Ceres

IIGCC
The Institutional Investors Group on Climate Change

THE ROLE OF NATURAL CLIMATE SOLUTIONS IN CORPORATE CLIMATE COMMITMENTS

A Brief for Investors

May 2021

About Ceres

Ceres is a nonprofit organization working with the most influential capital market leaders to solve the world's greatest sustainability challenges. Through our powerful networks and global collaborations of investors, companies and nonprofits, we drive action and inspire equitable market-based and policy solutions throughout the economy to build a just and sustainable future. The Ceres Investor Network on Climate Risk and Sustainability includes over 180 institutional investors, managing more than $30 trillion in assets, advancing leading investment practices, corporate engagement strategies, and key policy and regulatory solutions. For more information, follow @CeresNews.

About IIGCC

The Institutional Investors Group on Climate Change (IIGCC) is the European membership body for investor collaboration on climate change and the voice of investors taking action for a prosperous, low carbon future. IIGCC's mission is to mobilise capital for the low carbon transition and to ensure resilience to the impacts of a changing climate by collaborating with business, policy makers and fellow investors. IIGCC works to support and help define the public policies, investment practices and corporate behaviours that address the long-term risks and opportunities associated with climate change. IIGCC has more than 300 members, mainly pension funds and asset managers, across 22 countries, with over €37 trillion in assets under management.

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ABOUT THIS BRIEF

This brief provides guidance for institutional investors on the use of natural climate solutions (NCS) in corporate climate strategies. Companies in all sectors are increasingly making climate commitments that rely on actions such as forest protection or reforestation to reduce emissions or remove carbon from the atmosphere. Often, these actions are used to offset the companies' emissions in order to claim net-zero emissions status. NCS are critical to meeting the goals of the Paris Agreement. But their use to offset corporate emissions is controversial. Investors are increasingly looking for guidance on this topic, given its potential to exacerbate climate risk or create reputational risk if NCS are used incorrectly.

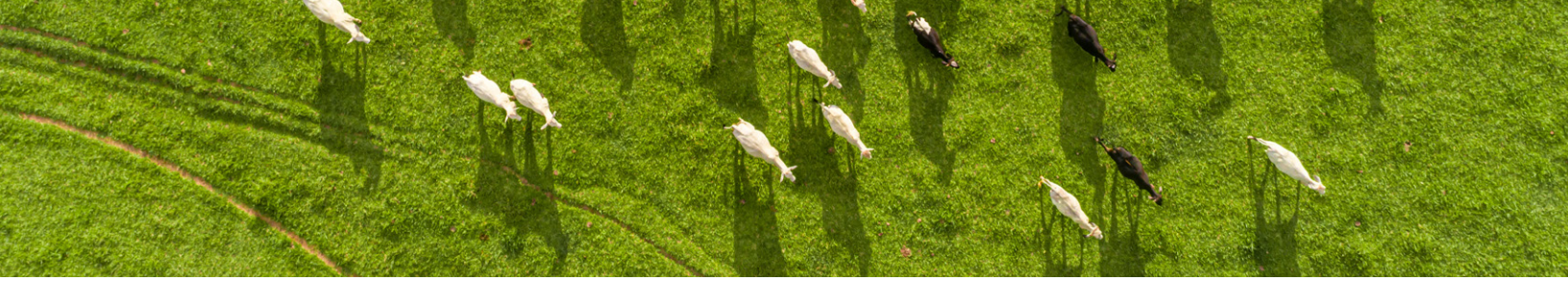
The brief is intended as a resource for investor engagements with companies in their portfolio. It is specifically focused on equities and is structured around the three main areas of controversy: **(1)** the role of natural climate solutions in corporate climate strategies for achieving net-zero emissions, **(2)** the quality of nature-based carbon credits, and **(3)** the need for social and environmental safeguards on NCS initiatives. It is applicable to engagements with companies using NCS to reduce their own emissions, such as those in the consumer staples or materials sectors that produce or source agricultural and forest products. But it is especially intended to provide guidance for companies in other sectors that may be using nature-based carbon credits to offset their emissions.

Investors also have opportunities to finance NCS in other asset classes through investments in sustainable agriculture or forestry. Innovative financing structures such as carbon finance or blended finance present additional possibilities. Though not covered in this brief, these actions are equally important to enabling the necessary transition to sustainable land use. Investors are encouraged to consult the Ceres hosted Resource Library on Natural Climate Solutions for guidance on these topics.

This brief draws on a number of sources and is broadly aligned with the emerging guidance from the Science Based Targets initiative and the Natural Climate Solutions Alliance. It is also aligned with the criteria of the Climate Action 100+ Net-Zero Company Benchmark and the Ceres Roadmap 2030. While we have made all attempts to incorporate the latest scientific consensus, there are a number of topics and debates that are not yet fully resolved, such as:

- The precise degree to which each sector may rely on carbon removals to achieve net-zero emissions.
- The relative role of NCS in carbon removal versus other technological carbon removal technologies, such as direct air carbon capture and bioenergy with carbon capture and storage.
- How companies should account for potential double-claiming of emission reductions with countries' Nationally Determined Contributions to the Paris Agreement.
- Whether companies should compensate for their residual emissions on a per-dollar or per-unit-CO_2 basis.
- How government policy could be used to regulate or scale carbon markets.

Future publications from Ceres and IIGCC will reflect emerging consensus on these topics.



INTRODUCTION

A growing number of investors, companies, and governments are heeding the call to set targets for net-zero greenhouse gas emissions, as required to meet the goals of the Paris Agreement. The number of corporate net-zero commitments increased three-fold last year, from around 500 in 2019 to well over 1,500 in 2020. At the same time, there is a growing realization that nature-based climate change mitigation such as conservation of natural ecosystems, sustainable forestry and agriculture, and restoration of degraded land—collectively known as natural climate solutions (NCS)—is critical to the transition to a net-zero economy. Not only must greenhouse gas (GHG) emissions from land use be reduced as much as possible, but CO_2 removals are also needed to balance hard-to-abate sources of emissions in order to limit warming to 1.5 °C.

