

Building towards Nature Markets for the European Union

A CASE FOR AN EU-WIDE
CERTIFICATION FRAMEWORK



Colophon

Acknowledgements:

This paper was prepared by Metabolic in association with The Nature Conservancy, with authorship by a team led by Jonathan Aronson including Seunghye Lee and Aysegul Celik for Metabolic and Andras Krolopp and Noor Yafai-Stroband for The Nature Conservancy. The authors would like to thank those who generously dedicated their time to share insights during the development of this work, reviewed various drafts, and provided invaluable feedback: Glenn Anderson, Axel Rossberg and Sophus Zu Ermgassen, Rob Cunningham, and Thomas Pickford.

About this Paper:

The Nature Conservancy (TNC) commissioned Metabolic to partner together on developing this report, in order to contribute constructively to the intended policy workstream signalled by the European Commission on 'Nature Markets'. Metabolic has acted as lead author of the report with an initial brief, guidance and feedback from TNC, in support of this collaboration.

December 2024

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GLOSSARY

Definitions	
Biodiversity Certificates or Credits	Earned and/or tradable units representing measurable conservation or restoration outcomes aimed at enhancing biodiversity, which can be used for offsetting biodiversity loss or supporting voluntary conservation initiatives.
Biodiversity Net Gain (BNG)	A principle requiring that development projects leave biodiversity in a better state than before, ensuring an overall increase in biodiversity after the project is completed.
Biodiversity Offset	Conservation activities designed to compensate for biodiversity losses caused by development, aiming to achieve "no net loss" or a net positive outcome for biodiversity (BBOP, 2012).
Common Agricultural Policy (CAP)	The EU's agricultural policy aimed at supporting farmers, ensuring food security, and promoting sustainable agriculture and rural development across Member States.
Development	Development refers to any construction, modification, or land-use change that has the potential to impact biodiversity. This includes a wide range of activities such as building new homes, infrastructure projects (e.g., roads and bridges), commercial developments, or agricultural expansions.
Environment Act 2021	UK legislation focused on improving air quality, water resources, and waste management, and introducing mandatory biodiversity net gain for developments.
European Green Deal	The EU's strategy for making the European economy sustainable by transforming climate and environmental challenges into opportunities, with the goal of achieving net-zero greenhouse gas emissions by 2050.
Mitigation Hierarchy	In the European Union, the policy that regulates the impacts on biodiversity caused by urban development is the 'Environmental Impact Assessment' (EIA) Directive (Directive 2011/92/EU). The EIA mandates housing developments to maintain biodiversity levels over time by following the hierarchy of: (1) avoid environmental damage where possible, or else, minimize it; (2) restore unavoidable damage; and (3), offset impacts that cannot be restored on-site (Cillero, 2023).
EU Nature Directives (Birds and Habitats)	EU legislation comprising the Birds Directive and Habitats Directive, which aim to protect and conserve endangered species and habitats across Europe.
Nature Restoration Law (EU)	New EU legislation aimed at restoring degraded ecosystems and promoting biodiversity, contributing to the EU's overall environmental and climate goals
No Net Loss and Net Gain	A goal for a development project, policy, plan or activity in which the impacts on biodiversity it causes are balanced or outweighed by measures taken to avoid and minimise the impacts, to restore affected areas and finally to offset the residual impacts, so that no loss remains. Where the gain exceeds the loss, the term 'Net Gain' may be used instead.
On-site	'On-site' includes all land within the boundary of a project. In a planning context, this usually means within a red line boundary.
Off-site	'Off-site' is all land outside of the on-site boundary, regardless of ownership.
National Biodiversity Strategy and Action Plan (NBSAP)	A policy document that outlines a country's strategy for national biodiversity planning, with a focus on conserving and sustainably using biological diversity. It serves as the main tool for implementing the Global Biodiversity Framework at the national level.
Kunming-Montreal Global Biodiversity Framework (KMGBF)	An international framework to halt biodiversity loss and restore ecosystems, adopted by nearly 200 countries at the COP15 summit in December 2022 in Montreal. It sets goals and targets through 2030 to protect nature, curb extinction, and promote sustainable use of biodiversity.

01

Introduction

1.1 SCOPE OF THIS PAPER

This paper outlines the case for establishing a common, EU-wide framework to enable the development of credible, effective, and regulated Nature Markets in Europe. As one of the environmental policy priorities of the new European Commission for the coming years, Nature Markets are gaining traction. They aim to unlock investments in projects and initiatives that can generate proven biodiversity benefits (e.g. biodiversity net gain) as well as to mobilize other forms of nature financing. Informed by research on biodiversity offsets and credits, net gain principles, and successful case studies, the paper identifies the potential for the European Commission to support EU Member States wishing to introduce Nature Market schemes. The recommendation is to develop a common certification framework, in line with Single Market principles and designed to support implementation of existing legislation, such as the EU Nature Restoration Law, which is vital to address Europe's biodiversity crisis.

Accredited biodiversity certificates are needed to enable the development of Nature Markets, ensuring that restoration, species recovery, and offset strategies are effectively implemented, resourced, and aligned with established conservation goals. Such certificates would establish transparency and accountability for claims of biodiversity outcomes such as “no net loss” or “net gain”. Introducing high-quality biodiversity certificate schemes at national, Member State levels, could advance many of the EU's long-standing biodiversity goals, including restoration of habitats, species recovery, and financing for biodiversity. However, the implementation of some mitigation measures, such as offsets, can be challenging. These strategies therefore require careful consideration, planning, and resourcing.

To manage the complexity of “no net loss” or “net gain” initiatives, the paper calls for a scientifically rigorous, consistent accreditation process across the EU. This approach would create a formal framework for validating and monitoring biodiversity initiatives at the EU level, avoiding a fragmented landscape of 27 individual systems. An EU-wide framework would provide foundational technical guidance, scientific standards, and governance principles that each Member State could adopt, enabling them to establish national Nature Market schemes if desired.

At the same time, introducing a clear and credible EU-wide framework will also send clearer signals to prospective investors in biodiversity projects across the European Union, encouraging greater private sector investment in biodiversity and environmental outcomes. This alignment with the Target 19 goal of the Kunming-Montreal Global Biodiversity Framework (KMGBF) would further mainstream biodiversity across economic sectors. Given the increased momentum for Nature Markets in Europe, this paper investigates why a common certification framework is necessary and beneficial in achieving the European Union's biodiversity goals, and how credible certification could be implemented across the European Union.

1.2 CONTEXT AND URGENCY

Europe's biodiversity is in a state of crisis, with a significant decline observed over the past decades. In their latest assessment, the European Environment Agency (EEA) showed that 81% of EU habitats are in poor condition, and nearly 50% of species assessed under the EU Birds and Habitats Directives are considered to have an unfavorable conservation status (European Environment Agency, 2020). These alarming trends are the result of multiple interconnected and reinforcing pressures on nature, including agricultural intensification, deforestation, pollution, urbanization, invasive species, and climate change.

Our society is deeply embedded within nature, with our economy and wellbeing strongly coupled to healthy, functioning ecosystems. Globally, over 50% of the GDP depends on the functioning of ecosystem services such

as food production, water purification, pollination, and carbon sequestration (European Commission, 2020). Pollination is essential for 75% of our food production, with an estimated annual global economic value of up to €577 billion, yet populations are declining for 37% of bees and 31% of butterfly pollinators in Europe (IPBES, 2016). This has major consequences for European food security and sovereignty. Ecosystem services, provided by healthy and functioning ecosystems, are essential for human survival and economic stability. The continued depletion of natural capital poses severe risks to future economic and societal stability, as well as threatening the inherent value of nature itself.

To halt and reverse this decline, new paradigms, ideas, and innovative solutions are needed that integrate nature conservation and restoration with our economy. Traditional economic models, which have often treated nature as an infinite resource, must shift towards nature-positive approaches that value biodiversity as a crucial component of our economy. This includes embedding biodiversity considerations into policymaking, investments, and land management.

By adopting the Nature Restoration Law, the EU has demonstrated international leadership towards implementing commitments it has made under the KMGBF. By introducing a credible framework for enabling the development of Nature Markets across its 27 Member States, the EU has the opportunity to unlock wider financing for successful implementation of the Nature Restoration Law, and it could contribute further global leadership by initiating an international policy blueprint that other countries and regions may follow.



1.3 THE MITIGATION HIERARCHY AND CONCEPT OF BIODIVERSITY NET GAIN

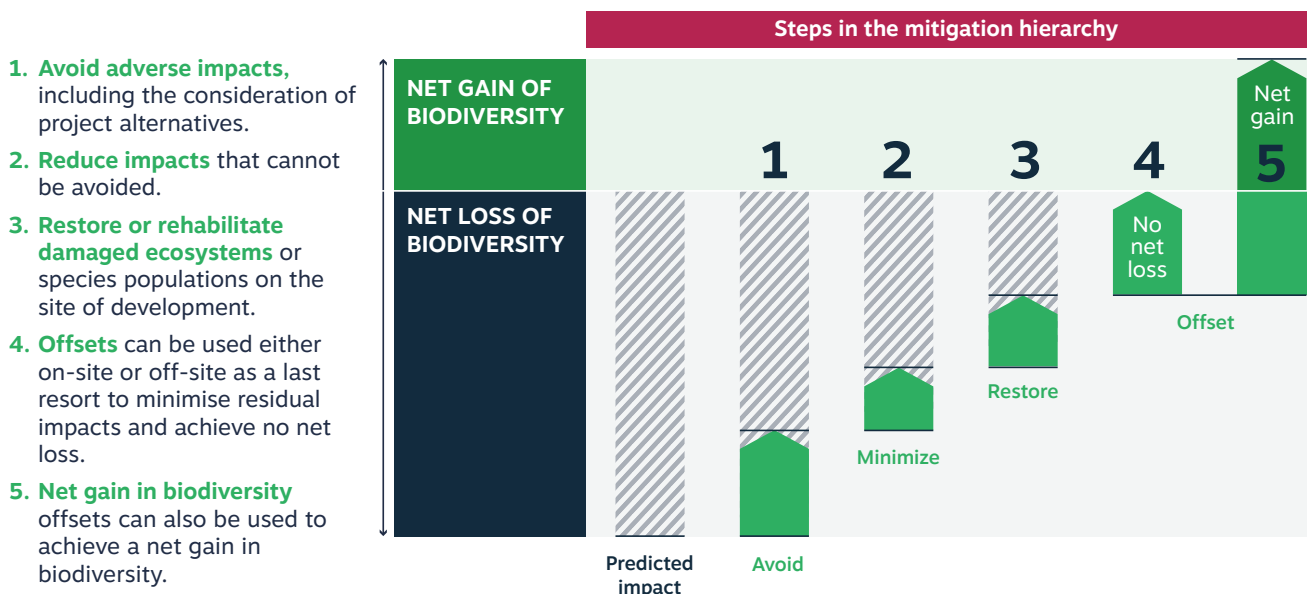
Developing credible and effective Nature Markets requires a robust biodiversity certification system, which rests upon the principles of the mitigation hierarchy and biodiversity goals of “no net loss” and “net gain”. The mitigation hierarchy is a conceptual framework to guide development across sectors, aiming to avoid adverse biodiversity impacts (Arlidge et al., 2018). The hierarchy consists of four stages, ranked from most favorable to least favorable for biodiversity (Figure 1): The first, and the most preferred stage, is to avoid any biodiversity destruction, while the second is to minimize the impact on biodiversity as much as possible. Stage three refers to restoring any damage done in the development process, while stage four relates to offsetting the damage done. Ideally, a plan for adherence to the mitigation hierarchy must be developed following an impact assessment during the planning stage of any new project with known site-based impacts. By necessity, the steps must be followed sequentially to ensure that efforts to avoid and minimize impacts are made to the maximum extent possible.

