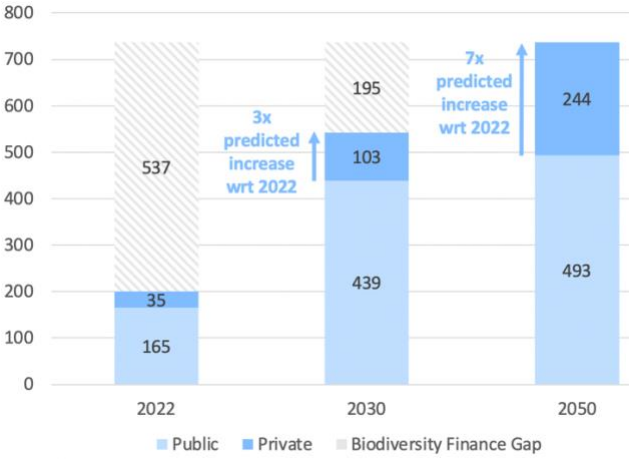
E4S Policy Brief for COP16: Policy Instruments to Close the Biodiversity Finance Gap

Summary

The activities of nature conservation and restoration necessary to achieve the new goals set by the Kunming-Montreal Global Biodiversity Framework (GBF) will require at least US$500 additional billion a year. To close this biodiversity finance gap, annual contributions from the private sector need to increase at least threefold by 2030, and sevenfold by 2050. As delegations at COP16 discuss this topic, this policy brief puts the current infrastructure for biodiversity financing into context and outlines possible policy interventions to increase private-sector financing towards nature conservation and restoration. Among others, it details how to regulate private-sector contributions into multilateral environmental funds.

Biodiversity finance needed to achieve the GBF goals



Figures are in billions of US$ and are computed from the UN report "The State of Nature Finance 2023", which estimtates a biodiversity finance gap at US$537 billion (while the gap recognised by the GBF is of US$700 billion). The predictions for 2030 and 2050 are computed by the UN report through the use of environmental and financial models. For 2030, the predicted increase (additional US$342 billion) is larger than the increase mentioned in target 19 of the GBF (at least additional US$200 billion).

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Context and COP16 Overview

The sixteenth meeting of the Conference of the Parties (COP16) to the Convention on Biological Diversity (CBD) will be held from October 21 to November 1, 2024, in Cali, Colombia.[1] This will be the first biodiversity COP since 196 countries adopted the Kunming-Montreal Global Biodiversity Framework (GBF) during COP15 in December 2022. The GBF sets four overarching global biodiversity goals for 2050, which include maintaining or restoring the integrity of all ecosystems and halting the human-induced extinction of known threatened species.[2]
To track progress towards these long-term objectives, the GBF outlines 23 intermediate targets for 2030, such as the conservation and management of 30% of land, inland water and marine and coastal areas, alongside the restoration of 30% of degraded ecosystems (the "30x30 goal"). As countries prepare for COP16, they are required to revise their National Biodiversity Strategies and Action Plans (NBSAPs) and submit updated national targets that align with the 2030 goals [1], [2].[3]

At COP16, parties will present how their NBSAPs correspond with the GBF and further develop the GBF monitoring framework, which already includes indicators for each goal and target.[4] Following COP16, countries will monitor progress and submit reports at COP17 (2026) and COP19 (2030). While there will be strong political pressure to achieve these goals, it is essential to remember that the GBF is not an international treaty, and as such it is not legally binding on the signing countries [1].[5]

Actions Required to Achieve GBF Targets and Goals

To meet the GBF's conservation and restoration targets, countries must:

1. Prevent further degradation of, and restore, ecosystems, such as grasslands, peatlands, forests, and seagrass beds.
2. Conserve existing protected areas and establish new ones.
3. Scale techniques for sustainable land management, such as agroforestry and cover cropping.

