

SEPTEMBER 2024



State of Voluntary Biodiversity Credit Markets

CURRENT SUPPLY &
DEMAND DYNAMICS

Acknowledgements

LEAD AUTHORS

Laura Waterford, Executive Director

Veda FitzSimons, Director

Olivia Back, Associate Director



Ariadne Gorrington, Co-CEO Pollination Foundation

Jane Hutchinson, Co-CEO Pollination Foundation

POLLINATION CONTRIBUTORS

Marisa Martin, Managing Director, Pollination Law

Carter Ingram, Managing Director

Thea Philip, Associate Director

ADDITIONAL CONTRIBUTORS

MARSDEN JACOB ASSOCIATES

Jeremy Cheesman, Director

Emma Swann, Analyst

Thank you to Marsden Jacob Associates for their support in the design and development of the survey and data summarisation.

MARKET PARTICIPANTS

We express our sincere thanks to the organisations who took the time to participate in the survey which formed the foundations of this Report. Of the 16 organisations that participated in the survey, the following 14 organisations provided express consent to be identified as respondents: BioCarbon Standard, Climate Action Company (formerly, CarbonZ), CreditNature, Environment Bank, ERA Brazil, Gold Standard Foundation, GreenCollar, Plan Vivo Foundation, rePLANET, Savimbo, Terrain NRM, Terrasos, Verra and Wilderlands.

We also extend our thanks to the Biodiversity Credit Alliance, which assisted with the dissemination of the survey.

ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the past and present generations of Traditional Owners from the lands on which our authors and contributors are based, and we celebrate the stories, culture and traditions of the Indigenous Peoples across all the lands, waters and oceans where we live, work and enjoy.

Contents

1. EXECUTIVE SUMMARY	4	1.1 BACKGROUND & CONTEXT	5
		1.2 KEY INSIGHTS	7
2. RELEVANCE OF THIS REPORT	9	2.1 PURPOSE OF THIS REPORT	10
		2.2 METHODOLOGICAL APPROACH	11
3. STRATEGIC USE OF BIODIVERSITY CREDITS	12	3.1 GLOBAL FRAMEWORKS	13
		3.2 STRATEGIC USE OF BIODIVERSITY CREDITS	15
4. INSIGHTS ON THE STATE OF THE MARKETS	17	4.1 COMPLETED & ANTICIPATED TRANSACTIONS	18
		4.2 PERSPECTIVES ON SOURCES OF DEMAND	18
		4.3 SCHEME DESIGN TRENDS & MARKET CHARACTERISTICS	19
5. DETAILED DISCUSSION OF SURVEY FINDINGS	23	5.1 COMPLETED & ANTICIPATED TRANSACTIONS	24
		5.2 PERSPECTIVES ON SOURCES OF DEMAND	27
		5.3 SUPPLY-SIDE CHARACTERISTICS	31
APPENDIX A: KEY TERMS			38
APPENDIX B: KEY DEMAND INSIGHTS REPORTS SINCE 2023			41

1.
Executive
summary

An aerial photograph showing a river meandering through a lush, dense green forest. The river is a light blue-green color, contrasting with the vibrant green of the trees. The forest appears to be a mangrove or a similar wetland environment, with the river winding through various channels and islands of land. The overall scene is a natural, undisturbed landscape.

1.1 Background & context

Since 2020, as momentum has built towards addressing the nature loss crisis and progressing the nature-positive agenda, the development of voluntary biodiversity credit markets has escalated sharply. Both the public and private sectors have shown significant and increasing interest in the development of these markets and their potential to contribute to the Vision, Mission and Targets of the Kunming-Montreal Global Biodiversity Framework (GBF), as well as the broader global goal for nature, which is to be “nature-positive” by 2030.¹

In this context, this Report is focused on voluntary biodiversity credit markets (i.e. the use of biodiversity credits on a voluntary basis) and voluntary biodiversity credit schemes only.

References to biodiversity credits throughout this Report are to voluntary biodiversity credits only, as distinct from biodiversity offsets, whether used for voluntary or compliance purposes.



DEFINITION:

A **biodiversity credit** is a unit that can be bought and sold, which represents a positive biodiversity outcome achieved by a nature-based solutions project registered under a biodiversity credit scheme that is based on scientifically derived and measurable metrics for biodiversity, and which is not used to offset an equivalent negative impact on biodiversity elsewhere.²

Because of the global momentum and policy developments, it is now realistic to conceive that voluntary biodiversity credit markets could mature to help deliver on the goals of the GBF and nature-positive by 2030. However, for voluntary biodiversity credit markets to scale and deliver on their potential, we will need:

- **A clear business case for investment:** Clarity on the business case for the voluntary purchase of biodiversity credits and alignment between the characteristics of biodiversity credits and buyers’ needs, including a clear link between the claims the credits support and buyers’ nature-related risk disclosure and target setting priorities,
- **IP and LC leadership:** Acknowledgement of the leadership of Indigenous Peoples (IPs) and Local Communities (LCs) as stewards of Earth’s biodiversity and recognition of the importance of traditional ecological expertise in the design of these markets,
- **Integrity considerations:** A high integrity approach to the implementation of biodiversity credit projects (i.e., supply-side integrity) and the use of biodiversity credits (i.e., demand-side integrity).

The insights in this Report are intended to be useful for all stakeholders interested in the development of voluntary biodiversity credit markets.

This Report is informed by an online survey conducted by Pollination and Marsden Jacob Associates (**Marsden Jacob**) in May – June 2024 to understand the current and anticipated³ state of voluntary demand for biodiversity credits and broader market characteristics.⁴ It gives an updated perspective on key aspects of market development addressed in our report released last year, ‘State of Voluntary Biodiversity Credit Markets: A Global Review of Biodiversity Credit Schemes’ (**2023 Report**),⁵ as well as new insights on the current shape and value of voluntary demand for biodiversity credits globally. Insights were obtained from 16 organisations from around the world that are leading the development and administration of biodiversity credit schemes and the sale of biodiversity credits.

Our analysis shows that, following a similar trajectory to the early stages of the voluntary carbon markets over 30 years ago, voluntary biodiversity credit markets are growing, integrity measures are maturing, and early transactions demonstrate that there is confidence building in these markets.

¹ See the [webpage](#) for the Nature Positive Initiative; note that the GBF does not include an explicit reference to the term ‘nature-positive’, however, it is widely recognised that the GBF is aligned with the broader nature-positive agenda.

² See Appendix A for the definition of a ‘biodiversity offset’.

³ Within the next five years.

⁴ See Section 2.2 of this Report for a detailed discussion of our methodological approach for the survey and analysis.

⁵ This report was commissioned by GreenCollar.

THIS REPORT INCLUDES:

1

A summary of the factors shaping the global supply and demand landscape for biodiversity credits.

2

Key insights in relation to the current and anticipated state of demand for biodiversity credits and broader market characteristics.

3

A detailed discussion of our survey findings.



1.2 Key insights

1.2.1 COMPLETED & ANTICIPATED TRANSACTIONS⁶



1.2.2 PERSPECTIVES ON SOURCES OF DEMAND⁹



⁶ See Sections 4.1 and 5.1 of this Report for further insights on completed and anticipated transactions.

⁷ As part of the survey, respondents provided information in relation to the volume of biodiversity credits sold (within ranges) as well as the prices in \$USD (within ranges) credits have been sold for. This information was used to inform this estimation.

⁸ As part of the survey, respondents provided information in relation to the volume of biodiversity credits sold (within ranges) as well as the approach to area metrics for credit unitisation. This information was used to inform this estimation.

⁹ See Sections 4.2 and 5.2 of this Report for further insights on perspectives on sources of demand.

¹⁰ The sources of demand for biodiversity credits considered in our analysis were multinational corporations, SMEs (i.e. small and medium enterprises), financial institutions, philanthropists, government, and individuals.

¹¹ Contribution claims are claims made by purchasers that they have made a contribution to global and / or national targets for nature through the purchase of the biodiversity credit (without a claim that this compensates for the purchaser's negative impacts on biodiversity). Refer to Section 5.2 of this Report below for a more detailed discussion on claims.



1.2.3 SCHEME DESIGN TRENDS & MARKET DEVELOPMENTS¹²

The regeneration of nature remains the primary outcome being targeted by schemes.

The most common area-based metric is one hectare.

The crediting period for biodiversity projects vary significantly between schemes.

All schemes either currently require **independent third-party verification of outcomes** or intend to in the future.

While most projects are registered in Oceania, the global footprint is expanding.

In places where IPs and LCs have a continuous connection and/or legal interest in the area of credit generation,
75% of schemes involve IPs and LCs to some extent.

Terrestrial ecosystems remain the focus of biodiversity credit schemes, but coverage of coastal and freshwater ecosystems is growing.

Stacking, stapling and bundling with carbon and other products/commodities is common.

¹² See Section 4.3 and 5.3 of this Report for further insights on scheme design trends and market characteristics.

2. Relevance of this Report



2.1 Purpose of this Report

This Report is primarily focused on private sector participation in biodiversity credit markets, from both supply and demand-side perspectives. Our analysis of current and potential demand recognises that there are a range of buyer segments: multinational corporations, small and medium sized enterprises (SMEs), financial institutions, government, philanthropists and individuals. In addition, private sector actors and national and subnational governments are participating in the development of these markets as biodiversity credit scheme administrators.

The insights in this Report are intended to be useful for all stakeholders interested in the development of voluntary biodiversity credit markets.

- For **national and subnational governments**, the emergence of voluntary biodiversity credit markets presents an opportunity to create the enabling conditions to drive private sector investment into biodiversity, through policy and the deployment of public capital.
- For **corporates and financial institutions**, voluntary biodiversity credit markets are a mechanism that can support them to finance biodiversity outcomes and mitigate their exposure to physical and systemic nature-related risks, as part of their broader nature strategies.
- For **investors** who may be interested in gaining exposure to these markets in the future, voluntary biodiversity credits have the potential to become an investable product and a new asset class that is aligned with the nature-positive transition.
- For **rights holders and stewards of biodiversity, including IPs and LCs**, voluntary biodiversity credit markets have the potential to fund the work of regenerating, protecting and stewarding nature for the benefit of people and planet.

In relation to the demand landscape specifically, following the publication of our 2023 Report, there have been several subsequent publications focusing on the global demand landscape for biodiversity credits.¹³ Read together, these publications provide insights into *potential* drivers of demand and use cases for biodiversity credits, as well as long-term market value under different scenarios. However, they provide limited information on the *actual* state of demand and broader market characteristics today.

This Report is intended to help address this gap. Whilst biodiversity credit markets remain nascent, the data we have collected demonstrates that demand for voluntary biodiversity credits exists and is building.



¹³ We have summarised the key demand insights reports since 2023 in Appendix B. It is also anticipated that a significant amount of work on biodiversity credit markets will be published around the 2024 United Nations Biodiversity Conference (CBD COP16) being held in October and November this year in Cali, Colombia.

2.2 Methodological approach

In May – June 2024, with support from the Biodiversity Credits Alliance, Pollination together with Marsden Jacob, conducted global outreach via an online survey to understand the current state of voluntary demand for biodiversity credits and broader market characteristics. Our analysis is based exclusively on the data collected during this period. Developments after June 2024 have not been included in our analysis and we have also not undertaken further research to clarify or confirm information provided by the respondents.