What are natural climate solutions?

NCS are activities that protect, restore, or improve the management of nature (Figure 1) and mitigate climate change by reducing GHG emissions or removing CO_2 from the atmosphere. Much of the recent attention to NCS stems from the CO_2 removal potential of these actions. Other options for removing CO_2 from the atmosphere rely on technologies that are expensive and have yet to be deployed at scale, such as direct air carbon capture. Comparatively, options such as forest restoration are immediately deployable and a fraction of the estimated cost of other options.

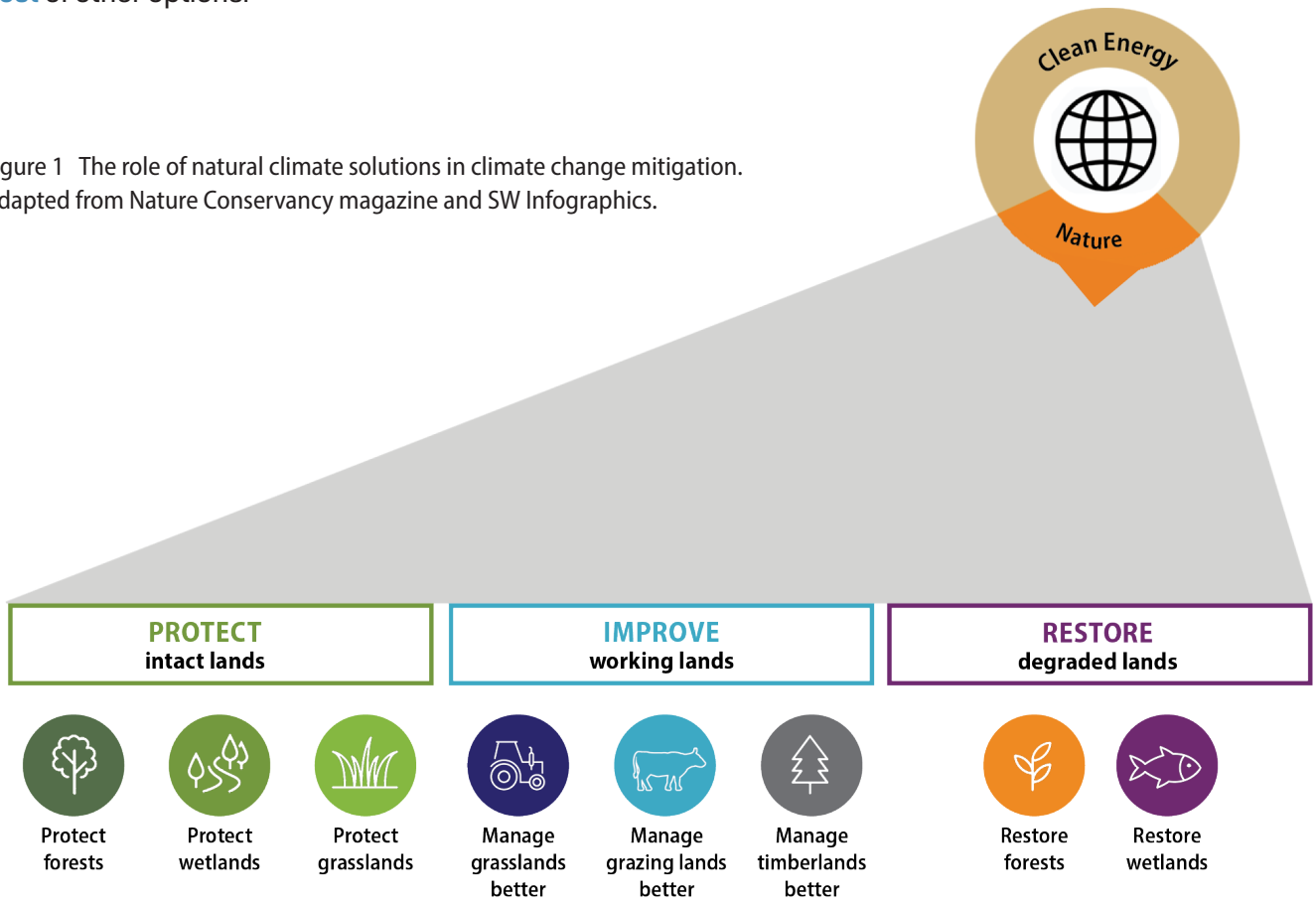


Figure 1 The role of natural climate solutions in climate change mitigation. Adapted from Nature Conservancy magazine and SW Infographics.

Table 1 Types of NCS, their mechanism for climate change mitigation, and relative mitigation potential. Low potential is <1.5 billion tons of CO_2 equivalents per year; medium is 1.5-3 billion tons, and high is >3 billion tons. Estimates are approximate. Source: Roe et al. 2019. Contribution of the land sector to a 1.5° world

Category	NCS activity	Examples	Type of mitigation	Mitigation potential
Protect	Protect forests	Reduce conversion of forest to agriculture	Primarily emission reductions	HIGH
	Protect wetlands	Reduce conversion of peatlands to oil palm plantations	Emission reductions	MEDIUM
	Protect grasslands	Prevent conversion of South American savannahs to soybeans	Emission reductions	LOW
Improve	Manage croplands better	Regenerative agriculture; reduce water use in rice production	Emission reductions and CO_2 removal	MEDIUM
	Manage grazing lands better	Improve cattle feeding to reduce methane emissions; increase soil carbon in pastures	Emission reductions and CO_2 removal	MEDIUM
	Manage timberlands better	Extend the time between harvests in logged forests	Emission reductions and CO_2 removal	MEDIUM
Restore	Restore forests	Replant trees or allow forests to naturally regenerate	CO_2 removal	HIGH
	Restore wetlands	Re-flood peatlands that have been converted to agriculture; restore coastal mangroves	Emission reductions and CO_2 removal	LOW

