

HIGH-LEVEL GOVERNANCE AND INTEGRITY PRINCIPLES FOR EMERGING VOLUNTARY BIODIVERSITY CREDIT MARKETS

CONSULTATION PAPER

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1. Introduction

Biodiversity credits: an instrument for nature-positive outcomes

The current biodiversity credits market has originated from two decades of practice across a range of different approaches. One lesson learned from this experimentation is the essential need for clarity on the difference between biodiversity offsets and biodiversity credits.¹

In some contexts, project developers or corporates are required by governments or financial institutions to take positive action to “offset” residual negative impacts on biodiversity after following the mitigation hierarchy, articulated by the Science Based Targets Network (SBTN) as “Avoid, Reduce, Restore & Regenerate, Transform” (see Figure 1). **Biodiversity offsets** are then designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. Such “offsets” are typically used for compliance purposes, often in relation to the extractive and energy industries where some level of impact on nature is unavoidable.

At the same time, biodiversity offsets are very different from carbon offsets. Given the complexity and localized nature of biodiversity, it is difficult to draw equivalence between positive biodiversity outcomes in one location and negative biodiversity outcomes in another. While CO₂ in one corner of the planet is the same as CO₂ in another, the same cannot be said for biodiversity. Put another way, biodiversity is not fungible in the same way as carbon. The need for equivalent ecosystems helps explain why biodiversity offsetting schemes are almost entirely local.

The second reason why “offsetting” does not work for biodiversity in the way that carbon offsets can work for climate is that there is an essential asymmetry between the climate and nature crises. Science tells us we can limit the negative impacts of climate change through achieving “net zero” by 2050, a state of balance in which we capture and remove as many greenhouse gases as we emit. But a similar state of net-zero equilibrium will not save nature. The destruction of nature and biodiversity has proceeded at such a pace – 69% of wildlife populations has been lost on average since 1970² – that only a *positive* approach that moves past compensating for damage caused towards investing in a nature positive future can hope to restore the natural systems vital to the survival of life on earth.

For these reasons, halting and reversing nature loss globally will require a shift away from the concept of offsetting towards nature-*positive* action. **Biodiversity credits** represent a step in this direction as they cannot be used to make “offsetting” claims. They are an economic instrument that can be used to finance actions that result in measurable positive outcomes for nature and biodiversity (e.g. species, ecosystems, natural habitats) through the creation and sale of unitized conservation or restoration outcomes.

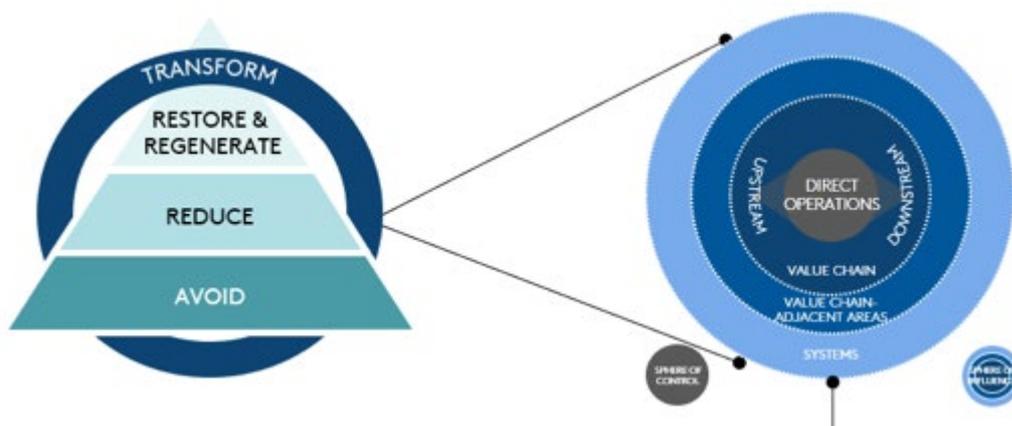
With the right principles in place to guarantee their integrity and the right processes to ensure transparency and trust, the biodiversity credits market has the capacity to scale rapidly. Given that the funding shortfall to halt and reverse biodiversity loss is estimated at over \$700 billion per year,³ the voluntary biodiversity credits market could play a crucial role in channelling finance to bridge this gap.