Offsets in the context of biodiversity are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development (or policies, plans and activities) after

appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and, ideally, a net gain of biodiversity on the ground with respect to species composition, habitat structure, condition, and ecosystem function, and people’s use and cultural values associated with biodiversity (Business and Biodiversity Offsets Programme (BBOP), 2012).

“No net loss” occurs when the biodiversity impacts caused by a development project, policy, plan, or activity are fully balanced or outweighed by measures to avoid and minimize impacts, restore affected areas, and ultimately offset residual impacts, ensuring no net loss remains. When the gain exceeds the loss, the term “net gain” applies instead.

Biodiversity Net Gain (BNG) has emerged as a critical strategy for integrating ecological health with developmental progress. BNG is a proactive approach to ensure that developments not only mitigate their negative impact on the natural world but actively enhance it. It is calculated by assessing the impact of a development project on biodiversity and ensuring that the post-development state shows a quantifiable improvement over the pre-development baseline (Baker et al., 2019). If the level of biodiversity after a development is higher, a net gain in biodiversity is achieved. Figure 1 shows how biodiversity net gain relates to the mitigation hierarchy, highlighting how it extends beyond avoiding negative impacts to improving the status quo.



Source: TNC (2021), adapted from from Bennet et al. (2017).

Figure 1

Mitigation hierarchy showing offsetting of residual impacts through no net loss or net gain activities.

02

Learning from Existing Nature Market Approaches

The use of biodiversity credits, net gain, or offsets are not new concepts. Although Nature Markets are still nascent, with various approaches and methodologies being developed to ensure credibility, transparency, and impact, numerous efforts employing these principles exist across many countries (IAPB, 2024a, 2024b). Similarly, hundreds of projects using a related approach, Payments for Ecosystem Services (PES), occur globally (Salzman et al., 2018). There is also increasing momentum for Nature Markets globally. For example, a recent IAPB report (IAPB, 2024a) proposes a “Framework for High-Integrity Biodiversity Credit Markets,” highlighting the need for standards to ensure that Nature Markets make real, measurable contributions to conservation. Additionally, the EU has also launched pilot projects to explore biodiversity certification as an innovative finance tool, including through a wetlands project in France and a forest project in Estonia. These projects, announced at COP 16, aim to support biodiversity directly rather than offset biodiversity loss. Key partners, such as the European Investment Bank and the International Union for Conservation of Nature (IUCN), are involved to develop collaborative, high-integrity approaches to conservation finance (European Commission, 2024b). Below we summarize several projects and programs which apply biodiversity offsetting approaches and pull out their key lessons.

2.1 BIODIVERSITY NET GAIN IN ENGLAND

England's BNG scheme is a legislative framework that mandates new developments to result in a net increase in biodiversity. The scheme aims to halt biodiversity loss by ensuring that any adverse impacts on biodiversity from development are outweighed by gains on-site or elsewhere. Under the Environment Act 2021 (Environment Act 2021, 2021), the BNG requirement became mandatory for most new developments in England starting in 2024, requiring a minimum of 10% biodiversity net gain.

Biodiversity impacts are quantified using a metric that measures habitat quality and area, translating these into "biodiversity units". Gains can be achieved through one of three methods:

- a) creating biodiversity on-site,
- b) creating biodiversity off-site or buying off-site biodiversity units on a market, or
- c) buying statutory biodiversity credits from the government.

Key lessons from this scheme include:

- **Standardized metrics and measurement tools:** Essential to account for diverse habitat types, allowing for consistent and comparable biodiversity assessments.
- **Register system:** Centralized registration supports transparency and tracking of biodiversity units and gains.
- **Mandatory legal framework:** A binding framework ensures compliance, creating accountability for biodiversity net gain requirements.
- **Flexible contractual structures:** Enables local authorities to enter into various contract types to address specific local biodiversity needs.
- **Integration with planning processes:** Embedding biodiversity net gain requirements within the planning stages facilitates seamless implementation.
- **Minimum net gain percentage:** Setting a baseline (e.g., 10%) helps ensure meaningful biodiversity improvements from developments.
- **Offsite compensation with accountability:** Allows flexibility for developers while maintaining strict oversight through long-term management plans for off-site units.
- **Long-term commitment by landowners:** A requirement for prolonged habitat management (e.g., 30 years) secures the durability of biodiversity gains.
- **Training and certification for ecologists:** Regular training and a certification system through recognized institutes (e.g., CIEEM) ensure quality and accuracy in biodiversity assessments.
- **Statutory biodiversity credits as a last resort:** Developers must demonstrate why other options were unfeasible before purchasing credits from the government (which are more expensive), reinforcing a hierarchy of biodiversity gain measures.
- **Enforcement systems:** Strong enforcement, including repercussions for non-compliance, is necessary to uphold contractual commitments to biodiversity maintenance.

Relevance to the EU:

The UK's approach demonstrates how a credible, underlying certification system can offer standardization, transparency, and adaptability, addressing the complexity of tracking biodiversity gains. It highlights the need for a clear legal structure, ongoing monitoring and integration with the development planning system – elements that an EU-wide system could similarly implement through a compliance-based model. One key challenge for the EU would be ensuring adequate enforcement of measures, including checks on delivery of biodiversity outcomes, which is a challenge in England. Capacity building to ensure Planning Authorities have sufficient knowledge and skills to evaluate BNG projects may be needed.

2.2 HABITAT BANKS: WENDLING BECK PROJECT

Habitat banking is where landowners uplift the biodiversity of their land in advance of selling environmental credits (such as biodiversity units). The increased biodiversity value is converted into metricated units that can be sold to entities (e.g. developers) needing to deliver off-site biodiversity net gain. The habitat improvements are made before the units are sold (typically many years in advance), making this an ecologically advantageous system and de-risking the chance of habitat failure. The term “habitat bank” can refer to either the parcel or parcels of land where the value of biodiversity is uplifted to provide off-site biodiversity units or, the green finance approach where investors support habitat restoration and creation, receiving both financial and environmental benefits (Local Government Association, 2024). An example of a habitat bank is the Wendling Beck Exemplar Project, which provides a real-world model of BNG implementation at the local level in the United Kingdom.

Situated in Norfolk, UK, and covering approximately 800 hectares, the Wendling Beck project involves stakeholders including landowners, conservation organisations, local government and the private sector in creating a large-scale biodiversity restoration initiative (Natural England, n.d.). The project aims to demonstrate how landscape-scale land use change can deliver BNG while still integrating sustainable agriculture and improving access to nature for local communities. By restoring and enriching habitats, the project uses a payments for ecosystem service (PES) model to generate revenue. Extensive baselining was undertaken using the UK statutory *Biodiversity Metric* to be able to quantitatively demonstrate the improvements being made. Biodiversity credits are generated by these habitat improvements which can be sold to developers who need to offset their biodiversity impact.

Key lessons from this scheme include:

- **Scalable, landscape-level approaches:** Essential for creating impact at a broader ecological scale, supporting biodiversity goals more effectively.
- **Financial resilience in Nature-Based Solutions:** Integrating financial stability into nature-based initiatives to ensure long-term viability.
- **Harmonizing agricultural practices with biodiversity goals:** Aligning farming activities with biodiversity targets to create mutual benefits.
- **Ample time for initial project setup:** Allowing sufficient setup time in early program stages to ensure smooth implementation.
- **Strong collaboration:** Building partnerships among landowners, local communities, and conservation organizations for shared biodiversity goals.
- **Good monitoring, measurement and data management practices:** Employing effective monitoring, reporting and verification (MRV), along with best practice data management to track and report on biodiversity outcomes accurately.
- **Legal liability for Habitat Banks:** Ensuring habitat banks are legally accountable through legislation (conservation covenant), reinforcing responsibility for biodiversity gains.
- **Strong Governance:** Ensuring long-term stability through a strong governance plan and robust corporate structure (SPV), which legally binds the landowners over the long-term and provides a long-term business plan.
- **Spatial modeling of BNG demand:** Quantifying market opportunities through spatial modeling by habitat type.
- **Due diligence procedure for biodiversity gain sites:** A detailed land search and registration process to certify land as a biodiversity gain site on the Government register.
- **Test site for nature-based solutions:** Establishing areas to trial and pilot innovative solutions (e.g., phosphorus and nitrate removal for Nutrient Neutrality).
- **Novel techniques for monitoring habitat and species recovery:** Exploring advanced tools such as bioacoustic monitoring, environmental DNA (eDNA), and remote sensing to monitor habitat transitions and species recovery.





Relevance to the EU:

The Wendling Beck project demonstrates how large-scale habitat restoration can generate biodiversity credits whilst also supporting sustainable agriculture. It shows that habitat banking can align economic incentives with biodiversity goals, offering opportunities for private sector involvement. The project's integration of robust monitoring, stakeholder collaboration, and transparency in generating biodiversity credits can guide the EU in establishing a scalable, market-based certification framework that meets both conservation and economic objectives across diverse regions. This project's approach also aligns closely with the goals of the Common Agricultural Policy (CAP), illustrating how CAP funding could support biodiversity-positive practices within agriculture, such as habitat restoration and ecosystem management, thereby advancing sustainable agriculture and measurable biodiversity gains across the EU.



