



REGENERATIVE
CRISIS RESPONSE
COMMITTEE

THE MYTH OF CARBON OFFSETS

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ABOUT THE **RCRC**

The **Regenerative Crisis Response Committee (RCRC)** is a nonpartisan group of senior leaders from the banking, financial services, regulatory, and policy arenas who care deeply about ensuring the United States' economic recovery is durable, equitable, and puts us on a path toward lasting sustainability.¹

Founded in late 2020, the RCRC works under the mandate to identify, compare, and recommend changes in fiscal, monetary, and financial regulatory policies that are likely to **enable the United States to achieve net carbon neutrality before 2050.**

¹"Our Work – Regenerative Crisis Response Committee," accessed October 24, 2021.

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WHY WE'VE WRITTEN THESE WHITEPAPERS

Time and again, the U.S. economy has shown itself to be vulnerable to severe shocks, regardless of their origin. Both the susceptibility to disruption and the ability to recover from it have characterized the impact of historical shocks on households, firms, and communities. From the Great Depression to the Global Financial Crisis, and to the COVID-19 pandemic's recent effects on the economy; fiscal and monetary policy interventions have repeatedly had to be deployed—belatedly—to restore financial stability.

Most recently, the COVID-19 pandemic underscores the vulnerability of the U.S. economy to severe shocks. Over the course of nearly two years, unemployment rates spiked, millions of Americans struggled with food insecurity, and a massive government effort was needed to stabilize household finances and the economy. Whether such shocks are anticipated or not, the government typically operates in the same fashion; it is more inclined to clean up in the aftermath of a destabilizing event as opposed to taking calculated steps to guard against probable systemic risks.

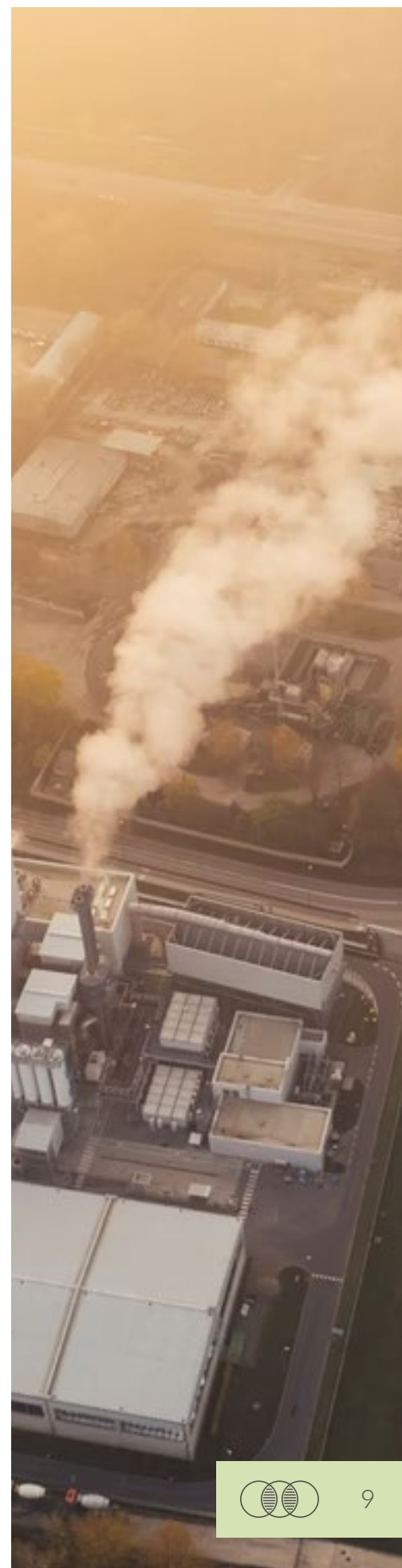
Climate change is exactly this kind of threat—one that is palpable, global, systemic, and one for which we are exceedingly ill-prepared as a society. We must overcome the default U.S. policy approach and take immediate, ambitious, proactive steps to safeguard our economy. These whitepapers are the RCRC's call to take immediate and inclusive action to enhance resilience and employ every tool at our disposal to curtail this existential threat before it is too late.

While governments around the world, including that of the United States, have made pledges and bold commitments to reduce carbon emissions to net-zero by 2050, follow-on action to transition away from fossil fuels is required and action thus far has been lackluster. Overall political ambition has been too small and too short-sighted to actually realize the inclusive transformation needed to avoid the worst effects of climate change. To accelerate such an inclusive transition, we consider both non-regressive policy tools and incentives to build a **resilient** financial system that supports scaling down emissions to net-zero by 2050.

The RCRC is a collection of economists, lawyers, former regulators, and policy experts—and we believe that it is still possible to chart a path, take action to reshape the economy and avoid the worst effects of climate change. Achieving this will take the swift implementation of smart policies.

Ultimately, we are hopeful. It is our view that monetary, fiscal and financial regulatory policy can either work to support the transition to a net-zero future or it can remain entrenched with incumbent technologies, thinking and solutions in service to the status quo.² *We believe that government-led scaling of the green mortgage market, swift implementation of new guidelines on Federal procurement, a shift away from carbon offsetting schemes to actual emissions reductions, and regulations that support the alignment of financial sector activity with our net-zero goals are targeted solutions the Federal Government can implement to help align the economy with our Paris Agreement targets.* Not only will action on these fronts help lower our emissions profile but it will also boost American jobs, businesses, and competitiveness, as well as support economic recovery from COVID-19.

² Inspired by: Michel Aglietta and Etienne Espagne, "Climate and Finance Systemic Risks: More Than an Analogy? The Climate Fragility Hypothesis," CEPII Working Paper (Paris: Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), February 1, 2016), 7.





Our goal is to illuminate key policy actions the U.S. Federal Government could implement to incentivize behavior that will accelerate and support an inclusive transition to net-zero carbon emissions. Through government leadership, we can create the conditions for a just transition and improve climate accountability.

“We should not be asking whether we can afford to act on climate change. We should be asking whether we can afford not to. A failure to reduce emissions will create a real and permanent drag on the economy. Previous economic recessions have been temporary; but without action, severe climate impacts and their damage to our economy will become the new normal. At a certain point, we will not rebound or recover.”³

- Senate Democrats’ Special Committee on the Climate Crisis, August 2020

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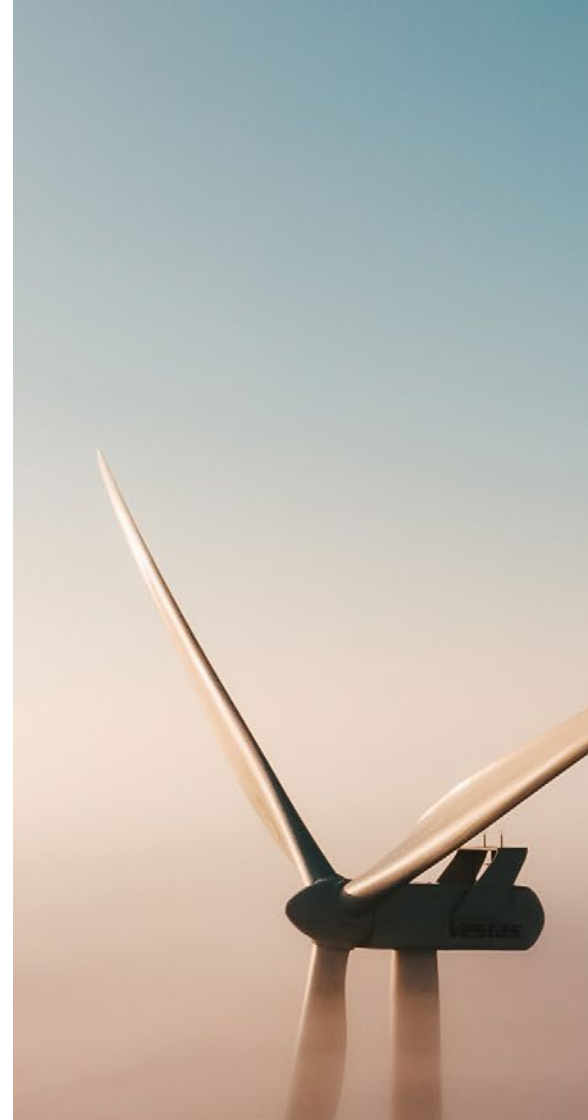
- Senate Democrats’ Special Committee on the Climate Crisis, August 2020

³ “The Case for Climate Action: Building a Clean Economy for the American People” (Senate Democrats’ Special Committee on the Climate Crisis, August 25, 2020), 4.

