Natural Climate Solutions Alliance

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

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In collaboration with:

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Natural Climate Solutions Alliance (NCSA)

The Natural Climate Solutions Alliance (NCSA) is a multistakeholder coalition that brings together public and private sector stakeholders to identify opportunities and barriers to investments in 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 the World Business Council for Sustainable Development (WBCSD) and the World Economic Forum.

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WBCSD is the premier global, CEO-led community of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net-zero, nature-positive and more equitable future.

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Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD $8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. Since 1995, WBCSD has been uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability, united by our vision of a world in which 9+ billion people are living well, within planetary boundaries, by mid-century.

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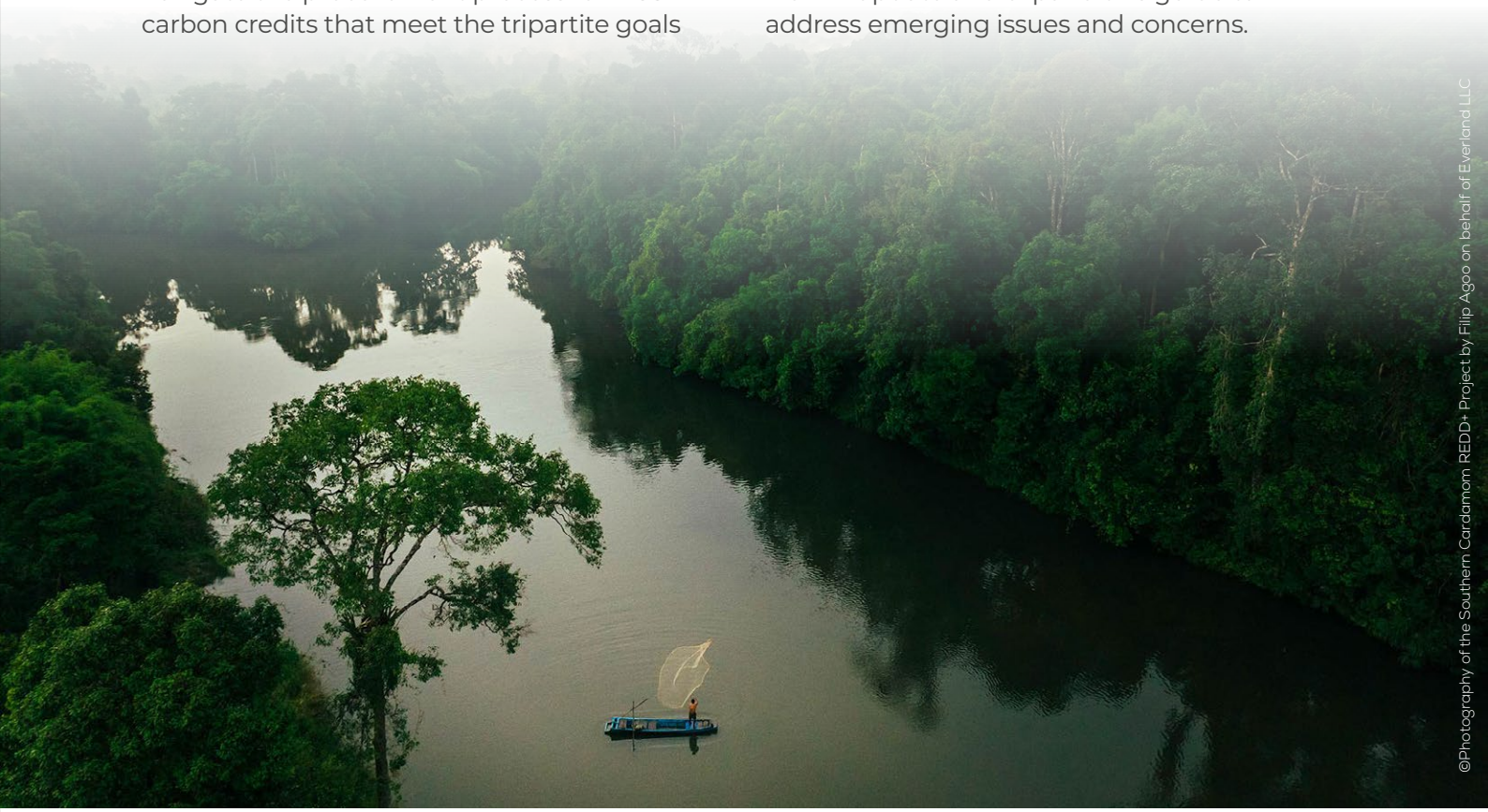
Preface

As the world grapples with the immense challenge of climate change, businesses have an increasingly critical role to play in driving solutions. The use of natural climate solutions (NCS) carbon credits is one way that companies can take meaningful action to address climate change while also generating important biodiversity and social benefits.

However, the voluntary carbon market (VCM) is a complex and rapidly evolving market and the procurement of high-quality NCS carbon credits can present challenges for businesses. We recognize that the carbon credit market is not without its challenges, including concerns about the integrity of climate change mitigation outcomes. We have designed this guide to provide practical information to support businesses as they navigate the procurement process for NCS carbon credits that meet the tripartite goals of climate change mitigation, biodiversity gains and benefits to people. While we do not address the integrity of climate change mitigation outcomes in detail in this guide, we provide references for companies on existing and ongoing work in this area.

This guide builds on our earlier work on Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives, which provides decision-makers with guidance to drive demand for high-quality NCS projects and urges companies to mitigate their emissions beyond their value chains.

We hope that this guide will provide valuable support to companies as they work to integrate NCS carbon credits into their climate strategies. As the market continues to evolve, we will update and expand this guide to address emerging issues and concerns.



Why use this guide?

This guide aims to support businesses that purchase natural climate solutions (NCS) carbon credits as they manage the demand- and supply-side risks associated with the integration of the voluntary carbon market (VCM) in their climate strategies. The goal is to help companies navigate the procurement of NCS credits in the VCM. See Figure 2 for further explanation of the VCM.

This guide helps procurement officers identify and purchase NCS carbon credits that fulfill the tripartite NCS goals of climate change mitigation, biodiversity gains and benefits to people. NCS projects or programs need to put high integrity with respect to climate change mitigation first, delivering emissions reductions or removals. High-quality[1] NCS also deliver biodiversity and people benefits, which are vital in their own right, and underpin climate benefits. Given the extensive and ongoing efforts dedicated to defining integrity for climate change mitigation,[2] this guide does not focus on this element. Rather, it focuses on the biodiversity and people benefits required for the procurement of high-integrity NCS. It does provide references on existing and ongoing work for companies to assess the integrity of NCS climate change mitigation outcomes. See the Climate Change Mitigation Quality Criteria section for more detail.

Specifically, readers will find practical information to guide them step by step through the entire purchase process for NCS credits. The guide identifies the key players across the value chain and ongoing work on improving quality in the market to help buyers in their due diligence. Included in this guide is a list of criteria and associated questions that procurement officers can use in conversations with NCS projects, program developers and intermediaries to assess whether people and biodiversity outcomes qualify as “high-quality”.

This guide helps procurement officers identify and purchase NCS carbon credits that fulfill the tripartite NCS goals of climate change mitigation, biodiversity gains and benefits to people.

The guide provides information on corporate action and commitments to net-zero emissions, why businesses should purchase NCS credits, and the role they play in delivering on a corporate climate strategy in the section in Appendix 1 on The Role of NCS in Beyond Value Chain Mitigation. More information is also available in previous publications on Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives and the A Guide for Leaders on Carbon Removal.

Additionally, this guide provides information and resources that go into more depth on key topics in the Appendix.

The context for this guide

Limiting global warming to 1.5°C requires achieving net-zero greenhouse gas (GHG) emissions by 2050. Even with full implementation of conditional Nationally Determined Contributions (NDCs), a 20 Gt CO_2e gap remains.[3] Nature will have a crucial role in closing this gap. For instance, Conservation International's Exponential Roadmap for Natural Climate Solutions highlights how natural climate solutions can help the world move from 12.5 Gt of emissions from land each year to net-zero emissions by 2030, with land acting as a 5 Gt sink by 2040 and a 10 Gt sink by 2050.

Even with full implementation of conditional Nationally Determined Contributions (NDCs), a 20 Gt CO_2e gap remains. Nature will have a crucial role in closing this gap.

NCS are nature-based solutions (NbS) that address climate change. NCS therefore are a subset of NbS, specifically focusing on one particular societal challenge: climate change.

Nature-based solutions are:

> ***"...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]

By generating biodiversity gains and benefits for people, NCS deliver climate mitigation outcomes. This combination has the potential to drive meaningful, widespread impact, as long as financing is sufficient and projects and programs are executed correctly. By investing in high-quality NCS carbon credits, companies will address material and physical risks posed by nature loss and improve their relations with major stakeholders that are demanding leadership from companies on climate.

One way that companies can close the funding gap[5] is by purchasing NCS carbon credits on the VCM. One NCS carbon credit represents 1 metric ton of CO_2e either reduced (emission reduction) or removed (emission removal) from the atmosphere. For more information, see Appendix 1 on the role of NCS beyond value chain mitigation.

Projects and jurisdictional programs that deliver on climate mitigation while also putting biodiversity and people at the center of the solution, especially Indigenous Peoples and local communities (IPs and LCs) generate high-quality NCS carbon credits, the focus of this guide.

The primary difference between projects and programs is that programs cover a larger area (typically national or large subnational scale), the main program stakeholders are often public entities (mostly ministries and their line agencies) that oversee policy and program

design and implementation, and programs tend to be based on historical baselines (as opposed to projections). For this reason, programs often include significant policy changes and actions, whereas projects tend to focus on specific actions at a more local level.

NCS interventions are diverse – spanning the protection and conservation, sustainable management and restoration of ecosystems across geographies and socio-economic contexts (see Figure 1). These characteristics are important to understand as they ultimately influence the potential biodiversity gains and benefits to people that projects and programs can achieve. For example of a diverse range of NCS projects, please see the Natural Climate Solutions Alliance Lighthouses.

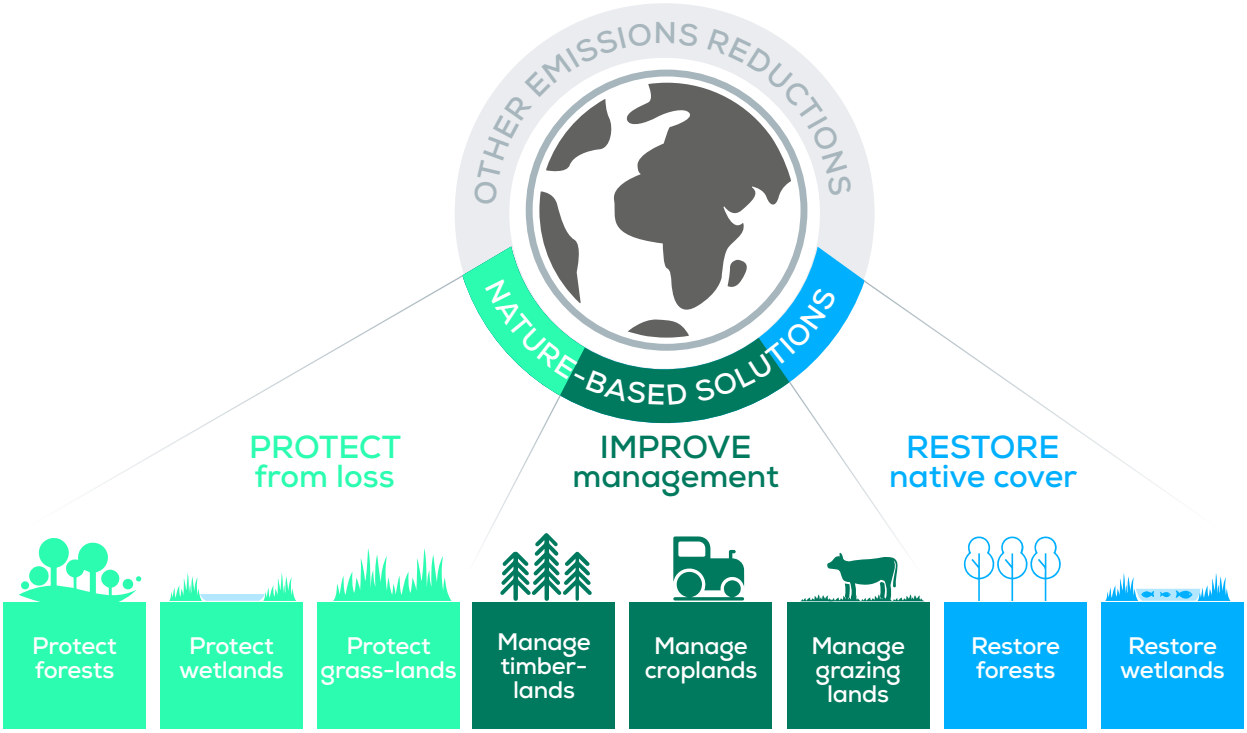


Figure 1: NCS interventions protect and conserve, sustainably manage and restore nature

This infographic is adapted from Griscom, B.W., et al. (2019). "We need both natural and energy solutions to stabilize our climate". Global change biology, 25(6), 1889–1890.

Understanding the marketplace

Companies can purchase carbon credits on compliance markets or on the voluntary carbon market (VCM) (see Figure 2). This guide focuses on helping companies procure NCS in the VCM.

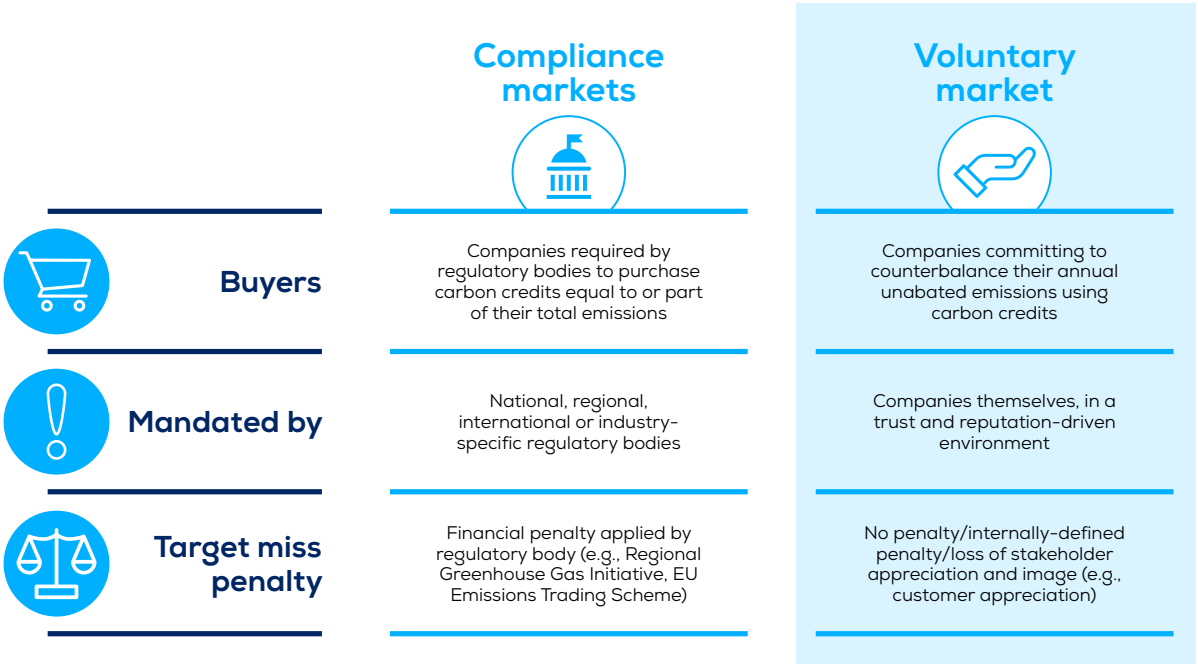


Figure 2: Understanding compliance markets and the voluntary carbon market (VCM)
Source: A Buyer's Guide to Natural Climate Solutions Carbon Credits, NCSA

The VCM is complex and evolving quickly[6] and some stakeholders hold multiple roles in the procurement process. Across the VCM, six main groups of stakeholders play important roles (see Figure 3).