2.3 CASE STUDIES FROM OUTSIDE EUROPE

Australia has an offset system using ecomarkets in the state of Victoria, rather than a country-wide net gain mandate like in England. BushBroker is a system to register and trade native vegetation credits (The State of Victoria Department of Sustainability and Environment, 2006). The Victorian State Government operates BushBroker, overseeing the registration, listing, extinguishing, and quality control of native vegetation credits. Owners and buyers manage transactions and offsetting. Credits must meet specific conditions, secured through agreements with a public agency, which are registered on land titles. BushBroker maintains a statewide database where buyers search for matching credits, which are used only once as offsets (The State of Victoria Department of Sustainability and Environment, 2006). Native vegetation credits can be established in several ways:

- A landholder funds the creation of credits and enters into an agreement with a public agency.
- Credits are established through a credit auction, where landholders set a price for creating credits, which are then sold to permit applicants.
- A permit applicant finds and funds a landholder to establish the credits.
- Private land is contributed to the public conservation reserve system.
- Like other markets, the price of native vegetation credits is determined by supply and demand. Since some vegetation types are scarcer than others, credit prices vary (The State of Victoria Department of Sustainability and Environment, 2006).

The **United States of America** has a well-developed offset market, largely driven by federal regulations such as the Endangered Species Act (ESA) and the Clean Water Act (CWA) which require developers

to mitigate environmental impacts caused by their projects. One of the key mechanisms within this framework is conservation banking, a system where landowners partner with government agencies and developers to protect species and their habitats. In return for permanently managing and protecting land, the U.S. Fish and Wildlife Service grants a set number of species or habitat credits, which are sold to developers to offset impacts on the same species elsewhere. For example, a developer could purchase San Joaquin kit fox credits to protect San Joaquin Kit Fox (*Vulpes macrotis mutica*) from a conservation banker to offset habitat loss caused by a project, ensuring that the habitat is permanently protected and managed, even if located miles from the development site (U.S. Fish & Wildlife Service, 2003).

Beyond conservation banking, the USA's biodiversity offset market also includes mitigation banking and in-lieu fee programs, particularly for wetlands, streams and other aquatic resources under the Clean Water Act. These programs allow developers to purchase credits or pay fees to offset the ecological impact of their activities. These systems provide flexibility and market-based solutions for biodiversity conservation. Still, challenges remain, including ensuring that offsets are ecologically equivalent to the impacted areas and maintaining long-term monitoring of the restored habitats.

Other countries have implemented various biodiversity offset or credit systems, such as **Colombia** (Ministerio De Ambiente Y Desarrollo Sostenible, 2020), **Brazil** (Oliveira-Silva et al., 2024), **Canada** (Environment and Climate Change Canada, 2020), **South Africa** (Brownlie et al., 2017), and **France** (Quétier et al., 2014). Additionally, the European Commission is actively rolling out biodiversity credit pilots in France and Estonia to demonstrate these approaches to support wetland and forest conservation.

Relevance to the EU:

The BushBroker system in Australia shows how certification systems can align economic incentives with biodiversity goals, a critical element that an EU-wide certification could integrate, especially in agricultural or rural regions. It also shows the importance of centralized tracking and ecosystem-specific metrics. The USA conservation banking model is an example of how an EU certification system could embed long-term legal protections for biodiversity credits and create market-based solutions that ensure rigorous compliance with conservation goals. The EU could similarly adopt long-term species or habitat protection requirements within its certification framework.

2.4 AVOIDING DIRECT COMPARISONS WITH THE EU EMISSIONS TRADING SCHEME

The EU Emissions Trading Scheme (ETS) provides an example of the implementation of an environmental policy with a common framework in the EU, though its applications as a model for developing credible Nature Markets has its limitations.

The EU ETS is a cap-and-trade system aimed at reducing greenhouse gas emissions. Established in 2005, it sets a cap on the total amount of emissions that certain industries and sectors can produce, covering energy-intensive industries like power generation, manufacturing, and aviation. Under the ETS, companies are allocated or purchase emissions allowances, which they can trade based on their needs—selling surplus allowances or buying additional ones if required. The system gradually lowers the emissions cap over time, creating a financial incentive for companies to reduce their emissions. This declining cap supports the EU's overarching climate targets by driving continuous emissions reductions across participating sectors.

However, unlike the EU ETS, which is built around a pan-European carbon trading system, biodiversity is more complex and context-dependent than carbon. The variation in ecosystems across Europe means that biodiversity restoration needs to be localized, reflecting specific regional and national priorities. Trading biodiversity credits in the same way carbon is traded risks oversimplifying the unique nature of local ecosystems, potentially leading to inappropriate

offsets that do not adequately reflect or restore the lost biodiversity. This makes a one-size-fits-all trading system for biodiversity unsuitable, as ecological restoration requires tailored, site-specific interventions.

Still, there are some lessons from carbon markets that can be applied to develop mechanisms that incentivize biodiversity conservation and ensure transparent, regulated offsets. One known issue under the EU ETS is the granting of excessive allowances that can enable polluting companies to easily stay under the emission limit and profit from selling their surplus (WWF, 2022). As a result, these companies may earn from their surplus rather than being motivated to invest in long-term sustainability.

In a BNG scheme, similar issues can arise if too many biodiversity credits are issued or if habitat creation standards are insufficiently rigorous. For instance, if developers are allowed to buy cheap or low-quality biodiversity credits to meet their net gain obligations, the actual ecological improvements may be minimal. This can result in ineffective or superficial habitat creation that fails to genuinely enhance biodiversity (Bekessy et al., 2010; Swinfield et al., 2024). Furthermore, an oversupply of credits could lower their value, potentially decreasing incentives for developers to invest in high-quality, lasting biodiversity enhancements.

Other key lessons include:

- **Aligning incentives with long-term biodiversity goals:** Incentives should promote sustained biodiversity gains rather than short-term outcomes.
- **Careful management of credit supply:** Avoiding an oversupply of credits helps maintain their value and keeps developers motivated to invest in high-quality projects.
- **Balancing competitiveness with environmental goals:** Regulations should ensure significant conservation impact without overly burdening businesses.
- **Establishing robust regulations:** Strong standards ensure developers meet strict biodiversity requirements, building trust in the credit system.
- **Continuous monitoring and updating standards:** Regular oversight and adjustments keep standards effective and aligned with evolving ecological needs.
- **Preventing market manipulation:** Safeguards ensure biodiversity credits are used as intended, protecting the integrity of conservation efforts.

03

Key Challenges and Considerations for Nature Markets

Despite their potential to balance development and conservation, several challenges arise in implementing Nature Markets effectively. This chapter examines these key challenges: the complexity of valuing nature, difficulties with measurement and quantification, establishing ecological baselines, managing timing and additionality concerns, and resolving governance, regulatory, and economic barriers (Bull et al., 2013; Doswald et al., n.d.; OECD, 2016; Pope et al., 2021; World Bank Group, 2016). Potential solutions to each of these challenges are proposed to enhance the efficacy of Nature Markets, which should be considered when developing an EU-wide certification framework.

Table 1 Summary of key challenges for Nature Markets.

Issue	Description	Potential Solutions
Biodiversity Certificates or Credits	Difficulty to assign a quantifiable value to biodiversity, and to decide when and where development should be allowed. Some ecosystems are irreplaceable.	Establish strict thresholds and regulatory guidelines that define no-go zones for development based on robust scientific assessments.
Biodiversity Net Gain (BNG)	Measuring biodiversity gains accurately is difficult due to the complexity of ecosystems.	Use species-specific surveys, use a variety of habitat metrics, and integrate traditional ecological knowledge to capture the ecological complexity.
Biodiversity Offset	Determining equivalence between offset and development sites is complex. Biodiversity gain can be too delayed, and the location may not bring sufficient gains in the area of loss.	Use "like-for-like-or-better" approaches, apply spatial planning, and implement habitat banks to reduce time lags. Locate offsets close to development sites as much as possible. Additionally, offsetting duration should be aligned with the project impact duration.
Common Agricultural Policy (CAP)	Long-term sustainability of biodiversity gains is uncertain. Many offset schemes guarantee gains over a set period but lack mechanisms to ensure these gains persist over time.	Develop long-term management plans and consider climate change impacts to ensure biodiversity gains are maintained beyond contractual periods.
Development	Proving that biodiversity gains are additional to what would have naturally occurred is challenging. Gains may be attributed to external factors, making it difficult to ensure real improvements.	Biodiversity credits should only be awarded for gains that go beyond existing regulations, with careful monitoring to ensure additionality.
Environment Act 2021	Credit stacking allows a single project to generate multiple ecosystem service credits (e.g., biodiversity and carbon), but it risks double-counting and resource misallocation if not carefully managed.	Establish clear protocols and guidelines for credit stacking to ensure additionality, accurate accounting, and distinct ecological benefits across stacked credits.
European Green Deal	Weak enforcement mechanisms and inadequate monitoring can lead to developers failing to deliver on biodiversity promises.	Increase investment in monitoring and governance, and strengthen legal frameworks to enforce compliance. Use habitat banks to ensure upfront biodiversity gains.
Mitigation Hierarchy	BNG policies can shift environmental pressures to other areas (leakage) and negatively impact local communities. There are concerns about fairness, environmental justice, and whether market-based solutions address the root causes of biodiversity loss.	Implement spatial planning frameworks to manage leakage. Engage local communities in BNG decision-making to balance ecological and social goals. Address environmental justice concerns by reducing unsustainable consumption patterns.
EU Nature Directives (Birds and Habitats)	Farmers and landowners face economic disincentives, such as losing tax benefits and reduced land value, when converting land for conservation. Habitat bank restoration also requires significant upfront funding, adding financial risks.	Provide government support through tax incentives, subsidies, or direct investment to reduce financial risks and encourage conservation efforts before private markets like biodiversity certification schemes are established.

3.1 DEFINING LIMITS FOR IRREPLACEABLE ECOSYSTEMS

The challenge of assigning a quantifiable value to biodiversity is one of the persistent and fundamental issues in implementing Nature Markets and biodiversity certification systems (Bull et al., 2013; Laurila-Pant et al., 2015; Randall, 1991). Biodiversity is complex, comprising numerous species, ecosystems, and services, all of which provide critical but hard-to-quantify benefits like pollination, water purification, and cultural value.