EXECUTIVE SUMMARY

The RCRC's mandate is to help identify and incubate fiscal, monetary, and financial regulatory policy solutions that will put the United States on track for net-zero emissions before 2050. Informed by the work of many scientists, regulators, climate advocates, and international organizations, we take a broadly critical view of the many carbon credit markets and offsetting strategies that have developed thus far and urge policymakers, firms and other organizations to reevaluate and refine this approach. **This paper discusses some of the foundational challenges associated with the practice of offsetting and presents recommendations to chart an alternative path forward, namely that:**

1. The carbon markets should be scaled back, rather than expanded;
2. Organizations that have purchased carbon credits or are using offsets in their sustainability plans are urged to reconsider this approach and question the quality of their investments;
3. The SEC should include offsets as a category of information to be disclosed in their upcoming guidance and rulemaking around mandatory corporate climate change disclosures;
4. Governments should broadly turn their attention to supporting technological developments in hard-to-abate sectors such as aviation and heavy industry; and
5. Stakeholders, such as businesses and governments, should transform the existing voluntary carbon market into one that allows individuals, firms and other organizations to directly invest in initiatives that reduce carbon emissions.



THE MOMENT

In the two years since the start of the COVID-19 pandemic, stimulus and relief spending worth trillions was unleashed by governments around the world. **From the sheer size of the disruption and its worldwide reach, this crisis represented a unique opportunity for massive global investment towards the transformation to a clean economy, affording the chance to potentially alter the trajectory of planetary warming.** In reality, much of the stimulus spending was directed toward a recovery that pumped money into polluting industries and energy sources like coal, oil and natural gas.

While the opportunity to harness global recovery dollars for the transition to a clean economy was largely missed, countries and

organizations alike are committing to net-zero emissions plans in record numbers. Not all of these plans include offsets, but many do. For example, in September 2020, Google stated that it had eliminated its ‘entire carbon legacy’ with the purchase of high-quality offsets as part of its press release outlining plans to operate its data centers 24/7 with carbon free energy by 2030.⁴ Similarly, as part of its commitment to be a net-zero company by 2050, Nestlé announced plans to increase the number of ‘carbon neutral’ brands in its portfolio.⁵ One of these brands is a bottled water called “Ready Refresh” that claims carbon neutrality with a combination of purchased carbon offsets and stated operational emissions reductions.⁶ Nestlé and Google are just two out of thousands of companies, governments, and other large organizations that are setting net-zero targets and are trying to chart a path towards carbon neutral operations. A key critique of net-zero commitments such as these, is that firms are *fundamentally delaying* action to reduce operational emissions by relying on carbon credits to reach their emissions goals.



⁴ Sundar Pichai, “Our third decade of climate action: Realizing a carbon free future,” Google, September 14, 2020. Jess Shankleman and Akshat Rathi, “Wall Street’s Favorite Climate Solution is Mired in Disagreements,” Bloomberg, June 2, 2021.

⁵ “Our Road to Net Zero,” accessed November 15, 2021.

⁶ “Nestle Waters North America Announces its Ready Refresh by Nestle Delivery Service Achieves Carbon Neutrality,” Nestle, February 12, 2020.

While the intention behind these steps is positive and the local communities where offset credit-generating projects are based often do benefit—the idea that offsets put us solidly on the path to net-zero simply isn't backed up by science.⁷ In broad terms, carbon offsets allow a firm in one place to keep emitting, when the company purchases carbon credits that pay for a GHG reduction or emissions removal project somewhere else. The projects that generate the carbon credits sold in the voluntary markets must also be considered “additional” which means the project wouldn't be viable if not funded by the offset, and it doesn't shift emissions someplace else. The structure of the current markets, lack of oversight, and the opacity around which projects sellers have bundled into credits creates numerous challenges for investors who are trying to compare different investment options and assess their veracity.

At the time of writing, we are in the midst of a pivotal moment in terms of “what to do about offsets.” Last year's November 2021 COP26 gathering featured discussions about Article 6 and the process by which legacy Clean Development Mechanism (CDM) credits fit into future schemes.⁸ Across 2021 and up to today, there are some stakeholders pushing for the development of an enhanced and scaled global voluntary carbon market. Yet others are urging restraint. While the



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scope of financial assets covered by the market is impressive, we find this development troubling, and urge world leaders, state and local governments, as well as corporations to direct their resources into financial models and innovation funds that credibly scale climate solutions, rather than carbon offsets markets.

UN Environment supports carbon offsets as a temporary measure leading up to 2030, and a tool for speeding up climate action,” says UN Environment climate specialist Niklas Hagelberg. “However, it is not a silver bullet, and the danger is that it can lead to complacency. The October 2018 report by the Intergovernmental Panel on Climate Change made it clear that if we are to have any hope of curbing global warming we need to transition away from carbon for good: by travel-

⁷ Lisa Song and Paula Moura, “An Even More Inconvenient Truth,” ProPublica, May 22, 2019.

⁸ CDM credits are a type of early carbon market credit. For more detailed information on these legacy credits please see the UNFCCC website.

ling electric, embracing renewable energy, eating less meat and wasting less food.⁹

While it might not be as well known to the public at large, trading emissions-reduction-based credits is not a new concept.

The 1997 Kyoto protocol set the CDM in motion, as will be discussed in more detail in the next section. This means that we have over 20 years of real-world data to evaluate the effectiveness of offsetting. In a landmark report in 2015, the Stockholm Environment Institute estimated that nearly 75% of all carbon offset credits issued under the Joint Implementation (JI) program (also established under Article 6 of the Kyoto Protocol) had no real effect on overall GHG emissions reductions. This is a deeply troubling outcome in and of itself, however the report also found that if countries had invested in cutting pollution on-site and relied less on carbon offset programs—global CO₂ emissions would be 600 million tons lower today than they are.¹⁰



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While the Stockholm Environment Institute analysis looks at just one type of carbon credit (there are dozens), fundamentally the underlying issues remain the same: offsetting allows emitters to continue conducting business as usual, and those emissions keep accumulating in the atmosphere.

In short, offsets do not, and will not, have the effect of reducing global carbon levels, and carbon levels must be reduced if we are to come close to meeting our net-zero commitments. This paper is an effort to step in at this pivotal time and amplify important conversations already taking place around the practice of offsetting—and to urge businesses, civil society, and policymakers to consider an alternative path.

⁹ “Carbon Offsets are not our get-out-of-jail-free card,” UN Environment Programme (UNEP), June 10, 2019.

¹⁰ Anja Kollmuss, Lambert Schneider and Vladyslav Zhezherin, “Stockholm Environment Institute Working Paper 2015-07: Has Joint Implementation Reduced GHG Emissions? Lessons Learned for the Design of Carbon Market Mechanisms,” Stockholm Environment Institute, August 2015.

LESSONS LEARNED? 15 YEARS OF OFFSETS IMPACT

A Mis-Behaving Market

On the one hand, the offsets market is huge. On the surface, it appears robust and even fairly mature. But looks can be deceiving and the size of voluntary carbon markets mask gross imbalances, inefficiencies, quality issues, and dysfunction.

The first, and still largest, carbon offsetting market was set up under the 1997 Kyoto Protocol. In this agreement, 190 countries signed on to country-by-country emissions reduction targets and the United Nations' CDM was born. Under the CDM over 8,100 projects in 111 countries were registered,

which generated more than 2 billion carbon credits, called Certified Emission Reductions (CERS), each representing 1 ton of carbon dioxide reduction or avoidance.¹¹

Over the many years experimenting with the CDM, numerous studies were launched to evaluate its impact and recommend improvements. A decade ago, the European Union led one such study that found that approximately 45% of these early 'Kyoto' credits were awarded to a handful of mainly Asian-based projects to reduce industrial gasses. Their analysis uncovered deep concerns over the environmental integrity of these gas project credits that were suspiciously cheap to



¹¹ "What is the CDM," accessed September 14, 2021.

generate—ultimately leading to a 2013 ban on their use in its Emissions Trading System (ETS). Since the EU ETS was the largest market for purchasing carbon credits, this decision had a profound effect on credit value. Prices for these credits crashed to levels below €1 per ton, where they remained for years.¹²

Global carbon pricing schemes both endure and proliferate: these take shape as various Emission Trading Schemes (ETS), carbon taxes, and systems that are combinations of the two. 2021 data suggests that all 64 global carbon pricing plans could cover 11.65 GtCO₂e of emissions, or 21.5% of total global GHG emissions.¹³ **Between 2015 and 2019, issuance volumes were largest from the forestry, renewable energy, waste, fuel switch, industrial gasses, fugitive emissions, energy efficiency, and agriculture sectors.** The largest crediting mechanisms by volume in this same time period were the Verified Carbon Standard, Clean Development Mechanism, the California Compliance Offset Program, and Gold Standard.¹⁴



¹² “CERS and ERUs market as from 2013,” accessed September 14, 2021.

