



NATURAL CLIMATE SOLUTIONS FOR CORPORATES

July 2021



Natural
Climate
Solutions
Alliance



Who we are

The NCS Alliance is a multi-stakeholder group committed to delivering Natural Climate Solutions (NCS) with integrity, at scale. The NCS Alliance convenes public and private stakeholders to identify opportunities and barriers to investment into carbon credits in new and existing markets in order to scale up financing for natural climate solutions. The Alliance also serves as a forum for knowledge sharing and technical capacity building to ensure natural climate solutions reach their full potential in abating climate change. We are convened by the World Economic Forum (WEF) and the World Business Council for Sustainable Development (WBCSD).

Our vision

To enable NCS to contribute its full potential to help deliver the Paris Agreement climate goals as well as solutions to some of the world's most pressing and intractable environmental and social challenges, including biodiversity and forest loss, land degradation, sustainable water management and sustainable community livelihoods, starting today.

Contributing companies

Agrosmart
Bayer Crop Science
BP
DBS
ENI
ERM
Indigo Ag
Kering
Leaseplan
Lenzing
Nestlé
Nutrien
Olam
Shell
Unilever
Yara

Contributing solution providers

Accenture
Boston Consulting Group
CAR
Climate Advisors
Ecosphere+
EcoTree
Emergent
New Forests
Permian Global
PT Rimba Makmur Utama
PwC
South Pole
Viresco Solutions
Wildlife Works
Winrock, ACR and ART

Contributing Non Profits

Arbor Day Foundation
CI
EDF
FFI
IBCSD
ICROA
IETA
RBI
TFA
TNC
Verra
WCS
WRI

This publication was made possible with generous funding support from the We Mean Business Coalition.

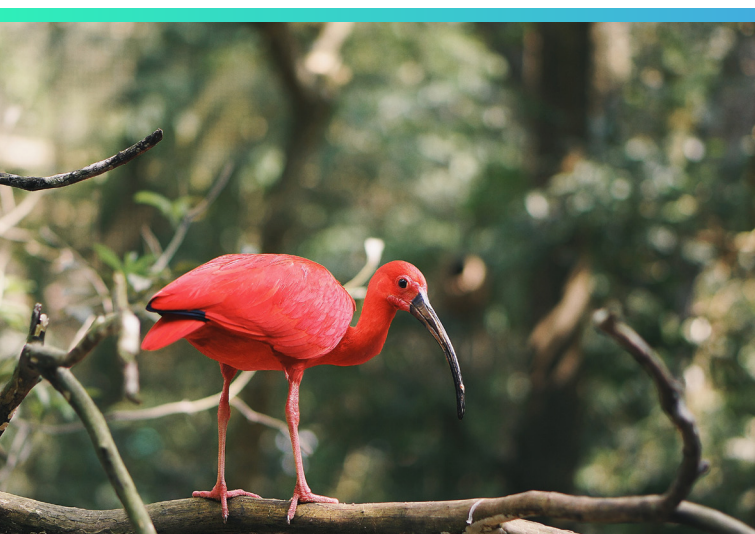


What are Natural Climate Solutions and why are they needed?

Reaching the goals of the Paris Agreement requires companies and governments alike to take immediate and decisive action to decarbonize – globally we must reduce or remove emissions equivalent to 50% of current levels by 2030 to be on course to reach net zero globally by 2050.¹

To meet these targets, decarbonization needs to take place across the whole economy. Natural Climate Solutions (NCS) refer to actions that address GHG emissions, either by reducing them, e.g., through stopping degradation of natural carbon sinks (Reduced Emissions from Deforestation and Degradation (REDD)), or by sequestering carbon through the growth of carbon sinks (reforestation and ecosystem restoration).

NCS is a high potential opportunity, with estimates suggesting that they can support up to around 1/3rd of the required mitigation for a Below-2°C pathway by 2030, at costs of approximately \$10-100 per tCO₂.^{2,3} In addition to their great potential in tackling climate change, NCS also provide numerous socio-economic & environmental benefits, such as the preservation and restoration of biodiversity, provision of critical ecosystem services, and the support of sustainable livelihoods through transformation of agricultural practices that improve supply chain resilience.



The implementation of NCS typically occurs via projects (at specific sites) or programs (at landscape or jurisdiction level), many of which aim to protect and restore natural ecosystems. The climate benefits of these projects and programs, in terms of reduced emissions and sequestered CO₂, can be realized directly by governments and companies, or indirectly via purchase of carbon credits on a tradeable market.

