Funding for Nature in the EU:

Policies and Approaches to Mobilise Public and Private Funds in the Next Multiannual Financial Framework

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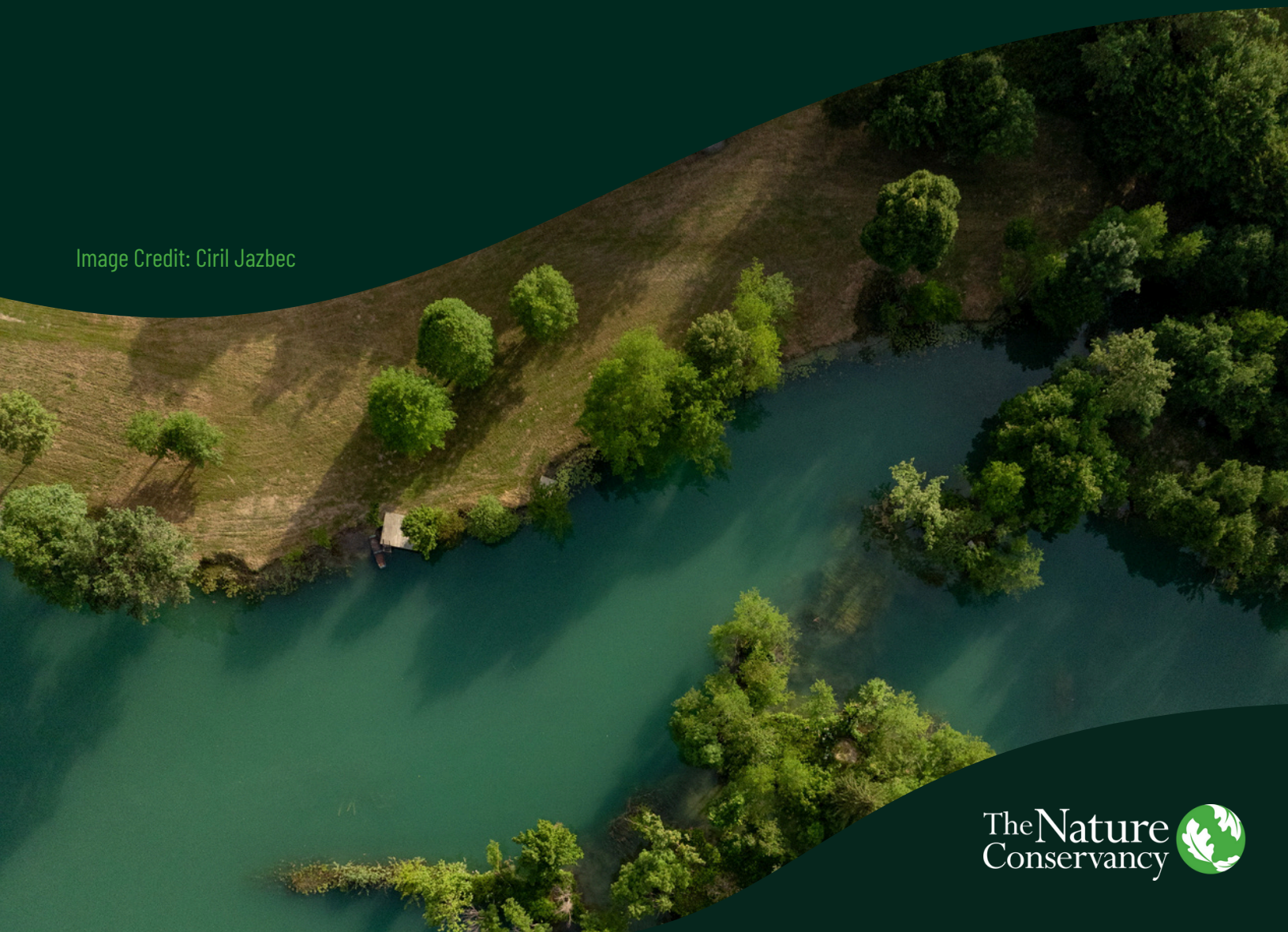

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The Nature Conservancy

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Abbreviations

ANC	Areas of Natural Constraint
BHS	Biodiversity Harmful Subsidies
BNG	Biodiversity Net Gain
CAP	Common Agricultural Policy
CBAM	Carbon Border Adjustment Mechanism
CF	Cohesion Fund
CPR	Common Provisions Regulation
CSRD	Corporate Sustainable Reporting Directive
DNSH	Do No Significant Harm
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EAP	Environmental Action Programme
EHS	Environmentally Harmful Subsidies
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMFAF	European Maritime Fisheries and Aquaculture Fund
ERDF	European Regional and Development Fund
ETS	Emissions Trading System
EU BDS	European Biodiversity Strategy to 2030
EuGBS	European Green Bonds Standard
GBF	Kunming-Montreal Global Biodiversity Framework
GHG	Greenhouse gas emissions
IIA	Inter-Institutional Agreement
JTF	Just Transition Fund
MFF	Multiannual Financial Framework
NbS	Nature-Based Solutions
NCFF	Natural Capital Finance Facility
NECP	National Energy and Climate Plan
NPBIs	National Promotional Banks and Institutions
NRL	Nature Restoration Law
NRP	National Restoration Plan
PAF	Prioritised Action Framework for Natura 2000 and Green Infrastructure
PES	Payments for Ecosystem Services
REC	Rewilding Europe Capital
RRF	Recovery and Resilience Facility
SEA	Strategic Environmental Assessment
SFDR	Sustainable Finance Disclosure Regulation

Executive summary

The European Union is facing an unprecedented biodiversity crisis, with 81% of its protected habitats in poor condition. Natural habitats provide ecosystem services that support important economic sectors, and therefore **biodiversity decline exposes economic sectors and private actors that rely on ecosystem services to financial, physical and transition risks.** Moreover, biodiversity loss also compromises resilience to climate change by making ecosystems more vulnerable to climate hazards and their impacts.

To address the biodiversity crisis, substantial financial resources need to be mobilised, and biodiversity considerations must be integrated into all economic sectors and decision-making processes. Despite the EU's commitment through the EU Biodiversity Strategy for 2030 at the EU level and the Kunming-Montreal Global Biodiversity Framework at the global level to mobilise the necessary funds and phase out biodiversity-harmful subsidies, there is a considerable financing gap for biodiversity. It can be said that **direct investments in biodiversity alone cannot bridge this financing gap.**

In this context, **this report aims to highlight the importance of increasing indirect funding for biodiversity in the upcoming Multiannual Financial Framework negotiations and formulating recommendations for achieving this**. Given the political pushback against the EU Green Deal and shifting priorities following the 2024 EU elections, direct budget allocations for biodiversity may not increase. Therefore, identifying and redirecting funds from activities harmful to biodiversity to biodiversity-friendly initiatives is crucial. The report discusses the following mechanisms and instruments to increase and improve indirect biodiversity funding: **1) Making better use of EU funds (biodiversity mainstreaming), 2) Reforming Environmentally-Harmful subsidies, 3) Upscaling and mobilising private finance using public funds and programmes as leverage (blended finance approaches), 4) Investing in green financial products in line with the EU Taxonomy, 5) Funding and Investing in Nature-based Solutions, 6) Building on synergies with climate public finance and 7) Harmonising the approach to biodiversity net gain certificates**.

The report offers recommendations to strengthen biodiversity funding in the current and next MFF, with specific recommendations for each instrument discussed in the report as well as overarching recommendations. These recommendations are supported by sub-recommendations, or enabling

conditions, to ensure their effectiveness (see section 3 for the full and detailed recommendations). The summarised recommendations are as follows:

1. **Making better use of EU funds:** the European Commission and Member States should prioritise mainstreaming and integrating biodiversity considerations across EU funds to achieve the mainstreaming targets of 10% of the overall budget in 2026 and 2027 in the current MFF. The European Parliament's Committee on Budgets should make sure that the 2026 and 2027 annual budgets deliver on these priorities whilst preparing the Commission's budget proposals. In the next MFF should include targeted and legally binding mainstreaming targets in various regulations.

2. **Reforming Environmentally-Harmful Subsidies:** the European Commission should make the phasing out of environmentally harmful subsidies a priority in the next MFF and implement a legally binding framework to phase them out, with a specific commitment for biodiversity-harmful subsidies.

3. **Upscaling and mobilising private finance using public funds and programmes as leverage (blended finance approaches):** the European Commission should design specific programmes in the next MFF that focus on blended finance approaches specifically for biodiversity and Nature-Based Solutions, taking into account the lessons learned from the Natural Capital Financing Facility and Invest EU.

4. **Invest in green financial products in line with the EU Taxonomy:** the European Commission should revisit the biodiversity criteria under the Taxonomy when possible and strive for their inclusion.

5. **Funding and investing in Nature-based Solutions:** EU regulations should further support Nature-based Solutions to create incentives and mainstream them into EU policy.

6. **Building on synergies with public climate finance:** the European Commission should strengthen climate mainstreaming with robust 'Do No Significant Harm' safeguards and consider separate reporting and targets for climate spending on Nature-Based Solutions. The European

Commission and Member States should maximise opportunities for biodiversity restoration using climate policy revenues.

7. **Harmonising the approach to biodiversity net gain certificates:** the European Commission should launch a dialogue on harmonising an EU approach to high quality biodiversity certificates.

8. **Applying enhanced standards for biodiversity:** the European Commission should require Member States authorities to improve the application of the Do No Significant Harm principle in relevant EU programmes. This needs to be complemented by rigorous requirements for Environmental Impact Assessments and Strategic Environmental Assessments of EU-funded projects, investments, plans and programmes.

9. **Taking advantage of the Nature Restoration Law planning process:** Member States should mainstream and channel funding for nature restoration across relevant policy departments and build synergies with climate, energy, and other sectors. They should coordinate their funding needs with their Prioritised Action Frameworks, build synergies with other environmental policies and use the Common Agricultural Policy and Common Fisheries Policy for funding restoration measures, with support from the European Commission.

10. **Monitoring biodiversity and using rigorous and independent biodiversity data to measure biodiversity impacts** is essential for assessing the effectiveness of EU biodiversity funding and better targeting funding streams.

Section 1 – Introduction

1.1. Context: the necessity to invest in biodiversity

The European Union (EU) is experiencing an unprecedented and escalating biodiversity crisis, with 81% of its protected habitats in poor condition[1]. Natural habitats provide ecosystem services which are the foundation of our life on earth. Their decline therefore poses significant risks to the EU's largest economic sectors, which are largely dependent on nature[2]. The economic value of ecosystem services and natural capital more widely is inadequately understood and considered into political and financial decisions. There are significant risks associated with biodiversity loss and inaction, stemming from our dependencies on nature. These risks include physical risks to economic sectors that rely directly on biodiversity, leading to reduced productivity and operational disruptions, as well as transition risks from new policies, legislation, technologies, or shifts in consumer demand and public perception[3].

Biodiversity loss also compromises climate resilience, making ecosystems more vulnerable to climate hazards and their impacts and affecting their natural resilience capacities. Protecting and restoring biodiversity enhances ecosystem resilience to, and mitigates the impacts of, these hazards[4]. Climate change is intensifying the frequency and severity of extreme weather events, further exposing economic activities to these impacts. The EU climate risk assessment report has identified 36 climate risks with potentially severe consequences across Europe[5].

Halting and reversing biodiversity loss will require the mobilisation of considerable financial resources and the integration of biodiversity considerations and values in all economic sectors and all stages of the decision-making process. More largely, this requires a reconsideration of our

[1] The State of Nature report is based on mandatory reporting by Member States under the Habitats Directive (Article 17) every six years, which explains why the latest was published in 2020. European Union (2020) The State of Nature in the EU Conservation status and trends of species and habitats protected by the EU Nature Directives 2013–2018. Publications Office of the European Union, Luxembourg.
[2] Ceglar, A, Boldrini, S, Lelli, S, Parisi, L and Heemskerk, I (2023) The impact of the euro area economy and banks on biodiversity. ECB Occasional Paper Series, 335, European Central Bank.
[3] European Commission, Directorate-General for Financial Stability Financial Services, Capital Markets, U, Cziesielski, M, Dekker-Hufler, C, Pal, T, Nicholls, G, Petsinaris, F, Korteweg, L, Obersteiner, M and Khabarov, N (2024) Study for a methodological framework and assessment of potential financial risks associated with biodiversity loss and ecosystem degradation – Final report. Publications Office of the European Union.
[4] IEEP (2023), Benefits of nature restoration: A new series of policy briefs, https://ieep.eu/publications/benefits-of-nature-restoration-a-new-series-of-policy-briefs/.
[5] EEA (2024) European Climate Risk Assessment: Executive Summary. 01/2024, Publications Office of the European Union, Luxembourg.

economies and their relationship with biodiversity, which is underpinned by significant political will and investments[6].

The EU has set itself strong resource mobilisation targets for biodiversity, committing through its own EU Biodiversity Strategy to 2030 (EU BDS) to unlock at least €20 billion annually from both public and private sources by 2030 for biodiversity[7]. Additionally, by endorsing the Kunming-Montreal Global Biodiversity Framework (GBF)[8], the EU is committed to Targets 18 and 19, which aim to reduce biodiversity-harmful subsidies (BHS) by at least US$500 billion a year by 2030 and mobilise at least US$200 billion annually by 2030, from all sources. The EU, as a significant contributor to global greenhouse gas (GHG) emissions[9], bears a responsibility to lead efforts in halting climate change and biodiversity loss. This commitment is demonstrated in the adoption of the EU Green Deal in 2019 and its leading role in the negotiations of global environmental agreements such as the GBF. The EU must now act decisively, using all available resources to fulfil the commitments of both the EU BDS and the GBF, to safeguard biodiversity values and support its economy.

However, there is a considerable financing gap for biodiversity in the EU. The average annual gap is estimated at €18.7 billion for biodiversity by 2030, by calculating the difference between current biodiversity expenditures and what is needed to implement the EU BDS[10]. This figure likely underestimates the overall financing gap as not all measures of the EU BDS can be quantified in monetary terms. Moreover, this estimate does not account for BHS, which are estimated to be between €34 and €48 billion in the EU each year[11].

In the forthcoming negotiations for the future MFF, it is therefore imperative to prioritise the integration of biodiversity protection and its interconnections with all economic sectors. Currently, biodiversity is inadequately mainstreamed into EU funds, despite the existence of mainstreaming targets. The upcoming MFF provides a crucial opportunity to

[6] Deutz, A, Heal, G M, Niu, R, Swanson, E, Townshend, T, Zhu, L, Delmar, A, Meghji, A, Sethi, S A and Tobin de la Puente, J (2020) Financing Nature: Closing the Global Biodiversity Financing Gap. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability, USA.
[7] European Commission (2020a) EU Biodiversity Strategy for 2030: Bringing nature back into our lives, COM(2020) 380, Brussels, https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF.
[8] Convention on Biological Diversity (2022) Kunming-Montreal Global Biodiversity Framework, CBD/COP/DEC/15/4, December 2022, https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf.
[9] In 2022, it contributed to 16.69% of global CO2 emissions and to 6.21% of global GHG emissions. Source: Our World in data, CO2 and greenhouse gas emissions. Accessed at https://ourworldindata.org/co2-and-greenhouse-gas-emissions.
[10] Nesbit, M and Whiteoak, K (2022) Biodiversity Financing and Tracking: Final Report. IEEP and Trinomics.
[11] WWF EU (2024) Can your money do better? Redirecting harmful subsidies to foster nature and climate resilience. WWF European Policy Office, Brussels, Belgium, https://wwfeu.awsassets.panda.org/downloads/wwf---harmful-subsidies-report_full-report.pdf.

address this issue and enhance EU efforts to integrate and mainstream biodiversity across all relevant sectors.

