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Exporting Extinction

How the international financial system
constrains biodiverse futures

Biodiversity Capital Research Collective

May 2024

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The Centre for Climate Justice (CCJ) at the University of British Columbia advances the urgent social, political, and economic changes necessary to address the climate crisis.

Climate and Community Institute (CCI) is a progressive climate and economy think tank.

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Executive Summary

Extractive activities are a main driver of biodiversity loss. This study of extractive sectors in 5 countries shows how the international financial and monetary system pressures governments to maintain and expand these sectors, despite state commitments to reduce drivers of biodiversity loss. Study results point to the critical need to address the political economic rules that constrain government action on biodiversity loss, particularly for states that must play by these rules but have little power to influence them.

For decades, policymakers have known the world is in the midst of escalating ecological crises, including an unprecedented deterioration of the abundance and diversity of life on Earth.¹ Yet international plans to halt the rapid erosion of biodiversity have consistently failed; none of the 196 government signatories to the Convention on Biological Diversity (CBD) achieved the 20 targets to which they committed in 2010.² Why do governments struggle to meet agreed-upon targets to protect and restore biodiversity?

Conventional rationales for these failures tend to focus on a lack of political will, financial resources, awareness, and capacity to implement decisions. International and national biodiversity policy documents, including the 2022 Kunming-Montreal Global Biodiversity Framework (GBF), often assume governments have autonomy to take action on biodiversity loss; that the issue is how biodiversity policy-making remains siloed in environmental ministries, and neglected in consequential national decisions on finance, industry, and trade.³ This report argues that these explanations are only part of the picture.

Across the planet, governments fail to meet biodiversity targets because the extraction that drives biodiversity loss continues. Extractive land use change — through industries like mining, oil and gas, forestry, and industrial agriculture — is estimated to drive up to 90 percent of biodiversity loss on land.⁴ The impacts of this land use change are also vastly uneven, often following patterns of extractivism, an economic development model based on largely unfettered resource exploitation with highly unequal distributions of benefits and impacts, both between and within the Global North and Global South.⁵ Despite these persistent conditions of extractivism, governments around the world continue to approve, subsidize, and expand the extractive developments that erode biodiversity. Domestic political agendas that privilege elite interests and extractive revenues play an important role in perpetuating these decisions. But less well-recognized is the role of structural, international political and economic pressures.

¹Convention on Biological Diversity (CBD), “Global Biodiversity Outlook 5,” CBD Secretariat, 2020, <https://www.cbd.int/gbo5/>; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), “Global Assessment Report on Biodiversity and Ecosystem Services,” IPBES Secretariat, 2019, <https://www.ipbes.net/global-assessment>.

²CBD, “Aichi Biodiversity Targets,” Strategic Plan For Biodiversity 2011–2020, including Aichi Biodiversity Targets, CBD, last modified September 18, 2020, <https://www.cbd.int/sp/targets/>; the Global Biodiversity Outlook 5 (2020) concludes that none of the 20 Aichi Targets were met, see: CBD, “Global Biodiversity Outlook 5,” Patrick Greenfield, “World Fails to Meet a Single Target to Stop Destruction of Nature — UN Report,” *The Guardian*, September 15, 2020, <https://www.theguardian.com/environment/2020/sep/15/every-global-target-to-stem-destruction-of-nature-by-2020-missed-un-report-aoe>.

³Penelope R. Whitehorn et al., “Mainstreaming Biodiversity: A Review of National Strategies,” *Biological Conservation* 235 (2019): 157–163, <https://doi.org/10.1016/j.biocon.2019.04.016>.

⁴Bruno Oberle et al., “Global Resources Outlook 2019: Natural Resources for the Future We Want,” International Resource Panel, United Nations Environment Programme, 2019, <https://wedocs.unep.org/handle/20.500.11822/27517?jsessionid=E7EF49BA01D9ED390B2FB949D5192554>.

⁵In this report we use the terms Global North and Global South, terms that imprecisely refer to economically wealthy, “developed” nations (North) and economically disadvantaged, sometimes termed “developing” or “Third World” nations (South). While imperfect, the terms do capture enduring uneven political economic processes. For a fulsome accounting of the variety of ways the term Global North and Global South are being used, see: Anne Garland Mahler, “Global South,” in *Oxford Bibliographies in Literary and Critical Theory*, ed. Eugene O’Brien, (Oxford, Oxford UP: 2017) <https://www.oxfordbibliographies.com/display/document/obo-9780190221911/obo-9780190221911-0055.xml>.

This report finds that while domestic policies support extractive sector expansion, these state decisions are often influenced by pressures stemming from the international monetary and financial system that make extraction necessary to maintain financial stability. The pressures of this system act on all states, but they are experienced unequally, such that countries with the least political economic power are often the most subject to external pressures. As a result, Global South governments, to a variety of degrees, are constrained in their ability to choose different policy pathways due to their position within the international financial and monetary system, under conditions of financial subordination. These conditions of subordination — in which many governments must contend with an economic and financial order over which they are structurally disadvantaged and politically marginalized — mean that states face exceptional pressure to remain in or expand their role as exporters of extractive commodities due to the heightened risk of financial instability.⁶ This report argues that these risks to financial stability, and their unequal application across countries, are underexplored drivers of global biodiversity loss.

This report finds that while domestic policies support extractive sector expansion, these state decisions are often influenced by pressures stemming from the international monetary and financial system that make extraction necessary to maintain financial stability.

Using the example of key extractive industries across 5 highly biodiverse Global South nations — Argentina, Colombia, the Democratic Republic of the Congo, Jamaica, and Papua New Guinea — this report explores how and why states further policy agendas that entrench and expand the industries that drive biodiversity loss. Each of these countries hosts biodiversity of global significance, but face powerful structural economic forces that incentivize the continuing destruction of biodiverse landscapes. In all the case studies, national governments recognize that their own export-oriented economic sectors are major drivers of extinction and ecological degradation. Yet these governments continue to encourage more metals mining, more industrial agriculture, and more fossil fuel development, while Indigenous Peoples, local communities, and entire nations often bear the harms of extraction with little economic benefit relative to the capital generated. While there are domestic drivers behind these policy decisions, often related to job creation and tax revenue, as well as issues of industry influence in regulatory regimes, this research reveals that the uneven structure of the global economy constrains what these Global South governments can do to address both economic development and ecological crises.

⁶According to Ilias Alami et al., international financial subordination is “a relation of domination, inferiority, and subjugation between different spaces across the world market, expressed in and through money and finance, which penalizes actors in [Developing and Emerging Economies] disproportionately. It expresses itself as constraints on the agency of a multiplicity of social actors, it is directly implicated in the geographical transfer of value across the world market, and it significantly contributes to broader patterns of uneven spatial development.” See: Ilias Alami et al., “International Financial Subordination: A Critical Research Agenda,” *Review of International Political Economy* 30, no. 4 (2023): 1360–1386, <https://doi.org/10.1080/09692290.2022.2098359>; Jeffrey Althouse and Romain Svartzman helpfully connect the dots between financial subordination and environmental change, see Jeffrey Althouse and Romain Svartzman, “Bringing subordinated financialisation down to earth: the political ecology of finance-dominated capitalism,” *Cambridge Journal of Economics* 46, no 4, (2022): 679–702. <https://doi.org/10.1093/cje/beac018>.

Overall, this report demonstrates how the international financial and monetary system exerts structural pressure on governments to maintain and expand these extractive sectors to maintain “investability,” to earn foreign exchange, and to comply with international financial institutions that manage economic crises. These pressures are structural in that, under this current system, acting otherwise would threaten the financial stability of many subordinated economies — stability that allows regular people to buy food and deposit their paychecks, and that allows governments to pay for key imports like technology and medicine. Consequently, there are significant conflicts between current approaches to creating financial stability and maintaining overall ecological stability. This precarious position drives subordinated states, in particular, to double down on export-oriented extractive industries such as mining, fossil fuels, and industrial agriculture, even against the mandates of their own citizens.

By constraining government policy options on extraction, the organization of the international financial system drives biodiversity loss. Increased Global South financing, domestic policy action, and government accountability are all necessary to reduce extraction. But the research collected here suggests that those efforts will struggle to succeed without action to overhaul the unequal structure of the global financial system. Only international efforts to address these conflicting priorities, undertaken in the spirit of solidarity and collective responsibility, will be able to transform these structures and make viable the path towards ecological stability.

Key Messages

Governments support extractive sectors, in part, because they are trying to attract foreign investment to their country and maintain investability.

While governments⁷ recognize their export-oriented sectors as drivers of biodiversity loss, this report finds that in all 5 cases, they support, enable, and incentivize those same export-oriented industries through domestic policies such as project approvals, subsidies, preferential tax treatment, and loosening environmental standards. They do this to attract and maintain foreign investment, with the aim of promoting development and maintaining financial stability. This reliance on investability can lead governments to favor the interests of extractive companies over the political, social, and environmental rights of their people (“regulatory capture”) or to weaken state responses due to fear of downgraded international credit ratings or international trade litigation (“regulatory chill”).

Governments also support extractive sector expansion and continuity to obtain foreign currency.

Governments need foreign currency — usually US dollars — to pay for key imports (including energy, food, machinery, technology, and medicines) and to service costly, and at times unfairly imposed, external debts. Exports are the key way that governments earn foreign currency, and in all cases the extractive sectors studied represented a significant proportion of total export earnings. In the current global political-economic system, declining exports and access to foreign currency can pose existential problems for governments. Without inflow of foreign currency, the country risks financial instability, including defaults, credit downgrading, and currency devaluations. While not excusing government inaction on human rights abuses or instances of regulatory capture, these conditions persistently limit what states can do to address environmental injustices despite being signatories to international agreements that demand biodiversity and climate action.

⁷In this report, “Governments” refers to the 5 case study countries. However, this research may have applicability to other countries and jurisdictions, including in the Global North.

International financial institutions (IFIs), such as the International Monetary Fund (IMF) and World Bank (WB), uphold the unequal structures that subordinate states, while often incentivizing and sometimes mandating policy choices that force austerity and supercharge extractivism.

When their economies are in crisis, Global South governments often turn to the IMF, WB, and other development banks to access capital and manage balance of payments. The IMF and WB approach to economic crises is to inject capital through loans to deal with immediate outstanding payments, but these loans often come with conditionalities that coerce states to cut public spending (austerity), increase productivity (particularly in export sectors), privatize or otherwise restructure state owned enterprises and other public goods like infrastructure, and quickly expand the economy. The austerity baked into many states due to decades of these neoliberal policies and conditionalities makes it challenging for governments to expand public institutions that could regulate extractive sectors and support alternative economic development. The structural imbalances in terms of power and representation in these governing bodies also mean that subordinated states have little recourse for reform or accessing expanded resources to choose paths beyond austerity and extractivism.

Under the current political economic system, the pursuit of financial stability pushes states towards extractivism, constrains policy options, and is in direct conflict with ecological stability.

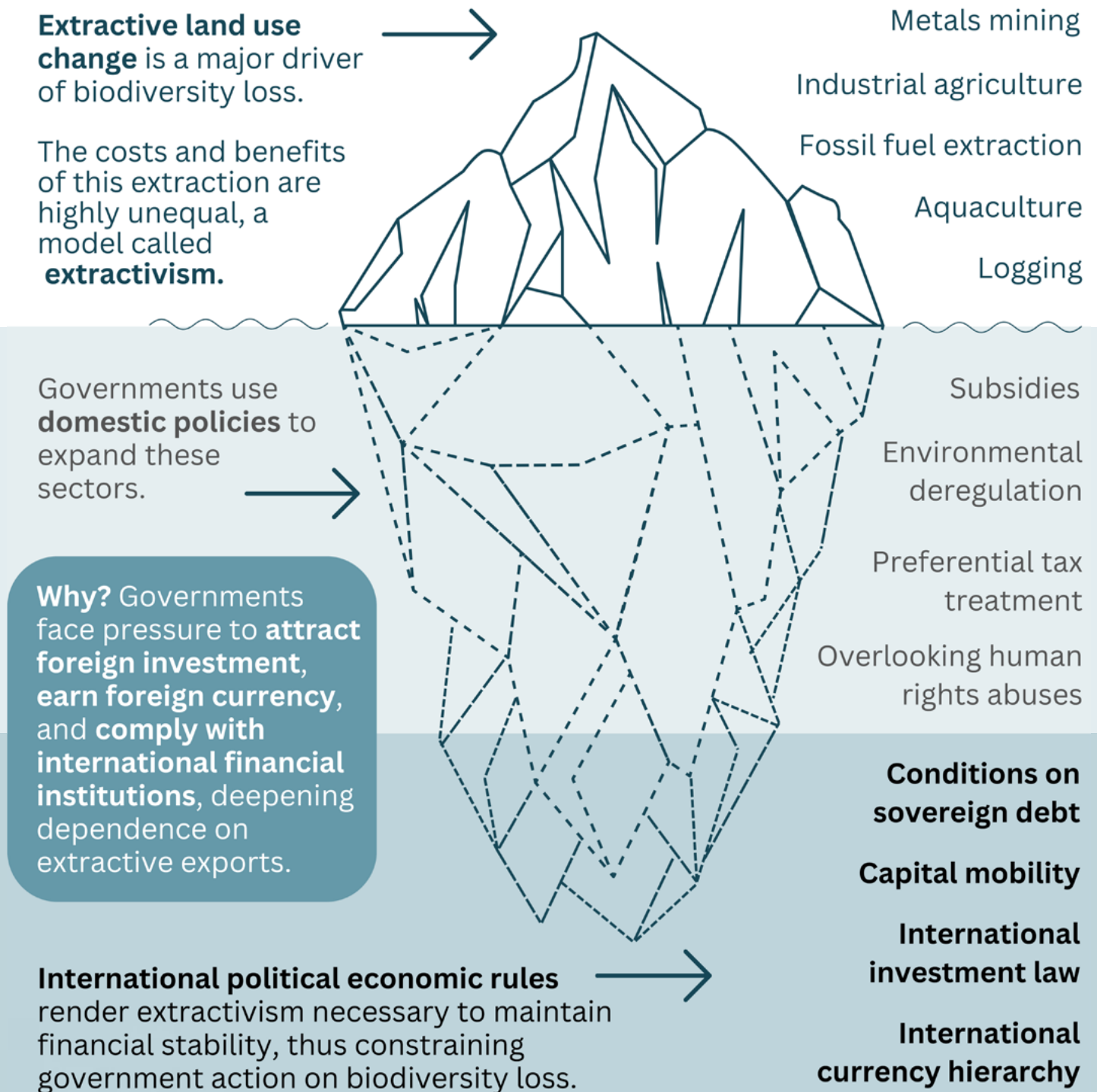
While pressures to maintain financial stability discipline all states, the policy options become even more limited in subordinated states: those structurally disadvantaged and subsequently facing ongoing economic instability and constant threat of credit ratings downgrades, currency fluctuations, capital flight, and loan defaults. Our case studies show that these conditions make it particularly challenging for governments to undertake policy action that would reduce extractivism, generating strong incentives to expand and deepen the industries most in conflict with countries' environmental objectives. As a result, governments make the same resource extraction decisions in order to maintain short-term financial stability, but at the expense of long-term ecological stability. To do otherwise — under current structures, and without more intentional efforts towards international solidarity and redistribution — would risk financial stability.

Yet in the domestic and international policy venues where biodiversity targets are debated, these international financial structures that expand extraction and constrain action on biodiversity loss and extinction remain largely off the table.

Without reckoning with these underlying and long-standing structures, and the ongoing extraction that they incentivize, states continue to be constrained in their abilities to meet biodiversity targets recently agreed upon in the Kunming-Montreal GBF. This points to the need to reevaluate current strategies for meeting biodiversity and climate objectives, and develop an agenda that can transform the pressures that continue to tip the scales towards extinction and ecological crisis.

Structural Drivers of Biodiversity Loss

This diagram shows how the pressures of the current international financial architecture are linked to domestic policies that drive biodiversity loss. Biodiversity policy must engage below the waterline to address these underlying drivers of extractivism.



Introduction

Diverse ecosystems are necessary for all life on Earth. In addition to supporting millions of species of unique life forms, these ecosystems filter water, cycle soil nutrients, buffer against storms and floods, and underpin the global carbon cycle.⁸ For Indigenous Peoples and other local communities, the unique species and ecosystems in their ancestral territories uphold lifeways, food and medicine sources, political and legal organization, and spiritual cosmologies.⁹ Biodiverse ecosystems make the world more lively, abundant, and resilient.

But these biodiverse ecosystems are quickly diminishing. Globally, biodiversity continues to be lost primarily through degradation of lands and waters.¹² Extraction — through industries like mining, oil and gas, forestry, and industrial agriculture — drives 90 percent of biodiversity loss.¹³ These extractive activities fragment habitat, pollute waterways, and degrade the landscapes that support life in biodiverse ecosystems while fraying the social fabric that underlies Indigenous and community stewardship.

These losses continue despite international efforts to halt biodiversity loss. In 2010, the world's governments agreed to 20 goals, known as the Aichi Biodiversity Targets,¹⁴ which resolved to address the underlying causes of biodiversity loss by 2020. **None of these targets were achieved.**



The extinction crisis

Biodiversity is declining at an unprecedented rate due to harmful human activities, including anthropogenic climate change.¹⁰ While there are multiple drivers of biodiversity loss, land use change is the primary driver of the global biodiversity crisis, threatening more species with extinction than all other threats combined.¹¹

In addition to declining diversity, the average abundance of mammals, birds, fish, reptiles, and amphibians has declined by 69 percent since 1970.

More than 40 percent of amphibian species, almost 33 percent of reef-forming corals, and more than a third of all marine mammals are threatened.

Land degradation has reduced the productivity of 23 percent of the global land surface, and up to USD 577 billion in annual global crops are at risk from pollinator loss, while 100 to 300 million people are at increased risk of floods and hurricanes due to loss of coastal habitats and protection.