The ability to trade NCS carbon credits expands the range of market participants and the flow of investment to NCS activities. Tradeable voluntary markets form a significant source of

1. IPCC SR15 [Report](#)

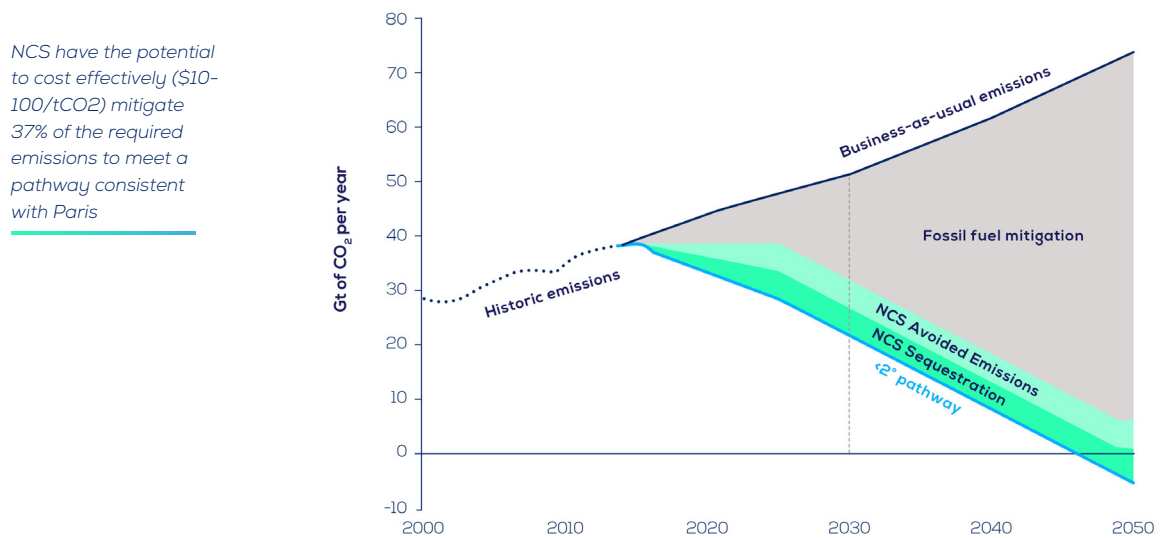
2. Natural climate solutions. Griscorn et al. 2017, [PNAS](#)

3. WEF & McKinsey & Company, [2021](#)

investment in NCS today. Yet whilst voluntary demand for NCS credits has grown rapidly in recent years, voluntary carbon market investment of ~\$170M in 2019⁴ is small relative to the estimated \$10-100B needed to realize the true mitigation potential of NCS by 2030⁵. Whilst the voluntary carbon market is not the sole means by which investment in NCS can be made, it is an important existing mechanism that can be scaled to channel funding towards NCS.

While governments, civil society and consumers all have important roles to play in accelerating NCS, corporates are key to driving the required investment to scale NCS to meet their full climate mitigation potential, and many corporates are starting to consider the role of NCS in their decarbonization strategies.

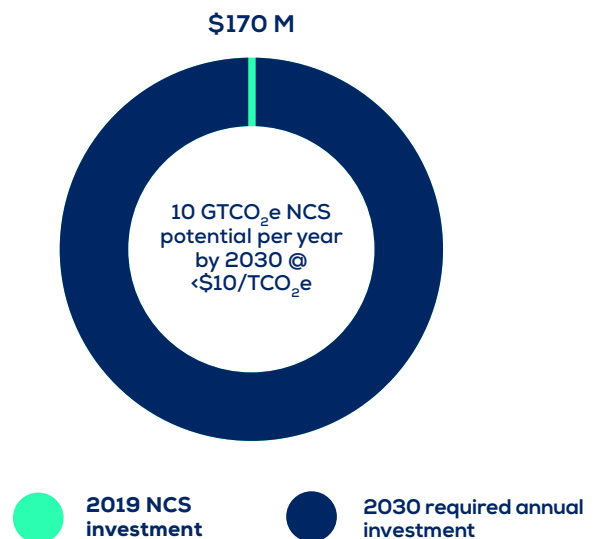
Figure 1: Global Paris aligned decarbonization pathway⁶



However, many corporates recognize that investments in NCS carry uncertainty and risk. The climate benefits are clear, but finding and investing in high quality projects and jurisdictional programs that maximize co-benefits and limit potential negative impacts is not always easy. Furthermore, continued debate about the role of NCS in climate change strategies by NGOs and regulators risks creating confusion and uncertainty for corporate actors looking to invest.