Direct investments in biodiversity are undeniably essential and necessary. The LIFE Programme is the EU's dedicated financing instrument for the environment, with a subprogramme on nature and biodiversity. It has proved multiple times the crucial role it plays in support of direct conservation and restoration activities on the ground. It supports the Natura 2000 network, having targeted over 6,000 Natura 2000 sites and significantly contributing to habitat protection through the designation of new sites, sometimes through land purchase, and improving the management of existing ones. It also plays a crucial role in species protection, even recovering some species from the brink of extinction[12]. However, these direct contributions alone cannot fully address the biodiversity financing gap or facilitate a transition towards more systemic and long-term investments that truly benefit biodiversity. It is important to recognise that biodiversity and ecosystem services benefit all sectors, and that its protection must be integrated and mainstreamed into those sectors. Additionally, mobilising funds for biodiversity is not just about supporting biodiversity-positive actions; it is equally important to identify and phase out investments that directly or indirectly harm biodiversity. In parallel, it is imperative to focus on transitioning towards positive investments. Furthermore, acknowledging the role of the private sector is paramount. Whilst it should not bear primary responsibility for financing biodiversity protection, the private sector possesses both the resources and the necessity to contribute and invest in biodiversity protection, under the right conditions and safeguards.

The upcoming MFF negotiations and their potential for biodiversity financing

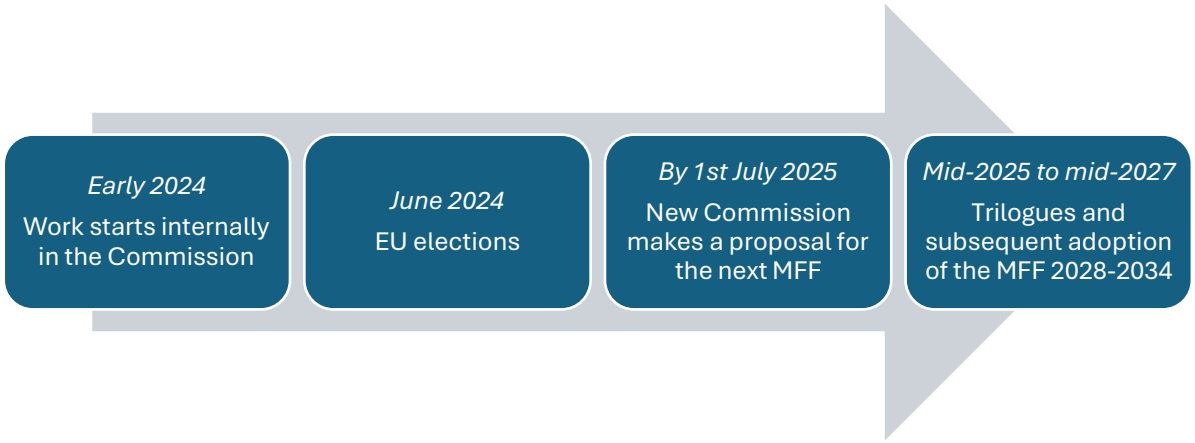
Discussions are currently underway regarding the mid-term review of the current MFF, and preparations for the following MFF (2028-2034)[13] are set to commence shortly (see Figure 1: Timeline of the negotiations for the next MFF (2028-2034)

[12] European Commission (2020b) Bringing nature back through LIFE. Luxembourg: Publications office of the European Union, https://cinea.ec.europa.eu/document/download/279f3a35-adc9-4245-b120-46fe079a7afb_en?filename=bringing_nature_back_through_life_brochure.pdf; for more information on LIFE projects contribution to biodiversity, see: Life Programme and Natura 2000: Funding nature conservation in the European Union. Accessed at https://portal.discomap.eea.europa.eu/arcgis/apps/storymaps/collections/4a0cf90d898c4f1696aafa3b8414c392?item=3.

[13] The period '2028-2034' for the next MFF is based on an assumption that it will run on a seven-year cycle, however the Treaty for the Functioning of the EU The TFEU provides that the MFF shall be established for a period of at least five years. For more information, see Kengyel, A. (2017) The next Multiannual Financial Framework and its Duration, European Parliament Policy Department for Budgetary Affairs, PE 603.798, October 2017, https://www.europarl.europa.eu/RegData/etudes/IDAN/2017/603798/IPOL_IDA(2017)603798_EN.pdf.

). The European Commission is expected to present its proposal for the next MFF by 1st July 2025. Technical groundwork has already started internally and will then be guided by the Commission's new overarching political orientations following the European elections in June 2024. No timeline is available yet for the overarching regulatory framework including biodiversity-proofing tools such as the Do No Significant Harm (DNSH) principle and regulations governing the sectoral funds. The negotiations will revolve around the need to reimburse the loans made under NextGenerationEU of around €30 billion annually.

Figure 1: Timeline of the negotiations for the next MFF (2028-2034)



Source: Kengyel (2017).

1.2. Purpose of the report

Due to growing political pushback against certain policies of the EU Green Deal and shifting political priorities, it is anticipated that the direct budget allocation to biodiversity may not increase and could even decrease. This is further influenced by the recent EU elections in June 2024, which saw a surge in far-right support and losses for green politicians. This underscores the importance of increasing indirect funding for biodiversity in the next MFF. Identifying activities harmful to biodiversity that are financed by EU funds and redirecting these funds towards biodiversity-friendly initiatives will enhance and increase funding for biodiversity policies.

Timing is also a critical consideration. The urgency of the biodiversity crisis is escalating, and with each loss of biodiversity and ecosystem service functions, the challenge of restoration and regeneration becomes increasingly complex and costly. The next MFF will play a pivotal role in achieving the targets outlined in the EU BDS and more globally in providing additional financial resources for biodiversity.

This paper argues that there is scope for increasing and improving indirect funding streams for biodiversity, through a range of different mechanisms which it identifies and analyses in section 2. It should be noted that the report's objective is not to propose fixed solutions, but rather to present options for initiating a discussion on how to increase and strengthen biodiversity funding in the next MFF using a range of complementary tools. It then formulates recommendations in relation to these instruments, as well as overarching recommendations in section 3.

Section 2 – Analysis of instruments and mechanisms for integrating and mainstreaming biodiversity financing in the post-2027 MFF

This section reviews existing instruments and mechanisms that integrate biodiversity or have considerations and can leverage indirect funding, or have the potential to do so, in the current MFF. It reviews the state of play in the EU for each of them, and identifies lessons learned, risks and opportunities for improving and scaling integration of biodiversity through these instruments in the next MFF. The section is structured to reflect the current approach to biodiversity finance, based on the rationale that whilst public financing should remain the primary source, private funding is essential to bridge the financing gap and innovative tools are needed to facilitate this. Therefore, the section begins with existing public finance mechanisms that are expected to and already support biodiversity, moves on to more innovative approaches involving private finance, and concludes with a novel solution that has not yet been implemented at the EU level.

This section proposes to make better use of EU funds by improving biodiversity mainstreaming (2.1), reforming environmentally harmful subsidies (EHS) by phasing them out and transitioning towards more positive subsidies (2.2), promoting blended finance approaches to upscale and mobilise private finance, using public funds and programmes as leverage (2.3), using green financial investment products in line with the EU Sustainable Taxonomy (2.4), upscaling funding and investment in Nature-Based Solutions (NbS) (2.5), catalysing synergies with public climate finance (2.6) and scoping opportunities for biodiversity net gain certificates (2.7).

It is crucial to address these different tools in a complementary manner, as they are interdependent and will not suffice individually to significantly increase biodiversity funding. Adopting this holistic approach ensures that the strengths and opportunities under each tool are leveraged and result in a more robust and efficient framework for funding biodiversity.

2.1 Making better use of EU funds

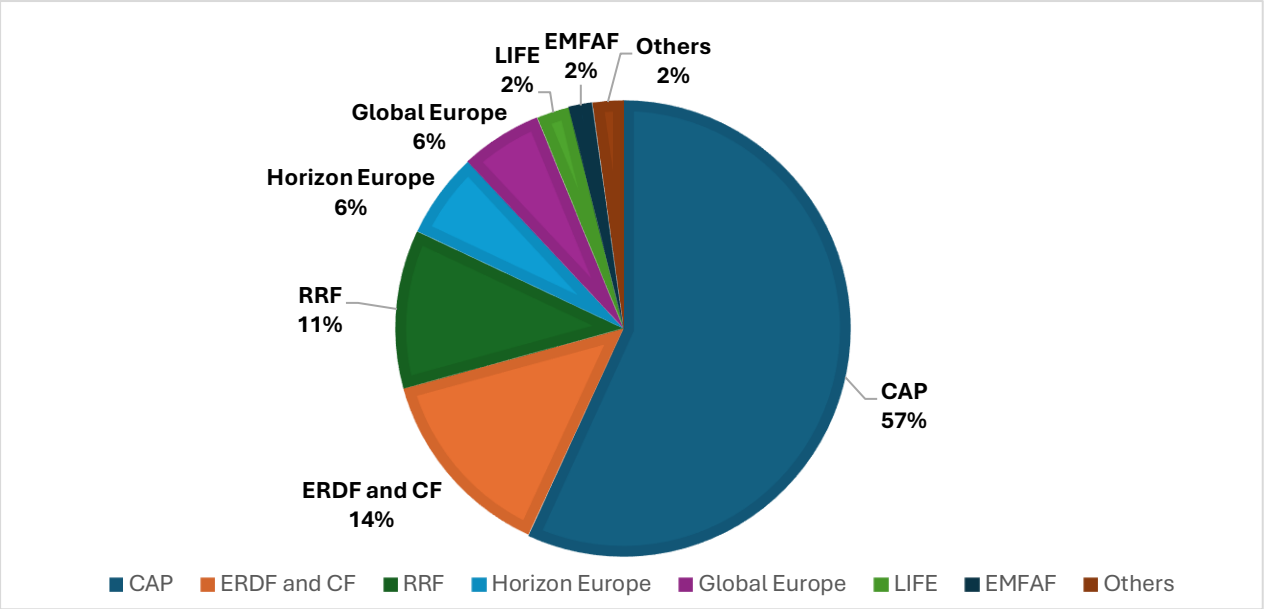
2.1.1. Current state of biodiversity mainstreaming in EU funds

Biodiversity mainstreaming refers to the integration of biodiversity and the services it provides into policies and practices that both depend on and impact it[14]. Sectors such as agriculture, fisheries, energy and transport are heavily reliant on biodiversity, making its integration necessary into these sectors at both EU and international levels. In the context of the EU budget, mainstreaming is defined as the inclusion of a specific priority in the design, preparation, implementation and evaluation phases of all budgetary programmes, in order to maximise their contribution to policy objectives, promote synergies and improve spending coherence. It may involve defining a specific target for the amount of budget to be spent and monitoring progress towards achieving it. The EU set a goal within the MFF 2021-2027 to mainstream biodiversity in EU programmes, with the ambition of allocating at least 7.5% of annual spending to biodiversity objectives in the year 2024 and 10% in 2026 and 2027 [15]. Although the EU budget met the 2024 target, projections show allocations of 8.6% and 8.4% for biodiversity in 2026 and 2027, respectively, falling short of these annual targets[16].

Figure 2: Share of EU funds in overall biodiversity expenditure in the EU budget (2021-2027) shows the contribution of each fund to overall biodiversity expenditure in the current MFF (2021-2027), based on the European Commission's draft budget and statement of estimates.

[14] Convention on Biological Diversity, Biodiversity Mainstreaming, https://www.cbd.int/mainstreaming.
[15] Inter-Institutional Agreement of 16 December 2020 on budgetary discipline, cooperation in budgetary matters and sound financial management, article 16 (e), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Q1222(01)&from=EN.
[16] European Commission (2023d), Statement of estimates of the European Commission: Preparation of the 2024 budget, SEC(2023) June 2023, p.90, https://commission.europa.eu/document/download/dbef5fc5-7cdd-47d3-823a-cfb804861673_en?filename=DB2024-Statement-of-Estimates.pdf.

Figure 2: Share of EU funds in overall biodiversity expenditure in the EU budget (2021-2027)



Source: European Commission (2023c), p.90-1.

Biodiversity spending in EU funds, which inform mainstreaming rates and progress, is tracked using a methodology that assigns coefficients of 100%, 40% or 0% for biodiversity expenditure (see Box 1). The revised approach is more objective-based than previously, as it takes into account the planned objective of the payments as well as their expected impact[17]. The methodology aims to balance the need for detailed and granular information on EU biodiversity spending with the necessity to minimise the administrative burden of reporting for the Member States and the need to make the task manageable for the Commission.

Box 1: OECD Rio biodiversity tracking markers[18] and EU coefficients and weighting factors[19]

The EU tracking coefficients are based on the OECD Rio markers with the addition of weighting factors.

- The EU 100% coefficient corresponds to the OECD Rio marker score 2 = "principal" activities when biodiversity is explicitly stated as fundamental in the design of, or the motivation for, the activity.

[17] Nesbit and Whiteoak (2022).
[18] Capacity4dev (2021) EU financial commitments to environment and climate change and the use of Rio-markers. Short guide to the use of Rio markers, European Commission, Brussels. https://capacity4dev.europa.eu/library/short-guide-use-rio-markers_en
[19] European Commission (2023d), Statement of estimates of the European Commission: Preparation of the 2024 budget, SEC(2023) June 2023, p.90, https://commission.europa.eu/document/download/dbef5fc5-7cdd-47d3-823a-cfb804861673_en?filename=DB2024-Statement-of-Estimates.pdf.

- The EU 40% coefficient corresponds to the OECD Rio marker score 1 = "significant" activities when the biodiversity objective is explicitly stated but it is not the fundamental driver or motivation for undertaking it. Instead, the activity has other prime objectives, but it has been formulated or adjusted to help meet the relevant biodiversity concerns.
- The EU 0% coefficient corresponds to the OECD Rio marker score 0 = not relevant.
- The EU tracking approach uses weighting factors (100%, 70%, 50%) to reflect the differentiated contribution of each type of interventions towards the biodiversity objective: for example, 50% of the spending allocated to CAP strategic objectives for environmental priorities other than biodiversity (climate, natural resources, pollution etc) is considered to be biodiversity relevant (100%).

However, there is room for discussion about whether these markers accurately reflect the beneficial impacts of expenditures on biodiversity. For instance, the lack of negative markers does not reflect investments which harm biodiversity, as a 0% marker indicates a neutral impact. Although the introduction of negative markers was considered in the study proposing the new methodology, it was deemed problematic and would require a difficult political debate about what EU investments are considered harmful to biodiversity, notably with regard to CAP payments.

According to the Commission tracking method, the Common Agricultural Policy (CAP) funds currently account for around two thirds of the EU's biodiversity financing [20] . The revised tracking method takes account of whether the funding is directly programmed to deliver on the biodiversity objective of the CAP, and whether it is also programmed to deliver on other objectives, differentiating between the other environmental objectives (climate, water, air, soil, etc.) and between non-environmental objectives (social, economic, innovation etc.). The method also counts funding not assigned to the biodiversity objective in two ways: a) the method assumes that interventions linked to one or both of the other environmental objectives are considered to provide a useful contribution by addressing drivers of biodiversity loss, and b) direct payments other than ecoschemes[21] plus areas

[20] European Commission (2022) Draft General Budget of the European Union 2023: Working Document Part I. Programme Statements of Operational Expenditure, COM(2022) 400 - June 2022, Publications Office of the European Union, Luxembourg.

