

# Biodiversity Certification and Credit Systems for European Wetlands

 bloomlabs

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## Disclaimer

The analysis was conducted from May 2025 to December 2025. The voluntary biodiversity market is still in its forming stage and is evolving rapidly. New credit standards and methodologies are being developed concurrently with few widely accepted market definitions. As a result, the report is likely to contain incorrect, contested or outdated information.

# Executive Summary

This report presents the results of a comprehensive benchmarking and selection of voluntary biodiversity certification and credit schemes relevant to European wetlands, conducted under the EU LIFE project LIFE Biodiv CrEW: Testing Biodiversity Credits in European Wetlands.

The analysis responds to the growing need to mobilise private finance for biodiversity restoration while ensuring environmental integrity, policy alignment, and practical applicability within the European context.

The study pursued three objectives: (1) to map and systematically review all relevant voluntary biodiversity credit schemes, (2) to define best practice parameters and assessment criteria tailored to European wetlands, and (3) to assess and select the most suitable schemes for piloting under the LIFE Biodiv CrEW project.

An initial stocktake identified over 90 biodiversity credit schemes globally. Through a structured, multi-stage pre-selection process, this list was narrowed to eight schemes considered sufficiently mature, transparent, and potentially applicable to European wetlands. Extensive data collection was conducted across over 60 parameters spanning outcomes, equity, governance, and market characteristics, ensuring assessment readiness and comparability.

Building on this dataset, a scheme assessment framework was developed, grounded in internationally recognised best practice sources, including the Biodiversity Credit Alliance (BCA), International Advisory Panel on Biodiversity Credits (IAPB), World Economic Forum (WEF), and relevant EU policy frameworks. The framework combined score-based evaluation with critical criteria screening reflecting European wetland realities, such as support for biodiversity uplift, indicator flexibility, applicability to fragmented landscapes, and reasonable certification costs.

Following quantitative scoring, critical criteria filtering, and in-depth qualitative analysis, two biodiversity credit schemes were selected as most suitable for piloting in European wetlands:

**Verra's SD VSta Nature Framework**, selected for its institutional credibility, alignment with ecosystem condition accounting used in corporate reporting, flexible indicator framework, support for credit stacking with carbon credits, and an active project pipeline, including Europe.

**Wallacea Trust**, selected for its scientifically rigorous, open-source, and flexible basket of metrics methodology, high ease of use, applicability across wetland types, and suitability for agile, learning-oriented pilots despite lighter governance structures.

Other schemes, while demonstrating strengths in specific dimensions such as policy alignment, clear market positioning, or practice-based approaches, were not selected due to limitations related to geographic scalability, indicator rigidity, lack of operational readiness, or misalignment with the scheme's multi-country pilot objectives.

The report concludes that while the voluntary biodiversity market (VBM) offers promising complementary nature finance, they remain early-stage and require cautious, context-specific application. Most existing schemes are implicitly designed for large, intact landscapes in biodiversity-rich regions outside Europe and require adaptation to Europe's fragmented land ownership and regulatory environment. Finally, market standardisation, methodological interoperability, and practical project implementation are inseparable from theoretical biodiversity credit best practices.



Credits: Wetlands International Europe

# 1. Introduction

It has become common knowledge that the global economy is built on nature. More than half of global GDP and two thirds of the EU's added economic value depend on nature and its ecosystem services<sup>1</sup>. According to the latest estimates, the global nature finance gap is close to \$1 trillion<sup>2</sup>. The EU is not an exception: its annual biodiversity investment needs reach €65 billion<sup>3</sup>.

The global response to the nature crisis requires speed and scale. One way to achieve that is to also mobilise private finance in addition to continued and significant public funding. Nature or biodiversity credits have surfaced as a high-potential mechanism to scale verified nature outcomes via private finance.

As a result, the European Commission launched a '[Roadmap towards Nature Credits](#)' - an initiative to incentivise private investments into actions that protect and preserve nature, and reward those who undertake these actions and invest in them. The roadmap supports various initiatives to learn how nature credits can be applied in the European context at scale and integrity. One of such initiatives is the EU project "[LIFE Biodiv CrEW: Testing Biodiversity Credits in European Wetlands](#)" under the EU LIFE Programme.

Wetlands are natural biodiversity hotspots. Though they cover only around 6% of the Earth's land surface, 40% of all plant and animal species live or breed in them<sup>4</sup>. In addition to being home to many highly specialised and thus threatened species, they offer crucial ecosystem services, including water purification, flood control, and climate regulation through significant carbon storage. Wetlands also offer direct commercial value through tourism, recreation, fisheries and exceptionally productive agricultural lands. However, about 80% of European wetlands that existed 100 years ago have been lost, and the trend continues<sup>5</sup>.

Throughout 2025-2027, the LIFE Biodiv CrEW project aims to contribute to biodiversity credit market development in the EU, focusing on wetlands. It intends to analyse and participate in the biodiversity credit project development process in order to better understand the key market conditions, prerequisites, and success factors. This includes gaining insights into how early biodiversity credit transactions are structured and what conditions are required to enable scalable, credible, and investable market mechanisms.

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<sup>1</sup> World Economic Forum, 'Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy', 19 January 2020. <https://www.weforum.org/publications/nature-risk-rising-why-the-crisis-engulfing-nature-matters-for-business-and-the-economy/>. Joint Research Centre, 'The EU economy's dependency on nature', JRC 140003, 28 February 2025. <https://publications.jrc.ec.europa.eu/repository/handle/JRC140003>

<sup>2</sup> UNEP, 'State of Finance for Nature 2023', 9 December 2023. <https://www.unep.org/resources/state-finance-nature-2023>

<sup>3</sup> Environmental Implementation Review 2025 (forthcoming).

<sup>4</sup> UN, 'Wetlands: 'Unsung heroes' of the climate crisis', 1 February 2022. <https://news.un.org/en/story/2022/02/1111052>

<sup>5</sup> European Commission, 'Wetlands (coastal and inland)', n.d. <https://biodiversity.europa.eu/europes-biodiversity/habitats-to-be-restored/wetlands>

More specifically, the project aims to:

1. Benchmark existing biodiversity credit schemes, assess them and select which schemes to pilot.
2. Identify suitable wetlands for their application in Europe.
3. Test at least two promising schemes.
4. Start the process of generating biodiversity certificates or credits and validate market acceptance through pilot sales.

The following report is the final deliverable of the first objective.

The project is composed of a consortium of partners that bring complementary expertise in wetland conservation, biodiversity assessment, certification and market analysis:

- [NABU](#) - project lead, largest German nature conservation NGO.
- [European Landowners' Organization \(ELO\)](#) - an organisation that represents national membership organisations bringing together over 5 million private landowners all over Europe.
- [Eurosite](#) - European network for natural site managers and conservation practitioners.
- [aeco](#) - European peatland restoration project developer.
- [Sylva](#) - an environmental services company specialised in structuring environmental assets.
- [bloomlabs](#) - independent biodiversity credit consultancy and market intelligence platform

The outcomes of this report would not have been possible without the active engagement and contributions of all partners.

# Objectives and Results

## Objective 1: Map all relevant biodiversity credit schemes

There are numerous voluntary biodiversity certificate and credit schemes available today. The latest internal biodiversity credit market assessment by bloomlabs has found more than 50 such schemes, with at least 20 more being developed privately. Although exciting, such a wide selection can be overwhelming. That is why an extensive review of every available voluntary credit scheme was carried out to construct a shortlist of the most relevant schemes for the EU wetlands. Subsequently, an extensive, structured data collection of these pre-selected schemes was conducted.

**Result:** A comprehensive database of all relevant biodiversity credit schemes and their characteristics.

## Objective 2: Identify best practice parameters and develop assessment and selection criteria for biodiversity credit schemes regarding their relevance and applicability to EU wetlands

Based on the mapping of the relevant voluntary biodiversity credit schemes, an analysis was conducted to determine which parameters govern best practices. That provided key input in the development of the scheme assessment and selection criteria regarding their relevance and suitability to EU wetlands.

**Result:** A list of best practice parameters and criteria, each with detailed description and justification, for the assessment and selection of voluntary biodiversity credit schemes suitable for EU wetlands.

## Objective 3: Assess how well schemes meet the assessment and selection criteria and identify the most suitable schemes.

Based on the previously identified assessment and selection criteria, the schemes were analysed, and two were selected as the most suitable for European wetlands.

**Result:** A report that outlines the strengths, weaknesses, and applicability of different voluntary biodiversity credit standards and their suitability for EU wetlands.

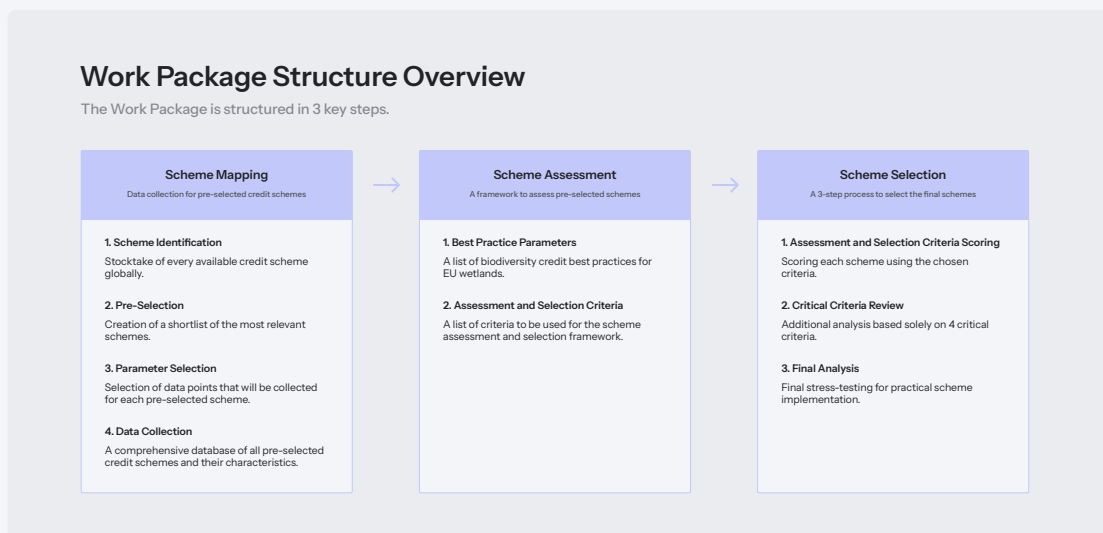


Figure 1: Work package structure overview

# 2. Biodiversity Credit Scheme Mapping

## Credit Scheme Landscape

Before addressing the scheme identification process, it is important to understand what a biodiversity credit scheme represents. While various interchangeable terms are used, it can be divided into three groups:

- 1. Schemes.** An umbrella term for all different biodiversity credit systems (e.g. standard, methodology, framework, protocol, program, etc.).
- 2. Standards.** A holistic set of rules on how to develop biodiversity credit projects. It is usually comprehensive and includes topics such as a formal governance framework, standardised credit issuance and retirement infrastructure, credit validation and verification, crediting periods, stakeholder engagement, claims and procedural guidance. Standards are usually managed by an environmental credit standard-setter that does not directly participate in project development. Similar to the voluntary carbon market, a single standard can have multiple methodologies focused on different activities and ecosystems.
- 3. Methodologies.** A set of lowest-level rules on how to develop biodiversity credit projects and calculate biodiversity credits. Usually, the core topics covered by a methodology are biodiversity unit quantification and monitoring. Permanence, additionality, baselines and other fundamental topics are also covered but at less length compared to credit standards. Usually, methodology developers are organisations that also develop the credit projects themselves.

Ultimately, all biodiversity credit schemes lead to biodiversity credit issuance - a standardised unit of biodiversity gain or avoided loss. In the interest of clarity and consistency, the default term used in this report will be “scheme” while the usage of “standard” or “methodology” will be applied only in specific circumstances.

## Scheme Identification and Stocktake

For the biodiversity credit scheme mapping, a comprehensive stocktake of every potentially relevant scheme was conducted from May to June 2025. To recognise which framework to consider a biodiversity credit scheme, the definition of a biodiversity credit by the [Biodiversity Credit Alliance \(BCA\)](#) was used:

“A biodiversity credit is a certificate that represents a measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have otherwise occurred.”

Any scheme that would lead to an issuance of credits that fit the definition above were included in the stocktake.

Identification of biodiversity certification and credit schemes was based on a triangulated approach combining desk research and direct engagement with market participants.

Firstly, a targeted desk research was conducted, covering scientific publications, policy documents, market research, public reports and social media activity related to biodiversity credits. Secondly, the initial credit scheme list was complemented by direct engagement with market participants, including credit scheme administrators, project developers, consultants, and other practitioners, to validate findings, identify less visible or emerging initiatives, and clarify scheme status and scope. Finally, these sources were consolidated and cross-checked against the bloomlabs’ [database of voluntary biodiversity credit schemes](#), which had been developed prior to the project and covered more than 50 schemes.

## Scheme Pre-Selection Process

The initial stocktake led to the identification of over 100 voluntary biodiversity credit schemes. Before undertaking the extensive data collection for the most relevant schemes, an initial screening for every identified scheme was conducted in order to pre-select the most promising ones and exclude the schemes that evidently do not fit EU wetlands in advance. A multi-stage approach was employed to filter the unsuitable schemes at an increasing depth of analysis.

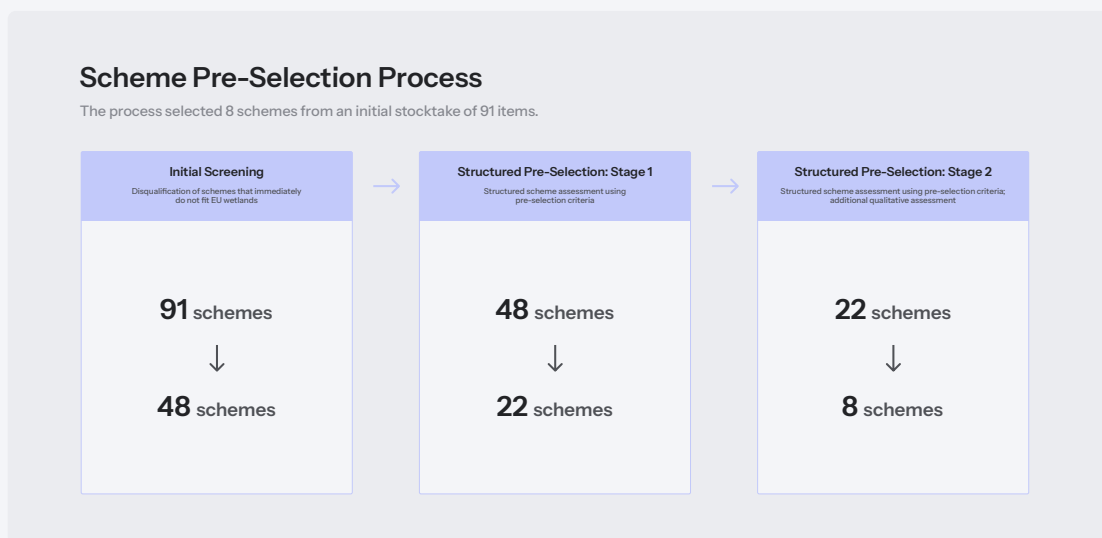


Figure 2: Scheme pre-selection process

### Initial Screening

Although over 90 credit schemes were identified, it was evident that a significant number of them do not qualify for EU wetlands from the start. As a result, these schemes were disqualified from further consideration. The key disqualification reasons were extremely limited available information on the scheme and its early stage of maturity. It was difficult to distinguish whether the scheme is being actively developed or whether the organisation behind the scheme only intends to do so at some point in the future. Additionally, a lack of willingness to share the credit methodology with third-party project developers was noticed as well.

The initial screening led to a filtered list of 48 credit schemes that underwent a structured pre-selection process.

*The filtered list of schemes collected is available in Appendix B.*

## Structured Pre-Selection: Stage 1

For the structured pre-selection, 7 criteria were selected. These specific pre-selection criteria were chosen because they are both critical in determining the suitability of the scheme and are relatively easy to collect, allowing to optimise the efficiency of the pre-selection process.

Table 1: Scheme pre-selection criteria

Criteria	Preferred Values	Reason	Status
Ecosystem Applicability	Applicable	Ensures the support of wetlands.	Critical
Activity Type	Uplift and Avoided Loss	Covers both restoration and conservation use cases.	Critical
Third-Party Audits	Required	Ensures independent verification and credibility.	Important
Information Availability	High or Medium	Enables transparent and evidence-based assessment.	Important
Operations Region	Europe or Global	Ensures relevance to European policy and ecological contexts.	Important
Operational Status	Active or Pilot	Ensures practical implementation experience.	Important
Area Type	Terrestrial	Ensures terrestrial ecosystem support.	Important

The criteria were divided into two categories: critical and important. If the scheme does not pass either of the critical criteria, it is automatically removed from further consideration. Alternatively, if the scheme does pass the critical criteria, all remaining criteria are considered, weighted equally. If the scheme does not pass the majority of the criteria, it is also automatically removed from further consideration.

This process led to the exclusion of 26 out of 48 schemes. 20 schemes did not meet the critical criteria, with 14 being not applicable to wetlands and 6 not supporting restoration (uplift) activities. The remaining 6 schemes that were excluded had a limited amount of information available while usually operating in regions outside of Europe and still being under development.

## Structured Pre-Selection: Stage 2

The stage 2 of the structured scheme pre-selection required a more in-depth analysis of the remaining schemes, leading to the final pre-selection of 8, for whom extensive data collection was conducted.

At stage 2, most of the remaining schemes were developed by long-standing organisations and had a relatively extensive market track record of more than two years, given how young the voluntary biodiversity market is. The majority of them were comprehensive credit standards instead of generally more niche methodologies. Additionally, a significant number of the pre-selected schemes had early market traction with an active project pipeline or initial credit sales.

However, after further inspection, many schemes had implicit geographic and ecosystem applicability limits, given the generally fragmented land ownership and small continuous ecosystems in European wetlands. Additionally, some did not provide robust support for restoration activities and lacked meaningful market validation.

Additionally, a number of the excluded schemes do not base credit issuance solely on direct biodiversity measurements. Instead, they rely on modeled outcomes, expert-verified biodiversity-friendly activities and various proxy indicators, such as threat category, project duration, project activity type or altogether non-biodiversity social, cultural and economic values. Such methods can act as great quantitative project safeguards. However, basing credit issuance on non-physical qualities prevents the expression of a credit unit in physical terms across key conservation outcome, area and time (e.g. 1 biodiversity credit = 1 percentage point uplift in ecosystem condition over 1 hectare for 30 years). Since it is then more difficult to understand and grasp the physical unit, it is likely to be more difficult to communicate it to potential buyers.

Related to biodiversity measurements, priority was given to schemes that support flexibility in selecting which biodiversity indicators can be used for credit calculation. In addition, schemes that support a single (and, preferably, technically interoperable with other schemes) credit unit for any project or activity type were also prioritised. At the moment, the vast majority of credit schemes create unique biodiversity credit units that differ from each other across at least three key dimensions mentioned earlier: key conservation outcome, area and time. This leads to market fragmentation with credit units that cannot be easily priced, traded, compared with each other or integrated into corporate sustainability reporting. The fragmentation could lead to a highly illiquid market and prevent institutional investors and large companies from more actively experimenting in it. The leading scheme or project developers, such as Savimbo or rePLANET, consistently name biodiversity credit unit fragmentation as the single biggest challenge and opportunity in the market that demands standardisation and consolidation to scale.

Finally, there are two relevant schemes for the EU wetlands (Certificates for Biodiversity / Puzzling Biodiversity and Reference Practice UNI/PdR 179:2025) that were published after the credit scheme mapping deadline and would deserve a more extensive analysis in the future.



# Pre-Selected Schemes

The multi-stage selection led to the final list of 8 pre-selected schemes.