⁸IPBES, “Global Assessment Report on Biodiversity and Ecosystem Services.”

⁹Patricia Balvanera et al. eds., “Methodological Assessment of the Diverse Values and Valuation of Nature of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services,” IPBES, 2022, <https://www.ipbes.net/the-values-assessment>; Nicole Redvers et al., “Indigenous Solutions to the Climate and Biodiversity Crises: A Reflection on UNDRIP,” *PLOS Global Public Health* 3, no. 6 (2023), <https://doi.org/10.1371/journal.pgph.0002060>.

¹⁰Unless otherwise specified, all statistics in this box are from: IPBES, “Global Assessment Report on Biodiversity and Ecosystem Services.”

¹¹Aaron S. Hogue and Kathryn Breon, “The Greatest Threats to Species,” *Conservation Science and Protection* 4, no. 5 (2022), <https://doi.org/10.1111/csp2.12670>; this research finds that 71 percent of the time habitat destruction was the the main factor pushing a species toward extinction, compared to 7 percent associated with overexploitation, 7 percent with invasive species, 5 percent with pollution, and 2 percent with climate change and weather.

¹²IPBES, “Global Assessment Report on Biodiversity and Ecosystem Services;” pollution, invasive species, and climate change are also leading drivers, according to intergovernmental scientific bodies.

¹³Oberle et al., “Global Resources Outlook 2019.”

¹⁴CBD, “Aichi Biodiversity Targets.”

Instead, states continued approving, subsidizing, and expanding the very extractive developments that are eroding wild abundance. From 1970 to 2017, the annual global extraction of materials grew from 27 billion tons to 92 billion tons, with the Global North consuming the vast majority of products made from those materials,¹⁵ while also capturing much of the wealth associated with their production.¹⁶ As such, even though biodiversity loss is most concentrated in the Global South, the drivers of landscape degradation and extinction often originate in the Global North.¹⁷ These are patterns of extractivism, a concept articulated by anti-colonial struggle in the Americas, which refers to a form of economic activity and organization that is based on unsustainable natural resource exploitation for export, with benefits largely accumulating far from the sites of extraction.¹⁸ Where these relations of extractivism are resisted, states often marginalize, criminalize, and police the people producing and defending biodiversity – including Indigenous Peoples.¹⁹

In the shadow of the Aichi target failures, governments concluded negotiations in 2022 for another set of targets under the Kunming-Montreal GBF that aim to protect and restore biodiversity and halt human-induced extinction by 2050.²⁰ Will things be different this time? Answering this question demands studying why previous efforts failed. **Why do governments struggle to meet agreed-upon targets to protect and restore biodiversity? What prevents governments from dismantling extractivism, with its known social and environmental costs?**

The most obvious rationale for governments' reinforcing investment in extractive industries that drive biodiversity loss is that the state, or powerful forces influencing it, economically benefits from that investment. In the short term, extractive sector development can create jobs and bring in state revenue, providing a response to poverty and recession, especially in moments of crisis.²¹ Extractive sectors also have powerful industry groups and domestic elites that lobby to advance their interests.²² This landscape of regulatory capture can help to explain the lack of political will to limit extractive development. Further, governments often pursue the expansion of extractive sectors to maintain legitimacy with segments of their own populations or influential domestic interests.²³

¹⁵Oberle et al., "Global Resources Outlook 2019."

¹⁶Partha Dasgupta and Simon Levin, "Economic Factors Underlying Biodiversity Loss," *Philosophical Transactions of the Royal Society B* 378 (2023), <https://doi.org/10.1098/rstb.2022.0197>.

¹⁷Dilys Roe et al., "Loss and Damage Finance Should Apply to Biodiversity Loss," *Nature Ecology & Evolution* 7 (2023): 1336–1338, <https://doi.org/10.1038/s41559-023-02088-8>; Rikard Warlenius, Gregory Pierce, and Vasna Ramasar, "Reversing the Arrow of Arrears: The Concept of 'Ecological Debt' and Its Value for Environmental Justice," *Global Environmental Change* 30 (2015): 21–30, <https://doi.org/10.1016/j.gloenvcha.2014.10.014>; Abhishek Chaudhary and Thomas M. Brooks, "National Consumption and Global Trade Impacts on Biodiversity," *World Development* 121 (2019): 178–187, <https://doi.org/10.1016/j.worlddev.2017.10.012>; Florence Pendrill et al., "Agricultural and Forestry Trade Drives Large Share of Tropical Deforestation Emissions," *Global Environmental Change* 56 (2019): 1–10, <https://doi.org/10.1016/j.gloenvcha.2019.03.002>; Jason Hickel, "Quantifying National Responsibility for Climate Breakdown: An Equality-Based Attribution Approach for Carbon Dioxide Emissions in Excess of the Planetary Boundary," *The Lancet Planetary Health* 4, no. 9 (2020): e399–404, [https://doi.org/10.1016/S2542-5196\(20\)30196-0](https://doi.org/10.1016/S2542-5196(20)30196-0); Jason Hickel et al., "National Responsibility for Ecological Breakdown: A Fair-Shares Assessment of Resource Use, 1970–2017," *The Lancet Planetary Health* 6, no. 4 (2022): e342–e349, [https://doi.org/10.1016/S2542-5196\(22\)00044-4](https://doi.org/10.1016/S2542-5196(22)00044-4).

¹⁸Alberto Acosta, "Extractivism and Neextractivism: Two Sides of the Same Curse," in *Beyond Development: Alternative Visions from Latin America*, eds. Miriam Lang and Dunia Mokrani (The Netherlands: Transnational Institute, 2013), 61–86, www.tni.org/files/download/beyonddevelopment_extractivism.pdf; E. Tendayi Achiume, "Global Extractivism and Racial Equality," United Nations Human Rights Office of the High Commissioner, 2019, <https://daccess-ods.un.org/tmp/7686581.6116333.html>; Thea Riofrancos, "Extractivism and Extractivismo," *Global South Studies: A Collective Publication with The Global South*, November 2020, <https://globalsouthstudies.as.virginia.edu/key-concepts/extractivism-and-extractivismo>.

¹⁹Arnim Scheidel et al., "Environmental Conflicts And Defenders: A Global Overview," *Global Environmental Change* 63 (2020), <https://doi.org/10.1016/j.gloenvcha.2020.102104>; Moises Arce and Camilo Nieto-Matiz, "Mining and Violence in Latin America: The State's Coercive Responses to Anti-Mining Resistance," *World Development* 173 (2024), <https://doi.org/10.1016/j.worlddev.2023.106404>.

²⁰"Kunming-Montreal Global Biodiversity Framework," Conference of the Parties to the CBD (2022), www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf.

²¹Though levies on extractive industries often do contribute substantial government revenue, the costs in terms of corporate tax evasion and environmental remediation can be far greater, see: Philippe Le Billon, "Extractive Sectors and Illicit Financial Flows: What Role for Revenue Governance Initiatives?" *Chr. Michelsen Institute U4* (2011): 13, www.cmi.no/publications/4248-extractive-sectors-and-illicit-financial-flows; Victor Galaz et al., "Tax Havens and Global Environmental Degradation," *Nature Ecology and Evolution* 2 (2018): 1352–1357, <https://doi.org/10.1038/s41559-018-0497-3>; Junior Davis et al., "Tackling Illicit Financial Flows for Sustainable Development in Africa. Economic Development in Africa Report 2020," United Nations Conference on Trade and Development (UNCTAD), 2020, https://unctad.org/system/files/official-document/aldcafrica2020_en.pdf.

²²For example, see: Fergus Green and Neal Healy, "How Inequality Fuels Climate Change: The Climate Case for a Green New Deal,"

But these explanations centered on domestic rationales neglect the role of international pressures that influence, and at times dictate, state policy. This study of key extractive sectors driving biodiversity loss in 5 Global South countries — Argentina, Colombia, the Democratic Republic of the Congo (DRC), Jamaica, and Papua New Guinea (PNG) — places these global dynamics center stage to better understand how they are related to biodiversity goals and targets. **While domestic policies support extractive sector expansion, this study finds that this expansion is also driven by a need to maintain financial stability within the international monetary and financial system.**

The subordinate position of many Global South states, including the case study countries, means they are structurally incentivized to remain in their role as exporters of extractive commodities due to the threat of credit ratings downgrades, capital flight, and subsequent financial instability. That is, the pressures of an unequal economic system often push governments towards the same resource extraction-focused decisions in order to maintain financial stability — even where those decisions scarcely and unevenly serve conventional objectives of economic development, like jobs or increased government revenue. While these pressures are present in most economies, they often take on their most violent and unequal form in economies that have been made structurally dependent upon those industries through processes of colonialism and imperialism. **These governments' policy autonomy to choose differently is constrained by the structure of the international financial and monetary system,²⁴ under conditions of financial and political subordination.** These findings show that the unequal international financial and monetary system plays a significant and under-recognized role in driving biodiversity loss, despite international efforts to protect biodiversity.

These findings show that the unequal international financial and monetary system plays a significant and under-recognized role in driving biodiversity loss, despite international efforts to protect biodiversity.

One Earth 5, no. 6 (2022): 635–649, <https://doi.org/10.1016/j.oneear.2022.05.005>; Fred S. McChesney, *Money for Nothing: Politicians, Rent Extraction, and Political Extortion* (Cambridge: Harvard University Press, 1997); Michael A. Long et al., “Crime in the Coal Industry: Implications for Green Criminology and Treadmill of Production,” *Organization & Environment* 25, no. 3 (2012): 328–346, <https://doi.org/10.1177/1086026612452266>; Adam Lucas, “Investigating Networks of Corporate Influence on Government Decision-Making: The Case of Australia’s Climate Change and Energy Policies,” *Energy Research & Social Science* 81 (2021), <https://doi.org/10.1016/j.erss.2021.102271>; Jennifer Clapp and Doris Fuchs, eds., *Corporate Power in Global Agrifood Governance* (Cambridge: MIT Press, 2009).

²³Carl Folke et al., “Transnational Corporations and the Challenge of Biosphere Stewardship,” *Nature Ecology & Evolution* 3, no. 10 (2019): 1396–1403, <https://doi.org/10.1038/s41559-019-0978-z>; John Virdin et al., “The Ocean 100: Transnational Corporations in the Ocean Economy,” *Science Advances* 7, no. 3 (2021), <https://doi.org/10.1126/sciadv.abc8041>; João Augusto Alves Meira-Neto and Andreza Viana Neri, “Appealing the Death Sentences of the Doce, São Francisco, and Amazonas Rivers: Stopping the Mining Lobby and Creating Ecosystem Services Reserves,” *Perspectives in Ecology and Conservation* 15, no. 3 (2017): 199–201, <https://doi.org/10.1016/j.pecon.2017.06.008>.

²⁴The international financial and monetary system describes a set of institutions and arrangements that govern transactions in goods, services, and financial instruments between countries. This system was formalized under the Bretton Woods System in the immediate post-World War II period, which pegged global currencies to the US dollar. The IMF, World Bank, and World Trade Organization (referred to as the Bretton Woods Institutions) govern the terms of trade and establish the conditions under which states can access capital.



Biodiversity governance: National approaches to an international issue

The Convention on Biological Diversity (CBD) is an international treaty signed by 196 states with 3 objectives: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

International biodiversity governance functions similarly to the UN's climate change negotiation process in that it relies upon party governments to report their own progress. Each Party (government signatory) to the UN CBD produces National Biodiversity Strategies and Action Plans (NBSAPs) that establish a framework for governments to commit to biodiversity conservation and sustainable use in line with international targets — similar to Nationally Determined Contributions (country-level greenhouse gas targets under the UN climate process).

NBSAPs are a core tool of the current international biodiversity governance system. They include a summary of each nation's data on biodiversity trends and the ecosystem functions it upholds, as well as analyses of the obstacles and pathways forward for biodiversity conservation.

NBSAPs have a low rate of success at shifting national biodiversity outcomes. Many states lack the political capacity or will to update them,²⁵ making the NBSAPs on their own a weak tool to improve ecological and social outcomes.²⁶ The gaps within these documents reveal broader issues with the dominant paradigm of ecological governance — NBSAPs address only national priorities, but most lack analysis of the underlying international systems that make extractivism so hard to uproot.²⁷ This report addresses this gap through examining the export sectors of several states that have been linked to high levels of ecological disruption.

²⁵Guido Schmidt-Traub, "National Climate and Biodiversity Strategies Are Hamstrung by a Lack of Maps," *Nature Ecology & Evolution* 5, no. 10 (2021): 1325–1327, <https://doi.org/10.1038/s41559-021-01533-w>; Whitehorn et al., "Mainstreaming Biodiversity: A Review of National Strategies."

²⁶Yves Zinngrebe, "Planning for Implementation: Shifting the Focus of National Biodiversity Strategies to Local Narratives, Existing Institutional Settings, and Social Capital," *Sustainability* 15, no. 12 (2023), <https://doi.org/10.3390/su15129774>.

²⁷Balakrishna Pisupati and Christian Prip, "Interim Assessment of Revised National Biodiversity Strategies and Action Plans (NBSAPs)," UNEP WCMC and Fridtjof Nansen institute, 2015, www.unep.org/resources/report/interim-assessment-revised-national-biodiversity-strategies-and-action-plans; Zinngrebe, "Planning for Implementation;" Brian Coffey et al., "Assessing Biodiversity Policy Designs in Australia, France, and Sweden. Comparative Lessons for Transformative Governance of Biodiversity?" *Journal of Environmental Policy & Planning* 25, no. 3 (2023), <https://doi.org/10.1080/1523908X.2022.2117145>.

Research approach: Placing biodiversity loss in the extractive global economy

Given that biodiversity loss is largely driven by resource extraction, any serious effort to slow these losses must involve some reduction in extraction.²⁸ Yet, as seen in the last decade of missed targets, governments are failing to take these necessary actions. Why does resource extraction remain so prominent, despite government commitments? To build a more robust understanding of what is driving these failures, this research sought to understand the political economic factors maintaining key resource sectors associated with significant biodiversity loss in 5 highly biodiverse countries with varying levels of income in the Global South: Argentina, Colombia, the Democratic Republic of the Congo (DRC), Jamaica, and Papua New Guinea (PNG).

What are the impacts of the sector in the country? What government policies exist to support the sector?

The first step was identifying a major export sector implicated in biodiversity loss for each country (see Table 1, column 2) and conducting a literature review on that sector in the country to understand a) the environmental, social, and economic impacts and b) government policies related to the sector. This research revealed that these sectors are supported by a range of domestic actions (see Table 1, column 4 for some examples) in conflict with international social and environmental goals. That is, while CBD targets suggest that governments must be hard at work reining in the environmental impacts of activities such as mining and unsustainable agriculture, in reality governments are actively expanding extraction by approving extractive developments, reducing barriers to investment and, at times, even subsidizing it.

Why do governments support these sectors? What stops them from reducing the impacts of the sector?

The next step was to query the literature to understand a) why governments expand these sectors, and b) what prevents them from reining in the known biodiversity-adverse impacts. This step involved reviewing histories of the sector in the country, including its relationships to international financial institutions and macroeconomic dynamics. At each step of the process, researchers drew from a combination of academic, government, and gray literature.

The case studies present a condensed version of the research findings, honing in on 1 or 2 significant domestic policy examples that drive extraction and the international pressures that underlie them. It is important to note that the specific extractive sectors this report explores are not the only factors driving biodiversity loss, and that these case studies do not provide comprehensive analyses of the histories, political contexts, and ecological dynamics of each country. The case studies are not prescriptive about how to address the impacts of any particular sector in the country, rather, they aim to understand the broader political-economic dynamics impeding action on biodiversity loss, which must be better understood if countries are going to meet biodiversity objectives. Each case study underwent review from at least 2 reviewers with country-level expertise (see Appendix A).

²⁸According to the UN Environment's Global Resources Outlook (2019), the extraction and processing of natural resources contributes to over 90 percent of global biodiversity loss and water stress impacts, see: Oberle et al., "Global Resources Outlook 2019."

Table 1. Case studies

Country	Sector focus for case study (evidence of impact on biodiversity cited in the footnotes)	Percentage of export revenue (2018-2022 average) ²⁹	Examples of domestic actions that have supported this sector
Argentina	Industrial soy agriculture ³⁰	25%	Dissolution of agricultural regulatory boards, dismantling of national forest conservation agency, preferential exchange rates for soy exports
Colombia	Fossil fuels, including coal ³¹	50% for fossil fuels, 18% for coal	Entered into international investment treaties that protect ongoing extraction, increased mining titles for coal
Democratic Republic of the Congo (DRC)	Metals mining ³²	84%	Resource-backed loan agreements that expand mining, failure to enforce laws meant to prevent forced evictions due to mine expansion
Jamaica	Bauxite and alumina ³³	42%	Mine approvals in a highly biodiverse region, opposing community concerns of constitutional violations related to the mine, appealing court injunctions pausing mine construction
Papua New Guinea (PNG)	Metals mining, oil and gas ³⁴	82%	Preferential tax treatment for extractive sectors, re-opening gold mine closed due to environmental and social concerns

²⁹"Profiles: Countries," OEC, accessed March 18, 2024, <https://oec.world/en>; See Appendix B.

³⁰"Estrategia Nacional Sobre La Biodiversidad Plan de Acción 2016-2020," República Argentina, 2017, www.cbd.int/doc/world/ar/ar-nbsap-v2-es.pdf; Florence Pendrill et al., "Disentangling the Numbers Behind Agriculture-Driven Tropical Deforestation," *Science* 377, no. 6611 (2022), [www.doi.org/10.1126/science.abm9267](https://doi.org/10.1126/science.abm9267); Verena Fehlenberg et al., "The Role of Soybean Production as an Underlying Driver of Deforestation in the South American Chaco," *Global Environmental Change* 45 (2017): 24-34, <https://doi.org/10.1016/j.gloenvcha.2017.05.001>; Xiao-Peng Song et al., "Massive Soybean Expansion in South America Since 2000 and Implications for Conservation," *Nature Sustainability* 4 (2021): 784-792, <https://doi.org/10.1038/s41893-021-00729-z>.

