habitat and carbon store²², and in the UK we've seen peatland fires during heatwaves.
- **Forest fires in North America are already releasing the carbon that offsetting companies promised to lock up** for companies that include Microsoft and BP²³. New research has even suggested that the Amazon rainforest is switching from being a carbon sink to a carbon source²⁴.

These examples demonstrate that while investing in genuine action for nature is important, the carbon that is drawn down by these nature-based solutions could easily be released within decades, because of climate breakdown and its effects on nature. Yet the carbon emissions these projects are meant to offset will remain in the atmosphere for many centuries.

Some offset schemes may try to insure against this premature release of sequestered carbon, for example by compensating for loss by offsetting more carbon than they sell. But even where they do, the scale of future carbon losses from nature on a warming planet is likely to overwhelm this insurance approach.

Carbon stored by nature as organic matter – in trees, soil, etc – is always in flux as part of the nature carbon cycle. Only carbon sequestered geologically, in rocks or aquifers for example, can be said to be “permanently” locked up, at least compared with the lifetime of carbon pollution in the atmosphere.

We are not saying we should not invest in nature restoration – we absolutely should. But we must not present action for nature as an excuse to continue fossil fuel-based business as usual.

The harm caused by the offsetting con

The promotion and use of offsetting has consequences.

Carbon offsets are cheap, whereas many carbon mitigation measures may require expensive upfront investments, even if they pay for themselves over time and/or bring other non-financial benefits, such as reduced air pollution. This carbon pricing reality means that carbon offsets are not reserved for “residual emissions” (those that can’t be reduced using technical or behavioural solutions).

University College London research has put the current cost of carbon offsets at around £2.00-£3.50/tonne²⁵, increasing to around £35/tonne by 2030. But even at this higher price, carbon offsets will remain cheaper than cutting carbon emissions in the decade the world needs to reduce emissions to stay within safe limits. One reason that carbon offsets are cheap is that the need for carbon to be locked up for hundreds of years is ignored. In other words, offsets are sold regardless of whether they will work over the long term.

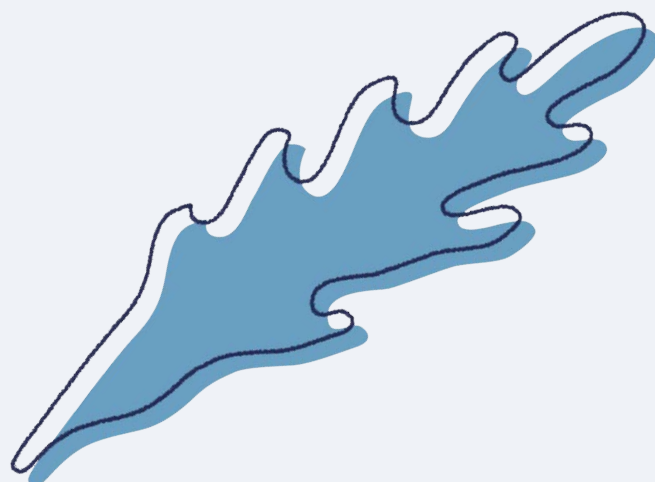
Within business, as within government, it is often those in charge of the money who limit spending on climate and nature measures, and who will be attracted by the much cheaper carbon offsetting deception.

Researchers at Lancaster University have tried to calculate the real-world impact of offsetting²⁶. They estimated how the presence of offsets, potential future availability of offsets and other means of drawing carbon out of the atmosphere create a “mitigation deterrence”, which can deter or delay action to reduce emissions. In the worst-case scenario, the promise of offsetting schemes and other carbon-removal approaches could lead to an additional 1.4°C of global heating, which would be catastrophic.

The researchers make clear that this isn’t just about cost, although that is certainly significant. Offsetting and the potential for it in the future provide governments, businesses and individuals with a way to avoid challenging decisions. They can also put off efforts to explore new technologies and approaches.