[1] The conference will also host the Eleventh meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, and the Fifth meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation.
[2] These goals state to maintain and restore the integrity, connectivity and resilience of all ecosystems by 2050, halt human-induced extinction of known threatened species, and maintain genetic diversity within populations of species (Goal A), sustainably use and manage biodiversity and value ecosystem functions and services (Goal B), share fairly and equitably the benefits from the utilisation of genetic resources, including digital sequence information and traditional knowledge associated with them (Goal C), assure adequate means of implementation of the former goals, including aligning financial flows to progressively close the current biodiversity finance gap of US$500-700 billion a year (Goal D).
[3] All strategies and action plans can be found here, and Switzerland's can be found here.
[4] For example, the Red List Index of ecosystems is a headline indicator for Target 1. See all indicators here.
[5] However, some authors argue that, as the GBF does not halter the commitment by countries to halt biodiversity loss taken during the signing of the Convention for Biological Diversity in 1993, countries could potentially be subject to legal action before international or domestic courts for their actions or inactions contributing to global biodiversity loss [3].

Especially in emerging and transitioning economies, the stewarts of these activities are the Indigenous Peoples, which, despite representing just over 6% of the global population, are the custodians of more than a third of the world's most important areas for biodiversity [4].

Institutions have recognized that increasing such activities will require an additional investment of US$500-700 billion annually.[6] Specifically, the GBF states that countries must progressively close this biodiversity finance gap (Goal D), with the intermediate target of channelling at least additional US$200 billion a year in these activities by 2030 (Target 19).

Current Infrastructure of Biodiversity Financing

Today, public and private investments in conservation and restoration activities amount to approximately US$200 billion a year [5].

Public Sector

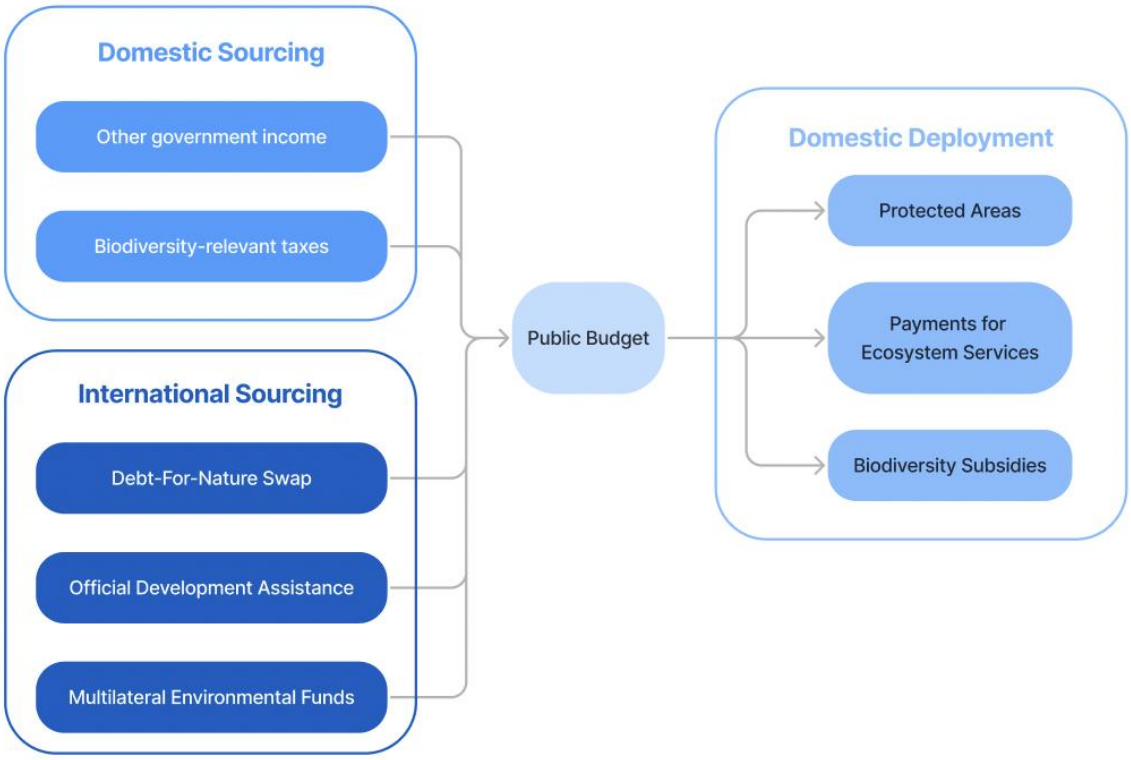
Approximately 80% of such investments are sourced from public finances (US$165 billion), which are mostly directed to programs that protect biodiversity and landscape (US$76 billion) and sustainable agriculture, forestry and fishing (US$42 billion). Countries can source funding through either broad or biodiversity-relevant taxes and deploy it by either directly financing domestic protected areas or implementing domestic frameworks for biodiversity subsidies and payments for ecosystem services. In addition, countries may also source and deploy funding internationally, through programs such as the Official Development Assistance, debt-for-nature swaps, and multilateral environmental funds, such as the Global Environment Facility (GEF).