[21] This tracking approach refers to the direct payment categories excluding ecoschemes in the current CAP. Before 2024, the term CAP direct payment referred to the area-based payments subject to the CAP environmental conditionality rules but otherwise not targeted to environmental objectives (the tracking approach included a weighting factor to account for the greening payment). The CAP post 2023 splits the direct payments into six categories: basic income support scheme BISS, complementary redistributive income support for sustainability CRISS, young farmer payment YFP, ecoschemes, coupled income support CIS, and the payment for cotton.

of natural constraint (ANC) payments indirectly contribute as they are subject to conditionality and ANC helps prevent land abandonment. Though the coefficients and weighting used for these parts of the budget are lower, they make up by far the largest share of the allocated funding and therefore also dominate in the tracked biodiversity share. There are very different views as to whether the income support payments have a neutral, positive, or damaging effect on agriculture's environmental performance (see Box 3 in section 2.2.1 on environmentally harmful subsidies in the CAP for a discussion of this issue). This reflects the limits of the tracking method and the available information in the plans to accurately estimate actual biodiversity impacts ex-ante.

In the context of the mid-term review of the MFF, it is crucial for the European Commission to ensure that Member States dedicate sufficient funding to biodiversity through the shared management funds to deliver on these objectives, notably through the Cohesion policy funds and the CAP funds. However, this is likely to prove challenging, as the Recovery and Resilience Facility (RRF) ends in 2026, and the European Parliament and Council of the EU have recently agreed to revise the CAP Regulations[22], simplifying and providing greater flexibility for complying with certain environmental requirements that have a high significance for biodiversity protection[23]. This revision is likely to reduce the effective CAP funding dedicated to biodiversity, as farmers receiving CAP payments are no longer required to do certain actions without funding (notably to leave a proportion of arable land uncultivated) and incentivising these actions would now require funding through eco-schemes. By moving these requirements from conditions to being paid for under eco-schemes, they become voluntary and therefore their uptake is unlikely to be as widespread; Member States may also shift funds away from higher ambition schemes. Also, it is not enough to only dedicate sufficient funding, as there also needs to be sufficient uptake of the offered measures or funds, and the funded actions need to be effective and additional. For the CAP, this means ensuring farmers take up the measures, meaning they must be easy enough to implement, but at the same time to be effective, they must go beyond what farmers would do anyway. For the Cohesion funds, this means finding ways to overcome the currently significant bottlenecks to funding biodiversity projects[24] [25]. Therefore, it is even more important to accelerate biodiversity mainstreaming in EU funding programmes and increase the delivery of biodiversity benefits from funding targeted to other objectives, to meet the 2026 and 2027 targets.

[22] CAP Strategic Plans Regulation (EU) 2021/2115 and the CAP Horizontal Regulation (EU) 2021/2116.
[23] European Parliament and Council of the EU, 2024/0073(COD), 30 April 2024, Brussels, https://data.consilium.europa.eu/doc/document/PE-75-2024-INIT/en/pdf.
[24] CEE Bankwatch Network and EuroNatur (2023) Biodiversity on the Brink: What's holding back progress for biodiversity? CEE Bankwatch and EuroNatur.
[25] Ciffolilli et al (2024)

Other sectors receiving EU funding also have direct impacts on biodiversity but fail to allocate sufficient funding to biodiversity protection or to integrate biodiversity considerations into their priorities and activities. This issue is particularly evident in the renewable energy and transport sectors. For renewable energy, the EU and its Member States will dedicate significant resources in the next MFF to develop renewable energy projects aimed at achieving EU climate targets and reducing reliance on fossil fuels. However, these can negatively impact biodiversity through such as direct mortality of species, habitat loss, degradation and fragmentation and disruptions to ecosystem services[26]. At the project level, biodiversity considerations can be integrated into infrastructure planning, design and operation to avoid detrimental impact. By following the mitigation hierarchy, these considerations can minimise the impacts of new projects on biodiversity[27]. Compensation and restoration measures can be aligned with biodiversity net gain if they go beyond replacing the loss plus a safety margin for future risks. In the transport sector, the interpretation and implementation of the EU Green Infrastructure Strategy vary widely across Member States, leading to disparities in how green infrastructure is defined and implemented. As a result, biodiversity considerations are often insufficiently integrated into transport infrastructure projects in the EU[28].

2.1.2. Applying appropriate safeguards for biodiversity

To ensure that EU investments do not harm biodiversity and other environmental goals, the EU regulations include certain policy-proofing tools, notably the requirement to align with EU environmental law and policy and to conduct environmental assessments. Notably, the Strategic Environmental Assessment (SEA) Directive provides a framework for assessing the environmental impacts of plans and programs in the land use, transport, energy, waste and agricultural sectors, whilst the Environmental Impact Assessment (EIA) Directive provides a similar framework for major building or development projects.

Since 2021, the application of the DNSH principle should also be followed. The DNSH principle mandates that investments should neither support nor engage in economic activities that significantly harm any of the six environmental objectives defined in the EU Sustainable Taxonomy

[26] OECD, Mainstreaming Biodiversity into Renewable Power Infrastructure, Éditions OCDE, Paris, https://doi.org/10.1787/357ac474-en.
[27] Eurelectric (2024) Power Plant 2: A guidebook to electrify in harmony with nature, https://powerplant.eurelectric.org/wp-content/uploads/2024/06/Eurelectric-Biodiversity-Integration-Guidebook-12-06-24_FINAL.pdf.
[28] Enhancing ecological connectivity in transport infrastructure: aligning national policies, strategies and implementation with the EU's green infrastructure strategy, BISON Policy brief, https://bison-transport.eu/wp-content/uploads/2023/10/BISON-Policy-brief-4-Policies_final.pdf.

Regulation, including the protection and restoration of biodiversity and ecosystems [29] . This principle aims to go beyond strict compliance with environmental legislation and to drive funds towards achieving the highest possible environmental performance. The DNSH principle was first applied to the RRF in 2021 and later applied to the Cohesion funds under the Common Provisions Regulation (CPR)[30] and InvestEU. The DNSH assessment must be applied at the programme or measure level (i.e. at the level of funding objectives and targets), and then should systematically be integrated during the evaluation and selection of projects following a call for projects[31]. In RRF plans, each measure must have a DNSH assessment against each of the six environmental objectives. According to the Commission guidance, the DNSH assessment is intended to complement the SEA or EIA by covering all aspects of significant harm, so the two assessments can be integrated[32].

So far, the implementation of the DNSH principle to EU funds has not lived up to its ambition (see Box 2 in relation to investments under the RRF). Many challenges hinder its potential to drive investments away from activities that harm biodiversity and towards those with positive impact. Indeed, transparency in assessing the application of DNSH is lacking and the assessments are not systematically published. When available, the information provided often lacks sufficient detail or fails to substantiate statements with evidence. The assessments in 2021 were largely carried out by government staff, in contrast to SEAs and EIAs, which are done by professional independent contractors or agencies[33]. There are also doubts regarding the compliance of certain projects with DNSH, such as those involving road transport or fossil gas. Additionally, there appears to be a shortage of capacity and resources amongst management authorities to effectively implement the principle and inconsistencies with its implications. Overall, there seems to be a lack of understanding from management authorities regarding the objective of the principle, with some viewing it merely as a means to demonstrate compliance with environmental legislation

[29] Article 17 of the Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment..

[30] Regulation (EU) 2021/1060 of the European Parliament and of the Council of 24 June 2021 laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund and the European Maritime, Fisheries and Aquaculture Fund and financial rules for those and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for Financial Support for Border Management and Visa Policy, PE/47/2021/INIT, https://eur-lex.europa.eu/eli/reg/2021/1060/oj.

[31] EIPA (2022) Taking into account the taxonomy: acting without harm in structural funds and recovery plans. EIPA European Institute of Public Administration.

[32] European Commission (2021b) Technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation 2021/C 58/01. Official Journal of the European Union C 58, pp1–30. 18.2.2021.

[33] Miller, C, Davies, W, Korinek, L, Dastbaz, M and Leminski, M (2022) Ensuring the Significance of 'Do No Significant Harm': Shortfalls of the DNSH principle and recommendations for improvement. Transformation Policy Brief #9 – 6/2022, ZOE Institute for Future-fit Economies, Cologne.

rather than as a tool to go beyond compliance and achieve higher environmental standards[34].

Box 2: NGOs raise concerns about the application of the DNSH principle under the RRF

In a letter to Members of the European Parliament's Recovery and Resilience Working Group in March 2022, four NGOs (EuroNatur, Bankwatch, WWF and ReCommon) expressed concerns about the non-compliance of investments under the RRF with the DNSH principle. They highlighted issues related to the lack of accessibility and transparency of information and provided recommendations for better and more efficient application of the DNSH principle to investments under EU funds[35].

The letter includes case studies where the application of the DNSH criteria failed to protect the environment, including biodiversity. For instance, an investment measure in Estonia's recovery plan for constructing a rail terminal would have negative impacts on biodiversity and ecosystems, which were insufficiently assessed. According to the NGOs, correct application of the principle would have required modifications to account for the site's biodiversity values. Another example involves a measure in Poland's recovery plan to support the construction and expansion of water management facilities like reservoirs and dams, which would significantly impact biodiversity-rich regions by flooding them. The NGOs argue that the DNSH principle should have prevented the adoption of this measure[36].

There is therefore a need to further strengthen the application of the DNSH principle, the capacity to implement it and to develop better guidelines to help management authorities understand its objectives and how to adequately implement it (see recommendation 8).

2.1.3. Lessons learned

- The explicit, numbered and time-bound biodiversity mainstreaming targets in the interinstitutional agreement provided a good incentive to mainstream biodiversity into a wide range of EU funds, as the share of

[34] CEE Bankwatch Network, Application of the DNSH principle to EU funds: Lessons from monitoring its implementation on the ground.
[35] CEE Bankwatch Network, EuroNature, WWF and ReCommon (2022) Action needed to avoid billions of EU public funds harming the environment, https://bankwatch.org/wp-content/uploads/2022/03/Letter_Action-needed-to-avoid-billions-of-EU-public-funds-harming-the-environment.pdf.
[36] WWF (2022) Keeping the bar high on green recovery: the EU's 'do no significant harm principle in practice', https://bankwatch.org/wp-content/uploads/2022/03/Application_of_the_DNSH_criteria_to_NRRPs-WWF_statement-final-02032022.pdf; CEE Bankwatch Network and EuroNature (2022) Applying the 'do no significant harm' principle in practice: examples of reforms and investments under national recovery plans that will cause harm to the environment, https://bankwatch.org/wp-content/uploads/2022/03/Annex-2_Applying-the-do-no-significant-harm-principle-in-practice.pdf.

biodiversity funding increased from 4.3% to 7.9% in 2024 and almost doubled from 2021 to 2026. However, it is not enough to reach the 10% targets in 2026 and 2027 (under current budget planning).

- Conflicting policies are a common barrier to biodiversity mainstreaming, and biodiversity rarely wins this battle. Biodiversity protection is still operated in silos. This has been illustrated by policy developments in relation to renewable energy development (with the adoption of the new Renewable Energy Directive[37]) and agriculture (with the recent CAP reform to simplify environmental requirements). It is therefore important to identify these conflicts and try to resolve them.
- A key mainstreaming tool for biodiversity funding is the requirement to align funding programmes with the Prioritised Action Framework (PAF) for funding Natura 2000 and green infrastructure. The PAF had greater impact in Member States programmes in this MFF than last time, mainly because most Member State environment ministries produced the document before the EU funding programmes had been finalised, but also because of improvements in the data and preparation and better knowledge of conservation and restoration needs[38]. However, shortcomings in the identification of suitable funding sources and lack of unit costs and target areas information hindered the translation and verification of the adequacy of the actual funding measures in the EU funding programmes.
- Funding for biodiversity through LIFE, although important, is sometimes limiting as it is project-oriented, requires high co-financing rates and administrative burdens, and must often have an innovative character.
- The spending allocated to biodiversity under the RRF has not lived up to its ambition for protecting and benefiting biodiversity and has even been used to finance harmful activities.
- Public participation is an essential element of biodiversity integration. Under the RRF, the allocation of funds has been done very quickly and it has therefore been difficult for civil society to engage in the planning process and biodiversity proofing.
- There have been some examples of improvement, such as the Interreg programme funded under the ERDF, and interesting tools put in place like peer-to-peer exchange. Also, the importance of the availability of EU funding to support networking and capacity building, such as the

[37] Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 as regards the promotion of energy from renewable sources, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413&qid=1699364355105.

[38] European Commission (2023) *Investment needs and priorities for Natura 2000 and green infrastructure – EU-wide assessment based on Member States' prioritised action frameworks*. COMMISSION STAFF WORKING DOCUMENT, European Commission, Brussels.

Interreg tools, the Technical Support Instrument and the LIFE SNAP projects (supposed to be bridging silos), has become evident.

2.1.4. Opportunities for improving biodiversity mainstreaming

An important opportunity for enhancing the mainstreaming of biodiversity considerations in the current and next MFF is the recent adoption of the Nature Restoration Law (NRL). This regulation, which entered into force in July 2024, is directly binding on Member States. It sets ambitious objectives to restore at least 20% of degraded ecosystems by 2030 and all ecosystems in need of restoration by 2050. It includes legally binding targets for restoring terrestrial, freshwater, marine, agricultural, forest and urban ecosystems, as well as addressing the decline of pollinator populations[39]. Member States are required to prepare and draft National Restoration Plans (NRPs) within two years, outlining how they will implement the NRL's objectives.

Nature restoration necessitates a holistic approach and requires coherence with policies related to agriculture, forestry, fisheries, water management, energy, transport, finance, and more. The NRPs include specific requirements for Member States to highlight and build on these synergies. Implementing the NRL will require coordination between departments at both the EU and Member States levels to ensure nature restoration is integrated across relevant sectors and not handled in isolation.

Furthermore, Member States must detail in their NRPs the estimated financing needs for implementing the restoration measures and their plans for financing these measures, including the use of EU funding instruments. The lack of financing to implement these measures was a critical concern raised by Member States during the negotiations. Consequently, the NRL provides that the European Commission will submit a report to the Parliament and Council within one year of the law's entry into force. This report will provide an overview of available financial resources, analyse funding gaps, and eventually propose measures to address these gaps. The publication of this report will coincide with discussions on the next MFF, potentially leading to the identification of funding tools for nature restoration in the forthcoming financial framework.

2.2 Reforming Environmentally Harmful Subsidies

2.2.1. EHS/BHS in the EU and international context

Subsidies are the results of government action that provides an advantage to consumers or producers, typically by supplementing their income or

[39] Regulation of the European Parliament and the Council on nature restoration, Brussels, 15 March 2024, data.consilium.europa.eu/doc/document/PE-74-2023-INIT/en/pdf.

reducing their costs. Subsidies can be categorised as direct when they take the form of grants, loans or direct payments by governments, or indirect, when they allow for certain activities to take place, in the form of tax reliefs for example. When subsidies result in adverse environmental impacts, either directly or indirectly, they are considered harmful. The European Commission conducted a study on reforming and phasing out EHS in the EU, identifying such subsidies across all EU Member States and proposing reform measures for a few of them[40]. The study inventoried 720 EHS across four main categories in the 27 Member States, namely tax exemptions/reductions, direct subsidies, reduced service charges and other forms of subsidies.

In the 2021 to 2027 EU MFF, the regulations governing the ERDF and Cohesion Fund, as well as the Just Transition Fund (JTF), exclude investments related to fossil fuels or the financing of landfills for waste treatment[41], but include exemptions for upgrading solid fossil fuel heating systems to gas[42].

The 8th Environmental Action Programme (EAP) adopted in 2022 requires the European Commission and Member States to phase out EHS by (i) setting a binding framework to monitor and report on Member States' progress towards that goal (ii) setting a deadline for phasing out fossil fuel subsidies, which are indirectly harmful to biodiversity, and (iii) delivering a method to identify and assess non-energy EHS[43]. This is not a binding target but merely a political commitment which has lacked appropriate political support and momentum and that had yet to be achieved. The Commission and Member States have failed to deliver on these requirements so far, and the publication of the methodology to identify other EHS has been postponed.

