BIODIVERSITY CREDITS MARKETS

Charting pathways for early investment and sustainable market growth

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1. INTRODUCTION

In December 2022, nearly 200 Parties to the United Nations' Convention on Biological Diversity (UNCBD) signed a landmark agreement to protect nature and biodiversity. The terms of this agreement were established under the Kunming-Montréal Global Biodiversity Framework (GBF), which delivers guidance on how to avert the global biodiversity crisis. The GBF promotes a whole-of-society approach to biodiversity conservation, restoration, and sustainable management. It recognizes that biodiversity loss is a complex and interconnected issue that requires the participation and cooperation of all sectors of society, including governments, civil society, Indigenous Peoples (IPs), local communities (LCs), and the private sector.

The GBF sets the ambitious financial target of mobilizing at least USD 200 billion per year by 2030 in support of biodiversity protection and restoration.To progress towards this target, the agreement invites Parties to leverage private finance (GBF Target 19 Section C) and stimulate innovative schemes, including market-based approaches such as biodiversity credits (Target 19 Section D).[1]

Biodiversity credits, hereafter referred to as "biocredits," are a financial instrument that attaches economic value to preserving or restoring biodiversity resources. The Biodiversity Credit Alliance (BCA) – a UN-backed partnership to guide the formulation of a credible and scalable biocredits markets – defines biocredits as "*a tool to enable investment in biodiversity conservation and/or enhancement.*"[2]

Biocredits markets fall under the wide category of "nature markets," which are markets that value and trade a wide range of ecosystem services.

One characteristic of biocredits is that they are generally not intended to offset negative impacts on biodiversity but are proposed as a net-positive contribution[3] to biodiversity conservation or restoration.[4] Biodiversity offsets, in contrast, are designed to compensate for significant residual adverse biodiversity impacts arising from project development.[5] The goal of biodiversity offsets is to achieve no net loss of biodiversity with respect to species composition, habitat structure, ecosystem function, and people's use of and cultural values associated with biodiversity.[6] Biodiversity offsets are often embedded in mandatory schemes (in contrast to voluntary nature markets schemes) and are regulated by national laws.[7]

Biocredits markets hold significant potential, with numerous stakeholders demonstrating interest throughout 2022 and 2023. However, significant uncertainties persist regarding the ability of biocredits markets to mobilize significant amounts of conservation finance. The Taskforce for Nature Markets, an expert group supporting the development of a new generation of markets that deliver nature-positive and equitable outcomes, asserts: "*The ascent of nature markets can assume a central role in reshaping our unsustainable economy if, and only if, their design and governance are firmly anchored in a radical and robust commitment to*

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[1] GBF Target 19: Substantially and progressively increase the level of financial resources from all sources in an effective, timely and easily accessible manner, including domestic, international, public, and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, mobilizing at least $200 billion per year by 2030, including by:

(c) Leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments.

(d) Stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, and benefit-sharing mechanisms, with environmental and social safeguards.

[2] Biodiversity Credit Alliance. (n.d.). Home | Biodiversity Credit Alliance. Retrieved August 21, 2023, from https://www.biodiversitycreditalliance.org/.

[3] A net-positive contribution on biodiversity is a target for project outcomes where the impacts on biodiversity are positive, meaning that the initiatives funded by biodiversity credits result in a net gain in biodiversity. The IUCN definition of Net-Positive Impacts is available at: https://portals.iucn.org/library/sites/library/files/documents/Rep-2015-007.pdf.

[4] GEF, & IIED. (2023, February 27). Innovative Finance for Nature and People. Global Environment Facility. Retrieved April 6, 2023, from https://www.thegef.org/newsroom/publications/innovative-finance-nature-and-people.

[5] CBD (2016). Biodiversity Offsets, a user guide. Available at: https://www.cbd.int/financial/doc/wb-offsetguide2016.pdf

[6] Forest Trends BBOP – Biodiversity Offsets. Available at: https://www.forest-trends.org/bbop/bbop-key-concepts/biodiversity-offsets/

[7] Biodiversity offsets are therefore excluded from this study.

impact and equity".[8] Nature markets need to be structured, governed and operated promoting clear rules and fair outcomes, empowering people who have a stake or interest in nature, especially those who are historically marginalized or disadvantaged.

If properly designed, biocredits markets could contribute to transforming the economy to a system that respects the natural limits and capacities of the planet as well as the rights and well-being of people in present and future generations.[9] Such markets could complement a broad array of economic and financial reforms necessary to transition from exploitative economies to a sustainable and respectful relation with nature.[10]

On the supply side of the emerging biocredits market, project developers from around the world are eager to pilot innovative methodologies and indices for issuing biocredits. However, concerns have been raised that the scaling private investments for short-term biodiversity 'uplifts'[11] may inadvertently divert attention and resources from achieving long-term conservation objectives (e.g., enhancing ecosystem connectivity at the landscape level, minimizing human-wildlife conflict at the local level, ensuring that areas of importance for biodiversity are effectively conserved and managed at the national level).[12] In fact, the already fragile state of ecosystems could potentially worsen if conservation activities prioritize the achievement of biodiversity uplifts conducive to biocredit issuance rather than the accomplishment of broader conservation targets.

On the demand side, an increasing number of private actors are interested in biocredits markets. This interest aligns with the consideration of the private sector as driver of biodiversity loss under the GBF. Target 15 invites Parties to the GBF to take legal, administrative, and policy measures that encourage businesses to assess and disclose their risks to, and dependencies and impacts on, biodiversity.[13] The assessment of biodiversity-related risks, impacts, and dependencies is expected to serve as a strong incentive for businesses to minimize these risks and impacts by investing in biodiversity conservation and restoration. Biocredits could represent an effective means for achieving this goal.

However, most businesses lack understanding of how biodiversity loss threatens their operations. The Executive Opinion Survey, which gathered insights from over ten thousand business leaders in 121 countries in 2022, revealed that only around five percent of those surveyed believed that businesses hold the responsibility for managing biodiversity risks, while another five percent said that public-private cooperation is the best approach to manage these risks. Alarmingly, only ten percent of the interviewees considered their current risk management strategies to be 'highly effective' or 'effective'.[14] This underestimation of biodiversity-related risks by businesses and the lack of a commonly agreed upon frameworks and principles for the rapidly evolving biocredits markets could delay the mobilization of private investment in biodiversity finance.

What is more, nascent biocredits markets still lack clear incentives and value propositions for corporate investors. Unlike carbon markets, which rely on a common metric and standardized tracking of carbon credits, the biocredits market is largely evolving at this stage, lacking common definitions and principles. There is still no clarity on the underlying claims, prices, or the units corresponding to a biocredit, which makes engagement with the market difficult and risky.

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[8] Task Force on Nature Markets. (2023). Making Nature Markets Work.

[9] Dasgupta, P. (2021). The Economics of Biodiversity The Dasgupta Review: Headline Messages.

[10] Dasgupta, P. (2021). The Economics of Biodiversity The Dasgupta Review: Headline Messages.

[11] Biodiversity 'uplift' is a term used to denote the measurable biodiversity net gain necessary for the issuance of biocredits by a given project.