NCS not only mitigate climate change, they can also help maintain other forms of natural capital that underpin our economy, such as biodiversity, freshwater, and healthy soils. NCS can also help deliver on the UN Sustainable Development Goals (SDGs) both by supporting the ecosystem services that underpin health and livelihoods and by creating new income sources for rural landowners. In that way, NCS can be thought of as a subset of nature-based solutions, which are defined more broadly as protection, management, and restoration actions that address a range of societal challenges, simultaneously providing human well-being and biodiversity benefits. While most current frameworks attach value to NCS based solely on their climate change mitigation potential, NCS investments must strive to provide other benefits as well.

Use of NCS in corporate climate commitments

Companies can use NCS as part of their climate strategies in several ways:

Outside of the value chain. Some companies that do not have emissions within their value chains from land use—including agriculture and forestry—are purchasing carbon credits from NCS projects as a way to offset their emissions. This use constitutes much of the growing demand for nature-based carbon credits. But it is controversial because of the potential for greenwashing. Guardrails are needed to ensure that it does not dilute the company's necessary contribution to mitigating climate change through the reduction of its direct (scope 1) and indirect (scopes 2 and 3) emissions.

As a business opportunity. Foreseeing a future in which carbon credits have greater value, some companies are investing directly in the development of NCS projects or programs, intending either to sell the credits in the future or purchase them for use towards their own climate targets. Cargill, Nutrien, and Land O'Lakes have all made development and sale of nature-based carbon credits part of their business model. Companies using this approach should ensure high integrity of credits and use rigorous environmental and social safeguards.

Within the value chain. Companies that produce or source agricultural or forestry products—which are concentrated in the consumer goods, consumer discretionary, and materials sectors—may support NCS as a way to reduce emissions or sequester carbon within their own value chains. Because this is a way for companies to reduce their own value chain emissions, it is not controversial in the way that offsetting is.

Many current net-zero targets are too vague for a systematic study, but Ceres reviewed a sample of 45 companies[1] that publicly announced net-zero targets between November 2020 and March 2021, finding that 20— roughly 44%—indicated they will use NCS in some way to meet these targets. Of these, 16 explicitly identified offsetting with forest-based carbon credits as an intended strategy.

An opportunity and a risk

While corporate demand for NCS to offset emissions presents an opportunity to finance a critical part of the solution to climate change, it is not without controversy. Investors and environmental groups have raised three major concerns about the use of NCS in corporate climate strategies.

1. **Offsetting has long been controversial**, and there are legitimate concerns that companies will use carbon credits to claim net-zero status, obscuring a lack of real commitment to the deep decarbonization needed to limit warming to 1.5 °C. The global potential for NCS is also finite, and an overreliance on nature for carbon removal may compromise our ability to limit warming to 1.5 °C.
2. **Historical experiences with carbon markets have left many people skeptical** that they can deliver real climate change mitigation due to insufficiently rigorous measurement methodologies. Carbon credits—of any type—require sound measurement and accounting methodologies to ensure that they deliver real emission reductions and carbon removals. Nature-based carbon credits, especially those from forest protection, have some specific risks that are described in more detail below.
3. **Poorly executed projects can also have detrimental impacts to people, biodiversity, and water resources**, undercutting the potential that NCS have to provide social and environmental benefits beyond climate change mitigation. Reforestation with monoculture tree plantations, for example, may sequester carbon but does little for biodiversity. And some forest carbon credit projects have inadvertently exacerbated conflicts over land rights, or even removed Indigenous people from their land.

THE ROLE OF NCS IN CORPORATE CLIMATE COMMITMENTS

There is a clear but limited role for NCS in corporate climate commitments. We will not meet the goals of the Paris Agreement without protecting and restoring forests and other natural ecosystems and better managing agricultural land. Companies that produce or source agricultural and forestry products must support the necessary transition to sustainable land use within their value chains. However, guardrails on the use of NCS as offsets are critical. Companies must use NCS to raise the ambition of corporate commitments rather than dilute them. Use of NCS to offset emissions is not a substitute for rapid and deep decarbonization. And it must be accompanied by appropriate social and environmental safeguards to ensure real benefits for climate, nature, and people.

[1]Companies surveyed were selected due to their appearance in news alerts for their net-zero commitments between November 2020 and March 2021. The sample included companies from the following sectors: airline (2); apparel (1); automotive (2); chemical/consumer goods (1); construction (3); e-commerce (1); energy (8); facilities management (1); financial services (1); food and beverage (7); hardware (2); logistics (1); mining/minerals (2); pharmaceuticals (1); real estate (1); retail (1); technology (4); telecom (2); and utility (3). 36 of the companies (80%) are publicly listed.

Without guardrails on their appropriate use in corporate climate commitments, nature-based carbon credits can expose companies and their investors to material business risks. An overreliance on offsetting rather than decarbonization would exacerbate the systemic risk of climate change by compromising our ability to limit warming to 1.5 or even 2 or more °C. Moreover, accusations of greenwashing or support for carbon credit projects associated with land conflicts or human right abuses present reputational or even legal risks.