It is therefore essential that clear and trusted guidance is provided to give corporates the confidence they need to invest in NCS, while ensuring that rigorous environmental and social safeguards are maintained. The NCS Alliance proposes the following set of principles and practices, in order to build a track-record of successful NCS delivery whilst maintaining environmental and social integrity:

Figure 2: Estimated NCS investment



4. Forest Trends, [2020](#)
 5. WEF & McKinsey & Company, [2021](#)
 6. Natural climate solutions. Griscorn et al. 2017, [PNAS](#)

NCS ALLIANCE GUIDING PRINCIPLES for investing in natural climate solutions

1. NCS can and should raise ambition with respect to climate action, enhancing rather than diluting a nation's or a company's contribution to the Paris goals. **NCS should be used in conjunction with the GHG emissions mitigation hierarchy** i.e. avoiding and reducing emissions should be prioritized and continue in addition to the use of NCS credits.
2. NCS credits can provide an **interim solution for hard to abate emissions** but not a permanent one. For certain unavoidable emissions, carbon sinks – including natural sinks – will always be needed to achieve net-zero. NCS credits should be considered **an enabling solution that will support long-term sustainable land use**.
3. NCS investments should **follow rigorous environmental and social safeguards**, which may help generate other benefits in line with UN SDGs.
4. **Sound and verified carbon measurement and accounting methodologies must be applied to ensure high integrity of NCS credits.** Emissions reductions and removals must be real, quantified and verified, with issues of additionality, leakage and permanence appropriately addressed, and tracked through robust accounting to avoid double counting

Building on these foundational principles the NCS Alliance has developed a set of guidelines to support credible use of NCS credits by corporates, covering demand side eligibility, supply side quality criteria and market infrastructure that support high integrity NCS markets.

Guidelines for planning a credible climate strategy which includes NCS

Uptake of NCS credits by corporates not only drives investment in the voluntary carbon markets but also gives governments and regulators the confidence needed to deploy policy frameworks and structures to scale up national and international NCS investment. As the window to limit global temperature rise to 1.5°C becomes increasingly narrow such actions are needed to accelerate the protection and enhancement of natural carbon sinks.

However, driving adoption of NCS must start with high integrity corporate climate strategies that focus on raising climate ambition whilst also leveraging NCS as a high quality interim solution. The NCS Alliance demand eligibility criteria have been developed to establish minimum criteria for the credible use of NCS within corporate climate strategies.

The criteria are structured in two parts: corporate guidance for **planning a credible climate strategy including NCS**, and corporate guidance for **procurement and use of NCS credits**.

Planning a credible climate strategy including NCS

- 1. First principles: Have a strategy that is consistent with the Paris Agreement and follow the mitigation hierarchy.**

Corporates should use NCS credits in the context of applying the GHG mitigation hierarchy to reduce scope 1-3 emissions in support of sector decarbonization at a rate consistent with achieving the goals of the Paris Agreement, and undertaking other actions such as low carbon policy advocacy, scaling renewables and investing in low carbon technologies.
- 2. Develop and publish a company plan to address all value chain emissions.**

The plan should outline specific actions and levers to address Scope 1, 2 and 3 emissions in line with the mitigation hierarchy, including an explanation of NCS use for remaining emissions.
- 3. Take action: start within your own supply chain first.**

For some companies, forests, agriculture or land use are part of their business – in this instance NCS should be used first within the value chain to avoid and reduce emissions and improve resilience of agricultural land to global warming impacts e.g., no deforestation commitments.



4. Advocate for climate policy.

Effective corporate strategies recognize the importance of policy advocacy, in order to drive and encourage local, national and international policies that both support and strengthen investments in NCS among other climate mitigation solutions.

Guidelines for using NCS credits as part of a corporate climate strategy

5. Commit to long term purchase agreements.

Committing to future purchase secures investment and enables longer term project development on landscape level and high impact projects.

6. Invest in high quality NCS credits.

Investments in NCS projects and programs should secure the maximum sustainable climate benefit possible and minimize any negative social or environmental consequences as outlined in the quality criteria detailed below.