- ³¹Andrea Cardoso, "Behind the Life Cycle of Coal: Socio-Environmental Liabilities of Coal Mining in Cesar, Colombia," *Ecological Economics* 120 (2015): 71–82, <https://doi.org/10.1016/j.ecolecon.2015.10.004>; Marcos L. S. Oliveira et al., "Environmental Impacts of Coal Nanoparticles from Rehabilitated Mine Areas in Colombia," *Sustainability* 14, no. 8 (2022), <https://doi.org/10.3390/su14084544>; Catalina Vasquez-Carrillo and Kathleen Sullican Sealey, "Biodiversity of Upwelling Coastal Systems of the Southern Caribbean Sea Adjacent to Guajira Peninsula," *Journal of Marine Science and Engineering* 9, no. 8 (2021), <https://doi.org/10.3390/jmse9080846>; Andrés González-González, Nicola Clerici, and Benjamin Quesada, "Growing Mining Contribution to Colombian Deforestation," *Environmental Research Letters* 16, no. 6 (2021), [www.doi.org/10.1088/1748-9326/abfcf8](https://doi.org/10.1088/1748-9326/abfcf8).
- ³²"National Biodiversity Strategic Action Plan: Democratic Republic of the Congo," DRC: Ministry of the Environment, Conservation of Nature and Sustainable Development, 2016, www.cbd.int/doc/world/cd/cd-nbsap-v3-fr.pdf; Benjamin K. Sovacool, "The Precarious Political Economy of Cobalt: Balancing Prosperity, Poverty, and Brutality in Artisanal and Industrial Mining in the Democratic Republic of the Congo," *The Extractive Industries and Society* 6, no. 3 (2019): 915–39, <https://doi.org/10.1016/j.exis.2019.05.018>; David P. Edwards et al., "Mining and the African Environment," *Conservation Letters* 7, no. 3 (2013), <https://doi.org/10.1111/conl.12076>; Giuseppe Molinaro et al., "Contextualizing Landscape-Scale Forest Cover Loss in the Democratic Republic of Congo (DRC) Between 2000 and 2015," *Land* 9, no. 1 (2020): 1–22, <https://doi.org/10.3390/land9010023>.
- ³³Bauxite is the primary ore used in making aluminum. After it is mined, the ore is dehydrated, refined into aluminum oxide (alumina), and finally smelted into aluminum through a chemical and energy-intensive process; Planning Institute of Jamaica, "Vision 2030 Jamaica," (Kingston: Planning Institute of Jamaica, 2018), 260, www.pioj.gov.jm/wp-content/uploads/2019/08/MTF-2018-2021-March-2019.pdf; Jamaica Environment Trust, *Red Dirt: A Multidisciplinary Review of the Bauxite-Alumina Industry in Jamaica*, (Kingston: Jamaica Environment Trust (JET), 2020), <https://jamentrust.org/download/jet-red-dirt-book/>; Dionne Newell, "Fifth National Report for the NBSAP Project," National Environment and Planning Agency, 2015, www.cbd.int/doc/world/jm/jm-nr-05-en.pdf; Christer Berglund and Tommy Johansson, "Jamaican Deforestation and Bauxite Mining — The Role of Negotiations for Sustainable Resource Use," *Minerals & Energy* 19, no. 3 (2004): 2–14, <https://doi.org/10.1080/14041040310034383>; Madeline Lorch Tramm, "Multinationals in Third World Development: The Case of Jamaica's Bauxite Industry," *Caribbean Quarterly* 23, no. 4 (1977): 1–16, www.jstor.org/stable/40653340.
- ³⁴Thomas H. White, Jr. et al., "Quantifying Threats to Biodiversity and Prioritizing Responses: An Example from Papua New Guinea," *Diversity* 13, no. 6 (2021), <https://doi.org/10.3390/d13060248>; Stefan Giljum et al., "A Pantropical Assessment of Deforestation Caused by Industrial Mining," *PNAS* 119, no. 38 (2022), <https://doi.org/10.1073/pnas.2118273119>; Michael Haywood et al., "Mine Waste Disposal Leads to Lower Coral Cover, Reduced Species Richness, and a Predominance Of Simple Coral Growth Forms on a Fringing Coral Reef in Papua New Guinea," *Marine Environmental Research* 115 (2016): 36–48, <https://doi.org/10.1016/j.marenvres.2016.02.003>; J. Hettler, G. Irion, and B. Lehmann, "Environmental Impact of Mining Waste Disposal on a Tropical Lowland River System: a Case Study on the Ok Tedi Mine, Papua New Guinea," *Mineralium Deposita* 32 (1997): 280–291, <https://link.springer.com/article/10.1007/s001260050093>.



Argentina

Argentina's expanding soy sector drives deforestation and biodiversity loss, threatening Indigenous rights and livelihoods. In spite of this, the government pursues soy export revenues to try to regain financial stability in the context of high external debt and inflation.

Argentina is one of the most biodiverse countries in the world, spanning 18 distinct ecoregions from the subtropics to Antarctica. However, native forests and wetlands are rapidly disappearing, primarily due to land use change.³⁵ Clearing forested land for industrial agriculture and livestock grazing continues to result in vast land use shifts, ecosystem destabilization, and biodiversity loss. In one of the least protected ecoregions of Argentina, for example, the expansion of croplands drove a 60 percent loss of native forests between 1987 and 2009, with drastic impacts on wetland, grassland, and shrubland forest ecosystems.³⁶ Between 2014 and 2019, an estimated 1,145,000 hectares of native forests across Argentina (the size of the island of Hawai'i) were lost.³⁷

Industrial soybean production is a major driver of this land use change; 33 percent of Argentina's total deforestation was linked to soy cultivation from the years 2005 to 2013.³⁸ This deforestation has displaced Indigenous and rural populations,³⁹ contaminated water and soil due to agrichemical fumigations,⁴⁰ and concentrated land ownership and wealth.⁴¹ One result is that, despite living in a highly fertile country with nearly half of its land devoted to agriculture,⁴² over 40 percent of Argentines live below the poverty line and struggle with high food prices.⁴³ Latin American biodiversity advocacy coalition La Alianza Biodiversidad also reports that 20 years of expanding agricultural exports has coincided with escalating cases of rural residents

³⁵"Estrategia Nacional Sobre La Biodiversidad Plan de Acción 2016–2020," República Argentina, 2017, www.cbd.int/doc/world/ar/ar-nbsap-v2-es.pdf.

³⁶Bárbara Guida-Johnson and Gustavo A. Zuleta, "Land-Use Land-Cover Change and Ecosystem Loss in the Espinal Ecoregion, Argentina," *Agriculture, Ecosystems & Environment* 181 (2013): 31–40, <https://doi.org/10.1016/j.agee.2013.09.002>.

³⁷Emily Myron, Catherine Fabiano, and Heena Ahmed, "International Outlook for Privately Protected Areas, Country Profile: Argentina," International Land Conservation Network (a project of the Lincoln Institute of Land Policy), United Nations Development Programme, 2019, 3, https://landconservationnetwork.org/wp-content/uploads/2022/09/Argentina20Country20Profile20on20Privately20Protected20Areas_7_24_2019-1.pdf.

³⁸Florence Pendrill et al., "Deforestation Displaced: Trade in Forest-Risk Commodities and the Prospects for a Global Forest Transition," *Environmental Research Letters* 14, no. 5 (2019): Figure 3, <https://doi.org/10.1088/1748-9326/ab0d41>; see also: Pendrill et al., "Disentangling the Numbers Behind Agriculture-Driven Tropical Deforestation," Verena Fehlenberg et al., "The Role of Soybean Production as an Underlying Driver of Deforestation in the South American Chaco," *Global Environmental Change* 45 (2017): 24–34, <https://doi.org/10.1016/j.gloenvcha.2017.05.001>; Xiao-Peng Song et al., "Massive Soybean Expansion in South America since 2000 and Implications for Conservation," *Nature Sustainability* 4 (2021): 784–792, <https://doi.org/10.1038/s41893-021-00729-z>.

³⁹Daniel M. Cáceres, "Accumulation by Dispossession and Socio-Environmental Conflicts Caused by the Expansion of Agribusiness in Argentina: Accumulation by Dispossession and Agribusiness in Argentina," *Journal of Agrarian Change* 15, no. 1 (2015): 116–47, <https://doi.org/10.1111/joac.12057>; María Vallejos et al., "'Winners' and 'Losers' of the Agricultural Expansion in the Argentine Dry Chaco," *Landscape Research* 47, no. 6 (2022): 723–734, <https://doi.org/10.1080/01426397.2020.1808965>.

⁴⁰Walter A. Pengue, "Transgenic Crops in Argentina: The Ecological and Social Debt," *Bulletin of Science, Technology & Society* 25, no. 4 (2005): 314–22, <https://doi.org/10.1177/0270467605277290>.

⁴¹The top 10 percent of income-earners control nearly half of national annual wealth, and between 2004 and 2010, the area of land controlled by combined foreign–domestic ventures increased by 133 percent, see: Lucas Chancel et al., "World Inequality Report 2022: Country Sheets," World Inequality Lab, 2022, https://wir2022.wid.world/www-site/uploads/2021/12/CountrySheets_WorldInequalityReport2022_-_WorldInequalityLab_7Dec.pdf; Miguel Murmis and María R. Murmis, "Land Concentration and Foreign Land Ownership in Argentina in the Context of Global Land Grabbing," *Canadian Journal of Development Studies / Revue Canadienne d'études Du Développement* 33, no. 4 (2012): 490–508, <https://doi.org/10.1080/02255189.2012.745395>.

⁴²"Agricultural land (% of land area) — Argentina," World Bank Open Data, accessed January 24, 2024, <https://data.worldbank.org/indicator/AG.LND.AGRI.ZS?locations=ar>.

⁴³"UCA Report Puts Poverty Rate at 43.1%," *Buenos Aires Times*, June 12, 2022, www.batimes.com.ar/news/argentina/uca-report-puts-argentinass-poverty-rate-at-431.html; Thin Lei Win and Natalia Favre, "Top Food Exporter Argentina Confronts Rising Hunger and Poverty," *The New Humanitarian*, February 9, 2023, www.thenewhumanitarian.org/analysis/2023/02/09/Argentina-food-hunger-poverty-hyperinflation.

murdered over contested land⁴⁴ — including Miguel Galván, a peasant farmer and member of the Lule Villela Indigenous community, who was alleged to be murdered by a hitman contracted by soy industrialists in 2012 for refusing to give up land to soy cultivation.⁴⁵

Despite these impacts, between the 1990s and 2023, Argentine governments across political affiliation have intentionally expanded the footprint of the soy industry.⁴⁶ For example, in agricultural regions such as Córdoba, agricultural land expanded by 229 percent in 2 decades (1995–2015);⁴⁷ soy now accounts for 60 percent of crops.⁴⁸ This dramatic expansion of the soy sector came about in part because agribusiness exports brought in a major new source of government revenue and promised to contribute to overall economic growth.⁴⁹ These domestic benefits, and the political blocs that most benefit from them (such as agribusiness and landowners),⁵⁰ are one reason why consecutive governments have doubled down on their support for this sector and failed to mitigate its negative outcomes.

But in addition to domestic benefits, Argentina's soy sector is deemed necessary because the country occupies a precarious position in the global economy: it relies heavily on commodity exports, its monetary system is dependent on US dollars, it carries a high external debt load, and it faces continual restructuring mandates from financial institutions like the International Monetary Fund (IMF). In its National Biodiversity Strategies and Action Plan (NBSAP), Argentina's government recognizes the difficulty of reining in the social and ecological impacts of the soy industry, pointing to debt as a barrier to achieving conservation targets.⁵¹ This case study elaborates how and why international economic pressures shape Argentina's ability to address the impacts of land use intensive commodity exports.

Argentina incentivizes investment in agribusiness in order to repay foreign debts

The vast majority of agriculturally driven deforestation in Argentina is linked to consumption abroad rather than domestic food production, with an estimated 85 percent of these exports destined for animal feed.⁵² According to one analysis, crop exports accounted for 76 percent of deforestation in Argentina between 2005 and 2013.⁵³

Why would Argentina sacrifice this land, and the diverse life it supports, to export soy abroad? One reason is that soy products are the largest export by value: for the years 2018–2022 soy exports totaled approximately 25 percent of total export revenue (see Table 1). Soy exports bring in foreign currency — most significantly

⁴⁴Pablo Barbetta, Diego Dominguez, and Pablo Sabatino, "Argentina — Día Internacional de la Lucha Campesina: Globalizando la Lucha, Globalizando la Esperanza," Biodiversidad en América Latina, April 18, 2016, www.biodiversidadla.org/Documentos/Argentina_-_Dia_internacional_de_la_lucha_campesina_globalizando_la_lucha_globalizando_la_esperanza.

⁴⁵Darío Aranda, "Argentina: El Modelo Sumó Otra Víctima," Biodiversidad en América Latina, October 11, 2012, https://www.biodiversidadla.org/Noticias/Argentina_El_modelo_sumo_otra_victima.

⁴⁶Amalia Leguizamón, "Modifying Argentina: GM Soy and Socio-Environmental Change," *Geoforum* 53 (May 1, 2014): 149–60, <https://doi.org/10.1016/j.geoforum.2013.04.001>.

⁴⁷Sujan Pal et al., "Investigating the Effects of Land Use Change on Subsurface, Surface, and Atmospheric Branches of the Hydrologic Cycle in Central Argentina," *Water Resources Research* 57, no. 11 (2021), <https://doi.org/10.1029/2021WR029704>.

⁴⁸Pal et al., "Investigating the Effects of Land Use Change on Subsurface, Surface, and Atmospheric Branches of the Hydrologic Cycle in Central Argentina."

⁴⁹Leguizamón, "Modifying Argentina: GM Soy and Socio-Environmental Change."

⁵⁰Tasha Fairfield, "Business Power and Protest: Argentina's Agricultural Producers Protest in Comparative Context," *Studies in Comparative International Development* 46, no. 4 (December 2011): 424–53, <https://doi.org/10.1007/s12116-011-9094-z>; Geneva M. Smith, "Blighted Futures: The Soybean Assemblage and Argentina's Agro-Extractive Turn," *Geoforum* 141 (May 2023): 103717, <https://doi.org/10.1016/j.geoforum.2023.103717>.

⁵¹"Estrategia Nacional Sobre La Biodiversidad Plan de Acción 2016–2020."

⁵²Vivek Voora, Cristina Larrea, and Steffany Bermúdez, "Global Market Report: Soybeans," International Institute of Sustainable Development, 2020, www.iisd.org/publications/report/global-market-report-soybeans.

⁵³Pendrill et al., "Deforestation Displaced."

USD, the most common currency involved in trade worldwide.⁵⁴ In 2022, over 90 percent of Argentina's public and publicly guaranteed debt was denominated in USD.⁵⁵ Foreign exchange earnings, particularly USD, are needed to repay external debts and recharge government currency reserves, such that soy expansion has been pursued explicitly to fund ongoing debt servicing obligations.

Argentina has faced decades of recurrent debt and inflation crises, which have deepened its dependence on exports. In this century alone, Argentina has defaulted on its debt 3 times,⁵⁶ requiring assistance conditional upon the mandates of external creditors such as the IMF. These obligations to external creditors have driven the government to pursue economic development that prioritizes foreign exchange earnings from export commodities.⁵⁷ The dependence on the soy sector has endured all the way up until the most recent IMF loan negotiations: the 2022 deal, which included an additional loan package of USD 44 billion, was negotiated in exchange for “a carefully calibrated set of economic policies” that hinges on “fiscal consolidation,”⁵⁸ and currency reserve accumulation targets from exports, much of which is expected to come from agricultural products, particularly soy.⁵⁹ This deal also means that onerous payments on debt will continue to rise, with a projected peak in 2030.⁶⁰

Without significant international policy shifts, the government of Argentina will likely be unable to meet agreed-upon biodiversity targets while their international financial obligations necessitate the continued expansion of extractive land use.

⁵⁴Francesco Guerrera, “Why the Dollar Keeps Winning in the Global Economy,” *Reuters*, February 28, 2023, www.reuters.com/breakingviews/global-markets-breakingviews-2023-02-28/.

⁵⁵“2023 International Debt Statistics: Argentina” World Bank, 2023, <https://datatopics.worldbank.org/debt/ids/country/arg/counterpartarea/wld>.

⁵⁶Angelos Delivorias, “Argentina's Debt Restructuring and Economy Ahead of the 2023 Elections,” European Parliamentary Research Service, September 2023, [www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2023\)753938](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2023)753938).

⁵⁷Aín Mora et al., “La Deuda Externa y La Deuda Ecológica, Dos Caras de La Misma Moneda: El Intercambio Ecológicamente Desigual Entre La Argentina y El Resto Del Mundo,” *Cuadernos de Economía Crítica* 7, no. 13 (2021): 39–64, <https://www.redalyc.org/journal/5123/512365123003/html/>.

⁵⁸“IMF Executive Board Approves 30-month US\$44 billion Extended Arrangement for Argentina and Concludes 2022 Article IV Consultation,” International Monetary Fund, March 25, 2022, www.imf.org/en/News/Articles/2022/03/25/pr2289-argentina-imf-exec-board-approves-extended-arrangement-concludes-2022-article-iv-consultation.