We received responses from 16 organisations globally that are involved in the development and administration of biodiversity credit schemes.¹⁴ Based on our knowledge and experience of global biodiversity credit markets, our view is that this cohort represents a significant proportion of current market participants, and includes leading organisations involved in the administration of biodiversity credit schemes and the sale of biodiversity credits. The respondents are located around the world, including in Australia, Europe and the Americas. For future editions of our 'State of the Market' Report series we hope to seek further data from the growing pool of buyers.

In total, the survey comprised 32 questions.¹⁵ The questions were categorised into three key topics:

- Sales and volume trends,
- Credit archetype trends, and
- Purchasers and demand drivers.

The survey questions were predominantly comprised of multiple-choice questions. Some questions required respondents to select all answers that applied whilst others required only one answer to be selected. Respondents were also able to skip any questions that they did not wish to answer. Some free-text answers and additional information were provided by participants, which were considered in our analysis of results.

Percentages calculated based on survey results have been rounded to the nearest whole number throughout this Report.



¹⁴ Responses were predominantly provided by the biodiversity credit scheme administrators, however, for one scheme the responses were provided by the methodology developer. Survey questions and approach were agnostic to whether the scheme administrators were private or public sector actors. See the acknowledgements page at the beginning of this Report for details of the organisations that participated in the survey and agreed to be publicly named.

¹⁵ Note that based on the survey design, three survey questions that focused on actual biodiversity credit transactions that had taken place were only made available to the eight respondents who indicated that they had already sold biodiversity credits.

3. Strategic use of biodiversity credits

An aerial photograph of a coral reef. The water is a deep, vibrant green, showing the intricate patterns of the reef below. On the right side, a white, foamy wave is crashing against the reef, creating a stark contrast with the green water.

3.1 Global frameworks

Potential sources of demand identified in our analysis were multinational corporations, SMEs, financial institutions, philanthropists, government, and individuals. If voluntary biodiversity markets follow a similar trajectory to voluntary carbon markets, we anticipate that as biodiversity credit markets grow, demand for biodiversity credits will come primarily from corporates and financial institutions.

For corporates and financial institutions, we envision the key drivers of voluntary demand for biodiversity credits will be to deliver on their strategic priorities to:

1. meet stakeholder expectations and in some cases, legal requirements, to disclose material nature-related risks and opportunities (e.g., under the Recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD)), and
2. set targets and demonstrate progress against those targets to reduce their exposure to those risks or realise opportunities (e.g., under the Science-based Targets Network’s (SBTN) framework or in line with the GBF).

In this context, the key global frameworks relevant to the development of voluntary biodiversity credit markets are described below in Table 1.

It should be noted that, ideally, buyers of biodiversity credits should have an overarching nature strategy aligned to the SBTN’s articulation of the mitigation hierarchy for nature.¹⁶ This should clearly show how the use of biodiversity credits contributes to these strategic priorities, and how the organisation is addressing the other elements of the mitigation hierarchy.

Clarity and transparency on the relevance of the use of biodiversity credits in the context of a buyer’s nature strategy will be critical to demand-side integrity. As voluntary biodiversity credit markets grow, one of the potential barriers to demand is buyer concern regarding exposure to greenwashing claims. This concern is informed by the observed consequences of poor practice by buyers in carbon markets, and exacerbated by market uncertainty due to the nascency of established rules and norms for biodiversity credit markets (e.g., agreed principles, standards, and definitions). In response, some voluntary biodiversity credit schemes provide “claims guidance” for buyers to underpin their claims.¹⁷

TABLE 1: GLOBAL FRAMEWORKS

FRAMEWORK	RELEVANCE
KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK (GBF)	<p>Progress is being made towards three key targets under the GBF that investment in biodiversity credits can help to meet:</p> <ul style="list-style-type: none"> • Target 2: Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration. • Target 3: Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas are effectively conserved and managed. • Target 19(d): Increase the level of financial resources, including private resources, to implement national biodiversity strategies and action plans, mobilising at least \$200 billion per year by 2030, including by stimulating innovative schemes such as biodiversity offsets and credits. <p>Some countries have adopted Targets 2 and 3 at a national level, and it is likely they will form part of their commitments under national biodiversity strategies and action plans to be submitted under the CBD (Target 19), to which private sector actors may seek to align through the purchase of biodiversity credits.</p>

16 Pollination (2024), ‘Nature-Positive Strategy: Practical Guidance for Corporates’.

17 See, for example, GreenCollar (2023), ‘NaturePlus™ Claims Guidance’.

FRAMEWORK	RELEVANCE
<p>TASKFORCE ON NATURE-RELATED FINANCIAL DISCLOSURES (TNFD)</p>	<p>The TNFD framework is a voluntary framework for the disclosure of material nature-related risks and opportunities. Over 400 companies globally have already started reporting, or committed to reporting by 2025, using TNFD guidance.¹⁸ Some countries, such as Brazil, have also signalled their intent to legislate mandatory nature risk disclosure requirements.¹⁹</p> <p>Importantly, as a potential driver of biodiversity credit demand from corporates and financial institutions, the TNFD contains a concept of double materiality which requires companies to disclose both:</p> <ul style="list-style-type: none"> • Nature-related risks:²⁰ the nature-related physical, transition and systemic risks on a company; and • Impacts on nature: material nature-related impacts of a company on nature, regardless of whether those impacts pose nature-related risks to the company. <p>Accordingly, it will be important for corporates and financial institutions to be able to show how they are mitigating their exposure to nature-related risks <i>and</i> there is also scope for them to disclose positive impacts on nature. Investing in biodiversity credits is one mechanism for companies to demonstrate these outcomes.</p>
<p>SCIENCE BASED TARGETS NETWORK (SBTN)</p>	<p>SBTN released guidance on setting science-based targets (SBTs) for nature in 2020. The SBTN guidance is voluntary but has set the standard for nature-related target setting. The SBTN guidance is clear that for corporates to demonstrate that they are contributing to the nature-positive transition, they must address the mitigation hierarchy in full.</p> <p>Although not publicly stated by SBTN, it is our view that biodiversity credits are potentially one mechanism corporates and financial institutions can use to address the last two steps of the SBTN’s articulation of the mitigation hierarchy, specifically SBTN’s Action Framework (AR3T) (see Figure 1):²¹</p> <ul style="list-style-type: none"> • Restore & Regenerate: Take actions to increase the biophysical function and/or ecological productivity of an ecosystem or its components; initiate or accelerate the recovery of an ecosystem. • Transform: Take actions contributing to system-wide change, notably to alter the drivers of nature loss. <p>Note that consistent with the definition of biodiversity credits we have adopted for the purposes of this Report, the voluntary use of biodiversity credits to contribute to targets related to these steps in the mitigation hierarchy would not support an offset claim.²²</p>

18 TNFD (June 2024), [‘TNFD adoption now over 400 organisations and new sector guidance released’](#).

19 See, for example, Carbon Pulse (2024), [‘Brazil must drive G20 efforts on international standards for biodiversity disclosures, non-profit says’](#).

20 See Appendix A of this Report for descriptions of the categories of nature-related risk to an organisation (i.e. transition, physical and systemic risks).

21 SBTN (2020), [‘Science-Based Targets for Nature: Initial Guidance for Business’](#), p.41. SBTN refers to its articulation and extension of the mitigation hierarchy as the Action Framework (AR3T): Avoid, Reduce, Regenerate, Restore, and Transform.

22 This means that the use case for biodiversity credits we are proposing in the context of the SBTN guidance is substantively different from the potential use of carbon credits to offset GHG emissions under the Science Based Targets Initiative’s (SBTi) guidance, which SBTi has been hesitant to allow: SBTi (2024), [‘Statement from the SBTi Board of Trustees on use of environmental attribute certificates, including but not limited to voluntary carbon markets, for abatement purposes limited to scope 3’](#).

3.2 Strategic use of biodiversity credits

Designing a nature strategy is becoming a key ask of corporates and financial institutions, requiring careful consideration of the potential for the use of biodiversity credits as part of a holistic nature strategy.

This business case for corporates and financial institutions investing in biodiversity credits on a voluntary basis is likely to be driven by two key use cases:

1. **Risk mitigation and value creation:** mitigating the purchaser’s exposure to physical and systemic nature-related risks and creating value in accordance with the TNFD framework, and / or
2. **Contribution to nature targets:** meeting the purchaser’s organisational nature targets to demonstrate the purchaser’s contribution to the global nature-positive goal.

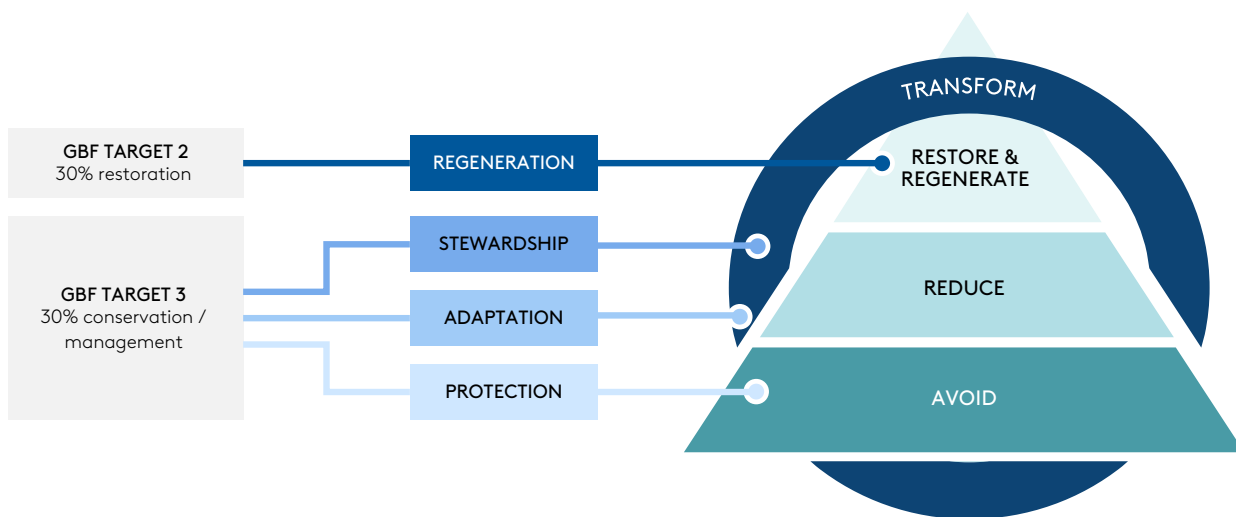
In this context, biodiversity credits can be a useful mechanism to support buyers to articulate the impacts (i.e., positive biodiversity outcomes) they have financed. Relevant outcomes could be related to the mitigation of nature-related risks and/or, in our view, achievement of nature targets.²³ In particular, the unitisation and

verification of outcomes is a key strength of biodiversity credits because they take the guesswork out of identifying relevant metrics for reporting on the outcomes achieved.²⁴ In addition, where biodiversity credits are generated in areas relevant to an entity’s operations and/or supply chain, they present a means for companies to invest in the mitigation of location-specific, physical nature-related risks.

For example, a corporate might choose to purchase biodiversity credits from a project that is located in an area that is proximate to a key location in their supply chain in order to maintain or enhance supply chain resilience (effectively helping to mitigate exposure to physical nature-related risks that they cannot manage directly), and/or to help meet voluntary targets they have set under their publicly disclosed nature strategy.

Furthermore, different biodiversity credit archetypes²⁵ produce outcomes that relate to global frameworks in different ways (see Table 2). Buyers can therefore choose which archetypes are most strategically aligned for them.