Deciding when and where development should be allowed poses a fundamental challenge. Current BNG policies often permit development if compensatory offsets are secured, which is still beneficial compared to not requiring any offsets for developments. Still, certain ecosystems are too fragile to be developed, even with compensation (Nilsson & Grelsson, 1995). In such cases, establishing strict thresholds is essential to prevent irreversible and irreplaceable biodiversity loss. To address these challenges, it is crucial that strong regulation and conservation efforts work in tandem with Nature Market policies and certification systems. While Nature Markets and certification frameworks can incentivize more sustainable development, they should not operate in isolation. Instead, they must be complemented by strict regulatory guidelines that clearly define no-go zones. In line with the first step of the mitigation hierarchy, these are areas where development must be avoided and prohibited to ensure the preservation of critical habitats and species. These zones, defined as “critical”, “non-substitutable” or “high-value of biodiversity”, should be based on robust scientific assessments to safeguard ecosystems that cannot be compensated or restored by net gain measures. These zones would protect ecologically valuable areas from any form of disturbance, preserving biodiversity in the most vulnerable ecosystems. In this way, a balanced approach can be achieved, where development and biodiversity protection are aligned but with non-negotiable boundaries that prioritize irreplaceable natural assets.

3.2 ASSESSING BIODIVERSITY

Another significant challenge for Nature Markets is accurately measuring and quantifying biodiversity, both at the development site and the offset location, as well as determining if the promised biodiversity offset(s) have been achieved. This complexity arises from the vast variety of species, habitats, and ecological processes involved, making it difficult to define and assess biodiversity in a comprehensive way. Moreover, determining whether biodiversity gains achieved through offsets truly compensate for losses caused by development introduces another layer of difficulty.

Biodiversity is inherently challenging to measure due to its vast scope, encompassing species, ecosystems, and ecological functions. This challenge is particularly evident in offset programs, where assessing whether biodiversity gains are equivalent to losses from development remains problematic. Current metrics often emphasize habitat, especially plant biodiversity, while overlooking the more complex ecological needs of species such as birds, invertebrates, and other fauna (Duffus et al., 2024; Marshall et al., 2024). Many of these species rely on highly specific conditions that generalized habitat-focused metrics fail to capture. Additionally, species with complex life cycles or those requiring multiple habitat types may not benefit from metrics that only assess general habitat conditions. For example, species like birds and insects depend on specific ecological factors, which are often missed by broad, one-dimensional assessments. Ideally, a range of metrics should be applied to provide a more comprehensive understanding of biodiversity gains and losses (Borges-Matos et al., 2023; Bull et al., 2013), accounting for species with specialized ecological requirements.

Quantifying biodiversity is further complicated by the fact that ecosystems are highly complex and unique to each location. Offset schemes sometimes simplify this challenge by focusing on a limited number of species or habitats, rather than attempting to value the entire biodiversity of a location. Policymakers often rely on methods such as area-based measurements, composite biodiversity metrics, or economic valuations of costs and benefits to approximate biodiversity. While these approaches offer some structure, they often fall short of fully capturing the intricacies of biodiversity. In particular, bespoke methods used by large projects may aim to protect specific species while allowing some biodiversity loss, but these approaches do not always ensure comprehensive biodiversity preservation.

Considering these challenges, it is essential that biodiversity quantification methods account for the limitations of current metrics, ensuring that they are empirically tested and reflect real-world biodiversity changes. Convergence on common approaches to measuring the state of nature is also needed, including the quality of terms of access to and use of data (Taskforce on Nature Markets, 2023b). Metrics must be also adaptable to local conditions, taking into account not only habitat gain but the full ecological requirements of a variety of species. Additionally, the integration of traditional ecological knowledge from Indigenous communities can provide a more comprehensive understanding of biodiversity, helping to ensure that assessments capture the true ecological complexity of each site (Sobrevila, 2008).

3.3 DETERMINING THE EQUIVALENCE, TIMING, AND LOCATION OF THE OFFSET

A major challenge for offsetting approaches is determining the “equivalence” between the offset site and the development site. Unlike carbon offsets, where a tonne of CO₂ can be considered interchangeable across contexts, biodiversity is far more complex and cannot be replicated in its exact form elsewhere. This makes the concept of equivalence difficult to define in biodiversity offsetting.

Typically, offsets are based on a “like-for-like” principle, where the biodiversity conserved is expected to be equivalent to the biodiversity lost (IAPB, 2024a; Pope et al., 2021; World Bank Group, 2016)). However, this can be challenging when an exact match in habitat or species is not feasible. In these cases, offsets may focus on the conservation needs of a particular species or habitat. Some policies promote a “like-for-like-or-better” approach, also known as “trading up,” where damage to species of lesser conservation priority is offset by protecting species or ecosystems of higher priority (Pope et al., 2021). However, these trading-up approaches do not always ensure that the same species or ecosystems affected by development are compensated, raising concerns about their effectiveness as true biodiversity offsets.

The timing of biodiversity offsets is another critical aspect to manage carefully, ensuring that it aligns with the project impact duration. A significant delay between the biodiversity loss caused by development and the realization of biodiversity gains from offsets can lead to ecological disruptions. For example, during this lag, ecosystem services like pollination, water regulation, or habitat provisioning might be impaired, resulting in adverse effects on local biodiversity and ecosystem health. Ideally, biodiversity offsets should be in place before any negative impacts occur, as recommended by IUCN’s policy on biodiversity offsets (IUCN, 2016). Additionally, only claims about verified outcomes should be made, with credits labeled as ex post (IAPB, 2024a). However, in practice, this is rarely achievable, leading to gaps in ecosystem functionality and delayed compensation. Clear regulated guidelines about claims is required to prevent greenwashing and

undermining integrity and confidence in the market. This is another reason why project developers would benefit from having clear policy frameworks in place which better guide and enable biodiversity to be considered right from the outset of project planning, rather than being an afterthought.

Determining the location of biodiversity offsets presents another significant challenge. When offsets are placed far from the development site, the local ecological and social benefits may not reach the community that was directly impacted by the environmental damage. For this reason, it is often recommended that offsets be located within the same watershed or biogeographical region as the development site (UNEP Finance Initiative, 2012), termed “local-to-local” (IAPB, 2024a). This approach helps ensure that the ecological functions and benefits, such as habitat provision and ecosystem services, remain localized. However, placing offsets near the impact site is not always the best solution. For example, on-site biodiversity offsets are frequently more difficult to monitor and manage effectively, as they are prone to human interference occurring during the operation of the project. This can lead to degradation over time, making these offsets less effective in preserving biodiversity. Inadequate monitoring and enforcement can further weaken the success of on-site offsets, as human activities may disrupt the restored habitat.

The use of habitat banks can offer a practical solution primarily to the timing challenge. Since restoration in habitat banks has already occurred, they provide immediate ex post biodiversity gains, minimizing the delay between biodiversity loss and compensation. However, habitat banks come with a trade-off in terms of location. They often require securing large, unsegmented areas for maximum biodiversity gain, and finding such spaces near the development site is not always feasible. As a result, habitat banks are frequently located far from the impact area and may not fully replicate the local ecological functions lost at the original site. Despite these location challenges, habitat banks remain valuable for biodiversity compensation because they can offer a sound, well-monitored, and reliable solution, particularly when local offsets face difficulties in feasibility or long-term effectiveness.

3.4 PERMANENCE: ENSURING LONG-TERM BIODIVERSITY GAINS

A key challenge for Nature Markets is “permanence” - the question of whether biodiversity gains can be sustained over the long term (Calvet et al., 2019; OECD, 2016; World Bank Group, 2016). Most offset schemes guarantee net gains over at least a two-decade period through contracts. The previously mentioned Wendling Beck project, for example, has a 30-year timespan. However, there are few mechanisms to ensure that these gains will persist beyond that timeframe. The assumption that biodiversity management will continue after the contract expires remains largely untested, and scientific uncertainty leaves the long-term outcomes unclear.

Additionally, many offset schemes fail to factor in the potential impacts of climate change, such as species migration, habitat loss, or natural disasters like wildfires and floods (Carbon Brief, 2023). These factors could undermine the longevity of biodiversity gains if they are not adequately considered in the planning and management of offset sites. For instance, if a habitat is destroyed by climate-related events, the offset’s intended gains could be lost, jeopardizing the long-term success of biodiversity conservation efforts.

In short, the issue of permanence raises important concerns about the ability of biodiversity offsets to deliver lasting results. Without stronger safeguards and planning for long-term management, particularly in the face of climate change, biodiversity gains achieved through Nature Markets may not endure. To limit these risks, clear and consistent policy frameworks are required to guide investments from the outset, with policy governance that safeguards against unreliable outcomes for both biodiversity and the communities which benefit from enhanced biodiversity.

3.5 ADDITIONALITY: ENSURING REAL BIODIVERSITY GAINS

Another fundamental aspect of Nature Markets, but particularly biodiversity offsetting, is ensuring additionality (Calvet et al., 2019; IAPB, 2024a; OECD, 2016; Swinfield et al., 2024; World Bank Group, 2016). This means demonstrating that the conservation actions funded by an offset are truly additional—that they would not have occurred without the offset and that they effectively compensate the environmental damage caused. In other words, additionality requires proving that biodiversity gains from an offset are genuinely new and not due to unrelated factors. This concept is essential to achieving a true “no net loss” or “net gain” of biodiversity, but it is often challenging to

ensure (Swinfield et al., 2024). For example, in some cases, vegetation cover may increase after offsets are implemented, but this growth could be primarily due to external factors, such as increased rainfall, rather than the offset activities themselves (zu Ermgassen et al., 2023). In such situations, the gains cannot be attributed directly to the offset efforts, highlighting the difficulty in proving that biodiversity improvements are a direct result of the project and not natural conditions. To ensure true additionality, biodiversity gains must go beyond what would have occurred naturally or under existing conservation regulations. Developers should only receive biodiversity credits for actions that provide additional conservation benefits. This requires effective monitoring, evaluation, and careful management of uncertainties to ensure that the claimed biodiversity improvements are directly attributable to the offset project. By adhering to strict additionality standards, developers can ensure that biodiversity net gain policies lead to real, measurable improvements in conservation outcomes. Rules and guidance on additionality should therefore also be embedded into the policy frameworks needed to guide the development of Nature Markets

3.6 CREDIT STACKING

The introduction of BNG certification in Nature Markets also raises considerations around credit stacking. Credit stacking involves measuring multiple overlapping ecosystem services produced on a single piece of land and individually packaging them into various credit types or tradeable units, creating a “stack” of credits (Business and Biodiversity Offsets Programme (BBOP), 2012). In this way, a project can generate both carbon and biodiversity credits, potentially enhancing its overall impact and appeal to investors.