7. Report transparently and secure 3rd party verification.

Independent verification and reporting should be used to validate the quantity and quality of gross emissions/NCS credits retired.



UNDERSTANDING HOW MUCH AND HOW FAST TO DECARBONIZE

The mitigation hierarchy is central to best-practice use of NCS credits. Reducing emissions should always be the top priority within corporate climate strategies.

The requirement to avoid and reduce emissions originates from the concept of a carbon budget, which represents the quantity of GHG emissions that can cumulatively be emitted to limit warming to well-below 2°C, and preferably 1.5°C, the goal of the Paris Agreement. Based on current annual emissions, without action we will exhaust this budget within 15 years, underscoring the criticality of immediate and significant economy wide decarbonization.

Whilst the global carbon budget re-presents a single economy wide value, the necessary decarbonization must come from individual actors, with each country, sector and company contributing, and these contributions aggregating to deliver the necessary decarbonization outcome, informed by an understanding of the decarbonization opportunities available. But since opportunities to decarbonization are not homogenous in price, technological availability or commercial readiness across sectors, developing an efficient allocation of the budget is complex.

One approach is to seek to develop an efficient allocation of the budget between countries, sectors or companies consistent with the goals of the Paris Agreement. This is complex, and to simplify the complexity, organizations such as the [Science-based targets initiative](#), [Energy Transitions Commission](#), [International Energy Agency](#) and others work to provide guidance and sector-appropriate decarbonization pathways consistent with the goals of the Paris Agreement. Companies should support best practice in following the GHG mitigation hierarchy and the adoption of a target consistent with Paris and informed by science.

Defining quality of NCS credits

Corporates looking to purchase NCS credits are required to navigate a complex and fragmented ecosystem of standards and programs issuing NCS credits. This section presents the NCSA's guidelines for high-quality NCS projects and programs, and credits.

As with many industries, the quality of the product is often correlated to the quality of the supplier. Both program-level requirements and credit-level requirements are essential to ensure the integrity of NCS credits and voluntary carbon markets and thus the NCSA recommends the use of the following principles when investing in NCS, covering both credit issuing programs and the individual NCS credits themselves:



1. Transparent program governance:

The GHG crediting program used to issue the credit must be managed by a government or non-profit organization that sets out in a transparent manner the governance of the GHG crediting program including:

- a. Roles and responsibilities of the organization, management and staff that are responsible for the GHG crediting program, as well as the Board that oversees the organization
- b. Enforcement of rules to guard against and mitigate conflict of interest by the Board, management and staff
- c. Published grievance and redress mechanisms

2. Public Participation provisions

The GHG crediting program used to issue the credit must have in place provisions for effective public stakeholder consultation on:

- a. Development of GHG crediting program rules and procedures
- b. Accounting methodologies
- c. NCS projects and programs (in the case of jurisdictional crediting)

Stakeholder comments should be transparently addressed.

3. Clear and Transparent Accounting Standards and Methodologies:

The GHG crediting program used to issue the credit must publish accounting standards and methodologies that ensure that emission reductions and/or removals are:

a. Real

Accurately and conservatively measured, monitored and third-party verified ex-post

b. Additional

Beyond Business as Usual (BAU) GHG reductions or removals that would occur in the absence of the NCS project or program

c. Based on realistic and credible baselines

Credited only for performance beyond a defensible, conservative baseline estimate of emissions or removals that would occur in the absence of the project or program. Baselines should be periodically recalculated on a timeframe that is defensibly demonstrated as appropriate to the type of NCS project or program.

d. Monitored

Quantified based on data collected at specified intervals using appropriate methodologies, processes and calculations.

e. Reported

Transparently and completely documented in publicly available reports published at determined intervals.

f. Verified

Verified by an independent, accredited, third-party entity.

g. Permanent

Only issued for GHG reductions or removals that are permanent or, if they have a reversal risk, the GHG crediting program must have requirements for a multi-decadal term and a comprehensive risk mitigation and compensation mechanism in place with a means to replace any units lost.

h. Addressing leakage

Assessing any potential increase in emissions outside of the NCS project or program boundary and mitigating the potential where appropriate through NCS project or program design, including taking justified deductions.

i. Not double issued or sold



4. Environmental and Social Safeguards:

Activities resulting in NCS credits must do no net environmental or social harm. This must be defensibly demonstrated through the application of appropriate environmental and social safeguards.