1. **Land stewards and carbon rights holders**, especially IPs and LCs, are central to the delivery of high-quality NCS projects and programs. If IPs and LCs are not the ones spearheading the NCS project or program, developers must ensure their full and effective participation from initiation – as central rights holders in their territories – and must ensure the fair, equitable and transparent distribution of associated benefits and revenues. No organization should implement a project or program without the full and active participation of IPs and LCs and their free, prior and informed consent.[7] In some cases, land stewards and carbon rights holders may overlap with the government.

2. **Project developers** design and implement projects in collaboration with partners on the ground, land stewards, carbon rights holders and local communities. If project developers are not the carbon rights holders, they must have the agreement of the carbon rights holders before initiating a project. Once independent third-party

auditors validate and verify the projects to standards and a carbon crediting program certifies them, projects can receive tradeable carbon credits issued by a registry. Project developers may also provide integrated support services, such as supporting buyers with emissions calculations, strategic advisory and legal claims support. 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 they support (along with other credits).

3. **Non-governmental organizations (NGOs)** often provide technical support to local communities, work in partnership with project developers, and can act as project developers themselves. As NCS projects and programs have conservation actions as their basis, conservation NGOs routinely promote high-integrity standards and offer technical assistance to ensure the integration of these standards into project planning and delivery phases. Human rights NGOs also play an important role in supporting the consultation processes and in ensuring IPs and LCs receive a fair share of the revenues.

4. **Governments** can also act as program developers. The role of governments can include setting and enforcing regulation – particularly for larger-scale programs – issuing forest carbon management permits, approving the transfer of carbon credits from land users to project proponents, overseeing the carbon asset creation value chain, and supporting the nesting of projects within jurisdictional programs. Additionally, governments can support specific programs and projects through in-country tax initiatives. As the implementation of Article 6 of the Paris Agreement advances, governments will be critical in establishing or approving registries to track projects. While this is still an evolving topic under the latest version of Article 6.4, governments will approve projects (along with the UN Supervisory Body) before UN-recognized credits (known as A6.4ERs) can be issued and countries, companies or even individuals can buy them. See the section on Article 6 for more details.

Land stewards and carbon rights holders, especially IPs and LCs, are central to the delivery of high-quality NCS projects and programs.

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5. **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.

6. **End-buyers** purchase NCS carbon credits to counterbalance their annual unabated residual emissions, neutralize their residual emissions, and compensate for historical emissions (See Figure 6).

Additionally, other actors play a critical role in the facilitation of the VCM. Notable types of organizations and programs that will be particularly relevant for procurement officers as they look to identify, select and purchase high-quality carbon credits are as follows:

7. **Carbon crediting programs** define the rules and methodologies for different types of mitigation activities and issue credits to the developers of mitigation activities once the activity has gone through validation and verification.

8. **Validation/verification bodies (VVB)** conduct third-party assessments to

provide independent confirmation that projects and programs are in line with requirements from carbon crediting programs.

9. **Registries**, through public-facing databases of all the projects and programs registered and credits issued, allow the public to transparently access project documentation and track issuance and retirement of credits to ensure one credit is associated with a single emission reduction or removal. Organizations can use the registry to ensure that credits are not double counted or double claimed. In many cases, the carbon crediting programs also act as the registries.

10. **Governing bodies** are independent bodies that aim to drive a credible voluntary carbon market. These bodies set and, in some cases, enforce standards for stakeholders in the voluntary carbon market, including buyers, project and program developers and carbon crediting programs.

11. **Carbon credit rating agencies** rate the quality of NCS projects based on independently acquired data**.** They are independent from carbon crediting programs and generally are hired by intermediaries or directly by the prospective buyers.

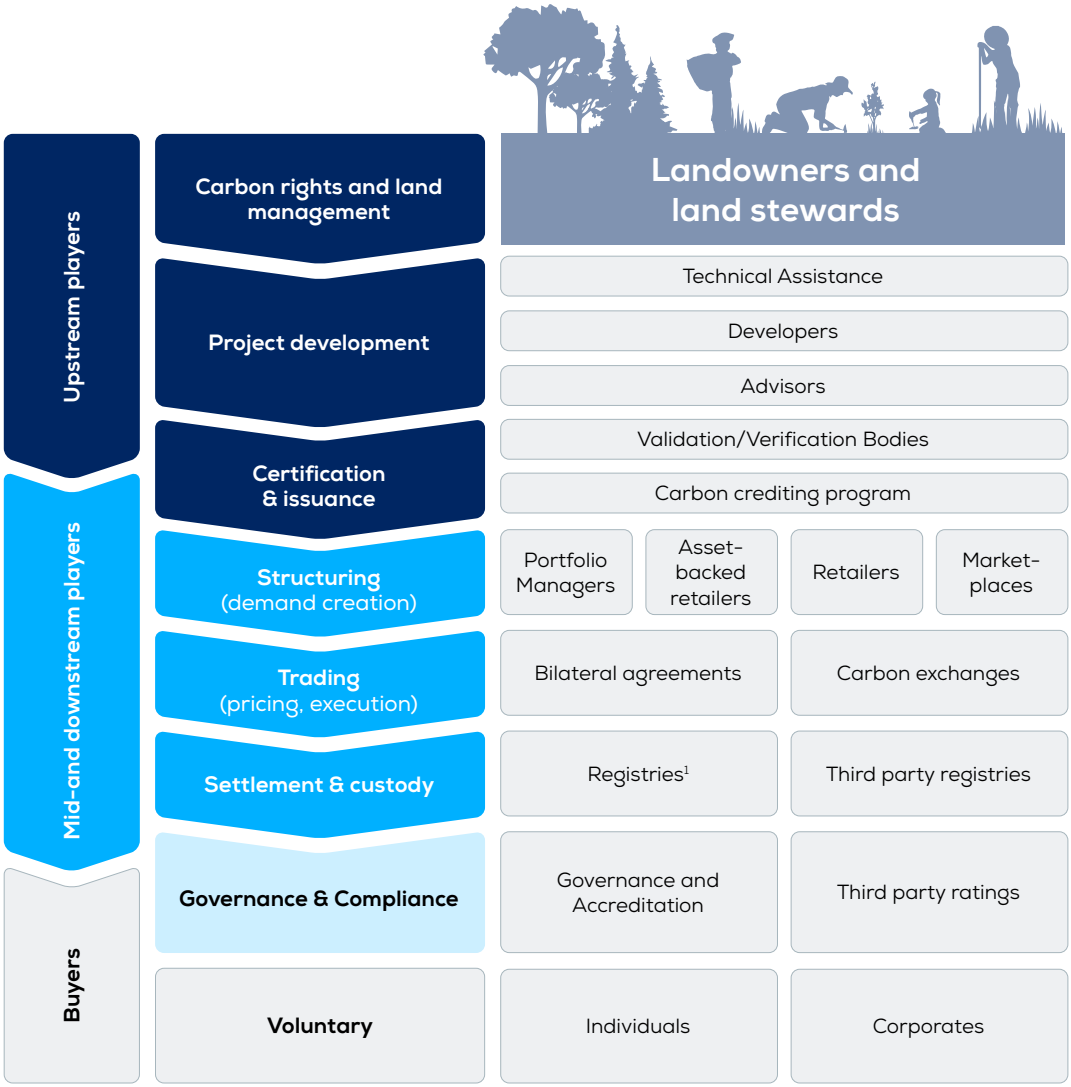

Figure 3: The key players in the voluntary carbon market

Source: A Buyer's Guide to Natural Climate Solutions Carbon Credits, NCSA

How to purchase high-quality NCS carbon credits

To help companies procure high-quality NCS carbon credits, this guide lays out eight steps (see Figure 4). These steps are critical to ensuring high quality and avoiding the reputational risks associated with purchasing low-quality carbon credits. For more information on the various risks associated with purchasing credits, see the due diligence section. Transparency is fundamental across these steps, including from project developers on quality and price and from companies on how credits factor into their net-zero transition plan.

Projects or programs generate high-quality NCS carbon credits when they are of high-integrity – meaning they address the permanence, additionality, leakage, double-counting, robust quantification and verification of the NCS climate mitigation activities implemented. In addition, high-quality NCS carbon credits should measurably improve biodiversity integrity, use robust and verifiable biodiversity monitoring methods, and provide social and economic benefits for IPs and LCs.

To help companies procure high-quality NCS carbon credits, this guide lays out eight steps. These steps are critical to ensuring high quality and avoiding the reputational risks associated with purchasing low-quality carbon credits.

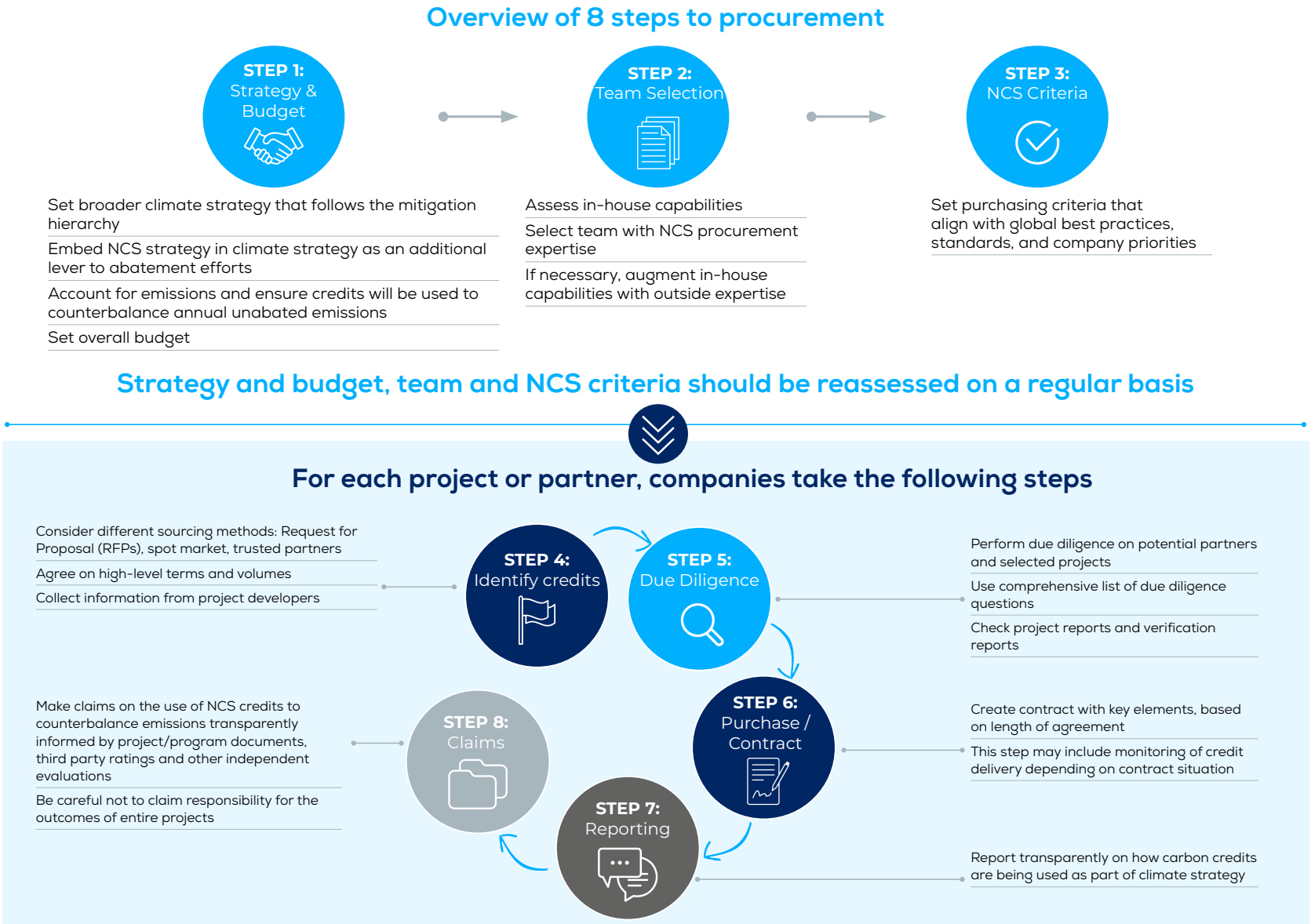

Figure 4: Eight steps for purchasing high-quality NCS carbon credits

Source: A Buyer's Guide to Natural Climate Solutions Carbon Credits, NCSA

Step 1.
Integrate NCS in the corporate climate strategy and budget

Companies should first set a broader climate strategy that follows the mitigation hierarchy. Once they have developed this overall climate strategy, they can set their strategy and budget for the use of NCS, including NCS credits. NCS carbon credits should be used by the company as beyond value chain mitigation (BVCM) to counterbalance[8] their annual emissions that remain unabated after the abatement measures in line with their science-based targets.[9] The budget should, at a minimum, reflect the scale of a company's yearly unabated emissions. They may also go beyond this to address historic emissions and seek to surpass the net-zero emissions goal. By engaging with the VCM and purchasing NCS credits now, companies can also gain experience and build a supply pipeline to better prepare for procuring credits to neutralize the emissions once they reach net zero (see Figure 5).[10]

NCS carbon credits should be used by the company as beyond value chain mitigation (BVCM) to counterbalance their annual emissions that remain unabated after the abatement measures in line with their science-based targets.

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It is important to acknowledge that companies can deploy NCS projects and programs as an in-value chain solution to mitigate emissions. For example, companies in the agriculture, forestry and other land use (AFOLU) sector could invest in improved agricultural land management or agroforestry projects to reduce emissions within their own value chain, such as by following the Land Sector and Removal Guidance issued supporting the Greenhouse Gas Protocol.[11]

	In-value chain	Beyond value chain
APPLICATION	Reduce Scope 3 emissions from supply chain activities	Compensate company's existing residual unabated emissions
PURCHASER	Company within the same value chain as where the emissions reductions / removals occur	Business of any sector, e.g., airlines, tech via the voluntary or compliance market

Figure 5: NCS in-value chain and beyond value chain interventions
Source: A Buyer's Guide to Natural Climate Solutions Carbon Credits, NCSA

According to the Forest, Land and Agriculture Science Based Target-Setting Guidance (FLAG) from the Science Based Target Initiative (SBTi),[12] it would be possible for companies in the land-intensive FLAG sectors to count NCS reductions or removals as abatement. Companies must cancel or retire credits generated from the project activity for this non-offsetting purpose in order to enhance transparency and avoid potential double claiming.[13]

Strategy setting

A company's NCS-specific strategy should be a coherent component of its journey to net-zero emissions as captured by its overall climate strategy and in broader nature-positive strategies (see Figure 6). This is because the climate strategy provides information that shapes the company's perspective on a number of key questions and considerations related to the purchase of credits. The strategy should be adaptive to respond to evolving standards and regulations, as well as a changing market.

