Biodiversity targets will not be met without debt and tax justice

Approaches to financing biodiversity conservation tend to focus on funding gaps, but fail to address underlying political and economic drivers. We propose two strategies — tax reform and debt justice — to supercharge public financing for biodiversity and deflate harmful financial flows, while chipping away at the causes of state austerity.

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A prominent explanation for international failure to progress on biodiversity targets has been a lack of financial resources[1–3]. The focus on filling this funding gap with innovative, private-sector financial schemes tends to treat austerity — diminished public investment in public services and systems — as an immutable reality. But enticing private finance has serious limits: a recent expert report on finance and biodiversity commissioned by the Convention on Biological Diversity (CBD) concluded that private finance alone "will never be sufficient for meeting all of the challenges of achieving the post-2020 global biodiversity framework"[4]. There is a growing conversation suggesting that the most effective approach will be to arrest the flows of biodiversity-degrading finance, which massively eclipse spending on protection and sustainable use of biodiversity[3,5], while dramatically increasing public finance for biodiversity, particularly in the Global South[4]. We must move beyond simply attempting to fill the funding gap, and initiate transformative change that addresses underlying drivers of biodiversity loss (Fig. 1)[6,7].

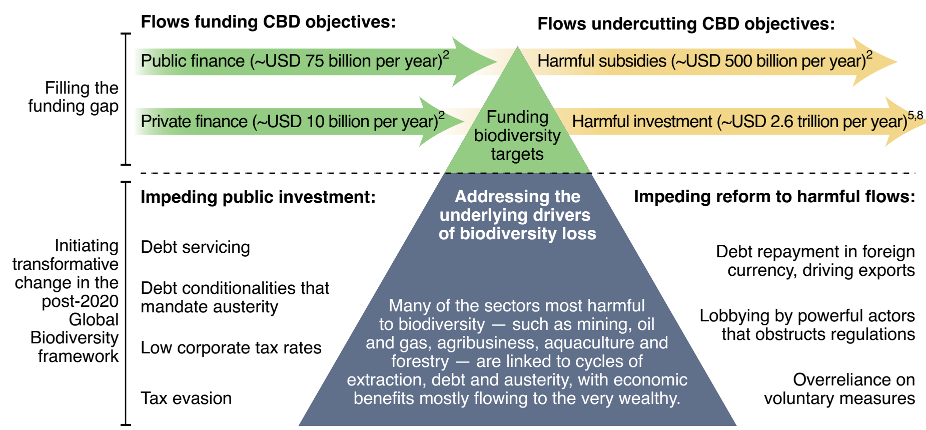

Fig. 1 | Financing the CBD objectives. This diagram shows the underlying drivers of biodiversity loss that must be addressed as part of a comprehensive strategy for transformative change. Focusing only on the tip of the iceberg — the funds flowing to biodiversity conservation — misses addressing the structural conditions that impede public investment, fuel practices harmful to biodiversity and entrench inequality. Estimates for public finance, private finance and harmful subsidies are from OECD data (private finance is largely composed of philanthropic and NGO funding, sustainable commodity production and biodiversity offsetting)[2]. Estimating total investment in biodiversity-harming sectors is challenging; we draw from one analysis of lending by 50 banks[5] and one analysis of financing for the top 500 companies involved in forest-risk supply chains without deforestation policies[39].

Given the daunting scale of interconnected global challenges — from wealth inequalities to climate change to biodiversity loss to global pandemics — a crucial task is distinguishing strategies that advance structural change from those that further entrench the status quo. Social philosopher Andre Gorz famously termed the former strategies 'non-reformist reforms': interventions that are pragmatic and incremental, yet advance progress along a longer-term transformative path[8]. Such strategies could provide 'joined up' approaches to interconnected challenges as recently called for by head of the CBD, Elizabeth Maruma Mrema[9], and by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)[10]. However, private finance mobilized through voluntary mechanisms and blended finance has so far proven not to fall into this category — decades of private conservation finance mechanisms have not acted at the scale or pace necessary to fill the biodiversity funding gap[3,11]. Furthermore, these mechanisms can have deleterious environmental and social impacts[12,13], and have been promoted by business interests and wealthy countries to forestall global regulation[14,15].

We propose two 'non-reformist reforms' for the post-2020 CBD agenda: international tax policy reforms and fulsome reckoning with sovereign and ecological debts. A recent survey conducted by the United Nations Development Program's (UNDP) Biodiversity Finance Initiative (BIOFIN) of 22 countries of the Global South, including several considered to have 'mega biodiversity', such as Ecuador and Peru, found that budget limitations and state capacity were primary barriers to achieving biodiversity targets[16]. The strategies we suggest have immediate, practical promise to both supercharge public resource mobilization and deflate harmful financial flows, while also chipping away at the political and economic structures that inhibit implementation of biodiversity policy.