As there is no need to address equivalence in relation to the use of biodiversity credits (because they are not used for “offsetting”), it should be at the buyer’s discretion to determine the degree of proximity between their operations or supply chain and the positive biodiversity impacts financed through the purchase of biodiversity credits.

Purchasing biodiversity credits reflects a genuine intent by an investor or company to help protect, restore and sustainably manage nature, in addition to continued efforts to limit its nature-destructive activities according to the mitigation hierarchy.

However, buyers need clear guidance in relation to the claims that are made to the market arising from their credit purchases, to ensure they are not subject to later claims of “greenwashing” for linking their positive support of nature (through purchasing biodiversity credits) to their negative impact, if any, on nature.

Figure 1: SBTN’s articulation of the nature mitigation hierarchy



Why biodiversity credits matter

Biodiversity presents both risks and opportunities for businesses. Business risks from biodiversity decline are not confined to supply chains and operations but also include broad systemic risks associated with the decline and degradation of nature, in line with guidance from the Taskforce on Nature-related Financial Disclosures (TNFD) (see Figure 2).

Figure 2: Types of systemic nature-related risk identified by the TNFD



However, it is not only about risks. Moving from a business-as-usual pathway to a nature-positive economic model can create over [\\$10.1 trillion of business opportunities](#). This is seen in increased revenues, higher valuations, lower cost to capital, better employee retention and improved customer loyalty.

In its discussion of nature positive, the SBTN emphasizes, “We all must think about and judge our success at a scale that goes beyond the individual actor: progress should not be judged only by a company’s ability to manage its impact, but also by the health of the ecosystems in which its operations are embedded.” In this context, biodiversity credits can play a key role for business in being part of the journey contributing to a nature-positive economic system.

The emergence of voluntary biodiversity credit markets represents a significant opportunity to strengthen ecosystem resilience and mitigate systemic nature-related risks by financing measurable and verifiable biodiversity outcomes through the protection and regeneration of nature.

Furthermore, as most of the [biodiversity hotspots](#) are in the Global South, this approach can support the development efforts of many countries in those regions, facilitating also a wealth transfer from urban to rural areas.

Principles to safeguard the integrity of biodiversity credits

While the biodiversity credits market has the capacity to mobilize more capital toward biodiversity conservation and recovery, it is important to develop frameworks that will allow the market to deliver positive outcomes for nature and at the same time just and equitable benefits for the stewards of biodiversity. Science-based metrics, integrity, transparency, evidence of outcomes and strong governance must be affirmed and enforced. This requires addressing the issues of both credit design and market architecture.

This consultation paper proposes a set of governance and integrity principles that aim to offer guidance and guardrails, bridging a current gap in the system. The 19 principles are organized under three main overarching themes:

1. Transparent and sound governance
2. Equity and inclusion
3. Rigorous measurement, reporting and verification

Broad agreement around a coherent set of principles for the biodiversity credits market would reinforce its legitimacy and prevent some of the issues seen in the parallel carbon market. This requires strong and collaborative public-private partnerships, and a dialogue across all stakeholders involved in the protection of nature, from biodiversity conservation organizations, businesses and investors to civil society, academia and Indigenous peoples and local communities (IPs and LCs).

Stakeholder engagement vital to build confidence

As voluntary biodiversity credit markets take shape, a range of different participants will have a role to play in helping these markets scale up. These principles have been – and will continue to be – shaped through engagement with a variety of organizations, including:

- **Civil society and NGOs** – Civil society organizations (CSOs) and NGOs have key roles to play in upholding the integrity of markets, holding businesses and private sector organizations to account for their impacts on nature, and ensuring that biodiversity projects achieve real and lasting benefits for both people and nature. CSOs and NGOs may also be project proponents.
- **Indigenous peoples and local communities (IPs and LCs)** – Biodiversity projects are necessarily location-based and must therefore deliver real value to IPs and LCs through benefit sharing. IPs and LCs may also be project proponents.
- **Private sector** – Corporates and investors can purchase biodiversity credits to demonstrate their commitment to mitigating nature-related risks. Business innovators can provide technology solutions to overcome market-expansion hurdles. Businesses may also be project proponents.
- **Standard-setting institutions** – Standards are a core set of social, environmental and governance requirements, including approved methodologies and metrics that projects need to measure up against to maintain quality and gain certification.
- **Public sector** – Governments and regulators can enable this market to scale up quickly and effectively via policy signals that give certainty to voluntary biodiversity credit markets. A timely approach anchored in transparency and traceability can avoid the creation of paper projects and unfair wealth capture.⁴ Conversely, inaction from governments and regulators will hinder progress in this market.
- **Academia** – Academic players have a fundamental role in verifying the soundness of the market from a scientific perspective. Furthermore, the important research advancements on nature metrics and technology innovations carried forward by academic institutions will play a crucial role in the development of projects.

Over the coming months, we will use this consultation paper as a springboard for a series of multilateral and bilateral discussions with the wide range of stakeholders noted above, with the intention of developing a set of governance and integrity principles that can gain a broad level of acceptance.

Target audience

These draft principles are meant to fill a gap in the biodiversity credits market system, as there is currently no recognized guidance on the development and commercialization of biodiversity credits. The principles are designed to address the full spectrum of market players, and to define the guardrails of integrity and governance that should be respected as the market rapidly emerges. In particular, the principles represent a key instrument for:

- Governance bodies (e.g. standard-setters, regulators, registries etc.)
- Supply-side players (e.g. methodology developers, project proponents, corporate project developers, local landholders including farmers, IPs and LCs etc.)
- Demand-side players (e.g. corporates, investors etc.)

While these principles have not been developed to provide a buyer's or investor's guide, the principles proposed here should be considered as the minimum viable standard.

Outstanding issues to discuss and resolve

The principles have been drafted through a collaborative process with more than 100 stakeholders. Such a broad and inclusive conversation has reflected different perspectives and points of view, leaving some unresolved issues and tensions for further discussion and reflection during the consultation phases to come. These include the following:

- The balance to strike between providing sufficient detail to drive high-integrity markets, while avoiding a prescriptive approach that stifles innovation and diversity in methodological approaches.
- Terminology is important and needs to be clearly defined. For example, some consider the word “biodiversity” is too technical and should be replaced by the term “nature”. Some feel that the term “credits” equates to “offsets” and their associated negative connotations. That is not the intended meaning of the term “credits” in this paper. We define “biodiversity credits” in terms of their contribution towards the goal of a nature-positive future.
- What type of relationship should exist between the biodiversity credits market and the carbon market, including carbon credits generated through nature-based solutions? Or should they be left as independent commodities?
- Should biodiversity credits be issued on the basis of quantified biodiversity outcomes (e.g. overall improvement in terms of key biodiversity indicators) or quantified activities relating to biodiversity (e.g. numbers of invasive species controlled)? Or should there be the potential for both?
- Should buyers be able to use their biodiversity credits to claim they are “nature positive”? Do concepts such as Net Positive Impact (NPI) and Biodiversity Net Gain (BNG) offer ways of characterizing or quantifying the nature-positive outcomes of buying biodiversity credits?

2. Principles for biodiversity credit markets

Following a first round of feedback and conversation, the 19 governance and integrity principles for emerging voluntary biodiversity credit markets have been grouped under three over-arching themes:

1. **GOVERNANCE:** Transparent and sound governance across the system, with information-sharing on biodiversity credit design, measurement and issuance.
2. **EQUITY AND INCLUSION:** No harm to people and generating positive, equitable benefits; respecting the rights of Indigenous peoples and local communities (IPs and LCs), ensuring their inclusion as active stakeholders and supporting their leadership and ownership in the system.
3. **VERIFICATION:** Rigorous measurement, reporting and verification to ensure all credits have achieved positive biodiversity outcomes.

This chapter explores each of these over-arching themes in more detail, along with their respective draft principles and guidance on how these principles can be realized in practice.