¹³ “Carbon Pricing Dashboard,” accessed November 1, 2021.

¹⁴ “State and Trends of Carbon Pricing 2020,” The World Bank, Washington, DC, May 2020.



Carbon Market Trends

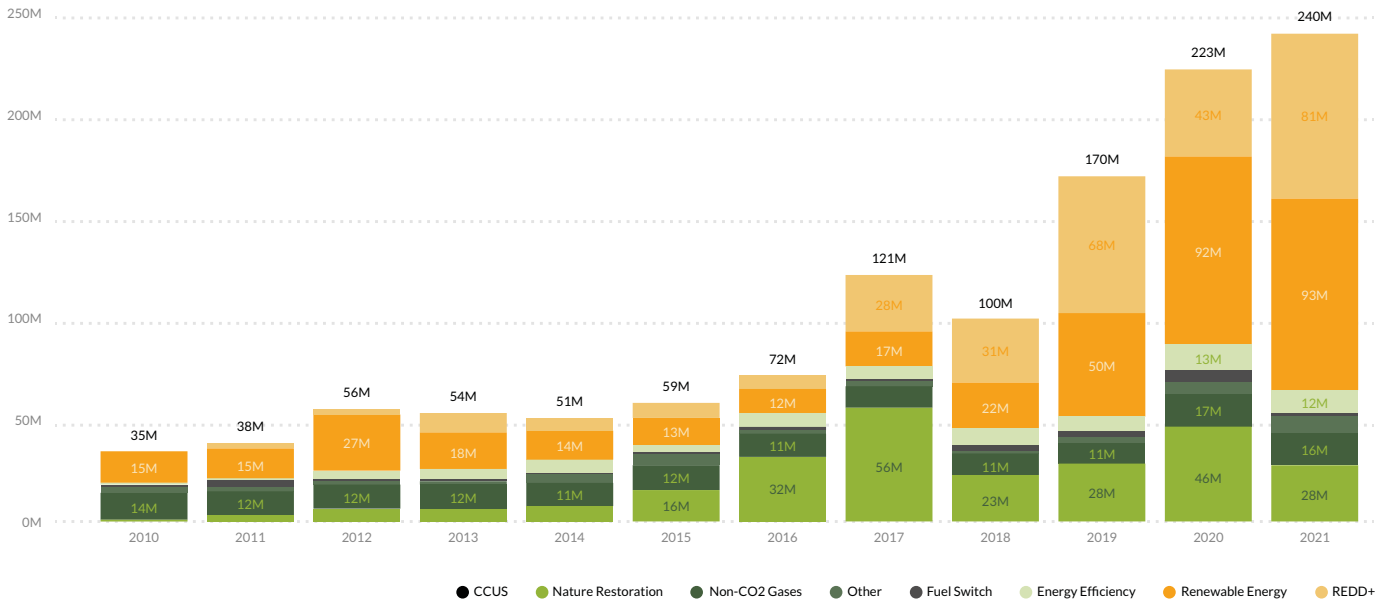
In sum, over the past decade:

- The number of credits issued each year **has risen almost 600%**, from about 35 million tCO₂e in 2010 to just under 240 million tCO₂e in 2021
- This amounts to a **total of over 3,000 projects and 1.29 billion tCO₂e**.
- In order from largest to smallest recipients, **the most recent credits were issued for renewable energy projects, REDD+ (Reducing Emissions from Deforestation and forest Degradation,)** **nature restoration, non-CO₂ gasses, and energy efficiency measures.**
- From a regional perspective, **the largest number of credits in 2021 were issued in Asia Pacific**, followed by Central and South America, Europe, North America, and Africa.
- In total, **the U.S. has been the largest issuer of credits**, followed by India, China, Indonesia, Turkey, and Brazil.¹⁵

¹⁵ Trove Intelligence, "Carbon Credit Projects and Transactions," accessed October 15, 2021.

Total projects: 3354 Total Credits Quantity (tCO2e): 1bn

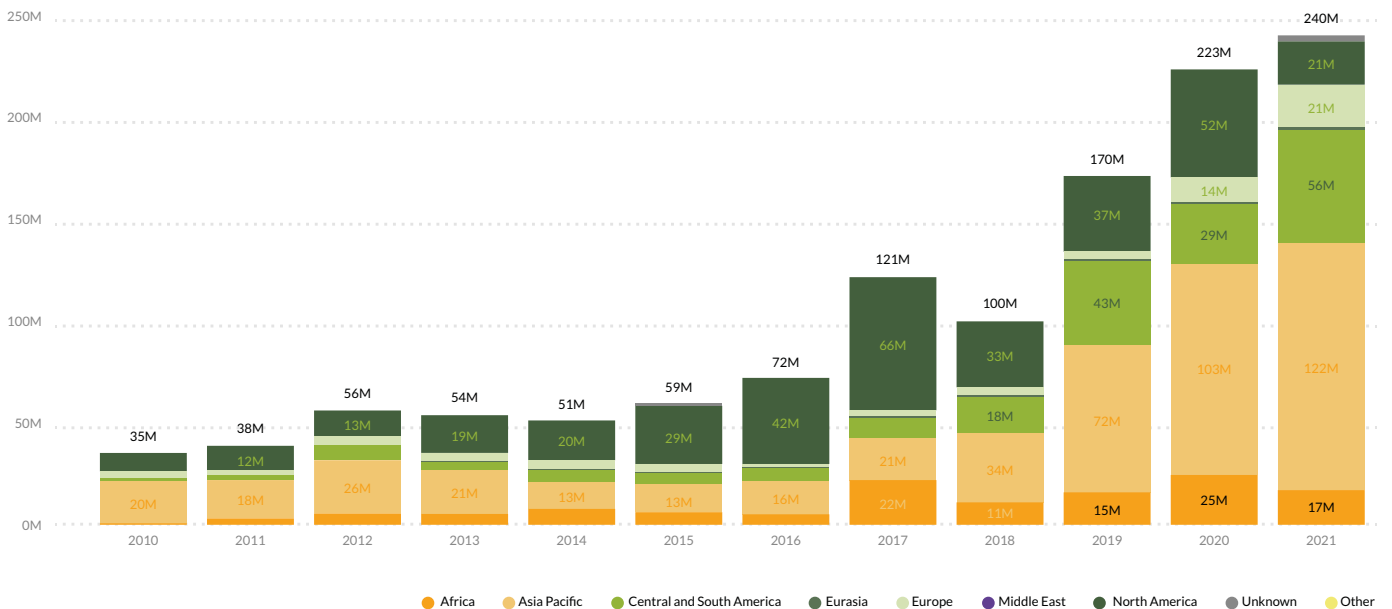
Discrete Issued Credits By Event Date Split By Project Type - Level 1 (tCO2e)



Source: Trove Intelligence Database

Total projects: 3354 Total Credits Quantity (tCO2e): 1bn

Discrete Issued Credits By Event Date Split By Region (tCO2e)



Source: Trove Intelligence Database

Due to design flaws and other asymmetries, the carbon market does not always behave in ways that are congruent with typical economic models. For instance, research shows that approximately 40% of the total credits created between 2010 and 2021 have not been used—supply has dramatically outstripped demand (and predictably kept prices artificially low).¹⁶ A policy research paper published by the World Bank in 2010 cautions that CDM projects can distort environmental and energy policies along with private sector investment decisions, thereby reducing incentives to reduce fossil energy and switch to cleaner energy technologies. Together, tax policies and carbon markets can actually dissuade emissions reductions.¹⁷ Gaming the system is not a new concept—but a system with such blatantly perverse incentives almost requires it. **Even the unit of exchange on the offset market is problematic.** This doesn't seem particularly troubling to many economists (most modern



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currency is abstract, after all.) But climate scientists reiterate year after year that while “a ton of greenhouse gas emissions” sounds straightforward enough, actually operationalizing it, let alone measuring and accounting for it, is anything but.



¹⁶ Trove Intelligence, “Carbon Credit Projects and Transactions,” accessed October 15, 2021.

¹⁷ Jon Strand, “Policy Research Working Paper 5296: Carbon Offsets with Endogenous Environmental Policy,” The World Bank, Development Research Group Environment and Energy Team, May 2010.