Mitigation deterrence is not the only harm offsetting can have. The projects themselves can be detrimental. For example:

- **Forest offsets can lead to trees being planted in the wrong place.** This can happen in other important habitats that have a major role in storing carbon, such as peatlands, and can occur without the involvement and permission of local and indigenous people.
- **There is a history of carbon offsets displacing local communities and indigenous peoples** through land grabs and exclusions, despite evidence that indigenous and tribal peoples are central to maintaining the integrity of forest environments. A 2021 review of several hundred studies demonstrated that indigenous and tribal peoples were essential to the protection of Latin American forest ecosystems²⁷. It also found significantly lower deforestation rates where governments formally recognised indigenous and tribal peoples’ collective land rights.
- **Established forestry projects sanctioned through official programmes such as REDD** (Reducing Emissions from Deforestation and Forest Degradation) and REDD+ have overridden and marginalised indigenous communities. In 2008, the Global Forest Coalition described REDD+ as “another disaster in the making” and as a “fairy-tale about a simple solution to climate change”²⁸. In REDD Myths, Friends of the Earth International also identified “extremely detrimental impacts on some of the poorest people in the world” if REDD+ led to an increased market value of forests, potentially displacing millions of people and providing no guarantees that indigenous and tribal peoples would benefit, without assurance of proper land and other rights.²⁹ These warnings are nothing new.



Real solutions for the climate emergency

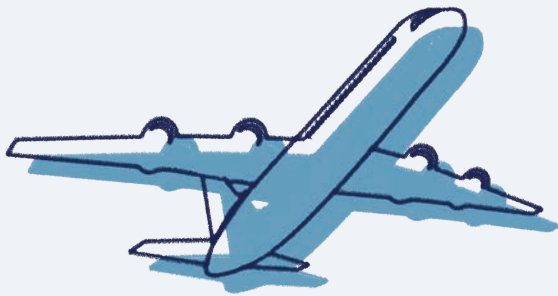
Imagine a world where governments applied themselves to solving the climate and ecological emergencies as much as they did to responding to the Covid-19 pandemic.

The Treasury would again be centre stage, although not the only player. In the UK, the government would:

- **End support for fossil fuels**, both in the UK and overseas, and scrap plans to give subsidies to produce hydrogen from natural gas.
 - **Invest in the public transport, cycling and walking infrastructure** needed to get people out of their cars, smooth the path to a rapid transition to electric vehicles, and use taxes to discourage excessive driving, frequent flying, and the purchase of SUVs.
 - **Fund the restoration of housing stock with grants** for fitting insulation and heat pumps, with regulations and planning supporting this effort.
 - **Provide financial guarantees** for a much faster roll-out of onshore and offshore renewable energy through the Contracts for Difference scheme.
 - **Provide financial backing for farmers to diversify**, including tree planting and nature restoration, and less meat and dairy production.
 - **Fund the restoration of important carbon stores**, such as peatlands, salt marshes and sea meadows.
 - **Pay the UK's fair share** of the finance needed to help poorer nations adapt to climate change and develop using clean energy. This is a bill which runs to many billions of pounds sterling, due to the UK's historical contribution to climate change and its comparative wealth.
 - **Provide most of this funding through progressive measures**, such as income tax and carbon taxes where the polluter pays³⁰, with payments to eliminate extra costs for poorer households.
- But that's not all. The government would also use all the tools at its disposal, such as investments, education, regulation, etc, to eliminate what are called residual emissions.
- Residual emissions are being used to justify the push for offsetting. But identifying residual emissions is not straightforward and is also changing. For example:**
- Ruminant livestock, such as cattle, burp large quantities of methane, a powerful greenhouse gas. Roughly 1 billion cattle are farmed in the world for meat and dairy. **Emissions from this industry could be reduced significantly by reducing meat and dairy consumption to healthier dietary levels**, and by switching to plant-based alternatives. Animal feeds can also be adapted. Researchers have suggested that adding just 1.5-3 ounces of seaweed a day to a cow's diet could reduce methane emissions by 33% to 80% and increase the efficiency of weight gain, meaning fewer cattle and even lower emissions³¹. So even in this sector, the amount of truly residual emissions is much smaller than at first sight.
 - Until recently, it has been assumed that the energy-intensive chemical and steel industries will continue to depend on fossil fuels. Carbon capture and storage (CCS) has been pushed as the answer to reduce emissions from these sectors but is not 100% effective. Besides, the extraction of fossil fuels leads to substantial fugitive emissions – escape of methane from the gas well, estimates of which vary^{32, 33}. But innovation is opening up new opportunities for switching fuels, **with hydrogen and electricity both seen as credible low-carbon alternatives for different industries**³⁴. The availability of cheap and ineffective offsets could delay this transition.
 - Cement manufacture is challenging to decarbonise. Carbon dioxide is released as part of the process, even if electricity or hydrogen is used as a fuel source. **Cement used for construction can be substituted, for example by timber, which can now be used as an alternative, even in high-rise buildings**³⁵. Process changes are also being made that can significantly reduce emissions. Even in this industry, which is probably the most difficult to decarbonise, improvements are being made and the quantity of residual emissions is diminishing and may be eliminated with further innovation.