NCS projects and programs should achieve net positive environmental and social benefits unless it can be demonstrated that this is not applicable.

5. Use Robust Verification:

The GHG crediting program used to issue the credit must publish requirements for independent third-party verification, including provisions to avoid conflicts of interest between the validation/verification body, the NCS project or program, and the GHG crediting program; requirements for conducting validations and/or verifications; and provisions for accreditation and oversight of validation/verification bodies.

6. Strong legal underpinning:

Credits should be backed by a robust legal framework underpinning the creation and ownership of all units issued. GHG crediting programs used to issue credits should include:

- a. Requirements that project and program developers submit legal representations to accept legal responsibility for the documentation being submitted
- b. A clear definition of the legal nature of the units issued
- c. Registry Terms of Use that set out further requirements in respect of interactions with the program's registry

7. Tracked in a public registry:

Credits should be tracked in a publicly available registry with the basic functionality to:

- a. Provide access to all underlying NCS project or program information, including NCS project or program documentation, verification statements and legal representations
- b. Transparently issue, retire, and cancel credits, including credits within a buffer pool account
- c. Individually identify credits through unique serial numbers that contain sufficient information to avoid double issuance (type, geography, vintage).

The registry should also be able to identify credit status (issued, transferred, retired, cancelled). The GHG crediting program must have rules and procedures in place to ensure that:

- a. All registry account holders:
 - i. Pass "know your customer" checks
 - ii. Agree to the legal requirements regarding the use of the registry, as set out in Terms of Use
- b. The registry:
 - i. Has robust registry security and provisions for regular security audits

These key criteria have been developed from CORSIA Emissions Unit Eligibility and ICROA Code of Best Practice guidance and mirror the Core Carbon Principles of the TFSVCM.⁷

It is our hope that the suppliers of NCS credits will ultimately be responsible for guaranteeing quality against these dimensions. It is, however, recommended that individual companies procuring credits conduct the necessary due diligence to validate the quality and environmental integrity of their purchases.

7. The TFSVCM notes the need to ensure national accounting "adds up", and thus for individual REDD+ projects "to nest" into the jurisdictional program, if possible."



Guidelines for communicating climate strategies that include NCS

Many corporates communicate publicly their climate ambition, an act which should be commended and encouraged. Ambitious head-line statements and detailed plans of action can provide consumers, employees, and investors with confidence that the company is creating business resilience whilst supporting efforts to mitigate the climate crisis.

Whilst many corporates have formulated detailed plans, it is typical that headline statements referring to terms such as Net Zero or Carbon Neutral are used in key press releases and communication materials. Whilst defining these claims is beyond the scope of this paper, it is recommended that corporates follow best practice guidelines e.g., ISEAL Alliance / ISO standards when using of climate terminology to ensure consistency and comparability of ambition.

For specific statements regarding NCS strategies, the NCSA recommends that corporates are considerate of common communication risks associated with reference to NCS credits in public statements:

1. **Partial communication:**

Communications that focus exclusively on NCS credit use as opposed to a broader climate strategy risk obscuring a company's full climate ambition.

2. **Transparency:**

Failure to describe or transparently communicate specific project or program investments may attract criticism regarding credit quality.

3. **Fungibility:**

Failure to highlight credits as an interim climate solution may be interpreted as an assumed fungibility with emissions reductions, and lack of prioritization on reducing emissions