How much of the annual unabated emissions should a company counterbalance?[14] As companies set their climate strategy, one important question they face is how much of their annual unabated emissions they should counterbalance. There is currently no defined guidance on the percentage of the yearly unabated emissions they should counterbalance with carbon credits. However, the Voluntary Carbon Markets Integrity Initiative (VCMI) Claims Code of Practice will likely define rules on this topic in relation to the different proposed claims and different sectors. In addition, SBTi's beyond value chain mitigation (BVCM) guidance, expected to be finalized later this year, may also provide useful support on this matter. In general, companies should prioritize the quality of NCS credits over quantity, understanding that there is a premium on high-quality credits. It is important to only buy high-quality NCS credits, even if this results in purchasing fewer credits.

What types of NCS carbon credits should a company invest in? The ideal investment is in a portfolio of different NCS and other carbon credit types, as this approach helps mitigate risks and maximize the opportunities associated with the different types of NCS carbon credits.

The first consideration is whether to invest in reduction or removal NCS credits. In fact, companies should follow the NCS hierarchy: protect and conserve, then sustainably manage and finally restore nature (see Figure 7). Therefore they should prioritize investments in reduction credits[15] as they are associated with projects and programs designed to protect and conserve remaining intact ecosystems. Scaling up investments in removals is also necessary as a second priority since restoration interventions take longer to generate climate mitigation outcomes. Some project types, such as improved agricultural land management and improved forest management, result in a mix of reduction and removal credits.

Companies should follow the NCS hierarchy: protect and conserve, then sustainably manage and finally restore nature.

Within reduction credits, different credit types have different risk and benefit levels. REDD+ projects designed to reduce emissions associated with deforestation are essential for the preservation of forest carbon stocks but they are controversial due to the difficulty in establishing reliable baselines. Another example is jurisdictional-scale high-forest, low-deforestation (HFLD) credits, which provide near-term incentives to maintain remaining forests intact against the ever-growing threats of deforestation and degradation and to support recognition of the ongoing activities required by IPs and LCs in forest conservation. However, HFLD credits are on the higher end of complexity for the demonstration of their additionality.[16] Despite these complexities, the implications associated with the further loss of forest coverage make the protection and conservation of nature – hence reduction credits – a must-have component of a balanced portfolio mix.

The ideal investment is in a portfolio of different NCS and other carbon credit types, as this approach helps mitigate risks and maximize the opportunities associated with the different types of NCS carbon credits.

A company's carbon credit portfolio may also factor in diversity in biomes, levels of maturity, geographies and approaches, as well as cost differentials across regions and the availability of supply. As projects and programs do not currently exist in all countries, local projects or programs may not be an option.

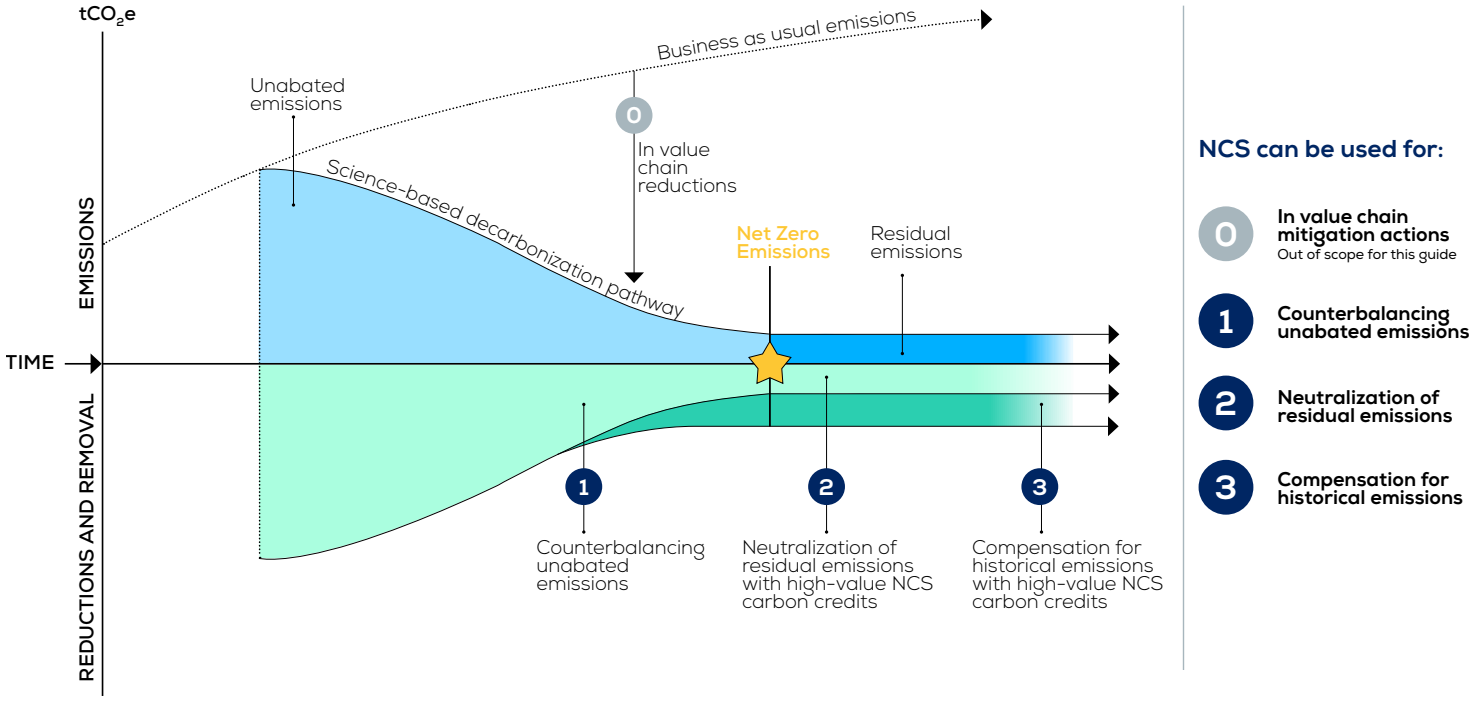
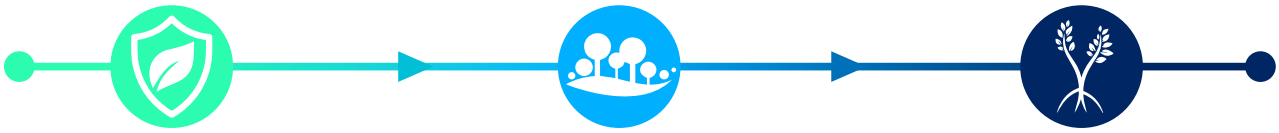


Figure 6: The role of NCS voluntary carbon credits in a net-zero emissions journey

Source: Natural Climate Solutions Alliance and ERM (2022). Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-Suite Executives.

In setting up a portfolio, other areas for consideration include:

- **NCS projects and jurisdictional programs**. Both solutions are needed and can produce high-quality credits and, in the case of nested[17] projects, can actively work together. This guide emphasizes purchasing credits from high-quality NCS projects (see NCS Criteria for further guidance) as there is not yet a large supply of high-quality jurisdictional credits in the market. To scale impact in the coming years, credits from jurisdictional NCS programs should become a growing part of an effective strategy. Each company must decide the appropriate balance in their portfolio between projects and programs, conducting due diligence as discussed in the due diligence section of this document.[18]
- **NCS and technological solutions.** Both NCS and technology-based[19] solutions are needed due to the scale of climate change. Over the next 10 to 30 years, experts expect that more technological solutions will emerge, becoming more accessible and affordable. The global goals of protecting, conserving, restoring and promoting the sustainable use of terrestrial ecosystems, sustainably managing forests, combatting desertification, and halting and reversing land degradation and biodiversity loss should continue to inform any mix of credits. In addition, 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.



Protect and Conserve

Companies should prioritize protection and conservation measures and focus on projects that reduce emissions generated by the conversion of natural ecosystems. The importance of protection and conservation is driven by the urgency to prevent further loss of irrecoverable carbon stocks and to avoid reaching critical tipping points in nature, which would jeopardize our ability to limit global warming to 1.5 degrees.

Examples: Protection against deforestation and forest conversion, mangrove protection.

Sustainably Manage

Companies should then prioritize sustainable 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, and/or alternative agriculture techniques.

Restore

Companies should pursue restoration measures and focus on projects that remove and store CO_2 emissions through restoration.

Examples: Reforestation and afforestation; peatland or coastland restoration.

Figure 7: NCS hierarchy – protect and conserve, sustainably manage and restore nature

Source: A Buyer's Guide to Natural Climate Solutions Carbon Credits, NCSA

Budget setting

The price of high-quality NCS credits. Prices vary, driven by factors including geography, contract setup, type of project, cost to develop and manage the project, and more. For example:

- Market dynamics will have a greater impact on spot market purchase prices, whereas offtake agreements can create some price stability.[20]

- Projects still under development may have lower pricing to compensate buyers for the risk of non-delivery of the credits.

A real example can illustrate how price varies across project types: credits from improved forest management, where sustainable forest management practices are implemented to avoid over-harvesting, sell for USD $30/t. This is USD $10/t less than credits from enhanced soil organic carbon projects, where the implementation of new agricultural practices improves soil health and carbon.[21]

For all the reasons stated above and more, prices are changing quickly, making it difficult to clearly establish a "minimum price" that signals quality. While a high price does not necessarily signal high-quality today, it is anticipated that, in the long term, high-quality carbon credits will and should command a premium.[22]

Online databases track the VCM and provide recent credit prices so that companies can verify their credit pricing. These include CBL Nature-Based Global Emissions Offset Futures, Platts Carbon Credit Assessments, Air Carbon Exchange (ACX), Viridios, Intercontinental Exchange (ICE), Trove Research, Sylvera and Ecosystem Marketplace. However, these databases may not capture prices paid in spot transactions or via bilateral offtake agreements. Alternatively, companies can conduct internal analyses with procurement experts, independently analyzing the market before purchasing. Companies can also choose to visit a project themselves for additional input into credit prices.

Financing the NCS credits budget. Currently, companies typically take 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, thereby informing their budget setting. To set an internal carbon price, companies can, via one methodology, forecast their emissions using reduction targets and then set a dollar-per-ton value per year.[23, 24] Companies can use the funds from the internal carbon price to drive decarbonization efforts and 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 limited to purchasing high-quality NCS credits, as market prices move rapidly further underscoring the need for a diversity of credit types.[25]

- **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 combination of NCS and technological solutions, reduction and removal credits, and a geographic spread. They can then develop a budget based on an average market price, their estimated ability to spend, and compensation needs.

Overall, it is recommended that companies determine a willingness to pay per credit, based on internal factors such as a carbon tax or credit quality criteria. Companies can then settle 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. Internal carbon pricing guides a company's overall budget, which they can then use to purchase a variety of credits, as the budget will account for the range of prices across different types of high-quality NCS credits.

Step 2.
Define roles and responsibilities

Companies that want to acquire NCS carbon credits will need certain expertise, including a good understanding of the standards, the workings of the voluntary carbon market, and knowledge across legal, finance, risk, sustainability, and aspects of biodiversity and social attributes.

To do this, companies can source internal support to advise and decide on NCS carbon credits, bringing together an internal team. Building internal capacity should include upskilling internal stakeholders, such as risk and legal teams, who need to understand purchases and the risks, and establishing roles and responsibilities for these stakeholders. Different team members can engage at the various stages, such as finance involvement when setting and approving budget, and legal and risk involvement when purchasing and contracting. This can be an opportunity for companies to develop a matrix approach across internal functions and learn to work collaboratively, pulling resources from different departments.

Companies may also choose external expertise, seeking third-party support or partnering with NGOs for knowledge on the VCM, NCS, biodiversity and working with local communities. Third-party support can also include advisors that scout for projects and programs, working closely with project developers to provide an additional layer of reporting on the project's impacts and quality of carbon credits. Seeking third-party support instead of dedicating funding to building an internal team may be a preferred financial decision for smaller companies.

Any internal or external support will be responsible for evaluating the quality of the credits and making decisions on how to use

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them. It is important to establish this team at the beginning of the process to ensure timely due diligence and contracting. Smaller companies or those with less experience in the VCM may not have the resources or expertise to establish a full team, so they should seek external support where needed.

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 third-party, scrutinizing expertise and capabilities, as well as observing specific aspects of the project that are important to the company, such as project history, partners, key risks, additionality, leakage, permanence, co-benefits, revenue sharing arrangements and negative press.

Step 3.
Set procurement criteria for NCS climate change mitigation, biodiversity and people

It's critical that companies have a clear set of NCS procurement criteria to assess the contributions of projects and programs to climate change mitigation, biodiversity gains and benefits to people. To do this, many companies use a combination of existing standards, which are increasingly going beyond climate change mitigation to cover many biodiversity and social components (see the Biodiversity and people criteria and due diligence questions in Appendix 2 for more information). Others go beyond and add incremental criteria based on their company values and biodiversity and social strategies. Regardless of the approach, criteria should align with global best practices, existing standards and company priorities, and should have the approval of the company's key decision-makers.

It's critical that companies have a clear set of NCS procurement criteria to assess the contributions of projects and programs to climate change mitigation, biodiversity gains and benefits to people.

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Setting procurement criteria correctly can create a lot of value for an organization beyond just reducing risk. For one, it helps companies operate with the speed necessary to participate in this fast-paced market. It does this by streamlining the procurement process – helping companies select long-term partners, projects and programs more quickly. Additionally, having criteria creates internal alignment and improves a company's external communication about the biodiversity and people contributions associated with the purchase of NCS carbon credits.

Setting procurement criteria correctly can create a lot of value for an organization beyond just reducing risk.

Climate change mitigation quality criteria

Though not the focus of this guide, NCS projects or programs need to put high integrity with respect to climate change mitigation first, delivering emissions reductions or removals. Project and program design and implementation must carefully consider the following attributes of climate change mitigation integrity:[26, 27, 28]

- Additionality
- Permanence
- Robust quantification
- Leakage
- Double-counting[29]
- Transition to net-zero emissions

In addition, it is critical that the project or program obtain independent validation and verification. For definitions, see the Glossary.

Carbon crediting programs certify that companies have met these criteria on climate change mitigation. Many also look to carbon credit rating agencies to get additional information and verification beyond carbon crediting programs. Some companies will also conduct additional due diligence to ensure that carbon credits achieve company-specific criteria.

The following frameworks can help identify credible carbon crediting programs.

Existing frameworks:

- The **Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)** is a market-based mechanism to reduce emissions. The International Civil Aviation Organization (ICAO) has developed Carbon Offset Credit Integrity Assessment Criteria to define CORSIA-eligible offset credit programs. It is important to note that, as a minimum requirement, CORSIA-approved standards should be the basis for credit accreditation.

- The **Integrity Council for the Voluntary Carbon Market (ICVCM)** is an independent governance body for the voluntary carbon market. It assesses carbon crediting programs and the carbon credit methodologies against its Core Carbon Principles (CCPs) and Assessment Framework

- The **International Carbon Reduction and Offset Alliance (ICROA)** promotes and gathers best practices for the voluntary carbon market. Companies and standards can choose to get accredited by ICROA, as this membership is recognition that they meet certain criteria.