⁵⁹This target has been moving with the IMF adjusting due to deteriorating financial and ecological (drought) conditions in Argentina; see: Rodrigo Campos, Jorgelina do Rosario, and Jorge Otaola, “IMF Lowers Argentina's Reserves Target to \$8 Bln as Farm Income Hit,” *Reuters*, April 3, 2023, www.reuters.com/article/argentina-imf-idUSL1N3662R4/; Jorgelina Do Rosario and Jorge Otaola, “Exclusive: Argentina in Talks with IMF to Ease Reserves Targets Amid Drought,” *Reuters*, February 25, 2023, www.reuters.com/world/americas/argentina-talks-with-imf-ease-reserves-targets-amid-drought-sources-2023-02-25/; Jorgelina Do Rosario and Rodrigo Campos, “IMF's Lower Bar for Argentina Already Looks Too High,” *Reuters*, April 5, 2023, www.reuters.com/world/americas/imfs-lower-bar-argentina-already-looks-too-high-2023-04-05/; Rodrigo Campos, “IMF Lowers Argentina's Net Reserves Accumulation target to \$8 Bln for End-2023,” *Reuters*, April 3, 2023, www.nasdaq.com/articles/imf-lowers-argentinas-net-reserves-accumulation-target-to-%248-bln-for-end-2023; Patrick Gillespie and Scott Squires, “Argentina to Change IMF Net Reserve Target for Third Time,” *Buenos Aires Times*, February 26, 2023 www.batimes.com.ar/news/economy/argentina-to-change-imf-net-reserve-target-for-third-time.phtml.

⁶⁰Paula Diosque-Rice, “Argentina's Balance Between Debt and Fiscal Management and Electoral Objectives In 2023,” S&P Global Market Intelligence, last modified March 20, 2023, www.spglobal.com/marketintelligence/en/mi/research-analysis/argentinas-balance-between-debt-and-fiscal-management-and-elec.html.

The centrality of soy to this financial arrangement can be seen in recent government policies. In September 2022, and then again in March 2023, then-Minister of Economy Sergio Massa released the “soy dollar” through Decree 576/2022 — a preferential exchange rate (i.e., giving away more pesos per dollar) for soy product exports, meant to increase foreign exchange flowing into the country.⁶¹ These foreign exchange earnings are so crucial to the Argentine economy that the government is willing to give money away in order to keep exports flowing. Without significant international policy shifts, the government of Argentina will likely be unable to meet agreed-upon biodiversity targets while their international financial obligations necessitate the continued expansion of extractive land use.

International financial institution policy supercharged agribusiness

How did Argentina end up with a financial model that is so dependent on sectors that erode social and ecological fabric? Part of the answer is that many previous debt crises were met with policy responses that increased liberalization in search of capital investment — a strategy for attracting private capital into export sectors to regain financial stability. One of the most significant of these expansions came in the 1990s, when Argentina’s government responded to a financial crisis by doubling down on low-value-added primary production (such as soybeans) to attract capital in line with the Non-Traditional Agro-Export (NTAE) production model of the Washington Consensus.⁶²

This suite of policy prescriptions from the IMF and World Bank (WB) promoted deregulation in moments of crisis in order to increase financial investment.⁶³ Under the guidance of the WB, Argentina carried out structural reforms to attract foreign investment while reducing regulations and public spending.⁶⁴ As part of this project, the government dissolved all agricultural regulatory boards, including dismantling the national forest conservation agency⁶⁵ in favor of enabling more profitable land use.⁶⁶ What followed was the expansion of deregulated timber and soya plantations, which led to 11,000,000 hectares of land enrolled in soy production by 2005.⁶⁷ This land transition both displaced more diverse farming methods, and led to the mass deforestation of Gran Chaco and degradation of the biodiverse Pampas grasslands.⁶⁸ Overall, this period of increased soy cultivation led to a significant land use change.⁶⁹

This dependence on exports also exposes the economy to the volatility of global commodity prices.⁷⁰ Hyperinvesting in these commodities as a play for financial stability means that when prices slump or when crop yields are low (as with the drought of 2023⁷¹), crisis conditions deepen, and states are often pressured to further roll back public programs while increasing investability in export sectors. For example, sinking

⁶¹Maximilian Heath, “Argentina’s Latest ‘Soy Dollar’ Scheme Sees Few Takers on First Day,” *Reuters*, April 10, 2023, www.reuters.com/markets/commodities/argentinass-latest-soy-dollar-scheme-sees-few-takers-first-day-2023-04-10/; Juan Martinez, “Argentina Confirms Foreign Exchange Earnings of US\$1.075 Billion 72 Hours after Launching Soybean Dollar,” *The Rio Times*, September 8, 2022, www.riotimesonline.com/brazil-news/mercosur/argentina/argentine-soybean-exporters-confirm-foreign-exchange-earnings-of-us1-075-billion-72-hours-after-the-introduction-of-the-soybean-dollar/.

⁶²Leguizamón, “Modifying Argentina: GM Soy and Socio-Environmental Change.”

⁶³Norma Giarracca and Miguel Teubal, “Argentina: Extractivist Dynamics of Soy Production and Open-Pit Mining,” in *The new Extractivism: A Post-Neoliberal Development Model or Imperialism of the Twenty-First Century?* eds. James Petras and Henry Veltmeyer (London: Bloomsbury Publishing, 2014), 47–65, [www.doi.org/10.5040/9781350223332](https://doi.org/10.5040/9781350223332); Leguizamón, “Modifying Argentina: GM Soy and Socio-Environmental Change.”

⁶⁴“Argentina Country Strategy Paper,” World Bank, April 29, 1992, <https://documents1.worldbank.org/curated/en/522731468218382101/pdf/680650CSP0P0220gy0Paper0Apr02901992.pdf>.

⁶⁵In the form of the Argentine National Forestry Institute (IFONA).

⁶⁶Sarah L. Burns and Lukas Giessen, “Dismantling Comprehensive Forest Bureaucracies: Direct Access, the World Bank, Agricultural Interests, and Neoliberal Administrative Reform of Forest Policy in Argentina,” *Society & Natural Resources* 29, no. 4 (2016): 493–508, <https://doi.org/10.1080/08941920.2015.1089608>.

⁶⁷Pengue, “Transgenic Crops in Argentina.”

⁶⁸Ibid.

⁶⁹Lilian Joensen, Stella Semino, and Helena Paul, “Argentina: A Case Study on the Impact of Genetically Engineered Soya,” *The Gaia Foundation*, 2005, 14, <https://www.econexus.info/publication/argentina-case-study-impact-genetically-engineered-soya>.

international grain prices alongside rising internal production costs in the 1990s brought Argentina's agricultural sector to a crisis point.⁷² Private businesses and landowner coalitions sought out the support of the WB to directly attract foreign investment, which was otherwise unavailable due to Argentina's low credit rating.⁷³

The WB responded by giving farmers credits conditional on their commitment to "modernize."⁷⁴ In this case, modernization meant, in part, using pesticide-resistant soy seeds from agribusiness company Monsanto, which quickly became the dominant form of soy monocrop across the country.⁷⁵ The Monsanto method made soy exports exponentially more intensive and profitable in the short term — but also newly unsustainable and inequitable,⁷⁶ resulting in significant resistance from campesinos (peasant farmers) across the country.⁷⁷ The result was increased concentration and corporate control over this sector, with researchers finding:

*"Between 1988 and 2002, 88,000 farmers went out of business in Argentina (21 percent). Campesinos and small and medium-sized farmers were the most affected, since more than 75,000 (85 percent) had to quit farming. During the same period, the average farm size increased by 25 percent."*⁷⁸

Support for this sector continued throughout multiple administrations in the 2000s, none of which were able to move away from the export model developed under the Washington Consensus.⁷⁹ Tellingly, despite Argentina's dramatically increased soy exports and revenues since the late 1990s, this economic development model has not been able to mitigate the ongoing financial and economic crisis.

Outlook

In response to the 2022 IMF deal, people in Argentina took to the streets to protest the IMF's demands, particularly the pressure on the government to reduce deficits by cutting public spending, including on energy subsidies and support for consumers amidst drastic inflation.⁸⁰ According to Romina Del Pla, a lower house lawmaker for the Workers' Party, "It is a colonization agreement, which can only bring more crisis, more adjustment, more poverty."⁸¹

⁷⁰Dhaneshwar Ghura et al., "Macroeconomic Policy Frameworks For Resource-Rich Developing Countries — Background Paper 1— Supplement 1," International Monetary Fund, 2012, 12, www.imf.org/external/np/pp/eng/2012/082412a.pdf.

⁷¹Daniel Gilespe and Jonathan Gilbert, "Argentina's Epic Drought Is Pushing Economic Crisis to New Extremes," *Bloomberg*, April 12, 2023, www.bloomberg.com/news/articles/2023-04-12/argentina-s-drought-is-pushing-inflation-to-new-extremes.

⁷²Cáceres, "Accumulation by Dispossession."

⁷³Roberto Lampa, Daniela Tavasci, and Luigi Ventimiglia, "External Finance, Subordinated Financialisation: A Reflection on Argentina's Currency Flights in the Last Three Decades," *Cambridge Journal of Economics* 46, no. 5 (2022): 979, <https://doi.org/10.1093/cje/beac020>.

⁷⁴Leguizamón, "Modifying Argentina: GM Soy and Socio-Environmental Change."

⁷⁵*Ibid.*

⁷⁶This is because industrialized agriculture tends to favour larger landholdings, as technologies such as transgenic seeds, fertilizers, and pesticides require larger upfront investments for large-scale yields (Jennifer Clapp, "Concentration and Crises: Exploring the Deep Roots of Vulnerability in the Global Industrial Food System," *The Journal of Peasant Studies* 50, no. 1 (2023): 1–25, <https://doi.org/10.1080/03066150.2022.2129013>; Gustavo de L. T. Oliveira, "Political Ecology of Soybeans in South America" in *Political Ecology of Industrial Crops*, eds. Abubakari Ahmed and Alexandros Gasparatos (London: Routledge, 2021), 201–220, <https://doi.org/10.4324/9780429351105>). In the late 1990s, many smaller Argentinian farmers attempted to modernize through transgenic soya seeds, but had to borrow for the upfront costs, which often led to banks seizing properties and auctioning them off to larger businesses (Cáceres, "Accumulation by Dispossession"). Between 1988 and 2009, the number of farms declined by 25 percent as transgenic soya facilitated consolidation, and consequently displaced smaller farmers whose lands were bought out (Peter Newell, "Bio-Hegemony: The Political Economy of Agricultural Biotechnology in Argentina," *Journal of Latin American Studies* 41, no. 1 (2009): 27–57, <https://doi.org/10.1017/S0022216X08005105>). As a result, rural residents either moved to cities or became migratory workers with low wages and little state protection from exploitation (Cáceres, "Accumulation by Dispossession").

⁷⁷"Mission in Argentina," *La Via Campesina*, last modified April 27, 2004, <https://viacampesina.org/en/mission-in-argentina/>.

⁷⁸Cáceres, "Accumulation by Dispossession."

⁷⁹Leguizamón, "Modifying Argentina: GM Soy and Socio-Environmental Change."

⁸⁰Miguel Lo Bianco and Lucila Sigal, "Argentina Anti-IMF Protesters Burn Tires, Hurl Rocks as Congress Debates Deal," *Reuters*, March 10, 2022, www.reuters.com/world/americas/argentina-protest-imf-outside-congress-lawmakers-debate-deal-2022-03-10/; Lucila Sigal, "Argentine Anti-Government Protests Build as President Calls for Unity," *Reuters*, July 9, 2022, www.reuters.com/world/americas/argentine-anti-government-protests-build-president-calls-unity-2022-07-10/.

Yet, in November 2023, populist anarcho-capitalist candidate Javier Milei won the presidency of Argentina on a platform of dollarization: converting the entire Argentine economy to the US dollar, effectively repeating the failed currency reforms of the early 1990s and ceding all monetary policy to Washington. The implications of such a policy threaten to reach far beyond agricultural or environmental policy, but would undoubtedly exacerbate the biodiversity crisis through a combination of further agricultural expansion and funding cuts for environmental enforcement. As of January 2024, Milei's administration was already pursuing austerity measures with the support of the IMF,⁸² such as cutting subsidies for public transportation, axing government jobs,⁸³ and dissolving the entire Ministry of Environment.⁸⁴ If Argentina chases the US dollar through concessions to international agribusiness and at the expense of economic diversification,⁸⁵ it will be structurally dependent on the current inequitable organization of soy exports, leaving little room to reform the industry's damaging ecological and social impacts. Argentina is a prime example of how high external debt loads — combined with an international currency hierarchy — drive expansion of commodity sectors that harm biodiversity, and must be addressed by international bodies concerned with conservation.

Argentina is a prime example of how high external debt loads — combined with an international currency hierarchy — drive expansion of commodity sectors that harm biodiversity, and must be addressed by international bodies concerned with conservation.

⁸¹Lo Bianco and Sigal, "Argentina Anti-IMF Protesters Burn Tires, Hurl Rocks as Congress Debates Deal."

⁸²Manuela Tobias, "Milei to meet Georgieva in Davos after winning IMF support," *Buenos Aires Times*, January 16, 2024, www.batimes.com.ar/news/economy/milei-to-meet-georgieva-in-davos-after-winning-imf-support.phtml; "IMF Staff and the Argentine Authorities Reach Staff-Level Agreement on Seventh Review under the Extended Fund Facility Arrangement," International Monetary Fund, January 10, 2024, www.imf.org/en/News/Articles/2024/01/10/pr2405-argentina-pr2405-imf-staff-authorities-reach-sla-seventh-review-under-eff-arrangement.

⁸³Juan Pablo Kavanagh, "Chainsaw Plan Round 2: Argentina's Government Looks to Deepen Austerity," *Buenos Aires Times*, January 14, 2024, www.batimes.com.ar/news/economy/chainsaw-plan-round-2-argentinas-new-government-looks-to-deepen-austerity.phtml.

⁸⁴Sylvia Colombo, "'From Horrible to Merely Bad': Will Javier Milei Take his Chainsaw to the Environment in Argentina?" *The Guardian*, December 9, 2023, www.theguardian.com/global-development/2023/dec/09/from-horrible-to-merely-bad-will-javier-milei-take-his-chainsaw-to-the-environment-in-argentina.

⁸⁵Lampa, Tavaschi, and Ventimiglia, "External Finance, Subordinated Financialisation," 979.



Colombia

Colombia's fossil fuel industry drives biodiversity loss and environmental injustice, but international financial and legal structures make it difficult to equitably transition the economy away from extraction.

Colombia is a megadiverse country, hosting close to 10 percent of the planet's biodiversity.⁸⁶ The country ranks first in bird and orchid species diversity, and second in plants, butterflies, freshwater fishes, and amphibians worldwide.⁸⁷ Colombia has international commitments to conserve biodiversity under the Convention for Biological Diversity (CBD), and its new government has promised to move the country away from its economic dependence on fossil fuel exports.⁸⁸ And yet, Colombia's economic trajectory is ecologically unsustainable, with the extractive sector among the leading drivers of deforestation and biodiversity decline.⁸⁹ This case study demonstrates how Colombia's autonomy to rein in the impacts of extraction is limited by international financial pressures and investment law, which incentivize continued production for export, all in the context of capital flight and currency devaluation.

A battle between government priorities and macroeconomic obligations has been playing out at the largest open-pit coal mine in Latin America: El Cerrejón. Owned by transnational mining company Glencore,⁹⁰ the mine is located in a vulnerable dry tropical forest region in the north of Colombia, considered the most threatened lowland tropical ecosystem in the world.⁹¹ Since the early 1980s, nearby communities have suffered a range of human rights violations and environmental impacts stemming from the mine, including the violent dispossession and displacement of Indigenous and Afro-descendant communities from their ancestral territories,⁹² deforestation,⁹³ and the contamination of air, water, and soil.⁹⁴ The mine has been the subject of multiple Supreme Court human rights cases, which declared the environmental and health impacts from the mine to be unconstitutional.⁹⁵ In 2020, several UN Special Rapporteurs called for mining at El Cerrejón to be halted due to pollution and displacement,⁹⁶ yet extraction continues at this site and at other coal mines across Colombia.

⁸⁶CBD, "Colombia — Main Details," CBD, accessed November 7, 2023, www.cbd.int/countries/profile/?country=co.

⁸⁷CBD, "Colombia — Main Details."

⁸⁸María Paula Rubiano A., "How Colombia Plans to Keep its Oil and Coal in the Ground," *BBC*, November 16, 2022, www.bbc.com/future/article/20221116-how-colombia-plans-to-keep-its-oil-and-gas-in-the-ground.

⁸⁹Colombia's NBSAP acknowledges ongoing tensions between "reconciling conservation with development prospects," see: Paula Rojas and Emilce Mora Jaime, "Biodiversity Action Plan for the Implementation of the National Policy for the Integral Management of Biodiversity and Its Ecosystem Services 2016 — 2030," Ministry of Environment and Sustainable Development, 2017, www.cbd.int/doc/world/co/co-nbsap-v3-en.pdf; González-González, Clerici, and Quesada, "Growing Mining Contribution to Colombian Deforestation."

⁹⁰Until early 2022, Glencore, Anglo American, and BHP had equal shareholdings of the mine.

⁹¹An estimated 95 percent of the country's dry forests have been reduced from their original cover, including close to 70 percent of typically Andean forests, see: CBD, "Colombia — Main Details;" Yamileth Dominguez-Haydar and Inge Armbrecht, "Response of Ants and their Seed Removal in Rehabilitation Areas and Forests at El Cerrejón Coal Mine in Colombia," *Restoration Ecology* 19, no. 201 (2011): 178–184, <https://doi.org/10.1111/j.1526-100X.2010.00735.x>.

⁹²Jen Moore, "Colombian courts must not be undermined by shadowy international tribunals, say campaigners," Institute for Policy Studies, September 13, 2022, <https://ips-dc.org/colombian-courts-must-not-be-undermined-by-shadowy-international-tribunals-say-campaigners/>; Astrid Ulloa, "The Rights of the Wayúu People and Water in the Context Of Mining in La Guajira, Colombia: Demands of Relational Water Justice," *Human Geography* 13, no. 1 (2020), <https://doi.org/10.1177/1942778620910894>.

⁹³González-González, Clerici, and Quesada, "Growing Mining Contribution to Colombian Deforestation."