Stacking approaches, however, carry significant risks for achieving positive environmental outcomes, particularly in compensation schemes, if not carefully designed (Business and Biodiversity Offsets Programme (BBOP), 2012). A primary concern, known as “true stacking,” involves receiving separate payments for distinct ecosystem services (e.g., biodiversity conservation, carbon sequestration, water filtration) on the same land. This practice can lead to a net loss of services if additionality is not ensured, accounting practices are inconsistent or ecological complexities are overlooked. This could result in double-counting or over-claiming benefits, making it difficult to verify the unique impact of each credit and potentially undermining one service in favor of another. For example, a reforestation project that enhances biodiversity and also sequesters carbon should not allow the same outcome to be credited under both a carbon offset scheme and a biodiversity credit unless the distinct benefits of each are properly accounted for.

Clear guidance is essential for ensuring that biodiversity gains are accurately attributed across credits to prevent overestimated achievements, misallocation of resources, and reduced policy effectiveness. Establishing standardized protocols for credit stacking can help ensure that this approach supports genuine and verifiable environmental outcomes.

3.7 NON-IMPLEMENTATION AND GOVERNANCE GAPS

One of the most significant challenges in biodiversity offsetting lies in the widespread issue of non-implementation and governance gaps that undermine conservation outcomes (zu Ermgassen et al., 2019, 2021). Both on-site and off-site compensations are affected by developers failing to deliver on promises to restore or enhance biodiversity, often due to weak enforcement mechanisms and inadequate monitoring. This is particularly problematic for on-site compensations, where weak governance and limited enforcement often allow projects to fail without consequence. For example, on-site compensation can suffer from limited oversight because local authorities may lack the resources to enforce compliance effectively. Weak governance here can allow developers to bypass or minimally fulfill restoration obligations as a result. Further, on-site compensations are frequently managed by the same developers or short-term contractors, who may lack a long-term commitment to biodiversity gains after the initial project phase. This can result in neglected maintenance or inadequate follow-up, reducing the likelihood of lasting biodiversity outcomes. Similarly, developers managing their own on-site compensations may prioritize cost savings and project timelines over meaningful ecological objectives, resulting in lower-quality restoration work. The absence of sufficient monitoring and governance can exacerbate this conflict of interest. While methods for monitoring and governance have progressed, the reality is that proper implementation remains expensive, and without substantial investment, ensuring biodiversity gains is difficult.

To address these challenges, it is essential to have systems that track outcomes effectively and ensure stronger governance mechanisms. On-site compensations should be recorded in national biodiversity registers to enhance transparency, while systematic monitoring and enforcement mechanisms

must be established to ensure compliance. Regulatory bodies must also be adequately funded to ensure they have the resources needed for effective oversight. Without sufficient financial support, these bodies cannot fulfill their duties, leaving biodiversity offset commitments unmet.

Off-site compensations, such as those involving habitat banks (e.g. Wendling Beck), offer a potential solution to the non-implementation problem. Habitat banks ensure that biodiversity gains have already been realized before credits are sold, providing immediate compensation and reducing the risk of failure. These sites are typically managed by specialized conservation organizations or entities dedicated to maintaining biodiversity, rather than by developers who may lack ecological expertise or a long-term conservation focus. In addition, habitat banks often undergo more rigorous and transparent monitoring due to the involvement of conservation-focused organizations and third-party verifiers. However, while habitat banks address non-implementation issues, they do not solve challenges related to location and additionality, as previously discussed.

Enforcing biodiversity credit requirements through effective regulatory frameworks presents another challenge. Limited resources and the risk of regulatory capture - the undue influence of developers over regulatory bodies - can undermine the policy's effectiveness. In some cases, developers exploit these weaknesses to bypass offset requirements. To combat this, legal frameworks need to be strengthened, and regulatory bodies must be given sufficient resources to enforce compliance. Penalties for non-compliance must be stringent enough to deter developers from neglecting their obligations. Developers may argue that these measures increase the cost and financial burden of compliance, as stricter monitoring, governance, and enforcement demand higher investments. However, this is simply bringing to light the true environmental costs, or "externalities," that have long been ignored. These costs represent the real impact of development on biodiversity and ecosystems, and acknowledging them is essential to create a more sustainable balance between development and conservation. Compromising on these requirements to reduce costs would only perpetuate the undervaluing of biodiversity and given that the measures in place are already often insufficient, such compromises should not be made lightly.

In summary, addressing non-implementation and governance gaps requires significant investment in monitoring, enforcement, and regulatory frameworks. In the absence of adequate governance and oversight, on-site compensations in particular may suffer from conflict of interest between short-term goals of project developers and achieving meaningful biodiversity outcomes. Conversely, offsite compensation like habitat banks can help mitigate some concerns about additionality and permanence by offering upfront biodiversity gains and a generally higher standard of monitoring and reporting executed by conservation-focused organizations. Nonetheless, strengthening governance around both on-site and offsite compensations and improving compliance systems is equally critical to ensuring successful biodiversity outcomes.

3.8 SOCIAL AND ETHICAL CHALLENGES

Biodiversity credit markets and offsets face several social and ethical challenges that can undermine their effectiveness and fairness if appropriate safeguards are not built into their design. One key issue is leakage, where protecting one area inadvertently shifts harmful activities to another, leading to biodiversity loss elsewhere (Bastos Lima et al., 2019; IAPB, 2024a). This unintended consequence complicates conservation efforts, as the gains achieved in one area may be offset by losses in another. To prevent this, spatial planning and monitoring frameworks need to be implemented to track and manage leakage, ensuring that conservation efforts in one region do not lead to negative impacts elsewhere.

Another challenge lies in the social and ethical implications of credit and offset projects, particularly for local communities who depend on natural resources and land. In some cases, conservation efforts can restrict access to these resources, creating conflicts between ecological goals and the needs of local populations. To address this, market policies must involve input from affected communities, ensuring that their livelihoods and well-being are considered alongside biodiversity conservation (Taherzadeh & Howley, 2018). Engaging communities in the planning

and decision-making processes can help balance the competing demands of conservation and social justice, fostering more equitable outcomes. Guidance available from the Convention on Biological Diversity (CBD) should be consulted to ensure biodiversity financing mechanisms have a safeguard system designed to effectively avoid or mitigate its unintended impacts on the rights and livelihoods of indigenous peoples and local communities (Conference of the Parties to the Convention on Biological Diversity, 2018).

The broader issue of environmental justice also plays a significant role in the critique of Nature Markets. Critics argue that biodiversity politics, much like climate politics, often reflect the interests of wealthy, industrialized nations, while pushing the negative consequences onto poorer regions. There is concern that biodiversity credits and offsets could perpetuate colonial inequities by shifting conservation responsibilities to countries in the Global South, while affluent countries continue unsustainable consumption patterns. If poorly implemented, this could reinforce existing power imbalances, excluding local people from the benefits of conservation and legitimizing harmful extraction practices in vulnerable areas (Carbon Brief, 2023).

Moreover, some experts argue that market-based solutions like biodiversity credits and offsets do little to address the root causes of environmental degradation (Carbon Brief, 2023; Knox, 2023). It is argued that, rather than focusing on creating markets that compensate for ecological harm, a more effective approach would be to reduce consumption and implement policies that penalize ecological damage. Relying on biodiversity pricing alone will not be sufficient to prevent species extinction or restore ecosystems, and it risks allowing certain economic sectors to profit from both the destruction and conservation of nature.

To create truly equitable and effective biodiversity conservation, policies must prioritize reducing harm at its source, engage local communities in decision-making, and address the underlying patterns of excessive consumption and environmental injustice. Without these considerations, Nature Markets risk perpetuating the very issues they seek to resolve.

3.9 ECONOMIC BARRIERS TO OFF-SITE CONSERVATION: DEMAND-SIDE CHALLENGES

A significant challenge for landowners, particularly farmers, in participating in off-site biodiversity certification systems is the uncertainty of economic incentives. Depending on the local regulation, converting agricultural land to conservation can lead to the loss of tax benefits and reduce the land's overall value, creating a financial disincentive for landholders (Glenn Anderson, personal communication, September 19, 2024). Without proper compensation, such as tax cuts or subsidies, many landowners are hesitant to commit to conservation, as the immediate economic losses may outweigh the potential long-term environmental gains. In addition, there are often ongoing maintenance and management costs associated with habitat restoration projects which may

prove costly over time. Without guaranteed revenue or long-term offtake agreements of credit, landowners may find the financial commitment unsustainable.

Additionally, off-site conservation like habitat bank restoration requires substantial upfront investment, which poses financial risks for landowners. They often bear the costs of restoration before biodiversity credits can be sold, leaving them vulnerable in markets which are uncertain in terms of demand and price volatility. To mitigate these risks, government support through tax incentives or direct investment may be needed to encourage participation. By offering financial security and reducing economic risks, these measures could incentivize landowners to engage in conservation before private markets like biodiversity certification schemes are fully established. Risk-sharing mechanisms, such as insurance schemes or public-private partnerships could help protect against potential losses, increasing the appeal of entering biodiversity credit markets.



04

Implementing Nature Markets in the EU

There are multiple ways that a new, EU-wide, enabling biodiversity certification framework could drive the development of Nature Markets in Member States. This section discusses some of these potential use cases while acknowledging that nature markets can take different forms and support different approaches, based on the diverse range of landscapes and seascapes, as well as the different goals, needs and objectives of Member States, and actors within them. For additional use cases see (IAPB, 2024a; World Economic Forum, 2023a). This report does not provide a comprehensive review of use cases but rather highlights some with strong potential. For example, legitimate biodiversity credits could potentially be used in voluntary or compliance settings if they satisfy the relevant requirements laid down by the EU-standard. In addition, while corporate actors are typically potential buyers of biodiversity credits the potential demand for biodiversity credits is not limited to the private sector. Organizations that have mandates to deliver nature outcomes, or that have statutory obligations to fulfill, could also look to nature markets to deliver against their targets. These organizations might include environmental charities, non-governmental organizations, donor-funded trusts, governments, multilateral development banks or public sector organizations. This flexibility in market participation could foster a diverse ecosystem of buyers and sellers, contributing to the success and sustainability of nature markets across the EU.