[12] Ducros, A., & Steele, P. (2022). Biocredits to finance nature and people.; Kedward, K., Zu Ermgassen, S., Ryan-Collins, J., & Wunder, S. (2023). Heavy reliance on private finance alone will not deliver conservation goals. Nature Ecology & Evolution. Retrieved June 14, 2023, from https://www.nature.com/articles/s41559-023-02098-6.

[13] GBF Target 15: Take legal, administrative or policy measures to encourage and enable business, and to ensure that large and transnational companies and financial institutions:

(a) Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity, including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains, and portfolios;

(b) Provide information needed to consumers to promote sustainable consumption patterns;

(c) Report on compliance with access and benefit-sharing regulations and measures, as applicable;

in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production.

[14] WEF. (2023). Global Risks Report 2023. World Economic Forum. Retrieved August 3, 2023, from https://www.weforum.org/reports/global-risks-report-2023/.

This study supports investors in understanding dynamic biocredits schemes. It proposes a high-level framework that organizes the existing and emerging schemes into four categories:

1. **NATIONAL, PUBLICLY-LED SCHEMES**
2. **NATIONAL, PRIVATELY-LED SCHEMES;**
3. **INTERNATIONAL, PUBLICLY-LED SCHEMES;**
4. **INTERNATIONAL, PRIVATELY- LED SCHEMES.**

The study uses this framework, the latest information on biocredits markets, and lessons from carbon markets to evaluate the challenges and opportunities of different biocredits market configurations. Moreover, it places biocredits schemes within the broader context of market design and development, aiming to enhance comprehension of how both existing and emerging schemes can effectively mobilize private finance for biodiversity conservation.

This study delves into the intricate landscape of biocredit schemes, exploring their potential to preserve and restore nature across geographies and scales. By considering a range of market configurations to align with specific use cases and cater to distinct investor groups, the study presents the wide range of possibilities that these schemes offer.

The following sections delineate the criteria employed for categorizing biocredits schemes, elucidate the salient attributes of each group, and furnish illustrative examples. Additionally, the study expounds upon the primary opportunities and challenges inherent in each category, outlining the key incentives for private investors to engage in different schemes. The article concludes with discussing the apt use cases for the various scheme categories, accompanied by high-level recommendations for prospective early investors in the biocredits markets.

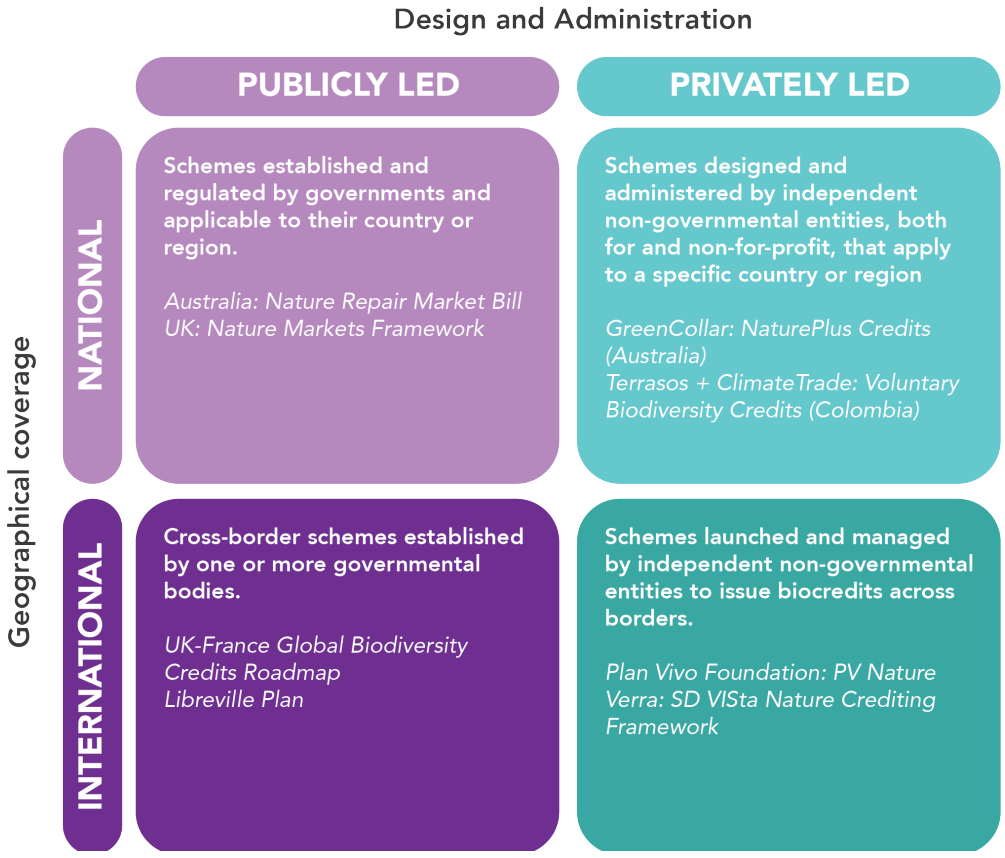
2. A STRUCTURED APPROACH FOR CATEGORIZING THE EVOLVING BIOCREDITS MARKETS

In the wake of the GBF, the ensuing months witnessed an unprecedented surge in biocredits schemes, giving rise to a highly dynamic market landscape. This rapid proliferation, jointly to the complexity inherent in evaluating biodiversity as an asset class, can be confusing for investors seeking to navigate this emerging market. The subsequent section introduces a classification framework designed to bring a high-level structure to this dynamic landscape, aiding investors finding order in the rapidly evolving biocredits markets.

CRITERIA FOR CATEGORIZATION

The framework classifies biocredits schemes as either national or international. International schemes aim to standardize the nature and value of biocredits to enable transactions across borders. National schemes focus on certifying biocredits and their transactions within a country's borders. The framework also defines publicly- and privately-led biocredits schemes. Publicly-led schemes are established by national or subnational governments to achieve public policy goals. Under publicly-led schemes, demand and supply are determined by government incentives or regulation. Privately-led schemes are managed by non-governmental entities and include voluntary standards that respond to perceived market demands, primarily corporate willingness to buy or invest in certified biocredits.

Figure 1. Categorization of biocredits schemes, with two examples per category.



The framework's criteria (international v. national, public v. private) categorize biocredits schemes into four segments (Table 1). not all biocredits schemes considered (see Annex) are currently operational, they may be so in the future. Different schemes are expected to co-exist and respond to the needs and expectations of different buyers and investors.[15]

National, publicly-led schemes are established and regulated by governments and applicable to their country or sub-national administrative units. Examples include Australia's Nature Repair Market Bill[16] and UK's Nature Markets Framework.[17] Both schemes are still under development and will result in national frameworks for the issuance of biocredits. The Australian initiative will assign to a government institution the authority to issue biocredits, while the UK initiative is developing a suite of high-integrity nature investment standards that will regulate and enable national biocredits markets. In both cases, the issuance of biocredits will be recorded on public registries and contain standardized information for investors to compare and value projects within the country.

National, privately-led schemes are designed and administered by independent non-governmental entities, both for and non-for-profit, that apply to a specific country or region. Examples include NaturePlus credits[18] – designed by GreenCollar in Australia – and Voluntary Biodiversity Credits (VBC)[19] – designed by Terrasos and ClimateTrade in Colombia. These schemes are already operational. Each NaturePlus credit represents an area of one hectare of certified restoration or conservation of "environmental condition" over one year in high conservation value landscapes in Australia. Each VBC represents 30 years of conservation and/or restoration of ten square meters in in areas with "great ecological value" in Colombia.

