



Draft for Comment
**A Buyer's Guide to
Natural Climate
Solutions Carbon Credits**

By The Natural Climate Solutions Alliance and
Boston Consulting Group

November 2022



Overview of Comment Process

This current draft was developed in consultation with the NCSA taskforce (see members list below), various expert interviews (see list of interviewees below) and two comment periods where we received thoughtful comments from taskforce members, interviewees and other experts.

Taskforce members:

AgoroCarbon, BP, Climate Impact X, Conservation.org, EDF, Eni, Equinor, Fauna and Flora, Gold Standard, Indigo, KPMG, Native Energy, OGCI, Rio Tinto, SouthPole, SwissRe, The Biodiversity Consultancy, TNC, Winrock, WRI

Interview or additional input include experts from:

BCG, Botanic Gardens Conservation International, Biodiversity Consultancy, Climate Impactx, Climate Seed, EcoSphere+, EDF, Eni, Equinor, Flora & Fauna International, Members of Forest People's Partnership, Indigo, McKinsey, Mirova Natural Capital, Native, OGCI, PFP, Respira, Revalue Earth, Rio Tinto, Salesforce, Sylvera, SwissRe, UNEP WCMC, VNV Advisory, WCS – Keo Seima Project, Wildlife Conservation Society, Winrock, Wildlife Works, WRI

Our hope for this review:

- Comments on the procurement guide process and the criteria to evaluate the contribution to nature and people of the NCS projects/programs
- Any examples you can provide of contracts, screening tools and claims
- Any quotes that we can use in the next

The last day to submit a review is Friday 16 December. Please include your comments directly in the text (using track change) and send them to katherine.duff@bcg.org and carbone@wbcsd.org

As this is a draft, please do not quote or cite.

Cover photo: Kasigau Corridor REDD+, by Filip Agoo

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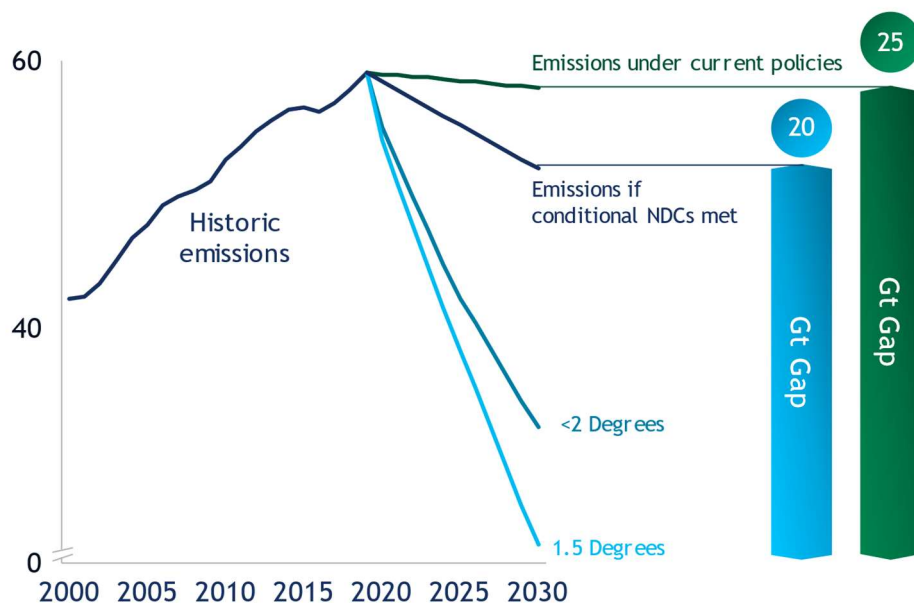
The Context for this Guide

Containing global warming within the 1.5°C threshold calls for achieving net-zero GHG emissions by 2050. Under current policies, we are on course to face a 25 gigaton (Gt) CO₂e gap by 2030, which is equivalent to the annual emissions of approximately 5.4 billion cars.^{1,2} (See Exhibit 1.) Even assuming the full implementation of conditional NDCs, we will end up with a 20 Gt CO₂e gap. Realistically, technologies (proven and emerging) will only be able to fill 70% to 80% of that, leaving a significant gap.³

Exhibit 1:

The pathway to 1.5°C requires net-zero emissions by 2050—which means a predicted 25 Gt gap by 2030

Global carbon emissions
(Gt CO₂e per year)



Sources: IPCC, UNEP Emissions Gap Report 2022

¹ UNEP Emissions Gap Report 2022

² A typical passenger vehicle emits about 4.6 metric tons of carbon dioxide each year (source: EPA).

³ BCG Climate Paths study, IPCC 2019 Report on 1.5 degree pathways, BCG analysis.

Natural climate solutions (NCS) represent one of the most effective levers to accelerate the transition and fill the gap. NCS are Nature-based Solutions (NbS) that address climate change. NbS are defined as:

“...actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.”⁴

NCS not only have the potential to contribute up to one-third of the required carbon mitigation, but they also depend on, and enable the delivery of, direct tangible and enduring benefits to local environments and communities, while contributing to climate adaptation and resilience.⁵ Natural climate solutions are essential to ensure that long-term global average temperatures stay close to 1.5°C. This is the central message of the IPCC’s 2022 Assessment (see C9 [IPCC AR6 WGIII SPM.pdf](#)), a message also highlighted in Conservation International’s recent report, [Exponential Roadmap for Natural Climate Solutions](#).

“Even if we zero-out energy sector emissions, it will not be enough to stabilize Earth’s climate. Worldwide, plants and soils store more than 2,100 metric gigatons (Gt) of carbon, roughly twice the amount contained in all known oil, gas, and coal reserves. Our assault on nature threatens to release this carbon, and last year the land sector—forestry, farming, grazing, even parks and protected areas—was responsible for an astounding 12.5 Gt, or 25 percent, of global greenhouse gas emissions.”⁶

Despite the central role played by nature, investment stands at approximately US\$133 billion⁷ compared to the estimated \$500 billion it will take to achieve true mitigation potential. Private investment will need to increase to meet future needs for NCS investment; currently, private funding accounts for 56% of climate finance, but only 14% of NCS investment.⁸ (See Exhibit 2.)

⁴ United Nations Environment Program (2022): UN Environment Assembly concludes with 14 resolutions to curb pollution, protect and restore nature worldwide. <https://www.unep.org/news-and-stories/press-release/un-environment-assembly-concludes14-resolutions-curb-pollution>

⁵ Natural Climate Solutions for Corporates (by NCSA, WEF, and WBCSD), July 2021

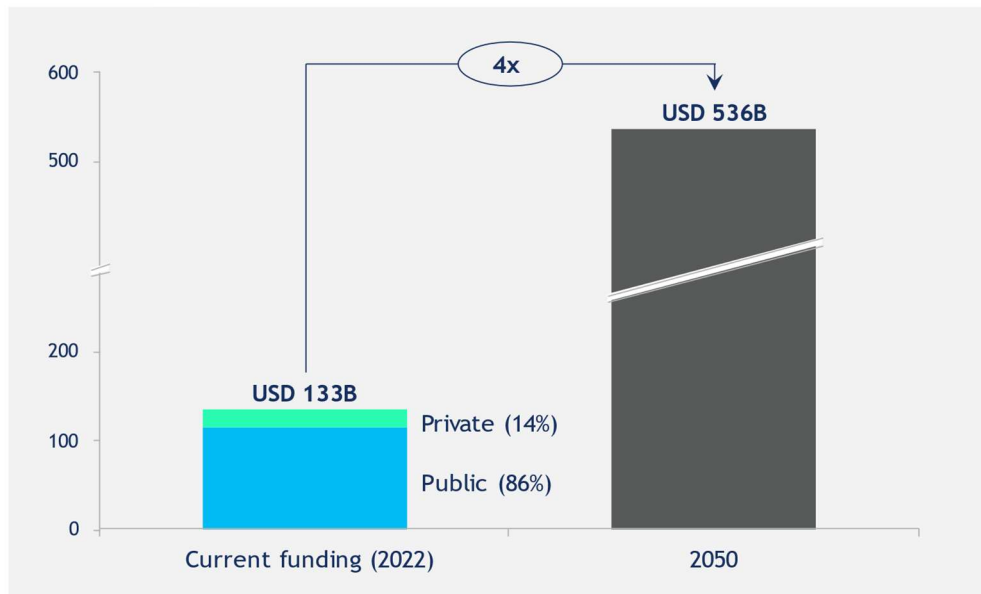
⁶ Conservation International Exponential Roadmap for Natural Climate Solutions, pg. 4, <https://www.conservation.org/priorities/exponential-roadmap-natural-climate-solutions>.

⁷ UNEP State of Finance for Nature Report.

⁸ Ibid.

Exhibit 2:

Funding needed for NCS is expected to increase fourfold by 2050, so the private sector must step up⁹



Source: UNEP State of Finance for Nature Report

There are a host of benefits for businesses that purchase high-quality NCS carbon credits. First and foremost, NCS carbon credits help companies reach their climate goals without falling victim to “decarbonization tunnel vision,” because high-quality NCS projects and programs emphasize nature and people value along with climate value. Investing in high-quality NCS projects and programs can also help attract and retain talent, given the growing importance employees place on sustainable and ethical corporate conduct. NCS carbon credits have the potential to drive differentiation and competitive advantage, enhance brand, and contribute to the response to customer and investor pressure. Finally, investing early in the NCS voluntary carbon market can help businesses secure their supply of high-quality carbon credits as demand for them grows.¹⁰

Given the importance of NCS, the gap in funding and the benefits to business, the private sector is uniquely positioned to scale the adoption of NCS to accelerate corporate action on climate. Companies can help scale NCS by integrating it into their corporate climate strategy in varying ways, with one of two goals. For example, a food and beverage company could invest in regenerative agriculture or agroforestry projects to reduce emissions within its value chain. This same company could also purchase NCS voluntary carbon credits to fund projects and mitigate emissions beyond its value chain.

Irrespective of the way a company decides to invest in NCS, it is key that funding is channeled to *high-quality solutions*, which deliver for climate, people, and nature. Yet identifying credits generated by high-quality projects and programs that meet the imperatives of NCS (while limiting their downside) remains a challenge. Quality standards are still evolving, along with guidelines related to the use of NCS

⁹ UNEP State of Finance for Nature Report

¹⁰ [Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives.](#)

to counterbalance unabatable emissions, as regulators and key stakeholders (including civil society and IPLC alliances) debate the role of NCS in overall climate mitigation strategies.

Why this Guide?

This guide is intended to help businesses that have decided to include NCS voluntary carbon credits in their climate strategy navigate the NCS voluntary carbon credit value chain. We believe this guide will be particularly valuable, given the urgent time pressures companies face and the complexities of this still-evolving market.

This guide is intended to help procurement officers identify and purchase NCS carbon credits that fulfill the tripartite NCS goals of carbon mitigation, biodiversity gains, and benefits to people. Given the extensive ongoing work dedicated to carbon mitigation, we will focus on biodiversity conservation and benefits to people.

Specifically, readers will find practical information to guide them step by step through the entire purchase process for NCS project credits. The guide covers the accounting systems, verification programs, standards, and ongoing work on standards to help buyers in their due diligence. It does not address commercial considerations and does not provide the same detailed guidance on Jurisdictional programs as it does on projects. It will, however, briefly explain how the reader can leverage and adapt project-related guidance to evaluate the quality of NCS Jurisdictional programs.

Tools, including examples, questionnaires, and risk assessment frameworks, are included in the Appendix. For a more thorough background on corporate journeys to net zero, see the [NCSA and ERM publication *Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives*](#).

The Basics: What Are NCS Credits, Projects, and Jurisdictional programs?

First, what is a carbon credit: one credit represents a GHG emission reduction or removal from the atmosphere equivalent to one metric ton of CO₂e. Specifically, an NCS carbon credit is a credit associated to NCS projects or Jurisdictional programs that address GHG emissions, either by reduction—such as preventing the loss and degradation of natural carbon sinks (for example, halting deforestation)—or by sequestering carbon (for example, through reforestation or ecosystem restoration).

Projects refer to discrete set of activities undertaken in a specific area, not directly led by jurisdictional authorities (see the sidebar “A Sampling of Natural Climate Solution Projects” for examples). Jurisdictional programs (“programs”) are a set of activities led by jurisdictional authorities to reduce forest-based emissions and enhance removals within an accounting area according to a set action plan, supported by monitoring and compliance systems and assessed against a jurisdictional-scale reference level. Markets are evolving from individual NCS projects to jurisdictional-scale approaches, in which interventions are much larger in scale, benefit from governmental contributions, and use baselines developed on the scale of an accounting area defined by a country or large subnational political or administrative unit.^{11, 12}

NCS projects and programs span all ecosystems—from mountains to lowlands, tropical forests to agricultural lands (croplands or grazing land), coastal zones and wetlands to blue and green infrastructure in urban environments. (See the sidebar “A Sampling of Natural Climate Solution Projects” for examples.)

Well-designed and properly implemented NCS projects and programs deliver climate mitigation benefits, biodiversity gains, and generate socio-economic benefits for Indigenous Peoples and Local Communities (IPLCs).¹³ These three objectives are critical, as any project or program that focuses solely on carbon is not a bona fide NCS; as such, it would undermine the core principle of NCS. For example, a badly designed reforestation program that converts too much pasture to forest could cause food insecurity to local communities and could trigger deforestation elsewhere.

A Sampling of Natural Climate Solution Projects

The examples below show how wide-ranging NCS projects can be, in both geography and ecosystem type. All are NCS Lighthouses: projects exemplary for their success in mitigating environmental and social risks and in generating climate, nature, and people value.