Multilateral tax reform

One approach to dealing with the lack of public funding for biodiversity (and health, climate and education) goals is to reverse the decades-long trend towards shrinking corporate and personal-income taxes, and also end tax avoidance and illicit financial flows.

Although the secrecy practices afforded by tax havens hinder precise quantification, Fortune 500 companies are estimated to have USD 2.3 trillion in offshore accounts and capital positions. Tax havens cost governments between USD 500–600 billion a year in lost taxation, including an estimated loss to non-OECD economies of USD 200 billion[17]. Individual wealth sheltered in tax havens is an estimated USD 8–36 trillion, costing public accounts further[17]. For comparison, financing needed to preserve global biodiversity is estimated at USD 722–967 billion per year until 2030[3].

These discrepancies are also clear at a country scale. A UNDP study found that an additional USD 108 million annually was needed to implement Vietnam's National Biodiversity Strategic Action Plan (NBSAP)[18]. Meanwhile, Vietnam's estimated annual losses from tax abuse and avoidance by corporate entities and individuals is USD 421 million[19]. In Peru, lost tax is estimated at USD 1.2 billion annually[19], yet the annual gap in biodiversity finance is estimated at just USD 73 million[20]. It is worth noting that these past needs assessments do not reflect new ambitions currently under discussion at the CBD; we provide them for comparison. Alongside the impacts of losses to public funds, the use of tax havens has been shown to contribute to biodiversity loss by providing cover for illegal, unreported and unregulated (IUU) fishing and obscuring capital flows that support deforestation in the Amazon[21]. And the United Nations Conference on Trade and Development estimated annual illicit financial flows out of African countries to be USD 88.6 billion, with almost half (USD 40 billion) related to the export of extractive commodities[22].

Meanwhile, the average global statutory corporate tax rate has gone from 40% in 1980 to 24% in 2020, with an actual tax rate much lower in many jurisdictions[23]. Furthermore, both low taxes and tax avoidance allow corporations to amass further wealth, increasing their influence in governing processes[24]. G7 countries recently reached an interim agreement on tax reform that will have multinational corporations pay a minimum tax rate of at least 15% in each country they operate in. While a worthwhile step, this rate is far too low, and it is insufficient in terms of redistributing wealth globally and generating public resources needed to address global social and environmental challenges, such as biodiversity loss[25].

Instead, we argue that governments should endorse the recommendations of the recently concluded High Level Panel on International Financial Accountability, Transparency and Integrity for Achieving the 2030 Agenda[26]. It calls for the creation of an international tax convention, a unitary tax system capable of a just and fair capture of wealth to support investment in health and environmental objectives. This reform is essential for addressing the scarcity of public finance in the Global South, where the highest levels of biodiversity are most at stake from unmet CBD targets.

Reckoning with debts

Ongoing legacies of colonialism mean that countries in the Global South rely heavily on debt that is more expensive than that accessed by countries in the North, and comes with unfavourable conditions[27]. Since low-income countries have small domestic lender bases, the vast bulk of borrowing is foreign-denominated, making borrowing nations vulnerable to changes in developed countries' monetary policy and reliant on foreign currency to make payments. Estimates of developing countries' debt are around USD 11 trillion, with debt service payments estimated at USD 3.4 trillion annually[28]. One research group found that the share of Global South government resources dedicated to foreign debt repayment tripled from 2011 to 2020, to an average of 17.4%, with some as high as 40%[29]. These levels of debt service are directly related to falling domestic spending[30]. More research is needed on the specific relationships between indebtedness, austerity and biodiversity loss, as credit can allow nations to invest in health and environmental objectives. But it is clear that debt with attendant fiscal conditions that mandate austerity and prompt extractivist investment, which have been linked to reduced forest cover and biodiversity loss, is particularly problematic[31–33].