Reporting on energy subsidies, including those for fossil fuel and other types of subsidies, is currently conducted under the framework of the EU Energy and Governance Regulation[44] through National Energy and Climate Plans (NECPs). Member States are required to submit progress reports every two

[40] European Commission (2021a) A toolbox for reforming environmentally harmful subsidies in Europe: Final Report, Luxembourg: Publications Office of the European Union, 2022, https://circabc.europa.eu/ui/group/c1a5a4e97563-4d0e-9697-68d9cd24ed34/library/3e685dda-2269-487d-a253-28cfd23b7466/details.

[41] Regulation (EU) 2021/1058 of the European Parliament and of the Council of 24 June 2021 on the European Regional Development Fund and on the Cohesion Fund and Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund.

[42] Cohesion Policy 2021-2027, Eligibility of energy investments, enabling conditions and complementarity of funds, Presentation by DG REGIO, 2020, https://commission.europa.eu/system/files/2021-06/2._eligibility_of_energy_investments_enabiling_condtions_complementarity_of_funds_-_mathieu_fichter.pdf

[43] European Commission, Decision (EU) 2022/591 of the European Parliament and of the Council of 6 April 2022 on a General Union Environment Action Programme to 2030, PE/83/2021/REV/1, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022D0591.

[44] Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.

years, with annexes detailing energy subsidies and plans to phase them out. Non-energy subsidies will be addressed by the aforementioned guidance by the European Commission, which aims to map negative subsidies and collect relevant data in a similar manner than for energy subsidies. It is important to note that the methodology may not allow for comparisons between Member States due to significant differences in their tax systems and subsidies.

This methodology will be useful to achieve the GBF's Target 18 which aims to "*identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least $500 billion per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity*"[45].

According to a recent report, Member States are directing between €34 and €48 billion of EU subsidies into biodiversity-harmful activities every year[46]. Most of these subsidies are related to agriculture and forestry (through the CAP funds) (see Box 3), followed by subsidies for transport and water infrastructure (through the Cohesion funds), and fisheries (through the European Maritime Fisheries and Aquaculture Fund (EMFAF)).

Box 3: Environmentally harmful subsidies in the Common Agricultural Policy

A recent NGO report[47] has assessed BHS in the CAP. The study considers that direct farm support in the form of area-based income support [48] incentivises conventional (non-organic) farms to increase industrial livestock numbers or to expand or intensify crop production. The report states that increased livestock production results in increasing GHG emissions, use of water, cattle feed, antibiotics, and pollution and land use to dispose of the excess livestock waste, whilst intensified crop production increases fertiliser and pesticide use, soil erosion and degradation, and fragmentation and pollution of natural habitats. Based on this understanding of which type of subsidy is harmful within the CAP, the study counts as a minimum estimate of BHS: 1) all area-based direct income support under the European Agricultural Guarantee Fund (EAGF) and the

[45] Convention on Biological Diversity (2022).
[46] WWF EU (2024).
[47] WWF EU (2024).
[48] The studies cited as evidence were conducted on the CAP direct payments before 2020, which did not include any measures targeted at environmental objectives. The CAP post 2021 splits the direct payments into five categories: basic income support scheme BISS, complementary redistributive income support scheme CRISS, coupled income support CIS, young farmer payment YFP, and ecoschemes.

European Agricultural Fund for Rural Development (EAFRD), excluding eco-schemes, and counting only half of the funding to areas facing natural constraints; 2) payments for cotton, mainly in Greece and Spain. The higher estimate also includes all investments that do not have an explicit environmental or climate objective, including funding for irrigation systems or farm modernisation, plus 60% of the sectoral support in the EAGF. The study concludes that at least 58-60% of CAP funding under the current EU budget can be considered harmful to biodiversity, which represents €31.35–32.67 billion annually.

2.2.2. Why has it been so difficult to address EHS so far?

Reforming EHS is seen as a cornerstone of the reform for the next MFF. With the aim that all public funds support the provision of the ecosystem services which underpin our economies and societies. However, subsidy reform has received little concrete political support, despite the adoption of voluntary targets.

Firstly, definitions of subsidies may differ across international organisations and Member States. It can also be difficult to assess whether the subsidy is environmentally harmful. Besides, certain subsidies might be 'positive' for one environmental area and harmful to another. Public funding for agricultural, fisheries and forestry activities for example can be incentivising more intensive production which is directly harmful to biodiversity, or at least the funding does not incentivise a transition to more biodiversity-friendly production systems. There is a lack of consensus on whether public funding for agricultural incomes through the CAP (i.e. income support or direct payments other than ecoschemes[49]) incentivises production, or has a neutral effect, or maintains lower intensity (and economically unviable) farms which would drop out of agriculture without the public subsidies[50][51]. However, there is clear evidence that the basic income support payments and coupled payments of the first pillar of the CAP[52] favour large intensive farms (with high historical production levels), and do not differentiate between environmentally friendly and environmentally harmful farming [53][54] . Economic modelling shows that public subsidy that influences market prices

[49] The studies cited as evidence were conducted on the CAP direct payments before 2024, i.e. area-based payments subject to the CAP environmental conditionality rules but otherwise not targeted to any objective. The CAP post 2023 splits the direct payments into six categories which must all be targeted to one or more strategic objectives: basic income support scheme BISS, complementary redistributive income support for sustainability CRISS, young farmer payment YFP, ecoschemes, coupled income support CIS, and the payment for cotton.

[50] The support is designed to be independent from production, and therefore theoretically of neutral effect, to be consistent with World Trade Organisation rules. However, in the older Member States, the payment levels still vary between areas and cropping systems in part because they are linked to historical production levels.

[51] Boulanger et al 2017

[52] See footnote above on CAP direct payments.

[53] Bär et al 2024

54 Schuh et al 2022

or that clearly changes the competitiveness of one production activity in relation to another, such as payment based on current crop area or on animal numbers (coupled payments), is the most environmentally harmful [55]. Coupled payments are increasingly used by Member States in their CAP strategic plans. Although a few Member States have set environmental limits, such as maximum livestock numbers and types, these are still predominantly set at high levels, whilst others are using coupled payments to increase production of crops such as oilseeds[56], which may be encouraging farmers to grow these on land that would otherwise remain fallow or replacing less intensive crops such as fodder, with no environmental conditions on production methods [57]. The CAP strategic plans also allocate significant funding to investments in farm modernisation, irrigation systems, forest roads, and other grey infrastructure[58], which can have significant biodiversity impacts unless carefully assessed and planned. Thinking about subsidy reform should therefore be embedded in the negotiations of the common provisions for EU funding and the funding allocations to the CAP and EMFAF in the new MFF.

Finally, apart from the lack of political will, subsidy reform may be hampered by the fact that it may be seen as critical support for low-income households. That is particularly the case in the context of the increase in energy prices following Russia's invasion of Ukraine. In the case of biodiversity subsidies, compensatory measures can be taken to mitigate the impacts of subsidy reform on affected stakeholders. For example, in Denmark, farmers benefited from reduced land taxes following the introduction of a pesticide tax. The entire revenue generated by the tax is earmarked for environmental purposes and to compensate farmers[59].

2.2.3. What are the current options/avenues for reforming EHS/BHS?

First, it is crucial to phase out fossil fuels of the EU economy by 2050 to meet climate targets. Fossil fuel subsidies indirectly harm biodiversity, making their elimination an indispensable element for achieving Target 18 of the GBF.

Secondly, there is a need to phase out harmful subsidies in the CAP. The CAP basic income support payments are not equitable in supporting farmer income, whilst they are not delivering any incentive for a transition of

[55] Henderson and Lankoskii (2019)
[56] Coupled payments can be made for cereals, oilseeds (excluding confectionary sunflower seeds), protein crops including legumes and mixtures of legumes and grasses, flax, hemp, rice, nuts, starch potatoes, milk and milk products, seeds, sheep meat and goat meat, beef and veal, olive oil and table olives, silkworms, dried fodder, hops, sugar beet, cane and chicory roots, fruit and vegetables and short rotation coppice.
[57] Chartier et al 2023
[58] Chartier et al 2023
[59] Pedersen, A B, Nielsen, H Ø and Andersen, M S (2015) The Danish Pesticide Tax, in Lago, M, Mysiak, J, Gómez, C M, Delacámara, G, Maziotis, A (eds), Use of Economic Instruments in Water Policy, pp73-88. Springer Publishing, Netherlands.

farming system to more sustainable resilient and biodiversity-friendly models[60]. These payments can be replaced by a combination of ecoschemes with clear biodiversity objectives and other payment instruments that effectively support the incomes of those farmers who need it most, without distorting land prices and indirectly subsidising the agri-food industry or incentivising more production [61]. Conditions can be placed on coupled payments that ensure that they contribute to more sustainable and resilient cropping systems with lower environmental impacts, for example, by fostering nitrogen-fixing crops which diminish the need for mineral fertilisation and provide feed for livestock, thus reducing GHG emissions and reducing the risk of carbon leakage from imports from third countries, such as soya from Brazil[62]. EIA tools and conditions can be set on investments to ensure that the funding does not go to expanding irrigation systems in areas of water scarcity, to building roads in natural areas and forests where they will impact sensitive wildlife, and to ensure that investments in farm modernisation and expansion is accompanied by mitigation measures and biodiversity enhancements. Making the CAP subject to the CPR would ensure that CAP funds are also submitted to cross-MFF conditionality and instruments to avoid environmentally harmful subsidies.

Other avenues might be explored to support the reform of EHS and BHS. For instance, better use of green budgeting approaches and tools can help redirect investments from harmful subsidies towards green investments [63]. Green budgeting involves using tools to identify and assess the environmental impacts and contributions of budgetary items and policies based on a series of indicators. Whilst there have been some positive initiatives at both the EU and Member State levels, such as in France[64], this approach is not always or effectively tailored to biodiversity performance. However, it could serve as a starting point for identifying potential EHS and BHS. Moreover, if the NRL is adopted, Member States would be required to identify and report subsidies that negatively affect the achievement of the restoration targets in their NRPs.

Finally, many international organisations have produced guidance on identifying and assessing EHS. The OECD, the International Monetary Fund

[60] Baldock and Bradley (2023)
[61] Bär et al 2024
[62] Midler & Pagnon 2023
[63] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: the European Green Deal, COM/2019/640 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640.
[64] Green budgeting in France is done to assess the environmental impact of government spending and budgetary efforts to achieve France's national and international environmental objectives. The first green budget was published in September 2020 and used a methodology applying a favourable, unfavourable, mixed or neutral environmental rating for budget appropriations and tax expenditure on six environmental objectives (those of the EU Taxonomy) and their share of total government expenditure. See Rapport sur l'impact environnemental du budget de l'Etat, Octobre 2023, https://www.economie.gouv.fr/actualites/budget-vert-2024.

(on fossil fuel subsidies), the World Bank (on EHS in energy sector), and the Food and Agriculture Organisation, as well as the United National Development Programme and Environmental Programme (on agricultural subsidies) have all contributed to this effort. Additionally, the World Trade Organisation has agreed to phase out harmful subsidies in the fisheries sector. Building on the work of these international organisations and cooperating with them to gather data and adapt their guidance to the EU context could help achieve both EU and global targets in that respect.

Member States initiatives can also be flagged and studied as best practices, such as the Italian Catalogue on EHS and its specific chapter on biodiversity subsidies (Box 4).

Box 4: The Italian Catalogue of EHS

Italy offers an interesting example of environmental subsidy reform at the national level. In 2015, a legal decree called on the Ministry for Ecological Transition to prepare an annual catalogue of both environmentally harmful and beneficial subsidies, with the first catalogue published in 2017[65]. Under this approach, subsidies are broadly defined and categorised into direct, indirect and uncertain subsidies (i.e. those that may be beneficial to one environmental aspect but harmful to another). Harmful subsidies are to be gradually phased out by 2025, and to date, five fossil fuel subsidies have already been removed.
Recent editions of the Catalogue include a separate chapter on biodiversity subsidies, a practice that is recommended to be replicated and expanded. Moreover, it is suggested that the generated revenue be redirected to enhance the social acceptability and fairness of the reform and to target polluting activities.

2.3. Upscaling and mobilising private finance using public funds and programmes as leverage (blended finance approaches)

2.3.1. Definition and EU framework for blended finance

According to the European Investment Bank (EIB), blended finance refers to the strategic use of (public) grant resources to catalyse additional financing for development projects[66]. It aims to leverage additional funds from the private sector to complement public finance, using instruments such as equity, debt, grants and guarantees[67]. Its rationale is that whilst public

[65] Article 68 of the Law of 28 December 2015, n. 221 (Provisions on environmental matters to promote green economy measures and to contain the excessive use of natural resources).
[66] EIB, EU Blending facilities, https://www.eib.org/en/products/mandates-partnerships/eu-blending-facilities/index#:~:text=Blending%20involves%20the%20strategic%20use,additional%20financing%20for%20development%20projects.
[67] Habbel, V, Jackson, E, Orth, M, Richter, J and Harten, S (2021) Evaluating Blended Finance Instruments and Mechanisms: Approaches and Methods. OECD Development Co-operation Working Papers, 101, Paris.

finance is essential for supporting biodiversity policies, private funding can provide additional support for attaining biodiversity conservation objectives. In the EU, the CPR enables blended finance by allowing financial instruments to be combined with grants in a single operation [68]. This approach can encourage private investors to support biodiversity investments, with a public guarantor like the European Commission mitigating the perceived risks of investing in natural capital.

Private capital is currently directed to projects with higher expected returns and are usually smaller in scale and generate small biodiversity benefits. Larger-scale projects with more ambitious biodiversity impacts generally have lower expected returns, and therefore require additional securities in order to attract private investment, through the guarantee provided by the public funds but also lower risks[69].

The Natural Capital Finance Facility (NCFF) was established by the European Commission and the EIB to support biodiversity projects through blended finance. It ran from 2015 to 2022 and aimed to demonstrate the potential of investments in natural capital to generate revenue and biodiversity impact, despite being perceived as high risk for investors, the NCFF. It focused on funding replicable projects in four categories: payments for ecosystem services (PES), green infrastructure, biodiversity offsetting and pro-biodiversity and climate-adaptation business. The NCFF developed a series of bankable operations serving as "proof of concepts" and supported natural capital investment projects that promote the conservation, restoration, management and enhancement of natural capital for biodiversity and adaptation benefits (see Box 5 for example of a project funded by the NCFF).

Box 5: Example of a successful project funded under the NCFF

The NCFF supported the development of Rewilding Europe Capital (REC), an investment tool aiming to scale up the impacts of rewilding efforts and pilot new business models around rewilding landscapes. One successful REC project includes the purchase and restoration of a former peatland extraction site by an NGO thanks to a loan by the NCFF, which has been repaid using the revenues gained from tourist activities and donations. Additional funding was provided by the NCFF and private donors to buy land around the site and to carry out rewilding works. The REC initiative hopes to demonstrate that restoring ecosystems in rural regions can generate new business opportunities, jobs and income for local communities.

[68] Article 52(5).
[69] Flammer, C, Giroux, T and Heal, G (2023) Biodiversity Finance. European Corporate Governance Institute No Finance Working Paper (901/2023).

While the NCFF managed to demonstrate that blended finance could be leveraged for nature-based projects, it faced several challenges related to the scale of the market and the environment in which to develop projects and was not able to deploy a significant pipeline of projects to take on in the future (see section 2.3.2 on risks, challenges and lessons learned). The EIB assessed that its deployment reflected the difficulties of developing bankable projects with positive public outcomes and returns on investments. It concludes that whilst the public sector plays a major role in financing biodiversity, there are opportunities for partnerships with private entities[70].