Katingan Mentaya Project, Central Kalimantan Province, Indonesia

¹¹ Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives.

¹² Tropical Forest Credit Integrity Guide for Companies

¹³ <https://www.wbcsd.org/Programs/Climate-and-Energy/Climate/Natural-Climate-Solutions/The-Natural-Climate-Solutions-Alliance/Resources/Natural-Climate-Solutions-and-the-Voluntary-Carbon-Market-A-Guide-for-C-suite-Executives>.

The largest of its kind, this tropical peatland project produces 7.5 million tons of CO₂ / credits—the equivalent of removing 2 million cars from the road—each year. Nearly 150,000 hectares in size, Katingan Mentaya protects habitat for numerous endangered and threatened species, including the Bornean orangutan, the Proboscis monkey, the Southern Bornean gibbon, and the Sunda pangolin.

The project directly employs more than 500 people. Its social benefits include developing sustainable income sources for some 34 local communities and providing education in areas such as natural resource management. Recently, it piloted a training program for once-illegal loggers on coconut sugar production in the project's buffer zone. This nascent industry has tripled the income locals used to earn from selling raw coconut and quadrupled the income they once earned from illegal logging. Katingan Mentaya is currently developing 300 artisanal coconut sugar businesses.

Luangwa Community Forests Project, Eastern and Lusaka Provinces, Zambia

This 1 million-plus hectare project area is a riparian forest that spans two eastern Zambian provinces and averts 1.7 million tons of CO₂ per year. It also protects more than 565 million trees from deforestation and a major wildlife corridor that is important habitat for lions, leopards, and elephants, among other species.

More than 217,000 people across 12 chiefdoms benefit from the Luangwa project, with some 209 community impact projects implemented since the project's inception. The investment in communities has spawned education projects as well as clinics and healthcare facilities. More than 2,000 income-generating opportunities have been created, and more than 11,000 female-headed households have benefited. Local farmers receive training in climate-smart agricultural techniques. Beekeeping projects have shifted to more sustainable methods of honey production. The project has also helped communities replace standard charcoal—whose demand is a major cause of deforestation in the country—with eco charcoal. Thanks to the Luangwa project, local communities were able to weather the economic shocks of the COVID pandemic, which took a toll on the Zambian economy.

Conservation Coast, Izabal Region, Guatemala

This tropical rainforest on the Caribbean coast of Guatemala is the world's largest grouped forest-based carbon project. Hundreds of different landowners (including the government, NGOs, private individuals and communities) have worked together to protect 675 parcels of forest comprising 54,157 hectares to date. With a lifetime extending to 2042, the project will aim to achieve total emissions reductions of 21,844,843 over 30 years. During this time frame, the project also has the potential to conserve up to 128,448 hectares of tropical forest.

Since its start in 2012, Conservation Coast has reduced CO₂ and equivalents by 5.3 million tons. The project provides protection to the Mesoamerican biological corridor, vital habitat for 120 migratory bird species and 30 threatened species, including the Baird's tapir and West Indian manatee. It is also critical for maintaining the local water supply. The coastal forests provide a physical barrier that reduces disaster risk for area communities. Thus far, the project has contributed €8.4 million to the local economy. It directly supports 487 jobs, 24% of them held by women. It works with local farmers on technical assistance, agricultural inputs, and route-to-market strategies for a variety of sustainably produced commodities, such as spices and jungle leaves. Three sustainable businesses, including developing the area as an ecotourism hub, were created through the project.

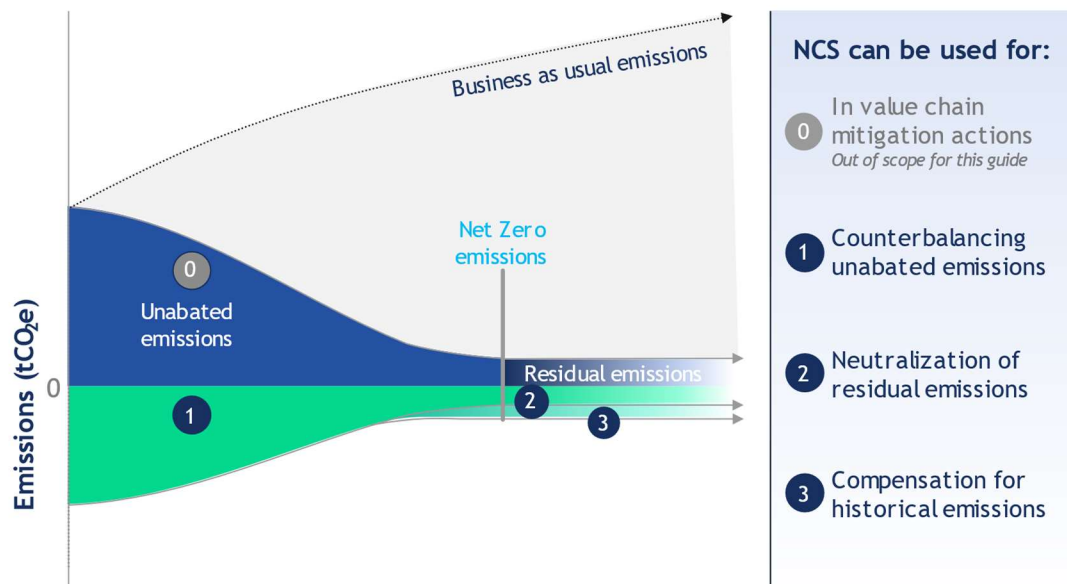
The Role of NCS Carbon Credits in the Journey To Net Zero

According to guidance from various organizations, including SBTi, a company's first priority in the pathway to net-zero emissions should be reducing emissions within its value chain as much—and as fast—as possible.¹⁴ As a second priority, companies should reduce emissions outside of their value chain to counterbalance at least part of what cannot be abated. Both should be done in parallel; and together, these principles comprise what we refer to as the “mitigation hierarchy.”¹⁵

Natural climate solutions can play an important role in satisfying both priorities within the mitigation hierarchy. (See Exhibit 3). Specifically, NCS beyond value chain mitigation actions can contribute to:

- *Counterbalance* all or, if not economically feasible, part of unabated emissions year over year.
- *Neutralize residual emissions*, which refers to high-quality removals that can address no more than 5-10% of the required long-term decarbonization, as per SBTi guidance.
- *Compensate for historical emissions*, which can play a role in a company becoming climate positive (or carbon negative).

Exhibit 3:
The Role of NCS in a net-zero journey



Source: *Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-Suite Executives*, The Natural Climate Solutions Alliance and the Sustainability Institute by ERM

¹⁴ For example, Science-Based Target Initiative, ICROA, and Oxford Principles all provide guidance that promote reductions first

¹⁵ <https://sciencebasedtargets.org/blog/net-zero-urgent-beyond-value-chain-mitigation-is-essential>

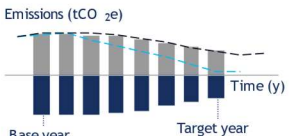
Failure to follow the mitigation hierarchy is liable to create an over-reliance on credits. This is costly and, more importantly, can prevent a company from being fully aligned to 1.5°C pathways and subject it to accusations of greenwashing.

Exhibit 4 illustrates different strategies companies use. Strategy 1 shows an example of over-reliance on carbon credits. Without sufficient mitigation, this strategy is not aligned with a 1.5°C pathway and can be costly for companies serious about investing in high-quality projects. Companies following Strategy 2 will align with a 1.5°C pathway but are likely to miss out on the additional benefits of Natural climate solutions, including offering a nature-positive strategy. These companies also limit their role in contributing to societal net zero. Strategy 3, in contrast, illustrates the effectiveness of integrating decarbonization with beyond value chain mitigation.

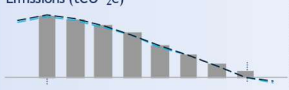
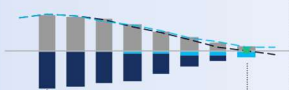
Exhibit 4:

How the mitigation hierarchy can help companies avoid an over-reliance on carbon credits

Misaligned with net zero and 1.5 °C ambition

Strategy	Description	Reaches net-zero ¹	1.5°C aligned	NGO perspective
Strategy 1 Heavy reliance on negative emissions 	Companies purchase carbon credits to match volume of their emissions. Greenwashing risk if not paired with reductions	✗	✗	Not supported: Insufficient decarbonization and mitigation approach

Viable net zero and 1.5 °C strategies

Strategy	Description	Reaches net-zero ¹	1.5°C aligned	NGO perspective
Strategy 2 Credible Emissions abatement in line with science 	Firms curtail GHG emissions at a pace and scale consistent with 1.5°C emission pathways	✓	✓	Supported Consistent with SBT reductions; may not incentivize other carbon financing
Strategy 3 Preferred Emissions abatement with additional BVC ² investments 	Building on Strategy 2, any remaining emissions after 1.5°C reductions should be neutralized	✓	✓	Supported Consistent with SBT reductions and promotes both a zero-carbon and nature-positive future

Gross emissions
 Neutralization
 Compensation
 Net-emissions
 Paris-aligned

1. Net emissions as defined by IPCC (remaining emissions neutralized with removals). 2. Beyond Value Chain Mitigation.

Source: BCG interpretation of SBTi paper, "SBTi Foundations for Science-based Net-zero target setting in the corporate sector," September 2020.

Two Tenets of NCS Voluntary Carbon Credit-Buying

There are two fundamental rules companies should follow in their purchasing decisions:

Select high-quality projects: For NCS voluntary carbon credits to succeed, the projects and programs that underlie them must be of high-quality. These projects and programs must address the permanence, additionality, leakage, double-counting, robust quantification, and verification of the NCS climate mitigation activities implemented. In addition, high-quality carbon credits should measurably improve biodiversity and ecosystem integrity, providing substantive social and economic benefits for local communities and indigenous peoples, and offering protection from climate risk by boosting the land's resiliency and adaptive capacity.

Follow the NCS hierarchy: When selecting NCS projects, whether for tackling emissions within or beyond the value chain, companies should follow the NCS hierarchy. This hierarchy helps us understand the relative priority of different NCS: that is, their role in protection, management, and restoration. There is frequently overlap between these three roles; protection and/or restoration and/or management measures are often implemented within the same project or program.

- Companies should prioritize **protection and conservation measures** and focus on projects that avoid emissions generated by the conversion of natural ecosystem; for example, forests, grasslands, or wetlands. The importance of protection and conservation is driven by the urgency to prevent further loss of irrecoverable carbon stocks and to avoid reaching of critical tipping points in nature, which would jeopardize our ability to limit global warming to 1.5°C.
 - *Examples: Avoided peatland, forest conversion, or avoided coastland conversion*
- Companies should then look into **sustainable use and improved management measures**, focusing on projects and programs that minimize and/or reduce emissions and can regenerate carbon pools.
 - *Examples: Natural Forest management, improved rice cultivation, or alternative agriculture techniques*
- Finally, they should pursue **restoration measures** and focus on projects that remove and store CO₂ emissions through restoration.
 - *Examples: Reforestation and afforestation; peatland or coastland restoration*

These measures will generate either reduction or removal credits. A reduction credit comes from interventions that reduce the duration, intensity, or extent of emissions that cannot otherwise be avoided. Removals withdraw GHGs from the atmosphere as a result of deliberate human activities, such as through the enhancement of biological sinks of carbon dioxide or the use of chemical engineering to achieve long-term removal and storage.

However, in addition to following the NCS hierarchy, there are other important criteria for companies to consider. These include the size of the mitigation potential, cost-effectiveness, time horizon, and the co-

benefits offered, such as improved ecosystem resilience amid climate change (which in itself incentivizes implementation).¹⁶

It is also important to know and understand the ecosystem(s) that the project or program focuses on—whether it is terrestrial, freshwater, coastal or marine (see Exhibit 7). For example, a project focused on terrestrial ecosystems may be protecting “high forest, low deforestation” (HFLD) countries and jurisdictions.¹⁷ These forests absorb around 30% of human global emissions each year; and according to estimates, the loss of intact forest causes about six times the carbon impact, in terms of emissions and lost sequestration, than deforestation alone.¹⁸

Exhibit 7:

Types of Natural climate solutions



¹⁶ <https://www.natureunited.ca/content/dam/tnc/nature/en/documents/canada/nature-ncs-hierarchy-study.pdf>

¹⁷ HFLD jurisdictions are generally defined as areas with high forest cover and low historical rates of deforestation. See also <https://www.preserveforests.org/>

¹⁸ Maxwell et al. (2019), “Degradation and forgone removals increase the carbon impact of intact forest loss by 626%,” *Science Advances* 2019;5: eaax2546.

Beyond Carbon: Why Select High-Quality NCS Carbon Credits?

High-quality NCS carbon credits are generated by projects or programs that deliver benefits for climate, nature and people, creating value across all three areas while boosting resilience and adaptation to climate change.

NCS projects and programs deliver **climate mitigation** by reducing land-based emissions and by enhancing the carbon sequestered and stored through nature. NCS offer **nature values** by focusing on protecting and restoring ecosystems to prevent further degradation, while preserving existing biodiversity. NCS provide **people value** by addressing societal needs and interests, particularly of Indigenous Peoples and Local Communities (IPLCs) within and around the NCS project area and deliver benefits.