LOW-QUALITY ASSURANCE

Another observation from the past 15+ years of offsetting climate emissions—it is well known that the quality of carbon credits varies dramatically, with the median and mode effectiveness driving the mean lower than anyone would like to see it. While many carbon credits are verified by a well-established standards program such as Verra or Gold Standard, there are many more that come with no such certifications. Moreover, even certified credits have observed quality issues. For example, in a 2015 paper on carbon market mechanisms concluded that the Joint Implementation (JI) program established under the Kyoto Protocol was “not plausible” for close to 75% of Emission Reduction Units (ERUs) to lead to the promised reductions; 50% of the project types studied were considered to have low environmental integrity, while another 30% were considered questionable. The report also questioned the integrity of the Accredited Independent Entities (AIEs) responsible for verifying the additionality conditions of these projects.¹⁸

According to a 2016 report cited by the European Commission, 85% of projects and 73% of 2013 Certified Emissions Reduction (CER) supply studied likely overestimated their emissions reductions.¹⁹ Leaving aside accounting integrity, only 2% of projects and 7% of CER supply were deemed likely to have a high impact on emissions reduction. In a 2017-2018 investigation into Norway’s International Climate and Forest Initiative, it was found that REDD+ results are delayed and uncertain, monitoring and evaluation is “unsatisfactory,” given poor follow-up on environmental and social safeguards and reporting on the part of recipient countries, and there is no appropriate framework in place for the collection and analysis of data. It was also concluded that insufficient action was taken to prevent fraud.²⁰ ²¹To say nothing of controversies ranging from projects overlapping with protected lands to project sabotage through illegal deforestation and human rights abuses.²²

18 Anja Kollmuss, Lambert Schneider and Vladyslav Zhezherin, “Stockholm Environment Institute Working Paper 2015-07: Has Joint Implementation Reduced GHG Emissions? Lessons Learned for the Design of Carbon Market Mechanisms,” Stockholm Environment Institute, August 2015.

19 Dr. Martin Cames, Dr. Ralph O. Harthan, Dr. Jürg Füssler, Michael Lazarus, Carrie M. Lee, Pete Erickson, Randall Spalding-Fecher, “How Additional is the Clean Development Mechanism?: Analysis of the application of current tools and proposed alternatives,” Öko-Institut e.V. Institut für angewandte Ökologie / Institute for Applied Ecology, Berlin, March 2016.

20 Norwegian Office of the Auditor General, “The Office of the Auditor General of Norway’s investigation of Norway’s International Climate and Forest Initiative,” Government of Norway, May 2018.

21 Ole Mertz, Kenneth Grogan, Dirk Pflugmacher, Guillaume Lestrelin, Jean-Christophe Castella, Thouthone Vongvisouk, Cornelia Hett, Rasmus Fensholt, Zhanli Sun, Nicholas Berry & Daniel Müller (2018) Uncertainty in establishing forest reference levels and predicting future forest-based carbon stocks for REDD+, *Journal of Land Use Science*, 13:1-2, 1-15, DOI: 10.1080/1747423X.2017.1410242

22 Lisa Song and Paula Moura, “An Even More Inconvenient Truth: Why Carbon Credits for Forest Preservation May Be Worse Than Nothing,” ProPublica, May 22, 2019.

AVOIDANCE, ADDITIONALITY AND **THE PROBLEM OF TIME**

Many current carbon offset credits are based on so-called avoided emissions; credits issued for sections of the Amazon *not* opened for logging, for coal energy *not* produced or switched to 'clean' coal, for grassland *not* farmed. While there is certainly benefit to genuinely avoiding emissions, avoidance is not the same as reduction. An organization doesn't even need to take account of its own emissions in order to claim avoided emission offsets.

We have already asserted that long-term emission reduction is the only credible path to net-zero. Therefore, for carbon offsets to play a legitimate role in an organization or government's road to net-zero, offset projects

would need to be what climate scientists label *additional*. This means they must produce emissions reductions that result from efforts that would not have happened without the extra value provided by the offset credit.²³ **In simpler terms, offset credits are based on the difference between emission reductions with offset investments versus the reductions that *would* have happened without such investments.**

The Nature Conservancy recently found itself embroiled in controversy when it was discovered to have issued millions of dollars of carbon credits for land already protected in its founding documents. The credits raised money



²³ Ibid.

for the organization, but produced no climate benefit because there was no additionality—nothing happened that would not have happened otherwise. Projects to capture/sequester industrial gasses could be highly additional, but only if policy hasn't already made the practice mandatory. Lighting efficiency projects may have been additional 25 years ago, but the transition to efficient lightbulbs has largely taken hold and offset investment is unlikely to produce 'additional' emission reductions. In general, renewable energy and fossil fuel switching projects tend to be additional, while things like reforestation, conservation, and cook stoves struggle.²⁴

Even more vexing, additionality is a double-edged sword for those focused on emissions reduction. Because offset credits effectively change the 'accounting' of an organization's emissions, organizations can use credits to comply with cap-and-trade program limits while simultaneously *increasing* their emissions. With the net result that every offset

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Offsets can only be truly effective if every credit is correlated with real emissions reductions (rather than emission avoidance or potential far-future carbon capture) to negate the higher emissions allowed with a cap-and-trade system.”

credit that is issued enables an equivalent *increase* in emissions within the cap-and-trade program.²⁵ Offsets can only be truly effective if every credit is correlated with real emissions reductions (rather than emission avoidance or potential far-future carbon capture) to negate the higher emissions allowed with a cap-and-trade system.

Complicating the matter further is the issue of time. In the weeks surrounding last year's COP26 alone, the offsets included in companies' announced net-zero plans would



²⁴ Dr. Martin Cames, Dr. Ralph O. Harthan, Dr. Jürg Füssler, Michael Lazarus, Carrie M. Lee, Pete Erickson, Randall Spalding-Fecher, "How Additional is the Clean Development Mechanism?: Analysis of the application of current tools and proposed alternatives," Öko-Institut e.V. Institut für angewandte Ökologie / Institute for Applied Ecology, Berlin, March 2016.

²⁵ Ibid



require planting enough trees to cover a land mass 5 times the size of India.²⁶ Yet, even if that were feasible, trees planted today will not grow quickly enough for us to reach our stated carbon-neutral goals.²⁷ They also die. And burn. Plus, permanent forests have costs of their own.²⁸ How *additional*, then, can reforestation credits be? All this is to say nothing of more complex carbon sink projects that rely on land-use permanence²⁹ and poorly-understood measurement science.³⁰

And conservation credits aren't much better.

The United Nations' REDD+ program, for instance, seeks to reduce carbon emissions by enhancing forest carbon 'stocks' through billions in international donor funding.³¹ Through an examination of 120 REDD+ projects, a French research center found that 37% of carbon offsets projects tied to reforestation and conservation *overlapped* with existing protected lands. The impact of these large-scale offset investments creates duplicative and redundant efforts in GHG reduction schemes. Ultimately, many of the offset credit programs reduce conservation and reforestation efforts to what the research authors aptly cited as a "logo to attract financing."³²

26 Friends of the Earth, "Chasing Carbon Unicorns: The deception of carbon markets and net zero," February 2021.

27 "Carbon offsets are not our get out of jail free card," accessed October 22, 2021

28 "Carbon offsets burning," accessed October 22, 2021.; Carbon Plan, "Annual Report," 2020.

29 Ole Mertz, Kenneth Grogan, Dirk Pflugmacher, Guillaume Lestrelin, Jean-Christophe Castella, Thouthone Vongvisouk, Cornelia Hett, Rasmus Fensholt, Zhanli Sun, Nicholas Berry & Daniel Müller, "Uncertainty in establishing forest reference levels and predicting future forest-based carbon stocks for REDD+," *Journal of Land Use Science*, 2018, 13:1-2, 1-15.

30 Lisa Song and James Temple, "The Climate Solution Actually Adding Millions of Tons of CO2 Into the Atmosphere," *ProPublica*, April 29, 2021.; "Systematic over-crediting of forest offsets," accessed November 1, 2021.

31 "UNFCCC REDD+ Platform," accessed November 1, 2021.

32 Gabriela Simonet, Alain Karsenty, Pete Newton, Christian de Perthuis, Brian Schaap, Coline Seyller, "REDD+ projects in 2014: an overview based on a new database and typology," *Les Cahiers de la Chaire Economie du Climat*, no. 32, July 2015.