International, publicly-led schemes are established by one or more governmental bodies to operate across borders. At the time of publishing this report, none of these schemes are operational. Two examples of international, publicly-led schemes under development are the Global Biodiversity CreditsRoadmap[20] and the Libreville Plan.[21] The UK and France launched the Global Biodiversity Credits Roadmap in June 2023 with the announcement of plans for a high-level, multistakeholder Advisory Panel to develop a Global Roadmap for high-integrity biodiversity credits.[22] The Panel is expected to present its Roadmap during the UNFCCC COP28 to a range of sovereign, IP&LC, and market actors. In 2024, during UNCBD COP16, the Panel is expected to consult on pilot approaches for developing global biodiversity credit markets.[23]

The Libreville Plan is an agreement between forest countries and the international community to simultaneously protect forests and promote economic development.[24] One of the central elements of this plan are the so-called Positive Conservation Partnerships, which aim to develop a compensation mechanism through which sovereign States and private actors would be able to buy biocredits from High-Forest-Low-Deforestation countries to remunerate them for their positive contribution to nature. The French Development Agency has already committed EUR 100 million to this initiative.

International, privately-led schemes are launched and managed by independent non-governmental entities that see to issue biocredits that are tradable across borders. These schemes primarily target private investors and are often modeled after

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[15] NatureFinance, & Pollination. (2023). Biodiversity Credit Markets: The role of law, regulation and policy | Taskforce on Nature Markets. Retrieved April 21, 2023, from https://www.naturemarkets.net/publications/biodiversity-credit-markets.

[16] Parliament of Australia. (n.d.). Nature Repair Market Bill 2023. Retrieved July 26, 2023, from https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r7014.

[17] UK Department for Environment, Food & Rural Affairs. (2023). Nature markets: A framework for scaling up private investment in nature recovery and sustainable farming. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147397/nature-markets.pdf.

[18] GreenCollar. (2023, August 11). NaturePlus™. GreenCollar. Retrieved from https://greencollar.com.au/our-services/natureplus/.

[19] Grisales, V. (2023, May 23). ClimateTrade and Terrasos will jointly promote Voluntary Biodiversity Credits to boost Habitat Banks and promote the effective conservation of biodiversity. Terrasos. Retrieved July 26, 2023, from https://en.terrasos.co/nota-cbv-climatrade-y-terraso.

[20] UK Department for Environment, Food & Rural Affairs. (2023, June 22). UK – France Global Roadmap launched to mobilise global nature finance. GOV.UK. Retrieved July 26, 2023, from https://www.gov.uk/government/news/uk-france-global-roadmap-launched-to-mobilise-global-nature-finance.

[21] Élysée. (2023, March 2). The Libreville Plan. elysee.fr. Retrieved July 26, 2023, from https://www.elysee.fr/en/emmanuel-macron/2023/03/02/the-libreville-plan.

[22] UK Department for Environment, Food & Rural Affairs. (2023, June 22).

[23] UK Government & France Government. (2023). A Global Roadmap to Harness Biodiversity Credits for the Benefit of People and Planet. Retrieved from https://nouveaupactefinancier.org/img/AGlobalRoadmapForScalingUpHighIntegrityBiocredits.pdf.

[24] Élysée. (2023). The Libreville Plan. Available at: https://www.elysee.fr/en/emmanuel-macron/2023/03/02/the-libreville-plan

voluntary carbon markets (VCMs). Examples include Plan Vivo Foundation's PV Nature[25] and Verra's Sustainable Development Verified Impact Standard (SD VISta) Nature Crediting Framework.[26] Both Plan Vivo and Verra operate in VCMs.

PV Nature plans to issue two types of non-offset 'certificates': restoration and conservation certificates. Plan Vivo restoration certificates are based on percent changes in a set of biodiversity metrics defined at project level. The PV Nature methodology aims to establish standardized habitat and species-based indices across four pillars. Restoration certificates would be issued based on a one percent gain on the basket of metrics for restoration projects. The issuance of conservation certificates requires a project area to meet at least one of the Key Biodiversity Area (KBA) criteria,[27] or two of the Important Plant Area (IPA) criteria.[28] Verra's SD VISta Nature Framework and biodiversity methodology aims to create a global framework for biodiversity projects with localized modules based on biomes or eco-regions.[29] The methodology promises to address trade-offs in measuring biodiversity change, such as global versus local application and restoration versus conservation focus.

[25] Plan Vivo Foundation. (2023, January 9). Biodiversity Standard Public Consultation. Plan Vivo Foundation. Retrieved July 26, 2023, from https://www.planvivo.org/biodiversity-standard-public-consultation.

[26] Verra. (2022). Nature Credits: Financing Nature Conservation and Restoration. Retrieved from https://verra.org/wp-content/uploads/Verra_NatureCredits_Overview_2022.pdf.

[27] Guidelines for using A global standard for the identification of Key Biodiversity Areas : version 1.1 [Resource]. (2020). IUCN. Retrieved April 14, 2023, from https://www.iucn.org/resources/grey-literature/guidelines-using-global-standard-identification-key-biodiversity-areas-0.

[28] IPA Criteria. Available at: https://www.plantlife.org.uk/protecting-plants-fungi/important-plant-areas/#:%7E:text=Important%20Plant%20Areas%20(IPAs),first%20IPA%20criteria%20in%202001.

[29] Collins, B. (2023) Verra biodiversity methodology to provide global framework with localised modules. Carbon Pulse, July, 31, 2023. Available at: https://carbon-pulse.com/214564/

3. OPPORTUNITIES AND CHALLENGES OF DIFFERENT BIOCREDIT SCHEMES

Each of the schemes described above has unique opportunities to channel finance to biodiversity conservation and restoration targeting different demand-side interests and enhancing local capacities.[30] All of the schemes share two main challenges: providing credible, transparent, and timely measurements for conservation and restoration projects, and ensuring that IPs and LCs play a central role in discussions and receive fair deals.[31] While multiple schemes share some of the discussed challenges and opportunities, they are elaborated in the category where a challenge or opportunity is deemed more relevant.

PUBLICLY-LED NATIONAL SCHEMES

Publicly-led national schemes are government-regulated biocredits markets that operate at a national or subnational level. This section describes the opportunities offered and the challenges faced by publicly-led national schemes for biocredits markets.

Opportunities

Public policy aligned with national and international climate and biodiversity goals: Governments develop their domestic schemes as part of a portfolio of measures that contributes to the achievement of national biodiversity and development goals, as well as international commitments. For example, biocredits could contribute to meeting the targets of the GBF. The GBF requires that Parties to the UNCBD reduce threats to biodiversity,[32] to which biocredits would contribute, and elaborate Biodiversity Financing Plans (BFPs) for the implementation of their updated and revised National Biodiversity Strategies and Actions Plans (NBSAPs).[33] Biocredits may be one of the tools leveraged in national BFPs.[34]

Coordinated regulation and public governance: Designing and implementing a national scheme allows direct coordination between government agencies, regulated entities, and other relevant actors such as IPs, LCs, and civil society organizations. Well-designed public regulation can ensure accountability, transparency, fairness, and enforcement of biocredits schemes.