- Aviation is difficult to decarbonise, because it takes a lot of energy to propel an enormously heavy vehicle and its load off the ground. Batteries don't have sufficient energy density to make them an economical option – the space they require would leave none for passengers or freight. **But synthetic hydrogen fuels made using renewable energy could be an option in a few decades' time.** In the meantime, constraining the demand for aviation is essential.

It is too easy to say residual emissions cannot be eliminated, when to a large extent they can. The innovations described above illustrate what is possible. There is a danger that the enthusiasm for cheap offsets will hold back these innovations, including by reducing pressure on industries to invest in and deploy new technologies, when sweating existing assets is more profitable.



Nature needs a strategic approach, not offsetting

We need a strategic approach to nature restoration. Restoration requires space – at least 30% of land and seas should be highly protected, an amount we are far from safeguarding right now. And nature needs networks of interlinked corridors, so that wildlife doesn't get trapped in isolated and fragmented islands. Existing spaces for nature need guarding like the UK's crown jewels.

But along with carbon offsets comes another deception, one that is championed in the UK, but also practised in Australia, Germany and elsewhere. This is so-called biodiversity offsetting – where a nature-rich area that



Rio Tinto Mine, Madagascar

isn't officially protected (common in the UK) can be built on if somewhere else (potentially tens or hundreds of miles away) is protected and improved by a greater extent. In the UK, this is now labelled as "biodiversity net gain", but in essence it is old-fashioned biodiversity offsetting, although with the aspiration of contributing restoration, not just exchanging equivalence. Biodiversity offsetting has been proven not to work, as we have shown previously³⁶.

One problem with biodiversity net gain/offsetting, in the UK at least, is that it is not a strategic approach to nature restoration and won't lead to the restoration of nature and ecosystems that is needed. Instead, it is more likely to lead to unplanned, piecemeal losses of habitats, with attempts to replace them elsewhere. And it fails to allow for the fact that many habitats are unique and cannot be successfully moved or replicated.

It is alarming that the regulator in England, Natural England, is an enthusiastic proponent of nature offsets. It has even released an algorithm to help identify sites considered as low value and what needs to happen elsewhere by way of compensation. The algorithm has alarmed conservation groups³⁷ that were initially persuaded to support biodiversity net gain.

Biodiversity net gain/offsetting also provides a government with a convenient way to say it cares about nature without doing anything. In reality, governments generally don't let nature prevent whatever they can justify as development that is essential to their ambitions for economic growth. In the UK, governmental planning reforms have repeatedly shown that economic growth and housebuilding are prioritised over nature protection³⁸.

Nature needs protection and restoration

As with climate change, countries' obligations to protect nature do not stop at their borders. The UK has a large negative impact on biodiversity globally, including through its imports of commodities, such as soya for animal feed and timber³⁹. There is a growing campaign for the UK government to regulate this trade through so-called due diligence legislation, which would include recognising the vitally important role of indigenous communities in protecting forests and other habitats⁴⁰.

Right now, the UK government is resistant, and instead has only expressed interest in legislating against illegal logging, despite evidence that this is only a small part of the problem.

Conclusions

Is Friends of the Earth being too negative about carbon and nature offsets? Or could they be made to work in a reliable way?

First, it needs to be acknowledged that offsets do not work in a vacuum. Their existence – whether they work or not – have a broader impact. It is particularly problematic that offsets can hinder innovation and the deployment of carbon mitigation, because they are currently cheaper.

Any delay threatens the ability of governments and businesses to meet future reductions targets. It is also why the UK's Climate Change Committee has advised against the use of international carbon offsetting in the past. Offsets influence economic decision-making and hinder structural changes. Such negative impacts would be reduced, but perhaps not eliminated, if offsets were much more expensive.

Second, offsets also have a political impact. As discussed above, they let politicians and business leaders avoid confronting the reality of climate breakdown and nature decline, and continue with business as usual and the latest kind of greenwashing instead.

But if we put these two problems aside, how could offsetting work?