FIGURE 1: RELEVANCE OF BIODIVERSITY CREDIT ARCHETYPES TO GBF TARGETS AND THE ELEMENTS OF SBTN’S ACTION FRAMEWORK



23 Note that this use case has not been supported by SBTN in their published guidance.

24 NatureFinance (in collaboration with Pollination) (2023), 'Biodiversity Credit Markets: The role of law, regulation and policy', p. 18.

25 In our 2023 Report we classified biodiversity credit archetypes into four categories based on the different outcomes targeted by the biodiversity credit schemes: Protection, Regeneration, Stewardship, and Adaptation. These categories are broadly aligned with the International Institute for Environment and Development (IIED)'s classifications of different biodiversity credit schemes into: (1.) preserving or avoiding loss, (2.) restoration, (3.) supporting existing efforts (IIED (2022), 'Biocredits to finance nature and people – emerging lessons'). See Appendix A of this Report for the descriptions of the different biodiversity credit archetypes.

TABLE 2: BIODIVERSITY CREDIT ARCHETYPES & RELEVANCE TO GLOBAL FRAMEWORKS

ARCHETYPE	DESCRIPTION	RELEVANCE TO GLOBAL FRAMEWORKS ²⁶
PROTECTION	<p>Require a verified designation of protected-area status (e.g. through a conservation easement, conservation covenant, Indigenous Protected and Conserved Area, or Marine Protected Area instrument).</p> <p>This category can apply to degraded or intact ecosystems and the initial protection action may be supported by the subsequent implementation of management actions intended to achieve 'Regeneration', 'Stewardship' or 'Adaptation' outcomes.</p>	<p>GBF – Target 3: 30% conservation / management</p> <p>SBTN – Step 1: Avoid</p>
REGENERATION	<p>Intended to achieve an improvement in ecological value over time from:</p> <ol style="list-style-type: none"> 1. a measured baseline, or 2. a modelled baseline that accounts for projected background loss. <p>This category can apply to degraded ecosystems.</p>	<p>GBF – Target 2: 30% restoration</p> <p>SBTN – Step 3: Restore and Regenerate</p>
STEWARDSHIP	<p>Intended to achieve the maintenance of ecological value over time based on:</p> <ol style="list-style-type: none"> 1. a measured baseline, or 2. a modelled baseline that accounts for projected background loss. <p>This category can apply to intact ecosystems or ecosystems that have been restored to an intact level.</p>	<p>GBF – Target 3: 30% conservation / management</p> <p>SBTN – Step 4: Transform</p>
ADAPTATION	<p>This category may be considered a subset of the 'Stewardship' category where climate change impacts are taken into consideration based on projected background loss (e.g. a project may implement management actions to enhance the resilience of coral reef ecosystems to warming temperatures).</p>	<p>GBF – Target 3: 30% conservation / management</p> <p>SBTN – Step 4: Transform</p>

²⁶ Note that all biodiversity credit archetypes are relevant to Target 19(d) of the GBF.

4.

Insights on the state of the markets

4.1 Completed & anticipated transactions

Results from our global survey of biodiversity credit scheme administrators provided insights on completed and anticipated²⁷ sales of biodiversity credits. Our analysis demonstrates that there is proven and growing demand for biodiversity credits.

Based on the data collected from respondents on the volume of biodiversity credits sold and their price, we estimate the approximate total value of credits sold to date to be between US\$325,000 and US\$1,870,000.²⁸

This represents between approximately 26,000 and 125,000 hectares of positive biodiversity outcomes or activities that have been directly financed by the sale of biodiversity credits so far this decade.²⁹

4.1.1 COMPLETED TRANSACTIONS

Eight of the 16 respondents who participated in the survey indicated that they have already sold biodiversity credits. Whilst some respondents first sold credits in 2022, nearly 40% indicated that they started selling credits in the last two years (i.e. since 2023). Of the respondents who have already sold biodiversity credits, over a third had sold less

than 100 credits since they commenced trading. One respondent, however, had sold more than 100,000 credits.

In relation to current biodiversity credit pricing trends, one respondent had sold their credits at US\$200-\$700 / credit, whilst the remainder of respondents who shared pricing information³⁰ had sold their credits for US\$25 / credit or less. The majority of respondents indicated that the pricing of their biodiversity credits is informed by multiple factors, including project cost plus a margin and buyers' willingness to pay.

Close to one fifth of respondents indicated that they have observed a price premium for biodiversity credits from projects involving IPs and LCs, with respondents reporting premiums of 15% and 300%.³¹

4.1.2 ANTICIPATED TRANSACTIONS

Respondents' predictions for future biodiversity credit sale volumes differed significantly. The majority of respondents expect to sell more than 100,000 biodiversity credits over the next five years. However, a quarter of respondents were uncertain about volumes of future transactions.

4.2 Perspectives on sources of demand

As previously noted, sources of demand considered in our analysis were multinational corporations, SMEs (i.e. small and medium enterprises), financial institutions, philanthropists, government, and individuals.

Results from our global survey of biodiversity credit scheme administrators provided new perspectives and insights on the current and anticipated sources of demand for biodiversity credits, as summarised below.³²

- Sources of demand:** The scheme administrators surveyed identified multinational corporations, financial institutions and SMEs as the perceived top sources of demand for biodiversity credits (each identified by 13% of respondents).³³
- Drivers of demand:** 'Marketing / brand' was identified via the survey as the strongest perceived driver of demand for biodiversity credits, followed by risk mitigation (i.e. mitigation of nature-related transition risks, physical risks and/or systemic risks).
- Geographic distribution:** The highest proportion of respondents (44%) indicated that they are aware of purchasers of their credits domiciled in Europe. Next was Latin America and the Caribbean, with 25% of respondents aware of purchasers domiciled there. Equal numbers of respondents were aware of purchasers domiciled in Oceania and in North America (each identified by 19% of respondents).

27 Within the next 5 years.

28 As part of the survey, respondents provided information in relation to the volume of biodiversity credits sold (within ranges) as well as the prices in USD (within ranges) credits have been sold for. This information was used to inform this estimation.

29 As part of the survey, respondents provided information in relation to the volume of biodiversity credits sold (within ranges) as well as the approach to area metrics for credit unitisation. This information was used to inform this estimation.

30 Five of the six respondents for this question shared pricing information.

31 Two respondents who had sold biodiversity credits provided a specific estimate for the price premium for biodiversity credits from projects involving IPs and LCs.

32 In future editions of our 'State of the Market' report series we hope to seek further data from the growing pool of buyers.

33 Note that this survey question was only made available to the eight out of 16 respondents who indicated that they have sold biodiversity credits.

- **Geographic nexus:** Respondents considered that the nexus between purchasers’ footprints and locations at which biodiversity credits are generated appears to matter for purchasers. 81% of respondents perceived that purchasers of biodiversity credits are motivated by / interested in whether biodiversity credits are generated by projects that are proximate to their operations, investments, and/or sourcing areas.
- **Claims preferences:** Respondents perceived contribution claims to be a key type of claim that purchasers are seeking to make on the basis of their purchase of biodiversity credits. However, mixed contribution and offsetting claims were identified as the most common claim type multinational corporations and financial institutions are seeking to make (38% and 32% of respondents respectively).

Contribution claims are claims made by purchasers to be making contributions to global and / or national targets for nature through the purchase of the biodiversity credit (without a claim that this compensates for the purchaser’s negative impacts on biodiversity).³⁴ In comparison, **offsetting claims** are claims by purchasers to have offset negative impacts on, including loss of, biodiversity values on the basis of the biodiversity credit purchase.

In this context, the use of biodiversity credits to support contribution claims will not preclude a corporate from stating that biodiversity credits have been used to help meet their own targets to, for example, restore or protect biodiversity (as outlined in Section 3 of this Report above). Rather the use of the term “contribution” is to distinguish the claim from an offset claim, and to align with leading international guidance which states that an organisation can only contribute to the global nature-positive goal, and not claim to be “nature-positive” in the absolute.³⁵

4.3 Scheme design trends & market characteristics

4.3.1 COMPARISON OF TRENDS FROM 2023 TO 2024

In October 2023, Pollination released its ‘State of Voluntary Biodiversity Credit Markets’ report (i.e. the 2023 Report), commissioned by GreenCollar.³⁶ The 2023 Report reflected findings from our review of eight leading voluntary biodiversity credit schemes. In the 2023 Report, we identified some key trends in relation to scheme design, as well as market developments anticipated over the coming years.

We have adopted a different methodology from our 2023 Report for this Report. However, insights obtained on broader market characteristics, in particular, scheme design trends, are interesting to compare to observations and forecasts we made in our 2023 Report.

Table 3 below summarises the key scheme design insights obtained this year against the key insights from our 2023 Report.



34 The reference here to ‘contribution claims’ is not intended to deal with the issue of double counting or double claiming (as is the case in relation to carbon trading under Article 6 of the Paris Agreement), although those are potentially relevant issues that will need to be outworked under the GBF with respect to outcomes financed via the purchase of biodiversity credits by private sector actors (NatureFinance (in collaboration with Pollination) (2023), [‘Biodiversity Credit Markets: The role of law, regulation and policy’](#)).

35 Pollination (2024), [‘Nature-Positive Strategy: Practical Guidance for Corporates’](#).

36 Pollination (2023), [‘State of Voluntary Biodiversity Credit Markets: Global Review of Biodiversity Credit Schemes’](#).

TABLE 3: SCHEME DESIGN INSIGHTS

SCHEME	2024 INSIGHTS	2023 INSIGHTS
TARGETED OUTCOMES	<p>Outcomes supported by biodiversity credits can be broadly separated into the following categories (which are not mutually exclusive):³⁷</p> <ul style="list-style-type: none"> a. protection, b. regeneration, c. stewardship, and / or d. adaptation. <p>Regeneration outcomes were identified as the prevailing focus of biodiversity credit schemes (81% of respondents). A regeneration-focused approach involves outcomes/activities that deliver an improvement in ecological value over time (either from a measured baseline or a modelled baseline that accounts for projected background loss).</p>	<p>In our 2023 Report there were significant differences across the reviewed schemes in relation to the biodiversity outcomes targeted. We now have clarity that the market is clearly favouring regeneration outcomes, according to the results of our 2024 survey.</p>
BIODIVERSITY METRICS	<p>The range of approaches taken to targeted metrics can be broadly separated into three categories of metrics:³⁸</p> <ul style="list-style-type: none"> a. ecosystem metrics, b. habitat metrics, c. vegetation metrics. <p>There continues to be significant variability in the approach that biodiversity credit scheme administrators are taking to the biodiversity metrics that underpin credit generation.</p> <p>However, ecosystem metrics were the most common approach adopted (38% of respondents).</p>	<p>In our 2023 Report there was significant variability across the reviewed schemes in relation to the metric focus. This remains true, according to the results of our 2024 survey.</p>
AREA-BASED METRICS	<p>Over 80% of biodiversity credit scheme administrators surveyed indicated that a set area metric is used for credit unitisation or is likely to be used in the future as the scheme is developed.</p> <p>The majority of respondents use one hectare as the area-based metric in the unitisation of biodiversity credits (69% of respondents).</p>	<p>In our 2023 Report we noted the preference of the majority of the reviewed schemes to adopt a set area for credit unitisation, with several of the reviewed schemes adopting one hectare. The results of our 2024 survey have reinforced this trend.</p>

³⁷ These categories of outcomes were developed for the 2023 Report and remain applicable for describing the categories of outcomes generally supported by voluntary biodiversity credit schemes. See Appendix A of this Report for the descriptions of the different outcome categories.