Additional free carbon quality resources:

- For carbon credits from NCS projects focused on removals through forest establishments, companies can check the **Carbon Credit Quality Initiative (CCQI)**, which provides transparent information on the quality of carbon credits. Although CCQI currently only scores removals, it is expanding to broader methodologies. 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 carbon credit quality. CCQI's methodology is publicly available.

- The **Tropical Forest Credit Integrity Guide** published by the Coordinator of Indigenous Organizations of the Amazon River Basin (COICA) provides companies interested in purchasing carbon credits in the voluntary carbon market with information on how to differentiate among forest carbon credits by impact, quality and scale. This will help move the market toward credits with high social and environmental integrity. The guide is designed to assist decision-making by individuals and teams responsible for developing and implementing corporate climate mitigation and net-zero strategies.

Currently, most NCS credits traded in the voluntary carbon market rely heavily on six CORSIA- or ICROA-endorsed carbon-crediting programs:[30] **Verra**, **Gold Standard program**, **American Carbon Registry (ACR)**, **Climate Action Reserve (CAR)**, **Architecture for REDD+ Transactions (ART)** and **Plan Vivo**. These carbon crediting programs use methodologies that fall under the NCS type of interventions (protect and conserve, sustainably manage and restore). The methodologies, however, address benefits for biodiversity and people only in limited ways.

Carbon crediting program	Standard	Name of the unit*
Climate Action Reserve (CAR)	Climate Action Reserve	Climate Reserve Tonnes (CRT)
Verra	Verified Carbon Standard (VCS)	Verified Carbon Units (VCUs)
The Gold Standard Foundation -	Gold Standard for Global Goals	Gold Standard Verified Emissions Reductions (VERs)
American Carbon Registry (ACR)	ACR Standard	Emission Reduction Ton (ERT)
Architecture for REDD+ Transactions (ART)	TREES – The REDD+ Environmental Excellence Standard	TREES Credits
Plan Vivo	Plan Vivo Standard	Plan Vivo Certificates (PVCs)

**Although the units have different names, they are all equal to 1 tCO_2e reduced or removed.*

Understanding the positive contribution to biodiversity and people

The main contribution of this guide is its focus on biodiversity gains and benefits to people, and why and how companies can build these aspects into their procurement processes.

Biodiversity gains. NCS projects and programs must lead to biodiversity gains, including the socio-economic and biological value of ecosystem services,[31] which can impact project success.[32] The biodiversity gains will differ across different types of projects and programs (e.g., forest conservation, regenerative agriculture) in terms of both scale and type of impact; in all cases purchasing NCS credits provides direct finance to efforts to address the global loss of biodiversity. Additionally, a focus on biodiversity gains provides benefits to projects/programs and their buyers by:

- **Boosting resilience and capacity to adapt to climate change.** NCS projects and programs increase ecosystem resilience amid climate change, ensuring project longevity, 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. Certain elements of biodiversity can protect against climate change risk, such as local vegetation in a mountainous project area, which can stabilize slopes, thus preventing landslides and avalanches during severe storms.
- **Supporting a nature-positive strategy.** A high-quality NCS strategy has strong synergies with corporate nature-positive targets, which are high-level goals and concepts that focus on a future state of nature that is improved from the current state.[33] Companies focusing on biodiversity in NCS get experience taking a holistic perspective to operate within the Earth's limits and effectively stabilize both nature and climate.
- **Enhancing project and program security.** Biodiversity also enhances project and program security by virtue

NCS projects and programs increase ecosystem resilience amid climate change, ensuring project longevity, 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.

of providing three broad benefits to people: vital ecosystem services, such as food and medicine; sustainable access to natural resources that underpin the livelihoods of local communities and can feed into sustainable regional economies and global supply chains; and gene pool diversity, which is critical for all species in order to adapt to changing conditions and maintain resistance to pests, diseases, viruses and other threats.

- **Offering enhanced carbon benefits.** Finally, biodiversity provides additional climate mitigation benefits beyond its articulated goals. For example, certain aspects of biodiversity do more than 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[34] while also minimizing the risk of drought associated with extreme heat.[35]

Benefits to people. High-quality NCS projects and programs should also provide benefits to people, particularly to IPs and LCs and low-income communities, as they play an integral role in conserving nature. Although nature is generally declining at a slower rate in lands IPs and LCs manage, ecosystem destruction and climate change frequently impact IPs, LCs and low-income communities the most.[36] NCS projects generate benefits for people, and positive benefits to people further strengthens projects and programs. A focus on benefits to people provides benefits to projects and programs by:

- **Enabling fair and equitable sharing of revenues and benefits.** Projects and programs are more effective if stakeholders who do the actual work receive fair and equitable monetary compensation for their work to de-risk project longevity. Governments and organizations can fund and set up NCS projects or programs but if landowners and local communities are not actively involved in the planning from the outset and fairly incentivized, it is challenging to ensure the successful implementation and running of projects and programs according to plan. This is especially important as projects and programs that do not allow for fair revenue sharing with stakeholders that do the work on the ground 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.

- **Allowing for active and meaningful community participation through early and full local people involvement.** Local buy-in and participation – from local communities, local governments, and national governments – is important to ensure that NCS projects and programs are successful and sustainable. NCS impact is best achieved through active and meaningful participation from communities in design and implementation, as they are key stakeholders of the NCS activities and are stewards of valuable ecosystems.

- **Support, respect and invest in local communities' land rights and their traditions to incorporate best practices.** Indigenous Peoples own or manage at least 25% of the Earth's land area, including approximately 35% of formally protected land. Local populations have used NCS for centuries, so it is important to recognize and draw from their local and traditional knowledge and strengthen their traditional relationship to land, where possible.[37]

The assessment of project and program performance in generating biodiversity gains and benefits for people is more complex than the assessment of their contribution to climate change mitigation. There are standards and carbon crediting programs that cover positive environmental and social contributions by adding other certifications. For example, Verified Carbon Standard (VCS)

credits issued by Verra may also include Climate, Community & Biodiversity (CCB) Standards, while a Gold Standard VER credit may also hold an additional certificate associated with a Sustainable Development Goal (SDG) impact and Forest Stewardship Council (FSC) certification.

These additional labels are becoming more common as they help buyers identify credits generated by projects or programs that have systems in place to lead to positive impacts for biodiversity and people. For example, the Peoples Forests Partnership (PFP) is developing the 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 existing standards (CCB Standards, Gold Standard, Plan Vivo, etc.) but aims to go beyond them, in particular, with regard to consent from Indigenous Peoples and local communities, governance and revenue sharing. As an organization that represents IP and LCs in the carbon markets, its goal is to elevate existing carbon standards in their checks of IP and LC consent, governance and participation, specifically to ensure that projects truly deliver on people value and that IPs and LCs are equal partners.

However, not all projects and programs carry additional labels. Given that current carbon crediting programs may not include standards that assess the full range of environmental and social benefits, **companies should define their own set of high-quality criteria based on their company's values and alignment with their environmental/ biodiversity and social strategies in order to assess the NCS project or program positive contribution to biodiversity and people.** Companies can use these criteria to initiate a conversation with project and program developers or in formal due diligence. More details are available in the NCS criteria list.

To support companies in defining a set of criteria to assess the positive contribution to biodiversity and people, the following section captures a suite of criteria based on existing carbon-crediting programs and other sustainability standards. All criteria on the following pages are mapped to carbon crediting and sustainability standards (see Appendix 2). It is unlikely that any project or program will be perfect across all suggested criteria focusing on biodiversity and people; buyers should use these criteria to help them navigate a balance between outcomes for biodiversity and outcomes for people.

There is a sequence in the use of the criteria. Before assessing a project or program for their biodiversity gains and benefits to people, it is essential to ensure that the NCS credits have been issued by a credible carbon crediting program. If the selected NCS credits don't meet this criterion, do not proceed with any further steps. There are other critical criteria reflecting the "Do no harm" principle to biodiversity and people that must be in place to even consider purchasing; if a project/program does not meet the "Do not harm" biodiversity and people criteria, the recommendation is for companies to not continue with due diligence. See Figure 8 for a high-level overview.

Before assessing a project or program for their biodiversity gains and benefits to people, it is essential to ensure that the NCS credits have been issued by a credible carbon crediting program.

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For each criterion, the guide outlines due diligence questions and example answers in the NCS criteria question section in Appendix 2. Procurement officers should use the example answers provided as a guideline as they receive answers on the projects and programs they are purchasing from, to assess whether it meets high-quality requirements.

In going through this process, companies will start with different levels of knowledge. The recommendation is therefore for companies to use the criteria to the best of their knowledge and seek external help when needed. The criteria are intended to be a starting point for a conversation and negotiation between the developer and a third party representing the project, and the buyer.

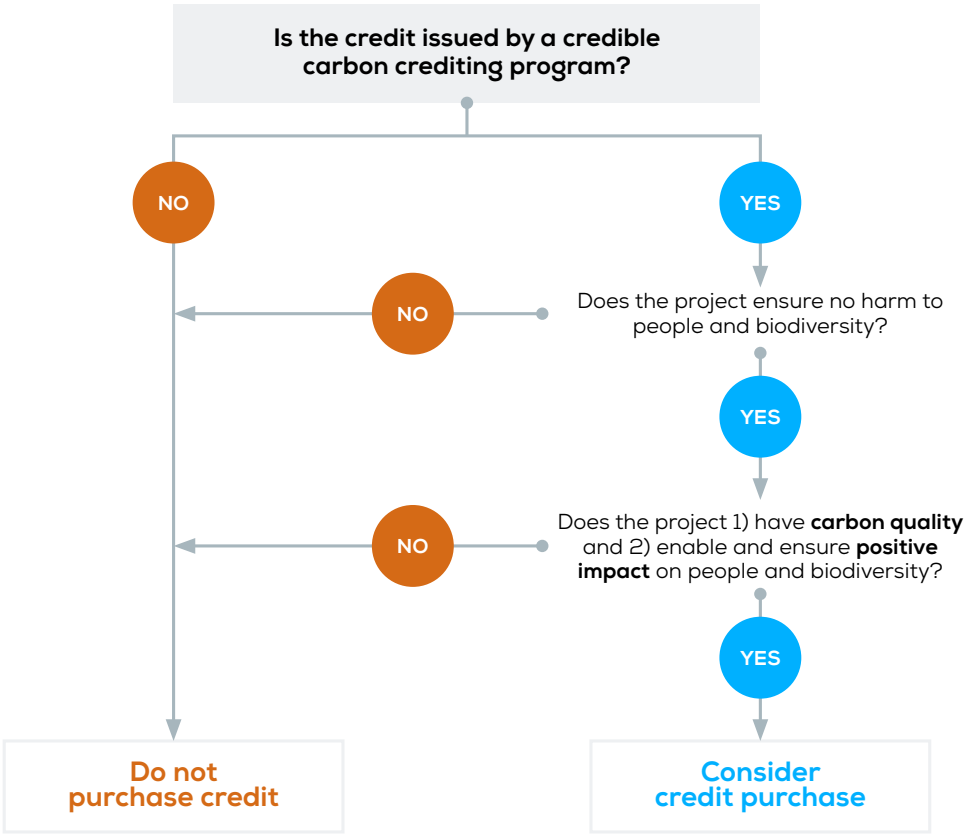

Figure 8: Suggested approach to criteria due diligence
Source: A Buyer's Guide to Natural Climate Solutions Carbon Credits, NCSA

BIODIVERSITY GAINS

Objective: The project/program leads to biodiversity gains (as described by SDGs) and contributes to SDG 14 (life below water) or SDG 15 (life on land).

DO NO HARM CRITERIA

1. The project/program does no harm to biodiversity, including no conversion or degradation of natural habitat and no increase in species extinction risk.
2. The project/program performs environmental impact and risk assessments to prevent potential negative impacts.
3. The project/program has action and monitoring plans with clear roles and responsibilities.

POSITIVE CONTRIBUTION CRITERIA

4. The project/program uses recognized approaches to support ecosystems in adapting to climate change and is aligned with SDG 14 (life below water) or SDG 15 (life on land).
5. The project/program baseline characterizes the ecological state and drivers for ecosystem loss.
6. The project/program identifies clear and measurable outcomes and both anticipated and potential unanticipated risks to biodiversity, with an explicit objective of achieving positive impacts on biodiversity.
7. The project/program is designed with site specific or landscape context pressures taken into account to reduce threats to biodiversity.
8. The project/program enhances biodiversity impacts and builds resilience.
9. The project/program prioritizes the maintenance and enhancement of ecosystem services such as soil protection, pollination, water sources and provision, soil fertility and air quality.

BENEFITS FOR PEOPLE

Objective: The project or program leads to positive social impact, contributing to SDG 1 (no poverty), SDG 2 (zero hunger) and SDG 5 (gender equality).

DO NO HARM CRITERIA

1. The project/program has identified and actively involved stakeholders whom the NCS directly and indirectly impacts in all processes of the governance structure and decision-making. Decision-making processes document and respond to the rights of impacted stakeholders.[38]

2. The IPs and LCs present in the project/program area support the project, as evidenced by free, prior and informed consent (FPIC).

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

4. The project/program performs social impact and risk assessments to prevent potential negative impacts of the project/program.

5. The project/program has action and monitoring plans with clear roles and responsibilities.

POSITIVE CONTRIBUTION CRITERIA

6. The project/program uses recognized approaches to support communities in adapting to climate change and is aligned with SDG 1 (no poverty), SDG 2 (zero hunger) or SDG 5 (gender equality).

7. The project/program prioritizes the involvement and support of vulnerable groups, including women and girls.

8. The project/program invests in the livelihoods of IPs and LCs to ensure the uptake and sustainability of the project.

9. The project/program engages and protects marginalized and underrepresented groups, including low-income communities.

10. The project/program maintains and takes opportunities to improve stakeholder land and resource rights.

11. Revenue-sharing occurs in a transparent and equitable manner and the project/program has consulted IPs and LCs in the financial planning process.

Step 4.
Identify sources of NCS carbon credits

Once they have set the NCS high-quality criteria, companies can begin identifying projects or programs issuing NCS carbon credits.

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

Source credits from previously assessed 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. For guidance on due diligence for parties, see Step 5.

Source credits at early stage or via project development funding

Companies can choose to provide funding to projects under development, instead of sourcing from projects or programs that are already issuing credits. This provides project developers with needed finance while providing companies with a source of future credits.

Requests for proposal (RFPs)

Companies can use RFPs to solicit offers for carbon 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. Once an RFP is submitted, it is important for the third party and the buyer to be in regular contact about the latest availability and pricing. 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 credit market.

Search the spot market

Companies can also identify and purchase NCS carbon credits from the spot market (e.g., via a marketplace or exchange). This is a common method of procuring NCS given the speed of the market and the growing demand for NCS credits. Companies can also conduct spot purchasing “over the counter”, which gives more visibility into the underlying NCS project, allowing them to select for specific criteria.

Step 5. Conduct due diligence

Once companies have identified potential projects and programs, they must perform due diligence to identify which one(s) meet their high-quality climate, biodiversity and people criteria (see NCS Criteria section for guidance on carbon standards and biodiversity and people criteria). Alternatively, a third party can conduct due diligence, in addition to independent verification of the project/program. Before beginning due diligence, companies must confirm that credits are high integrity with respect to climate change mitigation and ensure no harm. If the project or program meets this requirement, the company can proceed with an iterative due diligence process.