- 1. Carbon offsets would need to be like for like.** So, if you are burning geological carbon in the form of fossil fuels – releasing carbon from a permanent store – you need to capture carbon and lock it up geologically, or at least show how any carbon store will be permanent, such as using Iceland's limited capacity direct air capture plant, which currently charges around \$1,000/tonne of CO₂⁴¹. Offsetting fossil fuel carbon emissions with biological carbon stores that are temporary in nature, which is the vast majority of them, would need to be banned.
- 2. Carbon offsets would need to be limited to genuine residual emissions.** This would require a regulated market with buyers of offsets scrutinised to ensure the emissions they are seeking to offset are genuinely residual. Right now, we have an unregulated free-for-all, and it is not clear that the proposed expanded market will be any better.
- 3. Any carbon offsets that avoid emissions would have to be genuinely additional.** The second largest part of the carbon offset market invests in renewable energy, which together with nature-based offsets accounts for three-quarters of the value of all offsets. But new renewable energy is cheaper than new fossil-fuel generation in most countries, including developing ones, so there are strong incentives to invest in renewables without the need for offsets.⁴² So it is hard to see how any new renewable energy funded by carbon offsets is genuinely additional and it will be increasingly difficult to do so.
- 4. Carbon offsets would need to be approved by communities.** There is a long history of indigenous people being displaced or seeing their land grabbed – the dash to develop biofuels is an example. There are also cases where communities have been excluded from their forests to protect carbon stores or offsets that involve biodiversity conservation. Any carbon offsets need to be approved by local people.

5. The quantity of offsets would need to be limited. Reaching net zero is not enough – the world will need to achieve net negative emissions to draw down the already excessive amounts of carbon in the atmosphere. This means that drawdown capacity cannot be used only for offsets and achieving net zero. Instead, a significant proportion will need to be reserved for net negative emissions.

6. Advertising claims would need to be open to challenge. There has been an explosion of carbon-neutral and net-zero claims, which are misleading for consumers. Such claims need proper regulation. The UK's Competition and Markets Authority has issued a helpful warning and called on companies to stop greenwashing. This warning needs backing up with regulatory action⁴³.



These conditions do not rule out offsetting in all circumstances. But where offsets are implemented, it is likely that they would result in a market that is niche and extremely expensive at best. This is very different from the large-volume market envisaged by Carney and Sunak. But in our view, the pressure for such a market will undoubtedly lead to low standards and low prices, with all the harm this will do to the climate.

For nature offsets in the form of biodiversity net gain and nature-based solutions to work, they would have to be used only where biodiversity is currently extremely low and where the land is not needed to provide wildlife corridors or expanded habitats. These locations are likely to be rare, whereas the whole system depends on being set up as a commonplace practice.



In 2009, ahead of the Copenhagen climate negotiations, we published our first report warning of the dangers of offsetting⁴⁴. In doing so again, we are not alone, as the Wildlife Trusts and Greenpeace have also spoken out⁴⁵ about the risks of relying on offsets, and a growing number of stakeholders are warning about the problems of low standards, poor safeguards and a lack of transparency and verification.

Carbon offsetting and biodiversity offsetting are no longer just a distraction – they are a danger. Instead of these false solutions, we need governments and businesses to be “ready to do whatever is necessary”, as Chancellor Sunak said in the context of coronavirus. Offsetting is a dangerous distraction. The Chancellor must abandon his offsetting plans and COP26 must once again reject international offsetting through carbon markets.



Chancellor of the Exchequer, Rishi Sunak, at the 2020 Budget

Appendix: offsetting case studies

Shell - offsetting campaign branded as “greenwashing”

The Dutch advertising watchdog has told Shell to stop its “Drive CO2 Neutral” promotion, which also runs in the UK⁴⁶. It promotes an offer for Shell customers to pay an extra fee that will fund nature-based offsetting projects, including tree planting.

Nine law students in Amsterdam complained to the Netherlands Advertising Code Committee, accusing Shell of greenwashing. They said the adverts imply the scheme makes fuel carbon neutral, but with a value of only 1 euro cent/litre of fuel, only a fraction of the true emissions can be offset. The Committee agreed, saying Shell had failed to show that it was offsetting the emissions in full – although offsetting fossil fuels with nature-based solutions does not work anyway.

Shell’s net-zero plan relies heavily on offsets. According to Action Aid, Shell plans to offset 120 million tonnes of CO2 from its polluting activities by planting forests. It says Shell would need 12 million hectares of land by 2030, an area three times the size of the Netherlands.

