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Are green and blue bonds fit for purpose?

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The biodiversity finance challenge

Biodiversity and natural ecosystems provide essential functions that underpin our economies and quality of life, from clean air and water, to productive soils and fisheries. Yet biodiversity is declining at an unprecedented rate due to human activities such as deforestation, pollution and climate change. The consequences of inaction are catastrophic.

It is estimated that more than half of global GDP is moderately or highly dependent on nature.[1] As ecosystems collapse, so too will the economies and societies they sustain. The biodiversity crisis risks triggering a domino effect of food insecurity, forced migration, conflict, and suffering that will spare no country.

The Kunming-Montreal Global Biodiversity Framework (KMGBF), adopted by Parties to the Convention on Biological Diversity (CBD) in 2022, aims to close the estimated $700-billion-per-year funding gap for biodiversity action.[2] To put this in perspective, global biodiversity finance from all sources is estimated by the OECD to be between $78-91 billion per year, based on average annual public expenditure between 2015-2017 and the most recent private expenditure data over the same period.[3] Public sources account for the lion's share at 76%, while private finance remains limited at only 17%. Another study, using a broader approach, estimated global biodiversity-related funding at between $124-143 billion per year.[4] This is a mere drop in the bucket compared with the trillions mobilised for less existential threats.

1 https://www.weforum.org/press/2020/01/half-of-world-s-gdp-moderately-or-highly-dependent-on-nature-says-new-report/
2 https://www.cbd.int/article/cop15-final-text-kunming-montreal-gbf-221222
3 *A Comprehensive Overview of Global Biodiversity Finance* (OECD, 2020).
4 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.

Third World Network (TWN) is an independent non-profit international research and advocacy organisation involved in bringing about a greater articulation of the needs, aspirations and rights of the peoples in the South and in promoting just, equitable and ecological development.

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This gap however needs to be contextualised in the recognition that biodiversity loss cannot be resolved through increased funding alone, and that debt, and inequality across racialised, gender, class and colonial lines, all drive biodiversity loss and require urgent attention.[5] However, instead of transformation, a series of voluntary measures and market-based mechanisms such as payments for ecosystem services, blended finance schemes and green and blue bonds are now presented as tools to bridge the resource gap, including in Target 19 of the KMGBF and its associated Strategy for Resource Mobilization.

These efforts are marginal at best,[6] and, at worst, entrench the power of rich-world governments and non-state institutions like banks, large international NGOs, and supranationals, at the expense of the indigenous peoples and local communities who are at the forefront of safeguarding biodiversity. Pursuing voluntary or innovative financial mechanisms rather than addressing the extractive world economy postpones substantial action on the fraying web of life for another year, another decade, with devastating consequences for people and planet.

Tragically, the countries with the greatest need for biodiversity investment – those with the richest ecosystems housing endemic species found nowhere else – are often the poorest. They simply lack the resources to finance critical conservation and restoration work, or to provide support to the real stewards of biodiversity – indigenous peoples and local communities. Meanwhile, wealthy nations, despite being responsible for the majority of cumulative greenhouse gas emissions driving climate change and biodiversity loss, continue to fall short on their legally binding obligations to provide necessary funding to tackle these intertwined global crises.

The rise of green and blue bonds

In recent years, green bonds have emerged as a popular tool to try to channel private capital towards environmentally beneficial projects. Green bonds are essentially debt instruments where the proceeds are earmarked for projects with purportedly positive environmental impacts.

The first green bond was issued in 2007. While estimates vary slightly, the global green bond market has grown to be valued in the range of $480-575 billion annually as of 2023, setting new records.[7] However, this still represents less than 1% of the total global bond market. The green bond market is expected to continue its rapid growth trajectory, driven by factors like the urgent need for climate finance, policy support, and investor demand.

Building on the green bond model, blue bonds have been developed to specifically target ocean and marine conservation. Blue bonds focus proceeds on sustainable fisheries, marine ecosystem restoration, reducing ocean pollution and acidification, and other activities that benefit ocean health.

From 2018-2022, there were 26 blue bond transactions totalling around $5-10 billion in value.[8] While this represents rapid growth, blue bonds still account for less than 0.5% of the overall sustainable debt market.[9] Green and blue bond issuance remains a drop in the bucket compared with the scale of biodiversity finance needs.[10]

For example, the Seychelles issued the world's first sovereign blue bond in 2018, raising $15 million to expand marine protected areas and improve fisheries governance. Since then, total blue bond issuance has amounted to $6.8 billion.[11] The largest transaction to date was Belize's $550 million blue bond in 2021.