THEME 1 – GOVERNANCE

Transparent and sound governance in all aspects of biodiversity credit markets is essential to ensure market confidence and trust, which is vital for longevity and scale.

Robust and effective governance at the programme level will ensure the quality of biodiversity credits and support the long-term integrity and growth of voluntary biodiversity credit markets. By improving transparency and accountability, sound governance can stimulate greater market participation.

Good governance requires clear legal arrangements in place relating to both the right to carry out a project and to the credits issued with respect to that project, to prevent disputes over ownership.

Project proponents should obtain the consent and the legal right to the biodiversity credits from all those holding an interest in the relevant biodiversity asset. For example, owners, lessees, Indigenous peoples and mortgagees may all have a relevant legal or customary interest in the land or sea underpinning the asset. Note that this legal process may involve the same or different stakeholders as the requirement to obtain former, prior and informed consent (FPIC).

This may not be straightforward in some jurisdictions which do not have legislation in place that clearly ascribes land rights or rights to biodiversity as an asset.

Draft governance principles

1.1 Project proponents must have the legal right to carry out a voluntary biodiversity credit project on the land included in a project. Where legal rights vest in a state agency, project proponents must ensure they are not prohibited from carrying out a credit project.

1.2 Governance arrangements should provide comprehensive and transparent information on data, credit design and issuance. The information should be publicly available in an accessible, electronic format, and scrutiny of biodiversity outcomes generated by the credits should be welcomed.

1.3 Governance arrangements (including in relation to governing and advisory bodies, governing rules, standards and methodologies) should be regularly and independently reviewed, and the outcomes of those reviews made public. Recommendations arising from such reviews should be implemented in a timely manner and disclosed.

1.4 Schemes or programmes must not infringe on human rights and must demonstrate an understanding of the context of the project.

1.5 Project proponents must clearly document who will have ownership and accountability of biodiversity credits generated by a project, including full transparency on utilization of the proceeds from the credits.

Guidance and considerations for implementation

- Project proponents carrying out a voluntary biodiversity credit project should:
 - have the necessary skills, capability and competency, business practices and good character that would reasonably be expected to fulfil that role.
 - have a track record of history and experience in the subject matter.
- To the extent possible, schemes should incorporate a mechanism or process for capacity building and information sharing between stakeholders, including rights-holders, project proponents and buyers.
- Project proponents must ensure contract terms have clear conflict-resolution processes and grievance mechanisms.

THEME 2 – EQUITY AND INCLUSION

The [UN Declaration on the Rights of Indigenous People](#) (UNDRIP) states that Indigenous people have the right to give or deny their free prior and informed consent (FPIC) for projects that affect them, their land and sea and their natural resources. Accordingly, FPIC is a fundamental principle of biodiversity credits development.

Empowering people and communities, and creating the conditions for them to become active stakeholders and shareholders in these projects is critical, particularly for IPs and LCs (see Glossary), who are the knowledge-holders and stewards of land and territories in at least 75% of the world's 847 terrestrial ecoregions.⁵

Incorporating “just transition” considerations into market mechanisms, such as FPIC and equitable benefit-sharing arrangements to support sustainable livelihoods, will result in more socially, environmentally and financially sustainable markets.

In addition, compliance with international standards, for example the [International Finance Corporation safeguards on environmental and social sustainability](#), may be required for project proponents accessing capital.

Draft equity and inclusion principles

2.1 Biodiversity credit schemes should recognize and respect IPs and LCs, their claims to territories and their methods of self-governance. For example:

- Biodiversity credit schemes should recognize the role of IPs and LCs as effective stewards of nature
- In areas or territories of IPs and LCs (formal and or customary), project proponents should offer to partner with IPs and LCs before submitting any proposal
- Schemes should maintain or strengthen the role of IPs and LCs as guardians, stakeholders and Knowledge-holders
- Schemes should ensure best practice safeguards are in place

2.2 Schemes should respect the rights of IPs and LCs, including the right to free prior and informed consent (FPIC). For example:

- Schemes should receive the FPIC of IPs and LC rights-holders prior to any project development (including at the project application stage)
- Schemes should have clear guidance, tools and compliance procedures to ensure activities conform with or go beyond widely established industry best practices and safeguards around FPIC
- Schemes should provide access to transparent data and information at every stage of project development

2.3 Schemes should include IPs and LCs as proponents in project design, execution and MRV/evaluation – at their choice. For example:

- Where IPs and LCs have governance rights over biodiversity, they should be the project proponents and/or entity receiving benefits from biodiversity credits, and/or consent to an equitable benefit-sharing agreement (at the choice of the IPs and LCs).
- Schemes should incorporate independent IPs and LC advisors in scheme design and periodic scheme reviews.
- Projects should look first to IPs and LCs to provide local knowledge and skills in monitoring, reporting and verification (MRV)

2.4 Schemes should assure equitable benefit-sharing arrangements. For example:

- Schemes and project proponents should have clear guidance, tools and procedures around equitable benefit-sharing arrangements with IPs and LCs

- This should include how to transparently document those arrangements

Guidance and considerations for implementation

- Fair, transparent and equitable distribution of benefits and potential revenues should be addressed at every stage of the projects. In doing so, schemes should consider the use of “smart contracts” (see Glossary) to facilitate equitable benefit-sharing.
- Where benefits or revenues are allocated to governments, there should be mechanisms in place to avoid corruption and diversion of funds from activities that benefit nature and IPs and LCs.

THEME 3 – VERIFICATION

Rigorous measurement, reporting and verification are essential to ensure all credits have achieved positive biodiversity and societal outcomes. However, there is a trade-off between rigorous measurement to prove biodiversity outcomes and the investment (in cost, time and access to skilled personnel) in getting this. The right balance needs to be struck by all aspects of credit scheme administration, including project registration, credit issuance, standard setting, methodology or protocol development, measuring, reporting and verification (MRV), and audit. That said, it is also important to acknowledge that this trade-off will be shifting rapidly with the emergence of innovations and advancements in technology, such as AI and machine learning, which are increasingly making the measuring of outcomes cheaper and more scalable.

Some high-integrity projects and standards in the carbon market offer valuable lessons, if not in striking the perfect balance between rigour and accessibility, then at least in putting in place some guidance and rules. Therefore, some of the issues addressed under this theme of Verification – including, for example, the question of additionality – are derived from the carbon market, albeit with some variations.

Measuring, reporting and verification

Measuring, reporting and verification (MRV) principles are designed to prevent greenwashing by ensuring that promised outcomes are in fact delivered. They ensure that the information communicated to the market on the outcome of the biodiversity credit is credible, sufficient and transparent.

Overall, measuring biodiversity *outcomes* (e.g. increases in species populations, improvements in habitat condition and extent etc.) are the most important types of measurements. By contrast, biodiversity *activities* (e.g. numbers of invasive animals controlled, hectares of forest protected) do not always equate to positive outcomes, so while the measuring of activities can provide a milestone indicator it is inadequate as a standalone measurement and should always be linked to a related outcome.

Sound and widely accepted scientific methods should be used for data collection and sampling. Biodiversity is multifaceted and complex to measure, so multiple metrics will likely need to be reported. Ensuring these are transparent and clearly communicated is key.

Third party assurance on measurement techniques, metrics and outcomes will be important to ensure that projects meet scheme requirements, and that crediting is based on reported biodiversity outcomes in line with the programme's methodologies and protocols.

Third party assurance ideally occurs at multiple levels in credit markets, including project audits, approval and review of standards, methodologies and protocols, and independent issuance of credits and registry administration. Such an approach will strongly mitigate the risks and perceptions of greenwashing and conflicts of interest.

Questions of additionality, leakage and permanence

Additionality

Additionality is a question of central importance and the subject of extensive ongoing discussions. If there is no additionality clause, there is a risk that funding goes to locations that do not hold conservation risks. It also increases the risks of greenwashing and reputational risk in the market. Clearly, the sale and purchase of non-additional biodiversity outcomes would reduce both the environmental effectiveness and economic efficiency of biodiversity credit markets.