Local relevance: Governments can tailor national schemes to the local biodiversity context and foster particular conservation goals. Metrics and methodologies can be selected or developed for specific national contexts, which could facilitate biocredits based on traditional ecological knowledge (TEK) and Indigenous or local practices. Governments can use national, publicly-led biocredits schemes to recognize and reward the conservation benefits of TEK and IPs' and LCs' practices through the issuance of biocredits.

Increased efficiency: Governments developing national, publicly-led schemes can narrow the focus of their methodologies or standards to high-priority activities. This focus could enable faster development and implementation that, in turn, could activate additional financial flows into conservation and restoration projects.

Challenges

Lack of capacity in biodiversity-rich developing countries: The development and implementation of national schemes requires solid regulatory and

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[30] Creating a market will attract other types of actors and bring technical expertise to a country, such as project developers, verifiers, and validators. All schemes should consider local implementers and IP&LCs in project development.

[31] The study does not cover in detail these challenges as several organizations and studies have already identified and extensively evaluated both options, such as NatureFinance, & Carbone 4. (2023) or GEF, & IIED. (2023, February 27).

[32] GBF Target 4: Ensure urgent management actions to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence.

[33] CBD (2023) National Biodiversity Strategies and Action Plans (NBSAPs) What's New? Available at: https://www.cbd.int/nbsap/

[34] GBF Target 19b: Significantly increasing domestic resource mobilization, facilitated by the preparation and implementation of national biodiversity finance plans or similar instruments according to national needs, priorities and circumstances.

policy frameworks, enforcement, data availability and monitoring systems, technical capacity , and low risk perception by investors. Many low-income countries that have a wealth of biodiversity resources are also exposed to high levels of biodiversity- and climate-related risks but lack institutions with implementation and governance capacity. These countries lack the short-term capacity to establish credible national biocredits schemes.

Limited geographical scope: National conservation and restoration biocredits schemes are constrained within national borders, which can be particularly limiting for protecting the habitats of migratory species or to preserving ecosystems that span multiple countries.

PUBLICLY-LED INTERNATIONAL SCHEMES

Publicly-led international schemes are cross-border biocredits markets that are established by one or more governmental bodies. This section describes the opportunities offered and the challenges faced by publicly-led international schemes for biocredits markets.

Opportunities

Large mobilization of international public finance: International schemes developed by governments aim to raise and channel significant public and private finance to countries from the Global South (Box 1). International schemes could bring together a range of actors with a stake or interest in biodiversity, including governments, international organizations, as well as private sector and financial institutions, civil society, and IPs and LCs organization.

Global recognition: Developing collaborative international schemes could forge new partnerships between governments as well as with the private sector. Partnerships could provide certainty and robustness by including in the discussions and outcomes the recommendations from a wide range of actors and organizations. This could, in turn, generate broad international support and recognition.

Flexibility in disbursing finance: International public finance can identify different mechanisms to allocate finance, considering the conditions and capacities of the recipient country. Traditional instruments such as grants, concessional loans, debt relief could be leveraged as de-risking tools to encourage private investments in results-based instruments such as biocredits. Likewise, finance under international schemes can be allocated multi- or bi-laterally, allowing the schemes to account for the varying conservation priorities, species compositions, and ecological dynamics of each participating country.

Challenges

Standardization: While standardization is a challenge for all schemes, balancing scale and specificity is the main challenge for international standards. Entities developing and administering biocredits schemes would need to carefully evaluate whether the standards adopted are or can be tailored to each geographical location and ecosystem without compromising the context-specificity of conservation and restoration activities.

Cumbersome processes and slow development: The development of one or several international government-led systems would require significant coordination and negotiation processes. Designing such a system may take many years. market for biocredits may also require a new accounting infrastructure that is complex and costly to create.

Limited accountability for international targets: It is not clear if governments could use biocredits for international compliance targets such as those under the GBF and, if this is the case, how accounting would operate.

BOX 1. POTENTIAL FOR INTERNATIONAL SCHEMES TO FINANCE BIODIVERSITY STEWARDSHIP

International schemes exhibit significant potential for mobilizing resources to preserve ecosystems in countries that struggle to establish credible national schemes or that have failed to attract finance through traditional market instruments. One example of countries facing these challenges is the high forest-cover countries[35] in the Congo Basin. The preservation of intact ecosystems of Central Africa has emerged as a global imperative in response to the intertwined challenges of climate change and biodiversity loss.[36] In fact, the Bloomberg NEF recognizes it as a biodiversity funding priority region and target ecosystem.[37] However, existing market-based mechanisms, including carbon markets, are limited in safeguarding intact forests until they are under immediate threat. Forest-based carbon credits, for instance, need to demonstrate the 'additional' benefits in avoiding deforestation threats. This means that efforts to conserve forests in countries with low rates of deforestation cannot access carbon market finance as long as the level of threat remains low. Biocredit schemes can go beyond the traditional concept of 'additionality'[38] because biocredits represent contributions to biodiversity conservation and not the avoidance of biodiversity loss. Biocredit schemes and similar innovative finance mechanisms should formulate tailored methodologies for contexts like the Congo Basin and reward those countries or communities (e.g., IPs and LCs groups) that have successfully conserved and sustainably managed ecosystems and biodiversity resources. This proactive approach could anticipate potential threats to areas of high conservation value and strive to mitigate them effectively.

PRIVATELY-LED NATIONAL SCHEMES

Privately-led national schemes are biocredits markets that are designed and administered by independent non-governmental entities in a specific country or region. This section describes the opportunities offered and the challenges faced by privately-led national schemes for biocredits markets.

Opportunities

Raise domestic private finance: Private schemes can incentivize and channel additional finance from corporates and industries to sectors or regions not reached by public policy, responding to biodiversity risks and challenges of a particular country.

Local relevance: Privately-led national schemes have the potential to address specific local biodiversity issues and priorities. Metrics and methodologies can be selected or developed for specific local contexts. Developed to encourage private sector investments, privately-led national schemes must promote standards that recognize the knowledge and practices of IPs and LCs, ensuring alignment with public policy priorities.

Timely development: Generally, national schemes can be developed faster as the methodologies would only target ecosystems occurring in a particular country, rather than covering the large variety of ecological conditions existing worldwide. Although national laws would likely regulate some aspects of the market (e.g., which standards are accepted or how benefits are shared)[39] and privately-led schemes often go through public consultation processes, they would not go through the same bureaucratical processes as publicly-led schemes. Thus, privately-led schemes are expected to have prompt development and to be more flexible to adapt to market dynamics than public regulations, which usually require more mandatory steps to be approved or bureaucratic requirements).

Challenges

Limited financial scale: Privately-led national schemes might have limited access to international financial resources or investors because as national schemes commonly target demand of industries specific to a country or region.

Variability in metrics and standards: Private schemes will likely develop varying biocredits standards and methodologies. The resulting diversity of standards

[35] Regions with largely intact tropical forests and low deforestation rates.