A FOUNDATION OF INEQUITY

The inequity built into offset markets is problematic, to say the least. These markets set up the illusion that the purchaser can continue to emit now (at the same or even *increasing* levels) without consequence, because somewhere else in the world, someone else is being paid *not* to emit. This ‘not emitting’ often comes at the cost of the economic progress and prosperity, the security and self-determination – on a personal and a national level—that the purchaser enjoys.



Offset markets are inherently designed to provide that nominal ‘1 ton of emissions reduced/avoided’ at the cheapest price, which often results in credits issued by governments and entities geographically outside of U.S. borders in less economically developed countries (LDCs). These ‘destination credit markets’ often have poor administration oversight and inefficient carbon measurements systems.

Under the guise of triple-win economic development strategies, many of these programs are marketed as a way to foster local economic development, conserve natural resources, and reduce carbon emissions. **While all of these intentions are good, such global carbon offset programs, in reality, do little to reduce overall GHG emissions in the Earth’s atmosphere.** Paradoxically, these overseas offset credits can often lead to higher emissions. In addition, many communities in the LDCs, where such programs are implemented, face competing challenges and economic tradeoffs attributed to land grabs, loss of livelihoods from constraints on agricultural land, and violation of territorial rights attributed to offset programs.³³

This global North and South dynamic in the voluntary carbon markets has caused issues in national carbon ‘accounting’ from the start. The avoided emissions from some projects end up on the ‘balance sheets’ of the purchasing country *and* the country where the project took place. Sometimes the corporation who purchased the credit counts the reduction as well.

³³ “Reducing Deforestation,” accessed October 22, 2021.



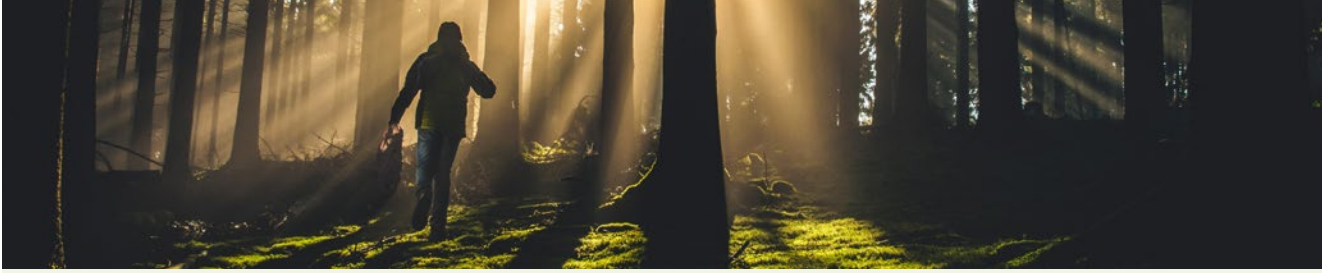
The Case of Carbon-Neutral Shipping

Under pressure from investors, oil and gas incumbents are beginning to build “low-carbon branding.”³⁴ A prominent effort toward greening the sector’s image is through investing in so-called “carbon-neutral” delivery of fossil fuel resources. Shell Global LNG, TotalEnergies, Malaysia’s Petronas, Russia’s Sakhalin Energy, Singapore’s Pavilion Energy, and Italy’s ENI are just a few internationally-recognized oil and gas majors that, as of mid-2019, are beginning to deliver carbon-neutral liquefied natural gas (“LNG”) cargoes. Some, like Shell, utilize “nature-based” carbon credits. These are earned through the protection, transformation, and restoration of forests, grasslands, and wetlands that offset “full lifecycle emissions (including methane)” from the exploration and production of gas up the value chain to transportation and consumer use. Others, like Total, make use of Verified Carbon Standards’ emissions certificates financing that cover a combination of renewable energy projects and REDD+ programs.³⁵

This solution, however, is far from green. Not only is there no clear methodology or reporting structure for value chain emissions, but offset assumptions seem to be made on the basis of *estimated emissions* from an *average cargo size*. These

34 Bloomberg NEF, “Carbon Neutral LNG: Suppliers Focus on Optionality, transparency, and CCS,” Bloomberg, April 19, 2021.

35 “First Carbon Neutral LNG Cargo Delivered in Europe,” Shell, March 8, 2021; “Nature Based Solutions,” accessed November 2, 2021.; “Total Delivers its first Carbon Neutral LNG Cargo,” accessed November 2, 2021; Josh Lewis, “Petronas strikes deal with Shenergy to send trio of carbon neutral LNG cargoes to China,” Upstream online, September 30, 2021.; Reuters, “Sakhalin Energy to ship carbon-neutral LNG cargo to Japan’s Toho Gas,” Reuters, September 28, 2021.; Hwee Hwee Tan, “APPEC: Carbon offset to act as starting point for decarbonizing LNG: Pavilion Energy CFO,” S&P Global, September 29, 2021.; Reuters Staff, “Italy’s ENI to deliver carbon neutral LNG cargo to Taiwan’s CPC,” Reuters, August 6, 2021.



calculations should, in theory, vary significantly given unique upstream, midstream, and downstream qualities of every single cargo of LNG shipped, even those originating from the same export facility.³⁶ There is also no standard for carbon-neutral gas shipments; some companies claim to cover all value chain emissions while others only cover emissions from final consumption or those generated between production and delivery. In this context, only “high-quality” *offsets* could support the carbon neutrality agenda, but greenwashing is a legitimate concern. Moreover, the price of this “green premium” and the corresponding price of carbon remain undisclosed.³⁷

The existing offsets system lacks transparency and accountability. More significantly, however, is that offset, with rare exceptions, don’t actually offset any of the emissions continuously pumped into the atmosphere, let alone at the speed at which we need them to. If anything, they leave us worse off than we were (with a net increase in emissions,) and a dangerously false sense that we are virtuously “carbon neutral.” Instead of focusing on passive emissions offsetting schemes that only check out on paper, we must focus on aggressive emission reduction activities.

³⁶ Bloomberg NEF, “Carbon Neutral LNG: Suppliers Focus on Optionality, transparency, and CCS,” Bloomberg, April 19, 2021.

³⁷ Erin Blanton and Samer Mosis, “The Carbon-Neutral LNG Market: Creating a Framework for Real Emissions Reductions,” Columbia-SIPA Center for Global Energy Policy, July 8, 2021.

PRAGMATIC STEPS **TO NET-ZERO**

Carbon markets have been rooted in both the domestic and international spheres of business for decades. While scaling back domestic carbon markets may, at first glance, seem contradictory to reducing GHG emissions; this action is necessary to ensure that the U.S. meets its net-zero emissions goals by 2050. Energy and attention should rather be directed towards actions that make real emissions reductions.

To that end, the authors recommend that:

- 1.** carbon markets be scaled back, rather than expanded;
- 2.** organizations that have purchased carbon credits or are using offsets in their sustainability plans reconsider this approach and question the quality of their investments;
- 3.** the SEC should include offset disclosure in its mandatory climate-related financial disclosure rulemaking;
- 4.** governments broadly turn their attention to supporting technological developments in hard-to-abate sectors such as aviation and heavy industry; and
- 5.** the voluntary carbon market undergo a transformation that allows individuals, firms and organizations to directly invest in initiatives that reduce carbon emissions.



RECOMMENDATIONS

1. Scale-back Carbon Offsets: **Carbon offsets are not a successful strategy to achieve net-zero emissions goals by 2050.**

The United States, like many other nations, has a clearly articulated goal of reaching net-zero emissions by 2050. Achieving that goal requires that we reduce our collective emissions permanently over time. Offsets do not produce those emission reductions.

The foundational assumptions for carbon offsets are not only weak, they are unsound.

The idea that a market can quantify emissions reductions through forest conservation and emissions trading schemes simply doesn't work. If the domestic carbon offset markets were to continue to be scaled-up, as many state and federal policymakers suggest, the result would be continuing down a path which we know does not actually abate long-term carbon emissions.

It must be mentioned that the system for administering carbon offsets is systematically biased toward low-quality projects with little emissions reduction impacts.³⁸

For evidence, look no further than the myriad land conservation projects for payment-based “ecosystem services”, which do little to benefit carbon reductions but attract large investments. Or review any of the large-scale evaluations of credit projects; none of which have pointed toward offsets projects as sound, impactful investments.

In theory, better outcomes are possible. Proper regulatory reform of the carbon offset markets, standards around additionality, capacity building and regulation for



³⁸ Danny Cullenward and David G. Victor, *Making Climate Policy Work* (Massachusetts: Polity Press, 2021): 89.