Sine the NCFF ended, the EU launched InvestEU, its new investment programme for 2021-2027. This dedicated natural capital and circular economy initiative was established to mobilise at least €10 billion over ten years through blended finance. Biodiversity is addressed under the 'sustainable infrastructure' section which contributes to the EU's climate and environmental goals. Implemented by the EIB Group and other financial partners, InvestEU combines a variety of financial instruments. However, this facility has yet to direct significant investments toward biodiversity projects, as it lacks specific tailoring for biodiversity needs. This makes it difficult for biodiversity projects to compete against other types of environmental projects which may offer higher financial returns. The European Commission has established the Green Advisory Service for Sustainable Investments Support (GreenAssist) under InvestEU, funded by the LIFE Programme to help project holders secure financing from InvestEU or the EIB. However, there is still a shortage of biodiversity projects in this facility.

2.3.2. Risk, challenges and lessons learned

Risks and challenges:

- Biodiversity investments are perceived as being high risk with low expected returns. Since there is little data on biodiversity investments and blended operations, it is difficult to convince private actors to invest. Data availability is indeed seen as a barrier to assessing biodiversity-related risks in the financial sector[71] (World Bank Group, 2020).
- There are not enough project pipelines of biodiversity projects under blended finance, which is complicated by the fact that biodiversity projects are not necessarily always replicable. Subsequent monitoring of such operations is also lacking.

[70] EIB (2023) Investing in nature-based solutions, p. 112, https://www.eib.org/attachments/lucalli/20230095_investing_in_nature_based_solutions_en.pdf.
[71] World Bank Group (2020) Mobilizing private finance for nature: A World Bank Group paper on private finance for biodiversity and ecosystem services. The World Bank Group, Washington DC.

- The projects and required investments are often too small to attract investors.
- The current frameworks imply a lot of administrative burdens and complexities associated with the public sector which scare away private investors.
- Since biodiversity is not sufficiently mainstreamed in EU and national policies, these projects might be difficult to take forward[72].

Lessons learned:

- The NCFF did not fully achieve its ambitions as it struggled to scale up investments for nature-based projects. It selected projects with minimal financial risks for investors and failed to establish a strong pipeline of bankable projects that were both environmentally impactful and financially viable. Significant market barriers hindered its success, including a lack of understanding among investors and financial institutions, and insufficient incentives compared to traditional investment opportunities.
- Despite these challenges, the NCFF has had the benefit of creating an initial pipeline of projects that can be replicated and scaled up. It funded innovative examples of business plans and financial arrangements, demonstrating the potential of using innovative financing mechanisms such as blended finance to potentially attract private investors. It raised awareness among private investors about the need for such investments and showcased the feasibility of innovative financing mechanisms. It served as a proof of concept, highlighting successful projects that can be replicated and identifying barriers to the successful implementation of such facilities.
- There are current funding instruments dedicated to blending operations for biodiversity, but there needs to be targets or minimum thresholds in place such as designated funding envelopes, earmarking targets, specific criteria and/or targeted calls for proposal for biodiversity specifically to ensure investments are directed towards biodiversity issues, as demonstrated by the current use of funding under InvestEU.
- We should be careful when trying to select 'replicable' projects, as it is not always possible when it comes to biodiversity projects that are often highly site specific.
- De-risking, including through the strategic use of public funding such as subsidies, is a key factor for attracting private capital. Blended finance is only applicable when private actors are satisfied with the

[72] Developing blended finance capacity for nature on a national level (2023); Finance for Biodiversity Foundation, Aligning Financial Flows with the Global Biodiversity Framework: Translating Ambition into Implementation, April 2024, https://www.financeforbiodiversity.org/wp-content/uploads/FfB_Aligning-financial-Flows-with-the-Global-Biodiversity-Framework_April2024.pdf.

risk-return threshold and the biodiversity impact is sufficiently positive to justify public funding involvement.
- There is a need for an appropriate governing structure in place to allow for blended operations to take place which involves relevant stakeholders, such as civil society organisations.
- Whilst private investments for biodiversity conservation are necessary to bridge the biodiversity financing gap, they are not a substitute for public financing and effective policies[73].

2.3.3. Opportunities for upscaling blended finance operations for biodiversity in the EU

Financial institutions play a crucial role in scaling up investments for biodiversity, in particular through blended operations. Central banks in the EU are increasingly acknowledging the dependence of financial institutions on ecosystem services, as evidenced by reports by the Dutch Central Bank[74] and the French Central Bank[75]. Recognising biodiversity loss as a source of financial risks marks an initial step, necessitating subsequent concrete actions to avoid and mitigate risks to their operations. Central banks and financial supervisors can assess and monitor biodiversity-related risks whilst channelling funds towards relevant projects, acting as intermediaries between projects and investors. Additionally, they can mobilise private sector financing and investment for biodiversity through the use of private-public instruments[76].

Other financial actors can be engaged to develop and scale up blended operations in support of biodiversity. Namely, multilateral and national development banks, which fund projects aimed at fostering economic and social development, are well-positioned to support projects and investment related to biodiversity. For instance, the EIB as a multilateral development bank has shown its potential for driving blended operations at the EU level through facilities such as InvestEU. Moreover, national Promotional Banks and Institutions (NPBIs) could play a more prominent role in this regard[77]. These institutions, which are a type of development finance institution, are

[73] Flammer et al. (2023) ; UNDP, Moving Mountains : Unlocking Private Capital for Biodiversity and Ecosystems, New York, 2020, https://www.biofin.org/sites/default/files/content/publications/BIOFIN%20-%20Moving%20Mountains%20-%20Unlocking%20private%20capital%20for%20biodiversity%20and%20ecosystems%20%28Web%20Version%29.pdf; .

[74] Dutch Central Bank, Indebted to nature: Exploring biodiversity risks for the Dutch financial sector, June 2020, https://www.dnb.nl/media/4c3fqawd/indebted-to-nature.pdf.

[75] Svartzman, R, Espagne, e, Gauthey, J, Hadji-Lazaro, P, Salin, M, Allen, T, Berger, J, Calas, J, Godin, A and Vallier, A (2021).A "Silent Spring" for the Financial System? Exploring Biodiversity-Related Financial Risks in France, Working Paper Series no. 826, https://publications.banque-france.fr/en/silent-spring-financial-system-exploring-biodiversity-related-financial-risks-france.

[76] Finance for Biodiversity Foundation (2024).

[77] EIB (2023) , p. 54-55.

commissioned by national, regional or local authorities to conduct financial, development, and promotional activities[78]. The following characteristics make these institutions compelling and promising actors for biodiversity-related blended operations:

- They serve semi-public interests and act as financial intermediaries between public and private actors.
- They have the capacity to engage in projects with positive externalities and low financial returns, taking on risks that other banks and investors might avoid.
- They can finance smaller projects and exhibit greater adaptability.
- They operate at regional and local levels, offering proximity to project holders and a better understanding of local realities.

Some private investors might be willing to invest in biodiversity projects, but they require more knowledge and evidence on the risks and opportunities in these investments. Blended finance involves the use of de-risking instruments, which involve a direct use of public funds, therefore assuming liability for the potential risks to attract private capital[79].

Lastly, there are opportunities to engage with the insurance sector in investing in and potentially de-risking biodiversity investments. Insurers are indirectly exposed to biodiversity loss and related financial risks, as they invest in companies dependent on ecosystem services. Although the insurance sector is gradually recognising and integrating biodiversity risks, important challenges remain in understanding their dependence on biodiversity[80]. Additionally, their investments could support funding for NbS, which would help mitigate and reduce risks for insurers (see Box 6)[81].

Box 6: Example of insurance sector investment in biodiversity

Examples of insurance sector investments in biodiversity within the EU are limited. However, recently, ten institutional investors in France collaborated to integrate biodiversity considerations into their financial investment portfolios. Their goal is also to develop a methodological approach for integrating biodiversity into financial management and to finance biodiversity solutions providers. By July 2024, these investors will

[78] EIB, National promotional banks and institutions, https://www.eib.org/en/about/partners/npbis/index.
[79] EIB (2023) p.89.
[80] ACPR Banque de France (2024) French insurers facing the risks associated with biodiversity loss: challenges and lessons learned for the insurance industry and supervisors, No 159-2024, https://acpr.banque-france.fr/sites/default/files/medias/documents/20240620_analyses_syntheses_biodiv_fr_en.pdf.
[81] EIOPA (2023) Staff paper on nature-related risks and impacts for insurance, EIOPA-23/247, https://www.eiopa.europa.eu/document/download/9525e286-3253-44b7-81d1-2051e0b05a9c_en?filename=EIOPA%20Staff%20paper%20-%20Nature-related%20risks%20and%20impacts%20for%20insurance.pdf.

issue a call to asset management firms to select those with effective methods for achieving these objectives[82].

2.4. Investing in green financial products in line with the EU Taxonomy

2.4.1. Challenges and opportunities under the EU Taxonomy

The EU Taxonomy is a classification system of economic activities that defines when an economic activity can be marketed as sustainable within the economy and financial markets based on consistent criteria, thereby creating a uniform system. The Taxonomy should accelerate investments in sustainable projects by facilitating and clearly indicating green investment opportunities to those seeking them out. As funders are increasingly looking for genuine sustainable investment opportunities, including those for biodiversity protection, a green taxonomy can incentivise the collection of required data and transparency through disclosure requirements. This enables investors to make informed decisions and encourages companies and financial institutions to think ahead on how to align their operations or portfolios with climate and environmental goals and upcoming legislation.

The adoption of the Taxonomy is voluntary for real economy undertakings but reporting on taxonomy-eligibility and alignment of turnover, capex and opex is mandatory for certain (large) financial and non-financial undertakings under the Sustainable Finance Disclosure Regulation (SFDR) and for non-financial matters in the Corporate Sustainable Reporting Directive (CSRD)[83]. This enhanced disclosure highlights the direction in which investments have been allocated so far.

To claim a substantial contribution under the Taxonomy, an entity must demonstrate the alignment of the economic activity with the criteria for one of the six environmental objectives and that the activity does no significant harm to the remaining environmental objectives. Technical screening criteria for the environmental objective of 'Protection and restoration of biodiversity and ecosystems' were introduced to the EU Taxonomy

[82] Communiqué: 10 investisseurs institutionnels français lancent une initiative de place pour constituer des fonds d'investissements ciblés sur la biodiversité, 28 mars 2024, https://www.cnp.fr/le-groupe-cnp-assurances/newsroom/communiques-de-presse/2024/10-investisseurs-institutionnels-francais-lancent-une-initiative-de-place-pour-constituer-des-fonds-d-investissements-cibles-sur-la-biodiversite.

[83] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector and Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December as regards corporate sustainability reporting. The CSRD is of direct relevance for biodiversity financing as it includes a set of reporting standards, some of which directly relate to biodiversity and ecosystems (Article 29(b)).

framework in 2023 and have been in effect since January 2024 [84]. The biodiversity objective should contribute, as stated in the Taxonomy's headline ambition, to the restoration of the world's ecosystems by 2050, the achievement of the EU BDS by 2030 and the recovery of protected habitats and species by 2030. The areas on which criteria for biodiversity can be set include farming (for example through grazing), restoration (improving physical conditions and supporting the recovery of land and water ecosystems) as well as manufacturing (sourcing). The Environmental Delegated Act of the Taxonomy (June 2023) defines specific criteria for substantial contribution to biodiversity in two categories of economic activity in Annex XI :

- Conservation, including restoration, of habitats, ecosystems and species;
- Hotels, holiday, camping grounds and similar accommodation.

To claim a substantial contribution to biodiversity under the criteria for any investment in these categories, entities must engage in regular monitoring, demonstrate proven improvement of the state of biodiversity against a baseline, ensure the permanence of these improvements and obtain independent third-party certification of the documentation. Additionally, other criteria related to biodiversity are included under other environmental objectives, such as disaster risk management, forestry activities and the restoration of wetlands. All activities contributing to the other environmental objectives must adhere to the DNSH principle, which mostly refers to undertaking an EIA.

Biodiversity projects can benefit from the EU Taxonomy thanks to the criteria clarifying how certain economic activities can contribute effectively to biodiversity protection and nature restoration. This framework serves as a guide for practitioners in investment and lending, helping them understand the complexities of biodiversity protection. Annual reporting by investment funds and companies, facilitated by SFDR reporting, will provide detailed information into the extent and willingness of fund and asset managers to invest in biodiversity. Furthermore, the EU Taxonomy reporting will provide transparent and comparable data.

The Taxonomy is designed to evolve over time, incorporating new scientific insights. Consequently, additional biodiversity criteria can be added, provided they remain evidence-based. For instance, initial drafts included biodiversity offsetting as a criterion for biodiversity protection, but this was

[84] European Commission (2023e) Sustainable Finance Package. https://finance.ec.europa.eu/publications/sustainable-finance-package-2023_en

removed following concerns from civil society and environmental groups that offsets do not represent a substantial contribution. Ensuring a high standard for all biodiversity criteria is crucial.

Challenges in using the EU Taxonomy for financing biodiversity projects include the limited scope of its current biodiversity criteria and the omission of significant areas of the economy that significantly impact biodiversity. This limitation might hinder the ability to direct sufficient financial flows towards biodiversity protection and restoration.

Particularly notable is the need for comprehensive biodiversity criteria for agriculture, forestry and fishing. The Platform of Sustainable Finance proposed detailed, evidence-based criteria for these sectors to the European Commission, but these were not included in the final Taxonomy Delegated Act. Examples of proposed criteria include substantial contributions through animal production (such as extensive grazing rules, rare breed farming and nitrogen balance) or crop production (such as maintaining high-biodiversity landscape features, abstaining from using synthetic plant protection products and copper, and managing nitrogen balance).

In summary, whilst the EU Taxonomy offers a robust framework for guiding investments in biodiversity, it needs to expand and refine its criteria to cover more sectors comprehensively and address the significant impacts on biodiversity.

2.4.2. Challenges and opportunities under the EU Green bonds framework

In close connection to the EU Taxonomy, the Green Bonds market in Europe strives to channel proceeds to sustainable projects. Green bonds are a type of bond issued exclusively to finance or re-finance green projects. The EU Green Bonds Regulation [85], adopted in November 2023, formally introduced the European Green Bonds Standard (EuGBS) to the EU bonds market. For the last decades, the green bonds market has been shaped by private standards, such as those set by the Climate Bonds Initiative[86]. The first green bonds were issued in 2007 but institutional issues and private sector issuers had varying definitions of green bonds.

The European Commission, in response to market participants' requests, introduced the EuGBS to create a standard, voluntary, transparent and supervised green bonds issuance regime at the EU level. Green bonds have the potential to raise funds for new and existing projects which contribute to

[85] Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds.

[86] https://www.climatebonds.net/.

sustainability and climate protection. This new framework provides several key attributes:

- Reliance on EU Taxonomy criteria: the green bonds label can only be attributed to projects that comply with the EU Taxonomy, requiring at least 85% of proceeds to be allocated to Taxonomy-aligned projects. For biodiversity projects, as described above, the criteria include conservation and restoration as well as holiday accommodations. Biodiversity needs are also embedded into criteria relating to NbS. Issuers need to ensure proceeds are allocated accordingly, through exhaustive use-of-proceeds information and regular reporting.
- Reports and impact: issuers must produce annual reports and use standardised metrics to report on the impacts of the projects.
- External reviews: reviews must be conducted by entities accredited and supervised by the European Securities Markets Authority.

Given that biodiversity and ecosystem projects require long-term investments, green bonds, as long-term debt instruments, are well-suited for such financing. Projects suited for green bond financing include PES, green infrastructure, NbS and the construction of ecotourism operations[87].