It is in the financial interest of investors to ensure that companies invest in NCS in a way that reduces the systemic risk of climate change and does not expose them to additional reputational or legal risks. This brief provides investors with guidance for engaging portfolio companies on their use of NCS in their climate commitments. It is organized into three suggested investor recommendations for use of NCS that address each of the concerns above:

1. **Companies should use NCS in a way that raises the ambition of their climate commitments.**
2. **NCS must provide credible climate change mitigation.**
3. **NCS must provide social and environmental benefits.**

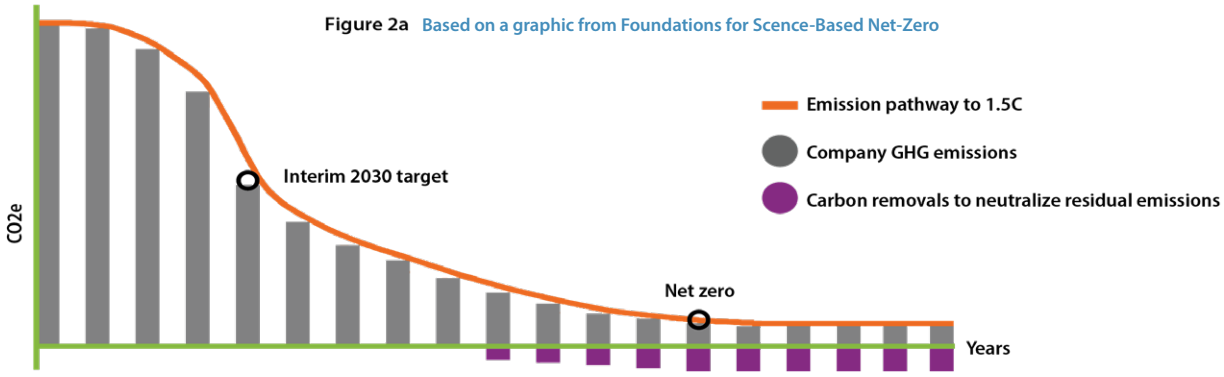
INVESTOR RECOMMENDATION 1
COMPANIES SHOULD USE NCS IN A WAY THAT RAISES THE AMBITION OF THEIR CLIMATE COMMITMENTS

What constitutes use of NCS to raise ambition

There is growing consensus that social license to use carbon credits requires that companies prioritize reducing emissions within their own value chains, sometimes called "the mitigation hierarchy." Initial guidance from the Science Based Targets initiative for setting net-zero targets operationalizes this principle into two conditions (Figure 2a):

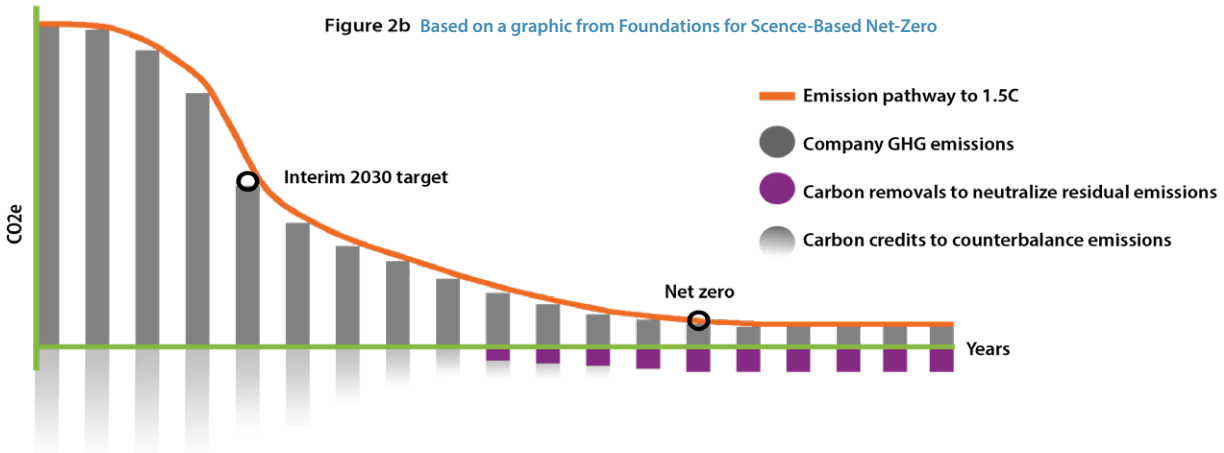
1. Companies must reduce their own value chain emissions (scope 1, 2, and 3) consistent with a level that limits warming to 1.5 °C with no or low overshoot. This condition is sometimes referred to as abatement. In other words, to be truly net zero, companies' remaining emissions should be limited to residual emissions—those deemed technologically or economically unfeasible to eliminate in modeled scenarios for 1.5 °C. Residual emissions will vary by sector, and potentially change over time as new technologies enter the market.
2. Companies must neutralize the impact of any source of residual emissions that is unfeasible to eliminate by permanently removing an equivalent volume of atmospheric CO_2.

Figure 2a Based on a graphic from Foundations for Scence-Based Net-Zero



While on the journey to "true" net zero, companies may additionally choose to purchase high-quality carbon credits or financially support emission reduction or carbon dioxide removal efforts outside their value chains (Figure 2b). However, these efforts should be undertaken in addition to meeting interim targets for reducing their own emissions. Companies must continue to reduce their own emissions until they reach the level of abatement necessary to limit warming to 1.5 °C with little to no overshoot.