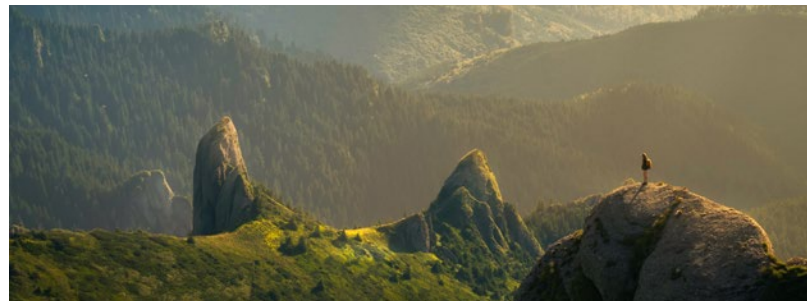
measurement and evaluation, higher compensatory programs, more efficient carbon sequestration technology can all lead to plausible CO₂ emissions reductions through carbon sinks and other typical carbon credit programs. That being said, the political environment to tackle these reforms and develop additional regulations to make offset programs more robust and effective has not been demonstrated. Current and future offset programs also run the risk of lobbying pressure by high emitters watering down more ambitious programs.

The Committee, therefore, suggests that the voluntary carbon offset markets currently in place in the U.S. be scaled back and limited. The administration should resist pressure to position the offsets markets as a major vessel for GHG reductions. Provision may be made for the use of (certified, high-quality, regulated) offsets for truly 'residual' emissions. Note that this would require organizations to accurately account for and disclose their emissions; and emission-reduction plans, efforts, successes and shortcomings. Further policy focus should address the need to accelerate the energy transition and reduce future carbon emissions, rather than scaling-up a zero-sum offset system, which doesn't allow for the type of investment transformation that is necessary to dramatically limit GHG emissions.



2. Purchasers of carbon credits, such as firms, universities, governments, individuals, and other organizations should examine the quality of their credits/investments. **Furthermore, firms that are using offsets in their sustainability plans should reconsider the credibility of their climate mitigation plans.**

Carbon offsets should not only be scaled back at the Federal and State-levels; they should also be reevaluated within the private market. Large-scale investors and other major financial institutions, who have staked their net-zero goals on carbon offset initiatives, should reconsider their investments in carbon offset trading schemes. This starts with an honest examination of climate goals; if investments in offsets aren't accompanied by ambitious, and growing, year-over-year emissions reduction targets the organization's plan (and its use of offsets) should be viewed with skepticism at best. Next, organizations need to invest the time and resources into a deep investigation of the offsets program they *have* invested in, determine their quality/effectiveness, and adjust their accounting accordingly. Leaders who undertake such an audit will likely learn for themselves that not only do carbon offset credits frequently result in weak to non-existent climate benefits, they also often rely on



forests and soils that become net carbon *emitters* due to human mismanagement, namely from deforestation and land-use change.³⁹

The Committee concedes that, realistically, private investments in the voluntary carbon offsets markets will not likely be scaled-back immediately. The burgeoning offsets market has increased by 33% from 2019 to 2020, with nearly 93 million carbon credits having been purchased by various buyers.⁴⁰ Nevertheless, the growth of a market is not in itself sufficient reason to foster its continued growth.

³⁹ César Dugast, "Net Zero Initiative: A Framework for Collective Carbon Neutrality," Carbone4, (April 2020): 23.

⁴⁰ Seb Henbest, Mattias Kimmel, Jef Callens, Amar Vasdev, "Bloomberg New Energy Outlook 2021," Bloomberg, 2021.

3. The Securities and Exchange Commission (SEC) should include the disclosure of carbon offsets/credits (and their sources) **as part of their rulemaking on mandatory disclosures for climate-related risks due to be finalized in 2022.**

The Committee suggests that one way to address the unregulated amalgamation of domestic carbon offset programs is through the publication of regulatory guidelines by the SEC. Comprehensive and robust regulatory disclosure guidelines for carbon offset programs could be considered pursuant to the authority of the SEC. The SEC can and should set both qualitative and quantitative reporting requirements for corporate investments and trading schemes in carbon offsets.

Under the Securities Exchange Act (1934), the SEC is endowed with the authority to bring transparency and good governance to previously underregulated securities markets.⁴¹ With the current, nebulous and disjointed carbon offsets market, the SEC has a crucial role in establishing regulatory frameworks to address the inconsistencies in offset programs with dubious carbon emission-reduction claims. For example, exaggerated emissions reductions, double-counting of conserved forested-area projects, and the loose enforcement of existing offset programs are all areas that would benefit from close monitoring by the Federal Government.⁴² Currently, there is no precise science around the formulaic protocols and verification standards of carbon offset credits.⁴³ Moreover, the field is crowded with many different kinds of credits of varying quality and rigor, which can be challenging for investors to compare and evaluate. The SEC could bring greater transparency to privately



⁴¹ United States, The Securities Exchange Act of 1934, (Washington, D.C.) U.S. Securities and Exchange Commission.

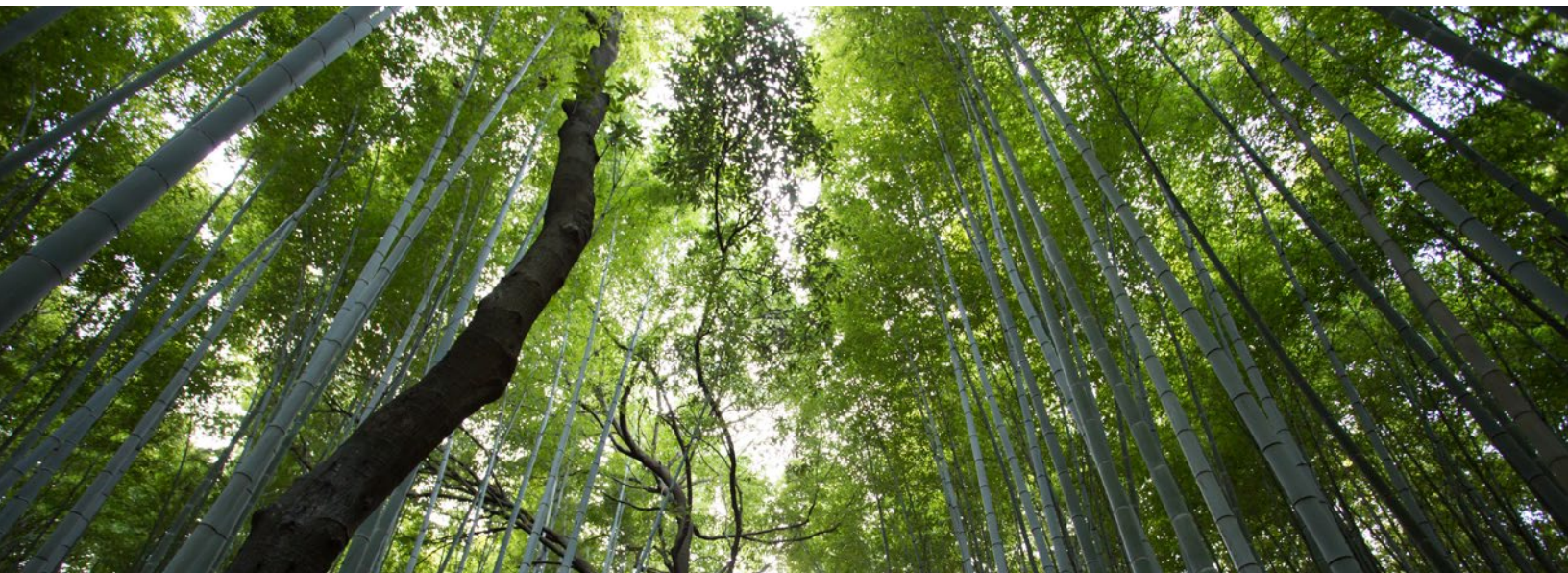
⁴² Rory Jacobson and Kobi Weinberg, "Giving carbon credit: Lessons from unchecked financial markets," Greenbiz, March 31, 2021.