Many Global South governments and economies rely on external financing to meet their liquidity needs. They are under omnipresent pressure to attract foreign investment and access international capital markets in order to generate sufficient levels of investment and financial flows for productive sectors, balance of payments and debt sustainability. The reliance on external financing is also borne out of structural disadvantages developing countries face through trade liberalization and binding constraints to economic diversification, such as through investment treaties. Developing countries also face limitations in using their own currencies for trade and debt-issuance[34]. These constraints lead Global South countries to pursue more and more debt. Under these political economic conditions, Global South countries are left with little choice other than to pursue and specialize in short-term export-led strategies for commodity and manufacturing products with low added value in order to earn foreign exchange. These include, of course, agricultural commodities and natural resources that are known drivers of biodiversity loss[34]. For example, in the African Eurobond market (debt issued in-country, but in a foreign currency) the typical debt tenor is 10 years with interest rates up to 16%[35]. The tenor is not only too short to finance many large-scale sustainable development projects, but this debt is also often only used to repay existing debt as it comes due or simply to finance urgent or basic domestic expenditures.

These structural patterns are recognized by the head of the CBD, Mrema, who has noted that it is difficult to achieve any CBD objectives without addressing agricultural expansion in the Global South, driven by a need to "earn hard currency to pay their debts to international lenders"[9]. The COVID-19 pandemic has only worsened the situation in countries such as Belize and Mozambique, which are drowning in debt due to tourism collapse and compounding climate-change impacts. In response to developing country advocacy, the G20 did provide pandemic debt relief, but it was only temporary, only directed at the poorest nations, and did not decrease overall debt levels[29]. Further straining countries, austerity measures are still enforced by international lending: 84% of International Monetary Fund loans at the start of the pandemic required austerity measures of recipient countries[36].

The result of this debt–austerity nexus is that there are trillions of dollars in debt repayment required at the same time that austerity measures constrain public expenditure in vital social and environmental sectors. Many of the countries facing these new debt burdens have previously been subjected to illegitimate debts, without popular consent or to the benefit of citizens[37].

Financial sector responses to climate change can make this inequality even more acute. As the risks of countries' climate vulnerabilities are increasingly assessed by credit rating agencies, sovereign debt interest rates for the most vulnerable countries have increased[38]. This leads to a vicious cycle: borrowing costs increase due to climate vulnerability, which results in the growth of developing countries' debt burdens, which in turn undermines their ability to invest in the protection and provision of public goods, including climate and biodiversity action. And when these countries cannot finance their climate mitigation and adaptation needs, their vulnerabilities increase even more. For many countries in the Global

South, debt repayment in the interest of international creditors thereby supersedes both the economic and social rights of people and the ability of states to address climate change and biodiversity loss. It is difficult to imagine a worse set of structural conditions within which to advance planetary health, human rights and justice.

These conditions will not be corrected with an increase in protected areas (including efforts such as the 30 by 30 target), voluntary efforts by the financial sector, boutique impact investing projects or even concerted efforts to end subsidies harmful to biodiversity. We argue that what is needed is sovereign debt restructuring and cancellation. Questions loom about the use of conditionalities in debt restructuring, such as those imposed by debt-for-nature swaps, with countries in the Global South extremely wary of conditions that impinge on autonomy and reinscribe neocolonial relations. One possible way around this is to require that governments receiving debt relief consult with national civil society, trade unions, women's organizations and grassroots social movements so that financing priorities are determined with the full inclusion and participation of citizens. Another is to also require national accountability mechanisms. The key nuance here is that accountability and governance are carried out nationally, in full engagement with civil society.

Rich countries are more responsible for and have benefited most from the global development that has driven biodiversity loss. At the 1992 Earth Summit in Rio, they committed to paying the costs of addressing global environmental problems. Governments in the North must make good on this commitment, and compensate for economic growth and wealth accumulation incurred via environmental destruction in the Global South. Justice-oriented global tax reform and debt restructuring are crucial to realizing this still unmet "common but differentiated responsibility" objective forged 30 years ago in Rio, manifesting under the CBD as Article 20. Such actions are not charity or aid, but rather one step towards righting wrongs and the dismantling of unfair, unjust and predatory political and economic systems, under which effective biodiversity actions cannot occur. ❐