Once companies have identified potential projects and programs, they must perform due diligence to identify which one(s) meet their high-quality climate, biodiversity and people criteria.

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Performing due diligence on projects and programs[39] to ensure they are high quality can help mitigate the various risks[40] associated with carbon credits, which include:

- **Reputational risk**, which includes being branded a "greenwashing" company, particularly if companies are not reducing emissions to Paris Agreement-aligned targets alongside purchasing credits. Reputational risk can also come from investing in projects that are not of high quality. Companies can mitigate reputational risk mainly through proper due diligence to ensure that credits are of high quality. Companies also must consider the perception of equity if prices increase, as they may be paying a lower price due to forward contracts if they do not have a price adjustment clause.
- **Financial/market risk**, which can stem from future price and demand fluctuations. Companies can also mitigate financial risk by having a diverse portfolio across several projects/programs, types of NCS and geographies.
- **Operational/execution risk**, which – in the case of forward contracts – can include the risk of the emissions reduction or removal not happening as planned due to project disruption from climate change or other events. Execution risk can also stem from the difficulty of addressing drivers of ecosystem loss, such as loss of forest due to the expansion of illegal mining or agricultural practices. Companies can best mitigate risks by running due diligence, including on the buffer pools in place and having geographic diversity in their portfolio. Operational/execution risk also includes the risk of an incorrectly calculated baseline, which the company can mitigate if a third party has audited the project/program and if the company has a carbon credit portfolio that spans several projects/programs.
- **Political/regulatory risk** can depend on the geography of the project or program as some countries are currently

negotiating the level of their participation in the VCM or face political instability that can interfere with project or program implementation, lack the legal and regulatory infrastructure to support project design and implementation, or have inadequate political will to do so.[41] To mitigate this risk, companies can build a portfolio that includes credits from several geographies and should track regulation. Article 6 is an example of a regulation that companies should keep track of, where the best risk mitigation currently is full transparency.

To guide their assessment of credits, companies can gather information on projects and programs through the following steps:

1. Agree on high-level terms, such as prefinancing or payment on delivery, and volumes with the stakeholder that the company is purchasing the credit from (who may or may not be the credit owner).[42] This is a first step to ensure shared expectations and avoid possible complications with project developers later in the contract process. For companies that are purchasing directly from project developers, provide transparency on company goals and priorities for supporting NCS projects and programs, as project developers may also want to do their own due diligence on the buyers.[43]

2. Limit the level of detail in the preceding step while the company is still determining the project list, 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
    f. Vintage[44]
    g. Information on how IPs and LCs are involved in revenue sharing agreements.

3. Rely on publicly available information from registries for initial assessment of projects and programs to limit additional work for project developers to the extent possible. For early-stage investments, the amount of publicly available information may be limited, so thorough due diligence involving the developer will be necessary to gain clarity on project needs, opportunities and risks. In the long-term, these asks will ideally become standardized and the market will grow more transparent. As buyers review project information, they can begin generating follow-up questions they would like to review with the developer.

4. Companies can then follow up with questions to close any gaps that need clarification due to the data available, using third parties as needed.

Companies should perform due diligence on project developers and intermediary parties that they regularly work with to source and purchase credits 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
- Financial stability and capacity to deliver
- Policies on diversity, equity and inclusion (DE&I), discrimination, living wage and benefits
- Negative press about seller or projects/ programs, with checks on reputability of press.

Step 6.
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. They can purchase credits directly from a project developer or through a portfolio manager, a broker, credit marketplace, credit exchange or carbon fund. 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.

- **Climate change mitigation integrity.** To ensure climate change mitigation integrity, the contract should contain guarantees on meeting standard requirements. In addition, it should state clearly that the credits purchased are guaranteed. Although companies can agree on contracts for carbon credits generated in the future, companies should not claim those credits in terms of carbon impact before they are issued. It is not required for the contract to guarantee retirement of the credit on behalf of the buyer; but the seller should pass on the credit certificate to ensure that they cannot sell the credit again to another buyer. The contract should guarantee credit delivery, with a variable time frame based on the purchase agreement. In addition, to make any claims on credits, companies must retire those credits.

- **Biodiversity.** To ensure continued high quality across nature attributes, the contract should guarantee to meet minimum standards and measure impacts.

- **People.** To ensure continued high quality across people attributes, the contract should guarantee compliance with stated financial distribution, which the project developer should produce in a participatory process with IPs and LCs.

- **Additional considerations.** Any contract should include several additional considerations, such as failure to deliver credits, commitments to anti-money laundering, clauses covering reputational risk, and any further contract elements put forward by the procurement team. Buyers may also want developers or third parties to agree to a supplier code of conduct attesting to their legal and ethical operations.

Purchase and offtake agreement structures

Companies can select from a variety of agreement structures, which typically include definitions, terms of the transaction, taxes and fees, representation, notices, governing law and dispute resolutions, default terms and remedies. Companies can execute these procurement options with different counterparties, including carbon credit project developers and other market intermediaries, such as brokers (both for and non-profit) and fund managers.

Spot market or over the counter purchases

Annual purchasing on the market through brokers or bilateral deals directly with project developers. Prices fluctuate over time and across brokers and vendors. For spot market purchases, companies should ensure that their contract requirements are present in the credits they have sourced.

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 – sometimes 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. Long-term purchase agreements can have a variety of structures, depending on whether buyers pay in advance or on delivery of credits.

Some agreements stipulate that buyers will make payments over a fixed period in the future, such as 3-5 years, in return for a specified number of carbon credits. Others may take the form of an investment, where buyers provide finance up front to support a project, typically recovering the fixed upfront costs from carbon credits issued in the first few years of the crediting period. Buyers can also invest directly in funds, joining coalitions such as the Lowering Emissions by Accelerating Forest finance (LEAF) coalition and the Business Alliance to Scale Climate Solutions (BASCS), which are designed to aggregate demand and funding to maximize the impact of selected projects and programs. The specifics of long-term purchase agreements will depend on the negotiations between the parties.

If companies opt for long-term purchase agreements, it is important to clearly define the contract expectations, including those stipulating ownership rights of credits, as the delivery of credits typically does not occur up front. In addition, companies will need to monitor credit delivery to ensure the delivery of the volumes agreed upon in the contract.

Partnership models

In addition to buying credits from high-quality projects or programs, a company could become an early investor to drive catalytic investment in early project development. Early stage financing is critical for project developers as they scale up to meet demand and can also provide benefits to buyers.

Equity investments in project developers

Companies can choose to invest in early-stage projects that need up-front funding to be built and then receive their portion of the credits as issued over time. Alternatively, the company may wish to invest in early projects without purchasing the credits if they simply like what the project is aiming to accomplish. This is particularly helpful during the beginning stages of project development, as many projects and programs require additional financial support. Equity investments can also help companies establish trust and build a long-term relationship with project developers.

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 companies select high-quality credits. For example, Hartree Partners and Wildlife Works partnered on a deal to generate increased private sector investment to protect biodiversity and address deforestation.

Capital investments

Companies can partner with and invest in conservation organizations to develop and manage NCS project portfolios. For example, The Nature Conservancy's in-house impact investing team, NatureVest, works with companies to invest in conservation projects.

Open calls for proposals

Companies can hold open calls for proposals from project developers. However, this approach requires that companies have developed pre-existing criteria for projects and programs.

Step 7.
Report transparently

It is important for companies to be transparent on credits used annually. Companies should disclose details of any carbon credits, including credit type, projects financed, process or policies for evaluating projects, practical concerns such as scalability and cost-effectiveness, and third-party verification. A number of organizations recommend reporting about the use of annual credits, including the Glasgow Financial Alliance for Net Zero (GFANZ) and CDP.

Companies should disclose details of any carbon credits, including credit type, projects financed, process or policies for evaluating projects, practical concerns such as scalability and cost-effectiveness, and third-party verification.

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In their public communications regarding credit use, companies should include key information such as:[45]

- Project type and name of project/program from which credits are sourced (with link to the project/program)
- Type of mitigation activity
- Carbon-crediting program that issued the credits
- Project/program description
- Volume of credits retired per year
- Purpose of retirement
- Volume of credits purchased but not retired per year
- Vintage of credits
- Key biodiversity and people contributions of the project.

As companies report on their NCS carbon credit use, they should ensure that they disclose the use and intended use of carbon credits separately from their gross emissions and gross emissions reduction targets.[46]

If companies provide customers with the opportunity to purchase credits, they should attribute the beneficiary of the use of credits to the customers and must report on them separately. Companies can claim the impact mobilized by the customers' actions.

Although external transparency is still complex, some companies are starting with internal transparency on their use of NCS credits. This can include making the above information on credit use available to their employees to increase employee engagement on sustainability efforts. Some companies also publicly report on NCS credit use.[47] Furthermore, in public communication, the recommendation is for companies to avoid communicating with an exclusive focus on NCS credit use as opposed to a broader climate strategy due to the risk of obscuring their full climate ambition and failing to highlight the necessary mitigation work that carbon credits cannot replace.[48] NCS credits must complement a robust and ambitious climate strategy, so companies should demonstrate how carbon credits fit within their broader climate transition plans.[49]

Step 8.
Make credible claims

The use of NCS carbon credits can trigger three types of claims:[50]

1. Claims associated with climate mitigation by counterbalancing annual unabated emissions in line with the company's science-based targets;

2. Claims associated with contributing to a country's or jurisdiction's commitment to decarbonization;[51]

3. Claims associated with the biodiversity and people benefits linked to the NCS carbon credits.

Making a claim about the use of NCS carbon credits to counterbalance annual unabated emissions can certainly help build the commercial business case for regularly purchasing NCS credits. Ongoing processes through the Voluntary Carbon Markets Integrity Initiative (VCMI) and SBTi may impact claims in the future. The VCMI is currently developing a Claims Code of Practice that companies can use to make credible and transparent claims about their net-zero emissions commitments.

In making claims, there is some key guidance to keep in mind:

- **Standard-related claims guidance**. Some standards have specific claim guidelines that buyers must follow. For example, Gold Standard has Claims Guidelines for buyers on communicating accurately about the climate and development impacts derived from Gold Standard-certified projects and programs. Buyers should not make claims about purchased carbon credits outside those listed in accompanying standard claim guidance.

- **Implications of host country corresponding adjustments**. Organizations should transparently report on whether host country corresponding adjustments back transacted credits and should base associated claims on emerging best practices regarding the use of such adjustments. See Glossary for definition of corresponding adjustments.

Counterbalancing claims about the use of voluntary carbon credits should be linked to the broader company decarbonization strategy, in line with science-based targets to reduce the risk of being perceived as "green washing".

Northern Kenya Rangelands ©Courtesy of NRT

The relationship between the voluntary carbon market, compliance markets, host country Nationally Determined Contribution (country's commitment to decarbonization) ambition and achievement, and the role of corresponding adjustments is a complex, evolving topic that stakeholders should monitor over time to ensure their practices remain aligned with emerging standards/policies. As this topic is evolving, there are few examples of the application of corresponding adjustments. However, best practice going forward for organizations purchasing credits without a host country corresponding adjustment is that they should communicate that the underlying mitigation also contributes to the host country's NDC (provided it occurs under a covered sector) and be transparent in all reporting and communications related to credit use.[52]

- **Ensuring claims build on implementing science-based decarbonization targets**. Counterbalancing claims about the use of voluntary carbon credits should be linked to the broader company decarbonization strategy, in line with science-based targets to reduce the risk of being perceived as "green washing".

- **Not claiming future credits**. Although companies can agree on contracts for carbon credits generated in the future, companies should not claim these credits in terms of carbon impact before they are issued. Companies can make a forward-looking statement that they intend to generate these credits by financially supporting the project, subject to project uncertainties and associated risks.

- **Claiming contribution to project or program outcomes**. In making claims about biodiversity and people benefits associated with the NCS credits, companies should mention positive outcomes but not claim responsibility for the outcomes of an entire project or program when the company has only purchased a portion of the credits responsible for funding it. This is because there are no formal credits associated with biodiversity yet and companies can't claim attribution to their contribution. To understand the impact of their carbon credit purchases, companies can examine third-party ratings and other independent evaluations.[53] Buyers can also ask for support from the project developer or third party, who can often review claims language for accuracy. As a general rule, a company should word its contribution as support provided alongside other partners to achieve the objective and include, as far as possible, quantified descriptions of outcomes based on project or program monitoring results.

Through transparent language, companies will be able to share their progress on their climate goals without making misleading and unverifiable claims.

Conclusion

Natural climate solutions represent one of the best methods to address the gap in net-zero GHG emission targets that technology based solutions won't be able to fill. Their benefits extend far beyond climate change mitigation, promising lasting impact on local environments and communities.

The business sector has a clear role to play in providing the necessary funding that will give the NCS market the power to be this viable force.

Although the voluntary carbon market is developing rapidly and organizations are forging standards and verification mechanisms, companies 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 high-quality projects and programs that will make a difference.

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Acronyms

BVCM	Beyond Value Chain Mitigation
FLAG	Forest, Land and Agriculture
FPIC	Free, Prior and Informed Consent
GHG	Greenhouse Gas
HFLD	High Forest Low Deforestation
IP	Indigenous Peoples
LC	Local Communities
NbS	Nature-based Solutions
NCS	Natural Climate Solutions
NDC	Nationally Determined Contribution
REDD+	Reducing Emissions from Deforestation and forest Degradation, plus the sustainable management of forests, and the conservation and enhancement of forest carbon stocks
SBTi	Science Based Targets initiative
VCM	Voluntary Carbon Market
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
ICVCM	Integrity Council for the Voluntary Carbon Market
ICROA	International Carbon Reduction and Offset Alliance
CCQI	Carbon Credit Quality Initiative
COICA	Coordinator of Indigenous Organizations of the Amazon River Basin
PFP	Peoples Forests Partnership
SDG	Sustainable Development Goal

Glossary[54]

Abatement. Measures that companies take to prevent, reduce or eliminate sources of greenhouse gas (GHG) emissions within their value chain.[55]

Additionality. Refers to emissions reductions from carbon credits that would not have occurred without the project or program activity. Carbon crediting only works if emission reductions and removals would not have taken place under the business as usual scenario, meaning they are "additional".[56] Additionality is fundamental to the quality and environmental integrity of a carbon credit, as additionality ensures that mitigation activities that would have happened otherwise do not receive carbon credits.

(Carbon) leakage. The process in which project or program actions displace or increase emissions elsewhere (outside of the project or program boundary).

Carbon credit. A tradable financial instrument that a carbon-crediting program issues. A carbon credit represents a GHG emission reduction or removal from the atmosphere equivalent to one metric ton of CO_2 equivalent, calculated as the difference in emissions from a baseline scenario to a project scenario. An electronic registry operated by an administrative body, such as a carbon crediting program uniquely serializes, issues, tracks and retires or administratively cancels carbon credits.[57]

Compensation. Measures companies take to prevent, reduce or eliminate sources of GHG emissions outside of their value chain; this action is also known as beyond value chain mitigation (BVCM).[58]

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

Double counting. A situation in which a single emission reduction or removal is counted more than once towards achieving mitigation targets or goals. Double counting can occur through double issuance, double use and double claiming.[59]

Ex-ante. Refers to reductions that are planned or forecasted but have not yet been achieved; the exact quantities of the reductions are therefore uncertain.