³⁸ These categories of focus metrics were developed for the 2023 Report and remain applicable for describing the approach generally taken by voluntary biodiversity credit schemes. See Appendix A of this Report for the descriptions of the different categories of biodiversity metrics.

SCHEME	2024 INSIGHTS	2023 INSIGHTS
CREDITING PERIOD	<p>There is significant variability in the approaches biodiversity credit scheme administrators are taking to the temporal basis for issuance of biodiversity credits. Of those surveyed, the largest group adopt the approach of a periodic issuance for a fixed maximum term (31% of respondents). A quarter, however, allow for periodic issuance for an indefinite period,³⁹ provided that all other conditions are met (25% of respondents).</p> <p>Almost one-fifth of respondents are yet to determine the approach they will take to the temporal basis for issuance.</p>	<p>In our 2023 Report we anticipated that voluntary biodiversity credits markets would move towards indefinite crediting approaches. The results of our 2024 survey indicate that this approach remains slightly less common than the adoption of a fixed crediting period.</p>
ECOSYSTEM COVERAGE	<p>All respondents indicated that their schemes support the generation of biodiversity credits in terrestrial ecosystems.</p> <p>Over half of the respondents' schemes also support crediting in coastal and freshwater ecosystems (56% and 63% respectively). Less than half of the respondents' schemes support crediting in marine ecosystems (44% of respondents).</p>	<p>In our 2023 Report the majority of schemes reviewed did not apply to coastal, freshwater or marine ecosystems. It appears that broader coverage of these ecosystem types is emerging, according to the results of our 2024 survey.</p>
INVOLVEMENT OF IPs & LCs	<p>Respondents were asked about the extent of IP and LC involvement where biodiversity credits are generated from projects on lands and/or waters on which IPs and LCs have a continuous connection and/or legal interest.</p> <p>75% of respondents indicated that, in those circumstances, IPs and LCs are involved to some extent in projects. However, the extent of involvement differed between respondents.</p> <p>Our analysis found that the most common form of involvement of IPs and LCs was in project implementation activities with benefit-sharing arrangements or mechanisms that recognise/ remunerate stewardship in place.</p>	<p>In our 2023 Report the majority of schemes reviewed did not require co-ownership, partnership or benefit-sharing models with IPs and LCs. According to the results of the 2024 survey, the majority of surveyed biodiversity credit scheme administrators indicated that IPs and LCs are involved to some extent where biodiversity credits are generated from projects on lands and/or waters on which IPs and LCs have a continuous connection and/or legal interest.</p>

³⁹ As noted in the 2023 Report, indefinite crediting approaches can provide a means to fund ongoing activities required to maintain biodiversity outcomes. See Pollination (2023), [‘State of Voluntary Biodiversity Credit Markets: Global Review of Biodiversity Credit Schemes’](#).

4.3.2 OTHER MARKET CHARACTERISTICS

Our analysis this year also provided insights into the following key market characteristics:

- **Third party verification:** All respondents either currently have biodiversity credits issued under their scheme verified by an independent third party, or intend for that to occur in the future (69% and 31% of respondents respectively).
- **Stacking, stapling and bundling:** Three quarters of respondents indicated that they allow biodiversity credits to be generated on the same piece of land as a carbon credit-generating project. The majority of respondents also indicated that biodiversity credits issued under their scheme are being sold with either a physical product/commodity⁴⁰ or with a carbon credit.
- **Use of biodiversity products for offsetting purposes:** Nearly 90% of respondents indicated that their scheme is intended to support the issuance of biodiversity credits *only*, not biodiversity offsets (88% of respondents).⁴¹



⁴⁰ Under this approach a biodiversity credit is 'stapled' to a physical product or commodity such that the purchase of the product/community also includes the purchase of a biodiversity credit or credits. See for example, Wilderlands' collaboration with al.ive body which involved a Wilderlands Biological Diversity Unit generated from their Coorong Lakes project being purchased for each specified al.ive product sold. Wilderlands (2024), [al.ive body x Wilderlands launch limited edition product that protects the Coorong](#).

⁴¹ As noted above in Section 1, this Report is focused on voluntary biodiversity credits only. However, data was collected on whether the respondents' schemes were also designed to support biodiversity offsets.

5.

Detailed discussion
of survey findings

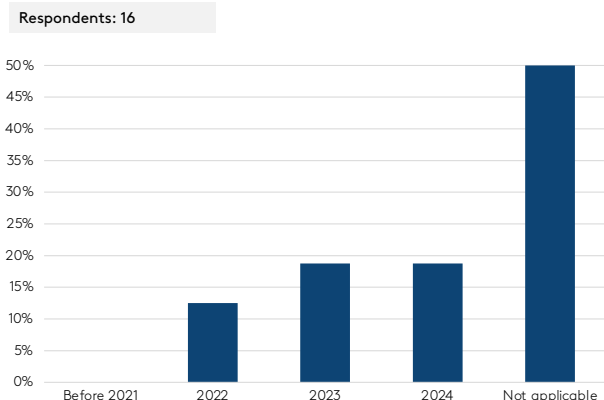


5.1 Completed & anticipated transactions

PROPORTION OF SCHEMES SELLING BIODIVERSITY CREDITS

Half of respondents have already sold biodiversity credits.⁴²

When did you first start to sell biodiversity credits?



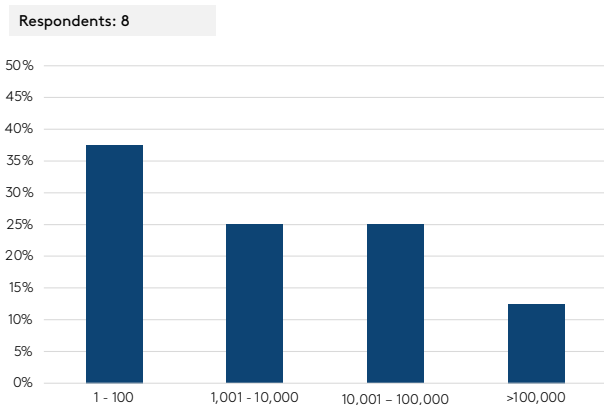
50% of the respondents indicated that they have sold biodiversity credits. 13% indicated that they started selling credits in 2022, whilst 38% started selling credits in the last two years (i.e. since 2023).

50% of the surveyed respondents had not sold any biodiversity credits at the time they responded to the survey.

VOLUME OF BIODIVERSITY CREDITS SOLD

Over a third of respondents who have sold biodiversity credits have sold less than 100 credits.⁴³

How many biodiversity credits have you sold since the start of trading?



38% of respondents who have sold biodiversity credits have sold less than 100 credits since they commenced trading. However, one respondent has sold more than 100,000 credits.

Note that in understanding these results it is important to acknowledge the significant variability in the spatial component of biodiversity credits across the market. For example, the sale of 10,000 credits generated on a per 1m² basis will be spatially equivalent to the sale of one credit generated on a per hectare basis. Refer to Section 5.3 of this Report on supply-side characteristics for additional information.

⁴² We note that the percentages total to 101% due to the approach taken in this Report to round up all percentages to the closest whole number.

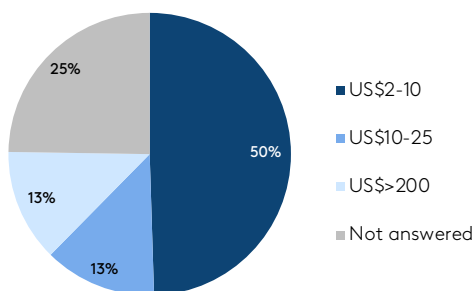
⁴³ Note that this survey question was only made available to the eight respondents who indicated that they have sold biodiversity credits.

CURRENT BIODIVERSITY CREDIT PRICING

5 of the 6 respondents who shared pricing information have sold their credits for US\$25 or less.⁴⁴

What is the price of your biodiversity credit (in US\$)?

Respondents: 8



13% of respondents who have sold credits sold their credits for US\$200-\$700 / credit. 13% of respondents had also sold their credits for between US\$10 and US\$25 / credit. 50% of respondents have sold their credits for between US\$2 and US\$10 / credit.

Again, in understanding the pricing of biodiversity credits it is important to note that the spatial component of biodiversity credits varies greatly.

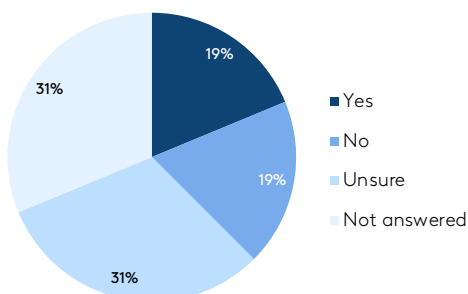
When the area component of biodiversity credits is standardised to one hectare, even greater price variability emerges, with prices per hectare ranging from US\$2 to US\$60,000.

PRICE PREMIUM FOR IP & LC INVOLVEMENT

Close to a fifth of respondents indicated that they have observed a price premium for biodiversity credits generated from projects involving IPs and LCs.⁴⁵

For projects involving IPs and LCs, have you observed a price premium for those biodiversity credits?

Respondents: 16



19% of respondents indicated that they have observed a price premium for biodiversity credits from projects involving IPs and LCs. Respondents reported price premiums of 15% and 300%.

19% of respondents indicated that they have not observed a price premium and 31% of respondents were 'unsure'.

Note that responses received reflect respondents' observations based on the sale of their own biodiversity credits, as well as market observations more generally.

⁴⁴ Note that this survey question was only made available to the eight respondents who indicated that they have sold biodiversity credits. Note that the percentages total to 101% due to the approach taken in this Report to round up all percentages to the closest full number.

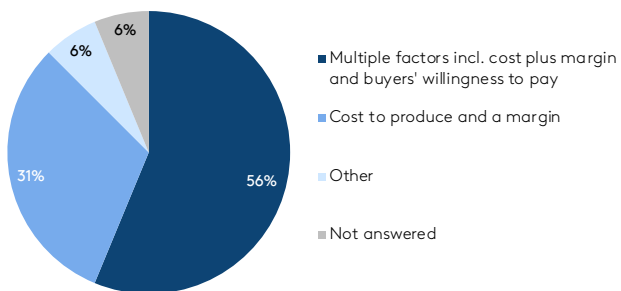
⁴⁵ See Appendix A of this Report for the definitions of IPs and LCs.

APPROACH TO PRICING OF BIODIVERSITY CREDITS

Over half the respondents price their biodiversity credits on the basis of multiple factors, including project cost plus a margin and buyers’ willingness to pay.⁴⁶

On what basis is the price of your biodiversity credits calculated?

Respondents: 16



31% of respondents indicated that they calculate the cost of their biodiversity credits on a ‘cost plus margin’ basis.

56% of respondents indicated that their biodiversity credits are priced on the basis of multiple factors, including project cost plus a margin and buyers’ willingness to pay.

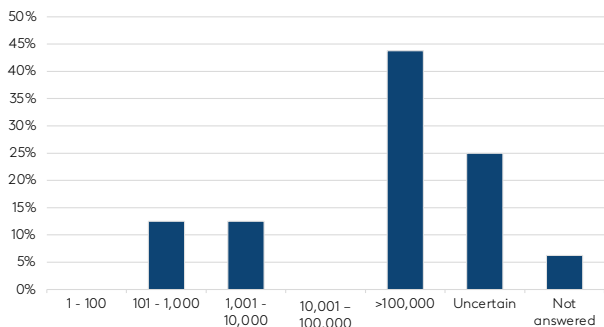
One respondent indicated that their pricing is calculated on a different basis to those stipulated.