Climate mitigation. Carbon performance (how effective a project or program is in reducing CO₂ emissions or removing CO₂e) is crucial. This report does not focus on how to select NCS credits from the carbon integrity perspective, because there are already a number of other platforms and frameworks available for this purpose. However, it is important to touch on the three attributes crucial to carbon integrity:

- **Additionality.** Carbon crediting only works if emission reductions and removals would not have taken place without the incentive provided by the credits—meaning they are “additional.” For a project or program to ensure additionality, it typically must show that activities have reduced emissions or increased removals from a baseline figure.¹⁹
- **Leakage.** Leakage refers to the process in which emissions are displaced or increase elsewhere as a result of the intervention. This can occur in several ways, often through activity-shifting leakage and market leakage.²⁰ To ensure that NCS projects and programs are implemented and managed properly, all types of leakage must be considered, and mitigation strategies should be outlined.
- **Permanence.** This refers to the degree of risk of reversal for carbon sinks. Reversal is a common occurrence; it is impossible to guarantee that a carbon sink will last forever. Carbon sinks are particularly at risk from deforestation and events such as fires, floods, and the introduction of invasive species. To maintain carbon integrity, NCS projects or programs must account for the possibility of reversal events. Buffer pools, for example, provide insurance against such possibilities.

¹⁹ Additionality refers to emission reductions from carbon offsets that would not have occurred without the offset activity. Examples of reductions that *would* happen anyway include trucking miles averted by the conversion to rail transport, emissions avoided by bicycle commuters, and renewable energy generation, among many others. Additionality is a controversial issue, because it requires testing; and testing itself is controversial because it is imperfect.

²⁰ Activity-shifting leakage refers to when carbon-emitting activities move to another location outside of project boundaries, instead of actually being reduced. Market leakage refers to when activities shift the demand and supply balance, prompting other market participants to shift their activities (e.g. a forest conservation project reduces timber supply, causes increased prices and pressures on forests in another location).

The project sets aside a percentage of credits into a buffer pool; if a reversal event occurs, the buffer credits are cancelled, thus preserving already-issued credits.

Additional steps needed to ensure carbon integrity include obtaining independent verification of the project, rigorously quantifying credit production to prevent over-estimation, avoiding double counting, and implementing strong institutional governance.²¹

Nature value. Nature value has two aspects: the socio-economic and biological value of ecosystem services, and biodiversity benefits.

Ecosystem services have been valued at between US\$150 trillion and US\$170 trillion per year.²² (To derive this value, experts use biodiversity indices across ecosystems, species, and genes.) Ecosystem services include provisioning (food, raw materials, medicinal products, and so on); regulation (such as climate, pollination, air and water quality), habitat (including refugia and soil formation), and cultural resources.

The biodiversity benefits of NCS include:

- **Boosting resilience.** NCS projects and programs increase ecosystem resilience amid climate change, and inherently ensure project longevity. Certain elements of biodiversity can protect against climate change risk, increasing the likelihood that NCS projects will deliver on contract agreements. For example, protecting varied natural vegetation in a mountainous project area can stabilize slopes, thus preventing landslides and avalanches during severe storms. Resilience is important, as the prevention of climate change impacts increases the likelihood that projects will deliver on contract agreements and reduces the risk of credit non-permanence.
- **Directing biodiversity financing.** NCS channel finance into biodiversity conservation, contributing to the global goal of protecting endangered species.
- **Supporting a nature-positive strategy.** A high-quality NCS strategy has strong synergies with corporate nature-positive targets and can be linked to the growth of corporate net positive impact (NPI). Companies need to take a holistic perspective to operate within the Earth's limits and effectively stabilize both nature and climate.
- **Enhancing project security.** Biodiversity also enhances project and program security by virtue of providing two broad benefits to people: vital ecosystem services, such as food and medicine; and sustainable access to natural resources that underpin the livelihoods of local communities and can feed into sustainable regional economies and global supply chains.
- **Offering enhanced carbon benefits.** Finally, biodiversity provides additional carbon mitigation benefits beyond its articulated goals. For example, certain aspects of biodiversity do more than

²¹ Please see the following guidance on avoiding double counting: [the American Carbon Registry](#); [EDF](#)

²² Based on currently accepted range of estimates (e.g., Nordhaus 2017), using discount rates at ~2.5-3.5%
Note: All values inflation-adjusted to 2019-dollar values.

act as sinks for carbon sequestration and negate carbon effects. Forests, for instance, can help moderate local climate conditions and temperature increases. Tropical forests can provide a 50% cooling effect compared to carbon effects alone,²³ while also minimizing the risk of drought associated with extreme heat.²⁴ In addition, gene pool diversity is critical for all species in order to adapt to changing conditions and maintain resistance to pests, diseases, viruses, and other threats.

People value. High-quality NCS should also provide benefits to people, recognizing that many ecosystems around the world are kept alive due to the stewardship of IPLCs. On the flip side, areas of the world that face substantial negative impacts from climate change and ecosystem degradation are often home to large concentrations of Indigenous peoples and low-income communities.²⁵ People and project/program value must reinforce each other in the following ways.

- **Projects and programs are more effective if stakeholders are involved and compensated for their work.** Governments and organizations can fund and set up NCS projects, but if landowners and local communities are not incentivized, it is challenging to ensure that projects and programs are implemented successfully and run according to plan. This is especially important, as poorly implemented projects and programs that do not compensate stakeholders for their work can have further negative impacts on people, such as reducing livelihood opportunities, putting the investment in NCS at risk, and creating reputational risk for all involved.
- **Project scalability depends on early and full local people involvement.** Without local buy-in and participation—from local communities, local governments, and national governments—attempts to scale NCS projects are likely to fail. The expectation is that jurisdictional-scale crediting will help to scale impact over time. (See the sidebar, “The Value of Jurisdictional-Scale Crediting.”)
- **NCS can ensure respect for local communities’ land rights and their traditions.** At least 25% of the Earth’s land area is owned or managed by Indigenous peoples, including approximately 35% of formally protected land. Local populations have used NCS for centuries, so it is important to draw from their local and traditional knowledge.²⁶ In fact Conservation International’s Exponential Roadmap for Natural Climate Solutions found that: “Indigenous land rights are essential to land stewardship. Expanding resources and legal recognition of Indigenous peoples and local communities could reduce nearly 1 Gt of annual emissions by 2025 and nearly 2 Gt by 2050.”²⁷

²³ <https://www.wri.org/insights/how-forests-affect-climate>

²⁴ <https://www.frontiersin.org/articles/10.3389/ffgc.2022.756115/full>

²⁵ *Global Assessment Report on Biodiversity and Ecosystem Services*, IPBES, 2019.

²⁶ IPBES Global Assessment on Biodiversity and Ecosystem Services

²⁷ Conservation International Exponential Roadmap for Natural Climate Solutions

<https://www.conservation.org/priorities/exponential-roadmap-natural-climate-solutions>

The Value of Jurisdictional-Scale Crediting

Jurisdictional level programs can have significant impact due to their expected ability to amplify biodiversity and people benefits of high-quality NCS. They incentivize governments to make decisions that only they have the authority to implement, such as those regarding the introduction of new subsidies, infrastructure development, and spatial planning initiatives. Moreover, jurisdictional programs that ensure the inclusion of indigenous territories—with the full and effective partnership of IPLCs, women, and underserved communities—have the potential to extend benefits to more communities.²⁸

Many NCS projects are situated in vast areas that contain multiple projects—areas in which land management is overseen by government agencies. In circumstances where there is government management, the expectation is that there will be significant value-add from running jurisdictional-scale crediting, as addressing deforestation often requires actions that only governments can take. However, when ownership is divided among agencies, it is critical for programs to coordinate with the relevant governments.

Jurisdictional-scale crediting involves issuing independently verified carbon credits for forest-based emissions and/or removals pegged to a baseline developed for a large-scale area defined by a country or a subnational jurisdiction. Jurisdictional-scale crediting is consistent with the national approach to forest monitoring, baselines, strategies, and safeguards in the Warsaw Framework for REDD+, which means investors can have greater visibility into program performance and greater confidence in program integrity. Nesting is a set of provisions by which project-level emissions accounting and social and environmental safeguards are aligned with higher-level jurisdictional systems.²⁹

For more examples and details on the value of jurisdictional-scale projects, please see the [WEF paper “Forests for Climate: Scaling up Forest Conservation to Reach Net Zero”](#)³⁰ and the [ART TREES standard](#).

²⁸ WEF Forests for Climate (https://www3.weforum.org/docs/WEF_Forests_for_Climate_2022.pdf)

²⁹ Verra Jurisdictional Nested REDD Framework <https://verra.org/programs/jurisdictional-nested-redd-framework/>

³⁰ Ibid.

Understanding the Marketplace

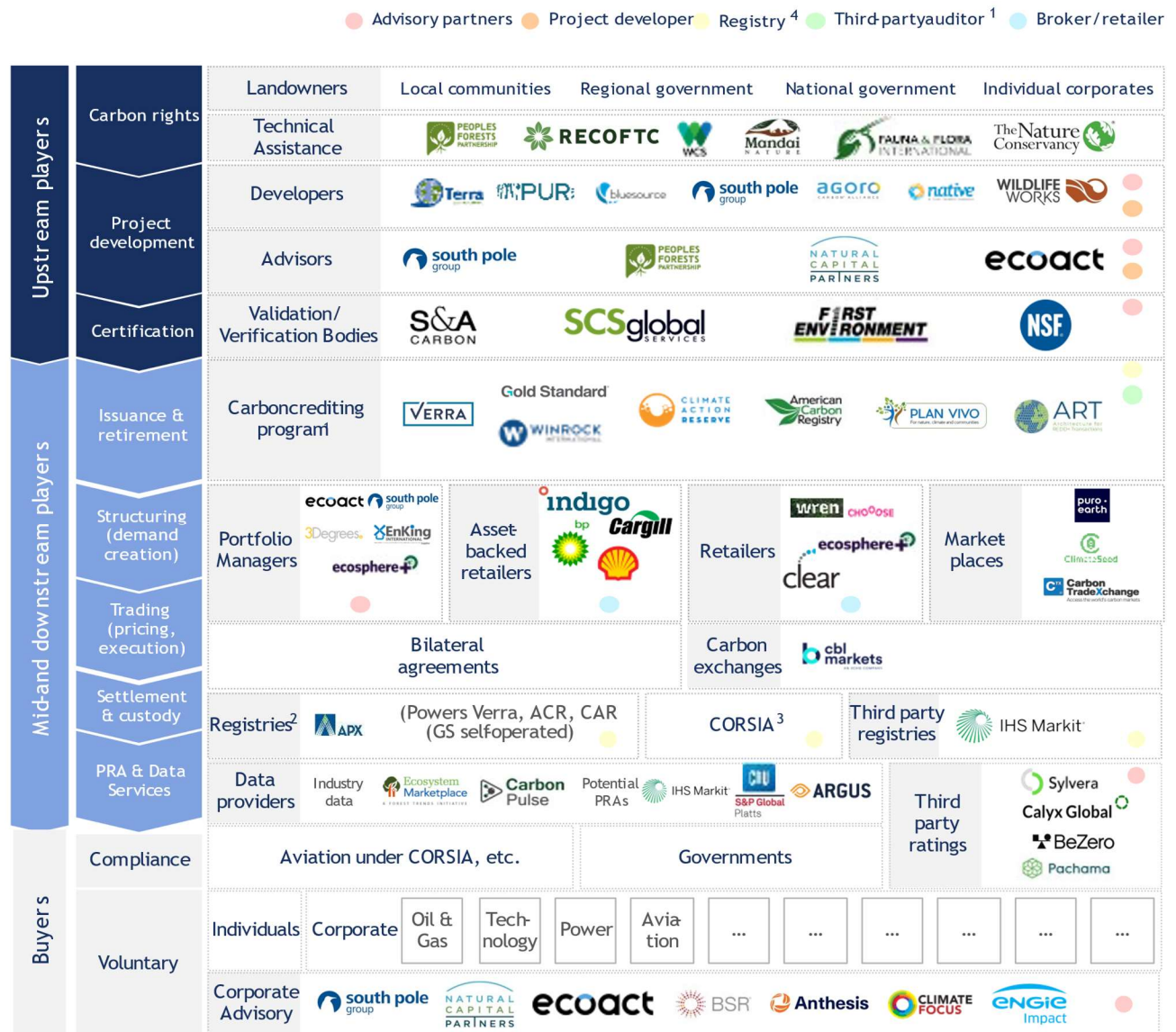
Many companies procuring NCS do so, at least in part, through the voluntary carbon market (VCM), which allows companies to counterbalance unabatable emissions by purchasing carbon credits. The VCM is complex and evolving quickly, and some stakeholders, hold multiple roles within the procurement process. Across the VCM, four main groups of stakeholders play important roles.

- **Land stewards/carbon rights holders**, including members of the local community, must be consulted at the initiation of a project or program, as no project or program should be implemented without their consideration and consent.
- **Project developers** design and implement projects and issue tradeable carbon credits from those projects, once the projects are validated and verified by third-party standards and auditors. Companies can buy credits directly from project developers, who can help companies find the right carbon projects that meet their requirements.
- **Intermediaries** facilitate transactions between project developers and end buyers. They include portfolio managers, consultants, brokers, wholesalers, and marketplaces. Companies can and do use intermediaries as needed to augment their internal capabilities to procure carbon credits.
- **End customers** purchase carbon credits for many reasons, but often to retire against their unabatable emissions in line with their internal sustainability targets.

The landscape of the voluntary carbon market reinforces an important point: carbon credits and projects and programs are fundamentally intertwined. (see Exhibit 7.) After all, a high-quality carbon credit (which represents a GHG emission reduction or removal from the atmosphere equivalent to one metric ton of CO₂e) is the output of a high-quality project or program. Procurement officers must understand both.