High forest, low deforestation (HFLD) jurisdictions. Generally defined as areas with high forest cover and low historical rates of deforestation.[60]

High-quality. Solutions that address the permanence, additionality, leakage, double-counting, robust quantification and verification of the NCS climate mitigation activities implemented and that 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 programs. Those where the issuance of independently verified carbon credits for forest-based emissions or removals use a baseline developed at the scale of an accounting area defined by a country or large subnational political/administrative unit. Programs are commonly based on policy design and law enforcement measures identified by national or sub-national governments to reduce emissions compared to the baseline and enhance removals. The primary difference is that the main program stakeholders are public entities (often ministries and their line agencies) that are in charge of policy and program design and implementation. Typically, jurisdictional scale refers to including the entire country or subnational area in the accounting area.

Mitigation. A human intervention to reduce emissions or enhance the sinks of greenhouse gases.[61]

Net-positive emissions. 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.

Net-zero emissions. Emissions achieved when anthropogenic removals balance anthropogenic emissions of greenhouse gases to the atmosphere over a specified period. At the individual actor level, a state of net-zero emissions is reached when an actor reduces its emissions following science-based pathways, with like-for-like removals (e.g., permanent removals for fossil carbon emissions) exclusively claimed by that actor, either within the value chain or through the purchase of valid credits, fully neutralizing any remaining GHG emissions attributable to that actor.[62]

Neutralization. Measures that companies take to remove carbon from the atmosphere and store it to counterbalance the impact of unabated residual emissions. They can take these measures inside and outside of the value chain.[63]

People value. Address societal needs and interests, particularly of Indigenous Peoples and local communities (IPs and LCs) within and around the NCS project area and deliver additional 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. Nature-based carbon sinks are particularly at risk from deforestation, degradation and events such as fires, floods, intense farming 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. The project or program sets aside a percentage of credits into a buffer pool; if a reversal event occurs, the buffer credits are canceled, thus preserving already-issued credits.

Projects. A set of activities to reduce emissions compared to the baseline and enhance removals tailored to a specific area and social context, commonly developed and implemented by local communities and Indigenous Peoples in partnership with government and non-government stakeholders. Within state-of-the-art, quality projects, IPs and LCs are direct project co-developers who take responsibility for activity design and implementation, as well as results delivery, together with chosen project development and investment partners. IPs and LCs are directly included in benefit sharing agreements, with full transparency along the investment process, and receive a fair share of the revenues. Crediting involves monitoring across an accounting area that includes a buffer zone to monitor leakage in the project vicinity, establishing a baseline or reference level against which ongoing performance is monitored as well as appropriate deductions for accuracy, leakage and the risk of reversals.

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

Reduction. Measures taken to reduce GHGs produced by the implementation of an activity, representing the difference between baseline or reference-level emissions and actual emissions. Often used interchangeably with avoidance, which refers to taking action that prevents carbon emissions from occurring, when measured compared with the most likely course of action – the baseline.

Removals. The process of removing CO_2 from the atmosphere. Since this is the opposite of emissions, practices or technologies that remove CO_2 are often described as achieving "negative emissions".

Robust quantification. Refers to assessing the emissions reductions or removals at the program level through three elements related to conservatives and uncertainty: the methodology approval process, requirements for quantification and ex-post determination of emissions reductions and removals. Accurate, robust and conservative GHG quantification is important to ensure that projects and programs do not overstate their benefits and address potential uncertainty associated with the sampling frame and calculations of carbon emissions.[64]

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

Appendices

Appendix 1
The basics

What are high-quality NCS credits?

First, what is a carbon credit? One credit represents a GHG emission reduction or removal from the atmosphere equivalent to one metric ton of CO_2e. Specifically, an NCS carbon credit is a credit generated by NCS projects or jurisdictional programs that address GHG emissions, either by reduction[65] – such as preventing the loss and degradation of natural carbon sinks (for example, halting deforestation) – or by removing carbon (for example, through reforestation or ecosystem restoration).

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.

Well-designed and properly implemented NCS projects and programs deliver climate mitigation benefits and biodiversity gains, and generate socio-economic benefits in particular for Indigenous Peoples and local communities (IPs and LCs), who often in turn improve the effectiveness of NCS projects and programs.[66] These three objectives are critical, as any project or program that focuses solely on carbon is not a bona fide NCS. For example, a badly designed reforestation program that converts too much pasture to forest could cause food insecurity in local communities and could trigger deforestation elsewhere, while also undermining the long-term security of the carbon benefit.

The role of NCS beyond value chain mitigation in the journey to net-zero emissions

A company's first priority in the pathway to net-zero emissions should be reducing them within its value chain as much as possible. The Science Based Targets initiative,[67] the Race to Zero Campaign[68] and the United Nations High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities[69] provide examples of clear guidance on emissions reduction pathways. As a second priority, and in concert with robust, transparent and science-aligned net-zero emissions targets and strategies, companies should reduce emissions outside of their value chain to counterbalance at least part of what they cannot abate. Together, these principles comprise what called the "mitigation hierarchy".[70]

Natural climate solutions can play an important role in the mitigation hierarchy. Specifically, NCS mitigation actions beyond the value chain can contribute to the following:

- *Counterbalance* all or, if not economically feasible, part of unabated residual emissions year over year.
- *Neutralize residual emissions,* which refers to high-quality removals that can address required long-term decarbonization.
- *Compensate for historical emissions*, which can play a role in a company becoming climate positive (or carbon negative), meaning they absorb more emissions than they emit once they have reduced as much as possible.[71]
- *Go beyond net-zero emissions* and contribute additional reductions or removals towards the global goal to reduce emissions.

When companies do not focus on reducing their own emissions first and foremost, they may overrely on credits. This is costly and, more importantly, can prevent a company from being fully aligned with Paris Agreement targets and subject it to accusations of greenwashing – or actual greenwashing.

NCS carbon credits can help companies integrate nature and equity ambitions into corporate-level climate goals, as high-quality NCS projects and programs emphasize biodiversity and people along with climate values. Such 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.[72]

Appendix 2
Biodiversity and people criteria and due diligence questions

This section expands on the criteria listed in Step 3. It includes suggested questions that companies can ask during due diligence on the criteria in Step 5 and provides some example answers.

The criteria and due diligence questions have been informed by the following standards. It is important to note that standards vary in their implementation and some do not require quantification of biodiversity and people outcomes, which may make it more challenging to assess the scale of positive outcome.

- Architecture for REDD+ Transactions (ART) – The REDD+ Environmental Excellence Standard (TREES)
- Gold Standard
- Plan Vivo
- Climate Community and Biodiversity (CCB) Standards
- Sustainable Development Verified Impact Standard (SD VISta)
- Botanic Gardens Conservation International (BGCI) Global Biodiversity Standard (GBS)
- International Union for Conservation of Nature (IUCN) Global Standard for NbS
- Fauna and Flora International's Position on High Integrity Implementation of Nature-based Solutions and Use of NbS Carbon Credits
- LandScale
- COICA's Tropical Forest Credit Integrity Guide (TFCI)
- World Resources Institute Guidance on Voluntary Use of Nature-based Solution Carbon Credits Through 2040

In the use of these criteria, companies will need to **adapt due diligence questions if the credits they are considering are associated to a jurisdictional program**. For example, a company doing due diligence on a project might ask "Does the project incorporate local scientific understanding and traditional knowledge where possible?" In comparison, a company doing due diligence on a jurisdictional 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.

Before assessing a project or program for biodiversity gains and benefits to people, it is essential that a credible carbon crediting program issue the carbon credits. If a project or program does not meet this, do not proceed with any further steps.

Due diligence questions	Example answers
Has a carbon crediting program verified the project?	Yes, *x* carbon crediting program has verified the project. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) or the International Carbon Reduction and Offset Alliance (ICROA) has recognized the carbon crediting program. The carbon credit received a high score (5 or 4) from the Carbon Credit Quality Initiative (CCQI).

BIODIVERSITY GAINS

Objective: The project/program leads to biodiversity gains (as described by the Sustainable Development Goals (SDGs)) and contributes to SDG 14 (life below water) or SDG 15 (life on land).

DO NO HARM CRITERIA WITH DUE DILIGENCE QUESTIONS AND EXAMPLE ANSWERS

1. The project/program does not harm biodiversity, including no conversion or degradation of natural habitat and no increase in species extinction risk.

Due diligence questions	Example answers
What internationally recognized environmental safeguards does the company assess the project against (e.g., Cancun Safeguards)? Are the frameworks appropriate for the nature, scale and context of the project?	Project assessment is against the Cancun Safeguards.
How has the project verified this adherence (e.g., is a third-party auditing adherence to internationally recognized safeguards)?	*X* third-party validation/verification body audited the project on a quarterly/biannual/annual basis.
Does the project avoid introducing non-native species when possible, understanding that some agricultural practices include introducing new species?	Yes, all species planted are native to the local ecosystem and aim to support biodiversity development, with consideration given to the planting season of each species.[73]
Does the project provide justification for any non-native species introduced? How does it assess this justification?	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. Local environment experts have assessed this justification.[74] Yes, non-native species can be introduced if the species are already locally established and of economic importance for project participants.

2. The project/program performs environmental impact and risk assessments to prevent potential negative impacts of the project/program.

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 biodiversity impact and risk? How does the project assess the quality of biodiversity impact and risk documentation?	Project design identifies potential risk to biodiversity, particularly risk to species and protected habitats, communities using the Integrated Biodiversity Assessment Tool (IBAT) 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 leakage for biodiversity?	Project design identifies potential deforestation leakage risk and has instituted means to reduce this risk and monitoring practices in nearby areas to minimize any potential impacts.
Does the project have an impact report?	Yes, project reassesses biodiversity impacts and risks in an impact report.
Does the project factor the NCS hierarchy into its risk assessment?[75]	Yes, project first invested in forest conservation prior to reforestation.

3. The project/program has action and monitoring plans with clear roles and responsibilities.

Due diligence questions	Example answers
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 *x* year monitoring plan using baselining assessment measures with additional field surveys to verify impacts.
How frequently does the project monitor impacts and key performance indicators (KPIs)?	Project impacts and KPIs are monitored and reported on an annual/biannual/quarterly basis.
Has the project assigned responsibility for monitoring tasks?	Yes, clear allocation of responsibility for each project impact and KPI.

POSITIVE CONTRIBUTION CRITERIA WITH DUE DILIGENCE QUESTIONS AND EXAMPLE ANSWERS

4. The project/program uses recognized approaches to support ecosystems in adapting to climate change and is aligned with Sustainable Development Goals (SDGs): SDG 14 (life below water) 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 or ecosystems?	**Poor answer**: No consideration of future climate change risks on the objectives of the project. **Answer needing improvement**: Management plan acknowledges the risks of climate change to the objectives of the tree planting project but does not detail plans to minimize these risks. **Strong answer**: Management plan takes into account how to mitigate the direct and indirect risks that climate change represents to the objectives of the project,[76] e.g.: • 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.[77] **Exceptional answer**: Management plan takes into account how to mitigate the direct and indirect risks that climate change represents to the objectives of the project. Management revises and recalculates risk scores for each risk category at least once every five years. Independent third-party auditors verify implementation and effectiveness of mitigation measures.
Which SDGs does the project specifically address and how?	The project has specific monitoring targets to track progress on improving life on land by restoring degraded land and soil.

5. The project/program baseline characterizes the ecological state and drivers for ecosystem loss.

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.[78]
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 describes the methodology and criteria used to determine the baseline and the area of influence? What factors does the project consider when establishing the baseline (e.g., indicator species, forest cover, etc.)? How does it calculate the baseline and how does it incorporate uncertainty?	Project baseline report appropriately considers the biodiversity features in question, describing natural habitats, species and ecosystems within the area of study.[79] Example methodologies that projects may use to determine the baseline include: • Field studies performed by local communities through non-invasive and easy to implement methods (e.g., eDNA, bioacoustics); • Field studies by local ecologists or regional experts; • Reputable global and regional databases like the Integrated Biodiversity Assessment Tool (IBAT), Protected Planet's World Database on Protected Areas (WDPA) and Ocean Data Viewer, combined with field surveys The project provides a baseline report that accredited third parties have vetted.
Does the biodiversity baseline correspond with jurisdictional baselines (where they exist)? What is the reason for any difference?	The project uses comprehensive field sampling to track biodiversity baselines (e.g., number of indicator species present across the ecosystem) and compare with jurisdictional baselines. There is a discrepancy between the project-scale data and the jurisdictional-scale data, as project-scale data is more detailed and site specific, which explains the difference.

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

Due diligence questions	Example answers
What biodiversity benefits and attributes does the project measure, how often and using what tools?	The [annual] assessment of biodiversity benefits measures 1) changes in the extent and condition of each ecosystem in the project area relative to trends in a reference area and 2) changes in the level of key impact drivers. The project performs the assessment through field studies conducted by regional experts, local ecologists or local communities. The project uses non-invasive methods, such as eDNA technology, in the landscape survey performed [annually] 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)?	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 for the priorities listed above? Is the project identifying and benchmarking clear and measurable biodiversity conservation outcomes? Have these integrated local community perspectives and priorities?	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 IPs and LCs in the region.
Does the project directly respond to evidence-based assessment of the prevailing drivers of degradation and loss?	Project monitors risks identified through initial baseline assessment (e.g., using the Integrated Biodiversity Assessment Tool (IBAT) or other tools) throughout the project, with a focus on particular indicator groups through ground-truthed field sampling.

7. The project's/program's design takes into account site-specific or landscape context pressures to reduce threats to 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 the broader environment (e.g., focus on deforestation reflects rising deforestation rates across larger landscape, rising prices for certain deforestation risk commodities, etc.).
How does the project identify landscape priority areas, culturally sensitive areas, and areas with potential for human-wildlife conflict? Does the project consider the high conservation value assessment to inform the selection of priority areas?	Project identifies landscape priority by measuring tree density and habitat fragmentation across ecosystems.[80] Projects identifies conservation priorities by applying the High Conservation Values (HCVs) approach.
Does the design of the project incorporate risk identification and risk management for biodiversity?	Project design includes risk assessment (probability, impact, scale) and mitigation actions across different risk categories (natural disturbance, political, project management, financial and market risks).

8. The project/program enhances biodiversity impacts and builds 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 methods of farming to prevent erosion, allowing them to maintain land ownership.
Does the project improve connectivity of the ecosystem?	Yes, the project improves and enables connectivity of the ecosystem by managing *x* surrounding natural ecosystems (within *x* km) for conservation outcomes.
Does the project implement practices that optimize biodiversity growth? How did it determine agricultural practices and is the local community educated on these practices?	Project limits the use of synthetic fertilizers, prioritizing natural fertilizers. Project limits the use of pesticides, keeping clear track of the kind and quantity of each pesticide used while prioritizing integrated pest management.

9. The project/program 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, the project ensures plantings between habitats to prevent further fragmentation. Project also focuses on diversity of crop portfolios to increase food security.[81]
Biome-specific questions[82]	
Have the ecosystem services listed improved against project baseline?	Tree cover in project area has increased by *x*% from project baseline.
What practices is the project using to support the maintenance and enhancement of the above-mentioned ecosystem services? Why did it choose these? Was it via a participatory approach with project participants? What evidence does the project have to suggest that this was the correct approach for this region, local people, etc.?	Project uses 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 the project has provided farmers with the necessary training and equipment to implement these practices.