ANTICIPATED VOLUME OF SALES WITHIN FIVE YEARS

Respondents’ predictions for future credit sale volumes differed significantly.

Approximately how many biodiversity credits do you envision you will sell in the next five years?

Respondents: 16



44% of respondents expect to sell more than 100,000 biodiversity credits over the next 5 years.

25% of respondents were uncertain about volumes of future transactions.

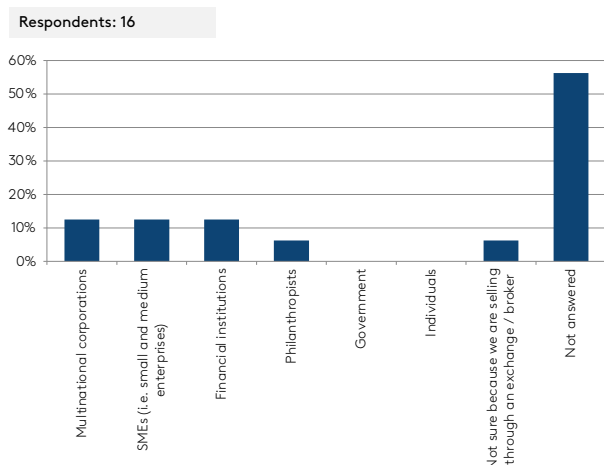
⁴⁶ Note that the percentages total to 99% due to the approach taken in this Report to round all percentages up/down to the closest full number.

5.2 Perspectives on sources of demand

PERCEIVED SOURCES OF DEMAND⁴⁷

Respondents perceived multinational corporations, financial institutions and SMEs as the top sources of demand.⁴⁸

Of the purchasers of your biodiversity credits that you are aware of, which purchaser category would best describe them? Rank from highest to lowest source of demand. Below are the results for the top ranked position.



Perceptions of dominant sources of demand were mixed. Equal numbers of respondents (13%) considered multinational corporations, SMEs and financial institutions to be the top-ranked source of demand.

6% of respondents selected philanthropists as the top source of demand.

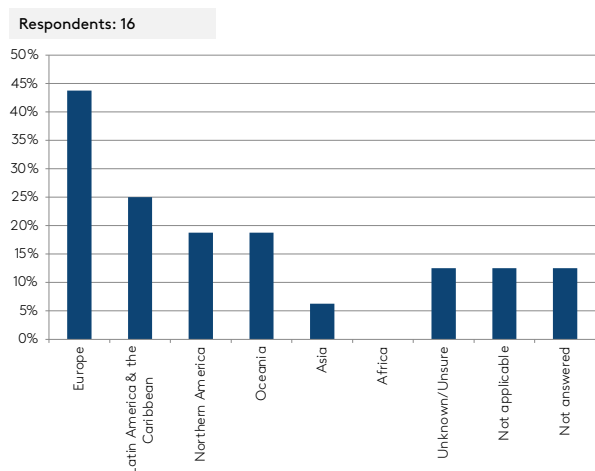
No respondents selected governments or individuals as the top source of demand.

Note that as 50% of respondents have not yet sold biodiversity credits, it is understandable that 56% of respondents did not answer this question.

PERCEIVED GEOGRAPHIC DISTRIBUTION OF DEMAND

Europe was the geography with the highest perceived demand for biodiversity credits.⁴⁹

Of the purchasers of your biodiversity credits that you are aware of, in which region/s are those purchasers domiciled? Please select all that apply.



Europe: 44% of respondents indicated that they are aware of purchasers of their biodiversity credits domiciled in Europe.

Latin America & the Caribbean: 25% of respondents were aware of purchasers domiciled in Latin America and the Caribbean.

Oceania and North America: Equal numbers of respondents (19%) were aware of purchasers domiciled in Oceania and in North America.

Asia: 6% of respondents were aware of purchasers domiciled in Asia.

Africa: No respondents were aware of potential or existing purchasers domiciled in Africa.

Unknown: 13% of respondents indicated that the location of their purchasers was unknown.

Not Applicable/ Answered: 13% of respondents indicated that the question was not applicable and another 13% skipped the question.

Note that as only 50% of respondents have sold credits to date, in some cases, the responses received reflect respondents' pre-transaction engagement with purchasers.

⁴⁷ Respondents were asked to identify biodiversity credit purchaser types and to rank them by the highest source of demand to the lowest source of demand. This question allowed respondents to select all multiple-choice response options that applied.

⁴⁸ Note that respondents were instructed to base their answers to this question on their understanding of the likely motivations of purchasers from interest they had received, even if they had not yet sold any credits.

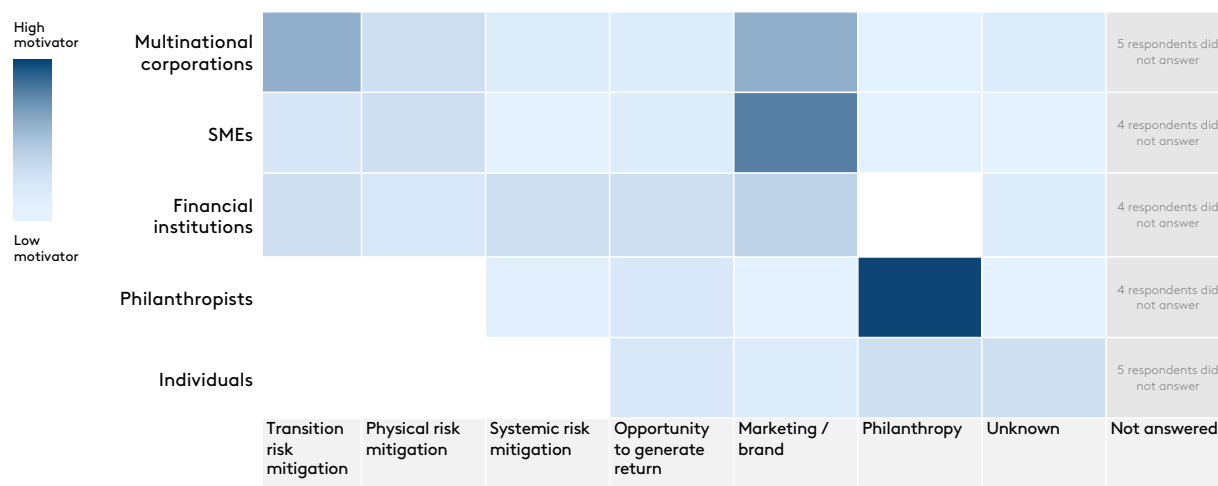
⁴⁹ For this question, respondents were instructed to select all multiple-choice response options that applied.

PERCEIVED DRIVERS OF DEMAND

Respondents indicated that, across all purchaser types, they perceived marketing and brand to be a slightly stronger driver of demand than physical, transition and systemic risk mitigation.^{50 51 52}

The results on perceived drivers of demand are summarised in Figure 3.

FIGURE 3: RESPONDENTS’ RANKING OF PERCEIVED MOTIVATIONS FOR PURCHASING BIODIVERSITY CREDITS BY BUYER SEGMENT



Multinational corporations: Respondents were equally split in seeing transition risk mitigation and marketing/brand as prevailing motivations for multinational corporations (each identified by 44% of respondents).

SMEs: 56% of respondents saw marketing/brand as the prevailing motivation behind SMEs’ interest in purchasing biodiversity credits. The next strongest motivation for SMEs was physical risk mitigation, identified as a prevailing motivation by 25% of respondents.

Financial institutions: Respondents’ perception of the prevailing motivations for financial institutions were mixed. 31% of respondents identified marketing/brand as a prevailing motivation, followed by an equal number of respondents (25%) selecting transition risk mitigation, systemic risk mitigation and opportunities to create return.

Philanthropy: Unsurprisingly, philanthropy was identified as the prevailing motivation for philanthropists (69%).

Individuals: Results regarding the prevailing motivations for individuals did not reflect clear trends. 25% of respondents indicated that the prevailing motivations of individuals were unknown.

50 The categories of nature-related risk to an organisation are transition risks, physical risks and systemic risks. Transition risks stem from a misalignment of economic actors with actions aimed at protecting, restoring, and/or reducing negative impacts on nature. These risks can be prompted, for example, by changes in regulation and policy, legal precedent, technology, or investor sentiment and consumer preferences. Physical risks result from the degradation of nature and consequential loss of ecosystem services. Systemic risks arise from the breakdown of the entire system, rather than the failure of individual parts. (TNFD (2023), ‘[Recommendations of the Taskforce on Nature-related Financial Disclosures](#)’.)

51 75% of respondents (12 of 16 respondents) selected brand / marketing as a prevailing motivation for one or more of the purchaser categories. In this question transition risk mitigation, physical risk mitigation and systemic risk mitigation were provided as separate options. 56% of respondents (9 of the 16 respondents) selected one or more of the risk mitigation options as a prevailing motivation for one or more of the purchaser categories.

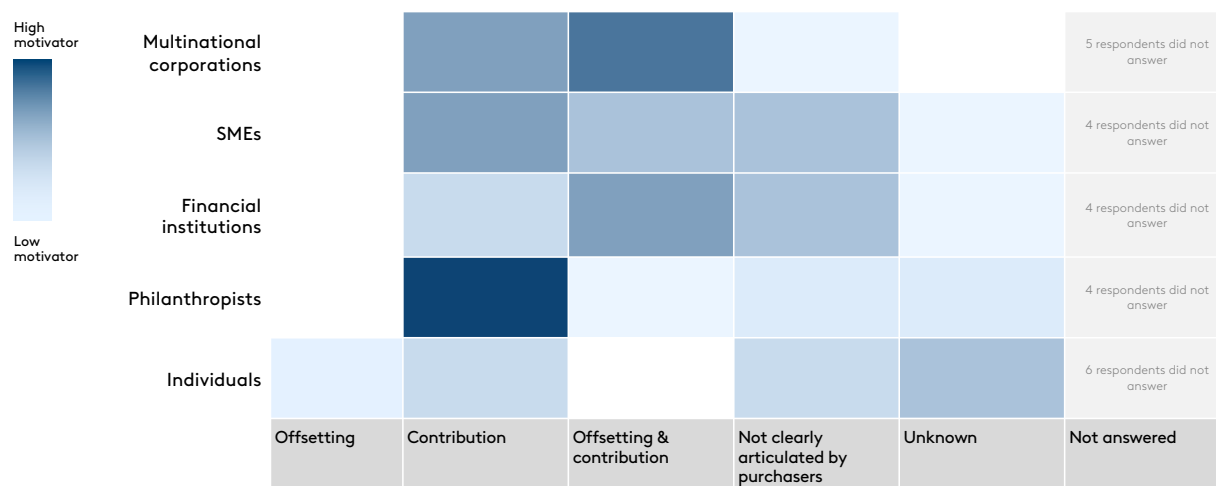
52 This question allowed respondents to select up to three motivations per purchaser category.

PERCEIVED CLAIMS PREFERENCES

Close to one third of respondents perceived contribution claims to be a key form of claims that biodiversity credit purchasers are seeking to make.

The results on perceived claims preferences are summarised in Figure 4.