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5 Biodiversity Capital Research Collective. 2021. *Beyond the Gap: Placing Biodiversity Finance in the Global Economy*. Third World Network and the University of British Columbia Department of Geography.

6 Dempsey, J., Irvine-Broque, A., Christiansen, J., and Bigger, P. 2024. *Thin and Shallow: Financial Instruments for Biodiversity Conservation and Their Outlook*. Third World Network.

7 https://www.bloomberg.com/professional/insights/trading/green-bonds-reached-new-heights-in-2023/

8 https://capitalmonitor.ai/asset-class/fixed-income/marine-bonds-not-so-out-of-the-blue-now/

9 https://www.mdpi.com/1911-8074/16/3/184

10 https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/risk/ocean-financing.pdf

11 https://www.ft.com/content/4b4c3025-9302-4b16-b50a-6455fcfca1d4

However, the growth of this market hasn't protected it from controversy. Gabon's $500 million "blue bond" issued in 2022 to refinance existing debt was heavily criticised for only using part of the proceeds for marine conservation. The Nature Conservancy, which facilitated the deal, has since said it will no longer use the "blue bond" label for such transactions.[12]

Limitations and critiques of green and blue bonds

Despite the touted growth and promise of the green and blue bond markets, these instruments face significant limitations in their ability to address the biodiversity crisis:

1. *Lack of clear standards and greenwashing risks*

- There are no universally adopted standards for what qualifies as a green or blue bond. Issuers self-label their bonds, creating risks of greenwashing where proceeds fund projects with dubious environmental benefits.[13]
- Assurances over the green credentials of bond-funded projects are currently provided voluntarily.[14] Charges of greenwashing have multiplied.
- Issuers may "cherry pick" what environmental projects and targets to report on, passing off the effected change as more impactful than it actually is. Negative impacts may be overlooked.

2. *Failure to address root causes of biodiversity loss*

- It's unclear if green and blue bonds are designed to systemically halt destructive activities like deforestation, offshore drilling, and deep-sea mining that drive biodiversity loss. They may just be financing marginal improvements. Green finance is thus not a reliable tool to promote climate or biodiversity policies, regardless of how the bonds are structured.
- The bonds don't necessarily create positive indirect economic effects, and may not align with national development priorities. Neither do they address the structural inequities in the financial and monetary system that keep developing countries, where most of the world's biodiversity lies, in financial and political subordination.[15]

3. *Debt burdens for developing countries*

- Many blue bonds have been issued by highly indebted Small Island Developing States (SIDS).[16] Taking on more debt to fund conservation, even at concessional rates, may worsen debt distress.
- The debt vulnerabilities of SIDS make them more vulnerable to climate change, as countries with unsustainable debt have fewer resources to invest in resilience or cope with impacts.
- Sustainable bonds' cousin, debt-for-nature swaps, are no more promising. Debt-for-nature swaps could have negative social or economic impacts, such as displacing people from certain occupations, undermining food security or encouraging more unsustainable borrowing.
- Debt-for-nature swaps involve complex, time-consuming transactions with constant risks associated with fluctuating exchange rates, inflation, and potential fiscal or liquidity crises in debtor countries.
- Transaction costs can be very high, reducing the amount of debt relief and conservation funding ultimately provided. In the case of Belize, costs were $85 million on a $364 million loan.[17]

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12 https://www.ft.com/content/68bcb820-c4af-42b7-84b7-ca2682af60ad

13 For example, in 2020, *The Economist* conducted a study of the world's 20 largest environmental, social and governance, or ESG, funds (of which 'green' finance is the largest single component) and found that 17 held investments in fossil-fuel companies. See https://www.economist.com/leaders/2021/05/22/sustainable-finance-is-rife-with-greenwash-time-for-more-disclosure. A similar 2021 report by climate think-tank InfluenceMap found that 71% of ESG equity funds it assessed had portfolios that were not aligned with the Paris climate accords. See https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/european-green-bond-standard-supporting-transition_en

14 See Bolton, P. et al. 2022. *Climate and Debt*. Geneva Reports on the World Economy 25, ICMB and CEPR.

15 Biodiversity Capital Research Collective. 2024. *Exporting Extinction: How the International Financial System Constrains Biodiverse Futures*. The Centre for Climate Justice, Climate and Community Project, and Third World Network.