[36] Goldstein,A.,Noon,M.,Ledezma,J.C.,Roehrdanz,P.,ShylaRaghav,McGreevey,M.,etal.(2021).IrrecoverableCarbon:Theplaceswemustprotect to avert climate catastrophe (Version 1). Retrieved April 13, 2023, from https://zenodo.org/record/5706060. Jung, M., Arnell, A., de Lamo, X., García-Rangel, S., Lewis, M., Mark, J., et al. (2021). Areas of global importance for conserving terrestrial biodiversity, carbon and water. Nature Ecology & Evolution, 5(11), 1499–1509..

[37] Cuming, V., & Bromley, H. (2023). Biodiversity Finance Factbook. Available at: https://assets.bbhub.io/professional/sites/24/REPORT_Biodiversity_Finance_Factbook_master_230321.pdf

[38] ICVCM, The Core Carbon Principles. Available at: https://icvcm.org/the-core-carbon-principles/

[39] Project developers may be requested to get permits to establish conservation projects in order to comply with laws and regulations that protect biodiversity resources. The permits required may vary depending on the location and nature of the project, but they may include permits related to habitat conservation plans, endangered species, wetlands, floodplains, etc.

would pose the challenge of evaluating equivalence between biocredits generated in different countries if the issuance of these biocredits were to be counted toward international targets or in a secondary market.

PRIVATELY -LED INTERNATIONAL SCHEMES

Privately-led international schemes are cross-border biocredits markets that are designed and administered by independent, international non-governmental entities. This section describes the opportunities offered and the challenges faced by privately-led international schemes for biocredits markets.

Opportunities

Large mobilization potential: By attracting private investors and financial institutions, well-designed international crediting schemes have the potential to raise and channel significant financial flows toward conservation and restoration activities where finance is more needed or more cost-effective.

Synergies with carbon markets: Privately-led biocredits schemes could complement carbon markets and leverage their infrastructure, integrating climate and biodiversity benefits into common schemes.[40] Biocredit schemes could also build on the lessons learned from carbon market governance and accounting infrastructure in developing and applying standards and methodologies in different regions.

Flexibility and adaptability: Privately-led schemes are expected to respond to market demands, making them relatively flexible to adapt to changing circumstances. These schemes can channel additional finance to sectors or regions not reached by public policy or explore synergies with the different governments to align their standards with national priorities.

Challenges

Standardization: The same challenges of standardization that apply to publicly-led international schemes also apply to privately-led international biocredits schemes. Privately-led schemes face additional challenges: harmonizing methodologies for measuring conservation or restoration outcomes and regulating credit issuance is essential to ensure the fungibility of credits, promote transparency, and build trust among investors and participating countries. Private standards are therefore expected to generate sufficient volumes of high-integrity biocredits[41] to allow market growth and promote market liquidity, while also ensuring fair deals for all actors involved.

Safeguarding against fraudulent schemes: Well-designed conservation and restoration projects involve a wide array of stakeholders, including scientists, policymakers, IPs, and LCs. Profit-driven motivations could overshadow the involvement of some groups and infringe the rights of the most vulnerable.[42] This power imbalance might result in conservation strategies that are primarily guided by economic incentives, overlooking the ecological, social, and cultural intricacies that conservation projects must engage to protect biodiversity in the long-term.

Slow development: The development of standards that accommodate a wide variety of ecosystems, actors, and interventions could take long time due to difficulties in identifying, and effectively measuring, a biodiversity unit in multiple ecological contexts. Thus, international schemes are expected to require longer development periods than national schemes. This could delay the mobilization of urgently needed financial resources for conservation.

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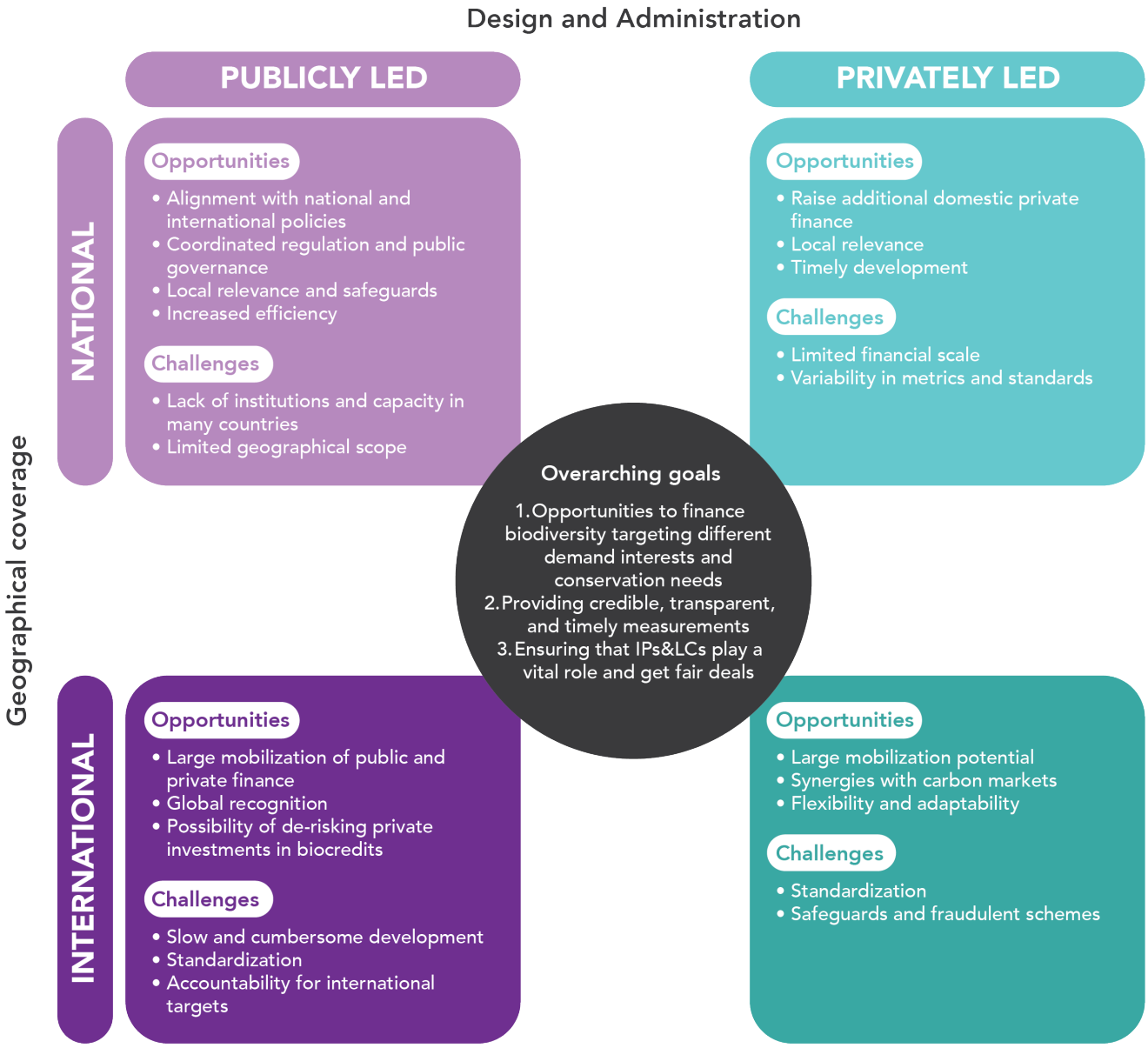
[40] For example, at the time of this study, the French government votes through a law opening space for stacking of biodiversity and carbon credits. Packaging of various ecosystem services provided by nature-based projects on a single area of land into a range of different credit types or units of trade that together form a stack. The components of the stack can then be sold individually to different buyers and separate payments received for each set of services (von Hase et al., 2018).