Shell also says it wants to reduce the carbon intensity of its products by 20% by 2030, but hasn’t pledged to reduce total emissions. While it may reduce carbon intensity, it will still extract and sell more fossil fuels. In fact, it is planning to do exactly that by increasing gas extraction by more than 20% over the next few years. And it is investing \$12 billion a year in fossil fuels and just \$2-3 billion in renewable energy.

Friends of the Earth Netherlands, supported by more than 17,000 members of the public, defeated Shell at the Hague District Court recently over the weakness of its plans for carbon reduction. The court ruled that Shell’s current plans are not aligned with the UK or EU’s net-zero goal for 2050. The company has decided to appeal the ruling, rather than accepting it.

Photo: Friends of the Earth Netherlands/Milieudefensie
[Credit: Bart Hoogveld & Milieudefensie]



BP – pushing for more gas while trees used for offsets burn

Fossil fuel giant BP has also promised to become carbon neutral by 2050⁴⁷. Putting to one side that it is action in the decade to 2030 that matters, BP is not planning to do this by ceasing to extract and sell fossil fuels. Far from it – BP wants to sell oil and gas for decades to come⁴⁸. Remarkably, BP has been busy lobbying the European Commission to label natural gas as a sustainable energy source⁴⁹.

To try and square the circle of selling fossil fuels and being carbon neutral, BP has bought a major carbon offset company, Finite Carbon⁵⁰, which it claims “has the potential to build a global platform for managing and financing natural climate solutions.” Finite Carbon already specialises in forest carbon offsets in the USA, where forests are now increasingly ravaged by wildfires and pests, in a real-life demonstration of how temporarily carbon may be locked up in trees.



Heathrow airport – using peat bog restoration to look green

Heathrow airport, which is already one of the biggest sources of carbon emissions in the UK, wants to build a third runway. This would increase its emissions even more and make life a misery for many more people underneath its flight paths. The government’s own Climate Change Committee has said expansion shouldn’t go ahead.

Heathrow is trying to use carbon offsetting to greenwash its non-existent environmental credentials. This is the same deception the aviation industry is using globally to convince regulators to hold back on taxes and regulation. Named CORSIA, the scheme has been heavily criticised for its weak standards⁵¹.

Heathrow is hoping that paying for peat restoration might lead to societal approval and a government go-ahead for expansion. Peatlands do need restoring, as they are important carbon sinks and important for nature. But the UK government has already committed to fixing peatland and its associated carbon storage. Its Peat Strategy says it will “ensure all our peatlands, not just deep or protected peat, are responsibly managed, or, in good hydrological condition or under restoration management.”⁵² Heathrow is unable to prove that its offset project will be additional – that it wouldn’t have happened anyway, which is one of the fundamental flaws of many offsetting schemes.

We need to cut emissions from aviation. Full stop.



Equinor – the hydrogen con

Equinor is a Norwegian fossil-fuel giant, operating in more than 30 countries. It says that “We seek zero harm to people...we act in a sustainable, ethical and socially-responsible manner.” But it’s not giving up its fossil fuel ambitions.

It has been lobbying for permission to build a plant in England’s Humber region to make hydrogen using natural gas⁵³. Hydrogen as a fuel is clean, but if Equinor uses fossil fuels to make it, the process will release carbon dioxide. And methane, a much more powerful greenhouse gas, leaks out when natural gas is extracted – so-called fugitive emissions. Friends of the Earth calls hydrogen made this way dirty hydrogen.

Unfortunately, it appears that the UK has fallen for this hydrogen con. The government’s Hydrogen Strategy⁵⁴ backs dirty hydrogen (so-called blue hydrogen) as well as clean hydrogen made using renewable energy (known as green hydrogen).

Equinor wants to offset its emissions using “nature-based-solutions”. It says it has “launched plans to invest in natural carbon sinks in the form of protection of tropical rainforest.”⁵⁵ Everyone loves tropical forests, and rightly so given their wondrous nature and the many benefits they provide, so paying to protect them sounds great. But unless deforestation drivers are reduced – such as all of us eating less meat – some other forest will probably be cut down and overall deforestation won’t be reduced. And in some locations, forest carbon offsets are being offered even when trees are not at risk of felling⁵⁶.

Sadly, it is not even possible to say that we will have tropical forests forever. The Amazon rainforest could switch to savanna, through a combination of logging and a warmer climate. Equinor needs to ignore the false solution of offsetting and become a 100% renewable energy company, fast.