However, if the additionality requirements are too stringent, projects doing good conservation work with low funding would not benefit. For example, projects in high forest, low deforestation (HFLD) areas are unable to access carbon markets due to additionality rules but should still be able to benefit from biodiversity credits if they are helping to protect and preserve local fauna and flora.

We propose that a more flexible approach to additionality is required in biodiversity credit markets. That is, a project should be considered additional if it led to positive biodiversity outcomes that would not have otherwise occurred under business as usual, regulatory requirements or pre-existent lender requirements.

Projects could be undertaken in protected areas, as part of other effective area-based conservation measures (OECMs) or on land that has existing biodiversity projects in place, provided that additional actions are undertaken to enhance biodiversity outcomes. Additionality in this context would encompass three types of "enhancements" to a project site, arising from the project's action to conserve the land and/or sea:

- Additionality through establishment of long-term sustainable funding (i.e. generating sustainable funding ensures the conservation outcomes are maintained long-term)
- Additionality through conservation of an ecosystem under threat (i.e. threats to the ecosystem can only be mitigated if conservation work is ongoing)
- Additionality through improved biodiversity outcomes

Leakage

Leakage is a concept that applies in relation to nature-based solutions (NbS) used by carbon markets, especially in the context of Reduction in Emissions from Deforestation and forest Degradation (REDD+) projects, where the conservation project simply pushes the threat (e.g. deforestation) into another area. A similar issue could arise in the context of measuring outcomes arising from voluntary biodiversity projects.

Permanence

Permanence (see Glossary) of biodiversity credits may be threatened due to social, legal, financial or environmental factors beyond the project's control. For example, positive biodiversity outcomes

achieved by a project can be reversed by human factors (e.g. politics, project management, market dynamics, land-use change) or natural events (e.g. bushfires). Sequestration in carbon markets is often regarded as permanent if it is maintained on a net basis for 100 years.

Projects should therefore demonstrate that they have the pre-requisites for long-term success, such as sustainable funding models, to ensure conservation achieves both short- and long-term outcomes.

Draft verification principles

3.1 Schemes should have robust monitoring, reporting and verification (MRV) of biodiversity outcomes.

- MRV should involve local people where possible to facilitate long-term community engagement and leverage citizen science.

3.2. The positive value created through the biodiversity credit should be identified through the assessment of the associated impacts and dependencies. As well as providing essential information about the predicted change in natural capital, it can also be expressed in a monetary value term, thereby setting the price for the credit in the primary commercial market, through a robust, scientific process.

3.3 Biodiversity outcome quantification should be underpinned by sound scientific methods, best available technologies and techniques (including modelled outcomes where robust data models exist) and transparent metrics, and should be publicly available for audit.

3.4 Projects should require third party audits at periodic intervals or on a randomized basis.

3.5 Schemes should be administered (and credits issued) by third parties independent from the project proponents.

3.6 Where possible, schemes should use registries that uniquely identify, record and track projects, and the issuance of credits and transactions, while securely and unambiguously retiring credits to avoid double counting and to guarantee transparency and rigour.

- To avoid double counting, registries should have mechanisms in place to remove projects or schemes that list on multiple registries.

3.7 Schemes should align where possible with nature targets and reporting guidance and frameworks, as well as the Convention on Biological Diversity's (CBD) strategic plan.

3.8 Positive biodiversity outcomes can be underpinned by any activity type that results in a measurable benefit for biodiversity (i.e. additionality).

3.9 Schemes should aim to achieve long-term positive biodiversity outcomes (i.e. additionality and permanence). Transparency about the permanence period and any measures in place to manage the risk of reversal and/or compensate for reversals during the permanence period should be communicated. Where ongoing effort is required to maintain biodiversity outcomes, schemes can offer ongoing, regular biodiversity credit payments to stewards of biodiversity which continue to deliver and maintain demonstrated biodiversity outcomes.

3.10 Safeguards should be considered to ensure against deliberate degradation of biodiversity in order to make a later case for additionality (the risk of “moral hazard”).