Exhibit 7:

The voluntary carbon market landscape is complex and evolving quickly



1. Referred by clean development mechanism (CDM) as designated operational entities (DOEs) 2. Some private standards are registries. 3. Currently under development. 4. Public registries are governed by Carbon Asset Tracking (CAT) regulatory bodies. Offsets generated by eligible standards (public or private) are generally reviewed by the public registry which exchange the offset credit into a compliance unit accepted by the CAT program.

Selecting High-Quality NCS Carbon Credits: How to Purchase?

To help corporates procure high-quality NCS carbon credits, we lay out six steps. (See Exhibit 8.) These steps are critical for ensuring high quality and avoiding the reputational risks associated with investing in low-quality NCS carbon credits.

As we've noted, high-quality NCS carbon credits are generated from projects or programs that themselves are of high quality, in that they address the permanence, additionality, leakage, double-counting, robust quantification, and verification of the NCS climate mitigation activities implemented. In addition, high-quality carbon credits should measurably improve biodiversity and ecosystem integrity, provide substantive social and economic benefits for local communities and Indigenous peoples, and offer protection from climate risk by boosting the land's resiliency and adaptive capacity.

Exhibit 8: Six steps for purchasing NCS voluntary carbon credits



Source: Expert interviews.

Integrate The Use of NCS Carbon Credits Into Your Climate Strategy

Once companies' climate strategy is developed, they can then set their strategy and budget for NCS. Leading companies embed their NCS strategy not only into their climate strategy, but also into their corporate biodiversity and corporate social strategies. The use of NCS carbon credits should be set in accordance with the mitigation hierarchy and not used in place of value chain decarbonization.

Strategy Setting

A company's overall climate strategy should inform its use of NCS carbon credits. Its climate strategy can inform a company's willingness to pay for high-quality credits. It can also help guide the company's choice of project types, geographies, type of credit(s) needed, and volume, based on its NCS procurement goals, requirements, and needs.

Companies should consider at what point they want to support project developers. Are they looking for early investment opportunities, or do they want to purchase credits from established projects? In addition to considering risk appetite around investment, they will need to consider other types of risk when evaluating the best path forward, including:

- **Regulatory risk:** Verification requirements and regulations are still evolving, so it's possible that credits purchased in advance purchase agreements will not meet changing standards, particularly if they are low-quality credits concentrated in one location or region.
- **Reputational risk:** This risk involves being branded a "greenwashing" company, particularly if you are not reducing emissions sufficiently alongside purchasing credits. Reputational risk can also come from investing in projects that are not high quality.
- **Financial/market risk:** In the case of long-term agreements, financial risk can stem from future price and demand fluctuation, particularly for credits of indeterminate quality. To address this risk, companies are evaluating ways to manage financial exposure, through actions like upfront payment.
- **Operational/execution risk:** This risk entails project disruption from climate change or other events, and is greater with low-quality credits concentrated in one location or region. This risk only applies to advance purchase agreements, not spot market purchases.

Key decisions in relation to the use of NCS carbon credits are:

How much is enough? At this stage there is no defined guidance on the percentage of unabated emissions that should be counterbalanced with carbon credits. The VCM Claim Code will likely define rules on this topic in relation to the different proposed claims. In the meantime, the WeMeanBusiness Coalition proposes that businesses should at a minimum counterbalance at least 10% of their annual unabated emissions. Any strategy and budget must prioritize quality over quantity, understanding that there is a premium on high-quality credits and that it is important to only buy credits that meet a minimum quality bar, even if this results in purchasing fewer credits.

Do I buy reduction or removal credits? Both reduction *and* removal credits are needed due to the scale of climate change. Considering that deforestation rates have been consistently high,³¹ reduction credits

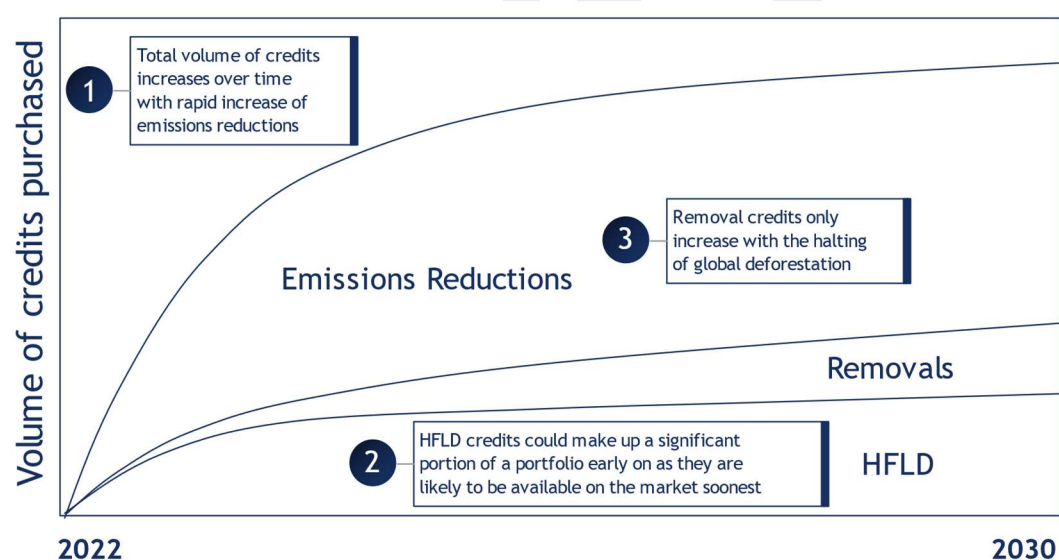
³¹<https://research.wri.org/gfr/latest-analysis-deforestation-trends>

must be a priority. Following the NCS hierarchy, we must do all we can to protect the remaining intact ecosystems. However, as engineered removal credits become more accessible and, in turn, less expensive, they will likely grow in share.³²

The Tropical Forest Credit Integrity Guide, to be published December 2022, calls for companies to prioritise credits originating from programs and projects that reduce threats to standing tropical forests. In particular, it notes:

- Companies should prioritize purchase of high-quality emissions reductions credits over removals credits (e.g., those generated through tree-planting efforts associated with reforestation and afforestation) until global goals of halting deforestation and ecosystem loss are achieved.
- Companies should include conservatively issued credits originating from HFLD jurisdictions (many of which include Indigenous territories) in their portfolios. Such purchases provide near-term incentives to maintain remaining intact forests^{33, 34} and support recognition of the success of IPs and LCs in forest conservation.

Example portfolio of tropical forest carbon credits—progression over time



Source: Tropical Forest Credit Integrity Guide (December 2022)

NCS and technological solutions? Over the next 10 to 30 years, experts expect that more technological solutions will surface, becoming more accessible and affordable. And while this will likely shift companies' portfolio mix towards technological solutions, the mix should continue to be informed by

³² Based on interviews with experts and corporates

³³ An unbroken expanse of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained.

³⁴ The White Paper led by a coalition of NGOs provides additional data and justification on the need to include HFLD credits in the portfolio [6364a0409c173f32c46a30ee Whitepaper - Project Preservation.pdf \(webflow.com\)](https://www.webflow.com/6364a0409c173f32c46a30ee/Whitepaper-Project-Preservation.pdf)

the global goals of halting and reversing deforestation. However, even as technological solutions mature, there will still be a significant role for NCS, as they are cost-effective and offer strong environmental and social benefits.

What about project mix? When setting portfolio mix, companies should also consider the desired variety within selected projects—the span of biomes, levels of maturity, geographies, and approaches. In their regional choices, companies often consider where they have owned operations, along with cost differentials across regions, the potential for risk spreading, and the availability of supply.

Do I purchase credits from projects or Jurisdictional programs? Both solutions are needed and can produce high-quality credits. Recall that Jurisdictional programs have the potential to incentivize governments to make the decisions required to deliver, at scale, positive impacts on climate, biodiversity, and people. However, the systems and infrastructure required to successfully implement jurisdictional scale crediting are still under development in many countries. As a result, it is critical for companies to conduct thorough diligence before sending demand signals. To reach the scale of impact needed, Jurisdictional NCS programs will be an important part of an effective NCS strategy. We anticipate that a growing share of credits will come from Jurisdictional programs, including nested projects, once available.

Budget Setting

What price is a good price? Prices vary, driven by many different factors including geography, type of project, and more. Prices are also changing quickly, making it difficult to establish with certainty a “minimum price” that signals quality. Furthermore, a high price does not necessarily signal high quality. Over the long-term, however, companies can expect high-quality carbon credits to command a premium.³⁵

Funding the NCS Credits. Currently, companies are typically taking one of the following approaches to budget for VCM investments:

- **Internal carbon pricing:** Companies can set an internal carbon price to raise funds to finance the purchase of NCS carbon credits, and thereby inform their budget setting. To set an internal carbon price, companies can forecast their emissions using reduction targets, and then set a dollar-per-ton value per year.^{36,37} The funds from the internal carbon price can be used to drive decarbonization efforts and can guarantee funding for years into the future, as opposed to setting budgets anew each year. In most cases, the price will gradually ramp up over time as emissions reductions are achieved and deep decarbonization is further incentivized. Although an internal carbon price can be flexible, companies with internal carbon prices may not meet their volume target when focusing on purchasing high-quality credits, as market prices move rapidly.
- **External carbon pricing:** Companies can monitor the market and assess the range of carbon credit costs based on their desired portfolio mix, which will likely include a mix of NCS and

³⁵ For an overview of the average price of different credit types see [“The Art of Integrity Ecosystem Marketplace’s State of the Voluntary Carbon Markets 2022 Q3”](#)

³⁶ Companies can also follow guidance from the UN Global Compact, which asks companies to set an internal price for carbon at a minimum of \$100 per metric ton. <https://www.unglobalcompact.org/take-action/action/carbon>

³⁷ CDP Analysis found the median internal carbon price disclosed by companies in 2020 was US\$25 per metric ton of CO₂e; Source: [Nearly half of world’s biggest companies factoring cost of carbon into business plans - CDP](#)

technological solutions, avoidance and removal credits, and a geographic spread. They can then develop a budget based on their estimated ability to spend and counterbalance needs.

- **Fixed prices and fixed budget:** Another approach companies take to invest in the VCM is setting fixed prices and a fixed budget, which can include setting a percentage of company profits to be invested. However, given the rapidly changing market for high-quality credits, this approach may limit companies in their ability to purchase high quality NCS carbon credits, and may also fail to account for the nuances of portfolio mix. For this approach to ensure high quality, companies can set a fixed price budget that incorporates a blended portfolio and higher-priced projects.

Overall, we recommend determining a willingness to pay per credit, and then settling on a flexible (not fixed) approach to budgeting—mainly because it is likely that companies will have to adapt to a wide range of prices for NCS credits as well as the rapidly shifting NCS voluntary carbon market. One way to create flexibility is to combine a price scenario for the desired credit portfolio with internal carbon pricing. This will account for the range of prices across different types of credits and has the advantage of providing greater flexibility for purchasing high-quality NCS credits.

Establish a Team

As they embark on the journey to procure NCS carbon credits, companies will need to ensure they have a strong team in place to assess the quality of the credits as well as to make sound decisions they will ultimately support. Structuring a team up front is also important for avoiding long, drawn-out due diligence or contracting processes at a time when a fast-moving market calls for prompt action. Smaller companies may not have the resources to establish a full team, so they should seek third-party support where needed.

Suggested steps for building a team include:

- **Sourcing internal support to advise and decide on NCS carbon credits.** Companies should first bring together an internal team with members from their legal, risk, and finance departments, as well as a procurement expert. Where possible, they should build expertise on biodiversity and on working with local communities. Some companies may already have internal personnel with experience trading carbon credits for compliance purposes whom they can tap.
- **Augment in-house capabilities with third-party support.** Once an internal team is assembled, companies have the option to augment their capabilities with third-party support from experts on the VCM, Natural climate solutions, and the values companies are prioritizing, such as biodiversity and working with local communities.

In particular, there are providers that scout for projects and programs and then make them available to corporate buyers. These providers work closely with project developers and can provide an additional layer of reporting on the project impacts and the quality of the carbon credits the projects generate. If a provider's "quality" criteria align with your company's, that provider could be a good fit. In addition, many project developers also have a consumer-facing operation (that is, they provide end-to-end services) and sell credits from the projects and programs they support (along with other credits).

Companies that elect to work with third parties must be sure to perform due diligence on prospective partners. This can be done through a streamlined Know Your Customer (KYC) process. This process

entails taking a close look at the project developer and/or intermediary, scrutinizing expertise and capabilities, as well as specific aspects of the project that are important to the company, such as project history, partners, key risks, additionality, leakage, permanence, co-benefits, revenue share arrangements, and negative press.

Set NCS Criteria to assess the contribution to climate, nature, and people

With the team in place, companies should work to set internal due diligence and procurement criteria that they can use as they interact with project developers or intermediaries and assess NCS projects and programs. These criteria should align with global best practices, existing standards, and company priorities. They should also be set with the company's key decision makers to allow timely purchasing decisions as the competition for quality investments intensifies.

There are three models companies can use to set criteria:

- **Relying only on third-party standards:** This is particularly common for carbon, as carbon quality standards are more developed. This approach is not recommended, as some projects and programs will require extensive due diligence to ensure they are high quality, even if they are verified by a standard. Nonetheless, we recognize that relying on third-party standards may be necessary for companies early on in their journey and whose resources and capabilities are limited.
- **Developing in-house criteria:** Companies with both dedicated expertise and buying power may elect to develop their own criteria. Many will do so, at some point, in collaboration with external stakeholders from NGOs and external topic experts.
- **Combining standards with in-house criteria:** Many companies are using a mix of both models, leaning on existing standards but also adding in-house criteria that fit with their strategic objectives or company policies. Other third-party requirements, such as certification requirements, may also influence company criteria.