Table 2: List of pre-selected credit schemes

Scheme	Description	Initial Reason
<b>Accounting for Nature   NaturePlus®</b>	NaturePlus® is an outcome-based biodiversity credit standard launched in 2023 by GreenCollar, the largest Australian environmental project developer. It is now administered by Accounting for Nature, an independent MRV and environment credit standard administrator. It is designed for terrestrial and marine projects globally for avoided loss, uplift and sustainable use activities. Credits are issued after verified outcomes (ex-post) and represent a verified uplift or maintenance of ecological condition per hectare over the monitoring period, using Accounting for Nature-accredited methods and ecosystem-appropriate indicators (see related NARIA Ecosystem Condition Index below by CreditNature). The standard has at least 11 projects in the pipeline across over 160,000 hectares in Australia.	Flexibility, modularity, scientific MRV recognition.
<b>Cercarbono   Biodiversity Certification Programme</b>	The Biodiversity Certification Programme is an outcome-based biodiversity credit standard launched in 2024 by Cercarbono, an ICROA-certified carbon standard administrator in Colombia. It applies the Savimbo Indicator Species Biodiversity Methodology on terrestrial projects primarily for maintenance and avoided loss activities. Credits are issued after verified outcomes (ex-post) and represent 1 hectare for 1 month with measured Integrity of 1. The unit design is intended to be interoperable across schemes. It is the first ICROA-certified standard to issue biodiversity credits for a Savimbo project in Colombia.	Speed, flexibility, market traction, interoperable commodity-based biodiversity unit.
<b>CreditNature   NARIA Framework</b>	The NARIA Framework is an outcome-based nature credit methodology launched in 2023 by CreditNature, nature technology company in the UK. It is designed to measure restoration of ecosystem-level terrestrial ecosystems and its Ecosystem Condition Index has been accredited by Accounting for Nature as an Accredited Method (April 2024) for application in the UK & Europe, with updates to the method currently being developed for African and Oceania biomes. Credits are issued as verified outcomes (ex-post) and represent a 0.1-point increase in the Ecosystem Condition Index per hectare. Projects are managed through CreditNature's digital platform. The methodology has a project pipeline across ~ 30,000 hectares in Europe and is expanding to Africa and Oceania.	EU focus, focus on ecosystem integrity, project pipeline, AfN accreditation, infrastructure asset focus.
<b>Organization for Biodiversity Certificates</b>	The Organization for Biodiversity Certificates (OBC) is a practice-based biodiversity credit methodology, launched in 2025 by a consortium of French organisations (Printemps des Terres, Carbone4, the French National Museum of Natural History and aDryada). Currently it is designed for forest ecosystems globally for avoided loss, uplift and sustainable use activities. Credits are issued after verified activities (ex-post) and represent 1 hectare restored or conserved using all the best practices in the current state of the art. OBC intends to enter the market one country at a time and only with the support of the government. The methodology has a pipeline of ~15 pilot projects in France and is expanding to Gabon, Ivory Coast, Cameroon, Peru, Denmark and more.	EU and small land focus, country-based market entry, project pipeline, monitoring indicator flexibility.
<b>Plan Vivo   PV Nature</b>	PV Nature is an outcome-based biodiversity credit standard launched in 2023 by the Plan Vivo Foundation, a long-established community-focused ICROA-certified carbon standard administrator in the UK. It is designed for terrestrial and marine projects globally for avoided loss, uplift and sustainable use activities. Credits are issued after verified outcomes (ex-post) and represent 1% uplift of the multimetric per hectare per year for restoration and 5% of the biodiversity baseline conserved per hectare per year for preservation projects. The standard is designed for community- and smallholder-led conservation with strong requirements on participation and benefit sharing. The standard has at least 10 projects in the pipeline across over 240,000 hectares in Africa, Europe, Asia and North America.	Market position, rigorous digital-only monitoring, unit interoperability, wide applicability, project pipeline.
<b>Social Carbon   Nature Stewardship Framework</b>	The Nature Stewardship Framework is a biodiversity credit standard under development by Social Carbon, a carbon standard administrator with origins in Brazil and a long-standing co-benefits focus, based in the UK. It is designed for terrestrial projects globally for avoided loss, uplift and sustainable use activities. Credits are issued after verified outcomes (ex-post) and represent a measurable unit representing the sustainable conservation and/or restoration of one hectare of natural ecosystem over a 1-year period. The credits are calculated from a composite stewardship index that combines biodiversity with socio-economic and governance outcomes.	Speed, flexibility, wide applicability, strong philanthropic focus, market position.
<b>Verra   SD VISta Nature Framework</b>	The SD VISta Nature Framework is an outcome-based biodiversity credit standard launched in 2024 by Verra, the largest carbon standard administrator in the world, based in the US. It is designed for terrestrial and marine projects globally for avoided loss, uplift and sustainable use activities. Credits are issued after verified outcomes (ex-post) and represent 1% of net biodiversity outcomes, measured in quality hectares (Qha), generated during a monitoring period as a result of the project intervention. The standard has around 19 projects in the pipeline across over 175,000 hectares in Africa, Europe, Asia and North America, South America and Oceania.	Market position, wide applicability, unit interoperability, monitoring indicator flexibility, project pipeline.
<b>Wallacea Trust</b>	Wallacea Trust is an open-source outcome-based biodiversity credit methodology launched in 2022 by Wallacea Trust, an independent UK charity. It is designed for terrestrial and marine projects globally for avoided loss, uplift and sustainable use activities. Credits are issued after verified outcomes (ex-post) and represent 1% uplift or avoided loss in the median value of the basket of metrics per hectare. For project validation and verification, it uses an independent academic review. The standard has at least 11 projects in the pipeline across over 250,000 hectares in Europe, Asia, North America and South America.	Wide applicability, monitoring indicator flexibility, unit interoperability, project pipeline, market traction, open source.

Beyond the pre-selection criteria listed above, these schemes are generally more mature, have more available public information, more established market position, more market experience and, in some cases, more market traction. Priority was given to schemes that already operate in the EU. As alluded to earlier, particular attention was directed to scalable credit units expressed in physical terms and flexible credit indicator selection. A key consideration was scheme applicability and flexibility. It is important to design constraints that would incentivise standardisation without excluding a critical amount of potential biodiversity credit projects.

It is important to note that the reasons why these schemes were pre-selected do not always imply that each reason represents a desirable characteristic in the scheme. In fact, some of these characteristics are at odds for some schemes. For example, Wallacea Trust and CreditNature's NARIA Framework explicitly position credits under their schemes as investable assets for market participants while Social Carbon's Nature Stewardship Framework rejects the tradable asset concept and is only focused on outcome-based philanthropy as a key demand driver. Since the voluntary biodiversity market is at such an early stage, it is not clear which approach will be more impactful. The same logic applies to schemes working with competing credit units. That is why it is important to test as many such different or novel characteristics in practice as possible.

## Data Collection Parameter Selection

Once the scheme pre-selection was finalised, the process of defining data collection parameters began. The parameters were selected according to the following considerations:

### **Extensiveness**

It is important to develop a comprehensive profile of each scheme across a variety of characteristics in order to conduct a complete comparison and assessment of each.

### **Accessibility**

The data parameters should be easy to understand. Each parameter and, if applicable, its options, should have a clear and consistent definition.

### **Measurability**

Although the voluntary biodiversity market is not a quantitative discipline, it is important to convert as much data on credit schemes into measurable numeric or, at least, comparable option-based information. Whenever that is not possible, a consistent written structure should be followed for each scheme in order to understand, compare and assess them with minimal difficulty.

### **Assessment readiness**

The aim was to ensure that as many data collection parameters as possible are used in the later phases of best practice identification and scheme assessment and selection. Parameters were therefore selected to minimise the need for additional or overlapping data collection later, hence reusing a single, consolidated dataset for the assessment of each scheme. For example, if a third-party audit requirement is selected as an assessment criterion, the corresponding data parameter should already be available in the database of pre-selected schemes and used to inform scheme assessment and selection for piloting in European wetlands.

## Parameter Sources

The data collection parameters were based on three primary sources:

### **bloomlabs’ credit scheme database**

It was the key source, built on over two years of managing an open-source voluntary biodiversity credit scheme database.

*The database is available on [Airtable](#) or the [bloomlabs platform](#).*

### **High-level Principles by Biodiversity Credit Alliance (BCA), International Advisory Panel on Biodiversity Credits (IAPB) and World Economic Forum (WEF)**

These principles were co-developed by the key best practice forums in the voluntary biodiversity market. They represent the baseline criteria for high-quality and high-integrity biodiversity credit schemes and projects. Since they play an important role in assessing credit scheme quality, it was important to integrate as many parameters that could directly inform each criterion.

### **Practical European and wetland context**

The aim was to address as many parameters relevant to biodiversity credit project implementation in the European wetlands. Hence, additional emphasis was put on schemes’ operations region, ecosystem applicability, costs, support of fragmented landscapes and compliance with relevant EU regulations.

## Parameter Categories

Ultimately, 61 parameters were selected to be used for the extensive credit scheme data collection. They are clustered into five categories: Profile, Outcomes, Equity, Governance and Market.

Table 3: Data collection parameter categories

Category	Definition	Data Parameter Count
<b>Profile</b>	Descriptive attributes of a biodiversity credit scheme, including its scope, geographic applicability, and technical approach.	11
<b>Outcomes</b>	The definition, measurement, verification, and delivery of real, additional, and durable biodiversity outcomes under a biodiversity credit scheme, consistent with integrity-based principles for biodiversity credits.	33
<b>Equity</b>	The treatment of fairness, rights, and benefit sharing for Indigenous Peoples, local communities, and other affected stakeholders within a biodiversity credit scheme, in line with social integrity and inclusion principles.	7
<b>Governance</b>	The rules and oversight mechanisms that ensure transparency, accountability, fairness, and robustness in scheme design, implementation, credit issuance, and trading.	5
<b>Market</b>	Evidence of scheme uptake and market activity, including projects implemented, participating buyers, credit sales, and indicative cost levels.	5

As can be seen, the majority of data points address the outcomes category. It is the most technically demanding and contested group that promotes different approaches to quantifying and verifying nature outcomes. Hence, it requires additional emphasis.

*The full list of credit scheme data collection parameters, their definitions and categories is available in Appendix C.*

## Data Collection

For data collection, sources were evaluated according to their reliability. Primary authoritative sources were prioritised (e.g. official scheme and project documentation, official registries), followed by primary non-authoritative sources (e.g. conversations with scheme developers or market coalition reports). Generally, the data collection methodology [outlined on bloomlabs](#) was followed.

For the parameters selected, an extensive multi-data point approach was used, given the limited ability to accurately reflect credit schemes via structured data points only. A significant portion of the parameters was reflected with both quantitative (e.g. single-select or number) and qualitative (text) data points. For example, while it might be stated that a third-party audit is “mandatory”, “not mandatory” or “not stated”, what is also important is how this criterion is operationalised. That is why the single-select data point was supplemented with an additional qualitative field. The qualitative fields are usually composed of two sections: analysis and scheme documentation. The aim is to provide a short analysis of each data point coupled with the direct quote and source of the analysis, in order to make every data point verifiable.

## Pre-Selected Credit Scheme Overview

All pre-selected schemes were launched between 2022 and 2024, with the exception of one scheme still under development and another in a pilot phase.

Table 4: Operational phase and launch year of pre-selected schemes

Scheme	Operational Phase	Planned Launch Year
NaturePlus®	Active	2023
Cercarbono	Active	2024
NARIA Framework	Active	2023
OBC	Pilot	2025
PV Nature	Active	2023
Social Carbon	Under Development	2025
Verra	Active	2024
Wallacea Trust	Active	2022

The majority of schemes are based in Europe, with the United Kingdom leading with four schemes, followed by France with a single scheme. The United States, Colombia and Australia each house a single framework as well.

### Schemes Headquarters

The majority of schemes are based in Europe, with the United Kingdom leading with four schemes.

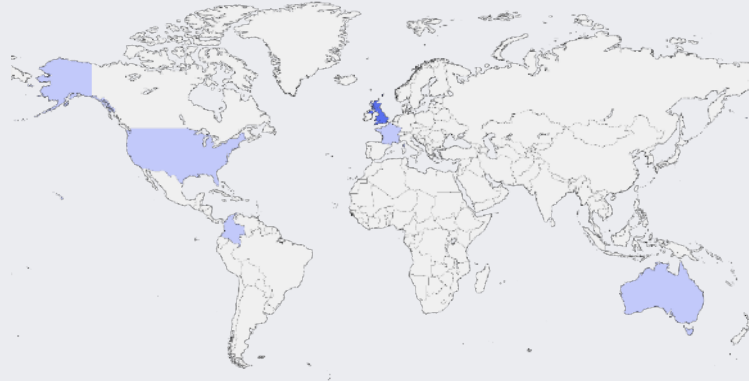


Figure 3: Headquarters of pre-selected schemes

7 out of 8 schemes are run by non-profit organisations, with a single exception by NARIA Framework. This reflects a market-wide trend in which most credit standard administrators are NGOs, while methodology developers are usually for-profit organisations.

### Schemes Legal Type and Market Role

The majority of schemes are managed by non-profit organisations that are only involved in standard-setting.



Figure 4: Legal entity type of pre-selected schemes

Figure 5: Market roles that pre-selected schemes occupy

Similar to scheme legal distribution, 7 out of 8 schemes officially operate solely as standard or methodology developers and do not undertake other market activities, such as project development or broking biodiversity credit transactions.

The only official exception is once again NARIA Framework, as it also operates its own digital platform to facilitate the management, certification and verification of projects under the Accounting for Nature Standard, along with a marketplace where additional fees are charged for credit sales, akin to brokerage. However, although technically OBC is only a certification system, it is very closely involved with developing pilot projects in its priority regions. Additionally, the founding organisations of OBC - aDryada and Le Printemps des Terres - are both environmental credit developers. Wallacea Trust is also interlinked with a carbon and biodiversity credit project developer rePLANET, as both have been founded by the same individual.

All these three exceptions functionally operate as methodologies and not standards. That allows them to be more flexible and operate faster than ICROA-certified standards such as Verra, Plan Vivo, Cercarbono or Social Carbon.

Most of the projects under the schemes are geographically distributed, with projects from Cercarbono and NaturePlus® currently limited to South America and Oceania, respectively. The rest administer projects in the EU, with Social Carbon yet to publish any pilots under its biodiversity standard.

Table 5: Operations regions of the pre-selected schemes

Scheme	Africa	Asia	Europe	North America	Oceania	South America
NaturePlus®					✓	
Cercarbono						✓
NARIA Framework	✓		✓			
OBC	✓		✓			✓
PV Nature	✓	✓	✓	✓		
Social Carbon						
Verra	✓	✓	✓	✓	✓	✓
Wallacea Trust		✓	✓	✓		✓

## Outcomes

All schemes issue credits only after biodiversity outcomes or activities have been empirically demonstrated and verified (so-called “ex-post” approach) instead of issuing credits before biodiversity outcomes or activities are fully realised, based on expected or projected future improvements (so-called “ex-ante” approach). 7 out of 8 schemes issue credits based on verified outcomes, while OBC issues credits based on verified biodiversity-friendly practices instead.

At least 7 out of 8 schemes require the outcome or activity verification to be conducted by an independent third-party auditor. To generate finance for project implementation the NARIA Framework issues Nature Investment Certificates (NICs) in advance at 1 NIC per hectare. NICs are then used to finance the delivery of the project before Nature Credits can be issued based on verified outcomes.

## Credit Key Conservation Outcome

The schemes share many similarities in how they measure key conservation outcomes, following two main approaches:

### Multimetric approach

NaturePlus®, NARIA Framework, PV Nature, Verra and Wallacea Trust follow the multimetric approach based either on "basket of metrics" or "jigsaw of metrics". The former is more flexible and designed to capture a wide range of indicators. The latter is more rigid and focused on indicator interdependence. The approach combines multiple biodiversity metrics into a single value that represents the ecosystem condition or its ecological aspect of the project. The resulting key conservation outcome is then a percentage/point increase or avoided loss of that value.

### Area-based approach

The credit units of the remaining schemes (Cercarbono, OBC and Social Carbon) are indexed on area. They more accurately represent an area unit, usually a hectare, that is well managed instead of quantified biodiversity gains.

Ultimately, the multimetric and area-based approaches prioritise a different dimension of a biodiversity credit unit mentioned in stage 2 of the structured scheme pre-selection (key conservation outcome, area and time). The multimetric approach bases credit issuance around the key conservation outcome, while the area-based approach does so around project area size. The three dimensions of a biodiversity credit unit are represented in figure 7.

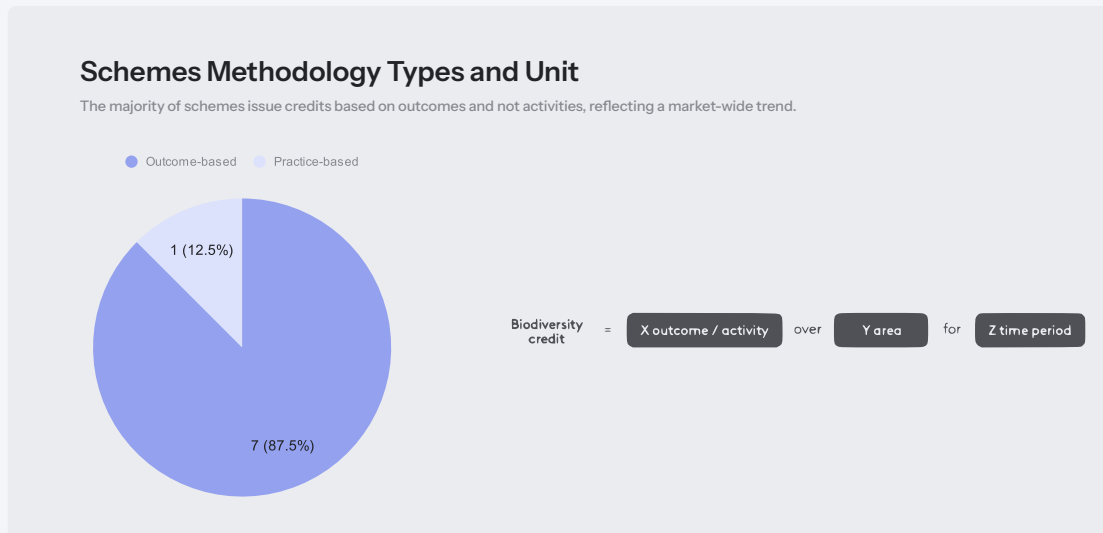


Figure 6: Methodology types of pre-selected schemes

Figure 7: Most common biodiversity credit unit structure (Pollination, 2023)

### Credit Area Size and Duration

All schemes share an identical credit size of 1 hectare – a crucial credit unit characteristic that not only defines biodiversity credits but also structurally differentiates them from carbon credits. However, notable contrasts are observed in the duration represented by credits across schemes. For example, Cercarbono has adopted the Interoperable Biodiversity Unit (IBU) with a credit length of 30 days, while most other schemes set the credit length anywhere from 1 to 30 years. The latter approach is often aligned with the monitoring frequency (1 to 5 years), issuing credits at each monitoring period. Most schemes require projects to operate for at least 10 years, with 30 to 50 years being the most common upper project length boundary.

### Uplift Measurement System and Indicator Flexibility

The schemes employ both absolute and relative uplift measurement systems<sup>6</sup>. The absolute system leads to more standardised units as each unit of gain is theoretically equal in magnitude. However, as can be seen from the example in the footnote, the absolute uplift measurement system results in fewer credits issued. Since the voluntary biodiversity market does not yet have a reliable price discovery mechanism and the credit price is usually determined based on project costs, the absolute system is likely to lead to significantly higher price per credit. Finally, quite an even split is observed in indicator flexibility<sup>7</sup>, with slightly more schemes supporting flexible indicator selection. That allows projects more flexibility in selecting which indicators will represent biodiversity outcomes for each project.

<sup>6</sup> System of assessing biodiversity uplift that defines whether credit units are based on a point uplift compared to the reference (absolute) or based on a percentage uplift compared to the initial baseline (relative).

Absolute: a system of assessing biodiversity based on a point uplift compared to the reference. Example: a 2 percentage point uplift from a 10% baseline ecosystem condition (100% being the undisturbed state) is considered a 2% improvement (12%-10% = 2%).

Relative: a system of assessing biodiversity based on a percentage uplift compared to the initial baseline. Example: a 2% uplift from a 10% baseline ecosystem condition (100% being the undisturbed state) is considered a 20% improvement (2/10 = 20%).

<sup>7</sup> Degree to which project developers can choose, adapt, or update the specific metrics used to measure, report, and verify ecological outcomes to suit local contexts and project goals.

Table 6: Credit units of the pre-selected schemes and their key characteristics

Scheme	Credit Unit	Credit Length	Credit Size	Uplift Measurement System	Calculation Indicator Type	Indicator Flexibility
<b>NaturePlus®</b>	1 restoration credit = 1% uplift of the condition of an environmental asset over 1 hectare over 1 year. 1 preservation credit = maintenance of an environmental asset over 1 hectare over 1 year.	Maximum 5 years	1ha	Absolute	Ecosystem condition <sup>8</sup>	Fixed, Flexible
<b>Cercarbono</b>	1 credit = 1 hectare for 1 month with measured Integrity of 1. I.e. 1 hectare of 100% conserved biodiversity in a biodiversity hotspot for 1 month.	30 days	1ha	Absolute	Weighted ecosystem extent <sup>9</sup> , Ecosystem condition	Flexible
<b>NARIA Framework</b>	1 credit = 0.1-point increase in ECI (Ecosystem Condition Index) in 1 hectare.	1-5 years	1ha	Absolute	Ecosystem condition	Fixed
<b>OBC</b>	1 credit = 1 hectare restored or conserved using all the best practices in the current state of the art (Level 5 of the grid).	Not stated	1ha	Absolute	Weighted ecosystem extent	Flexible
<b>PV Nature</b>	1 restoration credit = 1% uplift of the multimetric per hectare per year. 1 conservation (preservation) credit = 5% of the biodiversity baseline conserved per hectare per year.	1 year	1ha	Relative	Ecosystem condition	Fixed
<b>Social Carbon</b>	1 credit = a measurable unit representing the sustainable conservation and/or restoration of one hectare of natural ecosystem over a 1-year period.	1 year	1ha	Relative	Weighted ecosystem extent	Fixed, Flexible
<b>Verra</b>	1 credit = 1% of 1 quality hectare (Qha). A Nature Credit represents one percent of net biodiversity outcomes, measured in quality hectares (Qha).	1-5 years	1ha	Absolute	Ecosystem condition	Flexible
<b>Wallacea Trust</b>	1 credit = 1% uplift or avoided loss in the median value of the basket of metrics per hectare.	20-30 years	1ha	Relative	Ecosystem condition	Flexible

<sup>8</sup> Credit calculation is based only on ecosystem condition indicators. Hence, it is technically directly proportional to ecosystem condition and can be expressed in physical terms (e.g. 1 biodiversity credit = 1 percentage point uplift in ecosystem condition over 1 hectare).

<sup>9</sup> Credit calculation is based on various different indicators, including ecosystem condition, species and other (non-biodiversity) characteristics.

Most schemes support a form of combining biodiversity credits with other environmental credits, especially for carbon. Only CreditNature and OBC plan to first test the viability for standalone nature and biodiversity certificates before considering credit combination. Every remaining scheme supports credit stacking, while at least three schemes support credit bundling. Additionally, NARIA Framework adopts a different approach to combining different environmental credits from the same project: credit nesting, which “nests” environmental claims from higher-order (ecosystem integrity) to lower-order (species-specific).

Table 7: Credit stacking and bundling policy overview of the pre-selected schemes

Scheme	Credit Stacking <sup>10</sup>	Credit Bundling <sup>11</sup>
NaturePlus®	Allowed	Allowed
Cercarbono	Allowed	Allowed
NARIA Framework	Not stated	Not stated
OBC	Not allowed	Not allowed
PV Nature	Allowed	Not stated
Social Carbon	Allowed	Not stated
Verra	Allowed	Not stated
Wallacea Trust	Allowed	Allowed

<sup>10</sup> Measurement and separate packaging of overlapping ecosystem services produced on a given piece of land into a range of different credit types or units of trade. Usually, different units can be sold to different buyers.

Credit “stacking” adds a biodiversity unit on top of that of a carbon unit, allowing for those units to be kept separate but offered as a combination of two outcomes from the same project.

<sup>11</sup> Packaging of explicitly defined overlapping ecosystem services produced on a piece of land into a single unit of trade or credit and sold to the same buyer.

Credit “bundling” combines carbon and biodiversity outcomes into the same credit.

## Additionality

All 8 schemes require additionality. The principle ensures that credits are only issued for biodiversity gains that would not have occurred without the project. This protects the integrity of the credit unit and prevents projects from being rewarded for outcomes already secured by law, market forces, or pre-existing management.