The Johan Sverdrup oil field in the North Sea west of Stavanger, Norway, operated by Equinor.



Site where West Cumbria Mining (WCM) are seeking approval to extract coal in Whitehaven, England.

Coal mining in Cumbria – offsets as a green cover

The UK government is proud of its record of phasing out coal in the UK, so much so it helped form the global Powering Past Coal Alliance⁵⁷. So, when an application for a coal mine in Cumbria was made, and supported by the local council, you would expect the government to step in and say no. But the then Secretary of State for Housing, Communities and Local Government (the department responsible for planning) said he wasn’t going to intervene. It took a public outcry for him to change his mind and say that the proposal should be considered by the Planning Inspectorate.

The company behind the coal mine, West Cumbria Mining, says it will offset the carbon emissions associated with the mining, but not the burning of the coal. It says it will use offsets offered by Gold Standard to do so. Gold Standard carbon offsets are better than others, although far from perfect. But embarrassingly for the mining company, Gold Standard has now said it does not want its offsets used in this way and offsets should only be used for residual emissions, not as an excuse to continue extracting fossil fuels. Even worse for West Cumbria Mining, it’s now becoming clear that coal won’t be needed for steel-making much longer. The first steel manufactured using hydrogen has just been delivered⁵⁸.

The new Secretary of State, Michael Gove, needs to reject the plans for this mine. And if the offsetting industry has any future, then it needs to determine how it can restrict the sale of offsets to genuine residual emissions.

Total – tree planting on indigenous people's land

A report by Corporate Accountability, Global Forest Coalition and Friends of the Earth International includes a case study of fossil fuel company Total that illustrates the real danger of land-grabbing, which is coming from the rise in offsetting⁵⁹.

Land-grabbing is where local people's land is removed from their ownership when it is sold to corporations by governments. It's not new – science journalist Fred Pearce wrote a book about it almost 10 years ago⁶⁰. But the rise of offsetting, particularly tree planting, risks accelerating it.

In this case, Total wants to buy 10 million hectares of land for tree planting. It has already signed an agreement with the Republic of Congo to plant a 40,000-hectare forest. But much of this land is home to indigenous Aka pygmies and Bantu farmers. What will happen to them? And what trees will Total plant? The report suggests they may be non-native trees. And whatever happens, Total is reportedly planning to harvest the trees when they mature.

The sorry story of land-grabbing looks set to continue unless offsetting is curbed.

Barclays Bank – worst in Europe for funding fossil fuels

Barclays has a reputation for making money from unethical operations, most famously for its role in propping up apartheid in South Africa. The bank was also behind a plan to frack for gas in North Yorkshire, where it had a 90% stake in Third Energy, the company involved. Ultimately, it was defeated on apartheid and it was defeated on fracking.

Like other banks, Barclays is feeling the pressure from the divestment movement. It will also be aware of high levels of public concern about the climate emergency, especially from its customers.

But instead of ruling out any more investments in fossil fuels, it is turning to offsetting emissions from its operations, as well as seeking to reduce emissions by purchasing renewable energy⁶¹. According to a report by Rainforest Action Network and others, the bank remains one of the biggest funders of fossil fuel projects globally

and is the worst funder in Europe⁶². That's not green.



People demonstrate against Barclays' ownership of Third Energy. October, 2016. Manchester.

Rio Tinto – biodiversity offsetting

Madagascar is the world's fourth largest island and a biodiversity hot spot. More than 80% of its flora and fauna is unique. The country has already lost over 80% of its forest cover and the south is blighted by drought and famine⁶³. It is also mineral rich and targeted for large-scale mining. Rio Tinto's QMM ilmenite mine is destroying 6,000 hectares of littoral forest along the southeast coastline, while claiming it will leave a net-positive impact on biodiversity⁶⁴. To do this, its offsetting programme has acquired three forest areas in what has been considered a double land grab⁶⁵. Some of the area is already protected under a national conservation programme, and in Antsotso the offset has resulted in loss of forest access, traditional livelihoods, and food security⁶⁶. Villagers living on less than a dollar a day are criminalised if they cut a tree to replace a dug-out canoe for fishing. Mineral extraction accounts for most of the forest loss in the region, and some of the poorest people on the planet are carrying the cost of greening Rio Tinto's mine.⁶⁷