3.11 Schemes should address the displacement of activities in the project area to areas outside the project (i.e. leakage), resulting in negative impacts on biodiversity elsewhere that negate some or all of the positive biodiversity outcomes achieved by a project.

Guidance and considerations for implementation

- Schemes could aim to focus projects on the most crucial biodiversity elements, such as globally important biodiversity hot spots.
- Credit scheme administration should be kept as light as possible (while still achieving integrity and transparency) to ensure the majority of the credit goes to the biodiversity stewards – new technologies offer significant opportunities in this regard.
- Schemes should consider additionality across projects. Projects could be considered additional if they lead to positive biodiversity outcomes that would not have otherwise occurred under business as usual or regulatory requirements.
- Schemes should ensure accessibility to high biodiversity value, low-risk or low-threat landscapes/seascapes, by recognizing the additionality benefits of conservation through measurable improvement in condition or maintenance of the asset (if it is in target condition).
- Schemes should clarify additionality as it applies to activities that result in both carbon and biodiversity benefits and in relation to carbon credit “stacking” and “stapling” (see Glossary).
- Schemes should consider long-term positive biodiversity outcomes, for example they could:
 - clarify the lifecycle of the credit (e.g. 5, 10, 20, 50 years) and ongoing obligations for biodiversity management post-crediting period
 - consider the financial capacity of the project to maintain outcomes (including biodiversity, social and cultural outcomes) post-crediting period
 - align with local land-use planning schemes, where possible, and consideration of existing land uses and communities
 - ensure a robust scientific basis for defining permanence periods

3. Next steps

These principles have been developed through a collaborative process involving stakeholders from across the spectrum of market participants. Consequently, they strive to be inclusive of different perspectives and points of view. Nevertheless, at the time of the launch of this Consultation Paper, the collaborative process should be considered as only in its initial phase.

This version of the draft principles is intended as a consultation version that will be further refined through a process of ongoing bilateral engagement with key market participants, especially IPs and LCs.

Nevertheless, the biodiversity market is evolving at an unprecedented speed and many new actors, such as project proponents and standard-setters, are entering the market each day. In this context, these principles, although in an imperfect and work-in-progress form, can already begin to fulfil their objective of providing high-level guidance to stakeholders who wish to operate in the biodiversity credit market.

In addition to the consultations in the coming months, the draft principles will also be tested with initiatives on the ground that are already under implementation. This will serve as an important “stress test” to verify their applicability in different contexts, regions and ecosystems. For those market actors who are interested to be part of either of the consultations or the stress tests, we invite them to reach out through [this email address](#).

Following these parallel activities, a new refined version of the principles is planned to be released during the second half of 2023.

Glossary

Benefit-sharing

The sharing of monetary and non-monetary benefits with mitigation activity's partners. See also "Fair and equitable benefit-sharing" below.

Biodiversity offset

Measurable conservation or restoration biodiversity outcomes achieved from the implementation of actions on areas of land or oceans to compensate for significant residual adverse biodiversity impacts arising from development after appropriate prevention and mitigation measures have been taken.

Carbon credit

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

Carbon offset

The compensation for an entity's greenhouse gas emissions within its scope by achieving an equivalent amount of emission reductions or removals outside the boundary or value chain of that entity.

Crediting period

The period during which verified biodiversity improvements attributable to a project can result in the issuance of credits.

Degradation

Changes within the ecosystem that negatively affect its structure or function and thereby lower its capacity to supply products and services.

Double counting

A situation in which a credit is counted more than once. Double counting can occur through double issuance, double use or double claiming.

Double issuance

A type of double counting in which more than one credit is issued for the same area of land or ocean conserved and restored. Double issuance leads to double counting if more than one of these credits is claimed.

Fair and equitable benefit-sharing

The distribution of benefits (e.g. revenues, job creation) to Indigenous peoples and local communities that accrue from activities to conserve and restore biodiversity in land and/or ocean areas in a manner that is in accordance with local and Indigenous rights to land and resources, and applicable rules, laws, and standards.

Full and effective participation

Parties being fully included in a process (e.g. decision-making), valued as equal participants, and whose needs are viewed as integral to social and economic order.