BENEFITS FOR PEOPLE

Objective: The project or program leads to positive social impact, contributing to SDG 1 (no poverty), SDG 2 (zero hunger) and SDG 5 (gender equality).

DO NO HARM CRITERIA WITH DUE DILIGENCE QUESTIONS AND EXAMPLE ANSWERS

1. The project/program has identified and actively 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
Is the project located in an area that will have an impact on Indigenous Peoples or local communities (IPs and LCs)? Has the project considered negative impacts?	Yes, the project is located in an area that will have an impact on IPs and LCs and has conducted an impact assessment to identify potential negative impacts.
Has the project conducted a stakeholder analysis and consulted key stakeholders and representatives before and during the design phase? How did it identify stakeholders?	**Poor answer**: No evidence of the inclusion of local communities in the decision-making process or recognition of their needs. **Answer needing improvement**: Project incorporates some consultation with the local community; however, it may not consistently engage with the local community. **Strong answer**: Project developers have been in contact with members of the local community from the beginning to ensure the project supports their needs 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.[83]
What role do IP and LC representatives play in the project governance structure?	IP and LC representatives are on an advisory board that performs ongoing reviews of project status and approves project continuation.
Is the project documenting decision-making processes? Do they respond to the stakes of all participating and affected stakeholders?	Yes, the project documents all decisions on a quarterly basis for reports and includes figures on number of stakeholders involved in each decision.
How does the project or program respect and implement traditional knowledge of local communities?	Project consulted community-appointed experts on local traditions at the initiation of the project and confirms any new actions with these experts.
Does project or program leadership transparently share proof of community benefit sharing through the duration of the project or program?	Yes, project or program leadership documents and shares updates and progress on community benefit sharing on a quarterly basis.

2. The IPs and LCs present in the project/program area support the project/program.

Due diligence questions	Example answers
Has the project obtained the free, prior and informed consent (FPIC) needed from 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.[84]
How frequently does the project reaffirm consent with a representative and diverse group of stakeholders? What is the process of determining community representatives?	Project informally reaffirms consent through a functioning grievance redress mechanism to identify and enable the timely response to issues arising at any moment 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 UN Guiding Principles on Business and Human Rights.
Has this adherence been verified (e.g., by a third party)?	Yes, a third party has verified adherence.
Does the project respect right of IPs and LCs to self-determination, including their right to freely determine their political status and pursue their cultural, social and economic development?[85]	Yes, the project respects this right by protecting existing cultural, social and economic development.
Has the project provided sufficient human, financial, technical and legal resources for effective participation of IPs and LCs in all phases of impact assessment procedures?	Yes, the project has provided legal, technical and financial support for IPs and LCs across all phases of impact assessment procedures.

3. The project/program 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 it has widely promoted and made accessible? How has it designed the grievance mechanism to be culturally appropriate?	Yes, the project has designed and implemented a grievance mechanism with the input of the local community.
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?	*X* stakeholders used the project mechanism for anonymous feedback over the past year.

4. The project/program performs social impact and risk assessments to prevent potential negative impacts of the project/program.

Due diligence questions	Example answers
How does the project demonstrate that it meets legal and institutional frameworks?	The project has documented recognition of relevant laws and frameworks and described actions taken to adhere to existing laws and frameworks (e.g., through working closely with local governments).
Does the project document social impact and risk? How does it assess the quality of social impact and risk documentation?	Project has implemented a social and impact risk assessment aligned with International Finance Corporation (IFC) performance standards and demonstrates evidence of risk assessment being performed in an effective and timely manner; this has been verified by a third party audit.
Does the project document risk of displacement for people?	Project identifies potential deforestation displacement risks and has instituted means to reduce this risk and monitoring practices in nearby areas to minimize any potential impacts.
Does the project have an impact report? How frequently does it monitor impacts and KPIs?	Project reassesses social impacts and risks on an annual/biannual/quarterly basis.

5. The project/program has action and monitoring plans with clear roles and responsibilities.

Due diligence questions	Example answers
How frequently does the project monitor project impacts and KPIs?	Project monitors and reports on impacts and KPIs on an annual/biannual/quarterly basis.
Has the project assigned responsibility for monitoring tasks?	Yes, there is a clear allocation of responsibility for each project impact and KPI.

POSITIVE CONTRIBUTION CRITERIA WITH DUE DILIGENCE QUESTIONS AND EXAMPLE ANSWERS

6. The project/program uses recognized approaches to support communities in adapting to climate change and is aligned with Sustainable Development Goals (SDGs): SDG 1 (no poverty), SDG 2 (zero hunger) or SDG 5 (gender equality).

Due diligence questions	Example answers
Does the project combine resilience strategies and local community practices, if appropriate?	Yes, project has established several training programs on resilient agriculture for the local community.
Which SDGs does the project specifically address and how?	The project has specific monitoring targets to track progress on improving poverty, hunger, gender equality and quality of life within the ecosystem.

7. The project/program 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? Are women included in a culturally acceptable way, considering local norms?	There is an equal gender split within governance structures, with *x* women appointed to community representative positions. In addition, the project has established *x* 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?	The project employs *x* women in 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).

8. The project/program invests in livelihoods of IPs and LCs to ensure uptake and sustainability of the project/program.

Due diligence questions	Example answers
Has the project carried out a participatory planning process in which communities define investment plans and governance models to manage land?	Project undertook consultations and workshops with community members to understand their plans and identify project priorities accordingly.
Does the project list the improved livelihoods practices for IPs and LCs it is incorporating into the project design? How many IPs and LCs are impacted?	Project has impacted *x* community members through income generated as a result of activities in the last year.
What is the monitoring plan for these activities and negative impacts?	Project reassesses activities 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 IPs and LCs and established training programs equaling USD $*x*.

9. The project/program engages and protects marginalized and underrepresented groups, including low-income communities.

Due diligence questions	Example answers
Does the project ensure the equitable representation of marginalized and vulnerable groups in project governance?	Project has identified all marginalized groups within the community and they have appointed representatives to project governance.
Has the project established revenue-sharing programs to prioritize marginalized and underrepresented groups? What is the revenue sharing mechanism?	The project has established a revenue-sharing program where village-level representative bodies or community-based organizations, including representatives from underrepresented groups, govern revenue sharing. Community consultation and consent was required to decide upon appropriate revenue sharing.

10. The project/program 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 has the project addressed them?	**Poor answer**: No documentation is available on land rights. Project adversely impacts the local community through failure to engage in discussions of land rights and carbon rights. **Answer needs improvement**: Evidence of land rights and carbon rights documentation but this is done without discussion with locals. **Strong answer**: Land rights documentation is detailed and accessible. Project includes the community in land rights decisions, discussions and organization. An equitable and transparent benefit sharing plan is in place with local stakeholders, including Indigenous Peoples and local communities.[86]
Have land rights holders granted projects permission to perform project activities on their land?	Yes, project respects land rights and has obtained permission from land rights holders to perform project activities on their land.
Does the project strengthen and promote IP and LC rights to land?	Project has created *x* new Indigenous communal land titles.
Does the project invest in legal rights training and support for documentation of traditional land rights for IPs and LCs? Is the project using its own resources to promote and revive the sustainable land management practices of IPs and LCs?	Project has implemented legal rights training programs across *x* villages and *x* community members have completed at least one training program. Project has worked with IPs and LCs across *x* villages to implement their collective land management plans and practices.
Does the project design respect and incorporate traditional land management techniques?	Yes, project has avoided using land currently occupied by smallholder farmers.

11. Revenue-sharing occurs in a transparent and equitable manner and project/program has consulted IPs and LCs 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 did it determine the carbon benefit-sharing arrangement? How do benefits flow through to all community levels for equitable sharing?	If monetary: USD $*x* earned by forest communities through carbon finance in 20*xx*. Of this, USD $*x* invested in education and health initiatives, including an Improved Community Health Fund, to provide 8 services at biweekly frequency.
How does the project or program establish flows of funds to the community? How does it determine this?	Project follows best practice guidance from local NGOs to determine flows of funds to the community.
Is revenue-sharing with IPs and LCs transparent, if desired by IPs and LCs? How does the project assess transparency? Please share specifics on revenue sharing model, with evidence of application.	Project has discussed transparency with IPs and LCs and undergone third-party assessment.
Is revenue-sharing with IPs and LCs equitable? How does the project assess equitability?	Project developers, external experts on IP and LC rights, and appointed members of the community assess equitability.
What is the project revenue split with IPs and LCs and where do the carbon rights sit? Please share specifics on benefit-sharing model, with evidence of application.	If monetary: Project follows best practices set by IPs and LCs and local NGOs of *x%* of revenue going to IPs and LCs.
How often does the project review and update revenue-sharing arrangement, who is involved and how is this done?	Project updates revenue-sharing agreement on a biannual basis and includes consultation of IPs and LCs by project developers.
If monetary: Has project provided proof of payment and proof of receipt (if applicable)?	Yes, project has provided proof of payment and receipt.
If monetary: How is the project administering the funds? How is it assuring the equitable representation of the community as a whole and that marginalized groups receive a share of the revenue?	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 it accounts for the investment priorities of marginalized groups.

Appendix 3
Article 6 of the Paris Agreement

Article 6 of the Paris Agreement enables countries to cooperate with each other to make progress on their Nationally Determined Contributions (NDCs). To avoid double counting, Article 6 includes corresponding adjustments, which are an accounting tool designed to avoid double-counting of emissions between governments. This tool is used for internationally transferred mitigation outcomes (ITMOs) that will be used towards an NDC or for another mitigation purpose, such as industry compliance.

Implementing Article 6 of the Paris Agreement is considered an opportunity to achieve national emissions reduction targets more cost-effectively, as it allows countries to voluntarily cooperate to reach more ambitious reduction targets by exchanging carbon credits (Article 6.4). Article 6 aims to establish an international compliance carbon market where a country can sell ITMOs to other countries to contribute to buyer country NDC targets. As part of this transaction, parties must make a "corresponding adjustment" to avoid double-counting issues between governments.

As explained by the International Carbon Reduction and Offset Alliance (ICROA), the final Article 6 text requires that all Article 6 emissions reductions have corresponding adjustments. But it does not state that the trading of other voluntary emission reductions in the voluntary carbon market (VCM) is not permitted. However, Article 6 decisions may affect certain voluntary market emissions reductions. Therefore, Article 6 does not directly regulate the VCM but is conducive to increased convergence of the Paris Agreement and voluntary markets.[87]

At the moment, host countries do not have to authorize credits used for voluntary purposes by companies. Article 6 guidance enables host countries to authorize and apply corresponding adjustments on uses of credits in voluntary carbon markets.[88] However, there is currently no definitive pathway set for the application of corresponding adjustments in voluntary markets, meaning there is a range of market scenarios resulting from Article 6 and no set guidance for companies as they purchase carbon credits.

Appendix 4
Additional standards and guidelines

- ART TREES – The Architecture for REDD+ Transactions (ART) REDD+ Environmental Excellence Standard (TREES) for the quantification, monitoring, reporting and verification of GHG emissions reductions and removals from REDD+ activities at a jurisdictional and national scale. ART/TREES focuses on carbon and does not provide specific criteria across biodiversity and people.

- 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.

- CCB Standards – Managed by Verra, the Climate, Community & Biodiversity (CCB) Standards identify projects that simultaneously address climate change, support local communities and smallholders, and conserve biodiversity.

- 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 from affordable clean energy to the restoration of wildlife.

Relevant criteria are also available in the following standards and guidelines:

- BGCI GBS – The Botanic Gardens Conservation International Global Biodiversity Standard (BGCI GBS) combines biodiversity impact assessment and mentoring of restoration practitioners for better biodiversity outcomes.

- Equator Principles – These principles outline a baseline and framework for financial institutions to identify, assess and manage environmental and social risks.

- International Finance Corporation (IFC) – Environmental and Social Performance Standards define responsibilities for their clients for managing environmental and social risks.

- International Union for Conservation of Nature (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) – This organization provides internal guidance on high-quality NbS in terms of net positives for biodiversity and social impact.

- International Labor Organization (ILO) Fundamental Convention – The document covers the ILO Governing Body's eight "fundamental" conventions. Companies can consider these conventions as they evaluate benefits to people.

- 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.

- United Nations Development Programme (UNDP) Social and Environmental Standards – The social and environmental standards of the lead agency of the United Nations on international development underpin the UNDP's goal of mainstreaming social and environmental sustainability in all of their programs and projects.

- World Resources Institute (WRI) Guidance on Voluntary Use of Nature-based Solution Carbon Credits Through 2040 – The guidance developed by a WRI working group focuses on nature-based solutions (NbS) and markets that provides the latest thinking on the voluntary use of NbS carbon credits.

Other relevant resources:

- The Tropical Forest Credit Integrity Guide, published by the Coordinator of Indigenous Organizations of the Amazon River Basin (COICA), shares more detailed guidance on additional due diligence requirements.

- The High-Quality Blue Carbon Principles and Guidance outlines five main recommendations to guide the development and procurement of high-quality blue carbon projects and credits.[89] Buyers looking to procure high-quality blue carbon credits can look to this guide for more specific considerations.

Appendix 5
Resources and references

Carbon mitigation background/net-zero emissions journeys (beyond voluntary carbon mitigation)

University of Oxford: *The Oxford Principles for Net-zero Aligned Carbon Offsetting*

Science Based Targets initiative (SBTi) Net-Zero Standard

Shopify: *Buying Carbon Removal, Explained*

Glasgow Financial Alliance for Net Zero: *Expectations for Real-economy Transition Plans*

Ceres guide on *Evaluating the Use of Carbon Credits*

General background on people and biodiversity

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) *Global Assessment Report on Biodiversity and Ecosystem Services*

Definitions/NCS background

International Union for Conservation of Nature (IUCN) Resolution on NBS Definition

Natural Climate Solutions Alliance (NCSA): *Natural Climate Solutions for Corporates*

Natural Climate Solutions Alliance (NCSA): *Natural Climate Solutions and the Voluntary Carbon Market: A 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 net-zero emissions journeys

Conservation International: *Exponential Roadmap for NCS*

Seddon et al.: "Getting the message right on nature-based solutions to climate change"

International Labour Organization report: *Decent Work in Nature-based Solutions*

United Nations Environment Programme and International Union for Conservation of Nature (UNEP IUCN) report: *Nature-based solutions for climate change mitigation*

World Resources Institute: *Guidance on Voluntary Use of Nature-based Solution Carbon Credits through 2040*

Coordinator of Indigenous Organizations of the Amazon River Basin (COICA): *Tropical Forest Credit Integrity Guide*

Eco-Business: "Don't lock Indigenous Peoples into bad carbon deals: experts"

Cook-Patton et al.: "Protect, manage and then restore lands for climate mitigation"

Sylvera: The State of Carbon Credits 2022: Spotlight on REDD+

High-Quality Blue Carbon Principles and Guidance

World Economic Forum report: *Embedding Indigenous Knowledge*

Nature4Climate *Nature Tech Report*

Gold Standard Foundation: *Gold Standard Claims Guidelines*

NCS criteria

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

United Nations Environment Programme: *State of Finance for Nature*

World Economic Forum: *Nature Risk Rising*

World Economic Forum: *Scaling Investments in Nature*

Note: Organizations are developing request for proposal (RFP) platforms specific to carbon credit procurement as technological solutions for companies.