FIGURE 4: RESPONDENTS’ RANKING OF PERCEIVED PREFERENCES AROUND CLAIMS BY BUYER SEGMENT



Multinational corporations: Respondents identified mixed offsetting and contribution claims (38%) and contribution claims (31%) as the prevailing claims multinational corporations are seeking to make.

Given that contribution claims are different to the standard offsetting claims associated with carbon credits, it is notable that respondent biodiversity credit schemes perceive purchasers to be engaging with contribution claims.⁵³

SMEs: The most common claim type identified as being sought to be made by SMEs was contribution claims, identified by 31% of respondents.

Financial institutions: The most common claim type identified as being sought to be made by financial institutions was mixed contribution and offsetting claims, identified by 31% of respondents.

Philanthropists: 44% of respondents identified contribution claims as the type of claim philanthropists are seeking to make.

Individuals: 25% of respondents indicated that the claim type motivating individuals was unknown.

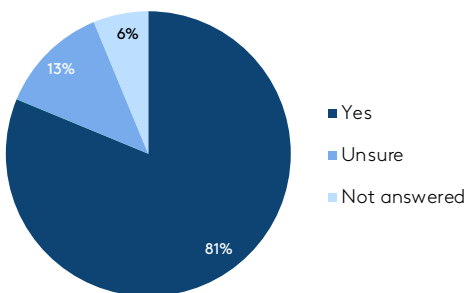
⁵³ Respondents were instructed that their response to this question could be based on their general observations of the market, not exclusively perceptions of demand for their biodiversity credits. Note that this question required respondents to consider biodiversity credits and biodiversity offsets. See Appendix A of this Report for definitions of a 'biodiversity credit' and a 'biodiversity offset'.

PERCEIVED PREFERENCE FOR GEOGRAPHIC NEXUS

The nexus between purchasers’ footprints and locations at which biodiversity credits are generated is perceived to matter for purchasers.

Have you observed purchasers of biodiversity credits to be motivated by / interested in whether the biodiversity credits are generated by projects that are proximate to their operations, investments, and/or sourcing areas?

Respondents: 16



81% of respondents indicated that they have either observed or perceived purchasers of biodiversity credits to be motivated by / interested in whether biodiversity credits are generated by projects that are proximate to their operations, investments, and/or sourcing areas.

13% of respondents were unsure and 6% did not answer the question.



5.3 Supply-side characteristics

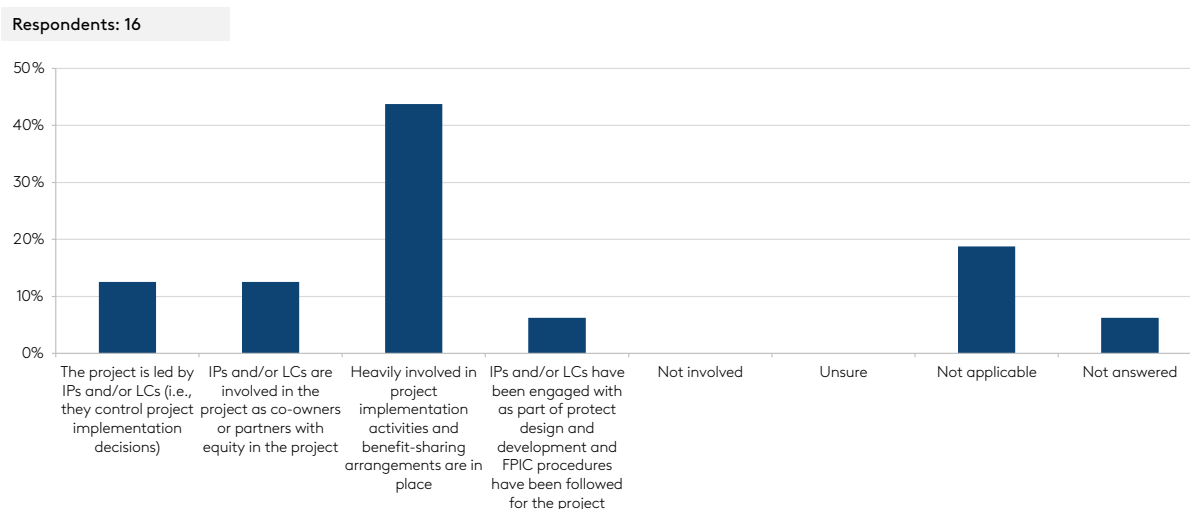
IP & LC INVOLVEMENT

While the vast majority of respondents indicated *some* involvement of IPs and LCs in projects, there is room to evolve participation from delivery and benefit-sharing to project equity and IP and LC leadership.

See Figure 5 below for a visualisation of these results.

FIGURE 5: RESULTS OF QUESTION REGARDING EXTENT OF IP & LC INVOLVEMENT IN PROJECTS

For projects carried out on lands or waters where Indigenous Peoples (IPs) and Local Communities (LCs) have a legal interest and/or continuous connection to the land or sea area, to what extent are those IPs and LCs involved in the project(s) which generate the biodiversity credits you're selling?



Respondents were asked about the extent of IP and LC involvement in biodiversity credit-generating projects on lands/waters where IPs and LCs have a continuous connection and/or legal interest.

75% of respondents indicated that, in those circumstances, IPs and LCs are involved to some extent in projects. The balance of respondents indicated that the question was not applicable to them (19%) or did not answer the question (6%).

The extent of involvement of IPs and LCs differed between respondents. Of the respondents who indicated that IPs and LCs are involved to some extent in projects, the most common form of involvement, selected by 44% of respondents, was that IPs and LCs are heavily involved in project implementation activities and benefit-sharing arrangements or mechanisms that recognise/remunerate stewardship are in place.

The next most common forms of involvement for IPs and LCs, each selected by 13% of respondents, were:

- Co-owners or partners with equity in the project, or
- Project leaders (i.e., they control project implementation decisions).

6% of respondents indicated that IPs and LCs have been engaged with as part of the design and development of projects and FPIC procedures (i.e. obtaining the free and prior informed consent) have been followed for projects.

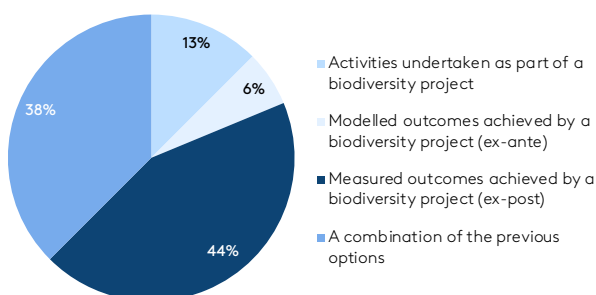
No respondents indicated that where biodiversity credits are generated on lands/waters where IPs and LCs have a continuous connection/legal interest, IPs and LCs are not involved in and have not been formally engaged with as part of the project.

APPROACH TO CREDIT ISSUANCE

Issuance on the basis of ex-post measured outcomes was the most common approach.⁵⁴

On what basis are your biodiversity credits issued?

Respondents: 16



There is significant diversity in the approaches respondents' take to the basis for credit issuance.

44% of respondents indicated that they issue biodiversity credits on the basis of measured outcomes achieved by a biodiversity project (i.e., ex-post).

In comparison, 13% of respondents indicated that they issue biodiversity credits on the basis of activities undertaken and 6% issue on the basis of modelled outcomes.

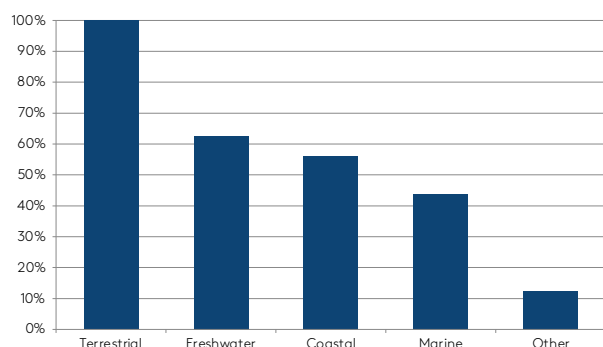
38% of respondents indicated that they use a combination of the three previous options - activities, modelled outcomes or measured outcomes.

COVERAGE OF DIFFERENT ECOSYSTEM TYPES

Biodiversity credit schemes are overwhelmingly geared to the generation of credits in terrestrial ecosystems, but opportunities to generate biodiversity credits in freshwater, coastal and marine environments also exist across many of the respondent biodiversity credit schemes.⁵⁵

In what ecosystems can biodiversity credits be generated under your biodiversity credit scheme?

Respondents: 16



All respondents indicated that their schemes support the generation of biodiversity credits in terrestrial ecosystems.⁵⁶

63% of respondents' schemes support crediting in freshwater ecosystems.

56% of respondents' schemes support crediting in coastal ecosystems.

44% of the respondents' schemes support crediting in marine ecosystems.

⁵⁴ An ex-post approach refers to credits being issued on the basis of measured outcomes achieved by a biodiversity credit project. In comparison, an ex-ante approach refers to credits being issued on the basis of modelled outcomes achieved by a biodiversity credit project. Note that the percentages total to 101% due to the approach taken in this Report to round up all percentages to the closest full number.

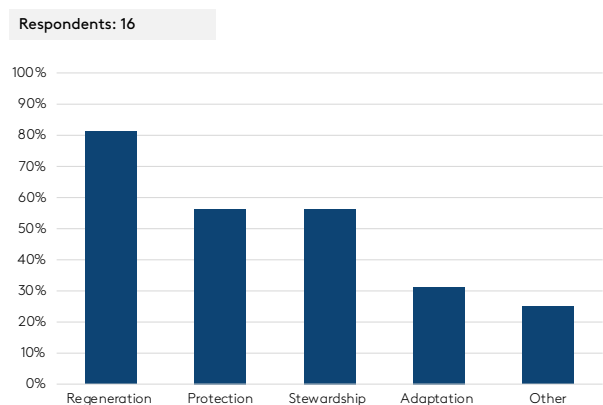
⁵⁵ Note that these ecosystem categories are not mutually exclusive.

⁵⁶ For this question, respondents were instructed to select all multiple-choice response options that applied.

OUTCOMES FOCUS OF SCHEMES

Regeneration is the prevailing focus of the respondents' biodiversity credit schemes.^{57, 58}

What outcome(s) / activity(-ies) do the biodiversity credits under your biodiversity credit scheme deliver?



81% of respondents' schemes credit regeneration-focused activities / outcomes.

56% of respondents' schemes credit protection and stewardship outcomes.

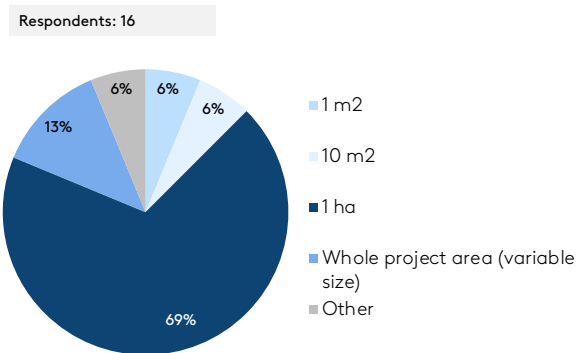
31% of respondents' schemes credit adaptation-focused outcomes.

25% of respondents selected 'Other'.

APPROACH TO AREA-BASED METRICS

The majority of respondents use one hectare as the area-based metric in the unitisation of biodiversity credits.

If the biodiversity credit includes an area metric, what area metric is used?



69% of respondents use one hectare as the area-based metric in the unitisation of their biodiversity credits.