Figure 2b Based on a graphic from Foundations for Scence-Based Net-Zero



Use of NCS by companies in different industries

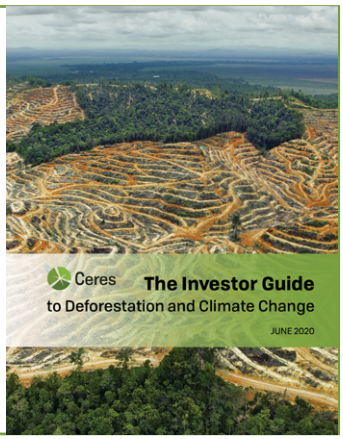
The degree to which a company may credibly rely on NCS to achieve its net-zero target will vary by sector and industry, depending on (1) whether NCS are implemented within or outside the value chain of the company and (2) the degree to which the company has emissions that are considered unfeasible to eliminate.

Use of NCS by companies that produce or source agricultural and forestry products

Companies that produce or source agricultural or forestry products—which are concentrated in the consumer goods, consumer discretionary, and materials sectors—will need to reduce emissions from agriculture and land use from their own operations and value chains. For many of these companies, GHG emissions from deforestation and other land-use change contribute a large part of their scope 3 supply chain emissions. In IPCC scenarios for 1.5 °C, GHG emissions from land-use change are nearly completely eliminated by 2030, so companies should make addressing those emissions a key component of their climate action plans. Some non-CO_2 emissions from agriculture—such as methane emissions from cattle—are considered unfeasible to eliminate and may require carbon removals to neutralize. Companies in land-intensive sectors should be encouraged to finance or implement NCS for carbon removal within their value chains, such as through regenerative agriculture, agroforestry, and reforestation where appropriate. These companies may soon be able to count carbon removals within their value chains towards meeting their targets for abatement; forthcoming guidance from GHG Protocol and SBTi will provide greater clarity on this point. However, carbon removal should not take the place of reducing emissions, especially through eliminating deforestation; it is highly preferable from a climate and biodiversity standpoint to preserve existing forest rather than replant it later on.

Addressing deforestation

See the Ceres Investor Guide to Deforestation and Climate Change for complete guidance on identifying exposure to deforestation within investment portfolios and engaging companies on deforestation and conversion of natural ecosystems.



Use of NCS by companies that do not produce/source agricultural and forestry products

Companies in other sectors and industries such as energy, utilities, and industrials may reach net zero through limited use of carbon removal to neutralize residual emissions that are unfeasible to eliminate. There is a need for methodological development in determining sector-specific 1.5 °C decarbonization pathways out to 2050 and defining what constitutes residual emissions for various sectors. However, as a general guide, emissions from electric power generation are completely eliminated by 2050 or sooner in most scenarios for 1.5°C, indicating that this sector should not plan any use of carbon credits to achieve net-zero emissions by 2050. Other sectors such as shipping, heavy industry, and airlines may show more moderate reliance on carbon removals.

Supply and demand for NCS

Model scenarios for 1.5 °C vary widely in the extent to which they rely on NCS. Estimates of the potential for NCS to reduce emissions and remove CO_2 range from 7 billion tons to 14 billion tons of CO_2 equivalents per year by 2030 (15-30% of the mitigation needed to limit warming to 1.5 °C). A little more than half (4 to 7.5 billion tons CO_2 equivalents) of the potential for NCS is through emission reductions resulting from the protection of forests, peatlands, and coastal wetlands. The remaining proportion (3 to 6.5 billion tons CO_2) is carbon removals from reforestation, soil carbon sequestration, agroforestry, and coastal restoration. The more conservative end of this range is more tightly constrained by cost and land availability; even less of this potential will likely enter carbon markets due to the complexity of scale up and risks associated with carbon project development.

In 2019, the volume of NCS transactions on the voluntary market was 36.7 million tons of CO_2 equivalents- 0.5% of the 2030 feasible potential. That demand is expected to grow rapidly with corporate commitments, which currently amount to about 200 million tons of carbon removals alone in 2030. An expert survey conducted in 2020 anticipates that demand for carbon removals may increase to about 1 billion tons of CO_2 in 2030 and about 3-4 billion tons in 2050. Given the high level of uncertainty around these estimates of supply and demand, it is possible that demand for nature-based carbon removals could outstrip supply in 2030.

How to tell if companies are using NCS in a way that raises ambition

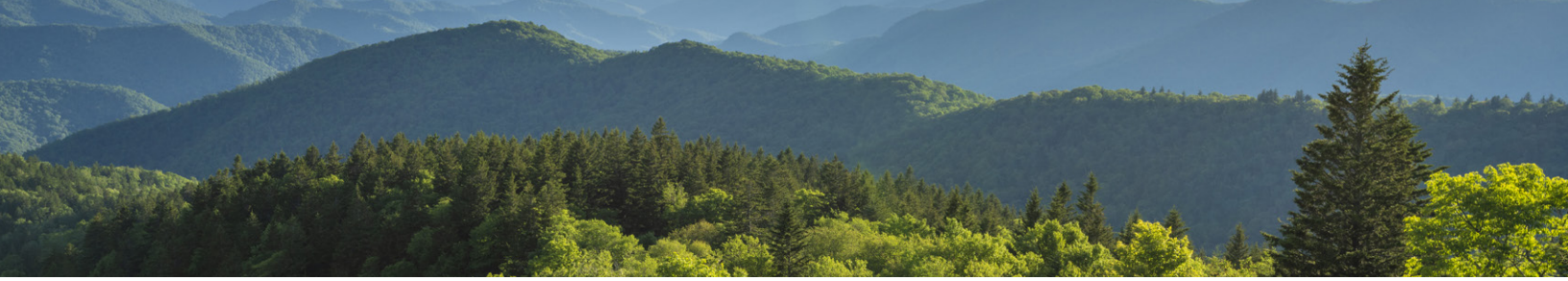
Current corporate net-zero targets vary widely in terms of their ambition. Few companies have disclosed the extent to which their net-zero ambitions rely on carbon credit purchases or action outside of their value chains (i.e. offsetting emissions) versus avoiding or reducing emissions within their own value chains. A lack of standards for net-zero targets makes it difficult to assess the legitimacy of these commitments in terms of their contribution to the global goal to limit warming to 1.5 °C. To enable independent assessment of these targets, investors should ask companies for the following disclosures.