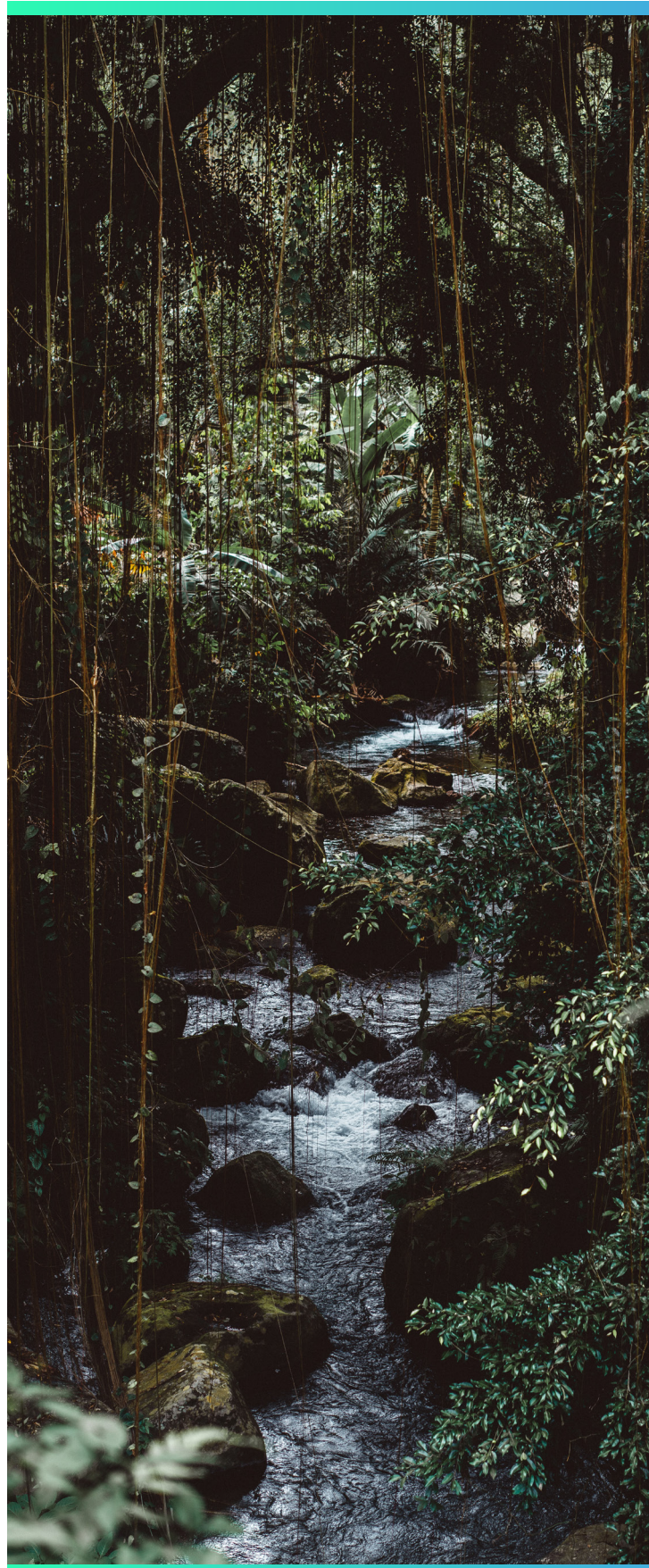
Infrastructure required to support NCS credits: global carbon markets

International carbon markets refer to the mechanism through which corporates can procure and retire NCS credits. The NCS Alliance supports the development of international carbon markets with strong rules and high standards for environmental integrity across all sectors.

Whilst corporates are typically users rather than the developers of international carbon markets, increased market participation to meet climate commitments combined with private sector policy engagement and advocacy can accelerate the development of more rigorous standards and practices, and contribute to improved market function and architecture.

The NCS Alliance views the San Jose Principles for High Ambition and Integrity in International Carbon Markets (SJP) as key tenets for developing carbon markets with environmental integrity. We note that the SJPs were developed in the context of developing guidance/rules, modalities and procedures for Article 6 of the Paris Agreement. In the context of the international rules being elaborated for Article 6, we support the principles in their [original form](#). However, because the NCSA includes approaches outside of the scope of the international negotiations, the below principles have been adjusted from the original language.

The San Jose Principles and the below are general principles and while governments, companies and civil society should make effort to comply with their intent, they should not be interpreted as legal requirements or edicts. Their operationalization is largely envisioned through the sound design of market mechanisms, though we note that some of these principles fall under the direct purview of governments or other market actors.