Each scheme operationalises additionality through an explicit test. The tests typically combine regulatory analysis (activities not legally required), financial analysis (credit revenue needed for viability), and barrier analysis (credits overcome implementation obstacles). Some schemes add baseline or common practice checks, while others, such as Wallacea Trust, leave the choice of demonstration to the project. The specific criteria vary across schemes, as shown below.

Table 8: Additionality policy overview of the pre-selected schemes

Scheme	Additionality Criteria
<b>NaturePlus®</b>	Ex-ante safeguard: Proof of no material negative change in the asset's condition in the 5 years before project start/monitoring. Regulatory additionality: Outcomes not legally required. Management additionality: Demonstration of ongoing adaptive management through Environmental Asset Adaptive Management Strategies (EAAMS).
<b>Cercarbono</b>	Regulatory additionality: Outcomes not legally required. Barrier analysis: Project overcomes implementation barriers. Financial/reference analysis: Less attractive than baseline alternatives.
<b>NARIA Framework</b>	Additionality is addressed by the crediting standard under which Nature Credits will be issued using the NARIA Framework. For example if implemented under the NaturePlus® Standard it will follow the criteria as listed above.
<b>OBC</b>	Environmental additionality: Practices must deliver scientifically assessed biodiversity gains. Regulatory additionality: Practices not legally required. Financial additionality: Credit revenue needed to reach state of the art level.
<b>PV Nature</b>	Baseline: Plausible alternative land uses assessed. Barrier analysis: Project overcomes baseline barriers. Regulatory additionality: Activities not legally required.
<b>Social Carbon</b>	Regulatory additionality (implicit): Activities not legally required. Baseline: Plausible alternative land uses assessed. Financial/investment analysis: Not financially attractive without credits. Barrier analysis: Non-financial barriers overcome by crediting. Common practice analysis: Activity not widespread in region.
<b>Verra</b>	Regulatory analysis: Activities not legally required or not enforced. Financial additionality: Not financially attractive without credits. Barrier analysis: Credits overcome implementation barriers. Expansion analysis: Credits increase scale, speed, or durability.
<b>Wallacea Trust</b>	Additionality is required but projects can choose how to demonstrate additionality; no formal process.



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# 3. Scheme Assessment and Selection

## Best Practice Parameters

Before assessing and selecting the credit schemes to be used for European wetland nature credit projects, it is important to structurally identify the best practices that govern the biodiversity credit markets. These best practices will form a core pillar in the credit scheme assessment and selection process. That is why a comprehensive list of best practice parameters was composed.

## Selection Sources and Rationale

Beyond the existing experience and expertise of the work package lead beneficiary, bloomlabs, best practice parameters were identified based on a wide range of sources:

### **High-level Principles by Biodiversity Credit Alliance (BCA), International Advisory Panel on Biodiversity Credits (IAPB) and World Economic Forum (WEF)**

The High-level Principles (HLPs) represent a comprehensive synthesis of nature market best practices. Hence, a conscious decision was made to minimise any further fragmentation for the voluntary biodiversity market and design the best practice parameters, together with the following scheme assessment and selection criteria, based on these principles. Inconsistent market guidance and definitions are one of the key sources of confusion for potential investors and buyers. That is why the aim was to extend the HLPs by adjusting existing principles and including additional ones for the European wetland context.

### **Expert interviews**

A series of interviews was conducted with nature market experts (full list available in Appendix D). The list of experts includes prominent researchers, market participants, technology providers, project developers and credit scheme administrators.

### **Scientific literature**

Research by the leading academics in nature markets and European wetlands was an integral part of identifying best practice parameters.

### **Market standards and principles**

Other relevant market standards and principles were considered, including but not limited to BSI Flex 701 v2.0 Nature Markets, ICVCM 10 Core Carbon Principles and the ICROA Code of Best Practice.

### **EU policy priorities**

Particular emphasis was placed on the EU Biodiversity Strategy for 2030, EU Nature Restoration Law, Natura 2000 Network, Corporate Sustainability Reporting Directive (CSRD) and its E4 Biodiversity and ecosystems standard under the European Sustainability Reporting Standards (ESRS).

### **Project steering committee**

The initial list of best practices was reviewed by the project steering committee of the EU LIFE and a final list was agreed upon.

## List of Best Practice Parameters

The final list of best practice parameters consists of 21 High-level Principles (HLPs) and a single additional principle across three categories: Outcomes, Equity and Governance, closely aligning with the data collection parameters. Most HLPs in the Outcomes and Governance section have been slightly edited and extended to define additional criteria deemed important and reflect the European context.

Since most nature credit scheme best practices are ecosystem-agnostic, there are few wetlands-specific best practices. Instead, wetlands-specific requirements are usually addressed at the project level. In total, there are 55 best practice sub-principles.

## Assessment and Selection Criteria

Once the best practice parameters for biodiversity credit schemes were selected, it was time to define the criteria to be used for the scheme assessment framework.

While the best practices represent a critical theoretical pillar, more practical considerations were also required for the final scheme assessment and selection criteria. Beyond the best practices, it is crucial to determine how each pre-selected scheme contributes to the usability, affordability and marketability of credit projects. That is why a fourth criteria category was added along with Outcomes, Equity and Governance - Implementation. The criteria under these categories formed the basis for credit scheme assessment and selection.

Table 9: Scheme assessment and selection categories and their criteria

Outcomes	Equity	Governance	+ Implementation
<ul style="list-style-type: none"> <li>1. Defined Biodiversity Objectives and Activity Types</li> <li>2. Demand Integrity and the Mitigation Hierarchy</li> <li>3. Credit Issuance and Tracking</li> <li>4. Ex-ante &amp; Ex-post Credits</li> <li>5. Additionality</li> <li>6. Baselines</li> <li>7. Durability</li> <li>8. Leakage</li> <li>9. Monitoring, Reporting and Verification</li> <li>10. Third-party Audits</li> </ul>	<ul style="list-style-type: none"> <li>1. Legal and Customary Land and Water Rights</li> <li>2. Respecting Human Rights and the Rights of Indigenous Peoples</li> <li>3. Free, Prior and Informed Consent</li> <li>4. Indigenous Peoples' and Local Communities' Involvement in Governance</li> <li>5. No Harm</li> <li>6. Benefit Sharing</li> <li>7. Grievance Mechanism</li> </ul>	<ul style="list-style-type: none"> <li>1. Transparent Governance Structure</li> <li>2. Data Sovereignty</li> <li>3. Alignment with Frameworks</li> <li>4. Tradability</li> <li>5. Incentives</li> </ul>	<ul style="list-style-type: none"> <li>1. Credit Combination Rules</li> <li>2. Geographic and Ecosystem Applicability</li> <li>3. Costs</li> <li>4. Ease of Use</li> <li>5. Scheme Credibility</li> <li>6. Market Traction</li> </ul>

Each implementation criterion addresses practical topics in biodiversity credit project development that do not necessarily describe the quality of the credit scheme but are material considerations when choosing one. Each criteria is briefly described below:

### Credit Combination Rules

Biodiversity credit schemes should support credit combination if additionality is proven. Clear and consistent rules for combining biodiversity credits with other environmental assets (especially carbon credits) are essential to prevent double counting and support credible claims. It also provides additional flexibility to monetise multiple environmental outcomes. Flexible credit combination rules can be crucial in making ecosystem restoration economic for project developers.

### **Geographic and Ecosystem Applicability**

The credit schemes must support fragmented, small-scale, mosaic multi-ecosystem European wetlands that can be grouped into a single project.

European wetlands are typically fragmented and relatively small, requiring schemes that function effectively at parcel sizes common across EU land ownership patterns. Additionally, many European conservation and restoration projects span multiple ecosystem types, making cross-ecosystem applicability critical for ecological integrity and practical project design. Finally, project grouping reduces transaction costs and enables participation by small landholders while maintaining methodological consistency and auditability.

### **Costs**

Credit schemes must ensure reasonable project certification and monitoring costs, given the small and fragmented European land ownership structure. High fixed costs would exclude most European landholders and undermine the scalability and inclusiveness of biodiversity credit markets in the EU.

### **Ease of Use**

Biodiversity credit schemes should ensure that the difficulty of applying the scheme is reasonable in the European context. Excessive complexity is likely to deter participation by typical European landowners and project developers.

### **Scheme Credibility**

Biodiversity credit schemes should originate from a known and credible organisation that may have shown previous credibility through the accreditation of other standards they house by industry leading bodies such as ICROA. There should be a high likelihood that the organisation behind the scheme will exist over the project lifetime. Long-term confidence in credit integrity depends on institutional continuity, recognised governance standards, and trust in the scheme operator over the full durability period of credited outcomes.

### **Market Traction**

Biodiversity credit schemes should show signals of market momentum. Examples include the number of projects under certification and project size or total sales and buyer profiles.

*The complete assessment and selection criteria can be found in Appendix E.*

## **Scheme Selection Process**

Once the assessment and selection criteria were determined, they were applied in the wider 3-step scheme selection process of 1. assessment and selection criteria scoring, 2. critical criteria review and 3. final analysis.

It is important to note here that the NARIA Framework is a methodology only and therefore cannot that can be assessed for Outcomes, Equity and Governance, as these will be determined by the Standard that it will be implemented under (currently the method is aligning under the NaturePlus standard for the issuance of Nature Credits as well as under the Scottish Government's pending Ecosystem Restoration Code which recently launched its competent model). While the same applies to OBC and Wallacea Trust, higher data availability made it possible to conduct a more comprehensive assessment for them.

### **1. Assessment and Selection Criteria Scoring**

The scoring system of the criteria was adopted from the [BCA High-Level Principles \(HLPs\) Assessment Matrix v1.0](#), under which each criterion is scored on a scale from 0 to 3, regardless of the number of sub-criteria. All criteria were weighted equally for the sake of simplicity and since a reliable ranking of principles according to importance is not yet feasible at this stage of the market. The key assessment sources were public documentation and private correspondence with the scheme administrators.

## 2. Critical Criteria Review

In theory, the score-based assessment using the assessment and selection criteria should be the only step required to select credit schemes. However, given the unique EU wetland context and considering how early the voluntary biodiversity market is, additional selection steps are required. That is where the critical criteria are considered separately.

While all criteria were weighted equally, each criterion was marked as either “critical” or “important”, resulting in 4 criteria categorised as critical and 60 criteria categorised as important. Hence, while certain schemes might score higher in the overall assessment, it is also crucial to assess and compare the schemes solely using critical criteria. After the initial stress-testing, it was decided that a score of 0 in any of these critical criteria (or its key specific parts) automatically excludes the schemes from further consideration.

Table 10: Critical criteria in the scheme assessment framework

Code	Critical Criteria	Definition	Reason
HLP 1C	<b>Uplift</b>	Biodiversity credit schemes must support Uplift projects.	Restoration projects provide the most credible starting point for biodiversity credits in the EU. Additionality is easier to demonstrate, biodiversity gains are more visible, and public communication is clearer.
HLP 9A	<b>Indicator Flexibility</b>	... The MRV should include: ... (3) indicators that reflect project-specific goals and threats and monitoring that allows for the inclusion of locally relevant, context specific metrics ...	Schemes must allow flexible, project-specific and locally relevant indicators, as fixed indicator sets risk being unsuitable for European wetland contexts and would fail to accurately capture biodiversity gains.
A 3A	<b>Geographic and Ecosystem Applicability</b>	Biodiversity credit schemes must be applicable to Europe and its various wetlands, such as peatlands, floodplains and salt marshes. It must also support smaller project areas.	The scheme must be suitable for the EU wetlands.
A 4A	<b>Costs</b>	Biodiversity credit schemes must ensure reasonable project certification and monitoring costs given the small and fragmented European land ownership structure.	Certification and monitoring costs must be accessible in the EU wetlands.

## 3. Final Analysis

Finally, a qualitative analysis was conducted. A second round of conversations with the scheme administrators were started. Internal discussions with the project steering committee culminated in an in-person workshop on 12 August 2025, where each remaining scheme was reviewed. Given the initial set of potential project sites already available, corresponding credit issuance and price simulations were conducted to assess the economic viability of projects under each scheme. Finally, for some schemes, some mock Project Idea Notes (PINs) were also developed.



## Stage 1: Assessment

The 8 pre-selected schemes were scored using the scheme assessment and selection criteria.

Table 11: Final scheme assessment results

Scheme	Outcomes	Equity	Governance	Implementation	Overall
NaturePlus®	69%	64%	27%	53%	57%
Cercarbono	69%	83%	49%	69%	70%
NARIA Framework*	N/A	N/A	N/A	61%	N/A
OBC	30%	14%	27%	38%	27%
PV Nature	62%	88%	70%	53%	68%
Social Carbon	65%	86%	48%	55%	65%
Verra	68%	83%	44%	54%	64%
Wallacea Trust	53%	33%	21%	75%	47%

\* NARIA Framework is not assessed for Outcomes, Equity and Governance as these will be determined by the Standard it will be implemented under, for example the NaturePlus Standard.

The four schemes led by standard setters whose carbon programs are certified by ICROA scored the highest. This result was expected, as the framework rewards extensive documentation and penalises limited documentation. Since organisations behind these carbon standards specialise in designing credit standards, they are mandated to provide much more extensive information that goes beyond biodiversity quantification and covers governance, social and environmental safeguards, stakeholder engagement and more detailed guidance on topics such as additionality or leakage.

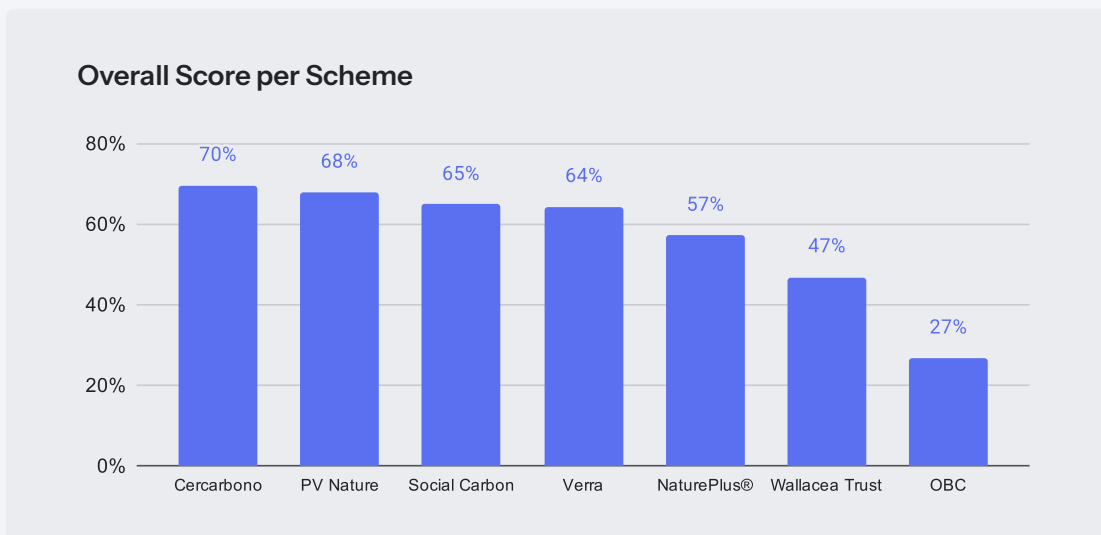


Figure 8: Overall score per scheme using the scheme assessment and selection criteria

However, the results drastically change if only the Implementation score is considered, reflecting the usability, affordability and marketability of credit projects. There, non-ICROA certified schemes rank much higher, with Wallacea Trust and NARIA Framework ranking first and third, respectively. It is a great example of biodiversity credit methodologies prioritising applicability over the extensiveness inherent to credit standards.

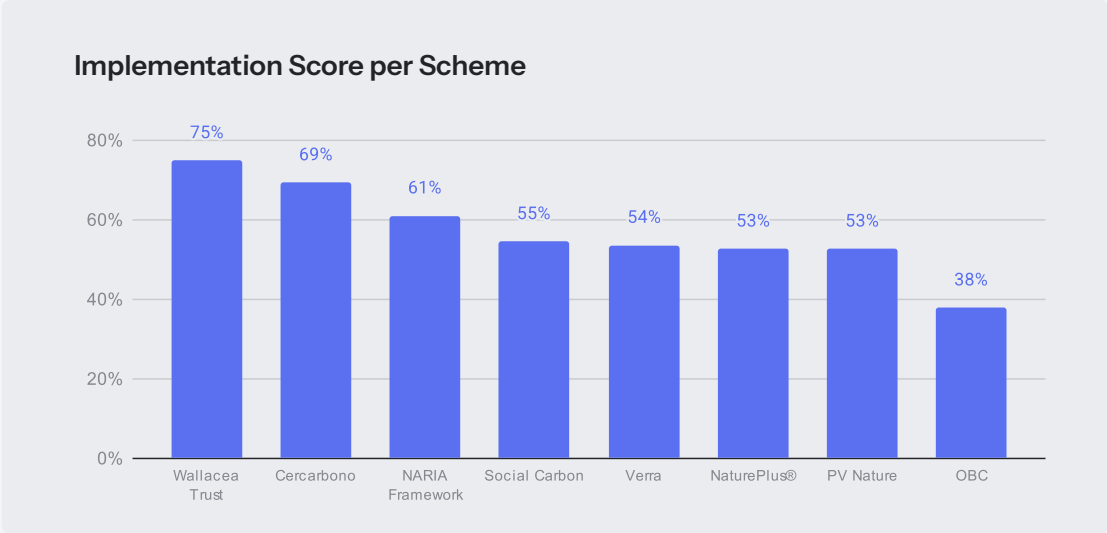


Figure 9: Implementation score per scheme using the scheme assessment and selection criteria

## Stage 2: Critical Criteria Review

The critical criteria screening led to eliminating four schemes: NaturePlus®, Cercarbono, NARIA Framework and PV Nature.

### NaturePlus®

Using NaturePlus® for European wetlands would require certifying a separate method or methods for each specific ecosystem and activity type (e.g. peatland restoration) via Accounting for Nature’s rigorous certification procedure. Given the limited time and resources of this project, it was assessed as unfeasible.

### Cercarbono

Although the programme is theoretically ecosystem-agnostic, its existing indicator species methodology is designed for terrestrial, intact biodiversity-rich landscapes outside of Europe and primarily relies on large mammals instead of vegetation or structural biodiversity indicators. Such an approach is not tailored to European wetlands and applying the framework would require substantial methodological adaptation, particularly around indicator selection and integrity scoring.

### NARIA Framework

Despite the unique and scientifically sound methodology coupled with a strong commercial focus, NARIA Framework posed a number of challenges. It employs a fixed indicator approach using 4 pillar indicators: species dispersal, natural disturbance, trophic cascades and niche occupancy. These indicators are designed for large mosaic landscapes for ecosystem-level restoration and the majority are likely to be unfit for smaller wetland-only ecosystems, as reflected in the initial list of potential project sites. Its multi-asset approach, built around Nature Investment Certificates (NICs) is unprecedented in VBM, leading to a steeper learning curve and additional difficulties in buyer education. Finally, the usage of NARIA Framework is only possible using CreditNature’s proprietary digital platform and comes with high fixed and variable costs.

### PV Nature

PV Nature’s indicator approach of using 5 fixed “pillar metrics” turned out to be prohibitive since at least 3 of these metrics (species richness, species diversity, NDVI index-based habitat health score) do not fit the European peatland context - a key wetland type for this project.

Table 12: Critical criteria assessment of the pre-selected schemes

Scheme	Uplift (HLP 1C)	Indicator Flexibility (HLP 9A 3)	Geographic and Ecosystem Applicability (A 3A)	Costs (A 4A)	Overall
NaturePlus®	3	2	0	1	6
Cercarbono	1	2	0	2	5
NARIA Framework	3	0	3	1	7
OBC	3	3	1	1	8
PV Nature	3	0	3	1	7
Social Carbon	3	1	1	1	6
Verra	3	3	2	2	10
Wallacea Trust	3	3	3	2	11

### Stage 3: Final Analysis

After the critical criteria review, four schemes were left: OBC, Social Carbon, Verra and Wallacea Trust. Although the final selection could have been made using only the combination of the scheme assessment framework and critical criteria review, it was decided that an additional in-depth analysis for each scheme was necessary. The voluntary biodiversity market is too early to rely only on structured data and requires a more context-sensitive approach to truly understand which schemes fit best. Once the final analysis was conducted, the final selection was made.

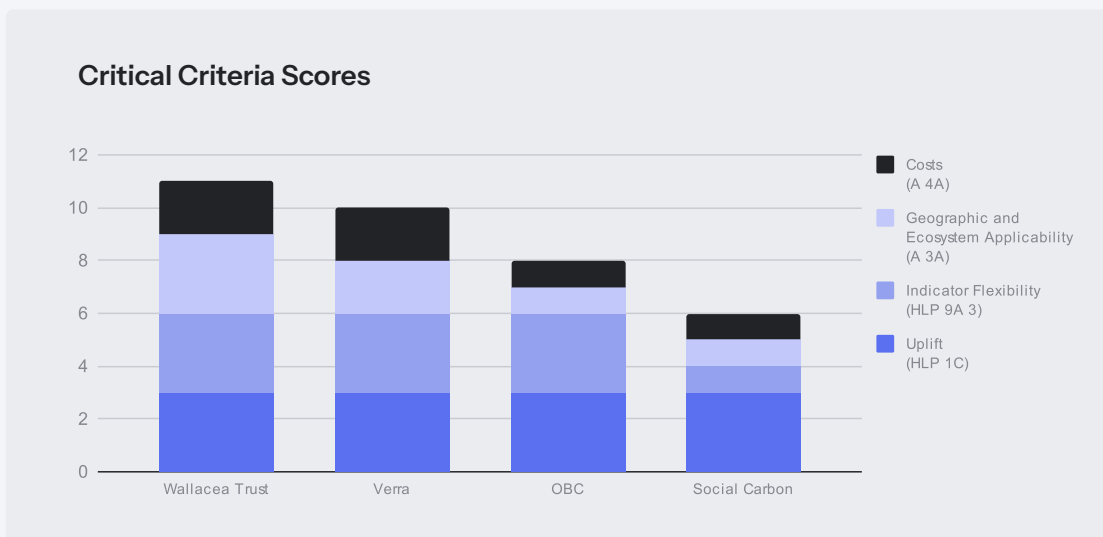


Figure 10: Critical criteria scores of schemes in the final scheme selection stage

# Organization for Biodiversity Certificates (OBC)

## Critical Criteria Assessment

Uplift (HLP 1C)	Indicator Flexibility (HLP 9A 3)	Geographic and Ecosystem Applicability (A 3A)	Costs (A 4A)	Overall
3	3	1	1	8

### Uplift

Supports both uplift and avoided loss projects.