4.1. ROLE OF THE EUROPEAN COMMISSION

The European Commission should play a critical role in establishing the overarching architecture for a biodiversity certification framework. A uniform system would enable cross-border coordination and cooperation, ensuring that biodiversity impacts are managed holistically across the EU and a level playfield is created based on agreed science, and accountability. For instance, in cases of shared habitats, common ecoregions, or migratory species, a standardized approach would ensure that conservation measures are aligned and mutually reinforcing, preventing negative spillover effects. This ensures that the EU tackles biodiversity loss as a united entity, while addressing regional interdependencies and improving ecosystem resilience across borders.

Under a biodiversity certification framework, the European Commission would be responsible for setting common science-based principles, protocols for certification and verification, oversight and enforcement, financing mechanisms, defining standardized biodiversity metrics, and establishing governance structures. Crucially, the European Commission must regulate scientifically credible Nature Markets with high standards that ensure net gain of biodiversity values, ecological robustness, and social safeguards (Swinfield et al., 2024). This would require sufficient resourcing of national environmental regulating bodies that would enable them to scrutinize projects (e.g. review financial models, conduct random verification visits) and take appropriate enforcement action (Kedward et al., 2023; zu Ermgassen et al., 2021). This architecture would need to be developed into an EU Nature Market toolkit to help Member States design their Nature Markets. This toolkit would provide best practices and harmonized methodologies for implementing Nature Markets in a way that is economically viable and ecologically beneficial. Assurance of quality could be proven by only issuing certificates that meet the EU standards.

While the European Commission would establish the overarching framework, rules, and toolkit, Member States could have the flexibility to adapt the scheme to suit their specific needs, capacity, economies and ecologies, as well as the authority to issue the certificates. This flexibility would recognize the diverse ecological landscapes, governance structures, and policy priorities across the EU. National adaptation efforts should be tailored to reflect local ecosystems and conservation priorities while integrating with existing national policies, such as biodiversity strategies and action plans. Additionally, financing and incentive structures should be customized to suit local economies, ensuring that conservation efforts are both effective and economically sustainable.

4.2 COMPLIANCE-BASED CERTIFICATION MODEL

Regulated, compliance-based biodiversity certification schemes typically involve biodiversity offsetting, where companies must invest in biodiversity improvements to compensate for their negative impacts on nature (World Economic Forum, 2023b), typically with the aim of achieving net gains in biodiversity. By enforcing standards that require companies to assess, avoid, mitigate, or offset their impacts, governments help ensure businesses internalize environmental costs, fostering accountability and transparency. These mechanisms uphold principles like the mitigation hierarchy, and also enhance the credibility of biodiversity markets by establishing standardized, enforceable certifications, which level the playing field for responsible businesses.

Any new EU-wide framework for biodiversity certification that supports compliance-based Nature Markets must be built around the key challenges outlined in the previous section, particularly the concepts of additionality, permanence, and equivalence. With these principles as a foundation, the European Commission should consider the core elements in the following sections when designing a biodiversity certification standard under a compliance-based model.

4.2.1 Sector coverage

As noted in previous guidance to the EU on No Net Loss (Institute for European Environmental Policy, 2020), a BNG certification should extend beyond built developments (e.g. housing developments, buildings, roads, nationally significant infrastructure projects) to include extractive industries and sectors, such as agriculture, forestry, and fisheries— some of the largest contributors to biodiversity decline. In current offset approaches, these sectors are often excluded from BNG initiatives. However, given the substantial pressures they exert on biodiversity, it is crucial for BNG policies to include these industries if the EU is to effectively achieve their goals for biodiversity.

Furthermore, BNG approaches offer new opportunities for these sectors through offset models, as demonstrated by case studies in Germany (Sponagel et al., 2021) and France, where farmers manage offset areas to generate both biodiversity benefits and economic returns. The EU-framework should therefore encompass a wide range of sectors, allowing Member States the flexibility to determine the specific coverage that aligns with their national contexts and priorities.

4.2.2 Biodiversity metrics

A certification framework should establish standardized biodiversity metrics across the EU, ensuring consistency in how biodiversity is measured and reported. All BNG projects should use a standardized set of metrics that do not solely focus towards habitat-based measures but that capture different aspects of biodiversity. Biodiversity metrics should measure geographic area, habitat condition, structure, function, and composition (e.g., diversity in taxonomic groups or habitat quality). Using multiple metrics ensures a more accurate assessment of biodiversity benefits and prevents harm to one aspect while benefiting another (Biodiversity Credit Alliance, 2024).

To enhance this approach, the assessment system should categorize habitat types according to their distinct characteristics and ecological functions, applying suitable units for each type. For instance, England's BNG system distinguishes among habitat types such as area, hedgerow, and watercourse:

- **Area habitats** (e.g., grasslands, woodlands): Assessed by surface area, condition, and size.
- **Hedgerows**: Linear habitats measured by length and valued for their connectivity.
- **Watercourses** (e.g., rivers, streams): Measured by length and evaluated based on ecological role and water quality (UK Department for Environment, Food & Rural Affairs, 2024).

An ideal biodiversity metric would be complemented with species-based surveys to ensure a comprehensive understanding of the site's biodiversity value (Duffus et al., 2024).

At the national level, Member States could develop biodiversity metrics that align with their specific ecological and environmental contexts while conforming to overarching EU standards. This national adaptation would allow for alignment with unique ecological, social, and regulatory conditions within individual Member States. However, an EU-wide baseline of metrics would ensure uniformity across Member States, supporting integration with EU biodiversity goals. Another approach could be to establish an overarching EU framework, complemented by tailored national-level metrics, to maintain both consistency and regional relevance.

4.2.3 Minimum net gain standards

Determining a minimum net gain percentage would establish a clear baseline for improvement and consistency across developments or activities. England provides one of the few existing examples of a minimum net gain standard, set at 10%. Introducing a uniform percentage across EU member states would also promote fairness and prevent developers from choosing countries with lower biodiversity standards to minimize their obligations. Uniformity would create a more cohesive EU-wide approach to biodiversity enhancement while reducing the risk of unequal distribution of biodiversity restoration efforts among member states.

The specific net gain target should be decided by the European Commission following broad consultation across a range of interested and affected parties including industry, scientific and policy experts, land managers and farmers.

4.2.4 Registering and monitoring projects

To ensure legitimacy of biodiversity claims a registration system is needed to track the performance of offsetting projects. The aim of a registration system is to ensure that biodiversity gains are officially recognized and can be monitored over time, providing transparency in how biodiversity credits are used across different developments. Such a system would facilitate cross-border monitoring, promote equitable distribution of biodiversity restoration efforts and prevent developers from exploiting varying national systems to minimize their obligations. It would also prevent discrepancies in how biodiversity credits are recorded and managed, reducing the risk of inconsistent implementation.

Several approaches could be used for this registration system, but for consistency, the European Commission could design the overall structure. Maintenance of the register could also be at the EU-level with all BNG projects linked to an EU-wide register. However, Member States could also be responsible for maintenance of their own national registers, or this could be transferred down to relevant local authorities or another responsible environmental body but based on common EU-level standards. The European Commission's DG ENV, European Environment Agency, and relevant national authorities could publish template plans, legal agreements and application forms to guide developers. These templates would ensure consistency, simplify the submission process, and help developers meet all necessary BNG requirements effectively. These actions would ensure effective implementation of BNG initiatives at the national level, while maintaining consistency with EU regulations.

The EU-wide framework should also include a system to monitor and verify compliance with BNG standards. The framework should include mandatory long-term monitoring requirements, ensuring that biodiversity enhancements are maintained and managed over time (e.g., 30 years or more, as seen in the UK BNG model and some carbon credit projects). This could be enforced through regular site assessments, digital tracking tools, and transparent reporting, with penalties or additional requirements for non-compliance. Depending on Member States' capacities, compliance could be verified at various levels, including EU-level bodies, national environmental agencies, or certified third-party auditors, ensuring accountability and sustained biodiversity outcomes across the EU.

4.3 Voluntary nature markets

In addition to compliance-based certification models, voluntary Nature Markets can play a role in supporting biodiversity restoration and conservation goals across the European Union. While compliance-based approaches mandate specific biodiversity outcomes for certain sectors and development activities, voluntary markets provide an avenue for private sector actors, investors, and other stakeholders to proactively invest in nature-positive actions (IAPB, 2024a). Voluntary Nature Markets operate with greater flexibility, allowing entities to purchase biodiversity or nature credits to support biodiversity goals beyond legal requirements. These markets enable investments in nature-positive outcomes without the need to directly offset negative impacts (Taskforce on Nature Markets, 2023a; World Economic Forum, 2023a, 2023a). By establishing voluntary biodiversity credit markets through its toolkit, the EU Commission can facilitate private investments that support conservation efforts aligned with its biodiversity goals.

Interest in voluntary biodiversity credits is increasing as companies and investors seek ways to make measurable nature-positive impacts through market-based mechanisms (IAPB, 2024a). This demand is often driven by environmental, social, and governance (ESG) commitments or corporate social responsibility (CSR) objectives, as businesses seek to meet sustainability benchmarks and demonstrate environmental responsibility. One way this can be accomplished is through “insetting,” whereby companies invest in biodiversity within their supply chains and in the places where these are located to address nature-related impacts and dependencies (IAPB, 2024a). Drawing from the experience of carbon credit markets and various ecosystem service markets (e.g., water credits, nutrient trading), voluntary biodiversity markets are expanding through pilot projects and multi-stakeholder collaborations (IAPB, 2024a; World Economic Forum, 2023b; World Resource Institute, 2024).

According to the Taskforce on Nature Markets (2023a), voluntary biodiversity credit markets are likely to develop along two paths: private sector-led and government-led models. Private sector-led markets, often administered by NGOs or private entities, are already emerging in countries such as Australia and New Zealand, where programs like GreenCollar's NaturePlus™ Credits and Ekos Sustainable Development Units are pioneering biodiversity credit schemes. Other examples include South Pole's EcoAustralia™ credits in Australia, Terrain NRM's Cassowary Credits, and Ecosulis's CreditNature in the UK.