The variety of methods for developing criteria is the result of the lack of a single overarching standard that defines high quality across nature and people, prompting some companies to craft additional standards to compensate for gaps in existing standards.

It's critical that companies have a clear set of NCS criteria with which to assess projects' and programs' contribution to nature and people. A set of criteria will streamline and enhance their procurement process, as well as foster internal alignment and inform strategy- and budget setting. In addition, by highlighting the right benchmarks and providing a checklist for high quality, criteria can help companies select long-term partners, projects, and programs with the speed necessary for the fast-paced market. Having pre-defined criteria will also help the company in their public reporting and communications about the contribution to nature and people associated with the purchase of NCS carbon credits.

When evaluating NCS credits, companies should pay attention to labelling, as some uses of carbon credits may depend on their label; for example, VCS credits with a CCB certification can be traded

differently than VCS credits without the CCB certification. This is also the case for vintages, which can affect how a credit is used.

Climate Mitigation Quality Criteria

For climate mitigation quality, criteria setting should first address minimum requirements. Companies can use rating agencies or their own criteria to assess carbon credits, but to ensure carbon integrity, all credits must be, at a minimum, verified by a credible carbon crediting program.

How do you know if a carbon crediting program is credible? The following frameworks and tools can help.

- **Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)**, a market-based mechanism to reduce emissions. CORSIA has developed Carbon Offset Credit Integrity Assessment Criteria that it uses to define eligible offset credit programs. It is important to note that not all programs validated by CORSIA will be high quality and that this is a minimum requirement.
- **International Carbon Reduction and Offset Alliance (ICROA)**, which promotes and gathers best practices for the voluntary carbon market. Companies and standards can choose to get accredited by ICROA if they meet their criteria.
- **Carbon Credit Quality Initiative (CCQI)**, which provides transparent information on the quality of carbon credits. This information enables users to identify carbon credits that deliver higher climate mitigation impacts and offer greater social and environmental benefits—and enhance the quality of carbon credits in the market. CCQI offers a free, user-friendly tool to score a carbon credit's quality. CCQI's methodology is publicly available.
- **The IC VCM's Core Carbon Principles and Assessment Framework** are still in the making but once finalized they could provide an important reference point for defining high integrity carbon crediting programs and the methodologies underpinning credit types. The CCPs may also influence current carbon verification standards, as they will set new guidance for them. Companies should consider CCPs when procuring NCS credits, as the CCPs could potentially raise the bar on quality further.

Purchase decisions and credit issuance within these markets rely heavily on the five most common standards: **Verified Carbon Standard (VCS)**, **Gold Standard (GS)**, **Climate Action Reserve (CAR)**, **American Carbon Registry (ACR)**, and the **Architecture for REDD+ Transactions (ART)**. **Plan Vivo** is increasingly requested by buyers interested in purchasing high-quality credits. It should be noted that the **Climate, Community and Biodiversity Alliance (CCBA)** complements a number of these standards by offering a Triple Gold status for projects that deliver exceptional benefits to climate, communities, and biodiversity. Together, these standards provide global reach, and certify projects for carbon quality as well as additional benefits related to biodiversity and people.

Biodiversity and People Quality Criteria

To assess projects and programs for high quality across biodiversity and people, we have included a set of criteria that spans requirements from a range of standards and incorporates input from experts on the biodiversity and people aspects of NCS.

The criteria listed in the following pages will help companies initiate conversation on high quality with project developers and will also provide them with clear guidance on questions to ask during the diligence process (More details start on page 28). When assessing projects and programs against criteria, companies should acknowledge that the market is not perfect and that many project developers are continuously adopting new standards and practices.

In addition to every project or program under consideration being certified by a carbon crediting program, it should also ensure no harm to biodiversity or people. To meet the definition of high-quality NCS, projects should demonstrate positive impacts on nature and people. Beyond that, project performance in any given criterion is measured on a spectrum reflecting degree of impact to biodiversity and people.

In the section below, critical criteria that ensure no harm are listed first, followed by criteria that enable and ensure net positive impact. We also indicate how companies should prioritize the criteria in their assessments. Different companies will be starting out with different levels of knowledge, and some of these questions are more complex and require a deeper understanding. We therefore encourage companies to use the criteria to the best of their knowledge and seek external help when needed.

Note that the criteria have been defined from a project-level perspective. If a company wants to evaluate the nature and people contributions associated with a jurisdictional-level programs, the questions will need to be reframed to account for the multiple sites and policy-level interventions typical of such programs.

For example, a company doing a diligence on a project might ask “Does the project incorporate local scientific understanding and traditional knowledge where possible?”. In comparison, a company doing a diligence on a program should start by asking “Do you have any policies in place to ensure the participation and involvement of local experts?” before presenting questions on measures being taken at the intervention level within the jurisdictional program.

All criteria on the following pages are mapped to the following carbon-crediting standards (also see Appendix 1):

- [Art Trees](#) – The REDD+ Environmental Excellence Standard for the quantification, monitoring, reporting, and verification of GHG emission reductions and removals from REDD+ activities at a jurisdictional and national scale. Art Trees is focused on carbon.
- [Gold Standard](#) – Gold Standard certification assesses carbon integrity, which includes adherence to principles on contributing to climate security and sustainable development.
- [Plan Vivo](#) – The Plan Vivo Standard is a set of requirements used to certify smallholder and community projects based on their climate, livelihood, and environmental benefits.
- [VCS \(CCB\)](#) – Developed by VERRA, the Climate, Community & Biodiversity (CCB) Standards identify projects that simultaneously address climate change, support local communities and smallholders, and conserve biodiversity.

- [VCS \(SD VISta\)](#) – The Sustainable Development Verified Impact Standard (SD VISta) is a standard that certifies the real-world benefits of social and environmental projects, from gender equity to economic development, and affordable clean energy to the restoration of wildlife.

In addition, relevant criteria have also been identified in the following standards and guidelines:

- [BGCI GBS](#) – Botanic Gardens Conservation International, Global Biodiversity Standard combines biodiversity impact assessment and mentoring of restoration practitioners for better biodiversity outcomes.
- [IUCN](#) – The IUCN Global Standard for Nature-based Solutions is a self-assessment consisting of eight criteria and associated indicators that address the pillars of sustainable development (biodiversity, economy, and society) and resilient project management.
- Fauna and Flora International – FFI provides internal guidance on high-integrity NbS in terms of net positives for biodiversity and social impact.
- [International Labor Organization Fundamental Convention](#) – Covers the ILO Governing Body’s eight “fundamental” conventions
- [LandScale](#) – Initiated by the Rainforest Alliance, Verra, and Conservation International, LandScale is an all-in-one tool that allows users to assess risk and adaptively invest in, monitor, and measure sustainability impact at the landscape level.
- [UNDP Social and Environmental Standards](#) – The social and environmental standards of the United Nations’ lead agency on international development underpin the UNDP’s goal of mainstreaming social and environmental sustainability in all of their programs and projects.
- [WRI](#) – Guidance developed by a World Resource Institute (WRI) working group focused on NBS and markets that provides the latest thinking on the voluntary use of NBS carbon credits.

Other relevant resources include:

- **The Peoples Forests Partnership IP & LC Quality Seal**, a designation that will be granted to projects meeting the PFP Criteria for high quality and high social integrity. The PFP endorsement will rely on the valuable work of the existing standards (VCS, Gold Standard, Plan Vivo, etc.) but aims to go beyond them, in particular, with regard to IP & LC consent, governance and revenue sharing. As an organization that represents IP & LCs in the carbon markets, the PFP goal is to elevate existing carbon standards in their checks of IPLC consent, governance and participation, specifically to ensure that projects truly deliver on people value and that IP & LCs are equal partners.
- **The Tropical Forest Credit Integrity Guide** (to be released December 2022) will also offer suggestions for due diligence in five critical areas related to purchasing tropical forest carbon credits. These include: full and effective engagement as active partners with Indigenous Peoples, local communities, women, and other underserved communities; equity and transparency in benefit-sharing arrangements; the use of conservative, credible baselines; measures to address the risk of non-permanence; and the degree of rigor and/or independence in validation and verification.

Please note: The example answers in grey boxes are generic answers, indicating simply what an answer should look like. Those in white boxes are either specific examples pulled from actual projects or are project type-specific guidance.

MINIMUM THRESHOLD CRITERIA FOR ALL PROJECTS

1. **CRITICAL:** The carbon credits have been issued by a credible carbon crediting program.

Due Diligence Questions	Example answers
Has the project been verified by a carbon crediting program?	Yes, project has been verified by <i>x</i> carbon crediting program.
What accreditation does the carbon crediting program have?	Yes, project has been verified by <i>x</i> carbon crediting program. The carbon crediting program has been: recognized by CORSIA and/or recognized by ICROA The carbon credit received a high score (5 or 4) in CCQI

2. Project must demonstrate evidence that the project design and/or development strives to balance outcomes for people and nature.

Due Diligence Questions	Example answers
Does the project address tradeoffs between immediate economic benefits for development and future options for the production of relevant ecosystem services? ³⁸	[Explanation of tradeoffs and methods for addressing.]
Does the project ensure benefits to both ecosystem and local communities?	Yes, project includes a focus on ecosystem benefits, by prioritizing minimally invasive activities that restore native species; and a focus on local communities, by providing training and educational opportunities.
Are the potential project costs and benefits of associated trade-offs at both the NCS site and across the larger landscape/ seascape being explicitly acknowledged? Are these costs and benefits taken into account in assessment against safeguards?	Red: No documentation or very little detail on potential project costs. Amber: Very little documentation available on cost or specific aspects that are not included in documentation. Green: Detailed cost breakdown of trade-offs including all aspects of the project. Cost effectiveness of project activities has also been considered in the local context. ³⁹
Are there limits to the tradeoffs, defined and agreed upon by all stakeholders? Are established safeguards, agreed upon by all stakeholders, in place to prevent tradeoffs	[Explanation of tradeoff limits and safeguards.]

³⁸ IUCN Resolution on NBS Definition

³⁹ N4C Reforest Better Guide

from being exceeded or from destabilizing the entire ecosystem?	
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3. Project performs environmental and social impact and risk assessments to prevent potential negative impacts of the project.

Due Diligence Questions	Example answers
How does the project demonstrate that it meets legal and institutional frameworks?	[Wide variety of answers – evidence of project working closely with host government, recognition of relevant laws and frameworks, etc.]
Does the project document social impact and risk. How is quality of social impact and risk documentation assessed?	Project design identifies potential risk to existing agricultural practices of local communities and has instituted means to reduce this risk and monitor practices in surrounding areas to minimize any potential impacts.
Does the project document risk of displacement for people and for biodiversity?	Project design identifies potential deforestation displacement risk and has instituted means to reduce this risk and monitoring practices in nearby areas to minimize any potential impacts.
Does the project document environmental impact and risk, including harm to biodiversity and people? How is quality of social impact and risk documentation assessed?	Project identifies potential risk to growth patterns of existing species and has instituted means to reduce this risk.
Does the project have an impact report? How frequently are impacts and KPIs monitored?	Project reassesses social impacts and risks on an annual/biannual/quarterly basis.
Does the project factor the NCS hierarchy into its risk assessment? ⁴⁰	Yes, project first invested in forest conservation prior to reforestation.

4. Project uses recognized approaches to support communities and ecosystems in adapting to climate change and is aligned with Sustainable Development Goals (SDGs): SDG 1 (no poverty), SDG 2 (zero hunger), SDG 5 (gender equality), SDG 14 (life below water), and/or SDG 15 (life on land).

Due Diligence Questions	Example answers
Does the project factor climate resilience into its approaches? How does it tailor climate resilience to select biomes/ ecosystems?	Red: No consideration of future climate change risks on the objectives of the project. Amber: Management plan acknowledges the risks of climate change to the objectives of the

⁴⁰ The sequential steps of the mitigation hierarchy are (1) avoidance, (2) minimization, (3) rehabilitation/restoration, and (4) offset.

<https://www.thebiodiversityconsultancy.com/our-work/our-expertise/strategy/mitigation-hierarchy/>

	<p>tree planting project, but does not detail plans to minimize these risks.</p> <p>Green: Management plan takes into account how to mitigate the direct and indirect risks that climate change represents to the objectives of the project,⁴¹ e.g.,:</p> <ul style="list-style-type: none"> • Project strategically selects location of mangrove restoration to reduce storm surges and stabilize coastal shores, protecting coastal communities and infrastructure from climate change impacts. • Project carefully manages vegetation in mountainous project area to stabilize slopes, which helps to prevent landslides and avalanches during extreme storms and precipitation events.⁴²
Does the project combine resilience strategies and local community practices, if appropriate?	Yes, project has established several trainings on resilient agriculture for the local community.

CRITERIA TO EVALUATE THE CONTRIBUTION TO NATURE

Objective: The project does not harm biodiversity but instead leads to biodiversity gains (as described by SDGs) and contributes to SDG 14 (life below water) and/or SDG 15 (life on land).

1. **CRITICAL:** The project does no harm to biodiversity.

Due Diligence Questions	Example answers
What internationally recognized environmental safeguards is the project assessed against (e.g., Cancun Safeguards)?	Project is assessed against the National Ambient Air Quality Standards set by the Environmental Protection Agency (US).
How has this adherence been verified? (E.g., is a third-party auditing adherence to internationally recognized safeguards?)	Project is audited by x accredited third party on a quarterly/ biannual/annual basis.
Does the project avoid introducing non-native species?	Yes, a range of native species are planted to support biodiversity development, with consideration given to the planting season of each species. ⁴³

⁴¹ N4C Reforest Better Guide

⁴² For further examples, see UNEP report *Harnessing Nature to Build Climate Resilience*: <https://wedocs.unep.org/handle/20.500.11822/40313>.