- **Companies should disclose short-, medium-, and long-term targets aligned with 1.5 °C, and their performance against those targets.** Companies need to reduce their emissions by at least 50% by 2030 in order to stay on a 1.5 °C trajectory. Investors need interim milestones to hold companies accountable to their longer term goals and ensure that they are prioritizing deep emission reductions within their own operations and supply chains. As recommended by the Task Force on Climate-related Financial Disclosures, companies should also disclose their performance against their targets and link executive remuneration to target achievement.
- **Companies should disclose a credible transition plan for achieving targets.** Companies should have decarbonization strategies that identify the set of actions they intend to take to achieve their GHG reduction targets. The identified measures should address the main sources of GHG emissions. Companies should also commit to aligning future capital expenditures with a 1.5 °C scenario.
- **Companies should disclose how much of their targets will be met through the use of carbon credits or carbon removals.** Companies should be able to demonstrate that the degree of abatement in their targets is in line with scenarios for 1.5 °C. **Carbon credits should only be used in addition to the company reducing its emissions in line with a 1.5 °C scenario.**

CASE STUDY 1

Nestlé has set an ambition to reach net zero by 2050, but also has interim targets to reduce absolute scope 1, 2, and 3 GHG emissions 20% by 2025, and 50% by 2030 from a 2018 base year. Its targets are validated by SBTi and are consistent with reductions required to limit warming to 1.5 °C.

Nestlé rolled out a net-zero 2050 roadmap to thoroughly and transparently address the components of its climate strategy. Nestlé's roadmap depicts a transition plan by clearly outlining its emissions sources and its plans to abate these emissions, delineated by key action area and by source within each action area. Additionally, Nestlé favors clear standards around use of NCS to meet targets, and is transparent about the company's plan to remove 13 million tons of CO_2 from the atmosphere by 2030 to balance its emissions.



INVESTOR RECOMMENDATION 2
NCS MUST PROVIDE CREDIBLE CLIMATE CHANGE MITIGATION

What constitutes credible climate change mitigation

Use of NCS to offset emissions requires that the project or program effectively reduces GHG emissions or removes CO_2 from the atmosphere. For a carbon credit to be considered a legitimate way for companies to offset their emissions, it should be:

1. **Additional** A GHG project or program is considered additional if the GHG emission reductions or carbon removals would not have occurred in the absence of the carbon market. Additionality is essential to ensure that the carbon credit represents a real change in the amount of GHG emissions in the atmosphere.
2. **Permanent** CO_2 remains in the atmosphere for hundreds of years, so carbon credit projects must ensure that emissions reductions or CO_2 removals are permanent for the same time period, or have mechanisms in place to account for non-permanence. (Recognizing that virtually nothing is permanent, this criteria is also referred to as "durability.")
3. **Measured** GHG emission reductions or CO_2 removals should be calculated in a transparent and accurate manner that reduces biases and uncertainties. To compensate for uncertainties, calculation of emission reductions or removals should use conservative assumptions and baselines to ensure that the reductions or removals are not overestimated.
4. **Leakage accounted for** Leakage occurs when the implementation of the project causes emissions to occur outside the project boundary. It is important to account for any increases in emissions attributable to the project and not overstate its benefits.
5. **Verified** All of the above criteria should be assessed by a third-party validation or verification body that is independent from the project developer, credit buyer, and GHG crediting program, if applicable.
6. **Exclusively claimed** Double-claiming occurs when two entities count the same emission reduction or CO_2 removal to offset their unabated emissions. GHG crediting programs generally avoid this by tracking all of the credits issued to a project with a unique serial number. Once credits are "retired," they are non-tradeable. This criterion is sometimes referred to as "uniquely retired" or—for carbon removals—"uniquely neutralized."

Nature-based carbon credits, especially those from forest protection, have some specific risks related to additionality, measurement, and permanence. Some companies purchasing credits from avoided deforestation and forest management projects have recently faced scrutiny regarding credit integrity because the baseline scenarios used to estimate the GHG benefit incorrectly assume that forest in a given area would have been cut down in the absence of the project, inflating the benefit calculated in the project scenarios. Non-permanence is also a risk with NCS. CO_2 removals from NCS are considered less durable than technical methods for CO_2 removal such as direct air capture. Forests can be destroyed by natural or human-caused events. Carbon sequestered in agricultural soils can be released if no-tillage and cover cropping practices are discontinued.

Recognized GHG crediting programs have procedures for developing robust projects that reduce these risks. While the specific methodologies vary from program to program, buying credits certified under a GHG crediting program reduces the risk of purchasing credits that are not additional or real. For example, most programs maintain a buffer pool of non-tradable credits to protect against the risk of non-permanence. If GHG reductions or carbon removals from a project are reversed, credits from the buffer pool are cancelled to compensate for the reversal. Recognized GHG crediting programs for the voluntary market include:

- American Carbon Registry
- Architecture for REDD+ Transactions
- Climate Action Reserve
- Gold Standard
- Jurisdictional and Nested REDD+
- Plan Vivo
- Verified Carbon Standard

This list may grow as new programs—especially those focused on carbon removals—are developed.

Purchasing credits that are certified by a GHG crediting program reduces risk, but it does not eliminate it. GHG programs have many different methodologies that projects and jurisdictional programs may use to measure emission reductions or carbon removals. Some older methodologies are still in use that may not have sufficiently rigorous requirements for additionality and conservative baselines. Companies can further reduce the risk of sourcing low-quality credits by conducting additional due diligence to ensure additionality and conservative GHG quantification, such as by reviewing the project measurement methodology and monitoring reports.