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References

1. Xu, H. et al. *Nat. Ecol. Evol.* **5**, 411–418 (2021).
2. *A Comprehensive Overview of Global Biodiversity Finance* (OECD, 2020).
3. Deutz, A. et al. *Financing Nature: Closing the Global Biodiversity Financing Gap* (Paulson Institute, TNC, Cornell Center for Sustainability, 2020).
4. *Contribution to a Draft Resource Mobilization Component of the Post-2020 Biodiversity Framework as a Follow-up to the Current Strategy for Resource Mobilization: Third Report of the Panel of Experts on Resource Mobilization* CBD/SBI/3/5/ADD3 (CBD, 2021).
5. *Bankrolling Extinction* (Portfolio Earth, 2020).
6. McElwee, P. et al. *One Earth* **3**, 448–461 (2020).
7. Otero, I. et al. *Conserv. Lett.* **13**, e12713 (2020).
8. Gorz, A. *Strategy for Labor: A Radical Proposal* (Beacon Press, 1967).
9. Contestabile, M. *Nat. Sustain.* **4**, 660–661 (2021).
10. *Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (eds. Brondizio, E. S. et al.) (IPBES, 2019).
11. Dempsey, J. & Suarez, D. C. *Ann. Am. Assoc. Geogr.* **106**, 653–671 (2016).
12. Holmes, G. & Cavanagh, C. J. *Geoforum* **75**, 199–209 (2016).
13. Milne, S. et al. *Conserv. Soc.* **17**, 84–95 (2019).
14. Rowe, J. K. in *Globalization, Governmentality, and Global Politics: Regulation for the Rest of* Us? (eds. Lipschutz, R. D. & Rowe, J. K.) Ch. 6 (Routledge, 2005).
15. Vitali, S., Glattfelder, J. B. & Battiston, S. *PLoS ONE* **6**, e25995 (2011).
16. *Understanding Mainstreaming as a Finance Solution: Survey Results from 22 BIOFIN Countries* (United Nations Development Project, 2021).
17. Shaxson, N. *Fin. Dev.* **56**, 6–10 (2019).
18. Nguyen, T. M. H. *Mobilizing Resources for Biodiversity and Sustainable Development: Financial Needs Assessment* (UNDP Viet Nam, 2019).
19. Tax Justice Network. Country Profiles. *Corporate Tax Haven Index 2021* https://cthi.taxjustice.net/en/cthi/profiles (2021).
20. Elgegren, J. O. *Análisis de Necesidades y Brechas Financieras para la Aplicación Óptima de la Estrategia Nacional de Biodiversidad y su Plan de Acción (EPANDB) del Perú* (UNDP, 2016).
21. Galaz, V. et al. *Nat. Ecol. Evol.* **2**, 1352–1357 (2018).
22. *Tackling Illicit Financial Flows for Sustainable Development in Africa. Economic Development in Africa Report 2020* (UNCTAD, 2020).
23. *Corporate Tax Rates Around the World* (Tax Foundation, 2020).
24. Green, J. F. *Global Policy* **12**, 372–379 (2021).
25. Islam, F. G7 tax deal doesn't go far enough, campaigners say. *BBC* https://go.nature.com/3DFDAfc (6 June 2021).
26. *Financial Integrity for Sustainable Development. Report of the High Level Panel on International Financial Accountability, Transparency and Integrity for Achieving the 2030 Agenda* (United Nations, 2021).
27. Ghosh, J. & Kvangraven, H. *No more Global Debt Inequalities* (Progressive International, 2021).
28. COVID-19 is a matter of life and debt, global deal needed. *UNCTAD* https://go.nature.com/3FxP98I (23 April 2020).
29. Munevar, D. *A Debt Pandemic: Dynamics and Implications of the Debt Crisis of 2020* (Eurodad, 2020).
30. The growing global South debt crisis and cuts in public spending. *Jubilee Debt Campaign* https://go.nature.com/3DF2RpM (9 January 2020).
31. Redo, D., Millington, A. C. & Hindery, D. *Land Use Policy* **28**, 227–241 (2011).
32. Kaimowitz, D., Ndoye, O., Pacheco, P. & Sunderlin, W. *Unasylva* **49**, 57–64 (1998).
33. Shandra, J. M., McKinney, L. A., Leckband, C. & London, B. *Hum. Ecol. Rev.* **17**, 18–33 (2010).
34. Svartzman, R. & Althouse, J. *Rev. Int. Polit. Econ.* https://doi.org/gkk4g9 (2020)
35. *African Economic Outlook 2021* (African Development Bank, 2021).
36. Daar, N. & Tamale, N. A Virus of Austerity? The COVID-19 spending, accountability, and recovery measures agreed between the IMF and your government. *Oxfam International* https://go.nature.com/3qTPjDn (12 October 2020).
37. Lienau, O. *Rethinking Sovereign Debt: Politics, Reputation, and Legitimacy in Modern Finance* (Harvard Univ. Press, 2014).
38. Dibley, A., Wetzer, T. & Hepburn, C. *Nature* **592**, 184–187 (2021).
39. Thomson, E. *Time for Change: Delivering Deforestation-Free Supply Chains* (Global Canopy, 2020).

Competing interests

The authors declare no competing interests.