⁴³ N4C Reforest Better Guide

Does the project provide justification for any non-native species introduced? How is this justification assessed?	Yes, the use of the non-native species x has clear objectives and is only done as a small proportion (<5%) of the overall plantation. This justification has been assessed by local environment experts. ⁴⁴
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2. The project baseline characterizes the ecological state, drivers for ecosystem loss, and options for net improvement.

Due Diligence Questions	Example answers
Does the project incorporate local scientific understanding and traditional knowledge where possible?	Project has consulted certified local experts on the project ecosystem or community members with traditional knowledge, focusing on native species and habitat restoration. ⁴⁵
Does the project provide a relevant and up-to-date biodiversity baseline scenario report that indicates the area of influence and the larger baseline study area, as well as describe the methodology and criteria that were used to determine the baseline and the area of influence? What factors are considered when establishing the baseline (e.g., indicator species, forest cover, etc.)? How is the baseline calculated and how does it incorporate uncertainty?	Baseline report is provided that has been vetted by accredited third parties. Example methodologies that may be used in combination depending on need for each: <ul style="list-style-type: none"> • Reputable global and regional databases like IBAT, WDPA/Protected Planet, Ocean Data Viewer, and more • Peer-reviewed scientific literature • Field reconnaissance by a regional expert
Does the project have a long-term monitoring program that refers back to the biodiversity baseline to verify impacts both positive and negative?	Yes, project has a five-year monitoring plan that assesses the same factors as the baseline to verify impacts.
Does the biodiversity baseline correspond with jurisdictional baselines? What is the reason for any difference?	Number of indicator species present across the ecosystem compared to across jurisdiction (e.g., 15 species present in ecosystem compared to 12 across wider jurisdiction).

3. The project identifies clear and measurable outcomes and both anticipated and potential unanticipated risks to biodiversity, with an explicit objective of achieving positive impacts on biodiversity.

⁴⁴ N4C Reforest Better Guide

⁴⁵ Good example of expert database: Botanic Gardens Conservation International Directory of Expertise: <https://www.bgci.org/resources/bgci-databases/directory-of-expertise/>

Due Diligence Questions	Example answers
What biodiversity benefits and attributes are measured, how often, and using what tools?	Biodiversity benefits are assessed yearly in a landscape survey done by local experts.
Does the project prioritize the protection and recovery of biodiversity at risk (e.g., species listed on the IUCN Red List of Threatened Species, the IUCN Red List of Ecosystems, Key Biodiversity Areas, species determined a priority by experts and stakeholders)?	<ul style="list-style-type: none"> - Project protects x species on the IUCN Red List of Threatened Species. - Project protects x species with restricted ranges as determined by a local expert. - Project protects x species that use the site as a migratory site.
Does the project define specific biodiversity outcomes and targets around priorities listed above? Are clear and measurable biodiversity conservation outcomes being identified and benchmarked? Have these integrated local community perspectives and priorities?	<ul style="list-style-type: none"> - Increase number of hectares of non-forest land in which improved land management has occurred as a result of the project's activities, measured against the without-project scenario. - Increase number of species on IUCN Red List of Threatened Species that are benefiting from reduced threats as a result of project activities, measured against the without-project scenario. - Increase in number of native species, which is a priority to improve living conditions for IPLCs in the region.
Does the project directly respond to evidence-based assessment of the prevailing drivers of degradation and loss?	Yes, project activities are validated by evidence from ecosystem assessment.

4. The project is designed with site specific and/or landscape context pressures taken into account to reduce threats for biodiversity.

Due Diligence Questions	Example answers
Are the project's interventions, including those that occur at single sites or small spatial scales, developed in the context of the larger landscape/seascape through landscape/seascape planning?	Yes, project interventions account for broader environment (e.g., focus on deforestation reflects rising deforestation rates across larger landscape, rising prices for certain deforestation risk commodities, etc.).
How are landscape priority areas, culturally sensitive areas, and areas with potential for human-wildlife conflict identified? Does the project consider the High Conservation Value assessment to inform selection of priority areas?	Landscape priority areas are identified by measuring tree density and habitat fragmentation across ecosystem. ⁴⁶
Does the design of the project incorporate risk identification and risk management for biodiversity?	Project design identifies potential risk of increased mining in nearby areas leading to clearing of forest, and incorporates strategies

⁴⁶ N4C Reforest Better Guide

	to manage risk (e.g., maintaining a close relationship with district and local governments, empowering villagers to protect their resources for equitable benefit sharing).
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5. The project focuses on opportunities to enhance additional co-benefits to and from nature and build resilience.

Due Diligence Questions	Example answers
What measurable co-benefits does the project deliver?	Project worked with farmers of upland agricultural plots to identify alternative plots in areas not prone to erosion, allowing them to expand and solidify land ownership.
Does the project improve connectivity of the ecosystem?	Project is implemented close to 3 natural ecosystems (within 50 km) that are explicitly managed for conservation outcomes, to enable greater ecosystem connectivity.
Do project activities only use native species or natural processes that are primarily endemic to the ecosystem? If not, why?	Project restoration included forest landscape restoration using natural forest species, and reintroduced medicinal plants to the area which, though originally present, had largely disappeared. The total area of degraded forest restored was 640 ha.
Does the project implement practices that optimize biodiversity growth? How were agricultural practices determined, and is the local community educated on these practices?	Project uses only natural fertilizers to improve soil fertility. Project developers have run 10 training programs with members of the local community on how to use natural fertilizer to optimize crop growth.

6. The project prioritizes the maintenance and enhancement of ecosystem services such as soil protection, pollination, water sources and provision, soil fertility, and air quality.

Due Diligence Questions	Example answers
Does the project incorporate an ecosystem services focus by protecting and prioritizing provisions, habitats, and cultural resources?	Yes, project ensures that plantings are done in areas between habitats to prevent further fragmentation. Project also focuses on diversity of crop portfolios to increase food security. ⁴⁷
Biome-specific questions: ⁴⁸	
Have ecosystem services listed improved against project baseline?	Water flow to ecosystem streams has increased by 10% from project baseline.

⁴⁷ N4C Reforest Better Guide

⁴⁸ See [UNEP Global Assessment Report](#) for full range of ecosystem services.

What practices are being used to support the maintenance and enhancement of the above-mentioned ecosystem services? Why were these chosen and what evidence do you have to suggest that this was the correct approach for this region, local people, etc.?	We use natural fertilizers and legumes to help plants and crops grow. There is research to prove that this is indeed the best approach for this geography, and we have provided farmers with the necessary training and equipment to implement these practices.
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CRITERIA TO EVALUATE THE CONTRIBUTION TO PEOPLE

Objective: The project does no harm to people, especially Indigenous Peoples and Local Communities, but instead leads to positive social impact, contributing to SDG 1 (no poverty), SDG 2 (zero hunger), and SDG 5 (gender equality).

1. **CRITICAL:** The project has identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision making. Decision-making processes document and respond to the rights of impacted stakeholders.

Due Diligence Questions	Example answers
Has the project conducted a stakeholder analysis and consulted key stakeholders and representatives before and during the design phase? How were stakeholders identified?	<p>Red: No evidence of the inclusion of local communities in the decision-making process or recognition of their needs.</p> <p>Amber: Project incorporates some consultation with the local community, however, may not consistently engage with the local community.</p> <p>Green: Project developers have been in contact with members of the local community from the beginning to ensure their needs are supported and that they have been involved in project design. Project works to support development and improve the livelihoods of local communities through food production and income-generating activities.⁴⁹</p>
What role do IPLC representatives play in the project governance structure?	IPLC representatives are on an advisory board that performs monthly reviews of project status and approves project continuation.
Are decision-making processes being documented? Do they respond to the stakes of all participating and affected stakeholders?	Yes, all decisions are documented on a quarterly basis for project reports and include figures on number of stakeholders involved in each decision.
If applicable, does the project plan for global, national, regional jurisdictional alignment,	Red: There is no contact or communication with local and/or national entities regarding the project role in larger policy and goals.

⁴⁹ N4C Reforest Better Guide

and account for potential implications of Article 6? ⁵⁰	<p>Amber: The project is authorized by a local and/or national entity but national authorities are not involved in project design. Little evidence of consultation regarding the allocation of resources, site selection, balancing land uses, and coordinating goals with stakeholders across multiple scales.</p> <p>Green: The project has been authorized by a local and/or national entity and fits well into the national strategy to achieve climate goals. Evidence of consultation regarding the allocation of resources, site selection, balancing land uses, and coordinating goals with stakeholders across multiple scales.⁵¹</p>
How does the project respect and implement traditional knowledge of local communities?	Yes, project has monthly meetings with community-appointed experts on local traditions.

2. CRITICAL: The IPLC(s) present in the project area support the project.

Due Diligence Questions	Example answers
Has the project obtained the Free, Prior and Informed Consent needed from all community members, including marginalized and vulnerable groups, to operate? Did the FPIC process ensure translation of technical information and carbon market information to accessible languages and formats to obtain “informed” consent?	Project follows best practices for FPIC, including framing it as a human rights issue to ensure legitimacy and effectiveness, fulfill moral obligation, and reduce reputational risk. ⁵²
How frequently does the project reaffirm consent with representative and diverse group of stakeholders? What is the process of determining community representatives?	Yes, consent is informally reaffirmed through a functioning Grievance Redress Mechanism to identify and enable timely response to issues arising at any time during the project. Reaffirmation of FPIC occurs on a biannual basis and at specific decision moments that arise during the project and require consent.
What standards does the project use to assess proper protection of human rights?	Project respects and observes universal human rights and freedoms as defined by the Universal Declaration on Human Rights.
Has this adherence been verified (e.g., by a third party)?	Yes, adherence has been verified by a third party.

⁵⁰ [Climate Explainer: Article 6 \(worldbank.org\)](https://www.worldbank.org/climateexplainer/article-6)

⁵¹ N4C Reforest Better Guide

⁵² Pham TT, Castella J-C, Lestrelin G, Mertz O, Le DN, Moeliono M, Nguyen TQ, Vu HT, Nguyen TD. “Adapting Free, Prior, and Informed Consent (FPIC) to Local Contexts in REDD+: Lessons from Three Experiments in Vietnam.” *Forests*. 2015; 6(7):2405-2423. <https://www.mdpi.com/1999-4907/6/7/2405/htm>.

3. Project prioritizes the involvement and support of women and girls.

Due Diligence Questions	Example answers
How many women are involved in project governance, and what leadership positions do they hold? What is the ratio of men to women involved in project governance?	There is an equal gender split within governance structures, with 52 women appointed to community representative positions. In addition, the project has established five women's empowerment forums to increase their role in the community.
Has the project invested in employment opportunities for women? What are other ways in which the project has led to more opportunities for women?	891 women are employed in project activities in a full-time role.
Do men and women have the same project rights?	Yes, project assesses roles of men and women on a quarterly basis to ensure men and women have equal access to opportunities and land ownership (in accordance with community practices).

4. The project invests in livelihoods of IPLCs to ensure uptake and sustainability of the project.

Due Diligence Questions	Example answers
Has a participatory planning process been carried out in which communities define investment plans and governance models to manage land?	Consultations and workshops were undertaken with community members to understand their plans and accordingly identify project priorities.
Does the project list the improved livelihoods practices for IPLCs that you are incorporating into the project design? How many IPLCs are impacted?	7,532 community members, with income generated as a result of project activities in the last year.
What is the monitoring plan for these activities and negative impacts?	Activities are reassessed on a quarterly basis, with results compared to without-project scenario.
Are new or improved livelihoods sustainable?	The project has invested in training programs for financial management to ensure longevity of livelihoods.
Does the project invest in capacity-building opportunities for households related to the climate solutions?	Project has funded education for IPLCs and established training programs equaling \$272,000.

5. The project engages and protects marginalized and underrepresented groups, including low-income communities.

Due Diligence Questions	Example answers
Are marginalized and vulnerable groups equitably represented in project governance?	All marginalized groups within the community have been identified and have appointed representatives to project governance.
Has the project established revenue-sharing programs to prioritize marginalized and underrepresented groups? What is the benefit sharing mechanism?	Project has provided 2,581 community members with training programs tailored to marginalized and underrepresented groups.

6. The project maintains and takes opportunities to improve stakeholder land rights.

Due Diligence Questions	Example answers
Has the project addressed who owns the land? Have there been any disputes and how have they been addressed?	<p>Red: No documentation is available on land rights. Project adversely impacts the local community through failure to engage in discussions of land rights and ownership of emission sequestration rights.</p> <p>Amber: Evidence of land rights and emission sequestration rights and ownership documentation, but this is done without discussion with locals.</p> <p>Green: Land rights documentation is detailed and accessible. Community is included in land rights decisions, discussions, and organization. An equitable and transparent benefit sharing plan is in place with local stakeholders including indigenous peoples and communities.⁵³</p>
Does the project strengthen and promote IPLC rights to land?	Project has created 7 new Indigenous Communal Land Titles.
Does the project invest in legal rights training and support for documentation of traditional land rights for IPLCs? Are project resources being used to promote and revive IPLC's sustainable land management practices?	<p>Project has implemented legal rights training programs across 3 villages and 648 community members have completed at least one training program.</p> <p>Project has worked with IPLCs across 3 villages to implement their collective land management plans and practices.</p>
Does the project design respect and incorporate traditional land management techniques?	Yes, project has avoided using land currently occupied by smallholder farmers.