### Indicator Flexibility

OBC applies a flexible indicator approach. Rather than imposing a fixed set of ecological metrics, it builds biodiversity assessment methods by ecosystem type, drawing on expert consensus and context-specific parameters (e.g. soil health, strata, hedgerows, pesticide use). The methodology relies on adaptable “Quality Hectares” and the Biodiversity Index Assessment Method (BIAM), both of which allow indicators to be calibrated by ecosystem type and refined with local specificities. Developers must apply the shared framework, but they have scope to adapt indicators to the project context.

### Geographic and Ecosystem Applicability

The goal of the framework is to be globally applicable, with the initial priority ecosystems being tropical and temperate forests. However, pure wetlands are not yet supported - only forested wetlands.

### Costs

Not stated but claims to be extremely cost-effective and fit for projects as small as 1 hectare.

## Strengths

### Practice-based methodology suited to fragmented European land ownership

The OBC approach relies on clearly defined land-use and management practices rather than complex field-based ecological measurements. This makes it operationally well suited to Europe’s small, fragmented land parcels and mixed land-use systems, where repeated in situ biodiversity monitoring can be costly or impractical.

### Strong European anchoring and policy relevance

Organization for Biodiversity Certificates is deeply embedded in the European policy and institutional context, with explicit alignment to national biodiversity strategies while also targeting the EU Nature Restoration Law in the future. Its methodology is designed to directly support measurable contributions to public biodiversity objectives, which is particularly relevant for EU-funded projects and public-private financing models.

### Scientifically grounded consensus-based scoring of practices

Biodiversity-friendly practices and expected biodiversity gains are derived from a structured scientific consensus process involving biodiversity experts, rather than ad hoc or developer-defined scoring. This lends methodological legitimacy to the biodiversity gain values assigned to practices and creates a transparent link between management actions and expected biodiversity outcomes.

## **Government-first go-to-market strategy anchored in national biodiversity objectives**

Organization for Biodiversity Certificates adopts a government-first go-to-market strategy centred on a single, clearly defined claim: contribution to national biodiversity strategies. The scheme explicitly recognises that sustained demand for biodiversity certificates is unlikely to emerge without public-sector backing and regulatory or quasi-regulatory incentives. Its approach focuses on entering one country at a time with a portfolio of projects supported by national authorities. OBC reports active or pilot projects in France (approximately 15 projects), as well as in Gabon, Ivory Coast, Cameroon, Peru, Denmark, Brazil, and Rwanda, with each market entry pursued in close coordination with government stakeholders. This strategy reflects a realistic assessment of how biodiversity credit demand may need to be structured in early markets.

## **Weaknesses**

### **Country-first deployment model limits practical applicability**

Since OBC's market entry model is built around close collaboration with national authorities, applying the scheme requires the development of a portfolio of projects within a single country. This approach is misaligned with the project's objective of testing biodiversity crediting across multiple EU Member States. While OBC has offered the possibility of using its own project sites, such proximity between the scheme owner and project implementation would raise independence and governance concerns.

### **Limited applicability beyond forest-wetland mosaics**

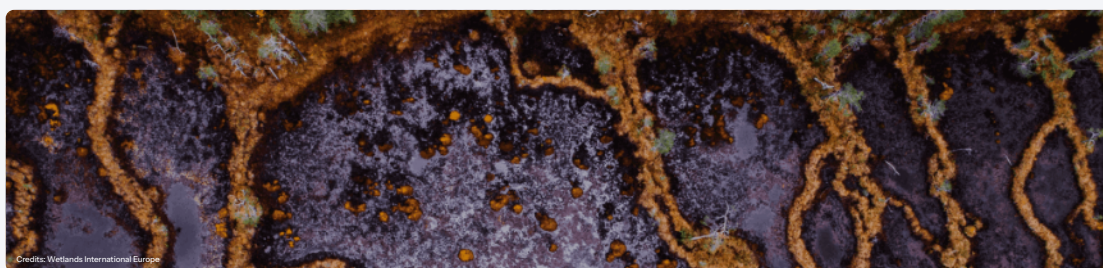
At present, OBC's operational methodology applies primarily to forest ecosystems that include wetland features, such as riparian zones, ponds, and wet clearings. Standalone wetland ecosystems, including peatlands, floodplains, and salt marshes, are not yet covered by a dedicated practice taxonomy. Applying OBC to such sites would require the establishment of a dedicated wetlands working group and the development of a new scientific practice grid, introducing additional uncertainty, effort, and time requirements for EU wetlands pilots.

### **No credit stacking or bundling support**

OBC does not currently support credit stacking or bundling with other credit types, including carbon credits. The scheme's stated approach is to first test the viability of standalone biodiversity certificates before exploring stacking or bundling options in the future. In the EU wetlands context, where project economics often depend on diversified revenue streams, this limitation reduces flexibility and may constrain project attractiveness.

### **Evolving methodological framework and ongoing consolidation**

OBC is currently in a piloting and refinement phase, with projects being rolled out progressively on a country-by-country basis. While the organisation has been active for several years, parts of the methodological framework are still being consolidated, and the most recent planned methodology update could not be identified at the time of assessment. As a result, applying the framework would likely involve a degree of methodological collaboration and iterative refinement, which may be challenging to accommodate within the project's timeline and budget.



# Social Carbon | Nature Stewardship Framework

## Critical Criteria Assessment

Uplift (HLP 1C)	Indicator Flexibility (HLP 9A 3)	Geographic and Ecosystem Applicability (A 3A)	Costs (A 4A)	Overall
3	1	1	1	6

### Uplift

Supports both uplift and avoided loss activities in a single project. However, additionality is usually harder to prove for avoided loss projects in the Global North.

### Indicator Flexibility

Social Carbon has a mixed approach: fixed indicators for Biodiversity Index but a bit more flexible for the Socio-Economic and Governance Index indicators.

#### Biodiversity Index:

- Low flexibility in habitat indicators (fixed, formula-driven).
- Medium flexibility in species indicators (choice of taxa, methods, modeling approach).
- Projects can adapt species focus over time as ecological conditions or conservation priorities shift.

#### Socio-Economic Index:

- High flexibility in social indicators (locally tailored, adaptive).
- Low-medium flexibility in economic indicators (fixed formulas, but contextual application).

#### Governance Index:

- Medium flexibility overall: the categories are fixed, but developers have leeway in how governance processes are structured, documented, and demonstrated.

### Geographic and Ecosystem Applicability

The framework is ecosystem-agnostic and can be applied to any terrestrial ecosystem. Hence, it supports wetlands and also has a carbon methodology for peatland restoration, used by a member of the LIFE Biodiv CrEW consortium member aeco.

### Costs

Social Carbon’s fees are comparable to most other ICROA-certified standards.

Table 13: Social Carbon fee schedule ([source](#))

Scheme	Outcomes
Validation/verification body annual fee	\$2,500
Validation review	\$7,500
Verification review	\$15,000
Annual registry fee (€600)	~\$800
Validation	\$20,000
Verification	\$15,000
Listing fee	\$1,000

If a combined carbon and nature stewardship project is developed, there would be no need to pay for the validation and verification review fees for both the carbon credits and Nature Stewardship Framework. Only the higher of the two would be charged - i.e. the fees for the Nature Stewardship Framework (\$7,500 and \$15,000, respectively). However, carbon issuance fees would still be applied at \$0.3/credit.

## Strengths

### **Clear philanthropic market positioning and coherent market thesis**

Social Carbon positions Nature Stewardship Credits explicitly as a philanthropic funding instrument, rather than as an investable or tradable financial asset. The framework does not assume the emergence of secondary markets or price appreciation and is instead designed to channel philanthropic capital from corporates, foundations, and individuals into sustained land stewardship. A coherent market thesis at a time when biodiversity credit markets remain nascent and contested is valuable. It avoids over-reliance on speculative market dynamics, even if it limits near-term commercial upside.

### **ICROA-approved carbon standard**

Social Carbon is an ICROA-approved carbon standard, which places it within a small group of schemes that have passed recognised integrity, governance, and operational checks in voluntary carbon markets. This status signals institutional maturity, procedural robustness, and long-standing engagement with international buyers and auditors.

### **Strong co-benefit focus**

Social Carbon has a long-standing focus on co-benefits, particularly nature, social and governance outcomes alongside climate performance. This background lends credibility to the Nature Stewardship Framework and positions it well for stakeholders who prioritise integrated nature-people outcomes, benefit sharing, and robust safeguards as part of biodiversity finance.

### **Comprehensive, rigorous and accessible documentation**

The Nature Stewardship Framework is supported by detailed, well-structured documentation that clearly explains eligibility rules, indicators, credit calculation logic, safeguards, and governance processes. Compared to many biodiversity credit schemes, the framework is relatively easy to understand and operationalise.

### **Responsiveness and openness to methodological adaptation**

Throughout stakeholder engagement and consultation, Social Carbon has demonstrated a high degree of responsiveness and openness to feedback, including a willingness to adjust indicator logic where ecological contexts justify it. This pragmatic and collaborative stance is a positive signal for early-stage project development.

### **Credit stacking support**

The Nature Stewardship Framework supports credit stacking with carbon credits issued under the Social Carbon Standard, allowing biodiversity and carbon outcomes to be financed within a single project architecture. While bundling is not currently supported, this stacking option reduces duplication of validation and verification processes and can improve overall project economics. In addition, existing collaboration between the LIFE Biodiv CrEW consortium member aeco and Social Carbon on carbon projects increases practical feasibility, reduces transaction friction, and lowers development costs for stacked projects.

## Weaknesses

### Framework not yet operational

The Nature Stewardship Framework is not yet live and has not entered a formal piloting phase. As a result, it currently lacks practical implementation experience, tested project workflows, and empirical evidence from to-be-issued Nature Stewardship Credits.

### Relatively fixed biodiversity indicators limit suitability for European wetlands

The framework relies on a relatively fixed set of indicators for its Biodiversity Index, with limited flexibility to tailor indicator selection to specific ecological contexts. In the case of European wetlands, this rigidity can be a material limitation, as key biodiversity dynamics in peatlands, floodplains, and other wetland types often require context-specific indicators that reflect hydrology, soil condition, and ecosystem processes.

### Inclusion of socio-economic and governance indicators in credit calculation

Nature Stewardship Credits are calculated using a composite index that combines biodiversity, socio-economic, and governance performance. While this aligns with Social Carbon's holistic stewardship philosophy, it means that credits do not represent purely biophysical biodiversity outcomes or ecosystem condition in the way carbon credits represent emissions. This may complicate credit communication and buyer understanding, as it is less clear what a single credit represents in ecological terms. It is, however, important to note that Social Carbon has indicated openness to separating the Biodiversity Index from the Socio-Economic and Governance Indices in the future, and that the framework's philanthropic focus may reduce the relevance of this concern in certain buyer segments.

### Fixed but relatively high annual certification costs

Certification and monitoring costs are relatively high, at approximately \$15,000 per year. While these costs are fixed and therefore predictable, they may be challenging for smaller projects or pilot-scale European wetland initiatives to absorb, particularly where revenue expectations may be limited due to the framework's philanthropic positioning.



Credit: EuroNatur

# Verra | SD VISta Nature Framework

## Critical Criteria Assessment

Uplift (HLP 1C)	Indicator Flexibility (HLP 9A 3)	Geographic and Ecosystem Applicability (A 3A)	Costs (A 4A)	Overall
3	3	2	2	10

### Uplift

Supports both uplift and avoided loss projects.

### Indicator Flexibility

Substantial flexibility is provided to choose and adapt which metrics (Condition indicators and monitoring methods) are used, within certain guardrails. The Nature Framework balances local customisation with standardisation by (a) requiring what to measure (components and minimum counts) and how to justify and standardise metrics, (b) allowing new/locally-appropriate indicators to be added (but not removed) during the project lifetime subject to verification/approval, and (c) subjecting indicator selection, reference values and monitoring plans to expert and third-party review.

Condition indicators should not be chosen because they are easy to measure (e.g. monitoring only easily observable species instead of those critical to ecosystem function that are harder to monitor). Projects' Condition indicators should also not be disproportionately sensitive to restoration or conservation activities when compared to ecosystem health in general (e.g. measuring only pioneer species in a restoration project). With that in mind, indicator selection is extremely flexible. It only needs to be justified. However, once indicators are chosen, they cannot be removed and only more can be added.

### Geographic and Ecosystem Applicability

The standard is fully globally applicable, with pilot projects across Europe, Africa, Asia, North America, South America and Oceania.

### Costs

Nature Framework's fees are comparable to most other ICROA-certified standards.

Internal estimates result in annual costs of ~\$2,500-4,000. If nature credits are stacked with carbon credits, the costs would increase.

## Strengths

### Institutional credibility

Verra is the largest and most widely recognised ICROA-certified voluntary carbon standard globally, with long-standing governance structures, registry infrastructure, and third-party verification systems. The SD VISta Nature Framework directly benefits from this institutional credibility, providing immediate legitimacy, recognisability, and trust among corporates, financial institutions, and intermediaries entering the voluntary biodiversity market.

### Condition-based biodiversity accounting aligned with nature reporting frameworks

The SD VISta Nature Framework applies a quantitative ecosystem condition accounting approach based on explicit measurement of ecosystem structure and composition. Biodiversity outcomes are derived from standardised indicators, aggregated into a condition score and translated into area-adjusted outcomes. This ecosystem condition framing closely mirrors how environmental performance is already conceptualised in leading nature accounting and

reporting frameworks, including TNFD, CSRD and GRI. By using a shared language of ecosystem condition and measurable change, VISTA Nature reduces the conceptual gap between corporate nature accounting and biodiversity crediting, making it easier for corporates to justify credit purchases once nature strategies and targets are in place.

#### **High flexibility in indicator selection within clear methodological guardrails**

The SD VISTA Nature Framework allows projects to select context-specific indicators for ecosystem structure and composition, subject to clear methodological guardrails and validation requirements. This flexibility makes it possible to tailor indicator sets to different European wetland types, including peatlands, floodplains, and other hydrologically driven systems, without over-compromising comparability or integrity. For this project, the ability to apply a single framework across different wetland ecosystems is a significant practical advantage.

#### **Credit stacking support**

The SD VISTA Nature Framework explicitly allows credit stacking with carbon credits issued under Verra's Verified Carbon Standard (VCS), provided additionality can be demonstrated for biodiversity outcomes beyond the carbon component. That provides additional flexibility to combine different revenue streams from the same project.

#### **Multimetric interoperable biodiversity credit unit**

VISTA Nature applies a clearly defined, standardised Nature Credit unit derived from quantified ecosystem condition change over area. This unit is conceptually interoperable with other multimetric, condition-based biodiversity credit approaches, such as those used by PV Nature or Wallacea Trust. The standardisation of the credit unit supports buyer understanding, comparability across projects, and potential future interoperability across biodiversity credit schemes.

#### **Active project pipeline**

Verra has completed the initial pilot phase of the SD VISTA Nature Framework and is now actively onboarding projects. The framework is expected to support approximately 10-15 projects by the end of 2025, with a cumulative project area of close to 200,000 hectares, including projects in Europe.

### **Weaknesses**

#### **High methodological and operational complexity**

The SD VISTA Nature Framework applies a technically sophisticated ecosystem condition accounting approach involving indicator standardisation, baselines, leakage, buffers, and area-adjusted calculations. While this strengthens integrity, it also results in a high methodological and operational burden. Project design, monitoring, and verification require significant technical expertise and effort.

#### **Slow programme timelines and approval cycles**

Verra is widely perceived as a slow-moving standard, and this characteristic extends to the SD VISTA Nature Framework. Project review, validation, and issuance timelines are likely to be lengthy, particularly given the novelty and complexity of biodiversity crediting. This creates delivery risk for projects operating under fixed timelines, such as EU-funded pilots, where delays can materially affect feasibility and reporting.

#### **Limited suitability for small, fragmented lands**

The framework's design and cost structure implicitly favour larger, aggregated projects. For smaller or fragmented European wetland sites, the overhead associated with project design, validation, and monitoring may be disproportionate to expected credit volumes, limiting accessibility for certain landowners or conservation actors.

# Wallacea Trust

## Critical Criteria Assessment

Uplift (HLP 1C)	Indicator Flexibility (HLP 9A 3)	Geographic and Ecosystem Applicability (A 3A)	Costs (A 4A)	Overall
3	3	3	2	11

### Uplift

Supports both uplift and avoided loss projects.

### Indicator Flexibility

The methodology offers high flexibility. Developers must define a basket of at least five metrics, including one structural, but these can be chosen to reflect local conservation objectives and ecosystem services. Metrics may be taxa-based, functional groups, or structural indicators, and can incorporate methods like DNA metabarcoding or remote sensing. All metric selections must be peer-reviewed by the [Biodiversity Futures Initiative \(BFI\)](#).

### Geographic and Ecosystem Applicability

The standard is fully globally applicable, with projects across Europe, Asia, North America, and South America.

### Costs

The methodology is open source and free to use. However, the following expenses are possible:

#### Fixed costs:

Biodiversity Futures Initiative reviews: \$2,700-10,000  
 3rd party registry listing, maintenance and issuance fees: Highly depends, ~\$5,000-25,000/year

#### Variable costs:

rePLANET brokering fees (optional): up to 5-7% of sales  
 rePLANET project development support (optional): N/A

## Strengths

### Multimetric interoperable biodiversity credit unit

Wallacea Trust applies a “basket of metrics” approach in which biodiversity credits are issued based on a transparent unit. This standardised, outcome-based credit unit is conceptually interoperable with other multimetric biodiversity credit frameworks, such as those used by Verra and PV Nature, supporting buyer understanding, comparability, and potential future interoperability across schemes.

### Open-source methodology

Wallacea Trust operates an open-source biodiversity credit methodology that can be used freely by project developers without licensing fees. This significantly lowers barriers to entry and the use of the methodology.

**High flexibility in indicator selection within clear methodological guardrails**

The methodology allows projects to define context-specific biodiversity indicators tailored to the ecological characteristics of each site, subject to high-level methodological requirements. This flexibility enables the same framework to be applied across diverse ecosystems, including different types of European wetlands.

**High ease of use for ecologists and conservation practitioners**

The Wallacea Trust methodology is relatively easy to understand and apply, particularly for practitioners with ecological and conservation backgrounds. This ease of use reduces onboarding time and lowers transaction costs.

**Active project pipeline**

Wallacea Trust has a large pipeline of projects either under development or already operational. Project developer rePLANET has a pipeline of at least 11 projects under the Wallacea Trust methodology, spanning almost 250,000 hectares and forecast to generate approximately 13.7 million biodiversity units over the next 20-30 years.

**Highly flexible, lightweight and responsive methodology design**

Wallacea Trust operates as a methodology rather than a full certification standard, resulting in a lightweight framework. This design can enable a smoother project development process. The methodology offers substantial flexibility in monitoring design, project development, credit stacking, and registration approaches, which can facilitate faster market testing. While this comes with trade-offs from a formal standardisation perspective, it can be advantageous early on.

**Flexible credit stacking and bundling support**

Wallacea Trust explicitly allows both credit stacking and bundling with third-party carbon standards. That provides additional flexibility to combine different revenue streams from the same project without being locked into a single standard ecosystem.

**Weaknesses****Absence of a formal standard and limited supporting documentation**

Wallacea Trust operates as a methodology rather than a full certification standard and does not provide a central registry, formal governance framework, or standardised issuance and retirement infrastructure. Supporting documentation is largely limited to a concise methodology document focused on biodiversity quantification using the basket of metrics approach. While the methodology is clear, the absence of additional procedural guidance, implementation manuals, or governance documentation can place a greater burden on project developers to develop projects in line with best practice.

**Perceived conflicts of interest arising from closely linked organisations**

Wallacea Trust's founder is also the founder of the biodiversity and carbon project developer rePLANET, which exclusively uses the Wallacea Trust methodology for its biodiversity projects. rePLANET also provides consultancy and broking services to other developers seeking to apply the methodology, including support for passing academic peer review and bringing credits to market. In addition, Renew Earth, an organisation that emerged from rePLANET, provides biodiversity MRV infrastructure, and registry services focused specifically on Wallacea Trust projects. While the Wallacea Trust is an independent UK charity with no shared directors with rePLANET, and third-party service providers can in principle be used, the close interlinkages between the methodology developer, project developers, service providers, and the academic review ecosystem may raise concerns.

**Lack of clarity in project implementation and operational responsibilities**

Since Wallacea Trust functions as a methodology rather than a full certification standard, it leaves significant discretion to project developers in how projects are implemented and managed. While this flexibility can be beneficial, it also means that developers bear full responsibility for ensuring alignment with best practices across project governance, monitoring, registry selection, and credit issuance. In practice, this creates a number of open questions around how to operationalise projects consistently under the methodology, including the need to independently procure and coordinate third-party registry services that meet the methodology's requirements. As a result, the absence of a centralised implementation framework may incentivise project developers to rely on consulting, broking, MRV, and registry services offered by organisations closely affiliated with the Wallacea Trust methodology, notably rePLANET and Renew Earth.

**Benefit sharing expectations may limit flexibility in European projects**

Wallacea Trust applies a requirement that at least 60% of biodiversity credit sale revenues are shared with local stakeholders. Proponents present this as a strength, arguing that generous benefit sharing enhances legitimacy and buyer confidence. However, in the European context, how this requirement would operate in practice remains unclear. European wetland projects are typically characterised by private land ownership and diverse project delivery models. Where project developers assume responsibility for design, implementation, monitoring, certification, and sales, a fixed revenue sharing expectation may constrain project economics. Conversely, where landowners take on greater responsibility and risk, revenue sharing arrangements would need to be structured differently. This lack of clarity introduces uncertainty and may limit flexibility in structuring projects suitable for European landowners and developers.

**Limited formal oversight and third-party assurance**

Verification relies on academic peer review rather than accredited validation and verification bodies. Although scientifically credible, this approach may be perceived as less rigorous from a market or regulatory perspective, particularly by stakeholders accustomed to carbon market style assurance frameworks.



Credits: Wadden Sea World Heritage

## Final Scheme Selection

The final analysis led to the selection of two schemes: Verra and Wallacea Trust. Both schemes offer a credible, flexible and widely applicable biodiversity crediting approach that is actively piloted globally, including Europe. Both Verra and Wallacea also use a technically interoperable credit unit based on the multimetric approach, described in the data collection chapter earlier.