[41] Although there are no common or internationally harmonized definitions for high integrity biocredtis, Nature Finance defines these as providing credible, timely, and affordable measurement and monitoring of the state, securing adequate price and equitable distribution of rewards, and establishing robust governance and broader, transparent institutional arrangements. NatureFinance, & Carbone 4. (2023).

[42] Chausson, A., Welden, E. A., Melanidis, M. S., Gray, E., Hirons, M., & Seddon, N. (2023). Going beyond market-based mechanisms to finance nature-based solutions and foster sustainable futures. PLOS Climate, 2(4), e0000169.

Figure 2. Opportunities and challenges identified for each category of biocredits schemes



4. INVESTORS IN THE BIOCREDIT MARKETS AND THEIR RESPECTIVE DRIVERS

A range of actors are expected to drive demand for biocredits. On the public side, donor countries and multilateral and bilateral financial organizations will play a central role in financing biodiversity conservation, likely by channeling finance through their usual instruments such as grants, loans, or biodiversity-dedicated funds. Such instruments could be tailored to enhance private investments in biocredits. National governments could also play a vital role if international biocredits schemes are used to support biodiversity-rich countries in the Global South (e.g., Positive Conservation Partnerships envisioned in the Libreville Plan).

Private investors are expected to contribute to closing the financing gap for biodiversity.[43] Despite the growing momentum around biocredits markets, there is uncertainty about private sector interest to engage in the market and the potential amount of finance it may eventually provide. As such, this section focuses on the incentives and value propositions that may drive private sector interest and the unanswered questions that private actors face in this nascent market.

Motivations for private investors

Private investors are likely motivated to invest in biocredits by the following factors:

Contributing to biodiversity and conservation: Philanthropies, companies, civil society organizations or individuals interested in contributing to the protection or restoration of biodiversity may primarily target the landscapes most affected by biodiversity loss or the conservation of which would provide social, development, and economic benefits to vulnerable communities. Biocredits may give them a story to tell about how, where, and why they contributed.

Anticipating transitional and regulatory risks: Some companies already face regulations to mitigate biodiversity impacts caused by their operations (usually called mandatory offsett[44]) and others have the legal obligation to disclose operational risks (such as climate-related risks) in their financial reports. Following the momentum of the GBF, and especially Target 15,[45] corporates may anticipate the emergence of regulations and policies that require the monitoring, assessment, and disclosure of nature-related risks. Engaging in biocredits markets at an early stage can give corporates an advantage when these regulations come into place. Private initiatives such as the Taskforce on Nature-related Financial Disclosures (TNFD) propose guidelines to identify these risks and incentivize a shift to more nature-positive outcomes.

Addressing and anticipating physical risks: More than half of global GDP is dependent on nature,[46] and some industries are already facing operational and physical risks related to nature loss and degradation.[47] According to an analysis by the World Economic Forum, construction, agriculture, and food and beverages are the three industries that depend most on nature.[48] Biocredits could serve as a result-based instrument for vulnerable industries aiming to

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[43] GEF, & IIED. (2023, February 27).

[44] Biodiversity offsetting is referred to mandatory national mechanisms that regulate the compensation elsewhere for biodiversity loss from infrastructure projects. This mechanism is out of the scope of this report.

[45] GBF Target 15: Take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions:

(a) Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity, including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains, and portfolios;

(b) Provide information needed to consumers to promote sustainable consumption patterns;

(c) Report on compliance with access and benefit-sharing regulations and measures, as applicable;

in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production.

[46] World Economic Forum (2020) Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy.

[47] The risks depend on how highly or moderately dependent the industry is on intact ecosystems and their benefits, such as food and timber production, climate, soil formation, clean water, or air purification, among others.

[48] World Economic Forum (2020) Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy.

address biodiversity-related risks within their value chains (referred to as insetting). A company delivering net-positive impacts through biocredits is then expected to improve its Environmental, Social, and Governance (ESG) scoring, consequently enhancing investors' confidence. While this interest can be a significant motivation to invest in biocredits, it will require corporations to recognize how their processes negatively impact biodiversity and how this damage poses a risk to their operations.

Meeting voluntary biodiversity commitments: Corporates are setting voluntary nature or biodiversity commitments. Voluntary nature and biodiversity commitments can include conservation efforts in areas that the company directly controls or beyond their value chain. Corporates could buy biocredits to meet these commitments much like they buy carbon credits to fulfil voluntary climate commitments, The Science-based Target Network (SBTN), a privately-led initiative, proposes steps to set corporate targets for nature.

The use of biocredits that go beyond a company's value chain is gaining momentum. Similar to the climate net zero targets, corporates are keen to go beyond the mitigation hierarchy[49] or outside their value chain to contribute to positive biodiversity outcomes. Australia, the UK, and New Zealand are in the process of setting up frameworks to issue biocredits that could be used to meet voluntary beyond value chain commitments.[50] Corporates are already willing to pay premiums for carbon credits that have certified biodiversity benefits (e.g., credits issued under Plan Vivo or CCB Gold).

Seeking profitable investments: There is a growing demand from the financial sector (e.g., impact investors) to identify bankable conservation projects and help diversify and mitigate nature-related risks in investment portfolios.[51] Biocredits markets would convert biocredits into a new financial asset class by recognizing the monetary value that biodiversity ecosystem services provide and the de-risking opportunities in production chains.[52] Brokers and other financial intermediaries may be motivated to invest once there is a consistent supply of and demand for credits. This would require a secondary market enabling trade among market actors..

Challenges for private investors

The following issues present the main challenges to motivating private sector investment in biocredits:

Issues around flawed methodologies: Accurately evaluating the impact of investments in biocredits is challenging, exposing investors to both reputational and physical risks. Private sector actors may be wary of investing in biocredits and those willing to support biodiversity conservation may inadvertently invest in flawed biocredits schemes, causing inadvertently harm to biodiversity and livelihoods. Similar dynamics have occurred in carbon markets, leaving investors confused and facing reputational damage caused by their investments. Moreover, the damages caused by flawed biocredits methodologies could further increase physical and operational biodiversity-related risks for businesses and financial institutions.

Issues around claims: As there is no globally recognized definition and use of biocredits, investors have questions about the potential claims they will be able to make with these credits. The main incentive for corporates to engage in carbon markets is to buy carbon credits for offsetting emissions. With biocredits, offsetting is not an option. The roles of and claims about biocredits for beyond the value chain contributions are also undefined. Voluntary contributions to biodiversity could act similarly to voluntary beyond value chain climate change mitigation contributions. In this context, the biocredit would not represent a tradable financial asset or be part of regulatory compliance requirements, but rather contribute to the corporate social responsibility goals of a company.[53] Biocredits could potentially be traded as financial assets if they represent a monetary value or financial gain to their buyers.[54] Another question is how corporates and governments will claim biocredits towards national or corporate-level strategies or international commitments, and how biocredits would be accounted for.