Demand for green bonds is growing and is likely to remain high, provided the EU maintains its ambitious climate and environmental objectives under the European Green Deal. The EuGBS, if widely adopted by issuers, investors and other financial market participants, can support the confidence to financially deliver on the EU's green pledges. The green bonds market in the EU has seen significant growth, increasing from 0.6% of all bonds issued in 2014 to 8.9% in 2022[88]. In 2022, most green bonds were issued by corporations, followed by supranational bodies, municipalities and governments. The NextGenerationEU programme can be financed through green bonds, with 3.1% eligible for such funding, although only 0.4% was expended in 2022.

Challenges in relation to the green bond market include an underdeveloped bond market at national level, a limited pipeline of standardised green projects and a lack of standardisation[89]. Whilst the EuGBS addresses many of these issues, challenges remain in its usability and uptake. Regulatory goals aim to enhance the transparency, comparability and credibility of the green bond market in the EU and to fight greenwashing. However, the EuGBS

[87] Luxembourg Green Exchange, Global Landscape Forum (2020) How can Green Bonds catalyse investments in biodiversity and sustainable land-use projects? https://www.globallandscapesforum.org/wp-content/uploads/2020/10/How-can-Green-Bonds-catalyse-investments-in-biodiversity-and-sustainable-land-use-projects-v12_Final.pdf

[88] European Environmental Agency, Green bonds. https://www.eea.europa.eu/en/analysis/indicators/green-bonds-8th-eap

[89] Ibid.

currently focuses on green bonds, excluding social bonds, sustainability bonds and sustainability-linked bonds, which could also be valuable funding sources. The European Parliament highlighted ongoing developments and the novelty of a larger 'sustainable bond market' but notes the absence of social criteria in the EU Taxonomy compared to environmental criteria[90].

Another challenge is the mismatch between the average green bond size of €140 million on the market and the average, much smaller budgets of biodiversity-related projects. Unless these projects are bundled into larger investment opportunities, they may struggle to reach such scale and attract interest[91].

Much of the success of the EuGBS and the growth of green bonds in the EU depend on the uptake of this novel market. Concerns include the usability of the EU standard and whether issuers can meet the Taxonomy criteria, especially given the current lack of corresponding criteria. Issuers are free to continue using private, and potentially weaker, standards unless investors demand for the EuGBS to be used. A wider adoption may only take place next year for sectors which are included in the Taxonomy.

2.5. Funding and investing in Nature-Based Solutions

2.5.1. Funding for NbS in the EU

Nature-based Solutions (NbS) have gradually gained momentum since their inception in the late 2000s. According to the United Nations Environment Assembly's internationally agreed definition, NbS are *"actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits"* [92]. NbS are designed to meet a variety of challenges and can be categorised by the degree to which they manage biodiversity and ecosystems. These range from minimal intervention and protection to intensive restoration and engineering to recreate or reintroduce natural elements or ecosystems[93].

[90] Badenhoop, N., 2022, Green Bonds: An assessment of the proposed EU Green Bond Standard and its potential to prevent greenwashing, p.31. https://www.europarl.europa.eu/RegData/etudes/STUD/2022/703359/IPOL_STU(2022)703359_EN.pdf

[91] Luxembourg Green Exchange, Global Landscape Forum (2020).

[92] UNEA (2022) Nature-based Solutions for supporting sustainable development. (UNEP/EA5/L9/REV.1), United Nations Environment Assembly.

[93] Eggermont, H, Balian, E, Azevedo, J M N, Beumer, V, Brodin, T, Claudet, J, Fady, B, Grube, M, Keune, H, Lamarque, P, Reuter, K, Smith, M, van Ham, C, Weisser, W W and Le Roux, X (2015) Nature-based Solutions:

At the EU level, NbS have gained significant policy traction through the European Green Deal, which promotes their integration across sectoral policies. Key policies like the EU BDS to 2030, the Forest Strategy, the Farm to Fork Strategy, and policies supporting climate change adaptation and disaster risk reduction highlight the pivotal role of NbS in addressing multiple societal challenges simultaneously. Therefore, NbS can play a pivotal role in mainstreaming biodiversity across multiple sectors and leveraging funding for biodiversity, even when biodiversity is considered a co-benefit of NbS rather than the primary objective[94]. Despite their growing inclusion in EU Strategies and communications, NbS are rarely supported by binding targets, which would prioritise them over grey infrastructure solutions.

A recent EIB report analysed NbS funding sources in the EU, finding that up to 91% of EU NbS projects were publicly financed (EU agencies, EU-based multilateral development banks, and national, regional and local governments). Only 3% of the projects reported private sector financing covering more than half of the project's total costs[95]. EU-funded grants from Horizon Europe, the LIFE and Interreg programmes are the dominant source of NbS funding.

Public funding for NbS is on the rise: EU funding for NbS projects increased from €25 million to more than €100 million per year from 2011 to 2017 and remained just above €100 million per year between 2017 and 2020[96]. National research funding via the Biodiversa+ partnership has also increasingly gone to NbS projects. The prominence of Horizon funding for NbS reflects the concept of 'innovating with nature' put forward by the EU Research and Innovation agenda, which stresses the role of NbS in creating jobs and fostering economic growth[97], especially in the context of climate change adaptation and disaster risk reduction[98]. However, the dominance of grant financing for NbS might discourage private sector investment.

New Influence for Environmental Management and Research in Europe. GAIA - Ecological Perspectives for Science and Society No 24 (4), 243-248.

[94] Naumann, S and Davis, M (2020) Biodiversity and Nature-based Solutions: Analysis of EU-funded projects. Report for European Commission.

[95] EIB (2023).

[96] El Harrak, M and Lemaitre, F (2023) European Roadmap to 2030 for Research and Innovation on Nature-based Solutions. NetworkNature.

[97] Calliari, E, Castellari, S, Davis, M, Linnerooth-Bayer, J, Martin, J, Mysiak, J, Pastor, T, Ramieri, E, Scolobig, A, Sterk, M, Veerkamp, C, Wendling, L and Zandersen, M (2022) Building climate resilience through nature-based solutions in Europe: A review of enabling knowledge, finance and governance frameworks. Climate Risk Management No 37, 100450.

[98] EEA (2021) Nature-based solutions in Europe: Policy, knowledge and practice for climate change adaptation and disaster risk reduction. EEA Report No 1/2021, European Environment Agency, Luxembourg: Publications Office of the European Union.

Under Cohesion policy, the ERDF and CF, CPR and the JTF Regulations are relevant for NbS and explicitly reference fulfilling the biodiversity objectives of the EU Green Deal. Cohesion policy funds can significantly boost the implementation of NbS in urban ecosystems[99]. In the current programming period, Member States exceeded the minimum requirement of 8% of national allocation of the ERDF to sustainable urban development (mostly through Interreg projects) to reach 12% (€24 billion) [100]. Indeed, NbS in urban ecosystems represent the vast majority of NbS projects (more than 76%) in the EU, reflecting significant funding gaps across different ecosystems. According to the EIB, the high proportion of urban NbS may explain why NbS projects in the EU are typically small in scale. Based on data collected by the EIB, 72% of projects covered less than 1 km2, and 81% had investment costs of less than €10 million[101].

2.5.2. Challenges and opportunities for NbS in the EU

The lack of private financing streams for NbS in the EU should motivate regulatory interventions to change market structures and incentivise private entities to adopt NbS. The EU market for NbS faces significant challenges. Key issues include limited information on NbS performance, difficulties in measuring the environmental impacts of economic activities, and gaps in skills and knowledge. Whilst NbS can offer multiple benefits for society, projects often require coordination among various agencies and stakeholders, complicating their implementation. Analysis of market failures for NbS also points out high transaction costs, the relatively small scale of projects, higher investment risks compared to traditional grey infrastructure, and longer time frames for expected financial returns. The lack of private financing streams for NbS in the EU should motivate regulatory interventions to change market structures and incentivise private entities to adopt NbS. Blended finance also offers opportunities to upscale NbS financing[102].

EU corporations are increasingly financing NbS by aligning their investments with their needs, risks and business operations[103]. The carbon offsets market captures a large share of these operations, raising concern about the risks of prioritising the carbon sequestration potential of NbS over biodiversity benefits. Other forms of credits could be leveraged to boost the implementation of NbS projects supporting biodiversity, such as biodiversity and carbon combined credits, carbon farming credits (with biodiversity safeguards) and wetland mitigation credits.

Regulatory measures and incentives are therefore crucial to stimulate private sector involvement in NbS. A supportive policy framework can encourage

[99] NetworkNature (2023) Financing nature-based solutions in cities: Exploring opportunities from municipal funding.
[100] https://cohesiondata.ec.europa.eu/stories/s/Sustainable-Urban-development-2021-2027/iw5n-dss9/
[101] EIB (2023).
[102] EIB (2023).
[103] EIB (2023).

investment by reducing perceived risks and demonstrating the long-term benefits of NbS. Through the EU Sustainable Finance package, companies and financial institutions are now bound to certain sustainability reporting requirements, which might increase their appetite for NbS. These regulations might therefore improve the reporting of company performance on NbS projects, thereby addressing information gaps. Moreover, private sector actors including the insuring sector can work on de-risking NbS investment (see Box 7).

Box 7: Exploring approaches for insuring NbS associated risks in the Naturance Horizon project (2022-2026)

The Naturance (Nature for Insurance) project[104] is exploring approaches for upscaling NbS financing through innovation and disaster risk financing and will likely spur additional regulatory support at EU level. The project is focusing on the following areas of work:

- Explore revenue models supporting NbS through the deployment of "innovation finance labs" involving professionals from the financial sector;
- Identify examples of inspirational practice and policy reforms to unlock NbS business potential (see recent peer-reviewed articles on managing risks in deploying NbS for Flood Management [105] and insurance risks associated with upscaling innovative timber products in the construction sector[106]);
- Build awareness and capabilities for green financial innovations and conduct NbS performance assessments;
- Strengthen the NbS investments by strengthening NbS financing community: citizen group meetings identifying innovative financial strategies for NbS in the context of climate action and disaster risk mitigation ("Naturethon"[107]); webinars, workshops.

[104] v; Naturance: Nature for insurance, insurance for nature, https://www.naturanceproject.eu/project/, https://cordis.europa.eu/project/id/101060464/en.

[105] Davids, P, Hartmann, T, Ferreira, C, Kalantari, Z, Pereira, P (2024) Multi-, inter-, and transdisciplinary approaches to nature-based flood risk management. Current Opinion in Environmental Science & Health, Volume 38,100537, https://doi.org/10.1016/j.coesh.2024.100537.

[106] Jenan, I, Joanne, LB, Timothy, F, Juliette, M (2024) The Role of Insurance in Scaling Mass Timber Construction: Review on Enablers and Shortcomings. In: Makovická Osvaldová, L., Hasburgh, L.E., Das, O. (eds) Wood & Fire Safety 2024. WFS 2024 2024. Springer, Cham. https://doi.org/10.1007/978-3-031-59177-8_41.

[107] Naturance: Naturethon, https://www.naturanceproject.eu/naturethon/

2.6. Building on synergies with public climate finance

As highlighted in the introduction, climate change and biodiversity loss are interdependent and must be tackled together, rather than in silos. Climate change is a major driver of biodiversity loss [108] and weakens ecosystem resilience, particularly in response to more frequent and extreme weather events. In turn, conserving and restoring biodiversity can contribute to climate mitigation by reducing and avoiding land emissions, enhancing the capacity of ecosystems to capture and sequester carbon in natural sinks [109] and to climate adaptation by reducing the vulnerability of ecosystems and mitigating the impacts of floods, droughts, coastal erosion and extreme heat [110]. This strong interdependence calls for careful consideration of the connections between the two areas in policymaking and provides a strong rationale for maximising the potential for synergies in the design of public funding for climate and biodiversity.

2.6.1. Biodiversity spending as part of climate mainstreaming efforts

As discussed in section 2.1, the MFF includes objectives for the mainstreaming of biodiversity; similarly, ambition is set for the mainstreaming of climate objectives. The current MFF has an overall target of at least 30% of the total amount supporting climate objectives, with separate annual targets for biodiversity spending.

In principle, greater ambition in terms of climate spending should translate into increased funding for biodiversity objectives, as the outcomes of climate action projects frequently align with and support biodiversity goals. However, the potential synergies are not elaborated on in the MFF Inter-Institutional Agreement (IIA). In the context of biodiversity spending, Article 16(e) of the IIA stipulates that the Commission shall report information on annual biodiversity expenditure "while considering the existing overlaps between climate and biodiversity goals".

In this context, it should be noted that the monitoring and reporting against these targets relies on the principle that every euro spent through the budget can contribute to several objectives and be tagged as part of both climate- and biodiversity-related funding. However, the Commission's reporting does not make clear what the amount of funds that are registered as climate funding

[108] IPBES report.
[109] Underwood, E. and Aubert G. (2022) Why is nature restoration critical for climate mitigation in the EU? IEEP and the Ecologic Institute, https://ieep.eu/wp-content/uploads/2023/01/1_Nature-Restoration-and-Climate-mitigation.pdf.
[110] Aubert, G. (2022) Why is nature restoration critical for climate adaptation in the EU? IEEP and the Ecologic Institute, https://ieep.eu/wp-content/uploads/2023/01/2_-Nature-Restoration-and-Climate-adaptation.pdf.

are also considered to make a biodiversity contribution. Partly due to this, it is also unclear how in practice the synergies are maximised.

In the IIA, the Commission commits to providing further disaggregated data on climate spending, with monitoring and reporting differentiating between climate change mitigation and adaptation, where feasible. However, this level of reporting is unavailable for the most recent period, indicating it may not be a current priority. A more detailed understanding of the synergies between climate and biodiversity funding could be achieved if the Commission established specific reporting categories—and potentially quantitative thresholds—for nature-based climate mitigation and adaptation.

2.6.2. Utilising climate policy revenue for biodiversity restoration

The Commission has supported integrating EU environmental policy priorities into the revenue side of the EU budget, with key revenue sources including emissions trading and the carbon border adjustment mechanism (CBAM) (upon its full implementation). These two instruments are central pillars of the EU climate policy architecture, directly supporting the reduction of emissions across a range of high-emissive sectors. In 2022, the total amount of ETS revenues amounted to €38.8 billion, of which €29.7 billion went to the Member States. With the phase-out of free allocations, progressive tightening of the ETS cap with impacts on the carbon price, expansion of the ETS across more sectors, and the roll-out of the CBAM, revenues from these instruments can be expected to grow in the medium term.

Article 10 of the ETS Directive specifies the rules for the auctioning of allowances and the use of resulting revenues. It outlines several options available to Member States for allocating ETS revenue, some of which could be classified as enhancing biodiversity, notably including:

> *"c) measures to avoid deforestation and support the protection and restoration of peatland, forests and other land-based ecosystems or marine-based ecosystems, including measures that contribute to the protection, restoration and better management thereof, in particular as regards marine-protected areas, and increase biodiversity-friendly afforestation and reforestation, including in developing countries that have ratified the Paris Agreement, and measures to transfer technologies and to facilitate adaptation to the adverse effects of climate change in those countries;*

(d) forestry and soil sequestration in the Union;

However, the Directive outlines a range of potential uses for the revenue, leaving the final decision to the discretion of Member States. While some listed uses could indirectly benefit biodiversity, this outcome is not guaranteed. Additionally, the list includes options for revenue to be allocated towards social, rather than environmental, objectives. Since the Directive does not set any minimum spending requirements for any of the different options listed, the extent of funding that will be ultimately directed towards biodiversity objectives remains uncertain.

ETS revenues which do not remain at the disposal of Member States accrue to the EU's own budget resource, while the revenue from auctioning conducted by the European Investment Bank is used to finance the Innovation Fund and the initial endowment of the Modernisation Fund. These two funding programmes are designed to support the roll-out of innovative low-carbon technologies and processes across the EU and the modernisation of energy systems in 13 lower-income EU Member States.