Importantly, both schemes employ similar biodiversity indicator requirements, prioritising ecosystem composition and structure metrics as key elements in measuring biodiversity. As a result, they overlap enough that the same set of biodiversity indicators can be used for both schemes. Theoretically, this allows for tracking biodiversity outcomes in the same project using both schemes and directly comparing the results.

Table 14: Final scheme selection summary

Scheme	Selection Status	Reason
OBC	Not Selected	While OBC is strongly anchored in the European policy context and demonstrates promising pilot activity, its country-first go-to-market strategy and reliance on government-backed implementation make it unsuitable for this project's objective of testing biodiversity credit schemes across multiple EU Member States. In addition, the methodology is not yet fully consolidated, requires the development of a dedicated wetland practice grid, and would entail a level of co-development and coordination with public authorities that exceeds the project's timeline and resources.
Social Carbon	Not Selected	The Nature Stewardship Framework presents a clear philanthropic market thesis and robust co-benefit safeguards. However, the framework is not yet live, has not been piloted in practice, and remains under development. Its fixed biodiversity indicator set offers limited flexibility for European wetland contexts, and the inclusion of socio-economic and governance indices in credit calculation reduces clarity around what each credit represents ecologically. These factors limit its suitability for near-term project implementation and testing under the EU LIFE programme.
Verra	Selected	The SD VSta Nature Framework was selected due to its high institutional credibility, flexible indicator approach, and strong alignment with ecosystem condition accounting used in corporate reporting and nature accounting frameworks (e.g. CSRD, TNFD, SBTN). Its compatibility with existing carbon market infrastructure, support for credit stacking with Verra carbon credits, and active project pipeline provide confidence in scalability and market relevance. Despite higher administrative complexity, the framework offers the robustness and flexibility required for application across diverse European wetland contexts.
Wallacea Trust	Selected	Wallacea Trust was selected for its scientifically rigorous, open-source methodology, flexible application across ecosystems, and strong existing project pipeline, including relevance to European wetland contexts. Its basket of metrics approach and clear, interoperable credit unit enable credible biodiversity outcome measurement while remaining lightweight and practical for project development. Although the absence of a formal standard and registry introduces governance and implementation considerations, the methodology's ease of use, adaptability, and market traction make it well suited for piloting and learning-oriented deployment under the project.

# 4. Conclusions

The benchmarking of biodiversity certification and credit schemes on wetlands has surfaced a number of themes that are relevant for the implementation of high-integrity biodiversity credit markets in the EU:

## Key Learnings

### The voluntary biodiversity market is still early

The market is still in an active development stage where fewer concepts are defined than initially expected. A common credit unit, biodiversity indicators and claims are some of the key areas where more alignment is needed. Additionally, various fundamental environmental market features, such as additionality, baselines, permanence or leakage, are not yet standardised either. Practically all biodiversity credit schemes are still in an experimentation process of refining their approach. As a natural result, the practical implementation of a scheme does not always fully align with the theoretical scheme requirements.

### Most schemes are implicitly designed for biodiversity-rich regions outside Europe

A closer review of scheme design features indicates that most schemes are designed for large, open and intact landscapes with limited ownership fragmentation. Such landscapes are more frequently found in biodiversity hotspots, such as Latin America or Africa, that house the majority of biodiversity credit projects globally. That makes most credit schemes less suitable for some European lands that are relatively small and fragmented. Therefore, it is important to explore how the current leading schemes could be better applied in Europe and whether new biodiversity crediting methods are required.

### The market requires supportive frameworks

Virtually all voluntary biodiversity credit schemes and other market participants would benefit significantly from market standardisation, trust building and demand generation. Strategic coordination of the market is a valuable option for building market trust and consistency. The EU's Roadmap towards Nature Credits has the opportunity to become a key global development in this field. While other approaches are possible, none currently appear to be as advanced or as well-positioned to reflect the perspectives of all interested stakeholders in an integrated manner.

### Voluntary markets face structural constraints in meeting certain high-integrity requirements

Integrity challenges in the voluntary biodiversity market arise from multiple, interrelated factors. These include the voluntary nature of the market<sup>12</sup>, the absence of stable and predictable financing pathways, limited integration with

<sup>12</sup> Sophus O. S. E. zu Ermgassen, Tom Swinfield, Joseph W. Bull, Natalie E. Duffus, Andrew Macintosh, Martine Maron, Sebastian Theis, Thomas B. White & Megan C. Evans, 'Five rules for scientifically credible nature markets', Nature Ecology & Evolution (2026). 12 January 2026 <https://doi.org/10.1038/s41559-025-02932-z>

existing regulatory frameworks, uncertainty around long-term stewardship obligations, and the diversity of land tenure and management contexts, particularly in European landscapes. Together, these factors can constrain the consistent delivery, durability, and accountability of biodiversity outcomes. Achieving high-integrity outcomes therefore depends not only on credit scheme design, but also on complementary policy frameworks, long-term financing mechanisms, and supporting institutional arrangements.

### **Theoretical market principles and practical considerations are closely linked**

At present, the selection of biodiversity credit schemes cannot rely solely on quantitative outputs from structured scheme assessments. Practical implementation considerations also play an important role. For example, biodiversity credit project developers often value schemes that offer sufficient flexibility to be applied across different ecosystem types and project activities, including both uplift (restoration) and avoided loss (preservation). In addition, indications that projects certified under a given scheme may be more attractive to potential buyers are a relevant consideration alongside technical assessment results.

### **Agricultural land and farmed landscapes remain only partially addressed**

While many biodiversity credit schemes are, in principle, designed to be globally applicable, their applicability across all ecosystem and land-use contexts remains uneven in practice. Initial screening of potential sites for biodiversity credit projects in European wetlands suggests that most globally applicable schemes do not yet fully reflect the specific conditions of agricultural land and farmed landscapes. In such contexts, ensuring long-term durability, often extending beyond 20 years, can be challenging, as land management decisions are frequently made within shorter planning horizons and depend on predictable revenue streams. At present, only a limited number of schemes, including Fundación Global Nature and the Global Biocredit Standard, explicitly engage with agricultural land and farmed landscapes.

## **Limitations and Outlook**

This report represents a structured and evidence-based assessment of biodiversity certification and credit schemes at the scheme level. As such, its findings are subject to a number of limitations related to scope, data availability, and the practical constraints of the LIFE Biodiv CrEW project.

First, the assessment focuses on credit scheme design and stated requirements, rather than on the realised performance of individual projects. While project pipelines, early pilots, and reported transactions were considered where available, the analysis does not constitute an evaluation of on-the-ground biodiversity outcomes. Actual ecological performance, implementation quality, and delivery risks will ultimately depend on project-specific design choices, site conditions, governance arrangements, and long-term management capacity, which cannot be fully assessed at the scheme level.

Second, the analysis is constrained by heterogeneous levels of documentation and disclosure across schemes. Although the assessment framework rewards transparency and completeness, some schemes, particularly methodologies or schemes in pilot or early operational phases, provide limited publicly available information on governance processes, durability mechanisms, cost structures, or operational workflows. In such cases, the assessment reflects the best information available at the time of analysis but may underrepresent elements that are undocumented rather than absent.

Third, scheme scoring and comparison necessarily involve a degree of judgement and abstraction. While the assessment framework is grounded in widely recognised best practice sources and applied consistently across all pre-selected schemes, qualitative interpretation was required in areas where criteria could not be reduced to binary or numeric values. As a result, overall scores should be interpreted as indicative rather than definitive rankings, and as a decision-support tool rather than a prescriptive endorsement.

Fourth, the scope of practical testing is inherently shaped by the time-bound and preparatory nature of the LIFE Biodiv CrEW project. As a LIFE Preparatory Project (PLP), the project is designed to explore feasibility, generate evidence, and inform future action, rather than to deliver large-scale or long-term implementation. Compared to technical or strategic LIFE projects, which typically operate over longer time horizons and focus on full deployment, the PLP format necessarily limits the number of biodiversity credit schemes that can be tested in practice. The selection of two schemes therefore reflects a deliberate prioritisation of learning potential and feasibility within the project mandate, rather than an assertion that these schemes are definitively the “best” for all European wetland contexts.

Fifth, the assessment places comparatively greater emphasis on the quantification of biodiversity outcomes, scientific robustness, and methodological rigor than on certain equity and governance dimensions included in the High-Level Principles and the broader scheme assessment framework. This reflects both the specific objectives of the LIFE Biodiv CrEW project and the European implementation context, where land tenure structures, regulatory frameworks, and stakeholder dynamics differ from those in other regions. In particular, some governance and rights-holder considerations that are critical in global biodiversity credit markets, such as Indigenous Peoples’ rights and customary land tenure, are generally addressed through existing legal and institutional mechanisms within the EU. As a result, while equity, participation, and governance remain important considerations, this report prioritises aspects most directly linked to measurable biodiversity outcomes, scientific credibility, and the practical applicability of credit schemes in European wetlands.

Finally, the assessment is bounded by the temporal scope of the analysis period. Biodiversity credit schemes, methodologies, and governance arrangements continue to evolve rapidly, and updates introduced after the assessment cut-off date may not be reflected. Similarly, several schemes published after the initial mapping phase were identified but could not be assessed in depth within the project timeline.

Looking ahead, the next phase of the LIFE Biodiv CrEW project provides an opportunity to move from scheme-level analysis to targeted empirical testing. Piloting a limited number of carefully selected schemes in real European wetland contexts allows for focused learning on feasibility, costs, timelines, indicator suitability, monitoring burden, and buyer response under realistic conditions. While this approach necessarily limits breadth, it enables depth of insight within the available time and budget.

Beyond the project’s duration, broader conclusions on which biodiversity credit schemes perform best in practice for European wetlands will require longer-term observation, additional pilots, and cumulative evidence across multiple sites, ecosystems, and market conditions. Future initiatives building on LIFE Biodiv CrEW can therefore expand the scope of testing, incorporate project-level outcome data and transactions, and iteratively refine scheme assessment as both markets and policy frameworks mature.

# Appendix A: Terms and Definitions

## **Avoided loss (biodiversity credit project activity type)**

The prevention of decline in biodiversity resulting from project interventions such as preservation or land designation indicated by the prevention of changed structure, composition and function of the target ecosystem or species populations, or prevention of increase in threat measures. Avoided loss projects will typically have demonstrable, imminent threats to biodiversity.

## **Biodiversity credit**

A certificate that represents a measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have otherwise occurred.

## **Biodiversity Credit Alliance (BCA)**

A voluntary international alliance that brings together diverse stakeholders to support the realisation of the Kunming-Montreal Global Biodiversity Framework, in particular Targets 19(c) and (d), which “encourage the private sector to invest in biodiversity” utilising, amongst others “biodiversity credits ... with social safeguards.” Its mission is twofold: 1. Help steer the development of a voluntary biodiversity credit market by building a framework of high-level, science-based principles. 2. Provide guidance and encourage best practice for market participants on the application of these principles, empowering them to achieve and maintain equitable, high quality transactions that meet strict integrity criteria.

## **Biodiversity credit methodology**

A set of lowest-level rules on how to develop biodiversity credit projects and calculate biodiversity credits. Usually, the core topics covered by a methodology are biodiversity unit quantification and monitoring. Permanence, additionality, baselines and other fundamental topics are also covered but at less length compared to credit standards. Usually, methodology developers are organisations that also develop the credit projects themselves.

## **Biodiversity credit scheme**

An umbrella term for all different biodiversity credit systems, such as standard, methodology, framework, protocol, program, approach and more.

## **Biodiversity credit standard**

A holistic set of rules on how to develop biodiversity credit projects. It is usually comprehensive and includes topics such as a formal governance framework, standardised credit issuance and retirement infrastructure, credit validation and verification, crediting periods, stakeholder engagement, claims and procedural guidance. Standards are usually managed by an environmental credit standard-setter that does not directly participate in project development. Similar to the voluntary carbon market, a single standard can have multiple methodologies focused on different activities and ecosystems.

## **Credit nesting**

Hierarchical nesting of environmental claims from higher-order to lower-order. The highest-order claim focuses on ecosystem integrity and targets holistic ecosystem recovery. It is followed by the community/habitat claim focused on enhancements within specific communities or habitats. It contributes to biodiversity without necessarily impacting full ecosystem resilience. Finally, the lowest-order claim is species-specific and targets specific biodiversity gains in target species without necessarily focusing on the ecosystem-level impact.

## **Ecosystem condition**

The quality of an ecosystem measured in terms of its abiotic and biotic characteristics.

**International Advisory Panel on Biodiversity Credits (IAPB)**

An independent global initiative established by France and the UK in June 2023 to facilitate the creation and growth of high-integrity biodiversity credit markets and encourage enabling policy and regulatory mechanisms, in ways that are credible, timely, and coherent on an international level.

**Maintenance (biodiversity credit project activity type)**

The maintenance of intact biodiversity through project interventions such as implementation of conservation management plans, effective recognition and protection of Indigenous rights and customary uses aligned with conservation objectives, conservation designations and sustainable financing of conservation, indicated by the prevention of changed structure, composition and function of the target ecosystem or species populations, or prevention of increase in threat. In maintenance projects, biodiversity will be threatened by medium- or long-term threats

**Outcome-based (methodology type)**

An approach used by the scheme to determine credit issuance eligibility and quantify biodiversity outcomes where credits are issued based on verified outcomes.

**Practice-based (methodology type)**

An approach used by the scheme to determine credit issuance eligibility and quantify biodiversity outcomes where credits are issued based on verified practices.

**Project developer**

The entity responsible for designing, implementing and managing a project that generates biodiversity outcomes intended to be recognised and issued as biodiversity credits

**Uplift (biodiversity credit project activity type)**

The improvement in biodiversity from project interventions such as ecological restoration indicated by the changed structure, composition, and function of the target ecosystem or species populations, or reduction in threat measures.

**Voluntary biodiversity market (VBM)**

A set of emerging market mechanisms in which organisations or individuals voluntarily fund actions that protect, restore or enhance biodiversity, typically through the purchase of biodiversity-related units or credits

# Appendix B: Filtered List of Biodiversity Credit Schemes

Scheme	Description
<b>Accounting for Nature   NaturePlus®</b>	NaturePlus® is an Australian outcome-based scheme launched in 2023, initially developed by the largest project developer in the country, GreenCollar, and transitioned in 2023 into direct oversight by Accounting for Nature (AfN), the most globally prestigious MRV standard administrator. It is formally integrated with the AfN certification framework and can be applied globally across terrestrial and marine ecosystems. Projects generate NaturePlus Credits (NCs). One NC corresponds to one hectare of verified uplift or maintenance in ecological condition over a defined monitoring period, with separate calculation pathways for restoration and conservation. Crediting relies on AfN-accredited methods to quantify change against benchmarks, using metrics and indicators appropriate to the environmental asset.
<b>Aboriginal Carbon Foundation</b>	<p>The Cultural Fire Credit scheme is an Australian partnership launched in 2023 between the Aboriginal Carbon Foundation and the Firesticks Alliance, designed to finance Indigenous community-led cultural burning to reduce wildfire risk and support ecosystem regeneration. Funding is structured to flow directly and independently to communities, and the scheme is explicitly not controlled by government or conservation organizations. Credits, issued ex-ante, represent a forward buy that enables cultural burns to be implemented.</p> <p>Crediting is anchored in the Core-Benefits Verification Framework (CBVF), which evaluates “core benefits” across environmental, economic, social, and cultural outcomes. Quality assurance relies on external verification by trained Aboriginal experts, using an Indigenous-to-Indigenous verification model and prioritising protection of Indigenous cultural and intellectual property alongside intergenerational knowledge transfer. The program is designed to operate at scale as a nationwide investment pathway applicable across different land tenures, geographies, and vegetation communities.</p>
<b>BioCarbon Standard   Biodiversity Standard</b>	BioCarbon Standard   Biodiversity Standard is a Colombian outcome-based scheme launched in 2023. It is designed for global application in terrestrial ecosystems and certifies conservation initiatives delivering avoided loss, uplift, and sustainable use. The standard issues Verified Biodiversity Credits (VBCs) ex-post as tradable units representing measured net biodiversity gains. Quantification combines species diversity metrics, conservation-importance weighting, and landscape-structure indicators into a single credit equation. Credits are issued and tracked on GlobalCarbonTrace (blockchain-based).
<b>BIOTA NEXUS</b>	BIOTA NEXUS is an American scheme and marketplace launched in 2024, piloted with the Costa Rica based NGO FUNDECOR to finance terrestrial avoided-loss conservation. The scheme defines each eligible site as a “BIOTA Unit” (farm or landscape), a mapped geographic area expected to maintain biodiversity and associated ecosystem services like habitat integrity, water purification, pollination, and soil formation. The methodology combines technical site characterization with high-resolution land-cover mapping to quantify and verify outcomes. BIOTA Units are recorded as digital assets (NFTs) on a public-permissioned blockchain (LACChain). The scheme is designed to scale across Central America and the Caribbean.
<b>Bluebell Index</b>	<p>Bluebell Index is a Brazilian project developer and methodology provider that issues outcome-based, terrestrial Nature Tokens. Its framework quantifies four environmental dimensions (soil, water, biodiversity, and carbon) each as a separate score, then aggregates them into a single composite asset that can be bundled and traded. Credits are recorded on a blockchain-based registry on Polygon where tradability and use for offsetting are allowed.</p> <p>The biodiversity score expresses the effects of human interventions as the combination of three factors: species density/species richness under land-use and cover threats weighted across land-use change categories, threatened-species assessment incorporating landscape connectivity, and agrobiodiversity indicators. The methodology is applied across multiple land-use/cover types and scenarios to reflect changes in habitat condition and connectivity over time.</p>
<b>BMV Global</b>	BMV Global is a Brazilian outcome-based scheme and project developer focused on avoided-loss through the conservation of native rainforests, targeting large properties (15,000 ha and above). The scheme issues the Sustainability Credit Unit (UCS), defined as 13 mIU of preserved native area, intended to represent the full bundle of ecosystem benefits generated by keeping the forest standing (including biodiversity conservation, maintenance of hydrological flows, stored wood, and carbon storage). Credits are issued ex-post, recorded on a blockchain-based registry (Jelurida Nxt), tradable, and can be used for offsetting. The UCS has been selected by the UN (Civitech Initiative, 2021) as an innovative solution for climate change.
<b>Botanic Gardens Conservation International</b>	<p>BGCI is an independent UK charity established in 1987, running since 2024 an outcome-based biodiversity credit methodology focused on reducing global extinction risk for threatened tree species. The scheme is implemented through BGCI’s network of 650+ member institutions and 60,000 experts operating in 100+ countries, with projects delivered by independent local specialists from member organizations. It targets terrestrial interventions including species recovery and restoration activities linked to afforestation/deforestation contexts and can also be used to quantify organizational biodiversity footprints.</p> <p>Credits are issued ex-post based on measured population gains for the targeted tree species and expressed in species-equivalent units that quantify the proportionate contribution to rebuilding a species’ population. The scheme allows tradability, offsetting, and credit stacking. It also publicly supports Indigenous rights.</p>
<b>Cassowary Credits Scheme</b>	<p>Cassowary Credits is an outcome-based standard for Australia’s Wet Tropics Bioregion, designed by Terrain NRM and administered by EcoMarkets Australia. It enables verified rainforest restoration and protection with an explicit focus on benefits for Rainforest Aboriginal peoples and local communities. The scheme is restricted to Wet Tropics rainforest and scrub vegetation and is being refined through a beta phase running from August 8, 2024 to June 30, 2026.</p> <p>Projects generate tradable, uniquely serialized Cassowary Credits ex-post, after monitoring and independent assurance. They cannot be used for compliance offsetting. Crediting is based on measured uplift (and maintenance where applicable) in rainforest vegetation condition relative to a counterfactual, with additionality required and conservative baseline assumptions. Credit stacking and bundling are allowed under strict no-double counting rules.</p>