⁹⁴Lise Josefsen Hermann, "In a Fight Over a Colombian Coal Mine, Covid-19 Raises the Stakes," *Grist*, July 29, 2020, <https://grist.org/justice/in-a-fight-over-a-colombian-coal-mine-covid-19-raises-the-stakes/>.

⁹⁵Jen Moore, "Colombia: Corporate Claims vs. Human Rights," Institute for Policy Studies, July 17, 2023, <https://ips-dc.org/colombia-corporate-claims-vs-human-rights/>; these environmental and health impacts disproportionately harms women, who are often responsible for and connected to water systems, see: Ulloa, "The Rights of the Wayúu People and Water;" Kuntala Lahiri-Dutt, "New Directions in Research on Women and Gender in Extractive Industries," *The Extractive Industries and Society* 9 (2022), <https://doi.org/10.1016/j.exis.2022.101048>.

Exporting 90 percent of the coal it extracts,⁹⁷ Colombia is the fifth largest global coal exporter and the third largest exporter of the coal-based fuel, coke.⁹⁸ While the regions where coal mines are concentrated depend heavily on coal mining royalties,⁹⁹ the unequal distribution of burdens and benefits results in a range of injustices for local communities.¹⁰⁰ For example, over 336,000 cases of respiratory illness in North Colombia are directly attributable to mining activities.¹⁰¹ And while the El Cerrejón mine provides 44 percent of the region's GDP, it remains one of Colombia's poorest jurisdictions.¹⁰² Over half of the region's population lives below the poverty line and at least a quarter of the population lives in extreme poverty.¹⁰³ These are symptoms of an asymmetrical global supply chain that imposes environmental and social costs on already-marginalized populations in Colombia to deliver benefits elsewhere¹⁰⁴ — a prime example of extractivism.

This paradigm of coal export is both inequitable and unsustainable.¹⁰⁵ So, why does it continue? What maintains coal projects like El Cerrejón, which contravene stated national environmental priorities as well as local health and safety? Colombia's mining sector is embedded in the history of violent conflict and internal resource grabbing in the country. But it is also powerfully maintained by international financial institutions and legal systems, despite government commitments to scale back the industry and transition away from fossil fuels. This case study addresses how international financial and legal structures obstruct Colombia's just transition and biodiversity conservation agendas.

The role of coal in Colombia's economy

The Colombian government has historically framed extractive industries, including coal, as the key way to gain public revenue to put an end to the armed conflict that has shaped the country, reflecting a prevalent discourse that equates peace (or pacification) with development.¹⁰⁶ This framing was exemplified by Plan Colombia in 2000, a US program to combat drug cartels and left-wing insurgent groups. The plan provided US military aid to paramilitary death squads, which carried out political killings against left-wing forces,¹⁰⁷ and also stated that economic growth through economic liberalization was the path toward achieving peace from armed conflict.¹⁰⁸

⁹⁶“UN expert calls for halt to mining at controversial Colombia site,” United Nations, last modified September 26, 2020, www.ohchr.org/en/press-releases/2020/09/un-expert-calls-halt-mining-controversial-colombia-site?LangID=E&NewsID=26306.

⁹⁷Rubiano A., “How Colombia Plans to Keep its Oil and Coal in the Ground.”

⁹⁸“Coal,” National Mining Agency, accessed November 7, 2023, <https://mineriaencolombia.anm.gov.co/sites/default/files/2022-02/Fact%20Sheet%20Coal%2001%202022.pdf>.

⁹⁹Coal mines are concentrated in the administrative departments of Cesar and La Guajira (where El Cerrejón is located), which are also areas with a significant population of Indigenous and Afro-descendent people; Gabriel Weber et al., “Exploring Resilience in Public Services within Marginalised Communities During Covid-19: The Case of Coal Mining Regions in Colombia,” *Journal of Cleaner Production* 415 (2023), <https://doi.org/10.1016/j.jclepro.2023.137880>.

¹⁰⁰Noel Healy, Jennie C. Stephens, and Stephanie A. Malin, “Embodied Energy Injustices: Unveiling and Politicizing the Transboundary Harms of Fossil Fuel Extractivism and Fossil Fuel Supply Chains,” *Energy Research & Social Science* 48 (2019): 219–234, <https://doi.org/10.1016/j.erss.2018.09.016>.

¹⁰¹Kees Kodde and Bram Joanknecht, “A Toxic Legacy: Glencore’s Footprint in Colombia and Peru: European Banks and Investors Must Take Responsibility,” Fair Finance International, Finanzas con Derechos Peru, and Finanzas Justas Colombia, Oxfam International, 2023, <https://policy-practice.oxfam.org/resources/a-toxic-legacy-glencores-footprint-in-colombia-and-peru-european-banks-and-inve-621550/>.

¹⁰²Line Jespersgaard Jakobsen, “Extractive Subjectivity in a Corporate Coal Mining Site in Colombia,” *Geoforum* 148 (2024): 103605, <https://doi.org/10.1016/j.geoforum.2022.07.007>; coal does not uniformly benefit local communities, but it upholds mining employee livelihoods. When 2 mines closed in 2020 due to commodity price drops, it sent nearby communities into an economic downturn, revealing the persistent importance of coal exports on many people's livelihoods, even as coal revenues do not substantively address poverty and even contribute to inequality, see: Rubiano A., “How Colombia plans to keep its oil and coal in the ground.”

¹⁰³Jacqueline Elyse Gilbert, Tamra Gilbertson, and Line J. Jakobsen, “Incommensurability and Corporate Social Technologies: A Critique of Corporate Compensations in Colombia's Coal Mining Region of La Guajira,” *Journal of Political Ecology* 28, no. 1 (2021), www.doi.org/10.2458/jpe.2952.

¹⁰⁴Federico Suárez Ricaurte, “Two Tiers And Double Standards: Foreign Investors and the Local Community of La Guajira, Colombia,” *Globalizations* 19, no. 6 (2022): 854–864, doi.org/10.1080/14747731.2022.2054511; Aviva Chomsky, Steve Striffler, and Garry Leech, eds., *The People Behind Colombian Coal: Mining, Multinationals and Human Rights* (Bogotá: Casa Editorial Pisando Callos, 2007).

¹⁰⁵Ciara Nugent, “No Oil Producer Wants to Be the First to Give Up the Fuel. Except Gustavo Petro's Colombia,” *Time*, June 22, 2022, www.time.com/6189763/colombia-oil-gustavo-petro/.

¹⁰⁶John-Andrew McNeish, “Extracting Justice? Colombia's Commitment to Mining and Energy as a Foundation for Peace,” *The*

Plan Colombia coincided with a broader neoliberal policy turn in the face of Colombia's foreign debt crisis in the late 1990s. This crisis led to a series of legal and economic policies geared towards freeing and specializing markets in line with the Washington Consensus.¹⁰⁹ This framework positioned foreign investment as an essential driver of development and financial stability.¹¹⁰ Consequently, many public services, telecommunication organizations, banks, ports, airports, health services, social security agencies, and other entities were sold to multinational companies — as was the coal industry.¹¹¹ The 2001 Mining Code, which was drafted with the advice of a law firm representing mining companies and under the influence of the World Bank and the Canadian International Development Agency (CIDA), ended state mining companies, limited government regulation, and created preferential conditions to attract foreign investment.¹¹² Foreign direct investment (FDI) in mining consequently rose by 700 percent, from USD 2 to 3 billion per year in the 1990s to USD 10 billion in 2005, and more than USD 16 billion in 2012.¹¹³

These policies facilitated a mining boom in the country.¹¹⁴ During the first decade of the 21st century, coal production increased by 80 percent,¹¹⁵ as hundreds of mining titles were approved, including in national parks and territories held by Indigenous and Afro-Colombian communities.¹¹⁶ According to Colombia's National Biodiversity Strategies and Action Plan (NBSAP), between 2004 and 2007 there was an 87 percent increase in titles for coal mining;¹¹⁷ subsequently, coal production more than doubled from 38 million tonnes (Mt) in 2000 to nearly 89 Mt in 2015.¹¹⁸

Narratives that equate mining with peace also persisted over this time. In 2015, then-President Juan Manuel Santos Calderón proclaimed, "Colombia needs, I reiterate, and I want to repeat it to you, a strong mining sector, organized, competitive, especially now that we are decidedly progressing on this road to peace and towards reconciliation."¹¹⁹

International Journal of Human Rights 4 (2017), doi.org/10.1080/13642987.2016.1179031; "Secretary-General's remarks at United Nations Private Sector Forum [as delivered]," United Nations, last modified September 24, 2018, www.un.org/sg/en/content/sg/statement/2018-09-24/secretary-generals-remarks-united-nations-private-sector-forum; María Carolina Olarte-Olarte, "From Territorial Peace to Territorial Pacification: Anti-Riot Police Powers and Socio-Environmental Dissent in the Implementation of Colombia's Peace Agreement," *Revista de Estudios Sociales*, no. 67 (2019): 26–39, doi.org/10.7440/res67.2019.03.

¹⁰⁷Oliver Villar and Drew Cottle, "FARC in Colombia: Twenty-First-Century US Imperialism and Class Warfare," *The Palgrave Encyclopedia of Imperialism and Anti-Imperialism* (2020): 1–21, doi.org/10.1007/978-3-319-91206-6_207-1.

¹⁰⁸Daniel James Hawkins, "Reconfiguration of the Colombian State: The Difficult Balance between Consensus and Coercion," *Íconos: revista de ciencias sociales*, no. 35 (2009): 105–116, <http://hdl.handle.net/10469/944>.

¹⁰⁹Nancy Birdsall, Augusto de la Torre, and Felipe Valencia Caicedo, "The Washington Consensus: Assessing a Damaged Brand," Center for Global Development, 2010, www.files.ethz.ch/isn/118196/wp213.pdf.

¹¹⁰Ricaurte, "Two Tiers and Double Standards."

¹¹¹Leila M. Harris and María Cecilia Roa-García, "Recent Waves of Water Governance: Constitutional Reform and Resistance to Neoliberalization In Latin America (1990–2012)," *Geoforum* 50 (2013): 20–30, doi.org/10.1016/j.geoforum.2013.07.009; William Avilés, "The Wayúu Tragedy: Death, Water and the Imperatives of Global Capitalism," *Third World Quarterly* 40, no. 9 (2019): 1750–1766, doi.org/10.1080/01436597.2019.1613638.

¹¹²Avilés, "The Wayúu Tragedy."

¹¹³Andrea Cardoso, "Behind the Life Cycle of Coal: Socio-Environmental Liabilities of Coal Mining in Cesar, Colombia," *Ecological Economics* 120 (2015): 71–82, doi.org/10.1016/j.ecolecon.2015.10.004.

¹¹⁴Laura Gutiérrez-Gómez, "Mining in Colombia: Tracing the Harm of Neoliberal Policies and Practices," in *Environmental Crime in Latin America: The Theft of Nature and the Poisoning of the Land*, eds. David Rodríguez Goyes et al. (London: Palgrave Macmillan London, 2017): 85–113, doi.org/10.1057/978-1-137-55705-6.

¹¹⁵"In addition, 80 percent of human rights violations between 2001 and 2011 were committed in mining and energy producing regions," see: Avilés, "The Wayúu Tragedy."

¹¹⁶Gutiérrez-Gómez, "Mining in Colombia."

¹¹⁷Rojas and Jaime, "Biodiversity Action Plan," 48–49.

¹¹⁸Claudia Strambo and Angélica Johanna Puertas Velasco, "The Changing Politics of Coal Extraction in Colombia," Stockholm Environment Institute, 2017, [jstor.com/stable/resrep02786](https://www.jstor.com/stable/resrep02786).

¹¹⁹Quoted in Claudia Strambo and Ana Carolina González Espinosa, "Extraction and Development: Fossil Fuel Production Narratives and

However, the debts that justified economic liberalization continue to exert influence on economic and environmental policy in Colombia. Coal underpins Colombia's economy,¹²⁰ with revenues used to fund important services.¹²¹ But this reliance on coal has also locked the country into an extractive economic model that depends on specialized, short-term commodity exports in order to acquire foreign exchange to repay debts and maintain financial stability.¹²² These debts partially stem from government borrowing to pay for health care, vaccines, and social services during the COVID-19 crisis, as well as the nation's climate action plans to reduce emissions and promote economic circularity.¹²³ According to the World Bank (WB), Colombia paid USD 8.8 billion to service public and publicly guaranteed debt and for International Monetary Fund (IMF) surcharges in 2022,¹²⁴ and interest payments alone grew to 15 percent of net government revenues in 2022, from an average of 8 percent from 2010 to 2021.¹²⁵

During the first decade of the 21st century, coal production increased by 80 percent, as hundreds of mining titles were approved, including in national parks and territories held by Indigenous and Afro-Colombian communities.

Repayment of these external debts requires Colombia to generate foreign currency, including through exports. From 2018 to 2022, coal accounted for an average of 18 percent of the country's export earnings and all fossil fuels at 50 percent (see Table 1). These revenues are central to Colombia's international trade, balance of payments, foreign exchange acquisition, and royalties revenue.¹²⁶ The foreign exchange earned through these exports also allows Colombia to stabilize its currency — this is particularly relevant given that the government's stated intentions to stop fossil fuel production is said to have contributed to a 20 percent drop in the Colombian peso against the US dollar.¹²⁷ Such depreciations of the peso against the dollar also make foreign debts denominated in currencies like dollars more expensive, creating a cycle of dependence that goes beyond the loss of immediate revenues. This dependence on extraction for export clearly constrains the Colombian government's ability to act on biodiversity and climate change mitigation.

Counternarratives in Colombia," *Climate Policy* 20, no. 8 (2020), doi.org/10.1080/14693062.2020.1719810.

¹²⁰Claudia Strambo et al., "Privileged Coal: The Politics of Subsidies for Coal Production in Colombia," Stockholm Environment Institute, 2018, thecoalhub.com/wp-content/uploads/2018/06/sei-2018-pubs-coal-subsidies-political-0129.pdf.

¹²¹Angela Picciariello, Adriana Quevedo, and Ipek Gençsü, "Phasing Out Fossil Fuel Subsidies in Colombia: A Crucial Step Towards a Just Energy Transition," ODI Working Paper, 2022, cdn-odi-production.s3.amazonaws.com/media/documents/ODI_Working_paper_Phasing_out_fossil_fuel_subsidies_in_Colombia_9rTjlfQ.pdf; Strambo et al., "Privileged Coal."

¹²²Tobias Franz, "Spatial Fixes and Switching Crises in the Times of Covid-19: Implications for Commodity-Producing Economies in Latin America," *Canadian Journal of Development Studies / Revue canadienne d'études du développement* 42, no. 1–2 (2021): 109–121, https://doi.org/10.1080/02255189.2020.1832881.

¹²³"Colombia Calls for Global Financial Consensus to Avert COVID Debt Crisis," UN News, last modified September 21, 2021, https://news.un.org/en/story/2021/09/1100512.

¹²⁴"World Development Indicators," World Bank, accessed February 5, 2024, https://databank.worldbank.org/source/world-development-indicators; this figure includes Debt Service on External Debt, Public and Publicly Guaranteed, and IMF Repurchases and Charges.

¹²⁵UNCTAD, "A World of Debt," UNCTAD, 2023, https://unctad.org/publication/world-of-debt; To access this data, one must navigate to the "Debt Dashboard" tab and select Colombia as the basis of comparison, then click on "Public debt interest payments as a share of revenues" on the wheel-like display, and finally select "Trend over time" on the graphic on the right side of the screen.

¹²⁶Silvio López and Fernando Patzy, "Carbón Térmico en Colombia: Implicaciones para la Economía de la Guajira y Cesar," Natural Resource Governance Institute, 2021, resourcegovernance.org/es/publications/carbon-termico-en-colombia-implicaciones-para-la-economia-de-la-guajira-y-cesar.

¹²⁷Peter Millard and Patricia Laya, "As the World Backpedals on Ditching Fossil Fuels, One Oil Major Plows Ahead," *Bloomberg*,

International trade policies keep coal flowing out of Colombia

International investment law also upholds extraction. Countries establish international investment agreements, generally to promote liberalized trade. Through a mechanism in international investment law called Investor-State Dispute Settlements (ISDS), investors can legally sue states if they perceive a breach of contract; for example, cancelling an existing project due to environmental impact.

According to the United Nations Conference on Trade and Development (UNCTAD), Colombia has entered 21 international investment agreements (IIAs), with 8 in force in 2023, including 1 with Switzerland, which hosts the multinational resource company Glencore (the owner of El Cerrejón).¹²⁸ These agreements are arbitrated by a panel of international judges. In recent years, Colombia has faced a volume of arbitration claims that is among the highest in Latin America, with the bulk of arbitration cases involving extractive industries.¹²⁹ Pending claims as of March 2023 totaled USD 13.2 billion — equal to 13 percent of the nation's budget for 2023.¹³⁰

Conversely, states — and, more saliently, affected communities — are unable to sue investors, leaving them without clear legal avenues to pursue restitution for financial or ecological damages caused by mining companies. This structure gives the advantage to mining companies and privileges the economic interests of investors/multinational enterprises (MNEs) to uphold extraction.¹³¹

For example, ISDS have enabled Glencore to mine and profit at the expense of local communities and the ecologies on which they depend.¹³² In 2010, Glencore and Colombia entered a contract for mining royalties. The state later attempted to terminate the contract because the mine was losing money, contaminating water, and dispossessing people from their land.¹³³ In 2017, Colombian courts ruled mining in the Arroyo Bruno region (where El Cerrejón is located) to be an unconstitutional violation of the rights of the Indigenous Wayúu community, whom coal mining exposed to toxic levels of water and air pollution.¹³⁴

But Glencore consequently levied and won 3 ISDS against the state for breach of contract. In 2019, an International Centre for Settlement of Investment Disputes panel ordered Colombia to pay Glencore USD 19.1 million,¹³⁵ and in 2022, the ISDS panel ruled that Glencore could legally continue mining operations.¹³⁶

October 26, 2022, www.bloomberg.com/news/articles/2022-10-26/colombia-s-petro-pursues-energy-transition-despite-economic-cost?embedded-checkout=true; Rodrigo Campos and Nelson Bocanegra, “Colombia Will Export Fossil Fuels for a Long Time, Finance Minister Says,” *Reuters*, June 20, 2023, www.reuters.com/world/americas/colombia-will-export-fossil-fuels-long-time-finance-minister-2023-06-20/.