In contrast, government-led biodiversity credit schemes are generally managed or administered by national or subnational authorities through legislation or policy. Examples include Australia's emerging biodiversity certificates under the Nature Repair Market scheme and Gabon's plans to introduce a biodiversity credit system for the Congo Basin. Drawing from the voluntary carbon market's challenges, including negative publicity, weak performance, and limited outcomes, it is clear that rigorous standards are essential to ensure that biodiversity credits contribute meaningfully to conservation goals. This indicates that some form of regulatory control will be needed for a voluntary Nature Market in the EU.

Despite growing interest, there remains skepticism about the effectiveness and demand for voluntary biodiversity credits. Voluntary biodiversity finance schemes have often had limited impact compared to regulated markets, which typically achieve greater scale and sustainability (Weston, 2024). Sophus zu Ermgassen cautions that voluntary biodiversity credits may “steal the political discourse and political capital away from more important and impactful solutions” (Weston, 2024). While voluntary markets have a role, they should not be the main focus; instead, national or state-regulated markets and government-led conservation efforts offer more impactful solutions for achieving biodiversity goals.

To address these concerns and enhance the integrity of voluntary markets, the EU Nature Market toolkit must support a ‘high integrity’ market, as suggested by IAPB (2024a), by proposing a set of standardized guidelines, scientific methodologies, and verification procedures for the voluntary market. This approach would ensure that voluntary Nature Markets maintain credibility and that they genuinely contribute to biodiversity enhancement. Voluntary credits aligned with EU verification standards could be issued as “EU-certified biodiversity credits,” offering a clear indicator of quality for buyers.

While the EU Nature Market toolkit would provide a standardized approach to ensure consistency and credibility across voluntary Nature Markets, Member States could retain flexibility in setting the rules and goals within their own markets. This flexibility means that individual countries can determine their own biodiversity objectives (e.g., no net loss, 10% net gain, or 20% net gain etc.) as well as the specific ecosystems, regions, or development projects that should participate in voluntary markets. Member States could also decide which sectors or industries are encouraged to purchase voluntary biodiversity credits and which activities may be suitable for offsetting impacts through these credits. For instance, some Member States might promote voluntary credits more actively in industries with higher environmental impacts, while others may focus on supporting biodiversity outcomes in specific ecosystems such as forests, wetlands, or marine environments.

4.4 Linking nature markets to NBSAPs

National Biodiversity Strategy and Action Plans (NBSAPs) are the principal instruments for implementing the Kunming-Montreal Global Biodiversity Framework (KMGBF) at the national level. They are effectively the road map for biodiversity conservation, sustainable use, and equitable benefit sharing within a country. The development of NBSAPs should go hand in hand with the identification of financing gaps and the development of national finance plans (United Nations Development Programme., 2022). Voluntary biodiversity credits offer an innovative financing solution within NBSAPs, channeling funds from corporations and individuals looking to offset their biodiversity impacts. This approach is analogous to how carbon credits contribute to countries' National Determined Contributions (NDCs) under Article 6 of the Paris Agreement.

Voluntary biodiversity credits can provide flexible funding for underfunded NBSAP areas, allowing private funds to supplement public investments in targeted actions like wetland restoration and forest protection, thus addressing critical financial gaps. By engaging the private sector in Nature Markets, governments can attract private funding without relying solely on public resources. Member States can issue 'verified biodiversity certificates' tied to NBSAP actions, which could grant companies holding these credits incentives such as tax breaks, preferential status for public procurement, or competitive advantage in permitting schemes. This public-private collaboration could address the financial challenges critical to NBSAP success and KMGBF implementation.

Many biodiversity projects also provide carbon sequestration benefits, enabling blended finance models that attract investments from both biodiversity and carbon markets. This could strengthen the alignment between countries NBSAPs and NDCs (WWF, 2023). Established carbon credit principles, including transparency, avoiding double-counting and verification standards, can offer a scalable and credible framework for biodiversity credits. Additionally, incorporating social safeguards from Article 6 and the CBD could help protect community rights, foster local benefits, and integrate Indigenous knowledge into project design—aligning credits with NBSAP priorities while promoting social equity (United Nations Development Programme., 2022). Since many corporations already participate in carbon markets for CSR or regulatory compliance, biodiversity credits could similarly drive private sector investment in conservation, expanding financial support for NBSAPs.

However, few countries currently leverage the Article 6 mechanism, and limited progress on its implementation has hindered the contribution of carbon markets to NDCs. Similar issues could occur when aligning Nature Markets with NBSAPs. For example, establishing, monitoring, and regulating biodiversity credits within the framework of an NBSAP introduces significant administrative demands on national biodiversity agencies, many of which already face resource constraints. Ensuring that biodiversity credits align with NBSAP priorities and tracking these contributions require strong regulatory oversight, data management systems, and technical expertise, which may be lacking. In addition, NBSAPs are national frameworks driven by specific biodiversity priorities, which vary greatly depending on each country's unique ecosystems, threats, and socio-economic factors. Nature Markets, however, often respond to global investment trends rather than country-specific needs, which can create misalignment. For example, private biodiversity investments may focus on high-profile ecosystems or species that appeal to international audiences but may not align with the most pressing priorities identified in a country's NBSAP. This divergence can dilute the effectiveness of NBSAPs, channeling funds into high-interest projects rather than high-impact local conservation needs. This slow and complex process suggests that biodiversity markets would also need tailored approaches to address these challenges effectively.

4.5 Integration with existing EU policies

Another use case for biodiversity certificates is linking them to existing EU policies, laws and programs through policy stacking. Policy stacking is the strategic layering or integration of multiple policies to enhance the coherence and impact of policy goals. This would align with the concepts of policy coherence and integration in the EU Green Deal (European Commission, 2021) and EU 2030 Biodiversity Strategy, which aims to “fully integrate biodiversity considerations into other EU policies and address EU impacts on global biodiversity” (European Parliament, 2020). Some of the key areas of integration could include the Common Agricultural Policy (CAP), Natura 2000 management, the Nature Restoration Law, the EU Sustainable Finance Taxonomy, Nature Directives (Birds and Habitats), the Environmental Liability Directive, the European Green Deal, the Green Claims Directive and the Corporate Sustainability Reporting Directive (CSRD). Integrating Nature Markets with these existing environmental policies could ensure coherence, effectiveness, and efficiency of biodiversity conservation efforts across the Union.

For example, by repurposing a portion of Common Agricultural Policy (CAP) subsidies towards payments for ecosystem services (PES), policy stacking might enable biodiversity certificates to align directly with CAP reforms. In this instance, policy stacking entails layering CAP’s traditional focus on sustainable agriculture with biodiversity credits or offsets. This allows subsidies to directly support biodiversity-positive practices like habitat restoration, conservation activities, reduction of chemical inputs, and enhanced ecosystem management. The EU Commission could establish an integrated policy mechanism whereby CAP funding not only satisfies agricultural sustainability goals but also generates quantifiable, certified biodiversity gains by including biodiversity certifications in CAP. For example, certificates could strengthen CAP’s emphasis on rural development and sustainable agriculture by encouraging farmers to use methods with fewer chemical inputs or actions to restore ecosystems that contribute to measurable biodiversity gains. This could also help support and improve the management of Natura 2000 farmland (European Commission, 2018).

Integration across policies also has the advantage of increasing market acceptance and boosting investor confidence. For example, the [EU Sustainable Finance Taxonomy](#) is an instrument that could help to ensure companies invest in biodiversity objectives, encouraging private sector investment. The Taxonomy is a classification system that defines which economic activities are considered environmentally sustainable for investment purposes within the EU. Its primary goal is to guide investors, companies, and policymakers in identifying and supporting activities that contribute to the EU’s environmental objectives. While the Taxonomy does not allow for activity offsets, net biodiversity gains resulting from conservation and restoration can be accounted for. This means that the overarching EU Nature Market toolkit, including how offsets are designed, accounted for and verified, can be used by businesses seeking biodiversity net gain actions as part of the Taxonomy.

A range of other EU policies and frameworks could be linked to Nature Markets. For example, under the Water Framework Directive (2000/60/EC) biodiversity certificates could be tied to water-related ecosystem services, such as wetland restoration and riparian buffer zones, to improve water quality and habitat connectivity. Similarly, through the Marine Strategy Framework Directive (MSFD) (2008/56/EC) certificates could support seagrass restoration or marine habitat protection, or support pollinator-friendly habitats through the EU Pollinators Initiative. Lastly, the EU Commission could also explore integrating BNG requirements into the Environmental Liability Directive (2004/35/EC) to enhance accountability for developers regarding biodiversity losses and gains. Under this directive, a company or operator is liable for the environmental damage it causes and must take the necessary preventive or remedial action and bear all the related costs. In situations where primary remediation is ineffective, complementary remediation measures should be taken at another site possibly geographically linked to the damaged one. Verified biodiversity credits could be used to satisfy these remediation activities.

05

Potential Achievements and Outcomes of Nature Markets

5.1 CONTRIBUTION TO BIODIVERSITY GOALS

An EU-wide biodiversity certification can play a transformative role in achieving both EU and global biodiversity goals by supporting the development of Nature Markets and providing versatile use cases for biodiversity credits. While credit and offset schemes could contribute to biodiversity conservation by incentivizing restoration and protection efforts, they should be used with caution. Offsetting should not be seen as a substitute for protecting irreplaceable habitats or preventing biodiversity loss in the first place.

Instead, a BNG approach is meant to address unavoidable biodiversity impacts after application of the mitigation hierarchy, even in scenarios where we reduce material and energy consumption significantly. As such, the scheme is necessary for managing the residual biodiversity damage that remains despite efforts to limit resource use and minimize harm. A clear certification framework can provide a structured approach to ensure that biodiversity losses are compensated to the greatest extent possible, but it must be part of a broader strategy that prioritizes conservation and ecosystem protection from the outset.

In addition to biodiversity offsetting schemes, a system of biodiversity credits can mobilize additional resources from the private sector, complementing public funding, for example, through plugging the finance gaps for NBSAP implementation. In voluntary markets, companies can buy biodiversity credits to meet corporate sustainability goals, providing additional funding for conservation and restoration activities beyond regulatory requirements. Public-private partnerships (PPPs) can further scale these efforts by blending public funds to finance projects, such as wetland restoration, protected areas or natural resource management initiatives (Benson et al., 2019; Nshimbi & Vinya, 2014; Thackway & Olsson, 1999), where public investment de-risks private contributions, attracting new capital for biodiversity (Choi & Laxton, 2023).