The GEF, established ahead of the 1992 Rio Earth Summit, is a set of multilateral environmental funds that channel countries' contributions into conservation projects, for about US$1 billion annually. The GEF funds also include the GBF Fund (GBFF), created during COP15 to specifically support countries in achieving the 2030 GBF targets.[7]

[6] This figure may vary across institutions. The main UN report estimates that the current biodiversity finance gap amounts to US$537 billion [5]. The GBF acknowledges that this gap currently amounts to US$700 billion, while the Paulson institute estimates that, on average, this gap amounts to US$711 billion [3]. To scale these activities to the level required by the GBF targets and goals, total investments (both public and private) would need to at least double by 2030 and quadruple by 2050.

[7] The main (and first) fund of the GEF is the Global Environment Facility Trust Fund, which operates the grant and blended-finance program of the GEF. In addition, the GEF also serves as a financial mechanism for the conventions such as the Convention on Biological Diversity (CBD). In this regard, the GEF manages the GBFF and the Nagoya Protocol Implementation Fund to serve the CBD, and the Least Developed Countries Fund, Special Climate Change Fund and the Capacity-Building Initiative for Transparency Trust Fund to serve the UN Framework Convention on Climate Change.

Representation of sourcing and deploying of biodiversity financing for the public sector in an emerging and transitioning economy



This figure reports a representation of sourcing and deployment of biodiversity financing in an emerging and transitioning economy. The voice "International Sourcing" includes the means by which developed economies may grant funding for biodiversity conservation and restoration to emerging and transitioning economies.

Private Sector

The remaining 20% of the investments in conservation and restoration activities comes from the private sector (US$35 billion). As some of these activities are not valued in standard economic markets, policy makers introduced regulatory constraints and artificial markets that would foster such investments. For example, countries have implemented national schemes for biodiversity offsets, by which companies must avoid, mitigate, and, only as a last resort, restore their impact on biodiversity [7]. These schemes have, on some occasions, led to the creation of national schemes for biodiversity credits, in which companies outsource the restoration to external projects. These biodiversity-offset and credit schemes are the most common means used by the private sector to invest in conservation and restoration activities (US$12 billion), followed by investments in sustainable supply chains (US$8.6 billion).

There are other conservation and restoration activities that have a market on their own, and that therefore do not need the intervention of policy makers to receive funds, such as the projects financed through impact investing (US$4.6 billion). Finally, the private sector currently collaborates with multilateral environmental funds, like the GEF, and NGOs to donate or co-fund projects through blended finance (US$4 billion).

Policy tools to scale private-sector investments

To close the US$500-700 billion annual financing gap, both public and private investments must increase significantly. According to the UN, private-sector contributions should rise from US$35 billion to US$103 billion by 2030, which is a 194% increase (while public-sector contributions should increase by 166%).

Key policies that can be used to increase these private-sector contributions are:

1. **Potentiate biodiversity offset and credit schemes**. There are currently several initiatives to develop these frameworks at the national level, such as the Nature Repair Market in Australia, and international level, such as the joint initiative by the French and UK governments. The aim of these initiatives is to homogenise current schemes and increase their transparency and legitimacy.
2. **Encourage investments in sustainable supply chains**. This can be achieved by translating the international guidelines on companies' reporting on their dependencies and impact on nature, such as the recommendations of the Taskforce on Nature-Related Financial Disclosures (TNFD), into national legislation. The EU's Corporate Sustainability Reporting Directive, set to take effect in 2025, is an example of such policies.
3. **Regulate private-sector contributions to environmental funds**. At the moment, multilateral investment funds do not generally accept donations or payments from the private sector. For the first time, COP16 will discuss a mechanism to allow companies that use genetic information to produce and sell their products - such as the pharmaceutical companies making the COVID-19 vaccines - to re-pay such (so-far-free) service by transferring the due amounts into a multilateral environmental fund [8].[8] This system could be extended to companies that generally extract and use natural resources as part of their activities.