¹²⁸“Colombia: International Investment Agreements Navigator,” UNCTAD Investment Policy Hub, 2023, investmentpolicy.unctad.org/international-investment-agreements/countries/45/colombia; also called International Investment Treaties (IITs), “These treaties grant foreign investors certain protections and benefits, including recourse to Investor-State Dispute Settlement (ISDS) to resolve disputes with host states”; see: “Primer on International Investment Treaties and Investor-State Dispute Settlement,” Columbia Center on Sustainable Investment, 2022, <https://ccsi.columbia.edu/content/primer-international-investment-treaties-and-investor-state-dispute-settlement>; Ricaurte, “Two Tiers and Double Standards.”

¹²⁹“Report of the International Mission to Colombia: Stop ISDS,” Salvemos el Agua, Salvemos la Vida, and La Guajira le Habla Al Pais Plataforma, 2023, <https://miningwatch.ca/publications/2023/8/24/stop-isds-report-international-mission-colombia>.

¹³⁰“Final Report of International Mission to #StopISDS Recommends Colombia's Withdrawal from System of Corporate Abuse and Impunity by way of a Citizens Audit,” Institute for Policy Studies, August 15, 2023, ips-dc.org/final-report-of-international-mission-to-stop-isds/.

¹³¹ISDS have also been argued to promote a “regulatory chill,” wherein countries embroiled in IIAs may be dissuaded from regulating industrial activity out of fear of a lawsuit. This exacerbates neoliberal turns towards environmental deregulation that often drove nations towards IIAs in the first place; see: Kyla Tienhaara, “Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement,” *Transnational Environmental Law* 7, no. 2 (2018): 229–50, doi.org/10.1017/S2047102517000309.

¹³²Ricaurte, “Two Tiers and Double Standards.”

¹³³“Colombian delegation attends Glencore AGM to present demands over Bruno Creek,” London Mining Network, last modified May 4, 2022, londonminingnetwork.org/2022/05/colombian-delegation-attends-glencore-agm-to-present-demands-over-bruno-creek/.

¹³⁴Jen Moore, “Colombia: corporate claims vs human rights,” *Latin American Bureau*, July 17, 2023, lab.org.uk/colombia-corporate-claims-vs-human-rights/.

¹³⁵Ricaurte, “Two Tiers and Double Standards.”

Outlook

The El Cerrejón coal mine is scheduled to close in 2034, though there is currently no concrete closure plan.¹³⁷ Meanwhile, members of the Indigenous Wayúu community, in addition to pursuing legal action, are blockading El Cerrejón because the mine has contributed to degraded water quantity and quality in the midst of a deadly drought.¹³⁸ Other Colombians have pursued international legal action through lodging complaints with the Organization for Economic Cooperation and Development for the violence in the coal supply chain.¹³⁹

Colombian President Gustavo Petro has stated that the state's plan for an accelerated transition away from fossil fuels and towards renewables will require ceasing new oil and coal leases, and replacing fossil fuel-derived foreign currency with other income as the foundation of the national economy.¹⁴⁰ But reforms to international financial and legal structures, in the spirit of international solidarity for a just transition, will be needed to make this plan a reality. Conserving Colombia's rich biodiversity requires not only reforming proximate drivers such as mining, but repairing the deeper injustices that position mining and fossil fuels as necessary to financial stability.

Conserving Colombia's rich biodiversity requires not only reforming proximate drivers such as mining, but repairing the deeper injustices that position mining and fossil fuels as necessary to financial stability.

¹³⁶"Public Statement: Colombian Government Authorises Further Destruction of Arroyo Bruno in La Guajira," ABColombia, last modified November 4, 2022, www.abcolombia.org.uk/public-statement-colombian-government-authorises-further-destruction-of-arroyo-bruno-in-la-guajira/.

¹³⁷See also emerging discussion of "green extractivism" in the region: Astrid Ulloa, "Aesthetics of Green Dispossession: From Coal to Wind Extraction in La Guajira, Colombia," *Journal of Political Ecology* 30, no. 1 (2023), <https://doi.org/10.2458/jpe.5475>.

¹³⁸Brent Patterson, "Glencore Calls on Colombian Police to Remove Indigenous and Afro-descendant Blockades at Cerrejón Coal Mine," *PBI Canada*, last modified September 3, 2022, <https://pbicanada.org/2022/09/03/glencore-calls-on-colombian-police-to-remove-indigenous-and-afro-descendant-blockade-of-cerrejon-coal-mine/>; Carol Sánchez, "In Colombia, Threatened Women of the Wayúu Continue to Fight Rampant Mining," *Mongabay*, December 13, 2021, <https://news.mongabay.com/2021/12/in-colombia-threatened-women-of-the-wayuu-community-continue-to-fight-rampant-mining/>; Oliver Pieper, "Germany's Dirty Colombian Coal," *DW*, May 26, 2022, www.dw.com/en/germanys-dirty-colombian-coal/a-61935515; Avilés, "The Wayúu Tragedy."

¹³⁹Joseph Wilde-Ramsing, "'blood Coal' Complaint Alleges Complicity of European Energy Companies in Abuses," SOMO, last modified April 20, 2023, <https://www.somo.nl/blood-coal-complaint-alleges-complicity-of-european-energy-companies-in-abuses/>.

¹⁴⁰Julián Reingold, "What are the Challenges to a Just Energy Transition in Colombia?" *Energy Monitor*, February 16, 2023, www.energymonitor.ai/policy/what-are-the-challenges-to-a-just-energy-transition-in-colombia/.

Democratic Republic of the Congo

Mining, a foundational industry in the Democratic Republic of the Congo (DRC), is also a core driver of biodiversity loss. The DRC's subordinated position in the global financial architecture, particularly its lack of access to international capital, leads to unequal investment and loan agreements, deepened dependence on export revenue, and limited opportunities for sustainable development.

The Democratic Republic of the Congo (DRC) is home to immense biodiversity. It contains the second-largest tropical forest on Earth, including more than half of the Congo Basin Rainforest, as well as the world's largest tropical peatland.¹⁴¹ But these irreplaceable ecosystems, which are integral to the daily lives of millions of Congolese people, are increasingly vanishing, with some of the most valuable carbon sinks threatened by deforestation, mining, and new oil drilling leases.¹⁴²

The DRC has committed to international biodiversity targets, and its National Biodiversity Strategic and Action Plan (NBSAP) establishes mining industry activity as an obstacle to these targets.¹⁴³ Mining impacts biodiversity through a range of toxic air, water, and soil contaminants (including heavy metals and radioactive waste), although the nature and severity of those impacts can vary widely depending on how mining is conducted.¹⁴⁴

While artisanal and small-scale mining (ASM) is often criticized for its lack of environmental regulations, formalized larger-scale industrial mining, although better regulated, has a large ecological footprint.¹⁴⁵ One mineworker described industrial mining in the DRC as reminiscent of mountaintop removal practices but with more intensive chemical use.¹⁴⁶ Different modes of mining also have varying impacts on deforestation, which in some regions is putting entire rare and endangered plant communities at risk.¹⁴⁷

¹⁴¹Heather Johnson, "Rainforest," *National Geographic*, accessed January 17, 2024, <https://education.nationalgeographic.org/resource/rain-forest/>; Hannah Ritchie and Max Roser, "Forests and Deforestation," Our World In Data, last modified 2021, <https://ourworldindata.org/forests-and-deforestation>; Alain Engunda Ikala et al., "Tracking Deforestation in DRC's Forest Concessions Is Complicated," *Global Forest Watch*, August 8, 2018, www.globalforestwatch.org/blog/commodities/tracking-deforestation-in-drcs-forest-concessions-is-complicated; Bart Crezee et al., "Mapping Peat Thickness and Carbon Stocks of the Central Congo Basin Using Field Data," *Nature Geoscience* 15 (2022): 639–644, <https://doi.org/10.1038/s41561-022-00966-7>.

¹⁴²Bart Creeze and Simon Lewis, "Congo Peat Swamps Store Three Years of Global Carbon Emissions — Imminent Oil Drilling Could Release It," *The Conversation*, July 21, 2022, <https://theconversation.com/congo-peat-swamps-store-three-years-of-global-carbon-emissions-imminent-oil-drilling-could-release-it-187101>.

¹⁴³The DRC's most recent NBSAP (2016–2020) lists mining as one of 8 main drivers of biodiversity loss, along with population growth, shifting cultivation practices common in subsistence agriculture, and heavy reliance on wood as a primary fuel source; see: "National Biodiversity Strategic Action Plan: Democratic Republic of the Congo," DRC: Ministry of the Environment, Conservation of Nature and Sustainable Development, 2016, www.cbd.int/doc/world/cd/cd-nbsap-v3-fr.pdf.

¹⁴⁴There is an active debate in the literature about the environmental impact of different forms of mining. For example, Tyukavina et al. estimate that mining quarries explain only 0.04 percent of forest loss in the Congo Basin rainforest (Alexandra Tyukavina et al., "Congo Basin Forest Loss Dominated by Increasing Smallholder Clearing," *Science Advances* 4, no. 11 (2018): 1–12, [www.doi.org/10.1126/sciadv.aat2993](https://doi.org/10.1126/sciadv.aat2993)). Others critique this research, contending it significantly underestimates the impact of mining and other extractive industries on deforestation rates (e.g. Liz Goldman and Giuseppe Molinaro, "Commodity Driven Tree Cover Loss in Congo May Be 10 Times Higher Than Previous Estimates," *Global Forest Watch*, March 25, 2022, www.globalforestwatch.org/blog/data-and-research/commodity-deforestation-10-times-prior-estimates-drc/); Benjamin K. Sovacool et al., "The Decarbonisation Divide: Contextualizing Landscapes of Low-Carbon Exploitation and Toxicity in Africa," *Global Environmental Change* 60 (2020): 1–19, <https://doi.org/10.1016/j.gloenvcha.2019.102028>). Some of this research underscores the importance of mining and agricultural land use change in conjunction, because migration to new mining sites is also often accompanied by new settlements and increased deforestation for smallholder farming (e.g., Giuseppe Molinaro et al., "Contextualizing Landscape-Scale Forest Cover Loss in the Democratic Republic of Congo," Jocelyn TD Kelly, "'This Mine has Become our Farmland': Critical Perspectives on the Coevolution of Artisanal Mining and Conflict in the Democratic Republic of the Congo," *Resources Policy* 40 (2014): 100–108, <https://doi.org/10.1016/j.resourpol.2013.12.003>).

The Okapi Wildlife Reserve, for example, is the site of over 40 dredging operations, which threaten this UNESCO World Heritage site by removing water and sediment from waterways and contaminating them with toxic levels of mercury to isolate gold particles.¹⁴⁸ Similarly, in Shabunda (Eastern DRC), the increasing use of industrial dredgers and mercury threatens the river ecosystem, as it damages the sedimentary layers, shoals, and banks.¹⁴⁹ If current rates of land use change persist (due to mining, but also forestry and agriculture), all primary forest in the Congo Basin, the abundance of life it contains, and the human lives and livelihoods it supports, are at risk of being destroyed by the end of the century.¹⁵⁰

While Congolese workers endure hazardous and exploitative conditions to mine the metals used to manufacture electronics for the Global North and the wealthy, only 19 percent of the country has access to electricity, dropping to 1 percent in rural regions.

While mining — be it industrial, artisanal, or small-scale — represents a crucial source of income for many people, it can compromise public health and jeopardize human rights.¹⁵¹ A recent study found the DRC is failing to protect communities from forced evictions caused by mine expansion, despite national laws meant to curtail these types of dispossession.¹⁵² Following patterns of extractivism, those who benefit most from mining are not those who bear the brunt of these impacts. While Congolese workers endure hazardous and exploitative conditions to mine the metals used to manufacture electronics for the Global North and the wealthy, only 19 percent of the country has access to electricity, dropping to 1 percent in rural regions.¹⁵³ Rather, transnational companies, such as Anglo-Swiss company Glencore and Chinese company CMOC, have gained an expanding foothold in the DRC mining landscape as the race for critical minerals for electronics accelerates.¹⁵⁴ An increasing number of mining concessions enable external corporations long-term access to Congolese resources for critical or transition minerals, with limited benefits to the Congolese.

¹⁴⁵While “artisanal” and “small-scale mining” are often conflated, the two terms can be distinguished both conceptually and on the ground (in the DRC and elsewhere). In these cases, artisanal mining is characterized as manual and/or poorly mechanized, and small-scale mining as using more advanced technological means. For more context on the political economic implications of this distinction, see: Divin-Luc Bikubanya and Ben Radley, “Productivity and Profitability: Investigating The Economic Impact of Gold Mining Mechanisation in Kamituga, Dr Congo,” *The Extractive Industries and Society* 12 (2022), <https://doi.org/10.1016/j.exis.2022.101162>; Olga Sidorenko, Rauno Sairinen, and Kathryn Moore, “Rethinking the Concept of Small-Scale Mining for Technologically Advanced Raw Materials Production,” *Resources Policy* 68 (2020), <https://doi.org/10.1016/j.resourpol.2020.101712>.

¹⁴⁶Sovacool, “The Precarious Political Economy of Cobalt.”

¹⁴⁷“Democratic Republic of the Congo,” Global Forest Watch, accessed August 17, 2023, <https://gfw.global/3DXIcz4>; Chloe Brown, Doreen S. Boyd, and Siddharth Kara, “Landscape Analysis of Cobalt Mining Activities from 2009 to 2021 Using Very High Resolution Satellite Data (Democratic Republic of the Congo),” *Sustainability* 14, no. 15 (2022), <https://doi.org/10.3390/su14159545>; Laëtitia Dupin et al., “Land Cover Fragmentation Using Multi-Temporal Remote Sensing on Major Mine Sites in Southern Katanga (Democratic Republic of Congo),” *Advances in Remote Sensing* 2, no. 2 (2013): 127–139, <https://doi.org/10.4236/ars.2013.22017>; Sylvain Boisson et al., “Using Phytostabilisation to Conserve Threatened Endemic Species in Southeastern Democratic Republic of the Congo,” *Ecological research* 33 (2018): 789–798, <https://doi.org/10.1007/s11284-018-1604-2>.

¹⁴⁸Judith Verweijen et al., “Conservation, Conflict, and Semi-Industrial Mining: the Case of Eastern DRC,” *Universiteit Antwerpen, Institute of Development Policy (IOB) Analyses & Policy Briefs* 49 (2022), <https://doi.org/10.13140/RG.2.2.29462.42566>.

¹⁴⁹“La Ruée vers L’or a Shabunda: Pratiques et Impacts de L’exploitation Minière par Dragues,” Coalition de la Société civile de la région des Grands Lacs contre l’exploitation illégale des ressources naturelles, 2015, www.lolamora.net/images/stories/documentos/cosoc_dragues_shabunda.pdf.

¹⁵⁰Tyukavina et al., “Congo Basin Forest Loss Dominated by Increasing Smallholder Clearing.”

¹⁵¹Sovacool, “The Precarious Political Economy of Cobalt.”

¹⁵²“Powering Change or Business as Usual? Forced Evictions at the Industrial Cobalt and Copper Mines in the Democratic Republic of the Congo,” Amnesty International, The Initiative for Good Governance and Human Rights, 2023, www.amnesty.org/en/documents/AFR62/7009/2023/en/.

Why is the DRC embroiled in such unequal terms, which permit industries that risk human well-being and ecological stability? As this case study reveals, the DRC is highly constrained by global economic processes, situated within colonial legacies, which constrain the DRC from justly and sustainably managing the increasing demand for minerals in the energy transition.

International financial institutions reinforce and incentivize mining expansion

The mining sector is one of the pillars of the DRC's economy, and both international financial institutions and the national government see mining sector growth as an important economic development and poverty reduction strategy.¹⁵⁵ It is also the country's most profitable export sector: for years 2018-2022 metal products and byproducts accounted for 84 percent of total export revenue.¹⁵⁶

Mining is crucial for generating foreign currency to make payments on the DRC's external debts,¹⁵⁷ as well as for government revenue. This dependence on mining for public budgets stretches back to the period immediately following independence: in the 1970s, half of the DRC's annual operating budget came from tax revenues from state mining company Gécamines.¹⁵⁸ The national government continues to receive a substantial portion of its annual revenue from mining taxes and royalties;¹⁵⁹ in 2019, for instance, extractive industries generated almost half of government revenue.¹⁶⁰

That said, the country's ability to benefit from the mining industry is limited by corporate-friendly tax and regulatory regimes. This regulatory landscape has been shaped by World Bank (WB) and International Monetary Fund (IMF) structural adjustment, followed by Development Policy Lending, which enforced market-friendly reforms, including "liberalization, privatization and deregulation" of mining sectors across the African continent and in the DRC.¹⁶¹ A 1992 WB-commissioned study concluded that because "most African countries" lack the risk capital to invest in mining and the necessary management and technical skills, "[e]xisting state mining companies should be privatized at the earliest opportunity to improve productivity of the operations and to give a clear signal to investors with respect to the government's intention to

¹⁵³Much of the electrification development and expansion in the country is funded by mining companies and primarily used to power energy-intensive industrial mining operations. However, the Tshisekedi administration is considering requiring electricity companies that power mines to also provide power to local communities; "Democratic Republic of the Congo — Country Commercial Guide: Energy," International Trade Administration, last modified December 14, 2022, <https://www.trade.gov/country-commercial-guides/democratic-republic-congo-energy>; Ruth Kruger and Darren McCauley, "Energy Justice, Hydropower and Grid Systems in the Global South," in *Energy Justice Across Borders*, eds. Gunter Bombaerts et al. (Springer Cham, 2019), 91-109, https://doi.org/10.1007/978-3-030-24021-9_5.