⁴³ "United States Stock Market Confidences Indices," accessed November 3, 2021.

operated registries through disclosure enforcement mechanisms. Such disclosure measures and verification of emissions-reduction claims will ensure that credits procured by investors are substantiated and in compliance with securities rules.⁴⁴

The SEC, under the current administration, is already reviewing standards for climate-related disclosures.⁴⁵ As part of this approach, the Committee believes there is value in clarifying the scope and measure of existing carbon offset trading schemes. These efforts provide an opportunity to unify carbon offset standards within the private sector, which currently operate in a fragmented regulatory environment.⁴⁶ The SEC should establish consistent metrics of measurement and coherent benchmarks to assess and compare

claimed emissions reductions. Clear and uniform disclosure guidelines can spur corporate investments in these programs to detail the specific sources and scope of projects, as well as prohibit the trading of unsupported carbon offset credits. These disclosure guidelines would ensure that offset programs and further investments within the market legitimately reduce emissions and meaningfully move us toward our net-zero goals.



44 Rory Jacobson and Kobi Weinberg, "Giving carbon credit: Lessons from unchecked financial markets," Greenbiz, March 31, 2021.

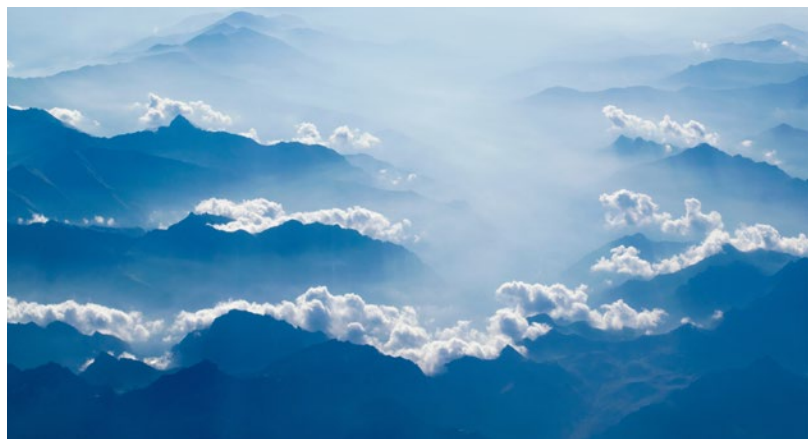
45 Acting Chair Allison Herren Lee, "Statement: Public Input Welcomed on Climate Change Disclosures," The Securities and Exchange Commission of the United States, March 15, 2021.

46 "Jones Day Talks: Carbon Markets are Booming, and Regulators are Watching," accessed November 2, 2021.

4. Governments (Federal, State, and local) should remain focused on developing and implementing policies that reduce emissions—**particularly in hard-to-abate sectors such as cement, steel, industry, agriculture, along with aviation and shipping fuels.**

The Federal Government, in concert with state and local governments, should turn their collective attention to policies that target challenging, high-emitting sectors long ignored. Scientists have clearly stated that the way to avoid the worst effects of climate change is to reduce our emissions to zero, as quickly as possible. Yet all emissions are not created equal. Some sources of emissions are easier to transform, while there are others for which we simply do not yet have low-carbon or zero emissions alternatives. For example, in the transportation sector, low carbon or zero emissions jet fuel does not yet exist -- nor does a commercially viable low carbon fuel for ocean bound shipping containers. Similarly, processes for cement and steel production and much of modern agricultural practice are still carbon intensive without scalable, cost-effective alternatives. These are all areas where the government could be particularly powerful in helping to push innovative technologies along.⁴⁷

Creating investment instruments by which firms are permitted to delay (offset) some of the more difficult or costly elements of their own carbon transitions by investing in accelerating that transition for society as a whole is perhaps a viable application of the offset concept. Such innovation funds would be more tightly focused, more cost/benefit balanced, and shorter term than the current conception of voluntary offset markets. It could also have a more direct and lasting effect on emissions.



⁴⁷ Jaegul Lee, Francisco M. Veloso, David A. Hounshell, Edward S. Rubin, "Forcing technological change: A case of automobile emissions control technology development in the US," *Technovation* 30 (2010): 249-264.

5. The voluntary carbon market should be transformed into a framework that follows a contribution model **whereby individuals, firms, and organizations can directly invest in initiatives that reduce carbon emissions.**

From the domestic and private sector perspectives, we would be significantly better off with a **direct-investment model** through which individuals, firms, and other organizations can **directly contribute to proven emission reduction efforts** as opposed to participation in voluntary carbon markets that rely on complex and varied accounting strategies that are prone to error. This is particularly important in light of the fact that different companies have different ways of measuring emissions in the first place. Corporations claiming net carbon neutrality may account for as much as entire value-chain emissions

or as little as direct emissions only. Moreover, emissions reductions claims are self-declared and short-term, meaning that firms have no mandate or responsibility to commit to sustained and enduring emissions reductions beyond the offset period. **Offsetting even allows firms to experience emissions increases over time, provided they also increase their investment in carbon credits.**⁴⁸

Non-permanent, overestimated offsetting schemes should be replaced with corporations paying for actual *practices*.⁴⁹

Shifting the focus from a company's ability to *claim* carbon neutrality to its *contribution* to emission reduction changes the equation.

Offsets allow firms to claim neutralization of climate risk through accounting mechanisms that ultimately disincentivize tangible emissions reductions throughout the company's value chain and operations. Offsetting becomes a means to push off any meaningful investigation and transformation of its



⁴⁸ César Dugast, "Net Zero Initiative: A Framework for Collective Carbon Neutrality," Carbone4, (April 2020): 28-29.

⁴⁹ Carbon Market Watch, "Above and Beyond Carbon Offsetting: Alternatives to Compensation for Climate Action and Sustainable Development," (December 2020): 3.

operations.⁵⁰ Why make operational changes that may be difficult and costly, could affect your competitive advantage or reduce your profitability if you could simply pay to protect grassland or plant trees somewhere halfway around the world—and then get brownie points for it on social media!?

Corporations truly committed to climate action place greater emphasis on reducing global emissions by (1) actually reducing their own direct and indirect emissions (i.e.: funding mass transit for all employees, converting facilities to renewable energy) and (2) supporting economy-wide emissions reductions through marketing low-carbon solutions and financing low-carbon projects outside of their own value chain (i.e.: investing in direct air capture, alternative energy, next-gen materials challenge)⁵¹. Corporations should specifically seek to reduce value chain GHG emissions in-line with the Science Based Targets initiative.⁵²

“Climate contributions are defined as a tool to accelerate our efforts to remain within a 1.5°C global warming scenario, but cannot replace any emission reduction efforts. Climate contributions should be perceived

as a step that complements emission reductions practices, which are the first step every organization should take, after measuring its emissions. The concept of climate contributions goes beyond the environmental benefits, carbon absorption or avoidance, and implies other benefits, which are as important as the environmental benefits generated. Companies cannot claim that they are carbon neutral, but should say that they contribute to global carbon neutrality.”⁵³

-ClimateSeed

Not only would climate and society benefit, but so would corporations themselves.

There is significant evidence to suggest that organizations who make the transition to climate-aligned operations & investments sooner will see competitive advantage over those who resist building political, economic, and social calls to change. Advantages include getting a leg up on regulatory and policy changes, enhancing their public reputations, increasing confidence with their investors and stakeholders, propelling innovation, creating greater opportunities for collaboration with new stakeholders, and increasing medium- to long-term profitability.⁵⁴

⁵⁰ Ibid, 4.

⁵¹ César Dugast, “Net Zero Initiative: A Framework for Collective Carbon Neutrality,” Carbone4, (April 2020): 6-8.

⁵² Jess McGlyn et al, “Science-Based Targets for Nature: Initial Guidance for Business,” Science Based Targets Network, (September 2020): 44-51.

⁵³ Lucie Delzant, “Climate Contribution vs. Carbon Offsetting,” ClimateSeed, February 10, 2020.

⁵⁴ Jess McGlyn et al, “Science-Based Targets for Nature: Initial Guidance for Business,” Science Based Targets Network, (September 2020): 3.

Appropriate action may include reducing the use of fossil fuels, increasing the purchase of renewable-generated energy, pushing upstream suppliers to reduce their carbon footprints, mitigating land degradation, and reducing the carbon impact of goods and services sold. Corporations are also encouraged to quantify financial commitment to climate change mitigation. This may include adapting, setting, and incorporating a carbon price that will help address residual emissions; committing a share of revenue to addressing value chain emissions; or defining a specific investment amount geared solely for the emission reduction agenda. All three options must reflect the social and environmental cost of emissions.⁵⁵ Companies must make good on these financial commitments by investing in renewable power, alternative fuels, sustainable raw materials, nature-based solutions (addressing deforestation, conversion, and land degradation), innovative climate technologies (related to efficiency, material and energy feedstocks, and direct air capture, among many other explicitly low-carbon solutions), and supporting emissions reduction measures outside of its own activities and business area. In summary, investments should benefit the climate, nature,

human well-being (including quality of life, food and energy access, and equity), and, though “locally owned,” should align with domestic and international climate goals.⁵⁶

An alternative to carbon crediting may be a “practice-based credit” or “effort-based credit” program that rewards companies for changing their practices. Whereas carbon credits finance specific *results*, these credits would help finance specific climate-beneficial *projects*, which a company can later market as climate-positive practice without falsely claiming emissions absorption. These should not necessarily be one-time credit payments that disincentivize project continuity (for example, a one-off credit for a forest protection project may not guarantee protection from deforestation after the expiration of the credit program.)⁵⁷ These types of initiatives contribute to the climate agenda while decreasing misuse of the term “carbon neutrality.”