By leveraging Nature Markets across both compliance and voluntary models, the EU can create a sustainable flow of resources into biodiversity, supporting its environmental targets while providing a model for global conservation finance.

5.2 CONTRIBUTION TO CLIMATE GOALS

Biodiversity restoration through a biodiversity certification scheme can also contribute to climate goals by enhancing ecosystem resilience and natural carbon sequestration. Healthy ecosystems, such as forests and wetlands, serve as important carbon sinks, absorbing carbon dioxide from the atmosphere and helping to mitigate the effects of climate change. Restoring degraded ecosystems can strengthen these carbon sequestration capacities, contributing to the EU's broader climate ambitions.

In addition, restored ecosystems provide climate adaptation benefits by buffering communities and ecosystems against extreme weather events, such as floods and droughts. By improving ecosystem health and resilience, Nature Markets can help mitigate climate risks and support the EU's goal of building more climate-resilient landscapes. However, it is important to note that the contribution of high-integrity Nature Markets in Europe to climate goals is a co-benefit, rather than its primary purpose, and it should be integrated into wider climate strategies that include emissions reduction and nature-based solutions. While it helps mitigate some of the effects of development, it should not be relied upon as a primary tool for carbon reduction. Instead, it is one part of a comprehensive climate strategy that includes reducing emissions and protecting existing natural carbon sinks.

5.3 CREATING NEW ECONOMIC OPPORTUNITIES

European Nature Markets can present substantial economic opportunities for landowners and farmers, particularly those engaged in unsustainable agricultural practices like intensive livestock farming or managing degraded lands. By transitioning portions of their land to conservation and restoration, these farmers can benefit from new income streams through participation in habitat banking and selling biodiversity credits to developers, corporations, and governments. This shift allows farmers to diversify their revenue sources while restoring ecosystems, creating a win-win scenario for both the environment and landowners. As Europe continues to recover from the economic effects of the COVID-19 pandemic, now is the ideal moment to invest in green infrastructure and biodiversity restoration as part of the recovery process. A biodiversity certification framework would not only support biodiversity but also create jobs and stimulate economic growth, making it a win-win for both the environment and the economy.

The private sector is already recognizing the opportunity to invest in Nature Markets, but lacks the policy framework. For example, there are several *case studies* of renewable energy projects in Europe integrating biodiversity into their projects. A uniform, EU-wide framework would create a level playing field for all businesses and developers, ensuring that biodiversity obligations are consistent regardless of where development takes place. This could help support, for example, greater investment in *nature-inclusive solar parks*. The level playing field will prevent companies from exploiting weaker national regulations and ensure that biodiversity gains are not compromised by economic competition between member states. Uniformity would also encourage cross-border investment in high-quality biodiversity projects, fostering an EU-wide market for biodiversity credits with consistent standards and prices. Such an approach could result in investment in high-quality restoration projects and generating meaningful biodiversity gains.

Additionally, Nature Markets could attract private sector investment in nature-based solutions, creating a viable market for biodiversity certificates. However, one challenge is the lack of demand, largely due to regulatory inconsistencies. Clear, consistent regulations and market signals are crucial to stimulate demand for biodiversity credits, giving landowners more confidence in the financial viability of conservation efforts. Financing for restoration, as mandated by the EU's Nature Restoration Law, can help bridge this gap and create a more robust market by ensuring steady demand for biodiversity credits.

This economic opportunity also ties into Europe's broader competitiveness goals, as outlined in the recent Draghi report (European Commission, 2024a). By supporting innovative resource mobilization, including through EU funding mechanisms like the Multiannual Financial Framework (MFF) and programs like LIFE, Nature Markets can help the EU to remain competitive in the global green economy. Given economic pressures on national and EU budgets, direct support for mobilising biodiversity financing is crucial. However, it cannot replace direct public funding for biodiversity protection and restoration, and should not be seen as a replacement of such. Further integration of private investment and public funding (i.e. blended finance) can ensure sustainable economic growth while contributing to environmental restoration, aligning with Europe's long-term economic and ecological objectives.

06

Conclusion

Establishing a unified Nature Market certification policy framework across the EU is both an urgent and strategic step toward addressing the accelerating biodiversity crisis across Europe. By creating a standardized and transparent system, the EU can ensure that biodiversity conservation becomes an integral part of development and land-use planning. A well-structured policy framework would harmonize efforts across Member States, fostering collaboration, economic incentives, and accountability. At the same time, such a framework would also integrate well into existing EU policies, such as the Nature Restoration Law and Common Agricultural Policy, to promote coherent and far-reaching conservation strategies.

Still, there are significant hurdles to overcome in implementation, including measurement complexity, permanence, additionality, and social equity. It is essential that these risks are mitigated through careful planning, strong enforcement, and adaptive management. Through regulatory support, financial incentives, and active participation in biodiversity markets, the EU can lead by example in the global effort to restore ecosystems and ensure long-term environmental sustainability. Integrating biodiversity credits into national and EU policies will further ensure that biodiversity considerations are embedded in decision-making processes, enhancing the EU's resilience and increasing their global competitiveness at the same time.

While the implementation of an EU-wide biodiversity certification framework holds great promise and economic opportunity, it must be approached with caution. Only by addressing the challenges and risks head-on can we ensure that biodiversity is protected and restored for the long term, securing both environmental and economic benefits. The time to act is now, but action must be thoughtful, deliberate, and carefully executed to avoid unintended consequences and maximize positive outcomes. Through careful implementation of an EU-wide certification policy framework, Europe can secure a future where biodiversity thrives alongside human development, creating resilient ecosystems that support both the economy and the well-being of its citizens.

07

Frequently Asked Questions (FAQs)

1. What is a unit of biodiversity?

A way to measure the value of nature in a specific area, based on factors like the size, quality, and type of habitat. For example, a forest with diverse plant and animal life might be worth more biodiversity units than a smaller or less diverse area. These units help quantify the amount of biodiversity present so that any losses from development can be calculated and matched by gains elsewhere through conservation or restoration efforts.

2. How are biodiversity units measured?

Using standardized metrics that assess habitat type, quality, and size. These metrics translate ecological data into quantifiable units that reflect the state of biodiversity before and after a development project. For example, in the UK, the statutory biodiversity metric is used to ensure consistency.

3. What are biodiversity credits?

A certificate that represents a positive action taken to help nature, such as protecting or restoring an area of land to improve biodiversity. When a developer harms biodiversity through construction or other activities, they can buy these credits to offset the damage. The money from purchasing the credit is used for projects that protect or restore ecosystems, helping ensure that overall biodiversity is improved or maintained, even after development takes place.

4. How are biodiversity credits valued?

The value of biodiversity credits depends on factors like the ecological significance of the habitat, the restoration cost, and market demand. Higher-value credits typically come from habitats or species that are rare or of higher conservation priority. Prices are also influenced by the difficulty of achieving a net biodiversity gain.

5. What is the difference between biodiversity credits and biodiversity offsets?

Biodiversity credits are a market mechanism used to achieve biodiversity offsets. Offsets refer to actions taken to compensate for biodiversity losses, while biodiversity credits are the financial tools that facilitate these offsets. Both aim for “no net loss” or a net gain in biodiversity, but credits create a structured economic system for trading conservation outcomes.

6. Does putting a price tag on biodiversity undermine its intrinsic value?

While biodiversity has intrinsic value, pricing biodiversity through credits creates economic incentives for its protection. By assigning a value to biodiversity, markets can drive investments in conservation that might not occur otherwise. This system works alongside efforts to raise awareness of biodiversity's inherent importance.

7. How does someone verify the credibility and integrity of biodiversity credits?

The credibility of biodiversity credits is verified through certification processes that include independent assessments, monitoring, and reporting. Certification rules will be defined by the European Commission. These processes ensure that credits represent real biodiversity gains and that conservation outcomes are being achieved as intended.

8. How can we prevent greenwashing?

Greenwashing can be prevented by enforcing strict certification standards, requiring transparency in reporting, and ensuring that biodiversity credits are tied to measurable, long-term biodiversity improvements. Regular audits and public accountability are also essential.

9. How do we ensure biodiversity conservation over the long run (30-50-100 years)?

Long-term biodiversity conservation is ensured through legal agreements, such as conservation covenants or contracts, that bind landowners or developers to maintain biodiversity gains for decades. Continuous monitoring and adaptive management practices are also crucial to ensure lasting benefits.

10. Could biodiversity credits play a significant role in meeting global biodiversity finance goals (e.g. under the Global Biodiversity Framework)?

Biodiversity credits can play a significant role in achieving global biodiversity finance goals by providing a structured, market-based approach to fund conservation projects, for example through NBSAPs. They allow governments and companies to invest in restoring ecosystems, which aligns with the targets under frameworks like the Global Biodiversity Framework. By attaching financial value to biodiversity gains, credits mobilize resources for conservation at a scale that can help meet international biodiversity targets.

11. How can governments support these markets to help fulfill their commitments?

Governments can support biodiversity credit markets by providing a legal framework that mandates biodiversity net gain (BNG) for development projects. They can also offer financial incentives, tax breaks, or subsidies to encourage private investment in biodiversity credits. Additionally, governments can create national or regional biodiversity registries to track credits and ensure transparency and accountability.

12. How can we increase demand for biodiversity credits?

Demand for biodiversity credits can be increased through regulatory requirements that make biodiversity net gain mandatory for developers, such as requiring offsets for any environmental damage caused by infrastructure or industrial projects. Public awareness campaigns and corporate sustainability reporting can also drive demand as consumers and investors increasingly prioritize environmentally responsible businesses. Governments can also incentivize companies by linking biodiversity credits to green finance programs and sustainability rankings.

13. How do BNG schemes compare to Payments for Ecosystem Services?

BNG schemes focus specifically on ensuring that development projects result in a net gain in biodiversity, requiring developers to compensate for biodiversity losses by creating gains elsewhere. Biodiversity credits are often used in BNG schemes to facilitate these offsets. PES schemes, on the other hand, involve payments made to landowners or resource stewards in exchange for managing their land in ways that provide ecosystem services, such as water purification, carbon sequestration, or soil conservation. PES schemes are broader in scope than BNG as they focus on ecosystem services beyond just biodiversity.

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