⁵³ N4C Reforest Better Guide

7. Benefit-sharing occurs in a transparent and equitable manner, and IPLCs have been consulted in the financial planning process.

Due Diligence Questions	Example answers
Does the project establish equitable sharing of carbon benefits with all stakeholders to ensure complete participation of the community in the project? How was the carbon benefit-sharing arrangement determined? How do benefits flow through to all community levels for equitable sharing?	If benefit is monetary: \$x earned by forest communities through carbon finance in 2021. Of this, \$x has been invested in education and health initiatives, including an Improved Community Health Fund, to provide benefits to the wider community.
Is benefit-sharing with IPLCs transparent, if desired by IPLCs? How is transparency assessed? Please share specifics on benefit sharing model, with evidence of application.	Transparency has been discussed with IPLCs and is assessed by third party auditing.
Is benefit-sharing with IPLCs equitable? How is equitability assessed?	Equitability is assessed by project developers, external experts on IPLC rights, and appointed members of the community.
What is the project benefit split with IPLCs, and where do the carbon rights sit Please share specifics on benefit-sharing model, with evidence of application.	If benefit is monetary: Project follows best practices set by IPLCs and local NGOs of 60% of revenue going to IPLCs.
How often is benefit-sharing arrangement reviewed and updated, who is involved and how is this done?	Benefit-sharing agreement is updated on a biannual basis, and includes consultation of IPLCs by project developers.
If benefit is monetary: Have proof of payment and proof of receipt been provided (if applicable)?	Yes, proof of payment and receipt has been provided.
If benefit is monetary: How are funds being administered? How is it assured that the community as a whole is represented equitable, and that marginalized groups receive a share of the benefits?	Project has worked with local authorities to set up bank accounts in the name of the community. It has also worked with community members to develop an investment plan and has ensured that investment priorities of marginalized groups has been accounted for.

8. The project protects the security of all stakeholders, including human rights defenders, complainants, and community spokespersons.

Due Diligence Questions	Example answers
Has the project established a culturally appropriate grievance mechanism for stakeholders that is widely promoted and accessible? How has the grievance	Yes, a grievance mechanism has been designed and implemented with the input of the local community.

mechanism been designed to be culturally appropriate?	
Does the project ensure anonymity of all stakeholders if requested? If so, how?	Yes, all projects/programs allow stakeholders to submit complaints and comments anonymously prior to monthly community meetings.
What mechanism does the project have in place for anonymous feedback? Is there evidence that stakeholders have used this mechanism?	Project mechanism for anonymous feedback was utilized by 253 stakeholders over the past year.

DRAFT

Going to Market

Once the NCS quality criteria have been set, companies should follow a disciplined process in entering the market for credits:

- (1) Agree on high-level terms and volumes with the stakeholder that you are purchasing the credit from (who may or may not be the credit owner). This is a first step to ensure shared expectations and avoid possible complications with project developers later in the contract process.
- (2) Limit the level of detail in the preceding step while the project list is still being determined to reduce the burden on project developers, only requiring:
 - a. Price, acknowledging it may vary, depending on quality and project/program operating cost
 - b. Volumes
 - c. Project IDs
 - d. Verification standard(s)
 - e. Existing marketing materials from the project developer; and
 - f. Vintage
- (3) Rely on publicly available information from registries for initial verification and assessment of projects and programs to limit additional work for project developers to the extent possible.
- (4) For companies that are purchasing directly from project developers, have a broader discussion on company goals and priorities for supporting NCS projects, as project developers may also want to do due diligence on buyers.

Identifying Potential Sources of NCS Carbon Credits

There are several options for identifying NCS projects and programs that will deliver carbon credits.

Requests for Proposal (RFPs)

RFPs can be used to solicit offers for carbon offset credits from a variety of sellers, such as partners or project developers. This process is useful for identifying, assessing, and selecting potential projects/programs that will deliver credits. However, it is important to note that the often extended time frame for RFPs can make them less useful for individual projects and credits for purchase, given the fast-moving nature of the NCS credits market.

Sourcing Credits from Trusted Partners

Companies with established relationships with retailers and project developers can source credits directly from these parties. This option is particularly advantageous as it can accelerate the entire pre-purchase process, including due diligence.

In addition, companies should perform due diligence on project developers and intermediary parties in the following areas:

- Climate targets
- Legal action taken against the company in the past year(s)
- Key partners and examples of collaboration
- Experience and expertise
- Policies on DE&I, discrimination, living wage, and benefits
- Negative press about seller or projects/programs, with checks on reputability of press

Use the Spot Market

Purchasing from the spot market (e.g., via a marketplace or exchange such as Carbon Trade Exchange) is a common method of procuring NCS, given the speed of the market and the growing demand for NCS credits. Spot purchasing can also be done over the counter, which gives companies more visibility to the underlying NCS project and thereby allows them to select for specific criteria.

Conduct Due Diligence

Once companies have established a long list of potential projects and programs, they must perform due diligence to ensure projects and programs meet their high-quality climate, nature, and people criteria. Alternatively, due diligence can be done by a third party, in addition to independent verification of the project/program. But that approach will be more costly—and time-prohibitive—and will require companies to perform due diligence on the third-party partner.

To assess for high quality, portfolio managers and external partners can follow a staged approach whereby they first confirm if the project/program has CORSIA/ICROA approval. Upon confirming approval, the company should then ensure the project or program causes no harm to biodiversity and people. If there is no harm to biodiversity and people, then they need to confirm the project/program supports SDGs, delivering positive impact to biodiversity and people. Once CORSIA/ICROA approval is confirmed and it has been demonstrated that the project or program causes no harm and generates positive impact for biodiversity and people, then the company should:

(1) Craft a preliminary agreement

It's important to agree with project developers on high-level terms and volumes and limit the amount of information requested in this first step.

(2) Gather sources on the project to assess quality

The company should collect information on the project/program and project developer, starting with publicly available information on third-party registries, including the certification report from the standard(s), and the project developer report. Companies can also seek additional information on projects/programs through external sources such as Google News.

(3) Use sources to assess quality

From there, the company should use these materials to assess the project against the long list of criteria and due diligence questions they have developed to assess quality. They should identify any potential follow-up questions and concerns and gaps in the information provided, seeking support from vetted third parties, as needed.

(4) Follow up with project developers

Companies can then engage with project developers, either directly (if they already have a relationship) or through a trusted third-party intermediary, on any questions that could not be answered through publicly available information such as standard certification reports and project developer reports.

(5) Use the service of carbon-rating companies

These providers deliver scores to help buyers assess the likelihood that a credit issued by a project will deliver on their claims to reduce or remove carbon. Some projects are also assessed on whether they deliver on other non-climate related impacts. Ultimately, using these services enables greater transparency and makes it easier for procurement officers to compare projects.

Make the Purchase/Sign the Contract

Once the due diligence process is complete, the company can make a final decision on projects/programs whose credits they will purchase. At that point, contracting with the developer or intermediary begins. These entities will have contract templates they can provide to the company to initiate the contracting process. As the company is reviewing the contract, there are some key elements and considerations to keep in mind, based on the length of the agreement.

- **Core Carbon Integrity.** To ensure core carbon integrity, the contract should contain guarantees on meeting standard requirements. In addition, it should state clearly whether credits are non-guaranteed ex-ante credits or guaranteed credit purchases; and it should guarantee retirement of the credit on behalf of the buyer.
- **Nature.** To ensure continued high quality across nature attributes, the contract should guarantee to meet minimum standards and measure impacts. It should also guarantee credit delivery, with a variable time frame based on the purchase agreement.
- **People.** To ensure continued high quality across people attributes, the contract should guarantee compliance with stated financial distribution, including to IPLCs.

Additional Considerations

Any contract should include several additional considerations, such as: commitments to anti-money laundering; establishing a relationship with the local and national government, if needed; clauses covering reputational risk; and any further contract elements put forward by the procurement team.

Credit prices are set on a variety of factors, such as the cost to develop and manage the project and its current value in the market. When agreeing on credit prices, companies can look to several sources for market information, understanding that project/program size, region, solution type, and quality will inevitably lead to a wide variation in prices. It is important to ask the developer or intermediary what the price per ton is, and why it is set at that price, as well as how much of the funding is being channeled back into the project and to the local communities.

Online databases such as Ecosystem Marketplace and IHS Markit tracking the VCM provide recent prices of credits, so companies can verify their credit pricing. Alternatively, companies can conduct internal analysis with procurement experts, independently analyzing the market before purchasing. Companies can also choose to visit the project themselves for additional input into credit prices.

Purchase and Offtake Agreement Structures

Companies can select from a variety of agreement structures, including blended contracts and long-term sales contracts based on volume or value. Advanced purchase and offtake agreements are other options, as the extended duration of agreement and commitment to purchase can help create a continuing supply of NCS credits. These are technically referred to as Voluntary Emission Reduction Purchase Agreements (VERPA); typically, they include definitions, terms of the transaction, taxes and fees, representation, notices, governing law and dispute resolutions, default terms and remedies.

Long-term Purchase Agreements

There is increasing interest and demand from buyers for long-term agreements to secure a supply of high-quality NCS. Project developers also seek long-term agreements, also called advance purchase agreements, to ensure security for future credits. They usually don't expect a fixed price, given market volatility, but would prefer a price that is potentially indexed to the market for advance purchase agreements. If companies opt for long-term purchase agreements, it is important that the contract expectations are clearly defined, including those stipulating ownership rights of credits, as the delivery of credits typically does not occur up front.

Partnership Models

Instead of buying credits from high quality projects or programs, a company could become a shareholder or investor. In this case, the company, within its go-to-market strategy, can choose from a variety of partnership models to facilitate the selection and assessment of high-quality NCS projects and programs. It can also elect to partner with third parties that offer procurement solutions and often cover all aspects of a procurement strategy.

Equity Investments in Project Developers

Companies can choose to invest in project developers to facilitate the development of specific projects, which is particularly helpful during the beginning stages of project development, as many projects and programs require additional financial support. Equity investments can also help corporates establish trust and build a long-term relationship with project developers.

Buyer Coalition Models

Companies can join coalitions like the LEAF coalition, which is designed to aggregate demand and funding to maximize the impact of selected projects and programs.

Co-Investing Models

Companies can join funds that co-invest in NCS projects and programs, which can emphasize the impact of projects and programs while also helping corporates select high-quality credits. (For more information, see the sidebar, "Combining Equity and Co-Investment.")

Capital Investments

Companies can partner with and invest in conservation organizations to develop and manage NCS project portfolios. For example, Hartree Partners and Wildlife Works partnered on a deal to generate increased private sector investment to protect biodiversity and address deforestation.

Open Calls for Proposals

Companies can hold open calls for proposals from project developers, which Microsoft has done in the past. However, this approach requires that companies have developed pre-existing criteria for projects and programs.

Combining Equity and Co-Investment

Native's HelpBuild forward-financing model is an innovative example of both equity and co-investment, whereby Native sells carbon credits that support an existing project with emissions reductions that will occur at some future date. In purchasing these credits, companies fund projects, and in exchange, Native supplies its project expertise.

One project this funding model enables is Regenerative Wool For Climate. With the help of Eileen Fisher, the women's clothing brand, and other partners, Native worked with wool growers to change their grazing practices to a regenerative approach that involves rotating pastureland and allowing fields to rest and recover. The thin margins wool growers earn means that investments must have an immediate return; but ecological changes unfortunately take time. Through Native's forward-financing model, farmers get the upfront capital they need to adjust their systems in a way that will benefit the local ecosystem, the productivity of their land, and the climate. In Phase 1 the project is expected to reduce carbon emissions by 100,000 tons over its 30-year operating life. As it adds partners and farms, it can reduce up to 50,000 tons per year.

Claims

The Voluntary Carbon Markets Integrity initiative (VCMI) is developing a Claims Code of Practice that corporates can use to make credible and transparent claims about their net-zero commitments. However, there is currently no major process in place for claims related to the nature or people side of NCS.

In the absence of clear guidance on how to avoid making non-credible claims, it is important for companies to be transparent and open about their objectives and action plans. Project developers or intermediaries that are selling the credits to the company may also be able to help in reviewing claims for accuracy.

Companies should be wary of making claims about project outcomes when purchasing credits. For example, it would not be credible to claim responsibility for the outcomes of an entire project when the company has only purchased a portion of the credits responsible for funding it. Organizations purchasing credits without a host country corresponding adjustment (see Glossary for definition) should communicate that the underlying mitigation also contributes toward the host country's NDC (provided it occurs under a covered sector) and be transparent in all reporting and communications related to credit use.⁵⁴

⁵⁴ Guidance on voluntary Use of Nature-based Solution Carbon Credits Through 2040, WRI, [Guidance on Voluntary Use of Nature-based Solution Carbon Credits Through 2040 | World Resources Institute \(wri.org\)](#)

One example:

“The Lightning Creek Ranch project in Oregon shows our “Retain” goal in practice - with our investment helping preserve North America’s largest bunchgrass prairie. In Kenya, we’re supporting the Kasigau Corridor REDD+ Project, protecting the dryland forest that’s home to hundreds of endangered species and provides local residents alternative incomes to unsustainable activities like poaching.”⁵⁵

Through transparent language, companies will be able to share their progress towards net zero without making misleading and unverifiable claims.

⁵⁵ [Net Zero + Nature: Our Commitment to the Environment - About Netflix](#)

Conclusion

Natural climate solutions represent the best hope for addressing the gap in net-zero GHG emission targets that technological solutions won't be able to fill. Their benefits extend far beyond, promising lasting impact on local environments and communities.

It's up to the private sector, however, to provide the needed funding that will give the NCS market the power to be this viable force.