From a government perspective, buy-in to the carbon market model, which promotes a false sense of meeting emissions reduction targets, may encourage countries to forego the adoption of urgently needed climate policies with tangible emission reduction potential.⁵⁸

55 As explained in our “The Case for Climate Conscious, Low Carbon Federal Procurement” whitepaper, the U.S. Federal Government should support the development of a comprehensive and publicly accessible Scope 3 emissions calculator to support supply chain and economy-wide emissions reductions. Consistent, accurate, and transparent emissions reductions for large and small businesses both nationally and internationally will be difficult to account for and monitor without a rigorous and universally used and accepted database and number-crunching platform. For more about this recommendation, please visit the RCRC website.

56 Brad Schallert, Martha Stevenson, Chris Weber, Alex Farsan, Jesper Nielsen, Paulina Ponce de León, Nicholas Collins, “Beyond Science-Based Targets: A Blueprint for Corporate Action on Climate and Nature,” WWF and BCG, (December 2020): 8-11, 17.

57 Carbon Market Watch, “Above and Beyond Carbon Offsetting: Alternatives to Compensation for Climate Action and Sustainable Development,” (December 2020): 11-12.

58 Carbon Market Watch, “Above and Beyond Carbon Offsetting: Alternatives to Compensation for Climate Action and Sustainable Development,” (December 2020): 3.



How prevalent are offsets in corporate plans in 2021?

- **Lyft**, a ridesharing company, created its own carbon offset program in 2018. The company then scrapped the offset 2 years later announcing a transition to all-electric vehicles by 2030 and a purchase of enough carbon offsets to reach “net-zero”.⁵⁹ Lyft claims to have purchased carbon offsets totaling 2.06 million metric tons of carbon.⁶⁰
- **The Nature Conservancy** is a global environmental nonprofit with a mission towards conservation of lands and waters. The Conservancy’s goal is to help reduce emissions and increase sequestration by three billion metric tons of carbon dioxide per year by 2030.⁶¹ Recently, however, an investigation into the nonprofit’s carbon offsets program in the U.S. found that many of the carbon sink forests ‘protected’ by offset programs were never in any danger of being harvested—thus providing no additionality, no actual reduction in emissions.⁶²
- Online shop **Amazon** has grown to become the world’s largest retailer (outside of China) over the last decade.⁶³ The company has stated a goal of net-zero carbon by 2040 as part of its commitments to the Climate Pledge.⁶⁴ Amazon announced

59 Matt McFarland, “Lyft cuts carbon offsets, promises to transition to electric vehicles by 2030,” CNN, June 17, 2020.

60 “A Year of Carbon Neutral Lyft Rides,” accessed November 2, 2021.

61 “Our Commitment to Carbon Credits and the Path to Net Zero,” accessed November 2, 2021.

62 Ben Elgin, “A Top U.S. Seller of Carbon Offsets Starts Investigating Its Own Projects,” Bloomberg, April 5, 2021.

63 Karen Weise and Michael Corkery, “People Now Spend More at Amazon than at Walmart,” The New York Times, August 17, 2021.

64 “The Climate Pledge: Net Zero Carbon by 2040,” accessed November 1, 2021.

that it would invest \$100 million in the Right Now Climate Fund, an initiative aimed at “nature-based climate solutions” to reduce carbon emissions through forests and other vegetated areas.⁶⁵ The company, however, continues to increase its carbon emissions, emitting more than 50 million metric tons of carbon dioxide in 2020.⁶⁶ Amazon does not specify what portion of its emissions-reduction claims are attained through carbon offsets.⁶⁷

- **Delta** is a major U.S. airline that has a history of implementing carbon offset programs.⁶⁸ Delta purchased nearly 7.8 million metric tons of CO₂ equivalent between 2017 and 2019. It spent \$30 million to offset what it claims to be 13 million metric tons of CO₂ in 2020.⁶⁹

- **Disney** is a family entertainment and media company that has invested heavily in carbon offsets over the last several years (\$35 million since 2010.) Disney invested in 25 carbon offset projects that have claimed to avoid around 2.5 million metric tons of CO₂ between 2017 and 2019. The company has claimed to have reduced GHG emissions equivalent to removing 9,000,000 cars from the road and has planted over one million acres of forest. One of the more prominent examples of its carbon offset projects is the Alto Mayor Protected Forest (AMPF) project in Peru, which the company hopes will reduce its emissions through the conservation of 182,000 hectares of forested land.⁷⁰

- **Cemex**, one of North America’s largest concrete producers, has developed an industry-first ‘net-zero’ concrete called Vertua. Compared to conventionally produced concrete, Cemex has reduced carbon emissions by 70% due to innovative new materials created by the company. The remaining 30% of the emissions associated with its net-zero concrete are ‘neutralized’ by offsets.⁷¹

65 “Amazon Sustainability,” accessed November 2, 2021.

66 “Amazon Sustainable Operations: Carbon Footprint,” accessed November 2, 2021.

67 James Temple, “How Amazon’s offsets could exaggerate its progress toward “net zero” emissions,” MIT Technology Review, November 2, 2020.

68 “Trend in Carbon Offset Purchases,” accessed November 1, 2021.

69 Tracy Rucinsk and Laura Sanicola, “Delta to spend \$30 million to offset most of its 2020 impact on climate,” Reuters, March 4, 2021.

70 “Natural Climate Solutions,” accessed November 1, 2021.

71 “Vertua: Net-Zero CO₂ Concrete Our First Net-Zero CO₂ Concrete Solution,” accessed November 1, 2021.

A NOTE ABOUT **ARTICLE 6**

Some emissions trading between countries should be permissible in a more equitable and accountable system, **but only within a tightly defined, clear regulatory framework.**



This means adding painful but necessary austerity to Article 6 of the Paris Agreement. As agreed during COP26 in Glasgow, the “corresponding adjustments” framework adopted under Article 6.2 will see countries report emissions similar to how bank transfers are reported; the seller will report an increase

in emissions while the purchaser will subtract the purchased offset. While this should help minimize the risk of double counting, it will be challenging to implement for several reasons. Countries tend to have single-year as opposed to multi-year pledges or targets, where targets range from GHG emissions to renewable energy targets or those that only affect part of the economy. Even with the harmonization of targets into the GHG emissions-metric, removal of accounting exemptions, and ban on the carry-over of carbon market units between accounting periods, loopholes still exist. Namely, in place of yearly climate targets, the agreed upon averaging approach will increase emissions figures, which would effectively lead to the double counting of emissions reductions.⁷² This sort of number-manipulation will only contribute to our climate predicament—thus, the implementation of carbon offset schemes should only be permitted when all such loopholes are closed. We all stand to lose if they are not.

Other loopholes will lead to overestimation of emissions offsetting. Article 6.4 introduces two carbon credits, one that is authorized and one that is unauthorized. Unauthorized credits are not counted toward national NDCs and are allocated to the voluntary carbon

⁷² Öko-Institut Blog, “#COP26 in Glasgow delivered rules for international carbon markets – how good or bad are they?,” accessed November 18, 2021.

market. It is still unclear whether the latter can be used for offsetting and the implications of such a decision on climate change mitigation.⁷³ **Moreover, the use of Certified Emissions Reductions (CERs) to achieve NDCs is misleading, CERs having by definition already been achieved.** The same will be the case if existing Clean Development Mechanism (CDM) projects (presumably having already achieved emissions avoidance/reduction) will be allowed to issue carbon credits post-2020.⁷⁴ The most impactful and honest approach would be to concede that new low-carbon and emission-abatement investments are needed globally, and “contribution” or “practice-based credits” should only be generated if newly commissioned emissions reduction projects are real, impactful, and deserved.

⁷³ Öko-Institut Blog, “#COP26 in Glasgow delivered rules for international carbon markets – how good or bad are they?,” accessed November 18, 2021.

⁷⁴ Ibid.