Scheme	Description
<p><b>Cercarbono   Biodiversity Intelligence Methodology V1 (Biodiversity Intelligence)</b></p>	<p>Biodiversity Intelligence Methodology (BIM) V1 is an outcome-based scheme by Biodiversity Intelligence and currently under development for integration within the Cercarbono standard. BIM V1 is adaptable across ecosystems, and applicable to nature restoration, conservation, and sustainable productive land management projects.</p>
<p><b>Cercarbono   Methodology CBCP-01</b></p>	<p>CBCP-01 is a Colombian scheme launched in 2024 and developed by Cercarbono, an established carbon certification body with extensive experience. The programme entered the voluntary biodiversity market through the Savimbo Indicator Species Biodiversity Methodology (ISBM), an outcome-based methodology designed to certify the conservation of intact, high-value ecosystems. CBCP-01 focuses on uplift, avoided loss, maintenance and sustainable use activities in terrestrial ecosystems, issuing biodiversity credits ex-post based on verified conservation outcomes.</p> <p>The ISBM stands out for its indicator-species approach, where the verified presence of selected species serves as a proxy for ecosystem integrity and functional biodiversity. The methodology was co-developed with Indigenous Peoples and local communities and is explicitly designed to lower technical and financial barriers to participation. Credits are defined using an interoperable Area for Time with Integrity unit. The programme prioritizes direct benefit sharing, FPIC, and Indigenous-led land stewardship. As of January 2026, the scheme has facilitated around \$75k in credit sales.</p>
<p><b>Clean Tides</b></p>	<p>Clean Tides is an American outcome-based aquatic scheme launched in 2024 that issues Aquatic Bio-Credits to fund marine restoration. The credits are designed to quantify verified uplift, including biodiversity improvements alongside nutrient reduction and carbon sequestration. Clean Tides develops project-specific protocols with project developers. All project areas are geo-referenced and uploaded to the Millpont Atlas system, which runs conflict checks, assigns unique IDs, and enables Environmental Attribute Claims (EACs) issuance, allocation to beneficiaries, and claim/retirement or distribution to track environmental attribute claims and prevent overlaps. Buyers receive project-specific monitoring reports and a maintenance trust fund is used to ensure long-term monitoring, maintenance, and corrective actions, with fund use disclosed in reporting.</p>
<p><b>CreditNature   NARIA Framework</b></p>	<p>CreditNature is a UK-based nature tech company that created the NARIA Framework in 2023 as an outcome-based scheme designed to baseline and monitor ecosystem integrity and rewilding outcomes. The NARIA Framework is the first nature credit methodology accredited by Accounting for Nature (AfN) as an Accredited Method, with accreditation granted in April 2024. It is also one of the few true ecosystem level-first schemes. It is currently applicable to terrestrial ecosystems in temperate ecoregions of Western and Eastern Europe.</p> <p>CreditNature does not develop projects itself, rather it operates a digital platform to facilitate and manage project onboarding, certification, verification, and brokering of resulting assets. Credits are issued ex-post, and can be issued under relevant standards and their registries, such as Accounting for Nature's NXT Registry. Each nature credit represents a 0.1-point increase in ECI (Ecosystem Condition Index) in 1 hectare, over 1-5 years.</p>
<p><b>EarthAcre</b></p>	<p>EarthAcre is an American outcome-based scheme launched in 2024 that issues area-based Nature Assets for terrestrial conservation and restoration. Its initial focus is on Kenyan grasslands, targeting avoided loss and uplift through community-led stewardship. EarthAcre positions itself as a project enablement platform: it structures beneficiary onboarding, benefit sharing, and end-to-end traceability, and it emphasizes indigenous rights thanks to Indigenous co-founders and collaboration with the Maasai.</p> <p>Crediting is framed around two units, EarthAcre Sustain and EarthAcre Restore, where each unit corresponds to one acre conserved or restored over a ten-year commitment. Biodiversity outcomes are quantified using BCAP (Biodiversity Capacity), a measurement approach developed in partnership with Harvard's Davies Lab that links ecosystem vegetation structure to the life it can support. BCAP combines remote sensing with on-the-ground measurements and benchmarks sites against reference and control sites over time. EarthAcre indicates availability with Verra's SD Vista.</p>
<p><b>Earthly</b></p>	<p>Earthly is a UK-based scheme and marketplace launched in 2024 as England's first voluntary biodiversity product aligned with the UK Biodiversity Net Gain (BNG). It targets local businesses and councils that want to finance local habitat protection and restoration even when they are not required to purchase statutory BNG Units. The scheme focuses on terrestrial habitats and issues small, site-linked units (9m2 fractionalized BNG units) quantified using the BNG drivers of habitat distinctiveness, habitat condition, and habitat strategic significance, with outcomes secured for 30 years.</p> <p>Credits are issued ex-post and recorded on the Earthly Biodiversity Registry. Earthly positions these units as contribution credits (not tradable and not valid for offsetting or compliance BNG), intended to complement the mitigation hierarchy. As of January 2026, the scheme has facilitated around \$100k in sales through the Iford and Timsbury projects in England, at a \$250 unit price.</p>
<p><b>Ekos   BioCredita Programme</b></p>	<p>BioCredita Programme is a scheme launched in 2022 by New Zealand organization Ekos. It is designed for terrestrial and marine conservation projects globally. It supports avoided loss, maintenance, and uplift activities with a strong operational focus on invasive pest/predator and weed control. The final version of the standard was released in September 2025, and public market activity to date includes more than \$31k in recorded sales.</p> <p>Credits are issued ex-post as Sustainable Development Units (SDUs) under validated methodologies, using either Verified Cause (audited annual deliverables linked to a validated theory of change) or Verified Effect (measured net beneficial change against a justified baseline). 1 SDU corresponds to 0.01 ha per year of habitat managed. SDUs are tradable and can be bundled/stacked, but are not offsets. The programme includes explicit Indigenous and local community protections (including FPIC, customary land and water rights safeguarding, and data sovereignty).</p>
<p><b>Fundación Global Nature</b></p>	<p>Fundación Global Nature (FGN) is a Spanish scheme for agrarian ecosystems designed to produce estimates of biodiversity gains or losses attributable to specific land-management interventions. It has no geographic restrictions as long as the intervention site is within an agrarian ecosystem, and it is structured for two use cases: short-term projects (1 to 5 years) to quickly quantify the biodiversity effect of targeted interventions, and long-term projects (20+ years) to consolidate and potentially monetize biodiversity gains linked to sustained land-management practices.</p> <p>Crediting is based on FGN's Biodiversity Matrix, which measures change using a pre-selected set of biodiversity metrics and aggregates them into a single outcome expressed as Biodiversity Units (BU). Results are reported as BU per hectare per year with 1 unit equaling a 1% increase or decrease in the aggregated metric set, starting from year 1. The protocol specifies what to measure, when to measure, how to measure, appropriate measurement scale, and how to aggregate data so that credited outcomes reflect changes driven by land use, management, and site landscape context, rather than unrelated variability.</p>
<p><b>Global Biocredit Standard</b></p>	<p>The Global Biocredit Standard (GBS) is a Swedish scheme launched in 2024 by the Swedish Biocredit Alliance (SBA) for biodiversity outcomes in managed production landscapes (forests, agricultural lands, and productive wetlands), with potential expansion to marine and aquatic contexts. It supports uplift, avoided loss, maintenance, and sustainable use interventions, targeting quantified biodiversity gains versus a static baseline scenario. Projects must commit to a minimum 20-year duration. Credits are issued ex-post as Biocredits, defined as durable, verifiable, evidence-based units of positive biodiversity outcomes quantified through approved indicators and a project theory of change. A central SBA registry is under development. Tradability is allowed, while offsetting is not, and bundling/stacking is not explicitly defined.</p>

Scheme	Description
<p><b>Gold Standard   Biodiversity Framework</b></p>	<p>Gold Standard, a leading standard provider established in 2003, is developing the Gold Standard Biodiversity Impact Framework, an outcome-based methodology intended to guide the design, management, implementation, and monitoring of actions that deliver measurable biodiversity and ecosystem impacts at global scale. The framework is designed to accommodate a wide set of intervention types including avoided loss, uplift, and sustainable use by requiring each initiative to identify its context-specific drivers of biodiversity loss.</p> <p>The framework is structured around two claim types: general claims, which test whether an activity generated statistically significant positive biodiversity outcomes versus a baseline and control site and are intended for one-time impact attribution rather than trading, and specific claims, which quantify performance against defined metrics and may be used for attribution and, potentially, as tradable units (not for offsetting). Gold Standard emphasizes meaningful engagement with Indigenous Peoples, FPIC, culturally appropriate grievance mechanisms, and alignment with Kunming-Montreal GBF financing objectives.</p>
<p><b>HIFOR</b></p>	<p>HIFOR (High Integrity Forest Investment Initiative) is an American outcome-based scheme launched in 2024 and developed by the Wildlife Conservation Society (WCS) to fund long-term conservation of large, intact, high-integrity tropical forests. The initiative is global in intent and is being piloted in the Republic of Congo and Brazil, with two active sites covering nearly 4 million hectares.</p> <p>HIFOR issues HIFOR Units ex-post, with 1 unit corresponding to 1 measured and verified hectare of high-integrity tropical forest maintained over a 10-year monitoring period, with integrity assessed using the Forest Landscape Integrity Index (FLII) and evidence from remote sensing and field assessments. The approach uses threat and opportunity analysis to design interventions and demonstrate maintained integrity. Units are not eligible for carbon or biodiversity offsetting and are intended for non-compensatory contribution claims. Tradability is allowed and units may be stacked alongside carbon credits provided claims avoid double counting.</p>
<p><b>Hula Earth x Planted</b></p>	<p>Hula Earth x Planted is a German, outcome-based scheme developed in 2024 as a collaboration between Hula Earth (MRV provider and credit issuer) and Planted (project developer and nature accounting company). The scheme targets terrestrial avoided-loss activities and is positioned as a biodiversity credit product that companies can use to support CSRD-aligned biodiversity reporting and financing. The partners reported selling 20,000 credits linked to a 10-hectare project to German buyers. Crediting is built from a composite of field and remote indicators, including bird observations (as a keystone proxy), species abundance, spatial and spectral diversity, ecosystem vigor/productivity, habitat connectivity, and ecosystem services.</p>
<p><b>International Carbon Registry</b></p>	<p>The International Carbon Registry (ICR) Biodiversity Credit Program is an Icelandic scheme under development, currently open to pilot-phase submissions and intending to onboard 10 pilot projects following its 2024 public consultation. The program is global in scope and accepts area-based conservation and restoration projects across terrestrial and marine ecosystems (also covering freshwater, wetlands, and urban contexts), with an initial focus on priority areas and species of conservation concern. Crediting is outcome-based and ex-post, and offsetting is not allowed. Credits are issued as Biodiversity Net Gain Credits (BiNGC), adopting Savimbo's Interoperable Biodiversity Unit logic: <math>\text{Area} \times \text{Time} \times \text{Integrity}</math>, with 1 BiNGC = 1 hectare conserved for 1 month at full ecosystem integrity.</p>
<p><b>InvestConservation®</b></p>	<p>InvestConservation® is a scheme and developer launched in 2022 to fund tropical forest conservation in biodiversity hotspots by linking each protected hectare to tokenized biodiversity and carbon rights. The methodology targets ecosystems at the deforestation frontier on private or community-owned land (excluding government parks). More than \$6k in sales have already been recorded.</p> <p>Crediting is issued on an ex-post, annual basis using a digital MRV stack that combines satellite-based integrity checks with in-field monitoring and AI-assisted species identification. 1 InvestConservation (IC) Token corresponds to 1 mapped hectare secured for 50 years, with tokens issued progressively over the period. Each hectare is serialized as a unique digital asset on a blockchain-based registry (Solana), with tradability enabled.</p>
<p><b>LIFE Institute</b></p>	<p>LIFE Institute (Instituto LIFE) is a Brazilian non-profit that develops and manages the LIFE Certification system for biodiversity performance and sustainable land management. Built on the LIFE Methodology, the scheme certifies organizations and land managers that demonstrate net positive biodiversity outcomes and issues tradable LIFE Biodiversity Credits (LBCs). The scheme is operational in Brazil, the EU, and Paraguay, with expansion underway into Colombia and Mexico and discussions for adoption in Peru. A confirmed sale of \$15k worth of credits to a Brazilian hospital has been recorded.</p> <p>Crediting is based on an organization or landholder's documented surplus of biodiversity benefits relative to its biodiversity pressures, independently audited by accredited third-party certifiers under LIFE's accreditation protocol. Pressure is quantified through the Biodiversity Pressure Index (BPI), and producers must exceed a Biodiversity Minimum Performance (BMP) threshold to be credited. LBCs are issued ex-post and are eligible for trading and offsetting/compensation claims.</p>
<p><b>Nat5</b></p>	<p>Nat5 is a French scheme and developer launched in 2024, issuing outcome-based Verified Biodiversity-Based Credits (VBBCs) for terrestrial avoided loss and restoration. The program is operational and global in scope, with 26 projects spanning more than 60k ha in Europe, Africa, North America and South America. Projects are certified through the ASES On-Chain Protocol (aOCP), which embeds Nat5's methodologies and uses blockchain traceability to track issuance, transfer, and retirement.</p> <p>VBBCs represent quantified conservation or recovery outcomes, spatially defined at 100 m<sup>2</sup> and issued ex-post. Credits are tradable and can be retired for claims, are not explicitly framed as offsets, and can be bundled/stacked with carbon, soil, or water credits. Public market activity to date includes more than \$43k in recorded sales.</p>
<p><b>Native</b></p>	<p>Native is a UK scheme and developer launched in 2024, focused on financing Indigenous Peoples involved in conservation and restoration. It targets terrestrial and marine ecosystems. Each credit corresponds to one Native Square of 3 m<sup>2</sup> protected for 40 years and is tracked via a proprietary, blockchain-based registry. The platform assigns each Square carbon stats and an ABC scoring structure, with biodiversity reflecting intactness, species count, endemic-species presence, and vulnerability-to-extinction considerations. Native promotes both environmental and community outcomes.</p>
<p><b>Nature and People Foundation   Urban Biodiversity Standard</b></p>	<p>The Urban Biodiversity Standard (UBS) is a UK scheme developed by the Nature and People Foundation to enable cities, project developers, and other market actors to design, certify, and transact Urban Biodiversity Credits (UBCs). UBS targets biodiversity uplift in urban and peri-urban landscapes through selected tree and shrub species alongside social co-benefits. The standard is under development and in pilot testing, with initial pilots underway or planned in Rio de Janeiro and Formentera, and exploratory interest in Nairobi, London, Amsterdam, and Seville. Credits are outcome-based and issued ex-post. The credit unit is defined as a 1% improvement per year in the diversity, abundance, and resilience of tree and shrub species per 100m<sup>2</sup>.</p>

Scheme	Description
<p><b>Niue Ocean Wide Trust</b></p>	<p>Niue Ocean Wide Trust (NOW) is a public-private partnership between the Government of Niue and the local NGO Tofia Niue to fund long-term protection and sustainable management of Niue's marine area. The initiative is committed to safeguarding 100% of Niue's Exclusive Economic Zone (EEZ) and operates through the island's Ocean Wide Marine Spatial Management Plan, including the Niue Moana Mahu marine reserve (40% of ocean space) and the Niue Nukutuluea Multi-use Marine Park (covering the full ocean space).</p> <p>Funding is mobilized through the Ocean Conservation Commitment (OCC), a practice-based unit framed as sponsorship. One OCC represents conservation costs for 1 km<sup>2</sup> of Niue's waters over a 20-year period, intended to cover monitoring, compliance and enforcement, marine spatial planning, research, and community engagement. OCCs are not issued via a registry, are not tradable, and are not eligible for offsetting/compensation claims. OCCs are typically priced at a unitary \$145 price, with 127,000 OCCs to be offered to match the protected area and a fully subscribed funding goal of \$19m. More than \$2.5m in OCCs sales have officially been confirmed as of January 2026, making NOW by far the top credit seller on the market.</p>
<p><b>Open Earth Foundation   Ocean Program</b></p>	<p>The Ocean Program is a scheme developed by US-based non-profit Open Earth Foundation. It is an open-source dMRV framework designed to scale conservation finance for marine protected areas (MPAs) and associated seascapes. It proposes a modular Marine Ecosystem Credit architecture spanning marine biodiversity, eutrophication, marine plastics, and blue carbon, with an initial focus on preservation-based Marine Biodiversity Credits (MBCs) intended to help establish and fund MPAs. The framework is global in intent and is being piloted in Costa Rica (Cocos Island National Park) in partnership with FAICO, with core activities focused on outcome-based conservation finance design, improved MPA management effectiveness, and digital tools to detect and automate reporting of illegal activities.</p> <p>One MBC corresponds to 1 km<sup>2</sup> of protected ocean over 1 year, adjusted using an area health score and an uncertainty factor. Monitoring and assurance rely on open-source, auditable digital MRV pipelines leveraging AI, big data, and IoT, with exploration of distributed ledger approaches for transparent issuance and traceability.</p>
<p><b>Organization for Biodiversity Certificates</b></p>	<p>Organization for Biodiversity Certificates (OBC) is a French-led, practice-based scheme in development, launched in 2025. It provides a quantification methodology to assess project-level biodiversity gains using an ecosystem Biodiversity Carrying Capacity approach, a certification process, and a framework for credit use and trading. OBC is co-founded by Le Printemps des Terres, Carbone 4, the French National Museum of Natural History, and aDryada, and is currently piloting across terrestrial contexts, with projects underway in France and additional pilots reported in Gabon, Côte d'Ivoire, Cameroon, Peru, and Denmark.</p> <p>OBC quantifies credits as biodiversity gain equaling additional Biodiversity Index (BI) weighted by project surface area, where BI ranges from 0 to 1 and is derived from ecosystem-specific drivers spanning management practices and ecological characteristics. Biodiversity gains are converted into units and are conceptually close to Mean Species Abundance (MSA), with the key difference that OBC's reference ecosystem is not necessarily an undisturbed state. The framework is designed to cover avoided loss, uplift, and sustainable use, with tradable credits issued ex-post.</p>
<p><b>Plan Vivo   PV Nature</b></p>	<p>PV Nature is a scheme developed by UK organization Plan Vivo and was launched in 2023 as a stand-alone framework for certifying high-integrity biodiversity outcomes from community-led conservation and restoration projects. The standard is global in scope and applicable across terrestrial and marine ecosystems. PV Nature is explicitly non-offsetting and outcome-based, issuing ex-post Plan Vivo Biodiversity Certificates (PVBCs) that represent either verified biodiversity uplift or conservation.</p> <p>Biodiversity outcomes are measured through five peer-reviewed pillar metrics (species richness, species diversity, taxonomic dissimilarity, habitat health, and habitat spatial structure) aggregated into a single multimetric that determines certificate issuance. Strong community participation and equitable benefit sharing are embedded as core design principles.</p>
<p><b>PlanetaryX</b></p>	<p>PlanetaryX is a Brazilian scheme and developer launched in 2023 and currently piloting in Presidente Figueiredo (Amazonas, Brazil). It focuses on terrestrial avoided-loss outcomes, with use cases spanning primary rainforest conservation and regenerative agriculture. It issues a proprietary unit called a Biodiversity Resilience Asset (BRA), framed as a verified package of biodiversity and resilience outcomes. BRA issuance is ex-post and follows measurement and verification of outcomes using a monitoring set of up to 27 biodiversity, community, and soil-health parameters, combining local data collection with satellite-based verification.</p>
<p><b>Qarlbo Biodiversity</b></p>	<p>Qarlbo Biodiversity is a Swedish scheme and developer launched in 2024, initially incubated at the Swedish University of Agricultural Sciences (SLU). The scheme targets terrestrial production forests, with early operations focused on the Global North and stated applicability to managed forests more broadly. It supports avoided loss, uplift, and sustainable-use activities tied to forest restoration and improved forest management. Credits are issued ex-post as biodiversity certificates, defined as verified biodiversity uplift on one hectare of forest land over one year beyond a business-as-usual baseline. The scheme indicates credits are not eligible for offsetting.</p> <p>Crediting is calculated from a biodiversity score and a strategic score. The biodiversity score aggregates multiple species and habitat indicators, while the strategic score applies a biodiversity relevance factor based on criteria such as connectivity and area size. Even though the amount has not been disclosed, Qarlbo made in 2025 the first voluntary biodiversity credit offtake agreement in the US with investor 6M Properties.</p>
<p><b>RESTORE</b></p>	<p>RESTORE is a UK nature restoration agency developing its own biodiversity credit methodology while managing a restoration portfolio of 31,000 ha across the country. The initiative is terrestrial and focused on uplift. RESTORE intends to act both as scheme and project developer, but the methodology is still under development and currently incomplete. The planned credit unit is a Biodiversity Token.</p>
<p><b>Seatrees</b></p>	<p>Seatrees is an American scheme and developer launched in 2024 to finance coastal ecosystem restoration. The protocol is currently operational for mangroves, coral reefs, and kelp forests. Credits and associated project data are issued, tracked, and retired on the Regen Network registry on the Solana blockchain, with public-facing project documentation and NFT receipts as proof of ownership.</p> <p>The scheme issues Seatrees Biodiversity Blocks as practice-based credits representing a unit of restoration work for 10 years. Credits are primarily issued ex-ante when the restoration contract is established, based on predicted biodiversity uplift, and are then backed by ex-post MRV on project progress. Quantification uses a basket-of-metrics approach aligned with a biodiversity uplift spectrum. Offsetting and tradability are not allowed, credit stacking is allowed only where claims avoid double counting. More than \$145k in sales have already been recorded from their Mareneni project in Kenya.</p>
<p><b>Single.Earth</b></p>	<p>Single.Earth is an Estonian outcome-based scheme launched in 2022. The scheme primarily targets terrestrial avoided-loss conservation by onboarding mature forest plots and issues tokens ex-post and periodically as long as the land remains intact. The scheme issues MERIT tokens, a tradable unit recorded on a blockchain-based registry (Solana) via Single.Earth's marketplace, explicitly positioned as a non-offsetting instrument. Each MERIT represents 100kg of CO<sub>2</sub> captured in biodiverse nature ecosystems, following the biodiversity and captured carbon fluctuations with new tokens minted or burned.</p>