Jurisdictional NCS

World Economic Forum: *Forests for Climate: Scaling up Forest Conservation to Reach Net Zero*

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Endnotes

1 *High-quality NCS* are solutions that address the permanence, additionality, leakage, double-counting, robust quantification and verification of the NCS climate mitigation activities implemented and 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.

2 See the Integrity Council for the Voluntary Carbon Market (2023). "The Core Carbon Principles". Retrieved from: https://icvcm.org/the-core-carbon-principles/.

3 United Nations Environment Program (UNEP) Emissions Gap Report 2022. Retrieved from: https://www.unep.org/resources/emissions-gap-report-2022

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

5 Financing stands at approximately USD $154 billion compared to the estimated USD $674 billion needed by 2030 to achieve true mitigation potential. United Nations Environment Program (2022). *State of Finance for Nature Report 2022*. Retrieved from: https://www.unep.org/resources/report/state-finance-nature-2022.

6 For more detail on the history of the VCM, see International Carbon Reduction and Offset Alliance (ICROA) (n.d.). "Evolution of the Voluntary Carbon Market" timeline. Retrieved from: https://voluntarycarbonmarket.org/.

7 Land stewards do not always hold carbon rights due to rules of tenure and property rights in various countries.

8 Counterbalance refers to an organization's use of NCS credits to compensate for some or all of its unabated emissions over a given period while on a Paris Agreement-aligned, science-based emissions-reduction pathway. World Resources Institute (2022). "Guidance on Voluntary Use of Nature-based Solution Carbon Credits Through 2040". Retrieved from: https://www.wri.org/insights/guidance-voluntary-use-nature-based-solution-carbon-credits-through-2040.

9 The term "science-based" refers to those activities that use scientific methods and results to inform decisions. For the purposes of this guide, "science-based" does NOT specifically refer to the Science Based Targets initiative (SBTi) unless stated otherwise.

10 Science Based Targets initiative (SBTi) (2021). "Nature-based solutions in science-based targets". Retrieved from: https://sciencebasedtargets.org/blog/nature-based-solutions-in-science-based-targets.

11 Greenhouse Gas Protocol (2022). Draft Land Sector and Removals Guidance | Greenhouse Gas Protocol. Retrieved from: https://ghgprotocol.org/land-sector-and-removals-guidance.

12 Science Based Targets initiative (SBTi) (2022). *Forest, Land and Agriculture Science Based Target-Setting Guidance*. Retrieved from: https://sciencebasedtargets.org/resources/files/SBTiFLAGGuidance.pdf.

13 Note that companies cannot use NCS carbon credits to reduce GHG inventory, unlike in-value chain use. Furthermore, NCS can also contribute to the implementation of the company's nature-positive strategy, regardless of credit generation. See:

- Science Based Targets initiative (SBTi) (2022). *Forest, Land and Agriculture Science Based Target-Setting Guidance*. Retrieved from: https://sciencebasedtargets.org/resources/files/SBTiFLAGGuidance.pdf.
- WBCSD (2022). *Insetting and Scope 3 climate action*. Retrieved from https://www.wbcsd.org/Programs/Climate-and-Energy/Climate/Natural-Climate-Solutions/Resources/Insetting-and-Scope-3-climate-action-applying-and-accounting-for-Natural-Climate-Solutions-NCS-in-land-sector-value-chains.
- Science Based Targets initiative (SBTi) (2022). "The SBTi's FLAG Guidance: A groundbreaking moment for addressing land-related emissions". Retrieved from: https://sciencebasedtargets.org/blog/the-sbtis-flag-guidance-a-groundbreaking-moment-for-addressing-land-related-emissions.
- Science Based Targets initiative (SBTi) (2022). "The SBTi launches the world's first standard method to cover land-related emissions and removals". Retrieved from: https://sciencebasedtargets.org/news/the-sbti-launches-the-worlds-first-standard-method-to-cover-land-related-emissions-and-removals-2.

14 For companies at the neutralization stage, it is no longer a question of "how much". To reach net-zero emissions, they must neutralize all residual unabated emissions. For example, the Science Based Targets initiative states that exclusions in the GHG inventory must not exceed 10% of total scope 3 emissions.

15 World Resources Institute (WRI) (2022). *Global Forest Review – Forest Pulse: The Latest on the World's Forests*. Retrieved from: https://research.wri.org/gfr/latest-analysis-deforestation-trends.

16 For more on HFLD credits, see Coordinator of Indigenous Organizations of the Amazon River Basin (COICA) et al. (2023). *Tropical Forest Credit Integrity Guide for Companies*. Retrieved from: https://tfciguide.org/.

17 Nesting is when project-level emissions accounting and social and environmental safeguards are aligned with higher-level jurisdictional systems. (Source: Verra (2022). *VCS Jurisdictional and Nested REDD+ Framework*. Retrieved from: https://verra.org/programs/jurisdictional-nested-redd-framework/.)

18 For more detail on balancing projects and jurisdictional programs, see Coordinator of Indigenous Organizations of the Amazon River Basin (COICA) et al. (2023). *Tropical Forest Credit Integrity Guide*. Retrieved from: https://tfciguide.org/.

19 Technological solutions include carbon capture and storage methods, and will likely play an important role in carbon removal as they scale. Source: WBCSD (2022). Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives. Retrieved from: 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.

20 An offtake agreement is an arrangement between a producer and buyer to purchase or sell a portion of the producer's upcoming carbon credits.

21 Example price for improved forest management project is from Great Bear Rainforest Carbon Project in Canada; example price for enhanced soil organic carbon project is from Cover Cropping Farm Projects in Canada. Source: Carbonzero, Carbon Engineering, Ontario Cover Crops Strategy, Alberta Carbon Registries, Biogas Association.

22 For an overview of the average price of different credit types see Ecosystem Marketplace (2022). *The Art of Integrity – Ecosystem Marketplace's State of the Voluntary Carbon Markets 2022 Q3*. Retrieved from: https://www.ecosystemmarketplace.com/publications/state-of-the-voluntary-carbon-markets-2022/.

23 Companies can also follow guidance from the UN Global Compact, which asks companies to set an internal price for carbon at a minimum of USD $100 per metric ton. UN Global Compact (n.d.). "Put a price on carbon." Retrieved from: https://unglobalcompact.org/take-action/action/carbon.

24 Analysis from CDP found the median internal carbon price disclosed by companies in 2020 was USD $25 per metric ton of CO_2e. CDP (2021). "Nearly half of world's biggest companies factoring cost of carbon into business plans". Retrieved from: https://www.cdp.net/en/articles/media/nearly-half-of-worlds-biggest-companies-factoring-cost-of-carbon-into-business-plans.

25 For more information on corporate internal carbon pricing, see Ecofys, The Generation Foundation and CDP (2017). *How-to guide to corporate internal carbon pricing – Four dimensions to best practice approaches*. Retrieved from: https://cdn.cdp.net/cdp-production/cms/reports/documents/000/002/740/original/cpu-2017-how-to-guide-to-internal-carbon-pricing.pdf?1521554897.

26 Attributes are from: Integrity Council for the Voluntary Carbon Market (2023). "The Core Carbon Principles". Retrieved from: https://icvcm.org/the-core-carbon-principles/.

27 It is important to note the different considerations for each of these attributes based on the ecosystem type in question. For example, in blue carbon ecosystems, sea level rise is an important consideration. For a detailed treatment of each of the attributes in the context of blue carbon, refer to Conservation International (2022). *High-Quality Blue Carbon Guidance and Principles*. Retrieved from: https://merid.org/wp-content/uploads/2022/11/HQBC-PG_FINAL_11.8.2022.pdf.

28 Fundamental in ensuring integrity is the project or program baseline, which companies must carefully consider to confirm that it is conservative and all assumptions made are transparent.

29 See Environmental Defense Fund (n.d.). *Meeting the climate change goals of the Paris Agreement: How to avoid double counting of emissions reductions*. Retrieved from: https://www.edf.org/sites/default/files/documents/double-counting-handbook.pdf.

30 International Carbon Reduction and Offset Alliance-endorsed standards can be found at https://www.icroa.org/standards.

31 The Millennium Ecosystem Assessment defines ecosystem services as "the benefits people derive from ecosystems." To derive this value, experts use biodiversity indices across ecosystems, species and genes.

32 Ecosystem services have been valued at between USD $150 trillion and USD $170 trillion per year (based on a currently accepted range of estimates), using discount rates at ~2.5-3.5%. Note: All values inflation-adjusted to 2019-dollar values.

33 Science Based Targets Network (n.d.). "SBTN Glossary". Retrieved from: https://docs.google.com/document/d/1jaBVIG54Fsqc0xRvy97U-aO8rCfAg1Xp5C95rUWEVoI/edit.

34 World Resources Institute (WRI) (2022). "Policies Underestimate Forests' Full Effect on Climate". Retrieved from: https://www.wri.org/insights/how-forests-affect-climate.

35 Lawrence, D. et al. (2022). "The Unseen Effects of Deforestation: Biophysical Effects on Climate". *Frontiers in Forests and Global Change*. 24 March 2022, Sec. Forest Disturbance, Volume 5 – 2022. Retrieved from: https://www.frontiersin.org/articles/10.3389/ffgc.2022.756115/full.

36 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019). *Global Assessment Report on Biodiversity and Ecosystem Services*. Retrieved from: https://ipbes.net/global-assessment.

37 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019). *Global Assessment Report on Biodiversity and Ecosystem Services*. Retrieved from: https://ipbes.net/global-assessment.

38 Many standards do have processes in place to involve IPs and LCs but may not go far enough to ensure that these groups are active parties in project development and management.

39 For specific due diligence guidance on jurisdictional REDD+ programs, see Coordinator of Indigenous Organizations of the Amazon River Basin (COICA) et al. (2023). *Tropical Forest Credit Integrity Guide for Companies*. Retrieved from: https://tfciguide.org/.

40 For more information on how companies perceive some of these risks, see World Economic Forum (2023). *The Voluntary Carbon Market: Climate Finance at an Inflection Point*. Retrieved from: https://www3.weforum.org/docs/WEF_The_Voluntary_Carbon_Market_2023.pdf.

41 Cook-Patton, S.C. et al. (2021). "Protect, manage and then restore lands for climate mitigation". Nature Climate Change. Vol. 11, December 2021, 1027–1034. Retrieved from: https://www.natureunited.ca/content/dam/tnc/nature/en/documents/canada/nature-ncs-hierarchy-study.pdf.

42 This can occur when retailers or brokers have purchased credits from project developers and then sell to end buyers.

43 Based on interviews.

44 Vintage refers to the age of the credit. However, older vintages do not always mean older credits, as the registry may have just issued some credits with an older vintage if the project is large and complex and had issuance delayed. Vintage has historically been used as a proxy for quality due to the fact that some older projects using older methodologies are low quality; but this is more the effect of poor methodologies, not vintage. Buyers should perform due diligence on all carbon credit purchases, regardless of vintages.

45 For more information on reporting on credit use, see:

- Glasgow Financial Alliance for Net Zero (n.d.). *Expectations for Real-Economy Transition Plans*. Retrieved from: https://assets.bbhub.io/company/sites/63/2022/09/Expectations-for-Real-economy-Transition-Plans-September-2022.pdf.
- CDP (n.d.). "Guidance for companies". Retrieved from: https://www.cdp.net/en/guidance/guidance-for-companies.

46 International Sustainability Standards Board (ISSB) (2022). *ISSB Update October 2022*. Retrieved from: https://www.ifrs.org/news-and-events/updates/issb/2022/issb-update-october-2022/#1.

47 See Netflix (2021). *2020 Environmental, Social, Governance Report*. Retrieved from: https://about.netflix.com/en/news/net-zero-nature-our-climate-commitment.

48 For further guidance on communicating climate strategies that include NCS, see World Economic Forum and WBCSD (2021). *Natural Climate Solutions for Corporates*. Retrieved from: https://www3.weforum.org/docs/WEF_NCSA_NCS_for_Corporates_2021.pdf.

49 See Ceres (2022). *Evaluating the Use of Carbon Credits*. Retrieved from: https://www.ceres.org/resources/reports/evaluating-use-carbon-credits.

50 World Resources Institute cites the first two types of claims: World Resources Institute (WRI) (2022). *Guidance on Voluntary Use of Nature-based Solution Carbon Credits Through 2040*. Retrieved from: https://www.wri.org/insights/guidance-voluntary-use-nature-based-solution-carbon-credits-through-2040.

51 Also referred to as a Nationally Determined Contribution (NDC).

52 World Resources Institute (WRI) (2022). *Guidance on Voluntary Use of Nature-based Solution Carbon Credits Through 2040*. Retrieved from: https://www.wri.org/insights/guidance-voluntary-use-nature-based-solution-carbon-credits-through-2040.

53 World Economic Forum (2023). "Why you should consider adding carbon credits to your climate action plan". Retrieved from https://www.weforum.org/agenda/2023/01/consider-adding-carbon-credits-climate-action-plan/.

54 Definitions sourced from The Biodiversity Consultancy, CDR Primer, Climate Action Reserve, European Commission Climate Action, ICVCM, NCSA, SBTi, UN Climate Change (UNFCCC) and World Resources Institute, as well as from input from the NCSA taskforce.

55 Science Basted Targets initiative (SBTi) (2021). *SBTi Corporate Net-Zero Standard*. Retrieved from: https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf.

56 Demonstrating additionality is challenging because it requires testing; and testing itself is controversial because it is imperfect. Types of additionality tests include examining regulatory surplus, performing barrier analysis and looking at market adoption rates. REDD projects (projects that generate credits from Reduced Emissions for Deforestation and forest Degradation), for example, need to demonstrate that the rate of deforestation they achieve is lower than what would have happened without the intervention. If the REDD+ project is in an area where forest protection was already legally mandated, then there is no additionality as the reduction would happen anyway.

57 Natural Climate Solutions Alliance and ERM (2022). *Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives*. Retrieved from: 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.

58 Science Basted Targets initiative (SBTi) (2021). *SBTi Corporate Net-Zero Standard*. Retrieved from: https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf.

59 Integrity Council for the Voluntary Carbon Market (ICVCM) (n.d.). "Public Consultation | Key resources". Retrieved from: https://icvcm.org/public-consultation/#key-resources.

60 Coordinator of Indigenous Organizations of the Amazon River Basin (COICA) et al. (2023). *Tropical Forest Credit Integrity Guide*. Retrieved from: https://tfciguide.org/.

61 Natural Climate Solutions Alliance and ERM (2022). *Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives*. Retrieved from: 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.

62 Natural Climate Solutions Alliance and ERM (2022). *Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives*. Retrieved from: 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.

63 Science Basted Targets initiative (SBTi) (2021). *SBTi Corporate Net-Zero Standard*. Retrieved from: https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf.

64 Integrity Council for the Voluntary Carbon Market (ICVCM) (n.d.). "Public Consultation | Key resources". Retrieved from: https://icvcm.org/public-consultation/#key-resources.

65 Emissions reductions are reductions of GHGs produced by the implementation of an activity, representing the difference between baseline or reference-level emissions and actual emissions.

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This report is released in the name of the Natural Climate Solutions Alliance (NCSA). It is the result of collaborative efforts by NCSA members and its Secretariat and the Boston Consulting Group. Drafts were reviewed by NCSA members, ensuring that the document broadly represents the majority view of NCSA members. It does not mean, however, that every member company agrees with every word.

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