Indigenous peoples (IPs) and local communities (LCs)

Indigenous peoples and local communities (IPs and LCs) are, typically, ethnic groups who are descended from and identify with the original inhabitants of a given region, in contrast to groups that have settled, occupied or colonized the area more recently.

Natural climate solutions (NCS)

Natural climate solutions are conservation, restoration and improved land management actions that increase carbon storage or avoid greenhouse gas emissions in landscapes and wetlands across the globe. These interventions can cover forest, agriculture and other land-use and coastal/marine ecosystem categories, and they can be loosely organized into interventions that protect, restore or manage resources to change the GHG fluxes associated with those resources.

Non-monetary benefits

Goods, services or other benefits funded from credit revenues, or directly related to the implementation and operation of the mitigation activity, that provide a direct incentive to partners to help implement the activity and can be monitored in an objective manner (e.g. technical assistance, capacity building, and in-kind inputs or investments such as seedlings, equipment, buildings). These benefits, if any, are included in the benefit-sharing plan.

Paris Agreement

A legally binding international treaty on climate change adopted by 196 Parties at COP 21 in Paris, on 12 December 2015. Its goal is to limit global warming to well below 2.0 degrees and preferably to 1.5 degrees Celsius, compared to pre-industrial levels. According to the Intergovernmental Panel on Climate Change (IPCC), to have a 50/50 chance of reaching this long-term temperature goal, countries need to reduce greenhouse gas emissions by 45% by 2030 and to achieve net-zero by mid-century.

Permanence

A quality of the credits which related to the period during which the positive biodiversity outcomes of a project are maintained without being reversed, even after the end of the crediting period or end of the project. While for carbon removal projects permanence is often intended around 100 or 1000 years, there is no clear agreement yet on the permanence of biodiversity outcomes.

Retirement

The transfer of a credit to a registry account that permanently removes the credit from circulation. The term retirement applies to the use of the credit by an entity to meet voluntary commitments or compliance obligations. The term is distinct from administrative cancellations.

Sampling

Sampling is the action of looking at part of a population in an ecosystem to draw conclusions about the whole.

Science-based target

Targets are considered “science-based” if they are in line with the level of decarbonization required to keep the global temperature increase well-below 2°C compared to pre-industrial temperatures, as described by the IPCC, while pursuing efforts to limit warming to 1.5°C. Unless stated, such a target may not be independently validated against a rigorous methodology.

Smart contracts

Smart contracts are self-executing contracts stored in the blockchain that automatically execute when the predetermined conditions agreed by the parties are met.

Stapling

The action of packaging different products (such as carbon and biodiversity credits) together to be offered to potential buyers as a single bid.

Validation and verification body (VVB)

An independent third-party entity that is accredited for performing validation and/or verification audits. Verification and validation bodies are often also referred to as auditors.

Verification

The process of periodic, independent, third-party ex-post evaluation by a VVB of requests by a registered activity to issue credits against the programme provisions of the applicable biodiversity-crediting programme.

Voluntary markets

The voluntary market encompasses all transactions of credits that are not purchased with the intention to surrender into an active regulated market.

Note: Glossary based on content sourced from: [Integrity Council for the Voluntary Carbon Market](#).

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Endnotes

¹ The term “biodiversity credits” is used here as a general term and eventual products developed may take a different form or go by a different name.

² WWF, Living Planet Report 2022, https://wwflpr.awsassets.panda.org/downloads/lpr_2022_full_report.pdf

³ https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE_Full-Report_Final-with-endorsements_101420.pdf

⁴ Unfair wealth capture refers to projects that receive more money than their actual positive impacts can justify.

⁵ WWF, UNEP-WCMC, SGP/ICCA-GSI, LM, TNC, CI, WCS, EP, ILC-S, CM, IUCN, [The State of Indigenous Peoples' and Local Communities' Lands and Territories: A technical review of the state of Indigenous Peoples' and Local Communities' lands, their contributions to global biodiversity conservation and ecosystem services, the pressures they face, and recommendations for actions](#), Gland, Switzerland, 2021.