¹⁵⁴Kolwezi, "The electric-car boom sets off a scramble for cobalt in Congo," *The Economist*, March 31, 2021, www.economist.com/finance-and-economics/2021/03/31/the-electric-car-boom-sets-off-a-scramble-for-cobalt-in-congo; "CMOC takes Glencore's cobalt crown as output jumps 170%," Mining, last modified January 4, 2024, www.mining.com/web/cmoc-takes-glencores-cobalt-crown-as-output-jumps-170/; Antonio Andreonia and Elvis Avenyo, "Critical Minerals and Routes to Diversification in Africa: Opportunities for diversification into Mobile Phone Technologies — The Case of Democratic Republic of Congo," UNCTAD, 2023, https://unctad.org/system/files/non-official-document/edar2023_BP4_en.pdf.

¹⁵⁵IMF, "Country Report No. 22/210: Democratic Republic of the Congo: Staff Report for the 2022 Article IV Consultation; Staff Report, and Statement by the Executive Director for the Democratic Republic of the Congo," International Monetary Fund, July 2022, www.imf.org/en/Publications/CR/Issues/2022/07/05/Democratic-Republic-of-the-Congo-Staff-Report-for-the-2022-Article-IV-Consultation-Second-520400.

¹⁵⁶"Democratic Republic of Congo," OEC, accessed October 24, 2023, <https://oec.world/en/profile/country/cod>; metals mining calculations include: "precious metals," "mineral products" excluding "mineral fuels, mineral oils, and products of their distillation," and "metals" excluding "tools & cutlery" and "miscellaneous metal products."

¹⁵⁷"Democratic Republic of the Congo: Fourth Review Under the Extended Credit Facility, Request for Modification of Quantitative Performance Criterion, and Financing Assurances Review-Press Release; Staff Report; and Statement by the Executive Director for the Democratic Republic of the Congo," International Monetary Fund. African Dept., July 5, 2023, 16-46, <https://www.elibrary.imf.org/view/journals/002/2023/244/article-A001-en.xml>.

¹⁵⁸Stefaan Marysse and Sara Geenen, "Win-Win or Unequal Exchange? The Case of the Sino-Congolese Cooperation Agreements," *The Journal of Modern African Studies* 47, no. 3 (2009): 371-396, <https://www.jstor.org/stable/40538317>.

¹⁵⁹Marysse and Geenen, "Win-Win or Unequal Exchange?"

¹⁶⁰"Democratic Republic of the Congo: Overview and Role of the EITI," Extractive Industries Transparency Initiative, accessed November 27, 2023, <https://eiti.org/countries/democratic-republic-congo>.

follow a private-sector-based strategy.”¹⁶² The WB incentivized privatization by providing conditional debt restructuring in exchange for austerity measures and market reforms.¹⁶³

The WB provided the DRC USD 185 million towards mining reform,¹⁶⁴ culminating in a 2002 Mining Code with generous fiscal policies meant to attract foreign direct investment “including tax holidays and exemptions and low royalty rates.”¹⁶⁵ The result was at least 97,000 km² of concessions going to multinationals, about the size of South Korea.¹⁶⁶ Reflecting on the policies meant to attract the foreign mining companies, in 2015 the IMF head of mission stated “the 2002 Mining Code is too generous, so much so that the state captures very little in the end.”¹⁶⁷ As this quote indicates, these policies were no panacea for broader social and economic development in the country; rather, as one researcher suggests, both political elites and the multinationals were “more interested in the fast stock market returns of the initial investment than in the development of the country and of the local entities whose natural resources were being exploited.”¹⁶⁸

Beyond funding reforms meant to make the DRC more attractive to foreign investors, debt relief programs also imposed neoliberal economic policies that further entrenched an extractivist mining sector with minimal regulatory standards or domestic capture of revenues. For example, the WB’s Heavily Indebted Poor Countries (HIPC) initiative, through which the DRC received debt relief in 2010, required the DRC to develop a plan to access the IMF’s Poverty Reduction and Growth Facility (PRGF),¹⁶⁹ in consultation with the WB and subject to their approval.¹⁷⁰ The DRC’s 2007 Poverty Reduction Strategy Paper (prepared with the WB and the IMF) commits to restructuring public enterprises (like Gécamines) through “the injection of private capital,” implementation of corporate-friendly tax rules and regulatory frameworks, and public-private partnerships that transfer partial ownership to private companies.¹⁷¹

Across these WB and IMF policy initiatives, in concert with rising global mineral prices, the DRC saw its FDI grow from USD 188 million in 2002 to USD 3.3 billion in 2012, with most of this in mining; production of copper grew from 33,000 tonnes in 2000 to 378,300 in 2010 and to over a million in 2015.¹⁷²

¹⁶¹Ben Radley, *Disrupted Development in the Congo*, (Oxford: Oxford University Press, 2024), 25, <https://library.oapen.org/handle/20.500.12657/85205>; see also Jacques Tshibwabwa Kuditshini, “Global Governance and Local Government in the Congo: the Role of the IMF, World Bank, the Multinationals and the Political Elites,” *International Review of Administrative Sciences* 74, no. 2 (2008): 195–216, <https://doi.org/10.1177/0020852308090773>.

¹⁶²Kuditshini, “Global Governance and Local Government in the Congo,” “Strategy for African Mining: Mining Unit, Industry and Energy Division,” World Bank, World Bank Technical Paper Number 181, Africa Technical Department Series, 1992, <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/722101468204567891/strategy-for-african-mining>.

¹⁶³Lee Wengraf, “Neoliberalism: Crisis, Debt, and Structural Adjustment,” in *Extracting Profit: Imperialism, Neoliberalism and the New Scramble for Africa* (Chicago: Haymarket Books, 2018).

¹⁶⁴Radley, *Disrupted Development in the Congo*, 32.

¹⁶⁵*Ibid.*

¹⁶⁶Kuditshini, “Global Governance and Local Government in the Congo,” 204; see also Andrew L. Gulley, “One Hundred Years of Cobalt Production in the Democratic Republic of the Congo,” *Resources Policy* 79 (2022), <https://doi.org/10.1016/j.resourpol.2022.103007>; Ben Radley, “The Three-Stage Process Through which African Resource Sovereignty was Ceded to Foreign Mining Corporations,” *Review of African Political Economy* (2023), <https://www.trade.gov/country-commercial-guides/democratic-republic-congo-energy>.

¹⁶⁷Quoted in Radley, *Disrupted Development in the Congo*, 32.

¹⁶⁸Kuditshini, “Global Governance and Local Government in the Congo.”

¹⁶⁹This was one of several “completion points” to qualify for enhanced debt relief.

¹⁷⁰Inter-Ministerial Commission on Implementation of the National Poverty Reduction Strategy, “Report on Implementation of the Growth and Poverty Reduction Strategy,” United Nations Relief Web, last modified April 30, 2010, <https://reliefweb.int/report/democratic-republic-congo/report-implementation-growth-and-poverty-reduction-strategy>; Dev Kar et al., “Capital Flight from the Democratic Republic of the Congo,” Global Financial Integrity — Center for International Policy, 2014, <https://gointegrity.org/wp-content/uploads/2014/05/capital-flight-from-the-drc.pdf>; Danny Cassimon, Tom De Herdt, and Karel Verbeke, “On the Creation of Adam: What Debt Relief Means for Education in the DRC,” Institute of Development Policy and Management (IOB), University of Antwerp, 2015, <https://repository.uantwerpen.be/docman/irua/7c763e/c1e6b6a5.pdf>; “Democratic Republic of the Congo: Enhanced Initiative for Heavily Indebted Poor Countries: Completion Point Document and Multilateral Debt Relief Initiative Paper,” the International Monetary Fund and the International Development Association, 2010, www.imf.org/en/Publications/CR/Issues/2016/12/31/Democratic-Republic-of-the-Congo-Enhanced-Initiative-for-Heavily-Indebted-Poor-Countries-24500.

¹⁷¹IMF, “Democratic Republic of the Congo: Poverty Reduction Strategy Paper, IMF Country Report No. 07/330,” International Monetary Fund, June 2006, www.imf.org/external/pubs/ft/scr/2007/cr07330.pdf.

Conditions of unequal exchange

Most industrial mines in the DRC are owned and operated by foreign companies or joint ventures (typically between a foreign company and a DRC parastatal¹⁷³). Under the privatization schemes imposed by Bretton Woods institutions, national mining company Gécamines has become a “broker” of mines rather than an enterprise in and of itself, tasked with attracting foreign mining business through a public-private partnership model.¹⁷⁴ This dynamic is also in play for Sicominés, an agreement based on a resource-backed loan.

Presented by China and some Congolese leaders as an alternative to the Western model of foreign lending, resource-backed loans exchange foreign funding (typically for infrastructure) for mining concessions, granting the foreign lender extraction rights within the debtor’s territory.¹⁷⁵ For example, in 2008, the DRC entered into a bilateral investment and trade agreement — the Sicominés (Sino-Congolese) agreement — that gives Chinese partners copper and cobalt mining concessions in the province of Katanga in exchange for investment in infrastructure works.¹⁷⁶ Compared to USD 6 billion earmarked for infrastructure projects,¹⁷⁷ which was later renegotiated and reduced by half to USD 3 billion,¹⁷⁸ the monetary value of mines in 2008 was estimated as upwards of USD 80 billion¹⁷⁹ — a huge external profit from Congolese resources.

These loans are appealing in part because the DRC faces limited options for international financing. Because of poor infrastructure and ongoing armed conflict in the eastern region,¹⁸⁰ the DRC is seen as a risky and costly investment site; as such, many private creditors are unwilling to finance projects in the DRC or only offer sky-high interest rates.¹⁸¹ The DRC is left dependent on investment arrangements like Sicominés, which offer highly unequal terms. This means the state loses out on significant, much-needed revenue.¹⁸²

While there is active and highly politicized debate about the winners and losers of the Sicominés deal, a recent assessment found that many of the infrastructure projects promised in the Sicominés deal in exchange for mining concessions were of poor quality.¹⁸³ These authors conclude that the DRC is trading off its mineral wealth “for deficient roads and poor equipment,” and overall that the first decade of the deal has “not had the beneficial socio-economic consequences that were promised.”¹⁸⁴ Because the concessions are a direct repayment for a loan, the DRC is compelled to keep mines operational for as long as it takes to pay off

¹⁷²Radley, *Disrupted Development in the Congo*, 34 & 41.

¹⁷³A parastatal is a company or enterprise that is partially or fully owned by a national government. The degree of autonomy from the central government can vary. In his study of parastatals in Zambia, Ben Turok argues that the proliferation of parastatals represents a form of “de-nationalization” in which profit-making comes to supersede other national goals and “state intervention” in economic management is minimized. The parastatal is an institutional form of state capitalism and is sometimes created with funding and oversight from IFIs; see: Ben Turok, “Control in the Parastatal Sector of Zambia,” *The Journal of Modern African Studies* 19, no. 3 (1981): 421–45, www.jstor.org/stable/160753; Michael Goldman, “Speculative urbanism and the making of the next world city,” *International Journal of Urban and Regional Research* 35, no. 3 (2011): 555–581, <https://doi.org/10.1111/j.1468-2427.2010.01001.x>.

¹⁷⁴Stefaan Marysse and Claudine Tshimanga, “La Renaissance Spectaculaire du Secteur Minier en RDC où va La Rente Minière?” *Conjonctures Congolaises* (2012): 11–46, <https://hdl.handle.net/10067/1124350151162165141>.

¹⁷⁵Marysse and Geenen, “Win-Win or Unequal Exchange?”

¹⁷⁶Marysse and Geenen, “Win-Win or Unequal Exchange?,” Stephanie Matti, “Resources and Rent Seeking in the Democratic Republic of the Congo,” *Third World Quarterly* 31, no. 3 (2010), <https://doi.org/10.1080/01436597.2010.488471>.

¹⁷⁷Andoni Maiza-Larrarte and Gloria Claudio-Quiroga, “The Impact of Sicominés on Development in the Democratic Republic of Congo,” *International Affairs* 95, no. 2 (2019): 423–46, <https://doi.org/10.1093/ia/iiz001>; Matti, “Resources and Rent Seeking in the Democratic Republic of the Congo,” David Landry, “The Risks and Rewards of Resource-For-Infrastructure Deals: Lessons from the Congo’s Sicominés Agreement,” *Resources Policy* 58 (2018): 401–413, <https://doi.org/10.1080/01436597.2010.488471>.

¹⁷⁸Landry, “The Risks and Rewards of Resource-For-Infrastructure Deals,” Maiza-Larrarte and Claudio-Quiroga, “The Impact of Sicominés on Development.”

¹⁷⁹Marysse and Geenen, “Win-Win or Unequal Exchange?,” Matti, “Resources and Rent Seeking in the Democratic Republic of the Congo.”

¹⁸⁰The conflict in the eastern DRC is due to a legacy of ethnic tensions and land disputes produced during the colonial era. It interacts in complex ways with the artisanal and semi-industrial mining sectors, see: Kasper Hoffmann, “Ethnogovernmentality: The Making of Ethnic Territories and Subjects in Eastern DR Congo,” *Geoforum* 119 (2021): 251–267, <https://doi.org/10.1016/j.geoforum.2019.10.002>.

¹⁸¹Landry, “The Risks and Rewards of Resource-For-Infrastructure Deals.”

¹⁸²The financial parameters of the agreement include 3 phases (the first 2 of which exempt Sicominés from tax and customs obligations). During phase 1, all profits are to be used to repay the loans that financed “the most urgent infrastructure projects” carried out as part of the agreement, as well as interest. In phase 2, 85 percent of Sicominés’ profits will be used to reimburse loans, and phase 3 begins once loans have been repaid; see: Landry, “The Risks and Rewards of Resource-For-Infrastructure Deals.”

the principal and interest, regardless of any human rights abuses and environmental degradation that stem from mine operations.¹⁸⁵

Outlook

Despite the macroeconomic structures that entrench mineral extractivism, people within the DRC have been fighting for less destructive and more equitable modes of mining, succeeding with some changes to the Mining Code in 2018.¹⁸⁶ But advocacy groups continue to call for changes to mining governance to ensure that a greater portion of the wealth from this sector is invested in the DRC, and that human rights, labor, and environmental standards are upheld.¹⁸⁷

There have been waves of protests condemning foreign mining companies on the grounds that they violate safety standards, displace artisanal miners, and contaminate surrounding villages.¹⁸⁸ In Namoya (Maniema province) and Twangiza (South Kivu province), miners and mining-affected communities have resisted evictions in their concessions with Canadian gold mining company Banro for decades.¹⁸⁹ International and local mining unions have opposed the exploitative labor practices of multinational mining companies like Glencore, including stark wage gaps between white and Congolese employees.¹⁹⁰

The international market increasingly turns toward the DRC as its mineral resources are crucial for batteries, solar panels, and other “clean energy” technologies. International financial institutions and tech companies frame the energy transition as a win-win for the DRC and its export partners, proposing that the country expand its mining to take advantage of rising global demand for cobalt, copper, and coltan.¹⁹¹ But these narratives obscure the fact that energy technologies are manufactured and sold primarily outside of the DRC while environmentally harmful mining practices are concentrated within the DRC.¹⁹² Meanwhile, both

¹⁸³Maiza-Larrarte and Claudio-Quiroga, “The Impact of Sicominas on Development.”

¹⁸⁴Maiza-Larrarte and Claudio-Quiroga, “The Impact of Sicominas on Development,” 424 & 445.

¹⁸⁵Maiza-Larrarte and Claudio-Quiroga, “The Impact of Sicominas on Development”; also, although this condition was eventually struck from the final agreement, initially the contract promised to allocate further mining concessions to China if the original concession was insufficient to repay the loan. For evidence of how these resources for infrastructure schemes could further expand mineral extraction, see: Marysse and Geenen, “Win-Win or Unequal Exchange?”

¹⁸⁶The 2018 revisions to the Mining Code did increase government royalties on minerals to capture more of the sector’s benefits. The new legislation also contains improved environmental standards and requires that mining companies spend 0.3 percent of turnover on local development. However, the state is still locked into arrangements such as the Sicominas deal; see: Zandi Shabalala, “Cobalt to be Declared a Strategic Mineral in Congo,” *Reuters*, March 15, 2018, www.reuters.com/article/us-congo-mining-cobalt/cobalt-to-be-declared-a-strategic-mineral-in-congo-idUSKCN1GQ2RX; Ben Radley, “The DRC is Revisiting its Mining Code. Why Reform is Long Overdue,” *The Conversation*, June 28, 2017, <https://theconversation.com/the-drc-is-revisiting-its-mining-code-why-reform-is-long-overdue-79937>; Rhea Kumar et al., “Political Risk Assessment: Mitigating Corporate Mining Risks in the DRC,” The University of Western Ontario, July 2020, www.democracylab.uwo.ca/Archives/2019_2020_research/mining_in_the_democratic_republic_of_congo/MINING-IN-DRC--DEMO-LAB-2020-.pdf; Heidi Vella, “Overhauling the DRC’s Mining Code,” *Mining Technology*, March 28, 2018, www.mining-technology.com/features/overhauling-drcs-mining-code/; Gerson Brandao, “The Potential of the New Mining Code and Partnerships for Sustainable Mining in the DRC,” European Center for Development Policy Management, November 18, 2019, <https://ecdpm.org/work/the-potential-of-the-new-mining-code-and-partnerships-for-sustainable-mining-in-the-drc>.