Carbon credits from reducing deforestation

There are two approaches to addressing emissions from deforestation and forest degradation. A project-based approach is bottom-up, typically initiated by a community, a civil society organization, or non-government organization, and applies to an area relevant to the community. A jurisdictional approach is a government-led program that addresses deforestation at the national, state, or provincial level. Jurisdictional programs are much larger in scale than projects, which helps to mitigate risks associated with permanence and leakage. Because they are backed by the government, programs can address the root causes of deforestation and degradation across the entire country, state, or province. Carbon credits from jurisdictional programs are not available in the market yet, but programs are under development and credits will be available in the near future. Investors should encourage companies purchasing credits from reducing deforestation to shift their purchases to jurisdictional programs when they become available.

How to tell if corporate NCS investments are providing credible climate change mitigation

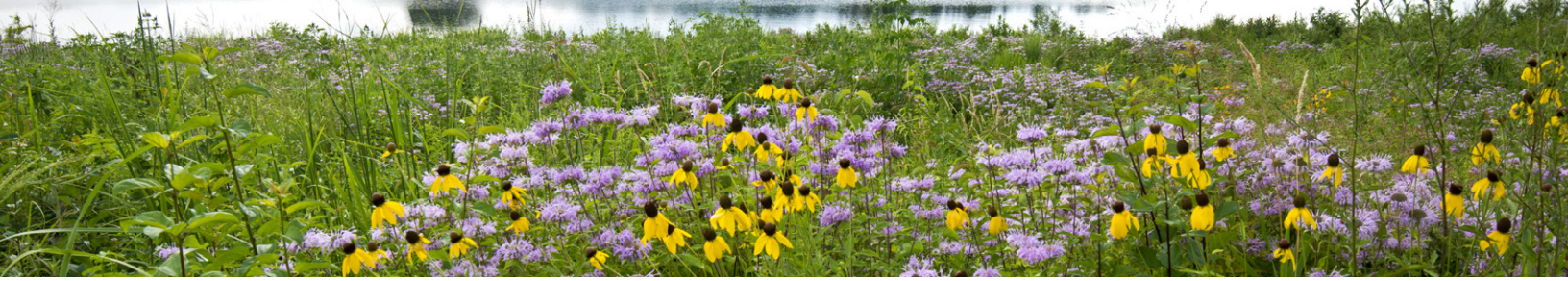
To ensure that NCS provides real climate change mitigation, investors should ask companies for the following disclosures.

Companies should disclose the GHG crediting programs, suppliers, and projects from which they source carbon credits. This also applies to companies that are investing in the development and sale of nature-based carbon credits. Disclosing this information allows independent assessment of corporate strategies and protects the company from reputational risk should problems arise with a project. In theory, the onus on ensuring that projects provide real emission reductions or carbon removals should fall on the crediting program, though in practice, corporate purchasers of those credits bear some reputational risk as well. During engagements, investors should also ask companies what additional due diligence they have conducted to ensure the sourcing of high-quality credits.

Companies investing in NCS within their value chains should disclose if and how they have measured the emission reductions or carbon removals from these efforts. While there is somewhat less concern attached to the credible measurement of these efforts because the credits are not being sold to offset emission reductions elsewhere, companies should still follow best practice (e.g. GHG Protocol) in accounting for them.

CASE STUDY 2

Microsoft has set a goal to neutralize all of the company's historical scope 1 and 2 emissions with carbon removals by 2050. For its initial purchases, the company **developed its own rigorous criteria** for selecting projects. Its "favorably viewed" projects have clear, conservative baselines and additionality, clearly distinguish between carbon removal and avoided emissions, sufficiently account for leakage, include strong risk management and recourse provisions, and use technology for ongoing monitoring and verification beyond existing standards to further mitigate risk.



INVESTOR RECOMMENDATION 3
NCS MUST PROVIDE SOCIAL AND ENVIRONMENTAL BENEFITS

What constitutes NCS with social and environmental benefits

According to the IPCC Special Report on Climate Change and Land, NCS can protect or restore habitat for biodiversity, improve soil fertility, decrease erosion, and improve water quality and quantity. Depending on where projects are located and how they are designed, they can also positively impact local communities. However, if a project is not appropriately designed and implemented, it can have detrimental impacts, posing reputation and potentially legal risk to project developers or purchasers. Increased media attention and public awareness campaigns calling out land grabbing and human rights violations associated with corporate purchases or development of NCS or projects has substantially heightened these risks. It is important to note that environmental and social risks are most acute for NCS developed in the global north and sited in the global south—especially within Indigenous communities—due to long standing power imbalances and inequities.

NCS projects that avoid harm and generate positive impacts to biodiversity and water resources should:

1. **Use native species or species which are well-suited for the project location.**
   For example, trees that need a substantial amount of water may exacerbate local dry conditions or fail to survive when planted in arid areas. Similarly, leafy trees planted in far northern climates may lessen the albedo effect and increase ground temperature. Always avoid using invasive species.
2. **Use an appropriate diversity of species.**
   Fast-growing monoculture plantations are sometimes used as NCS due to their ability to grow and sequester carbon rapidly, but such plantations may harm local biodiversity.
3. **Identify and consider key ecosystem services and high conservation value (HCV) areas.**
   For example, care should be taken so that projects do not hinder the recycling of water or jeopardize species-rich habitats, especially for keystone species and rare or vulnerable species. Likewise, projects can be cited to increase habitat availability and landscape connectivity to support biodiversity in the project area.

NCS projects that protect the rights of and provide benefits to the communities in which they are situated are characterized by:

1. **Clear land title or delineation of land rights in the project location.**
   In particular, land tenure rights for Indigenous and local communities should be respected and reinforced.