Other respondents use the whole project area (variable size) (13%), 1m2 (6%) and 10m2 (6%).

One respondent indicated that a form of area reference would be utilised in the unitisation of the biodiversity credit, but the area was still being determined.

57 A regeneration-focused approach involves outcomes/activities that deliver an improvement in ecological value over time (either from a measured baseline or a modelled baseline that accounts for projected background loss). See Appendix A of this Report for descriptions of the other approaches (i.e. protection, stewardship and adaptation).

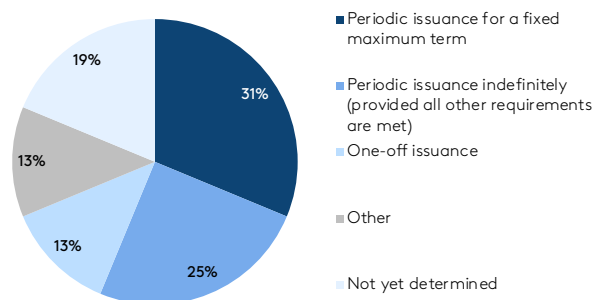
58 For this question, respondents were instructed to select all multiple-choice response options that applied. Note, the options are not mutually exclusive.

TIMING OF CREDIT ISSUANCES

There is significant variability in the approaches respondents are taking to the temporal basis for issuance of biodiversity credits.⁵⁹

On what temporal basis are your biodiversity credits issued?

Respondents: 16



31% of respondents adopt the approach of a periodic issuance for a fixed maximum term.

25% of respondents allow for periodic issuance for an indefinite period, provided that all other conditions are met.⁶⁰ This highlights that some biodiversity credit schemes are diverging from voluntary carbon markets norms in this respect.

13% of respondents support a one-off issuance only.

13% of respondents selected 'Other'.

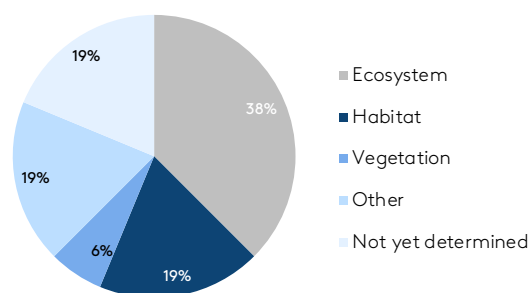
19% of respondents are yet to determine the approach they will take to the temporal basis for issuance.

BIODIVERSITY METRICS USED

There is significant variability in the approach respondents take to the biodiversity metrics that underpin credit generation. Adopted by over one third of respondents, ecosystem metrics were the most common amongst respondent schemes.⁶¹

What approach to metrics is adopted for your biodiversity credit?

Respondents: 16



38% of respondents use ecosystem metrics, 19% use habitat metrics and 6% use vegetation metrics.

19% of respondents use metrics other than ecosystem, habitat or vegetation metrics. Some of these respondents have approaches targeting measurement of a reduction in specific drivers of biodiversity loss.

19% of respondents are yet to determine the approach they will take to metrics.

One respondent identified that the approach to metrics may differ by the activity and the nature of the claims to be made by the purchaser, with more detailed metrics required for assets that provide 'ownership rights' compared to 'contribution' claims.

⁵⁹ Note that the percentages total to 101% due to the approach taken in this Report to round up all percentages to the closest full number.

⁶⁰ Periodic issuances over an indefinite period is one means to support the long-term financing requirements of biodiversity credit projects.

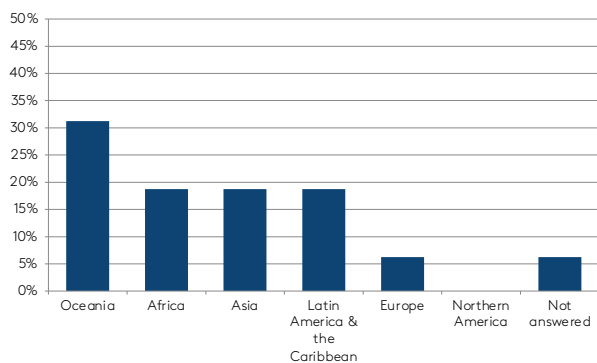
⁶¹ Ecosystem-related metrics involve tracking of a 'basket-of-metrics' across all aspects of the relevant ecosystem type. See Appendix A of this Report for descriptions of the other common approaches (i.e. habit metrics and vegetation metrics). Note that the percentages total to 101% due to the approach taken in this Report to round up all percentages to the closest full number.

GEOGRAPHIC DISTRIBUTION OF PROJECTS

There is significant geographic spread in projects registered under the respondents' biodiversity credit schemes, though Oceania was dominant, with almost one third of respondents indicating that they have a project registered there.

In what regions are projects registered under your biodiversity credit scheme? Please select all that apply.

Respondents: 16



31% of respondents indicated that they have a project registered in Oceania.⁶²

Equal numbers of respondents (19%) indicated that projects are registered under their scheme in Africa, in Asia and in Latin America and the Caribbean.

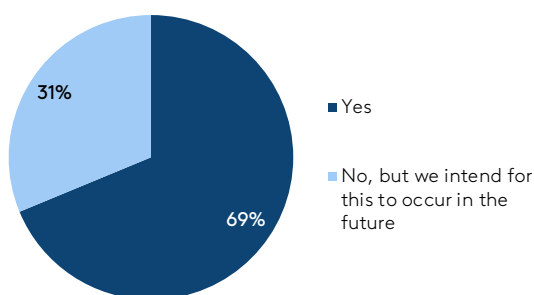
6% of respondents indicated that projects are registered under their scheme in Europe.

APPROACH TO THIRD-PARTY VERIFICATION

All respondents either currently have biodiversity credits issued under their scheme verified by an independent third party, or they intend for that to occur in the future.

Are your biodiversity credits verified by an independent third party entity?

Respondents: 16



69% of respondents indicated that biodiversity credits generated under their scheme are currently verified by an independent third party.

The remaining 31% of respondents indicated that they intend for their biodiversity credits to be verified by an independent third party in the future.

No respondents selected 'No' for this question.

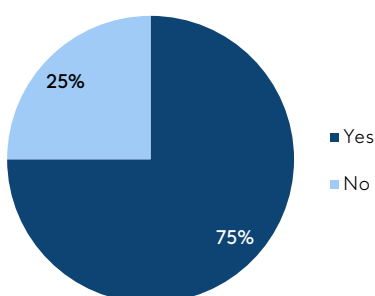
⁶² For this question, respondents were instructed to select all multiple-choice response options that applied.

APPROACH TO STACKING CARBON & BIODIVERSITY PROJECTS

Three quarters of respondents allow biodiversity credits to be generated on the same piece of land as a carbon credit-generating project.⁶³

Does your biodiversity credit scheme allow for your biodiversity credits to be generated on the same piece of land as a carbon credit-generating project?

Respondents: 16



75% of respondents indicated that their scheme allows biodiversity credits to be generated on the same piece of land as a carbon credit-generating project.

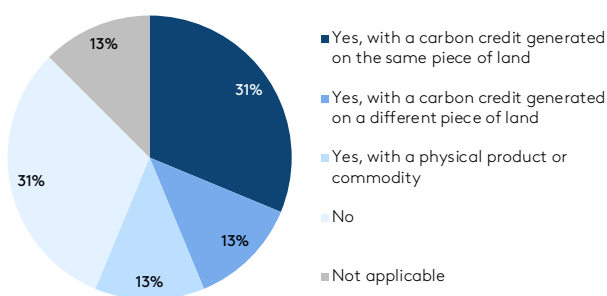
25% of respondents indicated that this is not allowed under their scheme.

APPROACH TO BUNDLING & STAPLING OF BIODIVERSITY CREDITS

The majority of respondents indicated that biodiversity credits issued under their scheme are being sold together with either a physical product/commodity, or with a carbon credit.⁶⁴

Are biodiversity credits issued under your biodiversity credit scheme being bundled with a commodity / physical product or carbon credit?

Respondents: 16



44% of respondents indicated that biodiversity credits under their scheme are being bundled or stapled with a carbon credit, with 31% indicating bundling with a carbon credit generated on the same piece of land as the biodiversity credit, and 13% indicating stapling with a carbon credit generated on a different piece of land as the biodiversity credit.⁶⁵

13% of respondents indicated that their biodiversity credits are being bundled with a physical product/commodity.

31% of respondents indicated that their biodiversity credits are not currently being sold with a physical product/commodity or with a carbon credit.

63 Stacked carbon and biodiversity projects are projects that are carried out within the same area and that generate both carbon and biodiversity credits. The separate carbon and biodiversity credits can be bundled and sold to a single purchaser or sold to separate purchasers.

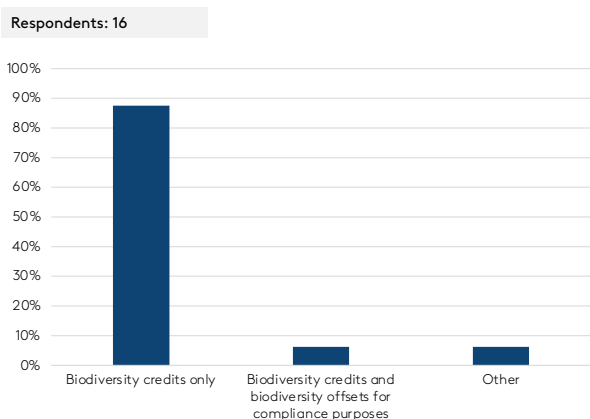
64 Stapled products comprise carbon and biodiversity credits from separate projects that are sold together to a single purchaser. Bundled products comprise carbon and biodiversity credits that are generated from projects that are located within the same area and that are sold together to a single purchaser. Biodiversity credits can also be sold with a physical product/commodity. Note that the percentages total to 101% due to the approach taken in this Report to round up all percentages to the closest full number.

65 Respondents were instructed that their response to this question could be based on their general observations of the market, not exclusively perceptions of demand for their biodiversity credit.

GENERATION OF BIODIVERSITY CREDITS VS BIODIVERSITY OFFSETS

Close to 90% of respondents are generating biodiversity credits only, and not biodiversity offsets.⁶⁶

Is your biodiversity credit scheme intended to support the issuance of biodiversity credits and biodiversity offsets?



88% of respondents indicated that their scheme is intended to support the issuance of biodiversity credits only, and not biodiversity offsets.⁶⁷

6% of respondents indicated that their scheme is intended to support the issuance of both biodiversity credits and biodiversity offsets for compliance purposes.

6% of respondents indicated that their scheme supports the issuance of biodiversity credits for 'Other' purposes.

No respondents indicated that their scheme supports the issuance of biodiversity offsets for voluntary purposes.



⁶⁶ See Appendix A of this Report which defines a 'biodiversity credit' distinct from a 'biodiversity offset'. Responses to this question were based on current approaches adopted by respondents. Where additional information was provided on possible approaches in the future, this has been explained in our analysis.

⁶⁷ For this question, respondents were instructed to select all multiple-choice response options that applied.

Appendix A: Key terms



APPENDIX A: KEY TERMS

Definitions are important in the context of new concepts where a shared understanding of agreed terms and norms has not yet been reached, as is the case with biodiversity credit markets.

For the purposes of this Report, the definitions outlined in the table below apply.