In Article 10a, with regards to the Innovation Fund, the ETS Directive stipulates that the Commission shall "give special attention" to projects contributing to the decarbonisation of the maritime sector, with the related calls for proposals and selection criteria taking "particular account of the potential for increasing biodiversity protection and for reducing noise and water pollution from projects and investments". However, in the first years of the fund's operation (2021-2022), none of the finance disbursed under the Innovation Fund was reported to have contributed to biodiversity objectives[111]. The ETS Directive does not specify any particular biodiversity-related objectives for the use of ETS revenue available through the Modernisation Fund.

2.7. Harmonising the approach to biodiversity net gain certificates

2.7.1. Current policies for biodiversity certificates for Biodiversity Net Gain

Biodiversity credits (and the certificates that validate them) are instruments that create a market for units of biodiversity protection and restoration. There is currently confusion about terms, including credits, tokens, bio-credits, certificates, but with some differentiating between a certificate which is not a financial instrument and the monetised credit which is being certified (see Box 8). The Biodiversity Credit Alliance defines a biodiversity credit as a certificate that represents a measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have

[111] https://commission.europa.eu/strategy-and-policy/eu-budget/performance-and-reporting/programme-performance-statements/innovation-fund-performance_en

otherwise occurred[112]. Companies as well as civil organisations and public authorities all can be buyers of biodiversity credits or certificates. Biodiversity net gain refers to the use of a metric or standard that measures the biodiversity gain captured in the credit against a biodiversity loss, and is generally associated with a legal offsetting requirement, but can also be used to quantify a voluntary initiative to offset a biodiversity footprint, for example by a company.

Box 8: Definitions and terms

Biodiversity certificate: certification involves a third-party assessment of an environmental management practice or system with the application of standards to measure either minimum required performance standards or best practice or a combination of both[113]. By meeting those criteria, the user of the certificate gains the approval and certification of the assessor. Private companies can then use the certificate as a badge of validation for their products or their company, depending on what is certified. Public authorities can use certification to meet and verify public procurement standards. Examples of currently used certificate schemes are Forest Stewardship Council (FSC) and the EU Ecolabel. The EU sustainable finance taxonomy provides a framework for the certification of investments. Certificates are not necessarily financial instruments – they are not bought or sold unless they are tied to credits.
Alternatively, a nature certificate has been defined as a quantifiable unit representing a biodiversity conservation and/or enhancement claim, which cannot be used as an offset, i.e., to claim the compensation of residual impacts on biodiversity. A nature certificate may enable its final buyer to claim a contribution to nature-positive goals, when the buyer has properly implemented the mitigation hierarchy and compensated its residual impact, if any, under appropriate offset schemes.[114]

Biodiversity credit: a certified, measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have otherwise occurred[115]. Credits are financial instruments, i.e. they have a financial value and may be bought and sold. A credit must have a value that is measured by a metric that measures the integrity of the biodiversity or ecosystem values affected against a baseline that reflects the state of biodiversity before the action represented by the credit.

[112] Biodiversity Credit Alliance (2024) Definition of a biodiversity credit. Issue Paper No. 3, Biodiversity Credit Alliance.
[113] Definition based on International Standards Organisation
[114] Definition used by DG CLIMA in specific terms of reference Climate-biodiversity-nexus Fund under Framework contract CLIMA.A4/FRA/2019/0011
[115] Biodiversity Credit Alliance (2024)

Biodiversity offset: measurable conservation outcome from actions designed to compensate for significant residual (unavoidable) negative biodiversity impacts identified after appropriate application of the mitigation hierarchy.

Biodiversity net gain: offsetting of residual (unavoidable) negative biodiversity impacts in a way which generates long-term biodiversity restoration and safeguarding that has a value greater than the loss (referred to as 'net gain'). Net gain is measured in biodiversity credits. Net gain may be linked to a legal obligation to offset residual impacts, or it may be a voluntary initiative to offset the biodiversity losses calculated in an organisation's biodiversity footprint, for example for a company or a product.

In the EU, there is currently no regulatory framework for biodiversity certificates, but some Member States have national legislation requiring the offsetting of residual (unavoidable) biodiversity impacts of development, which allows developers to do this in the form of payments that the public authority uses to buy biodiversity credits that are equivalent to, or greater than the loss (referred to as 'net gain'). Countries like Germany and France have had national legislation requiring biodiversity offsetting for many years, and England in the UK has just launched a new law that requires biodiversity net gain for planning permissions. Box 9 describes some key features of the existing legislative framework for biodiversity offsetting in Germany and the UK. The German set-up makes use of habitat banking or pools to accumulate and distribute biodiversity offsets. The UK set-up goes a step further in planning a market for sale and purchase of biodiversity credits which combine the offset with a net gain margin.

Box 9: Biodiversity offsetting legal requirements in Germany and the UK

Germany [116] : The German national impact mitigation regulatory framework (the Eingriffsregelung), in place since 1976, requires the application of a mitigation hierarchy[117], aiming to ensure "no net loss" of natural resources and the diversity, characteristic features and aesthetic qualities of nature and landscape, as well as their ecological functions and associated recreational values. It requires the avoidance of significant

[116] Underwood et al (2014); Wende et al (2018)

[117] The legal framework consists of a clause in the Federal Nature Conservation Law which obligates the intervening party to refrain from any avoidable impairment of nature and landscape, placing the legal emphasis on avoidance above compensation, the Federal Building Law, and the impact mitigation procedure. However, practitioners point to ambiguities in wording and power imbalances between developers and local authorities that shift the balance away from avoidance to compensation (Savilaakso et al 2023).

negative effects, and the compensation of residual impacts on natural assets and their functions. Natural assets refer to flora and fauna, soil, water, climate and air quality, the aesthetic quality of the landscape, and their functions (such as soil processes and productivity, groundwater replenishment, and local climate regulation). Impacts on biodiversity are generally assessed in terms of impacts on broad habitat types (biotopes) and priority species. The metrics in use differ from region to region but often add a certain margin to the offset to account for risks (e.g. 5 or 10% increase). In 2009 the law was changed to establish the option of storing potential offsets for future allocation, and this led to the establishment of 'compensation pools' (habitat banks). A pool (bank) seen from the German definition is a mapped-out collection and concentration of usable sites and measures for the compensation of residual impacts. The pools or banks are managed by local or regional public authorities.

England (UK)[118]: Under the England Environment Action 2021 all planning permissions granted in England (with a few exemptions) have to deliver at least 10% biodiversity net gain. The requirement applies to big sites from mid-February 2024 and small sites from April 2024. Biodiversity net gain is measured by a calculation of the biodiversity unit value of the site before development and the proposed value after development. The calculation uses the statutory biodiversity metric which measures losses and gains of habitat units (considering size, condition, strategic significance, and type). The developer must then try to achieve the net gain on the development site as far as possible. The developer must produce a strategy for achieving BNG that includes information not captured in the biodiversity metric such as species factors, habitat management plans and how the net gains will be managed and maintained. Land used to deliver BNG off-site will need to be secured for a minimum of 30 years and formally registered on the Biodiversity Gain Site Register. Any land delivering BNG will need to be managed, monitored and reported on for the duration of the net gain agreement. Credits will be made available for purchase in the future. They are intended for use only where BNG cannot be delivered on-site or off-site via the market, i.e. as a last resort.

There is also a growing voluntary market for biodiversity certificates that are being bought by businesses or private investors wishing to show that they are investing in biodiversity. Several initiatives have started selling credits in Europe, mostly on a very small scale within partnerships between the credit suppliers and the purchasers. There are not yet any attempts to trade or sell biodiversity credits in Europe (known as secondary trading). Box 10

[118] Natural England (2022)

illustrates two recent initiatives. Despite the strong interest, however, there is concern about the market demand that will actually be realised.

Box 10: Examples of recent biodiversity credit initiatives in the EU

GERMANY: Planted and Hula Earth project in Sauerland beech forest
The credits are being sold by a collaboration between the Planted and Hula Earth start-up businesses. They are currently being purchased by two companies, each of which has committed to the credits linked to the volume of their business. The biodiversity credits pay for areas of an endangered natural beech forest to be contractually protected from commercial use for 20 years. Hula Earth uses their own technology to monitor the sites linked to their IT platform. The scheme is not currently being verified by a third party.
Source: Planted press release[119] and Carbon Pulse[120].

SWEDEN: Orsa Besparingsskog forest cooperative credits project
The credits are being sold by the Orsa Besparingsskog forest cooperative. The credits are for areas in the Orsa forest, of which some 60,000 ha are managed as a commercial forest and 3,500 ha are protected. The credits pay for the restoration of stands of natural old pine forest and for continuous cover forest management (i.e. selective logging) instead of clear cutting for 20 years. Each per hectare credit has specific project goals and actions attached to it, and the price of each is negotiated with the purchaser. Credits for 13 ha of the forest are being purchased by the Swedish bank Swedbank. The methodology has been developed by researchers at the Swedish University of Agricultural Sciences (SLU). The projects will be subject to third-party verification every five years.
Source: Carbon Pulse[121]

2.7.2. Risks and challenges

There is a strong interest from the private sector in buying biodiversity certificates on the emerging market, along the lines of the voluntary carbon credit market. There are however fundamental differences in certifying biodiversity gain compared to carbon – biodiversity gain is specific to the site and context and multi-dimensional (involving different, distinct dimensions of diversity in taxonomic groups, or habitat quality and structure), making it challenging to agree on a common unit value – as opposed to a unit of avoided greenhouse gas emission.

[119] Planted press release 5 May 2024. German biodiversity certificates as a decisive step in the ESG transformation. Accessed https://en.planted.green/presse
[120] Carbon Pulse magazine 10 May 2024. Forest conservation project in Germany sells first biodiversity credits. Accessed https://carbon-pulse.com/285290/
[121] Carbon Pulse magazine 31 May 2024. Swedish bank buys first European biodiversity credits. Accessed https://carbon-pulse.com/205424/

The Biodiversity Credit Alliance points to some risks and challenges at the global level[122]; a project commissioned by the European Commission is currently examining the opportunities and challenges for biodiversity credits in the EU[123].

These initiatives and others point to the following challenges:

- Avoiding incentives to undermine the mitigation hierarchy: some see a risk of undermining the mitigation hierarchy by taking away the emphasis on making changes to avoid biodiversity losses rather than relying on the purchase of credits, thus continuing biodiversity harmful practices that could be changed. Others argue that a legal offset and net gain obligation creates a strong disincentive to avoid biodiversity loss, as restoring biodiverse-rich ecosystems is usually very expensive.
- Biodiversity no net loss and net gain efforts have been studied globally and demonstrate that these outcomes must be measured at appropriate scales, such as the level of a jurisdiction. Without regulatory mechanisms in place such as national offset registries and no net loss targets at landscape level scales, there is a risk that biodiversity loss will continue even if a robust voluntary market emerges.
- Integrity of measurement of biodiversity value: there are challenges to capturing the multiple dimensions of biodiversity in a single value that can be translated in a unit (such as ha). Many components of biodiversity move across large areas beyond the boundaries of project sites. There is concern that trading at national, international or global levels will drive the valuation of biodiversity credits to the lowest common denominator and capture only a superficial measure of the integrity of the biodiversity and ecosystem being lost and gained.
- Defining the additionality of credit and avoiding double counting: it is difficult to define the baseline to measure the additionality of the project generating the credit, compared with what would happen in the absence of the credit, and what would be or has already been funded with public money.
- Measurement, reporting and verification of outcomes and long-term performance: there is currently a lack of organisations that can provide third-party verification of credits, and standards for measurement and reporting. There is also the challenge of ensuring the outcome of the credit is maintained in the long term, which is generally restricted to

[122] Biodiversity Credit Alliance (2024)
[123] ICF March 2024 at https://www.icf.com/clients/environment/voluntary-use-of-biodiversity-credits

the 20-to-30-year length of the contractual commitment, or in some cases a much shorter period. There is a question about the capacity of public authorities responsible for verification to act as enforcers of outcomes over such long periods.

- Role of local communities and **geographical scale of exchange**: how to ensure a fair share of the revenue reaches local communities and indigenous people, as well as ensuring their participation in the design and implementation of projects that are generating credits. Some schemes require offsets to be located geographically close to the loss, so that the affected local community benefits. There are however strategic benefits for generating more effective nature restoration from more local trading and pooling in habitat banks.

2.7.3. Opportunities from an EU harmonised approach to biodiversity credits

An EU-wide framework of standards for biodiversity certificates could create a level playfield across the EU, while providing the flexibility for Member States to decide and develop their national schemes following the EU-wide methodology. This would help to ensure that the same standard approach is used, while the certificates and resulting financial flows and investments (restoration and maintenance) are kept at an appropriate local scale that is aligned with the nature of the biodiversity being measured as well as national and local biodiversity objectives. An EU framework could avoid the unregulated trading of credits that do not reflect the integrity of the biodiversity values being lost or gained. It could also allow for exploration of novel certificate mechanisms such as those contributing to the achievement of national targets, alongside EU-driven incentives for their purchase, e.g. aligned with CSRD.

The EU Taxonomy recognises the need for further work on biodiversity certificates and therefore provides the logical starting point for this. The European Commission has recently commissioned a project to investigate the issues in the EU including a public consultation and an overview of current biodiversity credits initiatives. The start of the new Commission programme in the second half of 2024 will be the time to pick up this dialogue.

Section 3 – Recommendations for mainstreaming biodiversity financing in the post-2027 MFF

Specific recommendations for each instrument

1. **Make better use of EU funds**

The European Commission and Member States should prioritise mainstreaming and integrating biodiversity considerations across EU funds to achieve the mainstreaming targets of 10% of the overall budget in 2026 and 2027 in the current MFF. The European Parliament's Committee on Budgets should make sure that the 2026 and 2027 annual budgets deliver on these priorities whilst preparing the Commission's budget proposals. This could be achieved through encouraging and facilitating member states to make larger allocations under cohesion policy (ERDF and CF) programmes. It could also be achieved through the recent adoption of the NRL and the allocation of existing EU funding to nature restoration to co-finance Member States' efforts.

Link to policy process: Preparation of the budgets for 2026 and 2027 and implementation of the NRL (preparation of NRPs).

The next MFF should include targeted and legally binding mainstreaming targets in various regulations. This would allow for more precise mainstreaming and channelling of funds, keeping in mind the roles and capacities of each fund and their adaptation to different Member States and regions.

Link to policy process: preparation of the next MFF.

Sub-recommendations/enabling policy tools:

- **The European Commission and Member States should strengthen the role of the Prioritised Action Frameworks (PAFs) as dynamic instruments for biodiversity planning and funding**. PAFs have increasingly become crucial instruments, showing greater impact in Member States' programmes in this MFF compared to the last. To enhance their effectiveness, they should be given more authority and recognised as essential instruments for biodiversity funding in the next MFF. Moreover, with the recent adoption of the NRL, PAFs will play a key role in the funding programme for its implementation. PAFs should be living documents that are regularly reviewed and updated,

rather than prepared once and then ignored for six years. The EU PAF should also deliver more substantive contributions rather than merely summarising individual PAFs from Member States.

- **The European Commission and Member States should ensure that CAP funding drives forward much more urgently the transition to sustainable and resilient farming**; to ensure that the programmes provide far greater transitional aid (in the form of investments and technical support) to support farmers and other land managers to adopt sustainable business models and farming systems (rather than basic income support); accompanied by stronger funding for advice, training and engagement that is aligned with these transition objectives, as well as research and innovation involving farmers[124].
  In regional development, Member States should prioritise biodiversity-positive projects (green infrastructure, restoration projects, climate benefits, NbS, etc.) and enforce robust safeguards, including a strengthened DNSH principle and effective EIA requirements.