Scheme	Description
<p><b>Social Carbon   Nature Stewardship Framework</b></p>	<p>Nature Stewardship Framework (NSF) is a scheme under development by UK organization Social Carbon to complement its long-standing carbon standard, which transitioned in 2022 into a full carbon framework focused on nature-based solutions. NSF is designed to move beyond co-benefits by issuing Nature Stewardship Credits (NSCs) that quantify measurable biodiversity and social outcomes alongside carbon project performance, structured around five Sustainable Livelihood resource domains (social, human, natural, biodiversity, and financial). NSF is global in scope and currently in public consultation (v1.0), open to piloting and stakeholder feedback. NSCs are intended to be ex-post and outcome-based, positioned for tradability while not allowing offsetting.</p>
<p><b>South Pole</b></p>	<p>South Pole, one of the largest carbon finance consultancies and project developers, is creating its Biodiversity Credits strategy as a terrestrial biodiversity crediting approach designed to channel mandatory and voluntary finance into conservation, restoration, and sustainable-use projects in prioritized ecosystems. It positions biodiversity credits as the final step of the mitigation hierarchy used to offset unavoidable residual impacts. Each credit is defined as one hectare of land preserved (and can also reflect hectares restored or managed for sustainable use).</p>
<p><b>Terrascope</b></p>	<p>Biodiversity credit standard focused on ecosystem integrity and, landscape approach and community-first inclusive conservation. It was modeled on Science Based Targets Network (SBTN). As of September 2025, the standard has been discontinued.</p>
<p><b>Terrasos</b></p>	<p>Terrasos is a Colombian scheme launched in 2022. It issues TeBUs (Terrasos Biodiversity Units) as an outcome-based unit representing 10 m<sup>2</sup> of ecosystem preserved and/or restored for 30 years. The protocol is ecosystem-based and designed to apply across terrestrial and marine ecosystems, while current implementation is primarily terrestrial in Colombia.</p> <p>Crediting is derived from net biodiversity gains calculated using a weighted formula that reflects ecosystem threat status, connectivity opportunities, project duration, and the preservation-restoration balance. Issuance is milestone-based (combining ex-ante with ex-post), released in tranches over time. TeBUs are recorded on public, blockchain-enabled registries like Biotrust and Regen Network. Public market activity to date includes nearly \$500k in recorded sales.</p>
<p><b>The Landbanking Group</b></p>	<p>The Landbanking Group, founded in 2022, is a German scheme and developer building market infrastructure for an investable Nature Equity asset class. It issues and manages the Verifiable Nature Unit (VNU) through its Landler platform. The organization is mostly active in Africa, having facilitated the sale of \$1.3m VNUs in total on the Majete project in Malawi with African Parks Network.</p> <p>The VNU represents 100ha of nature maintained or improved year-over-year, verified through standardized MRV. Ecological integrity is assessed annually using two primary indicators, habitat intactness and indicator species presence/abundance. VNUs are built to be scalable across land-use types (from smallholder restoration to large protected areas). Landler provides the system-of-record to integrate indicators and proprietary data, generate auditable reporting, and mint verifiable digital nature assets.</p>
<p><b>Toha Network</b></p>	<p>Toha Network is a New Zealand terrestrial scheme and developer launched in 2017 that finances biodiversity uplift and sustainable land stewardship through MAHI, a tradeable token used as an ex-ante funding instrument. Each MAHI represents a unit of funded work for nature and climate, priced at the local living wage, with proceeds directed to frontline actions such as wetland restoration, pest management, and native seed collection, while also funding the platform infrastructure needed to measure and verify outcomes. Toha reports \$600k in cumulative sales as of January 2026.</p> <p>Crediting is structured as a practice-based, data-first workflow where contributors implement actions using methodology templates, then submit verifiable action and outcome data to the network, with data sovereignty explicitly retained by the data owner and protected via the Toha Network Trust. Buyers purchase claims backed by this verifiable data using TOHA network tokens.</p>
<p><b>Umbrella Species Stewardship</b></p>	<p>Umbrella Species Stewardship is a Brazilian practice-based scheme developed by ERA Brazil and launched in 2024 to finance avoided loss and maintenance of terrestrial ecosystems. It focuses on selected umbrella species, starting with the jaguar. One credit represents approximately one hectare of umbrella-species habitat stewarded for one year, and the program has already reported more than \$43k in sales as of January 2026.</p> <p>Crediting is ex-post and relies on a composite scoring approach that sums improvements in Umbrella Species Health (USH), Habitat Quality (HQ), and the implementation quality of an Umbrella Species theory of change (USpToC). USH and HQ are assessed through mandatory ecological parameters, while each project defines its own USpToC and strategic actions, developed with stakeholder engagement. Credits are recorded on a blockchain-based registry (Regen Network). Credit stacking and bundling are allowed, while tradability and offsetting are not allowed.</p>
<p><b>Verra   SD VISTA Nature Framework</b></p>	<p>The SD VISTA Nature Framework is an outcome-based scheme launched in 2024 by American organization Verra, the largest registry in voluntary environmental markets worldwide. It is designed to certify measurable nature and biodiversity outcomes across terrestrial and marine projects and to issue Nature Credits as a specific type of SD VISTA Asset, under Verra's established rulebook, governance, and registry infrastructure.</p> <p>The framework supports avoided loss, uplift, maintenance, and sustainable use activities. Credits are issued ex-post, are tradable, and can be stacked, while offsetting is not allowed. Verra has completed its initial pilot phase and is onboarding a first cohort of projects for 2026.</p>
<p><b>Wallacea Trust</b></p>	<p>Wallacea Trust is one of the longest-standing and most widely referenced schemes currently in use. Developed in 2022 by the UK non-profit Wallacea Trust, the methodology is an outcome-based, open-source approach to quantifying biodiversity gains across terrestrial and marine ecosystems. It pioneered the now widely adopted basket of metrics model. Results are converted into biodiversity gain units and issued ex-post as Biodiversity Credits following independent academic verification. The methodology is actively deployed by project developer rePLANET, led by Wallacea Trust's founder Prof. Tim Coles, with 14 projects worldwide.</p>

Scheme	Description
<p><b>We are here Venice</b></p>	<p>We are here Venice (WahV) is an Italian nonprofit founded in 2015, developing a biodiversity credit pathway to help finance long-term restoration of the Venice Lagoon’s salt marshes, an ecosystem under pressure from erosion, shipping activity, and overtourism. The initiative is linked to the Vital project and the EU Horizon 2020 WaterLANDS program and is being positioned to attract high-integrity private capital for landscape-scale wetland recovery, including collaborations with local stakeholders and partners such as the Murano-based glass company Laguna B.</p> <p>The underpinning methodology is an Australian benchmarking biodiversity baseline approach developed by Prof. Judith Fisher (University of Western Australia) and adapted for Venice to establish a scientifically valid pre-restoration baseline and track ecological change over time. Monitoring is designed around repeated ecological surveys and GIS-enabled habitat assessment across infill sites and natural salt marshes. The approach is planned for accreditation under the Accounting for Nature® Standard to support credible, investment-grade biodiversity crediting.</p>
<p><b>Wilderlands</b></p>	<p>Wilderlands is an Australian scheme and developer launched in 2022. It finances terrestrial avoided-loss conservation by converting sites into Biological Diversity Units (BDUs), where 1 BDU = 1 m<sup>2</sup> of land that is permanently secured and actively managed, typically under a 20-year funded stewardship commitment. Current projects are in Australia with stated intent to expand internationally. One of the co-founders, Paul Dettmann, is also the founder of Cassinia Environmental, an Australian environmental project developer.</p> <p>Crediting is practice-based. BDUs are positioned for voluntary claims and not for compliance offsetting. More than \$1.7m in Wilderlands credits sales have officially been confirmed as of January 2026, making it the second top credits seller on the market behind Niue (NOW).</p>
<p><b>WWF Wildlife Credits</b></p>	<p>WWF Wildlife Credits is a results-based payment for ecosystem services (PES) scheme designed to create a direct financial incentive for Namibian communal conservancies to conserve wildlife and habitat. Through a national fund seeded by WWF and administered by the Community Conservation Fund of Namibia (CCF-N), participating conservancies receive payments when pre-defined conservation outcomes are independently verified. The scheme operates these credits with oversight that includes annual plans reviewed by Namibia’s environment ministry.</p>
<p><b>Yale University</b></p>	<p>Yale University is developing an outcome-based scheme for smallholder agroforestry, initially focused on cocoa and yerba mate farms. The initiative aims to launch three methodologies that let agroforestry projects quantify and finance biodiversity outcomes from sustainable-use management in terrestrial production landscapes. Credit quantification is expected to rely on a small set of outcome indicators, centered on tree species abundance and indicator bird species observations as proxies for habitat quality and functional biodiversity.</p>

# Appendix C: Scheme Data Collection Parameters

Parameter	Description	Code	Description	Category
<b>Description</b>	Short description of the scheme.	description	Short description of the scheme.	Profile
<b>Operational Phase</b>	Current operational phase of the credit scheme.	operational_phase	<p>Current operational phase of the credit scheme.</p> <p>Under Development: The scheme is not yet ready for applied projects.</p> <p>Pilot: The scheme is ready for applied projects and is opened for pilots.</p> <p>Active: The scheme has been tested in a pilot mode and is now ready to be applied at scale.</p>	Profile
<b>Headquarters Country</b>	Headquarters of the organisation behind the scheme.	hq_country	Country of the scheme's headquarters.	Profile
<b>Legal Entity Type</b>	Legal status of the organisation.	legal_entity_type	Legal status of the organisation.	Profile
<b>Launch Year</b>	Year of the scheme launch.	launch_year	The year when the credit scheme was or is planned to be launched.	Profile
<b>Credit Name</b>	Name of the credit.	credit_name	Name of the credit.	Profile
<b>Scheme Type</b>	Indicates whether the scheme represents a standard or a methodology.	scheme_type	<p>Indicates whether the scheme represents a standard or a methodology.</p> <p>Standard: A holistic set of rules on how to develop biodiversity credit projects. Usual topics: credit validation &amp; verification, crediting periods, stakeholder engagement, credit registration &amp; issuance, claims and some other general standard-specific rules. Usually managed by an environmental credit registry/certifier.</p> <p>Methodology A set of lowest-level rules on how to develop biodiversity credit projects &amp; calculate biodiversity credits. Usual topics: biodiversity unit quantification &amp; monitoring.</p>	Profile
<b>Market Type</b>	Indicates whether the scheme is voluntary or compliance.	market_type	<p>Indicates whether the scheme is voluntary or compliance.</p> <p>Voluntary: A non-mandatory market in which biodiversity credits are purchased voluntarily</p> <p>Mandatory: A regulated market in which biodiversity credits are required by law to compensate for permitted biodiversity impacts.</p>	Profile
<b>Roles</b>	Market roles under which the credit scheme operates.	roles	<p>Market roles under which the credit scheme operates.</p> <p>Credit Scheme: Organisation that creates biodiversity credit standards or methodologies.</p> <p>Project Developer: Organisation that develops and sells biodiversity credit projects.</p> <p>Marketplace &amp; Brokerage: Platform that facilitates the buying and selling of biodiversity credits.</p>	Profile

Parameter	Description	Code	Description	Category
<b>Operations Region</b>	Country(ies) or region(s) of operations.	operations_region	Country(ies) or region(s) of operations.	Profile
<b>Area Type</b>	Ecosystem realm for which a biodiversity credit scheme or methodology is designed to apply.	area_type	<p>Ecosystem realm for which a biodiversity credit scheme or methodology is designed to apply.</p> <p>Terrestrial: Projects or methodologies that operate in land-based ecosystems, usually including forests, grasslands, wetlands, savannas, and other non-marine habitats.</p> <p>Marine: Projects or methodologies that operate in ocean and coastal ecosystems, usually including coral reefs, mangroves, seagrasses, open ocean, and estuarine environments.</p>	Profile
<b>Defined Biodiversity Objectives and Activity Types</b>	Specificity of intended objectives and related activities of the project.	defined_objectives	<p>Specificity of intended objectives and related activities of the project.</p> <p>Yes, stated: The scheme explicitly mentions this parameter as mandatory.</p> <p>No: The scheme explicitly mentions this parameter as non-mandatory.</p> <p>Not stated: The scheme does not explicitly mention this parameter.</p>	Outcomes
<b>Activity Type</b>	Primary ecological intervention strategies that a scheme supports for generating credits.	activity_type	<p>Primary ecological intervention strategies that a scheme supports for generating credits.</p> <p>Uplift: The improvement in biodiversity from project interventions such as ecological restoration indicated by the changed structure, composition, and function of the target ecosystem or species populations, or reduction in threat measures. (Biodiversity Credit Alliance)"</p> <p>Avoided Loss: The prevention of decline in biodiversity resulting from project interventions such as preservation or land designation indicated by the prevention of changed structure, composition and function of the target ecosystem or species populations, or prevention of increase in threat measures. Avoided loss projects will typically have demonstrable, imminent threats to biodiversity. (Biodiversity Credit Alliance)"</p> <p>Maintenance: The maintenance of intact biodiversity through project interventions such as implementation of conservation management plans, effective recognition and protection of Indigenous rights and customary uses aligned with conservation objectives, conservation designations and sustainable financing of conservation, indicated by the prevention of changed structure, composition and function of the target ecosystem or species populations, or prevention of increase in threat. In maintenance projects, biodiversity will be threatened by medium- or long-term threats. (Biodiversity Credit Alliance)"</p>	Outcomes
<b>Credit Stacking</b>	<p>Measurement and separate packaging of overlapping ecosystem services produced on a given piece of land into a range of different credit types or units of trade. Usually, different units can be sold to different buyers.</p> <p>Credit "stacking" adds a biodiversity unit on top of that of a carbon unit, allowing for those units to be kept separate but offered as a combination of two outcomes from the same project.</p>	credit_stacking	<p>Measurement and separate packaging of overlapping ecosystem services produced on a given piece of land into a range of different credit types or units of trade. Usually, different units can be sold to different buyers.</p> <p>Credit "stacking" adds a biodiversity unit on top of that of a carbon unit, allowing for those units to be kept separate but offered as a combination of two outcomes from the same project</p> <p>Allowed: The scheme explicitly allows this parameter.</p> <p>Allowed with conditions: The scheme explicitly allows this parameter, with stated conditions to be met.</p> <p>Not allowed: The scheme explicitly disallows this parameter.</p> <p>Not stated: The scheme does not mention this parameter.</p>	Outcomes

Parameter	Description	Code	Description	Category
<b>Credit Bundling</b>	<p>Packaging of explicitly defined overlapping ecosystem services produced on a piece of land into a single unit of trade or credit and sold to the same buyer.</p> <p>Credit “bundling” combines carbon and biodiversity outcomes into the same credit.</p>	credit_bundling	<p>Packaging of explicitly defined overlapping ecosystem services produced on a piece of land into a single unit of trade or credit and sold to the same buyer.</p> <p>Credit “bundling” combines carbon and biodiversity outcomes into the same credit.</p> <p>Allowed: The scheme explicitly allows this parameter.</p> <p>Allowed with conditions: The scheme explicitly allows this parameter, with stated conditions to be met.</p> <p>Not allowed: The scheme explicitly disallows this parameter.</p> <p>Not stated: The scheme does not mention this parameter.</p>	Outcomes
<b>Demand Integrity and the Mitigation Hierarchy</b>	<p>Clear rules around claims and entry requirements to ensure credits are purchased and retired in alignment with the mitigation hierarchy and with nature positive outcomes.</p>	demand_integrity	<p>Clear rules around claims and entry requirements to ensure credits are purchased and retired in alignment with the mitigation hierarchy and with nature positive outcomes.</p> <p>Required: The scheme explicitly requires this parameter as mandatory.</p> <p>Not stated: The scheme does not explicitly require this parameter as mandatory.</p>	Outcomes
<b>Claims Policy</b>	<p>A list of credit buyer claims that the scheme supports.</p>	claims	<p>A list of credit buyer claims that the scheme supports.</p> <p>Contributions: Funding measurable environmental outcomes (e.g., biodiversity restoration) without claiming they directly compensate for the buyer’s own impacts.</p> <p>Offsetting: Purchasing credits to counterbalance an equivalent measured impact, aiming for a net-neutral or net-positive balance.</p> <p>Insetting: Implementing or funding projects that deliver environmental benefits within a company’s own value chain or sourcing areas.</p>	Outcomes
<b>Methodology Type</b>	<p>Approach used by the scheme to determine credit issuance eligibility and quantify biodiversity outcomes.</p>	methodology_type	<p>Approach used by the scheme to determine credit issuance eligibility and quantify biodiversity outcomes.</p> <p>Outcome-based: credits are issued based on verified outcomes.</p> <p>Practice-based: credits are issued based on verified practices.</p>	Outcomes
<b>Ex-ante &amp; Ex-post Credits</b>	<p>Timing of credit issuance.</p>	credit_issuance	<p>Timing of credit issuance.</p> <p>Ex-ante: Credits are issued before biodiversity outcomes or activities are fully realised, based on expected or projected future improvements.</p> <p>Ex-post: Credits are issued only after biodiversity outcomes or activities have been empirically demonstrated and verified.</p>	Outcomes
<b>Issuance Registry</b>	<p>The type of system used by a biodiversity credit scheme to issue, register, track, and retire credits.</p>	issuance_registry	<p>The type of system used by a biodiversity credit scheme to issue, register, track, and retire credits.</p> <p>Proprietary registry: Credits are issued and tracked within a registry owned or controlled by the scheme operator.</p> <p>Third-party registry: Credits are issued and tracked through an independent registry that is separate from the scheme operator.</p>	Outcomes
<b>Registry</b>	<p>Name of the system(s) used by a biodiversity credit scheme to issue, register, track, and retire credits.</p>	registry	<p>Database where crediting and credit management takes place.</p>	Outcomes

Parameter	Description	Code	Description	Category
<b>Registry Type</b>	The underlying technical system used by the registry to record, track, and manage biodiversity credits, including whether it relies on a conventional database or distributed ledger (blockchain) technology.	registry_type	<p>The underlying technical system used by the registry to record, track, and manage biodiversity credits, including whether it relies on a conventional database or distributed ledger (blockchain) technology.</p> <p>Traditional (centralised database): Credits are recorded and tracked using a conventional centralised database managed by the registry operator.</p> <p>Blockchain (distributed ledger): Credits are recorded and tracked using blockchain or distributed ledger technology.</p>	Outcomes
<b>Registry Accessibility</b>	The level of public access to information stored in a biodiversity credit registry, including project details, issued credits, transfers, and retirements.	registry_accessibility	<p>The level of public access to information stored in a biodiversity credit registry, including project details, issued credits, transfers, and retirements.</p> <p>Public: The registry is fully or largely open-access, allowing anyone to view key project documentation, credit issuance, and retirement data without special permissions.</p> <p>Private: The registry restricts access to its data, requiring membership, login credentials, or other authorization to view project and credit information.</p>	Outcomes
<b>Additionality</b>	Principle that a credited environmental outcome would not have happened without the specific project and its associated funding from credit sales.	additionality	<p>A requirement that credits can only be assigned to biodiversity outcomes that are attributable to the project intervention and would not have otherwise happened.</p> <p>Required: The scheme explicitly requires this parameter as mandatory.</p> <p>Not stated: The scheme does not explicitly require this parameter as mandatory.</p>	Outcomes
<b>Baselines</b>	Reference point against which the biodiversity outcomes of a project are measured to determine the number of credits that can be issued.	baselines	<p>Reference point against which the biodiversity outcomes of a project are measured to determine the number of credits that can be issued.</p> <p>Required: The scheme explicitly requires this parameter as mandatory.</p> <p>Not stated: The scheme does not explicitly require this parameter as mandatory.</p>	Outcomes
<b>Leakage</b>	Potential for the project to lead to the displacement of activities that harm biodiversity in the project area to areas outside the project.	leakage	<p>Potential for the project to lead to the displacement of activities that harm biodiversity in the project area to areas outside the project.</p> <p>Required: The scheme explicitly provides guidance for a leakage assessment and documentation.</p> <p>Not stated: The scheme does not explicitly provide guidance for a leakage assessment and documentation.</p>	Outcomes
<b>Permanence Reversal Buffer</b>	Reserve of credits set aside to compensate for any potential future losses in biodiversity.	permanence_reversal_buffer	<p>Reserve of credits set aside to compensate for any potential future losses in biodiversity.</p>	Outcomes
<b>Durability</b>	Expected durability of biodiversity outcomes generated by a project.	durability	<p>Expected durability of biodiversity outcomes generated by a project.</p> <p>Required: The scheme explicitly requires this parameter as mandatory.</p> <p>Not stated: The scheme does not explicitly require this parameter as mandatory.</p>	Outcomes

Parameter	Description	Code	Description	Category
<b>Durability Length</b>	Expected durability of biodiversity outcomes generated by a project, in years.	durability_length	Expected durability of biodiversity outcomes generated by a project, in years.	Outcomes
<b>Minimum Project Length</b>	Minimum length of credit projects supported by the scheme.	project_length_min	Minimum length of credit projects supported by the scheme.	Outcomes
<b>Maximum Project Length</b>	Maximum length of credit projects supported by the scheme.	project_length_max	Maximum length of credit projects supported by the scheme.	Outcomes
<b>Credit Length</b>	The length of biodiversity outcomes that a single credit represents.	credit_length	The length of biodiversity outcomes that a single credit represents.	Outcomes
<b>Credit Size</b>	Area size that each credit is linked to.	credit_size	Area size that each credit is linked to.	Outcomes
<b>Credit Unit</b>	Definition of a single credit unit.	credit_unit	Definition of a single credit unit.	Outcomes
<b>Uplift Measurement System</b>	System of assessing biodiversity uplift that defines whether credit units are absolute or relative.	uplift_measurement_system	<p>System of assessing biodiversity uplift that defines whether credit units are absolute or relative.</p> <p><b>Absolute:</b> A system of assessing biodiversity based on a point uplift compared to the reference. Example: a 2 percentage point uplift from a 10% baseline ecosystem condition (100% being the undisturbed state) is considered a 2% improvement (12%-10% = 2%).</p> <p><b>Relative:</b> A system of assessing biodiversity based on a % uplift compared to the initial baseline. Example: a 2% uplift from a 10% baseline ecosystem condition (100% being the undisturbed state) is considered a 20% improvement (2/10 = 20%).</p>	Outcomes
<b>Credit Calculation</b>	An in-depth explanation of how credits are calculated.	credit_calculation	An in-depth explanation of how credits are calculated.	Outcomes
<b>MRV Methods</b>	The techniques and tools used to measure, monitor, and verify biodiversity outcomes within a project.	mrsv_methods	The techniques and tools used to measure, monitor, and verify biodiversity outcomes within a project.	Outcomes
<b>Indicators</b>	A list of indicators measured to calculate credits. Can be either extensive or only include an example set for schemes that support an indefinite amount of indicators.	indicators	A list of indicators measured to calculate credits. Can be either extensive or only include an example set for schemes that support an indefinite amount of indicators.	Outcomes
<b>Indicator Flexibility</b>	Degree to which project developers can choose, adapt, or update the specific indicators used to measure, report, and verify ecological outcomes to suit local contexts and project goals.	indicator_flexibility	<p>Degree to which project developers can choose, adapt, or update the specific indicators used to measure, report, and verify ecological outcomes to suit local contexts and project goals.</p> <p><b>Flexible:</b> Biodiversity credit schemes define principles for the indicators but allow project developers to choose custom indicators and metrics.</p> <p><b>Fixed:</b> Biodiversity credit schemes use a pre-defined set of indicators and/or metrics for each project.</p>	Outcomes

Parameter	Description	Code	Description	Category
<b>Calculation Indicator Type</b>	Type of credit unit based on the indicators used for credit calculation.	calculation_indicator_type	<p>Type of credit unit based on the indicators used for credit calculation.</p> <p>Ecosystem condition: Credit calculation is based only on ecosystem condition indicators. Hence, it is technically directly proportional to ecosystem condition and can be expressed in physical terms (e.g. 1 biodiversity credit = 1 percentage point uplift in ecosystem condition over 1 hectare).</p> <p>Weighted ecosystem extent: Credit calculation is based on various different indicators, including ecosystem condition, species and other (non-biodiversity) characteristics.</p> <p>Species: Credit calculation is based only on species indicators.</p>	Outcomes
<b>Monitoring Frequency</b>	Scheme's policy towards how often biodiversity outcomes of the project are to be monitored. Monitoring frequency is usually correlated with verification and credit issuance frequency.	monitoring_frequency	Scheme's policy towards how often biodiversity outcomes of the project are to be monitored. Monitoring frequency is usually correlated with verification and credit issuance frequency.	Outcomes
<b>Third-party Audits</b>	Independent assessment, carried out by an accredited and impartial external body, to verify that the environmental and social outcomes claimed by the project are real, accurately measured, and compliant with the relevant standard or methodology.	third_party_audit	Independent assessment, carried out by an accredited and impartial external body, to verify that the environmental and social outcomes claimed by the project are real, accurately measured, and compliant with the relevant standard or methodology.	Outcomes
<b>Project Grouping</b>	Project design approach where multiple sites are aggregated into one project entity so they can be validated, verified, and credited together.	project_grouping	<p>Project design approach where multiple sites are aggregated into one project entity so they can be validated, verified, and credited together.</p> <p>Allowed: The scheme explicitly allows this parameter.</p> <p>Not allowed: The scheme explicitly disallows this parameter.</p> <p>Not stated: The scheme does not mention this parameter.</p>	Outcomes
<b>Legal and Customary Land and Water Rights</b>	Legal and/or customary rights to land and water held by biodiversity credit project proponents.	legal_rights	Legal and/or customary rights to land and water held by biodiversity credit project proponents.	Equity
<b>Respecting Human Rights and the Rights of Indigenous Peoples</b>	Recognition and upholding of human rights and the rights of Indigenous Peoples by biodiversity credit schemes.	human_rights	Recognition and upholding of human rights and the rights of Indigenous Peoples by biodiversity credit schemes.	Equity
<b>Free, Prior and Informed Consent</b>	Respect for and upholding of the principle of Free, Prior and Informed Consent (FPIC) in biodiversity credit schemes.	fpic	<p>Respect for and upholding of the principle of Free, Prior and Informed Consent (FPIC) in biodiversity credit schemes.</p> <p>Required: The scheme explicitly requires this parameter as mandatory.</p> <p>Not stated: The scheme does not explicitly require this parameter as mandatory.</p>	Equity