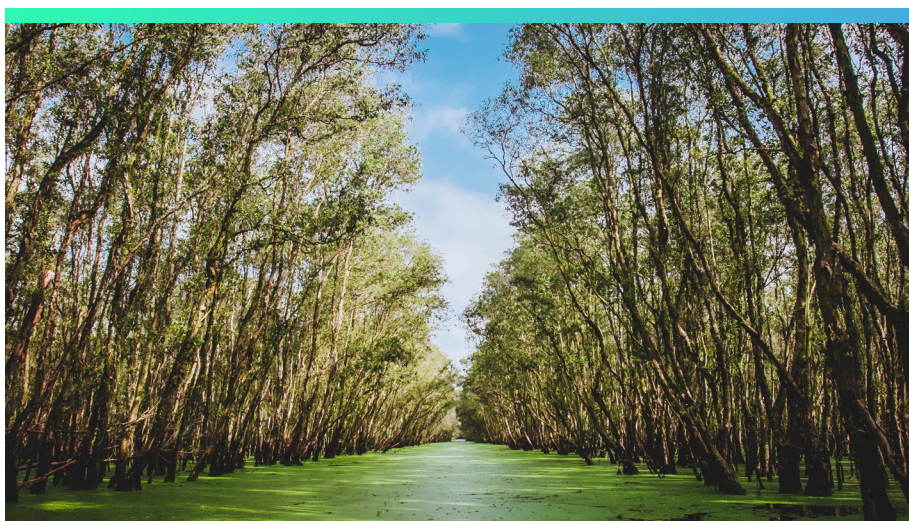
Principles for International Market Mechanisms

Robust international market mechanisms should, at minimum:

- Ensure environmental integrity and enable the highest possible mitigation ambition.
- Deliver an overall mitigation in global emissions⁸ to help accelerate the reduction of global greenhouse gas emissions.
- Prohibits the use of pre-2020 units, Kyoto units and allowances, and any underlying reductions toward Paris Agreement goals.⁹
- Ensure that double counting is avoided, on the basis of a corresponding adjustment where mitigation outcomes are authorized for use towards an NDC or authorized for inter-national mitigation purposes, and that all use of markets toward international climate goals is transparent and robustly accounted.¹⁰
- Avoid locking in levels of emissions, technologies or carbon-intensive practices incompatible with the achievement of the Paris Agreement's long-term temperature goal.
- Utilize robust baseline method-ologies, approved and verified through recognized standards, that also support domestic NDC achievement, take into account the policies and regulations, and contribute to achievement of the Paris Agreement's long-term temperature goal.
- Use CO₂-equivalence in reporting and accounting for emissions and removals, fully applying the principles of transparency, accuracy, consistency, compar-ability and completeness.
- Use appropriate and publicly accessible infrastructure and systems to collect, track, and share the information necessary for robust and transparent accounting.
- Ensure incentives to progression and support all Parties in moving toward economy-wide emission targets.
- Contribute to quantifiable and predict-able financial resources to be used by developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.
- Recognize the importance of capacity building to enable the widest possible participation under Article 6 and in other international market mechanisms

These principles, at a minimum, should **apply to all markets mechanisms and not limited to those related to natural climate solutions.**

Robust rules that ensure high environmental integrity for international market mechanisms should be broadly applicable, eliminating any need for sector-specific provisions.



8. The concept of "overall mitigation in global emissions" (OMGE) was introduced and agreed under Article 6.4 of the Paris Agreement. However, there is disagreement between countries within the UN climate negotiations on how OMGE should be operationalized. As the above "NCS Alliance Principles for International Market Mechanisms" are intended to apply more broadly than to Article 6 alone, we are not supporting any specific approach proposed in the Article 6 negotiations for operationalizing OMGE. We believe that international market mechanisms can and should play a role in increasing ambition toward reducing global emissions.

9. The NCS Alliance recognizes that for the pilot phase of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), only pre-2020 units are currently eligible. Further, there is not consensus among the NCS Alliance on the use of pre-2020 units for voluntary purposes.

10. Though it is clear that corresponding adjustments apply in the case of compliance (e.g. for NDCs or CORSIA) there is not yet consensus in the NCSA on how/whether a corresponding adjustment applies to voluntary carbon market transactions.



Conclusion

Natural Climate Solutions are an essential part of global mitigation efforts to address the climate crisis. Realizing the full potential of these solutions requires urgent private and public sector investment to develop and scale projects and programs that protect, restore and grow our natural carbon sinks. Individual corporates are key to unlocking this investment e.g., through the retirement of NCS credits to neutralize or compensate their emissions.

Yet such actions should complement, not detract from, climate ambition demonstrated by internal decarbonization; corporates should therefore prioritize avoiding and reducing emissions, before using NCS credits to compensate for remaining emissions (the GHG mitigation hierarchy).

By following the mitigation hierarchy, NCS credits can contribute to an overall increase in climate ambition whilst also enabling a flow of investment into projects and programs that deliver environmental, social and economic co-benefits. Not only do NCS have the potential to address the driving cause of the climate crisis, they also carry the potential to build resilient and biodiverse ecosystems for generations to come.