Each of these policy tools involves trade-offs, such as:

1. Biodiversity credits can provide much-needed funding to small-scale projects but suffer from issues related to pricing, additionality, and permanence.
2. Enhanced reporting requirements could improve sustainable practices, but the connection between disclosure and reduction of biodiversity footprint remains uncertain.
3. Centralising private-sector donations through multilateral funds may concentrate resources on biodiversity-rich areas, but could disadvantage initiatives in other areas.

Overall, these trade-offs suggest that there is no silver bullet, and that a combination of policy instruments is likely the optimal approach to close the biodiversity finance gap and ensure the financial resources needed to achieve the 2030 GBF targets.

[8] This workflow is part of the negotiations on the use of digital sequence information of genetic resources.

Box: Regulating private-sector contributions to environmental funds

In this box we discuss the possible governance of chanelling contributions from the private sector into the existing multilateral environmental funds. To regulate such contributions, countries may sign a multinational agreement that binds the private sector to make yearly contributions in the GBF Fund. Such agreement would require a methodology to set the company-specific contributions. Such contributions may be:

1. **Proportionate to companies' profits**. For example, collecting US$68 additional billion a year would correspond to approximately 1% of companies' profits at the global level.[9]
2. **Proportionate to companies' impact on biodiversity or nature**.
    - The above-mentioned revenue-based contributions could be weighted by companies' impact on biodiversity. For example, if we consider the data on biodiversity footprint reported in a recent study by the Finance for Biodiversity Foundation [9], the scaled contribution for mining companies would be 2% of their annual profits (rather than 1%).
    - Alternatively, contributions could be determined by the value of the natural resources that companies destroy in their production processes. To test the feasibility of this approach, we have conducted a case study on the impact of mining companies on vegetation density. By relying on publicly available information on mining sites, we estimate that the contribution for the considered mining companies would amount to about 0.2% of their profits.[10]

Both approaches have advantages and drawbacks. While the first approach is relatively straightforward, contributions do not take into account companies' impact on biodiversity and nature. At the same time, while the second approach takes this element into account, results are subject to the numerous issues related to measuring and valuing the loss of biodiversity and natural resources - such as the complexity of underlying models and data availability. As such, the optimal solution to determine company-specific contributions is likely a combination of these two approaches.

In general, regulating private-sector contributions into multilateral environmental funds present multiple advantages, such as the centralization of conservation and restoration efforts towards the GBF targets and the homogeneization of contributions across countries. As COP16 starts discussing how to regulate these contributions for companies that use genetic information to produce and sell their products, this approach may be promptly extended to all companies that use nature in their supply chain.

[9] Authors' calculations with data from CapitalIQ. More details are available upon request.

[10] We estimate such impact by combining publicly available data on mining sites and their owners with data on vegetation density measured with publicly available satellite images. We also estimate the monetary value of such impact by considering how much it would cost to restore such vegetation losses. Specifically, we consider how much money is required to manage the reforestation projects within the program Natura 2000 of the European Union that produced positive vegetation gains. This number is likely underestimated, as we only have information on only about 5-10% of the sites of these companies worldwide and vegetation is only one type of natural resources. More details are available upon request.

List of Acronyms

CBD	Convention on Biological Diversity
COP15	Fifteenth meeting of the Conference of the Parties
COP16	Sixteenth meeting of the Conference of the Parties
COP17	Seventeenth meeting of the Conference of the Parties
COP19	Nineteenth meeting of the Conference of the Parties
EU	European Union
GBF	Global Biodiversity Framework
GBFF	Global Biodiversity Framework Fund
GEF	Global Environment Facility
NBSAP	National Biodiversity Strategies and Action Plans
NGO	Non-Governmental Organization
TNFD	Taskforce on Nature-Related Financial Disclosures
UK	United Kingdom
UN	United Nations
US$	United States Dollars

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