KEY TERM	DEFINITION
Adaptation-focused approach	<p>A subset of the 'Stewardship' category where climate change impacts are taken into consideration based on projected background loss.</p> <p>For example, a project may implement management actions to enhance the resilience of coral reef ecosystems to warming temperatures.</p>
Biodiversity credit	<p>A biodiversity credit is a unit that can be bought and sold, which represents a positive biodiversity outcome achieved by a nature-based solutions project registered under a biodiversity credit scheme that is based on scientifically derived and measurable metrics for biodiversity, and which is not used to offset an equivalent negative impact on biodiversity elsewhere.</p>
Biodiversity credit scheme	<p>A biodiversity credit scheme is a scheme administered by an entity to facilitate the issuance and trading of biodiversity credits in accordance with the requirements of a common standard and approved scientific methodology.</p> <p>The standard sets out the requirements for projects to generate biodiversity credits under the scheme, including, for example, project eligibility requirements, auditing requirements and stakeholder engagement requirements. The methodology sets out the technical requirements for generating credits, including the approach to baselining and monitoring. The standard and methodology can be separate, stand-alone documents or can form one document and can be developed by the same entity or separate entities.</p>
Biodiversity offset	<p>Distinct from a biodiversity credit, a biodiversity offset is a unit that can be bought and sold, which represent a positive biodiversity outcome achieved by a nature-based solutions project registered under a biodiversity offset scheme that is based on scientifically derived and measurable metrics for biodiversity, and which are used to offset an equivalent negative impact on biodiversity elsewhere arising from project development after appropriate prevention and mitigation measures have been taken in accordance with the mitigation hierarchy.</p>
Bundling	<p>Bundling refers to when carbon and biodiversity credits are generated from projects that are located within the same area and are sold together to a single purchaser.</p>
Contribution claims	<p>Contribution claims are claims made by purchasers to be making contributions to global and national targets for nature through the purchase of the biodiversity credit (without a claim that this compensates for the purchaser's negative impacts on biodiversity – i.e. an offsetting claim).</p>
Ecosystem-related metrics	<p>Ecosystem-related metrics involve tracking of a 'basket-of-metrics' across all aspects of the relevant ecosystem type.</p>
Ex-ante approach	<p>An ex-ante approach refers to credits being issued on the basis of modelled outcomes achieved by a biodiversity credit project.</p>
Ex-post approach	<p>An ex-post approach refers to credits being issued on the basis of measured outcomes achieved by a biodiversity credit project.</p>
Habitat-related metrics	<p>Habitat-related metrics involve tracking of a set of biodiversity metrics across critical aspects of habitat for a specific fauna species.</p>

APPENDIX A: KEY TERMS

KEY TERM	DEFINITION
Indigenous Peoples	Globally, there are approximately 5000 distinct Indigenous Peoples (IPs). No single definition of IPs has been adopted, however there are certain definitional criteria under customary international law which assist in identifying IPs. For example, these can include (but are not limited to): occupation of ancestral lands, common ancestry with the original occupants of the lands, distinctive relationships with their lands and resources, customary tenure and legal regimes etc. It is important to note that many IPs are not recognised as such by their governments and, in some contexts, the term 'Indigenous' may be avoided due to fear of discrimination or criminalisation.
Local Communities	Local Communities (LCs) are distinct from IPs and not well-defined in international law. LCs however, similarly to IPs, can have customary or collective land tenure systems, distinct cultures tied to their lands, territories and resources, and enjoy similar legal rights to IPs under national constitutions and other legal instruments.
Nature-related physical risk	Physical risks result from the degradation of nature and consequential loss of ecosystem services.
Nature-related systemic risk	Systemic risks arise from the breakdown of the entire system, rather than the failure of individual parts.
Nature-related transition risk	Transition risks stem from a misalignment of economic actors with actions aimed at protecting, restoring, and/or reducing negative impacts on nature. These risks can be prompted, for example, by changes in regulation and policy, legal precedent, technology, or investor sentiment and consumer preferences.
Offsetting claims	Offsetting claims are claims by purchasers to have offset negative impacts on, including loss of, biodiversity values on the basis of the biodiversity credit purchase.
Protection-focused approach	A protection-focused approach involves outcomes/activities that deliver a verified designation of protected-area status (e.g. through a conservation easement, conservation covenant, Indigenous Protected and Conserved Area, or Marine Protected Area instrument).
Regeneration-focused approach	A regeneration-focused approach involves outcomes/activities that deliver an improvement in ecological value over time (either from a measured baseline or a modelled baseline that accounts for projected background loss).
Stacking	Stacking refers to when carbon and biodiversity projects are carried out within the same area and generate both carbon and biodiversity credits. The separate carbon and biodiversity credits can be bundled and sold to a single purchaser or sold to separate purchasers.
Stapling	Stapling refers to when carbon and biodiversity credits from separate projects are sold together as a single product to a single purchaser.
Stewardship-focused approach	A stewardship-focused approach involves outcomes/activities that deliver maintenance of ecological value over time (based on either a measured baseline or a modelled baseline that accounts for projected background loss).
Vegetation-related metrics	Vegetation-related metrics involve tracking of a set of biodiversity metrics relevant to vegetation condition as a proxy for the overall condition of terrestrial ecosystems. (Note: this metric category is untested for marine credits at this stage, given their nascency.)

Appendix B:
Key demand
insights reports
since 2023



APPENDIX B. KEY DEMAND INSIGHTS REPORTS SINCE 2023

REPORT	DESCRIPTION
<p>'Biodiversity Credits: Demand Analysis and Market Outlook' (December 2023)⁶⁸</p> <p>Published by the World Economic Forum (in collaboration with McKinsey & Company)</p>	<p>This report illustrated what policy and demand drivers would likely achieve across different market scales by 2030 and 2050, rather than providing a projection or forecast for the size of demand. The report concluded that under different scenarios demand could reach between \$760 million and \$7 billion per year by 2030 and between \$6 billion and \$180 billion annually by 2050. Under the ambitious but realistic scenario of 'Effective Development' (where there is steady adoption of nature targets by companies, biodiversity credits playing a significant role in satisfying national and global environmental goals, and expanded use across various consumer product categories), it was envisioned that demand could reach \$2 billion per year by 2030 and \$69 billion by 2050.</p>
<p>'Demand-side Sources and Motivation for Biodiversity Credits' (December 2023)⁶⁹</p> <p>Published by The Biodiversity Credit Alliance (BCA)</p>	<p>This paper provided an initial summary of potential demand and forms the basis for further work by BCA. This paper put forward thinking on the potential sources of demand for biodiversity credits, attributes of credits that may influence buyer choices, and the standards and principles that are likely to be important to some or all the identified demand sources.⁷⁰</p>
<p>'Credit Where Credit's Due: Identifying the Core Principles for a High Integrity Biodiversity Credit Market' (July 2024)⁷¹</p> <p>Published by Plan Vivo Foundation, Blue Marine Foundation and goodcarbon</p>	<p>The report summarised the results of a market survey undertaken in December 2023 by the report's authors focused on the private sector's level of interest and understanding of the emerging biodiversity credit market.</p> <p>The survey, which received 39 responses from companies interested in purchasing biodiversity credits, shed light on broad private-sectors motivations to purchase biodiversity credits, important credit characteristics for purchasers, and drivers behind incentive to pay more for credits. The companies which participated in the survey indicated that credits that were evidence-based, delivered benefits to local communities and were third-party audited were most important. It also revealed that credits that supported IPs and LCs and endangered habitats and species would be valued higher.</p>

68 World Economic Forum and McKinsey & Company (2023), '[Biodiversity Credits: Demand Analysis and Market Outlook](#)'. The report is based on desk-based research, quantitative analysis and broader consultations and workshops with experts, and in-depth corporate interviews carried out by WEF and McKinsey & Company Sustainability from April to June 2023 (p. 2).

69 Biodiversity Credit Alliance (2023), '[Demand-side Sources and Motivation for Biodiversity Credits](#)' (Issues Paper No. 1). Note that BCA develops 'Issue Papers' to "provide background, analysis and research on key topics relevant to the formulation of a market in biodiversity credits" (p. 3).

70 The paper is based on "desk review, evidence gathering, and the collective experience of current BCA Task Force members" (p. 3).

71 Plan Vivo Foundation, Blue Marine Foundation and goodcarbon (2024), '[Credit Where Credit's Due: Identifying the Core Principles of a High-Integrity Biodiversity Market](#)'.

REPORT	DESCRIPTION
<p>Reports on Biodiversity Credit Archetypes (July 2024)⁷²</p> <p>Published by The International Advisory Panel on Biodiversity Credits (IAPB)</p>	<p>In July 2024, IAPB published the results of an online survey conducted from April to May 2024, as well as feedback from discussion sessions run in parallel by IAPB, focused on gathering insights in relation to possible market models (i.e. archetypes) for biodiversity credits and the key factors, challenges and opportunities that could influence their success.</p> <p>In relation to the online survey, insights were provided by 82 respondents from 27 countries across all regions and representing a wide range of sectors and backgrounds, on six key archetypes, all assessed and compared through the lens of five thematic and cross-cutting features: impact, operability, scalability, tradability, and equitability.</p> <p>Responses and feedback received indicated market actors value strong rules, standards, guidelines and independent third-party oversight. In terms of the business case for biodiversity credits, the findings also highlighted the potential for both contribution and compensation models for biodiversity credits to deliver positive outcomes and the increasing strategic importance of biodiversity credits for companies’ strategies and operations.</p> <p>In August 2024, IAPB also published the results of a survey that the Supply Working Group conducted earlier in the year.⁷³ The report summarised insights provided by 60 project developers of biodiversity credits and/or nature-based carbon credits, with the aim to build an understanding of the current state of biodiversity credit projects, what is already being done to develop a sufficient, high-integrity supply of biodiversity credits, and the main barriers and opportunities for developers.</p>



72 IAPB (2024), '[IAPB Consultation on Archetypes: Executive Summary](#)' and '[IAPB Consultation on Archetypes: Analysis Report](#)'.

73 IAPB (2024), '[Landscape analysis of biodiversity credits projects: Results from the Supply Working Group project developers' survey](#)'.



For further information please visit
pollinationgroup.com

DISCLAIMER

Pollination acknowledges the Traditional Owners of the land on which we work and live, and recognises their continuing connection to land, water and culture. We pay respect to Elders past and present.

This material has been prepared by Pollination Global Holdings Limited and its related entities (Pollination Group, or we) and is for general information purposes only and is not an offer, inducement, solicitation or invitation of any kind for the purchase or sale of any financial product or service and under no circumstances is it to be construed as a prospectus or an advertisement. The material has been prepared for wholesale, institutional and professional clients and is not intended to provide you with financial or tax advice and does not take into account your objectives, financial situation or needs. Although we believe that the material is correct, no warranty of accuracy, reliability or completeness is given, except for liability under statute which cannot be excluded and no reliance may, nor should, be placed upon the contents of this material by any person for any purposes whatsoever. Please note that past performance is not indicative of future performance and that no guarantee of performance, the return of capital or a particular rate of return, is given. Pollination Group may hold positions in investments described in this material. This material is proprietary to Pollination Group. The recipient of this material agrees not to reproduce or distribute this material in whole or in part and not to disclose any of its contents to any other person.

If you are subject to Australian law, this material is issued by Pollination Financial Services Pty Limited (ACN 639 669 533) (AFSL No. 539 352) (Pollination Australia). Pollination Australia is part of the Pollination Group.

This material is not intended for use by any US Person (as defined by the US Securities Act 1933) and is not for distribution and does not constitute an offer to or solicitation to buy any securities in the USA.

Please consider the environment before printing.