Although the voluntary carbon market is developing rapidly and standards and verification mechanisms are being forged, the world need not—indeed, cannot afford to—wait to engage. By following a rigorous, disciplined approach, such as that delineated in this guide, and maintaining active involvement, companies can move forward in investing in the high-quality projects and programs that will make a difference.

We hope this publication, along with the many resources referenced within, advances decision makers' understanding of the NCS voluntary carbon market and its great potential. Above all, we hope that spurs them to pursue this significant path in their journey to net zero.

Glossary

Abatement: Measures that companies take to prevent, reduce, or eliminate sources of greenhouse gas (GHG) emissions within their value chain.

Additionality: GHG emission reductions from carbon offsets that would not have occurred without the offset activity. Examples of reductions that *would* happen anyway include trucking miles averted by the conversion to rail transport, emissions avoided by bicycle commuters, and renewable energy generation, among many others. Additionality is a controversial issue because it requires testing, and testing itself is controversial because it is imperfect.

Avoidance: Taking action that prevents carbon emissions from occurring, when measured compared with the most likely course of action – the baseline.

(Carbon) leakage: The process in which emissions are displaced or increased elsewhere (outside of the project or program boundary) as a result of project or program actions.

Carbon Credit: A tradable financial instrument that is issued by a carbon-crediting program. A carbon credit represents a GHG emission reduction or removal from the atmosphere equivalent to one metric ton of CO₂ equivalent, calculated as the difference in emissions from a baseline scenario to a project scenario. Carbon credits are uniquely serialized, issued, tracked and retired or administratively cancelled by means of an electronic registry operated by an administrative body, such as a carbon-crediting program.

Carbon neutral: The result when companies counterbalance CO₂ emissions with carbon offsets without having reduced emissions by an amount consistent with reaching net-zero at the sector or global level.

Compensation: Measures that companies take to prevent, reduce, or eliminate sources of GHG emissions outside of their value chain; this action is otherwise known as Beyond Value Chain Mitigation (BVCM).

Corresponding adjustments: Accounting tool agreed upon in Article 6 of Paris agreement to avoid double-counting of emissions in tracking progress towards Nationally Determined Contributions (NDCs)

Double counting: When a singular GHG emission reduction or removal is monetized separately by two different entities or sold to multiple buyers.

High Forest Low Deforestation (HFLD) jurisdictions: HFLD jurisdictions are generally defined as areas with high forest cover and low historical rates of deforestation.

High-quality: Solutions that address the permanence, additionality, leakage, double-counting, robust quantification, and verification of the NCS climate mitigation activities implemented. In addition, high quality projects measurably improve biodiversity and ecosystem integrity, providing substantive social and economic benefits for local communities and indigenous peoples, and offering protection from climate risk by boosting the land's resiliency and adaptive capacity.

Jurisdictional-scale Crediting: The issuance of independently verified carbon credits for forest-based emissions and/or removals based on a baseline developed at the scale of an accounting area defined by a country or large subnational political/administrative unit.

Mitigation: A human intervention to reduce emissions or enhance the sinks of greenhouse gases.

Net positive: When an entity removes more GHGs than it emits after having reduced emissions across all three scope levels to the level required by science-based pathways.

Nature value: Protecting and restoring ecosystems to prevent further degradation while preserving existing biodiversity

Net zero: Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period. At the individual actor level, a state of net zero is reached when an actor reduces its emissions following science-based pathways, with any remaining GHG emissions attributable to that actor being fully neutralized by like-for-like removals (e.g., permanent removals for fossil carbon emissions) exclusively claimed by that actor, either within the value chain or through purchase of valid offset credits.

Neutralization: Measures that companies take to remove carbon from the atmosphere and permanently store it to counterbalance the impact of unabated emissions. These measures can be taken inside and outside of the value chain.

People value: Addressing societal needs and interests, particularly of Indigenous Peoples and Local Communities (IPLCs) within and around the NCS project area, and deliver benefits.

Permanence: The degree of risk of reversal for carbon sinks. Reversal is a common occurrence, as it is impossible to guarantee that a carbon sink will last forever. For high-quality carbon credits, permanence is defined as at least 100 years of emission sequestration or reduction.

REDD+: Activities in the forest sector that reduce emissions from deforestation and forest degradation, as well as facilitate the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries

Reduction: Measures taken to reduce the duration, intensity, or extent of impacts that cannot be completely avoided.

Removals: The withdrawal of GHGs from the atmosphere as a result of deliberate human activities, such as through the enhancement of biological sinks of carbon dioxide or the use of chemical engineering to achieve long-term removal and storage.,

Sequestration: The process of capturing, securing, and storing carbon dioxide from the atmosphere.

Sources: The Biodiversity Consultancy, CDR Primer, Climate Action Reserve, European Commission Climate Action, SBTi, UNFCC and WRI.

Appendix

Appendix 1: Mapping of standards and guidance covering criteria

Standards	Table stakes criteria	Criteria to evaluate the contribution to <u>people</u>	Criteria to evaluate the contribution to <u>nature</u>
Art Trees		<ul style="list-style-type: none"> Identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision-making. Decision making processes document and respond to the rights of impacted stakeholders. 	<ul style="list-style-type: none"> Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience. Prioritizes the maintenance and enhancement of ecosystem services such as soil protection, pollination, water sources and provision, soil fertility, and air quality.
Gold Standard			
Plan Vivo	<ul style="list-style-type: none"> Performs environmental and social impact and risk assessments to prevent potential negative impacts 	<ul style="list-style-type: none"> Identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision-making. Decision making processes document and respond to the rights of impacted stakeholders. The IPLC(s) present in the area support the project. Invests in livelihoods of IPLCs to ensure uptake and sustainability of the project/program. Maintains and takes opportunities to improve stakeholder land rights. 	<ul style="list-style-type: none"> Baseline characterizes the ecological state, drivers for ecosystem loss, and options for net improvement. Identifies clear and measurable outcomes and both anticipated and potential unanticipated risks to biodiversity, with an explicit objective of achieving positive impacts on biodiversity. Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience.
VCS (CCB)	<ul style="list-style-type: none"> Performs environmental and social impact and risk assessments to prevent potential negative impacts 	<ul style="list-style-type: none"> Identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision-making. Decision making processes document and respond to the rights of impacted stakeholders. Invests in livelihoods of IPLCs to ensure uptake and sustainability of the project/program. Engages and protects marginalized and underrepresented groups, including low-income communities. Benefit sharing is transparent and equitable and IPLCs have been consulted in the financial planning process. 	<ul style="list-style-type: none"> Baseline characterizes the ecological state, drivers for ecosystem loss, and options for net improvement. Identifies clear and measurable outcomes and both anticipated and potential unanticipated risks to biodiversity, with an explicit objective of achieving positive impacts on biodiversity. Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience. Prioritizes the maintenance and enhancement of ecosystem services such as soil protection, pollination, water sources and provision, soil fertility, and air quality.
VCS (SDVista)	<ul style="list-style-type: none"> Performs environmental and social impact and risk assessments to prevent potential negative impacts 		
BGCI GBS	<ul style="list-style-type: none"> Performs environmental and social impact and risk assessments to prevent potential negative impacts 		<ul style="list-style-type: none"> The project/program does no harm to biodiversity. Baseline characterizes the ecological state, drivers for ecosystem loss, and options for net improvement. Identifies clear and measurable outcomes and both anticipated and potential unanticipated risks to biodiversity, with an explicit objective of achieving positive impacts on biodiversity. Designed with site specific and/or landscape context pressures considered to reduce threats for biodiversity. Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience.

UNDP Social and Environmental Standards	<ul style="list-style-type: none"> Design and/or development try to balance outcomes for people and nature. 		
IUCN	<ul style="list-style-type: none"> Design and/or development try to balance outcomes for people and nature. 	<ul style="list-style-type: none"> Identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision-making. Decision making processes document and respond to the rights of impacted stakeholders. The IPLC(s) present in the area support the project. Prioritizes involvement and support of women and girls. Invests in livelihoods of IPLCs to ensure uptake and sustainability of the project/program. Engages and protects marginalized and underrepresented groups, including low-income communities. 	<ul style="list-style-type: none"> Baseline characterizes the ecological state, drivers for ecosystem loss, and options for net improvement. Identifies clear and measurable outcomes and both anticipated and potential unanticipated risks to biodiversity, with an explicit objective of achieving positive impacts on biodiversity. Designed with site specific and/or landscape context pressures considered to reduce threats for biodiversity. Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience.
FFI	<ul style="list-style-type: none"> Performs environmental and social impact and risk assessments to prevent potential negative impacts Uses recognized approaches to support communities and ecosystems in adapting to climate change and is aligned with SDGs 1, 2,5,14 and/or 15 	<ul style="list-style-type: none"> Identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision-making. Decision making processes document and respond to the rights of impacted stakeholders. The IPLC(s) present in the area support the project. Prioritizes involvement and support of women and girls. Engages and protects marginalized and underrepresented groups, including low-income communities. Maintains and takes opportunities to improve stakeholder land rights. Benefit sharing is transparent and equitable and IPLCs have been consulted in the financial planning process. 	<ul style="list-style-type: none"> The project/program does no harm to biodiversity. Baseline characterizes the ecological state, drivers for ecosystem loss, and options for net improvement. Designed with site specific and/or landscape context pressures considered to reduce threats for biodiversity. Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience. Prioritizes the maintenance and enhancement of ecosystem services such as soil protection, pollination, water sources and provision, soil fertility, and air quality.
International Labor Organization Fundamental Convention		<i>This guideline should be considered to ensure that the project protects outcomes for people.</i>	
Landscape			<ul style="list-style-type: none"> Designed with site specific and/or landscape context pressures considered to reduce threats for biodiversity. Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience. Prioritizes the maintenance and enhancement of ecosystem services such as soil protection, pollination, water sources and provision, soil fertility, and air quality.
WRI		<ul style="list-style-type: none"> Identified and involved stakeholders who are directly and indirectly impacted by the NCS in all processes of the governance structure and decision-making. Decision making processes document and respond to the rights of impacted stakeholders. Benefit sharing is transparent and equitable and IPLCs have been consulted in the financial planning process. Protects the security of all stakeholders, including human rights defenders, complainants, and community spokespersons 	<ul style="list-style-type: none"> Focuses on opportunities to enhance additional co-benefits to and from nature and build resilience.

Appendix 2: Resources and References

Carbon Mitigation Background / Net-zero Journeys (Beyond Voluntary Carbon Mitigation)

[The Oxford Principles for Net-zero Aligned Carbon Offsetting](#)

[SBTi Net-zero Standard](#)

General Background on People and Biodiversity

[IPBES Global Assessment Report on Biodiversity and Ecosystem Services](#)

Definitions / NCS Background

[IUCN Resolution on NBS Definition](#)

[NCSA NCS for Corporates](#)

[NCSA Guide for C-Suite Executives](#)

[WWF: Working with Nature to Tackle Societal Challenges and Benefit People, Nature and Climate](#)

NCS-Specific Guidance / Role of NCS in NZ Journeys

[Conservation International's Exponential Roadmap for NCS](#)

[Getting the message right on nature-based solutions to climate change](#)

[UNEP ICUN Report: Nature based solutions for climate change mitigation](#)

[World Resources Institute: Guidance on Voluntary Use of Nature-based Solution Carbon Credits through 2040](#)

[Tropical Forest Credit Integrity Guide](#)

[“Don't lock Indigenous Peoples into bad carbon deals: experts”](#)

[“Protect, manage and then restore lands for climate mitigation”](#)

[The State of Carbon Credits 2022: Spotlight on REDD+](#)

NCS Criteria

The following standards are described on pg. 25 and 26 of this report as well as in Annex 1:

[Art Trees](#)

[BGCI GBS](#) (Botanic Gardens Conservation International, Global Biodiversity Standard)

[IUCN](#) Global Standard for Nature-based Solutions

[FFI](#) (Fauna and Flora International)

[International Labor Organization Fundamental Convention](#)

[LandScale](#)

[Plan Vivo](#)

[UNDP Social and Environmental Standards](#)

[VCS \(CCB\)](#) (Verified Carbon Standard (VCS), The Climate, Community & Biodiversity (CCB) Standards)

[VCS \(SDVista\)](#) (The Sustainable Development Verified Impact Standard)

[WRI](#)

These additional resources provide further background, and in the case of Microsoft, an example of a corporation setting its own criteria:

[Microsoft criteria for high-quality carbon dioxide removal](#)

[KEW: 10 Golden Rules for Restoring Forests](#)

[Ceres: Evaluating the use of carbon credits](#)

NCS Investment Flows / Financing

[State of Finance for Nature \(UNEP\)](#)

[Nature Risk Rising \(World Economic Forum\)](#)

[Scaling Investments in Nature \(World Economic Forum\)](#)

Note: [There are RFP platforms specific to carbon credit procurement that are being developed as technological solutions for companies.](#)

Jurisdictional NCS

[Forests for Climate: Scaling up Forest Conservation to Reach Net Zero \(World Economic Forum\)](#)

About the Authors

Natural Climate Solutions Alliance (NCSA)

The NCSA is a multistakeholder coalition that brings together public and private stakeholders to identify opportunities and barriers to investment into carbon credits in new and existing markets to scale up financing for climate solutions. The Alliance also serves as a forum for knowledge sharing and technical capacity building to ensure climate solutions reach their full potential in abating climate change. The Alliance is a collaboration between WBCSD and the WEF.

LinkedIn: [linkedin.com/company/ncsalliance/](https://www.linkedin.com/company/ncsalliance/)

Website: naturalclimatesolutionsalliance.org

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