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[49] The mitigation hierarchy refers to a set of guidelines for that help development projects limit their negative impacts on biodiversity and aim for no net loss in biodiversity resources. The main steps are: i) avoiding negative impacts on biodiversity by carefully planning the development of a project in space and time; ii) minimizing the the duration, intensity and/or extent of impacts that cannot be avoided; iii) rehabilitate degraded ecosystems or restore cleared ecosystems following exposure to impacts that cannot be completely avoided and/or minimised; iv) offset for any significant residual, adverse impacts that cannot be avoided, minimised and/or rehabilitated or restored, in order to achieve no net loss.
(Forest Trends BBOP. Available at: https://www.forest-trends.org/bbop/bbop-key-concepts/mitigation-hierarchy/)

[50] NatureFinance, & Carbone 4. (2023). Harnessing Biodiversity Credits for People and Planet | Taskforce on Nature Markets. Retrieved July 10, 2023, from https://www.naturemarkets.net/publications/harnessing-biodiversity-credits-for-people-and-planet.

[51] NatureFinance, & Carbone 4. (2023).

[52] NatureFinance, & Carbone 4. (2023).

[53] GEF, & IIED. (2023, February 27).

[54] NatureFinance, & Carbone 4. (2023).

Issue around prices. To date, there is no global reference price for biocredits. The price of biocredits is expected to vary due to the diversity of biodiversity conservation and restoration activities and wide range in time periods that will be represented by a given biocredit. Box 2 presents publicly- and privately-led schemes' most recently announced prices. The BCA states that biocredits prices should not attempt to monetize biodiversity benefits or outcomes. Instead, prices should reflect the cost of providing those actions and related results, such as the costs of human labor and technology to conserve or restore biodiversity.[55] Other organizations argue that setting a price floor from start would provide more fair agreements by guaranteeing that biocredits prices do not drop below the costs of conservation activities.[56]

BOX 2. NOTE ON PRICING

Two pricing schemes are known at the time of this study. Terrasos – a company that specializes in structuring and operating environmental investments – determines the starting price of a biocredit by calculating the net present value of all direct, indirect, and opportunity costs (e.g., labor, capital) over a 30-year project lifetime. The price calculated is USD 30 per 10 m^2 (USD 30,000 per hectare).[57] The UK Biodiversity Net Gain regulation proposes a tiered pricing scheme, subject to the ecosystem type and the respective conservation value. The price starts at GBP 46,000 per hectare (approximately USD 58,600 per hectare at the exchange rate in August 2023). These estimates are provided to assist developers in their planning. The UK government will confirm prices once the regulation enters into force.[58]

[55] GEF, & IIED. (2023, February 27).

[56] Ducros, A., & Steele, P. (2022).

[57] Climate Trade (2022) ClimateTrade and Terrasos jointly promote Voluntary Biodiversity Credits to support biodiversity conservation. May 23, 2023. Available at: https://climatetrade.com/climatetrade-and-terrasos-jointly-promote-voluntary-biodiversity-credits-to-support-biodiversity-conservation/

[58] DEFRA (2023) Guidance: Statutory biodiversity credit prices. Guide prices and information on calculating costs for developers buying statutory credits. Available at: https://www.gov.uk/guidance/statutory-biodiversity-credit-prices

5. CONCLUSIONS

Biocredit are emerging as innovative financial instruments to channel finance to halt and reverse biodiversity loss. While both public and private sectors will engage, biocredits markets are expected to primarily mobilize private sector finance and contribute to closing the biodiversity finance gap.[59] Despite current momentum, it remains considerable uncertainty about how biocredits markets will evolve and their potential to channel finance at the scale and speed needed to address the biodiversity crisis.

On the supply side, many schemes are emerging. National and international schemes are being developed by governments and independent organizations. Despite their differences, these schemes face similar challenges, such as developing standards that accurately quantify biodiversity conservation and restoration outcomes, and ensuring fair benefit-sharing. Categorizing the schemes provides clarity in terms of their opportunities and barriers for different buyers and investors. Publicly-led national schemes will be tailored to achieve national goals, however many countries lack the institutional infrastructure to set up such schemes and inspire investor confidence. Publicly-led international schemes have more flexibility and track records in disbursing finance than national publicly-led schemes, but developing standards that balance scale and local relevance will be challenging. Privately-led national schemes can channel additional finance not reached by public policy, but might have limited access to international finance and investors. Finally, privately-led international schemes have the potential to raise significant private finance, but face the challenge of developing high-integrity standards.

Overall, standardization confronts substantial challenges as it risks compromising the context-specificity of conservation and restoration activities.[60] While striving to develop methodologies for an intricate asset class such as biodiversity, standards certifying biocredits must acknowledge ecological complexity and act responsibly upon it. The creation and validation of precise global methodologies for biocredit issuance will demand a substantial time investment, potentially falling short of addressing the pressing urgency of the biodiversity crisis. Despite these potential risks, international schemes hold the capacity to facilitate substantial financial flows from Global North countries to the biodiversity-rich Global South countries that do not have the resources or governance to manage the biodiversity crisis.

It remains unclear how much private finance biocredits could unlock. Uncertainty about the private sector potential is related to the companies' lack of awareness about operational risks posed by biodiversity loss, lack of regulatory incentives, and the absence of well-defined frameworks for biocredits. Companies' lack of awareness of biodiversity-related risks often leads them to underestimate how their operations depend on and impact biodiversityand impacts of their operations on biodiversity resources.[61] Recognizing and acting upon these risks, as well as acknowledging the damage to biodiversity caused by commercial activities, is the first step to create demand for functioning biocredits markets. Early investors in national schemes stand to gain substantial advantages by confronting and effectively managing biodiversity-related risks and anticipating when frameworks for nature-related financial disclosure potentially come into effect or gain widespread adoption. The interplay between vulnerable industries and national biocredits schemes may become pivotal in this context.

Considering the lessons learned from carbon markets and other mechanisms to finance conservation and restoration of nature, it is crucial that biocredits are aligned with local conservation plans and needs, and do not only target the

[59] WEF. (2022). Biodiversity Credits: Unlocking Financial Markets for Nature-Positive Outcomes. Retrieved from https://www3.weforum.org/docs/WEF_Biodiversity_Credit_Market_2022.pdf.

[60] httpsg://carbon-pulse.com/214564/

[61] WEF. (2023).

specific ecosystem types or activities that are more attractive to buyers.[62] For instance, there could be a tendency to prioritize the conservation of iconic species over less noticeable or visually appealing ones, potentially overlooking their ecological significance.[63] Biocredits schemes prioritizing buyer interest might favor activities that yield a higher volume of credits in a relatively short time, rather than valuing projects that contribute to the conservation of natural ecosystems over the longterm.[64] Yet, the diverse range of activities encompassed by biocredits schemes presents the opportunity to cater to the needs of various investor groups. For example, profit-seeking investors may gravitate towards methodologies that reward restoration efforts in degraded areas, where significant measurable outcomes can be achieved within five to ten years[65]; while investors focused on the contribution to biodiversity conservation or in anticipating risks can invest in untouched natural ecosystems, although measurable outputs might take longer to manifest.