2. Reforming EHS

The European Commission should make the phasing out of EHS a priority in the next MFF and implement a legally binding framework to phase out EHS, with a specific commitment for BHS. The 8th EAP commitment to set a binding deadline to phase out fossil fuel subsidies and to deliver a method to identify and assess other EHS has lacked political momentum and support to be carried forward and achieved. The European Commission should therefore propose a binding deadline for phasing out EHS, which could be aligned with Target 18 of the GBF and publish as soon as possible the guidance on reporting on non-fossil fuel subsidies.

Link to policy processes: implementation of the 8th EAP and preparations for the next MFF.

Sub-recommendations/enabling policy tools:

- **The European Commission should provide guidance to Member States on reforming EHS.** This guidance should address the incentives and objectives of EHS and specify that any reform includes clear communication and compensatory measures.

[124] Baldock, D and Bradley, H (2023) Transforming EU land use and the CAP: a post-2024 vision. Institute for European Environmental Policy, Brussels.

- **For the Cohesion funds, the CAP and EMFAF, it will be important to follow existing and future guidance for identifying the relevant harmful subsidies and come up with plans on how to replace them with biodiversity-friendly subsidies** (for nature restoration for example). For example:
    i. To replace the current income support payments with a combination of a) ecoschemes with clear environmental objectives and b) other payment instruments that effectively support the incomes of those farmers who need it most without incentivising more intensive production;
    ii. To reduce and repurpose coupled support to livestock to ensure that they do not incentivise high livestock numbers and to put environmental conditions on other coupled payments that ensure that they support more sustainable and resilient cropping systems with lower environmental impacts.
    iii. to ensure strict conditions on investment aid, crisis response, and risk management support to ensure that it only goes to sustainable models of farming.
- **Member States should implement environmental taxes and other fiscal instruments to reduce harmful activities by increasing their costs**. Differentiated taxes on pesticides and fertilisers, reflecting their environmental and health impacts, could be an effective solution.
- **The European Commission and Member States should build on the work of and cooperate with international organisations, leveraging existing data and research. They should also take a leading role in building political momentum to achieve Target 18** and phase out harmful subsidies at COP16 in October 2024 and subsequent COPs by 2030.
- **The European Commission's relevant departments should coordinate with DG ECFIN and build on their work on green budgeting**, as DG ECFIN's work with national finance ministries could be instrumental in raising awareness and mobilisation action on the issue.
- **From the outset, Member States should address the socio-economic implications of subsidy reform for low-income stakeholders** by ensuring financial support is available to adequately compensate them.

3. Upscale and mobilise private finance using public funds and programmes as leverage (blended finance approaches)

The European Commission should design specific programmes in the next MFF that focus on blended finance approaches specifically

for biodiversity and NbS, taking into account the lessons learned from the NCFF and Invest EU. These programmes should enable private capital to be combined with public funds to support solutions that enhance ecosystem services and their benefits to society and the economy. As part of larger initiatives, there should be dedicated envelopes, targets and criteria for biodiversity. The option to use blended finance approaches is already available in EU funding programmes.
Link to policy process: preparation for the next MFF.

Sub-recommendations/enabling policy tools:

- **Financial institutions, particularly central banks, financial supervisors and NPBIs, should play a more significant role in supporting biodiversity investments through blended finance**. In the next MFF, the role of NPBIs should be strengthened in relation to existing or new financial instruments[125], such as those under InvestEU. The European Commission and Member States should increase their cooperation with these institutions and build their capacity to engage at local and regional levels.
- **The European Commission should initiate discussions with the insurance sector about de-risking biodiversity investments**, as insurers have a vested interest in climate adaptation and biodiversity NbS. Insurers also have strong economic influence and can be vital partners. The European Commission can play a role in setting the appropriate frameworks and safeguards for their involvement.
- **The European Commission, Member States and private actors should collaborate to define and demonstrate 'bankable' projects and 'win-win' solutions for biodiversity and investors.** With the EIB, they should promote de-risking instruments for biodiversity protection or restoration projects.
- **The European Commission, Member States and private sectors should also engage and work with NGOs, which can act as intermediaries between public and private institutions blended finance projects or as project holders themselves**. NGOs possess deep knowledge of local realities, biodiversity characteristics, and connections with local stakeholders and communities. Additionally,

[125] Whittle M, Malan J and Bianchini D, New Financial Instruments and the role of national promotional banks, PE 572.687, 2016, p.36, https://www.europarl.europa.eu/RegData/etudes/STUD/2016/572687/IPOL_STU(2016)572687_EN.pdf.

they should engage with productive sectors such as farmers, fishers and foresters who are implementing concrete biodiversity work on the ground.

4. **Investing in green financial products in line with the EU Taxonomy**

The European Commission should revisit the biodiversity criteria under the Taxonomy when possible and strive for their inclusion. Namely, forest biodiversity harmed by the continued use of forest biomaterials for biofuels is among the points that raised concern by NGOs.

For the EU Taxonomy to have a positive effect on the financing of biodiversity projects, international taxonomies, of which 40 are currently under development, should be harmonised as best as possible in the area of biodiversity. With each taxonomy comes a different set of reporting standards, which makes comparability on an international standard more complicated. Confusion over standards should therefore be minimised.

5. **Funding and investing in NBS**

EU regulations should further support NbS to create incentives and mainstream NbS into EU policy. For example, the Floods Directive and the Water Framework Directive could prescribe the use of NbS instead of grey approaches. The objectives of the EU BDS should be better embedded across policy sectors.

Sub-recommendations/enabling policy tools:

- The Commission and EU projects can work together to:
  i. **Generate more data to solve the informational gaps in the NbS market**. Consider using the IUCN Global Standard as a basis for a comprehensive and standardised assessment of NbS for the private sector.
  ii. **Share and upscale best practices on de-risking NbS investment** based on methods being developed by EU-funded projects.
  iii. **Encourage Member States to consider developing policy mechanisms that prioritise funding for NbS over grey infrastructure solutions**, for example by requiring an alternatives assessment for large investments.

Building on synergies with public climate finance: the European Commission should strengthen climate mainstreaming with robust DNSH safeguards. More ambitious targets for climate mainstreaming in the MFF, combined with strong DNSH safeguards, will bring biodiversity benefits. With climate occupying the centre stage in EU policy discussions, further ambition with regards to climate mainstreaming could potentially present a window of opportunity for biodiversity, while increasing political feasibility by capitalising on the existing momentum for climate action.

The European Commission should consider separate reporting and targets for climate spending on nature-based solutions. The reporting on the use of EU funds towards climate and biodiversity objectives is insufficient to draw robust conclusions on whether synergies between climate and nature funding are maximised. The Commission could consider setting climate mainstreaming targets specifically for nature-based solutions.

The European Commission and Member States should maximise opportunities for biodiversity restoration using climate policy revenues. There is an opportunity to use revenue from climate policies to support biodiversity restoration, particularly in ecosystems that may be impacted by the regulated industries. For example, revenue from emissions trading schemes in sectors like maritime transport could fund projects to enhance marine biodiversity. Facilitating biodiversity mainstreaming across these funds will advance climate goals and address conservation needs in the relevant ecosystems.

6. Harmonising the approach to biodiversity net gain certificates

The European Commission should launch a dialogue on harmonising an EU approach to high-quality biodiversity certificates. There is interest in biodiversity certificates and their associated credits but also hesitancy about the challenges and the actual market demand. There are challenges that must be carefully addressed with stakeholders reflecting both potential beneficiaries and potentially affected interests. Concerns that need to be addressed include difficulty in defining project baselines, finding metrics that reflect biodiversity integrity, ensuring independent reporting and verification, risks of failures and liabilities, and impacts on local communities.

Overarching recommendations

7. Applying enhanced standards for biodiversity

The European Commission should require Member States authorities to improve the application of the DNSH principle in relevant EU programmes. This can be achieved by providing better guidelines, integrating specific selection criteria to mainstream its application, increasing scrutiny, and using EU funding for training, capacity building and technical support. Additionally, the Commission should encourage Member States to apply the DNSH principle under the Taxonomy Delegated Act, which includes much stricter technical criteria[126]. The DNSH procedure does not replace the need for high-quality and timely SEA assessments of policy programmes, particularly of the EU funding programmes. **This needs to be complemented by rigorous requirements for EIA and SEA assessments of EU-funded projects, investments, plans and programmes.** These three biodiversity proofing requirements (and the complementary appropriate assessment of potential impacts on Natura 2000) need to be clearly set out in the common provisions requirements of the next EU funding cycle.

8. Taking advantage of the NRL planning process

Member States and the European Commission should mainstream and channel funding for nature restoration across relevant policy departments and build synergies with climate, energy, and other sectors.

Link to policy process: preparation of NRPs within two years of the NRL's entry into force (by July 2026).

Sub-recommendations/enabling policy tools:

- **Member States should coordinate their funding needs with their PAFs.** They should align their NRPs (particularly the section on funding needs) with PAFs to outline funding needs and identify where EU and other financial resources are required.

[126] CEE Bankwatch Network, Application of the DNSH principle to EU funds: Lessons from monitoring its implementation on the ground.

- **Member States should build synergies with other environmental policies**. Nature restoration shares similar goals with policies related to climate mitigation and adaption, improving air and water quality, and combating pollution. Restoration measures can therefore be financed through EU funding and mainstreaming targets for relevant policy areas.
- **Member States should use the CAP and CFP for funding restoration measures.** Although the NRL specifically provides that they are not required to use the CAP and CFP for restoration, Member States should channel funding from the CAP and CFP for financing the implementation of restoration measures outlined in their NRPs, as they offer significant opportunities.
- **The European Commission should propose ambitious proposals to bridge financing gaps it may identify** in the report it will submit to the European Parliament and Council within a year of the law's entry into force[127].
- **The private sector should play a role in the implementation of the NRL by investing in nature restoration**. Although relatively new, there are existing case studies demonstrating the involvement of companies in nature restoration projects[128]. Blended finance approaches should also be explored.

9. **Monitoring biodiversity and the using rigorous and independent biodiversity data to measure biodiversity impacts is essential for assessing the effectiveness of EU biodiversity funding and better targeting funding streams.**

Allocating funding for carrying out biodiversity monitoring is therefore essential, as well as supporting ongoing efforts to coordinate monitoring activities across the EU[129,130].

[127] IEEP (2023) Exploring policy options for funding nature restoration in the next MFF: report of a workshop discussion. Brussels, https://ieep.eu/publications/exploring-policy-options-for-funding-nature-restoration-in-the-next-mff/.
[128] University of Cambridge Institute for Sustainability Leadership (CISL) (2023) From Risk to Resilience: The Business Imperative of Nature Restoration. Cambridge, UK: University of Cambridge Institute for Sustainability Leadership.https://ieep.eu/publications/from-risk-to-resilience-the-business-imperative-of-nature-restoration/.
[129] EU Biodiversity Observation Coordination Centre proposal https://preprints.arphahub.com/article/128042/
[130] A proposal for an EU Pollinator Monitoring Scheme (EU-PoMS) https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/proposal-eu-pollinator-monitoring-scheme-eu-poms-2021-01-18_en

Sub-recommendations/enabling policy conditions, following the recommendations of the EuropaBON project:

- **The European Commission can work to build the proposed EU Biodiversity Observation Coordination centre[131] and use it to inform policy assessments**, providing an independent reference point to balance out the gaps in data coming from member states.
- **Member States can work together to standardise and harmonise data and gain synergies from the use of new technologies and advances in IT and modelling**[132].

[131] Liquete, C, Bormpoudakis, D, Maes, J, McCallum, I, Kissling, W D, Brotons, L, Breeze, T, Moran, A, Lumbierres, M, Friedrich, L, Herrando, S, Lyche Solheim, A, Fernandez, M, Fernández, N, Hirsch, T, Carvalho, L, Vihervaara, P, Junker, J, Georgieva, I, Kühn, I, Van Grunsven, R, Lipsanen, A, Body, G, Goodson, H, Valdez, J, Bonn, A and Pereira, H M (2024) D2.3 EuropaBON Proposal for an EU Biodiversity Observation Coordination Centre (EBOCC). ARPHA Preprints No 5, ARPHA Preprints.

[132] Moersberger, H, Martin, J G C, Junker, J, Georgieva, I, Bauer, S, Beja, P, Breeze, T, Brotons, L, Bruelheide, H, Fernández, N, Fernandez, M, Jandt, U, Langer, C, Lyche Solheim, A, Maes, J, Moreira, F, Pe'er, G, Santana, J, Shamoun-Baranes, J, Smets, B, Valdez, J, McCallum, I, Pereira, H M and Bonn, A (2022) Europa Biodiversity Observation Network: User and Policy Needs Assessment. ARPHA Preprints No 3, ARPHA Preprints.

Annex I - Glossary of major players working on biodiversity finance in the EU

Note to the reader: this glossary is not exhaustive.

Actor	Description
European institutions	
European Commission	Relevant DGs include DG BUDG (manages budgets implementing EU policies), DG ENV (develops and implements biodiversity policies), DG ECFIN (works on green budgeting), DG REGIO (manages cohesion policy funds), DG AGRI (oversees the CAP), DG CLIMA (manages climate policies and biodiversity considerations in these policies) and DG INTPA (manage the Neighbourhood, Development and International Cooperation Instrument-Global Europe) in cooperation with the European External Action Service regarding the EU's external work including funding for biodiversity.
European Parliament	Relevant committees include the ENVI Committee (takes decisions on legislation in relation to biodiversity) the AGRI committee (same for agriculture and biodiversity), the PECH Committee (same for fisheries and biodiversity) and the BUDG Committee (negotiates and adopts the EU's annual budgets).
European Council	Sets overarching strategic direction for EU policies and adopts major policy frameworks and legislative acts shaping biodiversity policy and funding. Plays a crucial role in negotiating and agreeing on the MFF.
Member States	
National governments	Implement EU policies in relation to biodiversity, allocate funding from shared management funds and creates national sources funding for biodiversity.
Regional and local authorities	Similar role as above in specific regions and communities.
International organisations and programmes	
The Biodiversity Finance Initiative (BIOFIN)	Programme managed by the United Nations Development Programme working with governments, civil society and private actors to catalyse biodiversity investments.
Organisation for Economic Co-operation and Development (OECD)	International organisation working on solutions to scale up public and private finance for biodiversity, enhance its cost-effectiveness and track biodiversity spending.

CBD Secretariat	Prepares for meetings of the COP and other subsidiary bodies and supports the implementation of the Convention and the GBF.
Global Environment Fund and Global Biodiversity Framework Fund	The Global Biodiversity Framework Fund was launched at the Global Environment Fund Assembly in August 2023 to support the implementation of the GBF, as decided by decision 15/7 on resource mobilisation at COP15. Its objective is to catalyse financing to achieve the international finance target under Target 19.
Financial institutions (and private sector)	
European Investment Bank (EIB)	Multilateral development bank working to scale up biodiversity investments and mainstream biodiversity considerations.
European Central Bank	
Central banks	The Dutch Central Bank and French Central Bank have both published reports on the dependence of financial institutions on biodiversity ecosystem services and the risks of biodiversity loss.
Insurance sector	Insurance companies invest in companies which depend on ecosystem services, gradually recognising and potentially integrating biodiversity risks in their investments and strategies.
NGOs	
CEE Bankwatch Network and EuroNatur	NGO working on biodiversity finance, relevant publications include Biodiversity on the brink: What is holding back financing for nature in the EU? And Behind the 'Green Recovery': How the EU recovery fund is failing to protect nature and what can still be saved.
The Nature Conservancy (TNC)	Global environmental NGO with relevant work on biodiversity finance, especially at the global level. Relevant publications include Financing Nature : Closing the biodiversity financing gap and the 10 Point plan for financing biodiversity.
World Wildlife Fund (WWF)	NGO working on a range of policies related to biodiversity finance in the EU. Relevant publications include Can your money do better? Redirecting harmful subsidies to foster nature and climate resilience and recommendations of the expert group for biodiversity on the EU Taxonomy.

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