In 1994, Friends of the Earth's Campaigns Director Andrew Lees died in the forests of Madagascar while investigating Rio Tinto's mining plans. He feared mining would destroy the fragile coastal region. His concerns were prophetic and the trust⁶⁸ set up in his name has exposed a series of human rights and environmental abuses, from lack of compensation for displaced people to contamination of local waterways.⁶⁹

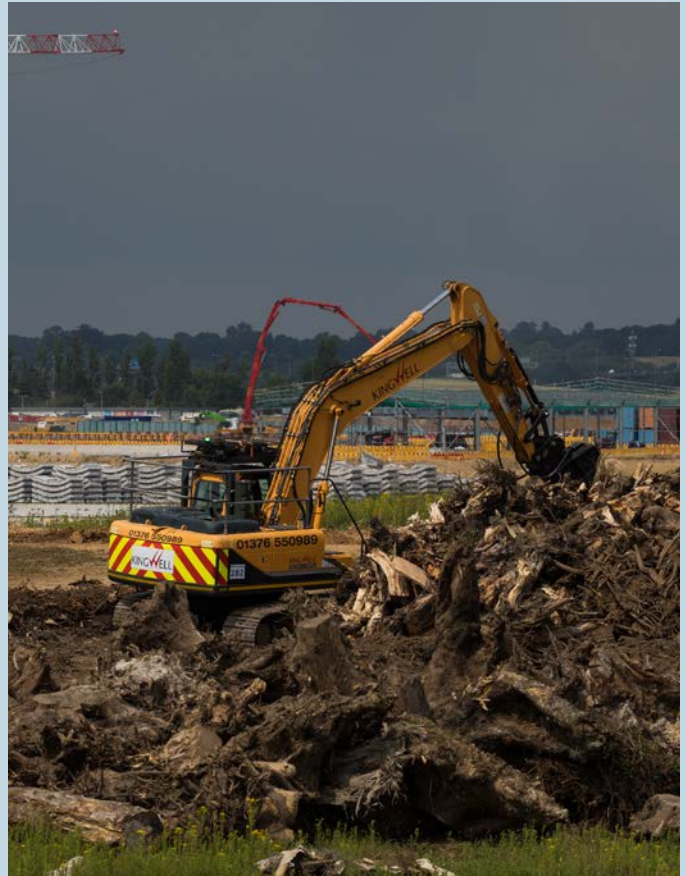
Amazon – a pioneer for sustainability?

\$1.7 trillion-company Amazon says it aims to be net zero for carbon by 2040 and says, “If a company with as much physical infrastructure as Amazon – which delivers more than 10 billion items a year – can meet the Paris Agreement 10 years early, then any company can.”⁷⁰

Amazon says it will measure and report its emissions, and use renewable energy and resource efficiency to reduce its impact. It will also use offsets to meet its emissions target. As part of this aim, it has committed \$100 million to restore and protect forests, wetlands and peatlands around the world, in partnership with The Nature Conservancy.

However, not only is \$100 million just loose change Amazon, we cannot ignore the role it plays in increasing consumption through its low-cost pricing strategy and marketing. The huge toll that overconsumption is having on the planet, from resource extraction to waste generation, can't be disregarded.

If Amazon were genuine about sustainability, it would rethink its marketing strategy and what it sells.



An excavator moves the remnants of felled trees at the Chiltern tunnel section of the HS2 high-speed rail link. July 2021, West Hyde.



Amazon Founder and CEO Jeff Bezos speaks to the media on the company's sustainability efforts on September 19, 2019 in Washington, DC.

HS2 – the charade of “no net loss”

The UK probably does need another north-south train line to shift freight and cars off the road network. But it doesn't need a track so super-fast that it must be routed through so many valuable habitats.

The UK government anticipated the likely public outcry over the harm to ancient forests and other wildlife sites that building HS2 would cause. So it deployed biodiversity offsetting as a way of stifling dissent. It promised that constructing the line would cause “no net loss” of nature.

In response, the Wildlife Trusts have produced a damning report on the harm to nature that HS2 will do⁷¹. The report says the railway line will “cause permanent loss of nature, increased fragmentation of wild places, and the local extinction of endangered species”. Even worse, it finds that some of the “amateurish” biodiversity offset sites will also harm nature.

This is yet another striking example of how biodiversity offsetting will be used as cover for a business-as-usual approach to development that treats nature with contempt.

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