Parameter	Description	Code	Description	Category
<b>Indigenous Peoples' and Local Communities' Involvement in Governance</b>	Active involvement of Indigenous Peoples and local communities in biodiversity credit projects.	indigenous_governance	Active involvement of Indigenous Peoples and local communities in biodiversity credit projects.  Required: The scheme explicitly requires this parameter as mandatory.  Not stated: The scheme does not explicitly require this parameter as mandatory.	Equity
<b>No Harm</b>	Absence of harm to people or the environment from biodiversity credit projects.	no_harm	Absence of harm to people or the environment from biodiversity credit projects.  Required: The scheme explicitly requires this parameter as mandatory.  Not stated: The scheme does not explicitly require this parameter as mandatory.	Equity
<b>Benefit Sharing</b>	Fairness, equity, and transparency of benefit sharing mechanisms.	benefit_sharing	Fairness, equity, and transparency of benefit sharing mechanisms.  Required: The scheme explicitly requires this parameter as mandatory.  Not stated: The scheme does not explicitly require this parameter as mandatory.	Equity
<b>Grievance Mechanism</b>	Establishment and implementation of an effective grievance mechanism in biodiversity credit schemes.	grievance	Establishment and implementation of an effective grievance mechanism in biodiversity credit schemes.  Required: The scheme explicitly requires this parameter as mandatory.  Not stated: The scheme does not explicitly require this parameter as mandatory.	Equity
<b>Transparent Governance Structure</b>	Transparency and accountability in the structure of project governance.	transparency	Transparency and accountability in the structure of project governance.  Required: The scheme explicitly requires this parameter as mandatory.  Not stated: The scheme does not explicitly require this parameter as mandatory.	Governance
<b>Data Sovereignty</b>	The right of Indigenous Peoples and local communities to own, control, and govern all data related to their lands, waters, territories, knowledge systems, and ways of life.	data_sovereignty	The right of Indigenous Peoples and local communities to own, control, and govern all data related to their lands, waters, territories, knowledge systems, and ways of life.  Required: The scheme explicitly requires this parameter as mandatory.  Not stated: The scheme does not explicitly require this parameter as mandatory.	Governance
<b>Alignment with Frameworks</b>	The alignment of biodiversity credit schemes with evidence-based international, national, regional and local conservation and sustainable development frameworks and biodiversity action plans (e.g., National Biodiversity Strategies and Action Plans).	frameworks	The alignment of biodiversity credit schemes with evidence-based international, national, regional and local conservation and sustainable development frameworks and biodiversity action plans (e.g., National Biodiversity Strategies and Action Plans).	Governance

Parameter	Description	Code	Description	Category
<b>Tradability</b>	Scheme's permission policy on credits to be transferred or resold between parties in secondary markets after initial issuance.	tradability	<p>Scheme's permission policy on credits to be transferred or resold between parties in secondary markets after initial issuance.</p> <p>Allowed: Credits may be transferred or resold to third parties in secondary markets beyond the initial transaction, subject to the scheme's rules.</p> <p>Not allowed: Credits may not be transferred or resold in secondary markets and must be retired by the original buyer or upon first use.</p>	Governance
<b>Trading Royalties</b>	Credit sale price percentage that goes to credit originators (i.e. usually either project developers or on-the-ground nature stewards) on each trade.	trading_royalties	Credit sale price percentage that goes to credit originators (i.e. usually either project developers or on-the-ground nature stewards) on each trade.	Governance
<b>Market Traction</b>	Signals of market traction.	traction	Signals of market traction.	Market
<b>Projects</b>	A list and description of projects using the scheme.	projects	A list and description of projects using the scheme.	Market
<b>Total Sales</b>	Total credit sales under the scheme.	total_sales	Total credit sales under the scheme.	Market
<b>Buyers</b>	A list of buyers that purchased credits under the scheme.	buyers	A list of buyers that purchased credits under the scheme.	Market
<b>Costs</b>	Project implementation costs under the scheme.	costs	Project implementation costs under the scheme.	Market

# Appendix D: Expert Interviews

Name	Category	Organisation	Format
<b>Sophus zu Ermgassen</b>	Researcher	University of Oxford	Online interview
<b>Joshua Berger</b>	Consultant	Biolnt	Informal conversations over text
<b>Franziska Schrodt</b>	Researcher	University of Nottingham	Online interview
<b>Melissa Lindsay</b>	Technology provider	emsurge	Online interview
<b>Franziska Tanneberger</b>	Researcher	Greifswald Mire Centre	Online interview
<b>Richard Field</b>	Researcher	University of Nottingham	Online interview
<b>Ryan Sarsfield</b>	Consultant	Environmental Policy Innovation Center	Online interview
<b>Arthur Pivin</b>	Credit scheme developer, consultant	Carbone4	Online interview
<b>Guy Williams</b>	Consultant	ziranjiti	Online interview
<b>Drea Burbank</b>	Credit scheme developer, project developer	Savimbo	Informal conversations over text
<b>Fabian Schmidt-Pramov</b>	Technology provider	biometrico.earth	Informal conversations over text

# Appendix E: Scheme Assessment and Selection Criteria

High-level Principles and Additional Criteria			Sub-Principles and Sub-Criteria, Scheme-level	
Verified Positive Outcomes for Nature	HLP 1	Defined Biodiversity Objectives and Activity Types	A	Credit schemes have unambiguous guidance and controls to ensure that a project has a clearly defined specific objective and boundaries, with a credible Theory of Change with clearly documented and disclosed biodiversity indicators or metrics, as well as the rationale behind the indicator/metric selection, all developed in partnership with key identified rights holders and stakeholders.
			B	Activities are non-extractive and do not result in environmental harm. Clear distinction between uplift, avoided loss and maintenance credits exists.
			C	Biodiversity credit schemes must support Uplift projects.
			D	Biodiversity credit schemes should support Uplift and Avoided Loss activities in the same project.
	HLP 2	Demand Integrity and the Mitigation Hierarchy	A	Credit schemes have clearly defined and published rules around claims and entry requirements to ensure credits are purchased and retired in alignment with the mitigation hierarchy and with nature positive outcomes.
			B	Credit schemes require buyers to develop, maintain and publically disclose a robust nature strategy aligned with the Global Biodiversity Framework (GBF) and apply the principles of the mitigation hierarchy.
	HLP 3	Credit Issuance and Tracking	A	Biodiversity credits must be issued and tracked by third parties, independent from the project proponents. The publicly accessible registry should provide international access, unique serialisation, clear credit status categories, full project documentation, and whether the credit is traded singly, bundled or stacked. Registry rules should include know-your-customer checks and conflict of interest safeguards for account holders and operators.
			B	Credit schemes must publicly disclose the mechanism by which the measures of biodiversity are converted into a defined quantity of credits. Credit scheme should define a credit unit in physical, quantifiable terms, such as conservation outcome, area and time.
			C	Credit scheme should use a third party registry for credit issuance and management instead of operating their own proprietary registry. For additional credit management integrity, credit scheme should use a blockchain-enabled registry.
	HLP 4	Ex-ante & Ex-post Credits	A	Biodiversity credit schemes should ensure that they follow a conservative methodology ex-ante to be adjusted ex-post (e.g., buffer pools).
			B	Schemes should ensure that they provide clear guidance on the claims and communications that buyers can make, including differentiating between ex-ante credits, and the purchase of verified credits ex-post.
	HLP 5	Additionality	A	For "Uplift and Avoided Loss" biodiversity credit project: Additionality is fulfilled by improved biodiversity outcomes, including those relating to the conservation of a species, habitat or ecosystem under threat that would not have happened in the project's absence.
			B	For "Maintenance" biodiversity credit project: Additionality is fulfilled if long-term sustainable funding that ensures the long-term maintenance of conservation outcomes is provided to areas not under immediate threat, including recognizing the contribution of Indigenous Peoples and local communities to biodiversity protection.
			C	Biodiversity credit schemes must ensure against the deliberate degradation of biodiversity in order to make a later case for additionality. This should include a cut-off date for uplift credits, from which date degradation or conversion cannot have taken place.

High-level Principles and Additional Criteria		Sub-Principles and Sub-Criteria, Scheme-level		
Verified Positive Outcomes for Nature	HLP 6	Baselines	A	Baseline methodology for credit schemes should cover: a selection of representative control sites or counterfactuals, conservative ex-ante predictions of biodiversity gains, use of temporal data to inform the selection of an appropriate baseline, and incentives to collect a variety of relevant data, in both the project site and the control site(s) if applicable, to ensure changes in biodiversity can be verified through a number of sources.
			B	Baseline methodologies should be designed with flexibility to incorporate new ecological data, monitoring results, and scientific advances over time, while balancing practicality and cost. Baselines should not be treated as permanently fixed if materially better evidence becomes available, but should be reassessed at defined intervals or trigger points, using a combination of field data, remote sensing, and locally relevant indicators. Schemes should provide clear guidance on when such baseline re-assessments are required, so that updates are applied consistently and transparently across projects.
	HLP 7	Durability	A	Biodiversity credit schemes must achieve positive biodiversity outcomes that are durable and sustainable over the long-term to be considered credits. The timeframe of durability must be transparently disclosed.
			B	Credit schemes must require the project to have adequate financial and technical capacity to ensure durability.
			C	Schemes must provide evidence of reasonable confidence that the project activity can be legally maintained for the promised timeframe and that the project complies with local and national regulations.
			D	Where property rights or management responsibilities for a supply area change during the crediting or durability period, credit schemes must require that the obligations associated with supplying biodiversity credits continue to apply to the land or water area for the full committed timeframe. This continuity may be secured through legally enforceable instruments, such as conservation covenants, easements, or equivalent contractual or statutory mechanisms.
	HLP 8	Leakage	A	Credit scheme requires projects to assess and mitigate the potential for the project to lead to the displacement of activities that harm biodiversity in the project area to areas outside the project.
			B	Clear and transparent guidance must be published for project proponents to assess and document the displacement of activities in the project area to areas outside the project at least for primary leakage.
	HLP 9	Monitoring, Reporting and Verification	A	Biodiversity credit schemes must incorporate robust requirements for transparent monitoring, reporting and verification (MRV) of biodiversity, governance, and socio-economic outcomes. The MRV should include: (1) quantification of biodiversity outcomes underpinned by sound scientific methods, (2) direct biodiversity measurements, (3) indicators that reflect project-specific goals and threats and monitoring that allows for the inclusion of locally relevant, context specific metrics, (4) methodology for converting measured values of the indicators to a crediting unit that is documented and disclosed, and (5) the involvement of local or non-local rights-holders and, subject to their Free, Prior and Informed Consent (FPIC).
			B	Biodiversity credit schemes should clearly define whether uplift is measured in absolute or relative terms, ensuring transparency and consistency in how credit units are calculated.
C			Biodiversity credit schemes should require the disclosure of core project MRV information in a standardized, structured, and machine-readable format, and made publicly accessible by default, subject only to clearly justified confidentiality or sensitivity constraints. MRV disclosures should be sufficiently granular to enable independent scrutiny, learning, and comparison across projects, while avoiding fragmentation across documents or platforms that would impede verification. Schemes should also ensure that material MRV information is time-stamped, including the date of data collection and the date of public disclosure.	
HLP 10	Third-party Audits	A	Biodiversity credit schemes must require projects to be audited by a suitably qualified and independent third party, ideally accredited under recognised systems such as ISO 14065, to validate and verify environmental and social outcomes. These audits are required at periodic intervals, at the beginning of a project and at a minimum of 5-year intervals. The scheme should publish a list of approved VVBs, enforce sector-specific accreditation, require peer review and site visits, and conduct oversight checks to ensure quality and independence.	

High-level Principles and Additional Criteria			Sub-Principles and Sub-Criteria, Scheme-level	
Equity and Fairness for People	HLP 11	Legal and Customary Land and Water Rights	A	Credit schemes must require project proponents to have the legal and customary right to carry out a biodiversity credit project. Where Indigenous Peoples and local communities have customary or other land and water rights or territorial and resource access rights overlapping with the project boundaries, their consent must be obtained through FPIC, even if such claims are not honored by national governments.
			B	Credit schemes must require project proponents to undertake adequate due diligence, including understanding any historical and/or ongoing conflict regarding land and water rights, and that ownership structures and rights allocations are resolved in line with the principles of FPIC.
	HLP 12	Respecting Human Rights and the Rights of Indigenous Peoples	A	Biodiversity credit schemes must recognize and respect the territorial and resource rights of Indigenous Peoples, in line with international human rights law, instruments, and jurisprudence, particularly UN Declaration of Rights for Indigenous Peoples (UNDRIP).
			B	Biodiversity credit schemes must ensure respect for individual and collective human rights as defined by the UN Human Rights Council (UNHRC), and the UN Guiding Principles on Business and Human Rights.
	HLP 13	Free, Prior and Informed Consent	A	Biodiversity credit schemes must respect and uphold the differentiated rights of Indigenous Peoples and local communities to Free, Prior and Informed Consent at each stage of the project. All identified potential risks and benefits associated with projects should be accurate, clear, objective, and accessible to Indigenous Peoples and local communities, and should be documented as part of the FPIC process.
			B	Biodiversity credit schemes should have clear guidance, tools and compliance procedures to ensure that activities conform with or go beyond widely established industry best practices and safeguards around FPIC, and that these tools and guidance are made available to Indigenous Peoples and local communities in an appropriate format (e.g., local language).
	HLP 14	Indigenous Peoples' and Local Communities' Involvement in Governance	A	Credit schemes must ensure that Indigenous Peoples and local communities have meaningful input throughout the project cycle.
			B	If projects impact Indigenous Peoples and local communities due to the usage of land, territories, water, natural resources, or other impacts on the local environment and culture, the credit scheme must ensure that affected persons and communities are given the option to participate fully in project design, governance, execution and oversight to ensure that their rights and well-being are respected and upheld.
	HLP 15	No Harm	A	Credit schemes should ensure that credit projects cause no harm to Indigenous Peoples and local communities and should include: (1) safeguards to ensure against false, misleading and fraudulent claims, and against withholding relevant information, (2) processes that actively monitor for harm to Indigenous Peoples and local communities throughout the duration of the project, (3) maintain existing access to resources by Indigenous Peoples and local communities, or provide adequate compensation, and (4) should harm occur, biodiversity credit schemes should require an investigation into the cause of the harm and detail a plan to redress and compensate.
			B	Credit schemes should ensure that credit projects cause no harm to broader communities, nature and climate.
	HLP 16	Benefit Sharing	A	Benefit sharing mechanisms must be fair, equitable, and transparent, and must be co-designed and agreed on in collaborative partnership with local communities, landowners, farmers, water users, and other relevant affected stakeholders. As needed, appropriate capacity building and support should be provided to these groups prior to the co-design of the benefit sharing agreements.
	HLP 17	Grievance Mechanism	A	Biodiversity credit schemes must both establish themselves, and require project proponents to establish, transparent, confidential, and robust grievance mechanisms that are relevant to all stakeholders and rights-holders, including local communities, landowners, farmers, water users, residents, and other potentially affected groups such as women, youth, the elderly, LGBTQI persons, and persons with disabilities.
			B	Grievance mechanisms should be designed using best practice recommendations, e.g., those specified by the UN Guiding Principles on Business and Human Rights, UNDP Social and Environmental Standards' Grievance Redress Mechanisms or in the FSC Remedy Framework.

High-level Principles and Additional Criteria		Sub-Principles and Sub-Criteria, Scheme-level		
Good Governance for High-integrity Markets	HLP 18	Transparent Governance Structure	A	Credit schemes should ensure that the structure of the project governance must reflect the rights holders with legal and customary resource ownership within and in the vicinity of the boundaries of the project. The governance structure must also reflect the considerations related to gender and other vulnerable groups. Moreover, the effective participation of identified rights holders and stakeholders in the project governance must be ensured.
			B	Credit schemes should ensure that information on project governance and implementation must be publicly disclosed including: (1) the ownership and governance structure of biodiversity credit projects, (2) who will have ownership of and accountability for biodiversity credits generated by a project, including documented agreements on ownership and accountability between relevant rights holders built upon FPIC where relevant, (3) comprehensive and transparent information on data, project design and credit issuance, and (4) whether the project is taking place on, or directly adjacent to Indigenous lands and territories.
			C	Credit schemes should ensure that information on project governance and implementation should be accessible to all rights holders (e.g., available in local language and appropriate for target groups), in an electronic format with scrutiny welcomed.
			D	The scheme should have a transparent organizational structure, documented decision-making procedures, and quality control mechanisms aligned with international management and risk standards such as ISO 9001 and ISO 31000. The scheme must state their legal status (e.g. charity, limited company), governance and ownership.
	HLP 19	Data Sovereignty	A	Biodiversity credit schemes should ensure the data sovereignty of all Indigenous Peoples and local communities, to enable them to leverage benefits both within and beyond biodiversity credit schemes, whilst also recognizing that locally specific laws and regulations may govern appropriate data ownership and use.
			B	Biodiversity credit schemes should ensure that Indigenous Peoples and local communities have rights to govern the collection, management, access, interpretation, dissemination and reuse of data related to them on Indigenous or traditional lands, territories, seas, waters, and oceans.
			C	Biodiversity credit schemes should ensure that if a project proponent collects sensitive data with consent (e.g., names, addresses or other personal details), it is managed appropriately and consistent with data privacy laws.
			D	Biodiversity credit schemes must ensure that the biodiversity data that may be considered sensitive such as geolocation of specific wild animals or ranger patrol routes, is managed with utmost caution and are available to authorized persons only. However, processed information and analysis may be made available to wider rights holders and stakeholders.
			E	Data pertaining to Indigenous Peoples' ways of life, knowledge systems, customs or lands, waters, seas, territories, and resources is owned by Indigenous Peoples. Project proponents and related schemes must obtain Free, Prior and Informed Consent to collect or use such data.
	HLP 20	Alignment with Frameworks	A	Biodiversity credit schemes should align with evidence-based international, national, regional and local conservation and sustainable development frameworks and biodiversity action plans (e.g., National Biodiversity Strategies and Action Plans).
			B	Biodiversity credit schemes should align, where possible, with nature targets and reporting guidance as specified within international frameworks: the Kunming-Montreal Global Biodiversity Framework, the Convention on Biological Diversity's (CBD) strategic plan, and the Sustainable Development Goals, Taskforce on Nature-related Financial Disclosures (TNFD), Corporate Sustainability Reporting Directive (CSRD) and Science Based Targets Network (SBTN) and EU Nature Restoration Law.
	HLP 21	Tradability	A	Credit schemes should ensure that if and when any secondary trading exists, there must be clear and accurate attribution of the originator of the credits and full details of safeguards covering claims and double counting in the publicly available registry.
B			Any profits arising from secondary trading must be transparent, with an appropriate proportion flowing back to the project proponents and rights holders via any benefit sharing arrangements.	

High-level Principles and Additional Criteria			Sub-Principles and Sub-Criteria, Scheme-level	
Good Governance for High-integrity Markets	A 1	Incentives	A	The governance structure of a biodiversity credit scheme ensures clear institutional and financial separation between standard-setting, registry operations, project development, credit sales, verification and brokerage functions.
			B	A biodiversity credit scheme must have procedures in place to identify, disclose, and mitigate conflicts of interest across staff, board members, contractors, and validation/verification bodies. Declarations should be signed by all relevant personnel confirming that no financial or governance conflicts exist.
			C	Scheme revenues must not scale directly with the number of credits issued to prevent perverse incentives, such as fee models that reward over-issuance.
Effective Practical Implementation	A 2	Credit Combination Rules	A	Biodiversity credit schemes must clearly define their rules on whether and how biodiversity credits can be combined with carbon or other environmental credits, distinguishing between stacking, bundling and other, less common combination types such as stapling and nesting. These rules should establish transparent eligibility criteria for when combinations are permissible, while also setting out robust accounting safeguards to prevent double counting of the same ecological outcomes. These provisions should be embedded in a dedicated section, applied consistently across all projects.
			B	Biodiversity credit schemes should support stacking and bundling of different credit types, particularly biodiversity and carbon.
	A 3	Geographic and Ecosystem Applicability	A	Biodiversity credit schemes must be applicable to Europe and its various wetlands, such as peatlands, floodplains and salt marshes. It must also support smaller project areas.
			B	Biodiversity credit schemes should be applicable to other European ecosystems beyond wetlands, such as forests, grasslands, non-wetland freshwater ecosystems, agricultural landscapes and coastal ecosystems. Biodiversity credit schemes should support projects that include these ecosystems within the same site.
			C	Biodiversity credit schemes should support the aggregation of multiple homogeneous sites into a single project entity so that they can be validated, verified, and credited together.
	A 4	Costs	A	Biodiversity credit schemes must ensure reasonable project certification and monitoring costs given the small and fragmented European land ownership structure.
	A 5	Ease of Use	A	Biodiversity credit scheme should ensure that the difficulty to apply the scheme is reasonable in the European context.
	A 6	Scheme Credibility	A	Biodiversity credit schemes should originate from a known and credible organization that is certified by industry leading certifiers such as ICROA. There should be a high likelihood that the organization behind the scheme will exist over the project lifetime.
	A 7	Market Traction	A	Biodiversity credit scheme should have shown signals of market traction. Examples include the number of projects under certification and project size or total sales and buyer profiles.