The multifaceted nature of biocredits warrants innovative approaches that go beyond the global standards model followed by carbon markets. From ecosystem services and cultural significance to the management of biodiversity-related risks for businesses, the motivations driving investments and the benefits resulting from such investments can be as diverse as the ecosystems themselves. Biocredits standards should develop methodologies to certify biocredits that represent contributions to these diverse interests and the unique needs of different ecosystems.

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[62] Adamo, M., Chialva, M., Calevo, J., Bertoni, F., Dixon, K., & Mammola, S. (2021). Plant scientists' research attention is skewed towards colourful, conspicuous and broadly distributed flowers. Nature Plants, 7(5), 574–578.; Davies, T., Cowley, A., Bennie, J., Leyshon, C., Inger, R., Carter, H., et al. (2018). Popular interest in vertebrates does not reflect extinction risk and is associated with bias in conservation investment. PLOS ONE, 13(9), e0203694.

[63] Agathe Colléony, Susan Clayton, Denis Couvet, Michel Saint Jalme, & Anne-Caroline Prévot. (2017). Human preferences for species conservation: Animal charisma trumps endangered status. Biological Conservation, 206, 263–269.

[64] Kedward, K. et al. (2023).

[65] Jones, H. P., Jones, P. C., Barbier, E. B., Blackburn, R. C., Rey Benayas, J. M., Holl, K. D., et al. (2018). Restoration and repair of Earth's damaged ecosystems. Proceedings of the Royal Society B: Biological Sciences, 285(1873), 20172577.

6. HIGH LEVEL RECOMMENDATIONS

This study presents five recommendations for investors and private sector companies to engage with the potential biocredits markets at an early stage. Companies and investors should:

1 **Measure how companies' operations impact and depend on biodiversity, identify the associated risks, and set up voluntary targets for nature.**
Companies recognizing these risks is the first step in enabling a functioning biocredits markets. Most biocredits schemes will take time to develop fully. However, companies can anticipate biodiversity-related (physical and transitional) risks and gain substantial advantages by engaging in nature-related financial disclosures (e.g., by following TNFD's guidelines) and making early commitments to voluntary targets for nature (e.g., through SBTN).

2 **Prioritize actions in the value chain before investing in other areas.**
Companies can make net-positive contributions to biodiversity and avoid "nature-washing" by addressing the damage caused by their own operations before making other biodiversity investments. Moreover, companies in sectors like agriculture that face significant vulnerability to biodiversity-related risks can strategically capitalize on the efficiency of national biocredits schemes, employing them as de-risking tools within their supply chains through insetting.

3 **Consider beyond value chain investments for preserving healthy ecosystems.**
Conservation and restoration at the landscape level enhance the delivery of ecosystem services, such as provisioning and regulating ones.[66] These services are often crucial for economic activities but not always accounted for as they are not directly integrated into the value chain.

4 **Engage in holistic approaches considering the multifaceted nature of conservation and restoration and the social and economic benefits for IPs and LCs.**
These elements should be integrated into biodiversity strategies and measured to track progress, not relegated to a box-ticking exercise. Based on experience with VCMs, and the crucial role that IPs and LCs play in managing biodiversity, companies should avoid the development of projects without considering the rights and fair benefits for IPs and LC.

5 **Engage in early discussions on the development of biocredits schemes.**
Participating in these discussions could ensure that the standards address companies' main impacts and dependencies on nature, and help companies understand their responsibilities to IPs and LCs and the requirements with which they must comply.

[66] Ecosystem services can be divided into supporting, regulating, provisioning and cultural. Provisioning services include food and water supply; and the regulating services include flood, disease control, and temperature regulation.

ANNEX: LIST OF BIODIVERSITY CREDITS SCHEMES

The following list of biocredits schemes is non-exhaustive, containing the ones that were mapped by the authors within this study.[67] It may provide readers with an additional resource for understanding the current landscape of schemes. Many of the schemes listed below are still under development.

Table A: Biodiversity credits schemes considered in the study.

SCHEME / CREDIT	ENTITY IN CHARGE OF DESIGN AND GOVERNANCE	PUBLICLY-LED / PRIVATELY-LED	GEOGRAPHICAL SCOPE
Accounting for Nature Standard	Accounting for Nature	Private	International
Australia's Nature Repair Market Bill	Government of Australia	Public	Australia
Biodiversity Certificate	Organization for Biodiversity Certificates	Private	International
Biodiversity Credit	South Pole	Private	Colombia
Biodiversity Credit	Swedish University of Agricultural Sciences	Public	Sweden
Biodiversity Credit Offset Scheme	Government of New South Wales (Australia)	Public	New South Wales (Australia)
Biodiversity Credit System	Government of Gabon	Public	Gabon
Biodiversity Credits	Wallacea Trust	Private	International
Biodiversity Impact Credit	Botanic Gardens Conservation International	Private	International
Biodiversity Net Gain	Government of UK	Public	UK
Biodiversity Standard	BioCarbon Registry	Private	Colombia
Biodiversity Stewardship Token	ERA Brazil	Private	Brazil
Biological Diversity Unit	Wilderlands	Private	Australia
CarbonZ Biodiversity Action Credit	CarbonZ	Private	New Zealand
Cassowary Credit	Terrain NRM	Private	Australia
CreditNature	Ecosulis	Private	UK
Dynamic Biodiversity Token	Recelio	Private	International
EcoAustralia	South Pole	Private	Australia
Global Biodiversity Credits Roadmap	Governments of UK / France	Public	International
HIFOR Unit	Wildlife Conservation Society	Private	International
IC Token	InvestConservation	Private	Australia

[67] Taskforce on Nature Markets & Pollination. (2023). Biodiversity Credit Markets: The role of law, regulation and policy | Taskforce on Nature Markets. Retrieved April 21, 2023, from https://www.naturemarkets.net/publications/biodiversity-credit-markets; Bloom Labs: Biodiversity Credit Schemes. (n.d.). Airtable. Retrieved August 16, 2023, from https://airtable.com/shrhnRYhzN2U1l6R2/tblBzq9LaGHA698zB/viwD1d0qSOax3nhLC.

Libreville Plan	Multilateral initiative	Public	International
Marine Biodiversity Token	NewAtlantis Labs	Private	International
Marine Ecosystem Credit	Open Earth Foundation	Private	International
MERIT	Single Earth	Private	International
Native Vegetation Credit Register	Government of Victoria (Australia)	Private	Victoria (Australia)
Nature Credit	Rebalance Earth	Private	Africa
Nature Impact Token	CreditNature	Private	Scotland
Nature Markets Framework	Government of UK	Public	UK
Nature Uplift	Pivotal	Private	International
NaturePlus Credits	GreenCollar	Private	Australia
Ocean Conservation Credits	Niue Ocean Wide Trust	Private	Niue
PV Nature	Plan Vivo Foundation	Private	International
Reef Credit Scheme	Eco-markets Australia	Private	Australia
Sustainable Development Unit	Ekos	Private	New Zealand
Verified Impact Standard (SD VISta) Nature Crediting Framework	Verra	Private	International
Voluntary Biodiversity Credits	Savimbo	Private	South America
Voluntary Biodiversity Credits	ValueNature	Private	South Africa
Voluntary Biodiversity Credits	Climate Trade / Terrasos	Private	Colombia