2. **Continual active participation of local and Indigenous communities.**
   Local and Indigenous communities should be included throughout the design and implementation of the project, with attention to shared power and decision-making. It is important to identify and correspond with organizations and groups which have the mandate of the communities in question to make sure the community as a whole, and not just a small subset, has expressed buy-in to the NCS project. Such participation also ensures the NCS project is self-sustaining and promotes project permanence.

3. **Equitable sharing of monetary and non-monetary benefits.**
   Carbon credit projects can lead to financially extractive relationships between project developers and local communities. This dynamic could become especially problematic between global north and global south actors. Local and Indigenous communities should be fairly compensated for a project's carbon benefits when they are the closest project stewards. Non-monetary benefits that are produced by an NCS project, such as food resources, must also be recognized as a tangible benefit which is equitably shared by the same standards.
4. **Accessible mechanisms for redress in the case of accidental harm inflicted upon Indigenous or local communities.**
   NCS projects should have accessible grievance and conflict resolution mechanisms. These mechanisms should be culturally appropriate and easily accessible by communities impacted by the project, and maintained throughout the life of the project.
5. **Access to legal counsel.**
   When entering into negotiations with companies and investors, it is essential that all parties involved, including Indigenous and local communities, have access to competent legal counsel during project design and implementation and can undertake a legal review of documents, such as contracts and agreements.

Some GHG crediting programs—Gold Standard, Plan Vivo, and The REDD+ Environmental Standard (TREES)—provide robust social and environmental safeguards, as well as assurance that GHG projects provide benefits to biodiversity and local communities. Other programs (e.g., American Carbon Registry, Verified Carbon Standard), have lower requirements for social and environmental benefits. Projects certified under these programs should be paired with certifications from the Climate, Community & Biodiversity Standards (CCBS) or the Sustainable Development Verified Impact Standard (SD VISta), which are standalone certifications for social and environmental benefits. Note that projects must be both initially validated to a credible standard and then be periodically verified to that standard (in the case of the CCBS, every five years) for adequate risk mitigation.

How to tell if corporate NCS investments are providing social and environmental benefits

To ensure that NCS provides social and environmental benefits beyond climate change mitigation, investors should ask companies for the following disclosures.

Companies should disclose whether their carbon credit purchases are certified under a social and environmental standard. Investors should encourage companies to purchase credits that are certified under Gold Standard, Plan Vivo, or The REDD+ Environmental Standard (TREES) or paired with the Climate, Community & Biodiversity Standards (CCBS) or the Sustainable Development Verified Impact Standard (SD VISta). Many companies are also conducting additional extra due diligence around the social implications of their NCS investments. This is an active topic of discussion and additional guidance on key criteria will be more fully developed in future publications.

Figure 3
Programs that certify emission reductions and CO_2 removals from GHG credits and those that certify social and environmental benefits.

CASE STUDY 3

Salesforce has used Gold Standard and CCBS certifications for 90% of its historical carbon credit purchases to ensure strong social and environmental impacts. Projects from these standards include REDD+ credits in Peru, Malawi, and Indonesia, and community-led reforestation in Kenya. For its tree planting and tree growing projects, Salesforce lists all of its projects publicly, and all of these are designed to promote strong benefits.

To systematize its thinking on social and environmental benefits of NCS for carbon and trees, Salesforce is compiling all global guidance on NCS and developing criteria to ensure NCS projects are vetted carefully to maximize impacts from additional and permanence to social and environmental benefits and resilience.

NEXT STEPS FOR INVESTORS

As demand for nature-based carbon credits increases, companies will be subject to increasing scrutiny of their strategies for achieving net-zero emissions.

There are several topics that are still under debate within the scientific community, such as (1) a better understanding of the supply and demand balance for NCS, (2) quantifying hard-to-abate "residual" emissions that companies may neutralize with carbon removals, (3) determining precisely how companies should balance for their emissions with carbon credits during the transition to net-zero emissions, and (4) developing rules around "double-claiming" of emission reductions and carbon removals by companies and countries, which are still to be determined under the Paris Agreement. Over the next year, Ceres and IIGCC plan to undertake research on some of these topics and follow these debates in order to continue to provide guidance to investors.

Despite this shifting landscape, the time is ripe for institutional investors to engage portfolio companies on how they are minimizing the risks and maximizing the benefits of NCS. As they engage companies on their climate strategies, investors can probe more deeply for details on how companies are using NCS to meet their climate targets.

Ceres and IIGCC can support investors interested in engaging on natural climate solutions and carbon credits

Ceres' **Working Group on Land Use and Climate** serves as a center of investor coordination and collaboration on climate and land use issues. Members of the Working Group on Land Use and Climate conduct and share research and best practices, seek to grow their knowledge of the vital topics at hand, and collaborate on efforts to address them. Through the Working Group, Ceres organizes and provides educational opportunities to enhance investor understanding of climate change and land use, including the role of NCS in corporate climate strategies.

Investors are also encouraged to join the **Ceres Investor Network on Climate Risk and Sustainability**. This network comprises more than 180 institutional investors collectively managing more than $30 trillion in assets. It works to advance leading investment practices, corporate engagement strategies, and policy solutions to build an equitable, sustainable global economy and planet. The network engages directly with portfolio companies on ESG risks and opportunities through investor engagement tactics via multiple working groups, including the Shareholder Initiative for Climate and Sustainability (SICS) and the Working Group on Land Use and Climate.

Investors can also take action through **Climate Action 100+**, an investor-led initiative which engages the world's largest corporate GHG emitters, to take bolder actions on climate change. To date, more than 545 investors with more than $52 trillion in assets under management have joined the initiative.