16 According to a report by Eurodad, SIDS public debt rose from an average 65.9% of GDP in 2019 up to 82.5% in 2020, to remain over 70% of GDP until 2025. See https://assets.nationbuilder.com/eurodad/pages/3046/attachments/original/1678896856/Summary.pdf?1678896856

17 https://phys.org/news/2023-10-belize-poster-child-debt-for-nature-swaps.html#:~:text=This%20was%20converted%20into%20a,by%20more%20than%2010%20percent.

4. *Lack of scale*

- Green and blue bond issuance remains a drop in the bucket compared with the scale of investment needed for biodiversity. Blue bonds are less than 0.5% of the sustainable debt market.
- Limiting warming to 1.5°C will require $3-6 trillion annually until 2050, far exceeding current green and blue bond volumes.[18]

5. *Challenges in measuring impact*

- Compared with measuring carbon emissions, the complexity of biodiversity makes it even more difficult to quantify the impact of specific green or blue bond investments.
- No single body is responsible for measuring the avoided emissions or biodiversity impacts of green and blue bond projects.
- Simplified proxy metrics may be used to indicate environmental impact where these impacts are inaccurately measured.

6. *Shifting of responsibilities from developed to developing countries*

- Green and blue bonds allow developed countries to avoid their legally binding obligations to provide biodiversity finance, shifting responsibilities instead to the private sector and developing nations.
- This fails to recognise the ecological and climate debts owed by developed countries due to their disproportionate environmental pressures and emissions.
- Critics argue that responsibilities are being unfairly shifted from developed to developing countries, whereas climate justice requires the exact opposite.
- The upshot is that wealthy countries should make a greater effort in reducing emissions and in compensating (through grants and debt relief, and *not* green bonds) poorer countries that suffer the negative effects of climate change and biodiversity loss.

While lauded as innovative, green and blue bonds therefore face limitations in being able to systemically address the root causes of the climate and biodiversity crises at the speed and scale required. These instruments raise risks of greenwashing and increased debt burdens in developing countries without clear impact measurement.

Ways forward

While financial instruments such as green and blue bonds can play a role, they are no silver bullet. Protecting biodiversity will require more fundamental economic reforms, supported by increased public funding and debt relief efforts. Governments must take the lead in creating an enabling environment for biodiversity finance to flourish at the speed and scale required.

The refrain of mobilising private capital through blended finance, bonds and other financial instruments in addressing the financing gap is based on the questionable idea that prices, markets and financial products offer the solution to ecological crisis, even as we remain perilously off-course for a sustainable future.

It is also a window into a future in which investment in decarbonisation and sustainable infrastructure is dominated by the private sector, whose flightiness may just as well trigger the types of acute shocks that accompany climate change and biodiversity loss in the first place. The green bond cheerleaders are therefore not so much 'greenwashing' as 'greenwishing'.

[18] https://www.unep.org/news-and-stories/speech/investment-and-trade-meet-paris-climate-goals#:~:text=Mobilizing%20the%20USD%203%2D6,to%20align%20with%20these%20efforts

Protecting biodiversity will require mobilising finance at a far greater scale than what green and blue bonds are currently providing. A multi-pronged approach is needed:

- Increase public funding and overseas development aid for biodiversity, prioritising grants over loans. Climate finance for developing countries is currently 11 times higher than biodiversity-related support.[19]
- Implement environmental fiscal reforms to redirect subsidies away from harmful activities and towards conservation. Annual subsidies to extractive industries total $1.8 trillion, dwarfing biodiversity finance.[20] Stimulus plans provide an opportunity for reforms.
- Recognise developed countries' ecological debts and provide debt relief and financial reparations to developing countries for biodiversity action. Unequal North-South relations are partly responsible for the accumulation of climate and ecological debt in developing countries.
- Indigenous peoples and local communities must be empowered as leaders of biodiversity protection, not just beneficiaries.

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[19] https://assets.bbhub.io/professional/sites/24/REPORT_Biodiversity_Finance_Factbook_master_230321.pdf

[20] https://www.theguardian.com/environment/2022/feb/17/world-spends-18tn-a-year-on-subsidies-that-harm-environment-study-finds-aoe