¹⁸⁷“Powering Change or Business as Usual?,” Lassana Koné, “Democratic Republic of the Congo: A Rights-Based Analysis of Mining Legislation,” Forest Peoples Programme, 2023, www.forestpeoples.org/sites/default/files/documents/DRC%20A%20rights-based%20analysis%20of%20mining%20legislation%20ENG.pdf; “Democratic Republic of Congo,” Presbyterian Mission, accessed August 17, 2023, www.presbyterianmission.org/ministries/compassion-peace-justice/hunger/internationaldevelopment/joininghands/joining-hands-country-profiles/congo-jh/.

¹⁸⁸Iva Peša, “Decarbonization, Democracy and Climate Justice: The Connections Between African Mining and European Politics,” *Journal of Modern European History* 20, no. 3 (2022): 299–303, <https://doi.org/10.1177/16118944221113607>; Eric Olander, “Small-Scale Miners in Northeastern DR Congo Protest Against Chinese Mining Companies’ Use of Heavy Machinery,” China Global South Project, last modified January 13, 2022, <https://chinaglobalsouth.com/2022/01/13/small-scale-miners-in-northeastern-dr-congo-protest-against-chinese-mining-companies-use-of-heavy-machinery/>.

¹⁸⁹Sara Geenen and Judith Verweijen, “Explaining Fragmented and Fluid Mobilization in Gold Mining Concessions in Eastern Democratic Republic of the Congo,” *The Extractive Industries and Society* 4, no. 4 (2017): 758–65, <https://doi.org/10.1016/j.exis.2017.07.006>.

¹⁹⁰“Unions Welcome Revival of IndustriALL’s Campaign Against Glencore,” IndustriALL Global Union, last modified October 31, 2022, www.industriall-union.org/unions-welcome-revival-of-industrialls-campaign-against-glencore/; “Congo Mining Unions Unite at Glencore,” IndustriALL Global Union, last modified November 15, 2018, www.industriall-union.org/congo-mining-unions-unite-to-confront-glencore/; “IndustriALL Warns Car Industry of Worker Abuse in Glencore Cobalt Mines,” IndustriALL Global Union, last modified March 22, 2018, www.industriall-union.org/global-union-warns-car-industry-of-worker-abuse-in-glencore-cobalt-mines.

Congolese and international political processes neglect the voices of workers in determining their own economic futures, and limit participation from impacted communities.¹⁹³

Government inaction on human rights, mismanagement, and regulatory capture clearly play a role in the DRC. So too the DRC's subordinated position in the global financial architecture limits its ability to access needed capital for alternative approaches to development, deepening dependence on export revenue and continuing extractivism. It is worth reprinting the words of African scholars Thandika Mkandawire and Charles C. Soludo, reflecting on the importance of external influences — political and economic — on African countries in 1999: “Our intention here is not to rationalize, let alone ignore the infamous mismanagement of economies by African governments. Rather, the point is to emphasize that successful adjustment will be elusive unless Africa’s vulnerability to external factors is recognised. Such a recognition will serve in rethinking the form and content of Africa’s structural transformation. Failure to account for such factors, even as one corrects for internal policy errors, can frustrate attempts at change and condemn them to involuntary reversal.”¹⁹⁴

¹⁹¹IMF, “Country Report No. 22/210.”

¹⁹²Eric Bonds and Liam Downey, “Green? Technology and Ecologically Unequal Exchange: The Environmental and Social Consequences of Ecological Modernization in the World-System,” *Journal of World-Systems Research* 18, no. 2 (2012): 167–186, <https://doi.org/10.5195/jwsr.2012.482>.

¹⁹³Sarah Katz-Lavigne et al., “Driving Change in the Democratic Republic of Congo: An Initial Mapping of Participation in Mineral Regulation and Responsible Sourcing,” University of Antwerp IOB Institute of Development Policy, The IOB Working Paper Series, 2023, <https://repository.uantwerpen.be/docman/irua/c8d317motoMa5>.

¹⁹⁴Quoted in Radley, *Disrupted Development in the Congo*, 30.



Jamaica

Pressures to obtain foreign currency fortify the bauxite-alumina industry's dominance in Jamaica. This dominance has been reinforced by World Bank and International Monetary Fund structural adjustments in the aftermath of colonial underdevelopment — at the expense of ecosystems and environmental justice.

Jamaica is an island nation rich in biodiversity, particularly in organisms not found anywhere else, called endemic species — it is ranked 5th among islands for endemic plants.¹⁹⁵ That biodiversity is at risk, with 2022 data classifying a total of 214 plant species and 48 fish species in the country as under threat,¹⁹⁶ and rates increasing over time.¹⁹⁷

Biodiversity has been declining in Jamaica due in part to land use changes and destruction of unique habitats that host these endemic species.¹⁹⁸ While certainly not the only cause of degradation, bauxite mining in Jamaica is a considerable driver.¹⁹⁹ The most recent government economic planning document explicitly states that bauxite mining is linked to: “[m]ajor environmental impacts including loss of biodiversity; reduction of forest cover; loss of habitats, and watershed degradation.”²⁰⁰

Concerns about water quality, cultural heritage, and biodiversity have come to a head in Cockpit Country, home to the Maroons, an ethnic group descended from enslaved Africans and Indigenous Taino communities.²⁰¹ The area is a biodiverse limestone forest region in the northeast of Jamaica, with many of the island's endemic species.²⁰² In 2022 the National Environment and Planning Agency (NEPA) issued permits to Noranda Jamaica Bauxite Partners II and New Day Aluminium (Jamaica) Limited to mine 1,300 hectares of land in Cockpit County.²⁰³ In 2 Supreme Court filings (2021 and 2022), residents of the area claimed violation of constitutional rights and significant injuries due to mining, including to their health, homes, crops, drinking water, livelihood, and at least 1 death.²⁰⁴ While awaiting the decision on these constitutional claims, the plaintiffs filed for injunctions to stop mining. In early 2023, the court sided with the plaintiffs,

¹⁹⁵Environmental Solutions Limited, “National Strategy and Action Plan on Biological Diversity in Jamaica 2016–2021,” NEPA, 2017, www.cbd.int/doc/world/jm/jm-nbsap-v2-en.pdf.

¹⁹⁶Erick Burgueño Salas, “Number of Threatened Living Species in Jamaica on the IUCN Red List in 2022, by Taxonomic Group,” Statista, last modified April 17, 2023, www.statista.com/statistics/978559/number-threatened-species-jamaica-type/.

¹⁹⁷In 2015, Jamaica's score on the International Union for Conservation of Nature Red List Index was 0.673. It declined to 0.668 in 2018 and further to 0.665 in 2020. This suggests that biodiversity loss is worsening, although data is limited; see: “Voluntary National Review 2022: Goal 15,” Planning Institute of Jamaica, 2022, www.pioj.gov.jm/wp-content/uploads/2022/10/VNR_Goal_15.pdf.

¹⁹⁸Dionne Newell, “Fifth National Report for the NBSAP Project,” NEPA, 2015, www.cbd.int/doc/world/jm/jm-nr-05-en.pdf.

¹⁹⁹Bauxite is the primary ore used in making aluminum. After it is mined, the ore is dehydrated, refined into aluminum oxide (alumina), and finally smelted into aluminum through a chemical and energy-intensive process.

²⁰⁰“Vision 2030 Jamaica,” Planning Institute of Jamaica, 2018, 260, www.pioj.gov.jm/wp-content/uploads/2019/08/MTF-2018-2021-March-2019.pdf; in addition to forest and other ecosystem clearing needed for open-pit mining, there is evidence of long-term decline of soil fertility due to bauxite leaching and topsoil loss through erosion. Moreover, bauxitic soils respond poorly to restoration, making the reclamation of post-mining land difficult. On the impacts of bauxite mining, see: Christer Berglund and Tommy Johansson, “Jamaican Deforestation and Bauxite Mining — The Role of Negotiations for Sustainable Resource Use,” *Minerals & Energy* 19, no. 3 (2004): 2–14, <https://doi.org/10.1080/14041040310034383>; Madeline Lorch Tramm, “Multinationals in Third World Development: The Case of Jamaica's Bauxite Industry,” *Caribbean Quarterly* 23, no. 4 (1977): 1–16, www.jstor.org/stable/40653340.

²⁰¹Robert Connel, “Maroon Ecology: Land, Sovereignty, and Environmental Justice,” *The Journal of Latin American and Caribbean Anthropology* 25, no. 2 (2020): 218–235, <https://doi.org/10.1111/jlca.12496>; Jean Besson, *Transformations of Freedom in the Land of the Maroons: Creolization in the Cockpits, Jamaica* (Kingston: Ian Randle Publishers, 2016).

²⁰²“Cockpit Country: Jamaica's Treasure Trove of Biological Diversity,” Forestry Department of Jamaica, 2020, www.forestry.gov.jm/newsDetails?newsID=19.

²⁰³Noranda Bauxite Limited is now going by the name Discovery Bauxite, which is fully owned by Atlantic Alumina (US-based smelting operation). Atlantic Alumina has a 49 percent interest in what is called the “Discovery Jamaica Bauxite Partners II”, with the Government of Jamaica (GOJ) owning the remaining 51 percent. A concession from the Government of Jamaica permits Atlantic Alumina to mine bauxite in Jamaica through 2030; see: “Discovery Bauxite,” Atlantic Alumina, accessed November 18, 2023, <https://raccoon-horse-y9tn.squarespace.com/discovery-bauxite>.

issuing an injunction, effectively halting mining operations in the area.²⁰⁵ Jamaica and its partners in the project appealed the injunction, and it was lifted later in 2023.²⁰⁶ As of early 2024, the constitutional claim has yet to be heard. Given the government-acknowledged role of mining in eroding biodiversity, and these environmental justice issues, why would the government side with the bauxite industry over its citizens? What keeps the bauxite-alumina sector in place, despite the known environmental and social impacts? As this case study shows, the bauxite industry's influence in Jamaica stems from pressures to chase foreign currency that have been reinforced by World Bank (WB) and International Monetary Fund (IMF) structural adjustments in the aftermath of colonial underdevelopment.

The growing but uneven economic benefits from bauxite

Initial sector development in the post–World War II boom was negotiated between the British colonial government and American multinational companies — Alcan, Reynolds, and Kaiser. While these arrangements had low royalty rates “far below the value of the bauxite and alumina exported” — rates which were eventually renegotiated — the industry did bring new wealth and growth to the country.²⁰⁷ However, Jamaica gains less revenue from its natural resources than it could. Since Jamaica extracts bauxite, but refines only a small amount to alumina, it misses out on capturing more valuable parts of the commodity, including smelting into aluminum.²⁰⁸ Data from the earlier phase of the industry (1950–1967) suggests that the lack of value added resulted in “95 [percent] of the gross value generated from Jamaican bauxite being accrued abroad rather than domestically.”²⁰⁹ Further, Jamaican mining operations result in negative impacts like land ownership concentration and peasant dispossession.²¹⁰

In line with rising “Third World” economic nationalism in the 1970s and in response to the growing oil prices that strained their balance of payments and import costs, Jamaica placed a levy on bauxite exports in 1973 to increase its take from the sector.²¹¹ That year Jamaica also began acquiring stakes in mining companies, including 51 percent share in Kaiser Aluminum's operations in the country, followed by other partial nationalizations. These measures increased the benefits Jamaica received from the sector, but with increasing competition from other bauxite producers with lower taxes and royalties (such as Australia, Brazil, and Guinea), Jamaica's bargaining power was reduced significantly.²¹²

²⁰⁴The first case was filed by the Southern Trelawny Environmental Agency (STEA) and Clifton Barrett in January 2021, with specific reference to Special Mining Lease (SML) 173. The second case was filed by nine residents of rural communities in St. Ann in July 2022, with respect to mining activities carried out pursuant to SMLs 165 and 172, and the mining proposed to be carried out pursuant to SML 173. In 2022, the Inter-American Commission on Human Rights (IACHR) concluded the St. Ann communities are facing significant harms, and called for the government of Jamaica to take precautionary measures to prevent these harms, see: “IACHR Grants Precautionary Measures in Favor of Afro-Descendant Persons from Peasant Communities of St. Ann in Jamaica,” Organization of American States, December 2, 2022, www.oas.org/en/IACHR/jsForm/?File=/en/iachr/media_center/PReleases/2022/267.asp.

²⁰⁵Balford Henry, “Bauxite Mining Case Hits Appeal Court,” *Jamaica Observer*, May 22, 2023, www.jamaicaobserver.com/news/bauxite-mining-case-hits-appeal-court/.

²⁰⁶“Claim of ‘Irreparable Harm’ from Noranda Bauxite Mining ‘Speculative’ — Court of Appeal,” *Jamaica Gleaner*, June 17, 2023, <https://jamaica-gleaner.com/article/news/20230617/claim-irreparable-harm-noranda-bauxite-mining-speculative-court-appeal>.

²⁰⁷Madeleine Lorch Tramm, “Multinationals in Third World Development: The Case of Jamaica's Bauxite Industry,” *Caribbean Quarterly* 23, no. 4 (1977): 8, <https://www.jstor.org/stable/40653340>.

²⁰⁸The value added to the sector is through the refining to alumina (250 percent added) and then to aluminum (225 percent). Jamaica participates in the mining and the refining to alumina, but not to the smelting stage; see Monica Silberberg, “The Jamaican Bauxite Industry & Decolonization,” *Caribbean Quilt* 2 (2012): 92–106, <https://doi.org/10.33137/caribbeanquilt.v2i0.19314>.

²⁰⁹Richard Auty, “Multinational Corporations and Regional Revenue Retention in a Vertically Integrated Industry: Bauxite/aluminum in the Caribbean,” *Regional Studies* 17, no. 1 (1983): 4, <https://doi.org/10.1080/09595238300185011>; in the early 1950s, government revenue amounted to only 3 percent of the bauxite and alumina export value, going up to 17 percent after negotiations of terms in 1957 (Tramm, “Multinationals in Third World Development,” 8); see also George L. Beckford, “The Social Economy of Bauxite in the Jamaican Man-Space,” *Social and Economic Studies* 36, no. 1 (1987): 1–55, www.jstor.org/stable/27862872; Michael Witter, “Prospects for Jamaica's Economic Development in the Era of the FTA,” in *The Caribbean Economies in an Era of Free Trade*, Michael Witter (London: Routledge, 2004), 169–186, <https://doi.org/10.4324/9781351147521>.

²¹⁰Tramm, “Multinationals in Third World Development,” 8.

²¹¹The Government of Jamaica imposed a levy (7.5 percent of the price of aluminum on the world market in the previous year) on bauxite mined in Jamaica and exported to North America, raising government revenues significantly from Jamaican dollars (JMD) 24.51 million per annum in 1973 to JMD \$185 million in 1977; see: Silberberg, “The Jamaican Bauxite Industry & Decolonization,” 102.

Multinational companies responded to Jamaica's efforts to capture more of its share by investing elsewhere; "[f]oreign direct investment shunned Jamaica for more than a decade after the imposition of the Bauxite Levy."²¹³ Facing capital flight, stagnant growth, and increasing pressure from the IMF, in the 1980s Jamaica effectively ended these policy efforts to capture more benefit. Production increased as a result, but Jamaica never regained its global share.

This omnipresent fear of capital flight makes improving environmental monitoring/enforcement and capturing more value through increased taxation challenging. Furthermore, with Jamaica's direct stake in the mining industry, civil society organizations claim that the primary regulatory institution is tasked with both regulating and promoting the sector, a situation some describe as "regulatory capture."²¹⁴

Bauxite-alumina has historically been an important source of government revenue, GDP, and employment — although these have all declined over time. While the share of the bauxite-alumina industry in government revenues was as high as 25 percent in the 1970s, one commentator suggests that it now contributes only 0.6 percent.²¹⁵ In terms of GDP contributions, the mining and quarrying sector encompasses an average of 1.9 percent from 2018 to 2022.²¹⁶

Jobs have declined from peak employment in the early 1970s; one report suggests an almost 50 percent decline from 1975 levels, with the industry employing approximately 0.3 percent of the working population in 2018.²¹⁷ But even at its peak employment levels in the early 1970s, the sector only provided employment for 1.1 percent of the working population.²¹⁸ Particularly early on in the sector development, Jamaicans primarily occupied the low-level, manual labour positions with little occupational mobility.²¹⁹

Chasing foreign currency: debt and balance of payments

Key to understanding government support of the bauxite-alumina industry is the sector's role as a crucial source of foreign exchange needed for balance of trade and debt repayments. Responding to the Cockpit Country court cases and injunction, the Finance Minister framed the situation in existential terms, asserting that the industry's "survival is under threat and the Jamaican economy faces major upheaval."²²⁰ He pointed to jobs, but also to the sector's role in generating "between US\$300–US\$500 million in foreign exchange each year."²²¹ So while the industry is a relatively small part of the Jamaican economy in terms of GDP, it is critical for earning the foreign exchange needed to service external debts, with contributions to export revenue ranging from 15 to 60 percent of total export revenue, with a 5-year average of 42 percent (see Table 1).

²¹²For an analysis of 1970s bauxite tax and royalty rates, see: Sidiki Conde, "The Competitive Environment for a New Bauxite Mine in Guinea," MSC thesis (Colorado School of Mines, 1984), https://repository.mines.edu/bitstream/handle/11124/176378/Conde_10782501.pdf?sequence=1.

²¹³Witter, "Prospects for Jamaica's Economic Development in the Era of the FTAA," 180; "The companies reacted to the measures of the Jamaican government by decreasing exports from Jamaica to the U.S., and increasing the production of their plants in Guinea to supply the American market ... In 1975 the companies doubled their imports into the U.S. from Guinea, a new-comer to the industry, who were now threatened to experience similar economic and societal problems from the presence of these MNCs [multinational corporations] as Jamaica did," Silberberg, "The Jamaican Bauxite Industry & Decolonization," 103.

²¹⁴Jamaica Environment Trust, *Red Dirt*. Jamaica's National Environment and Planning Agency (NEPA) is the primary regulatory institution for the environment in Jamaica but through a memorandum of understanding, the Jamaica Bauxite Institute is tasked with regulating the bauxite sector.

²¹⁵Paul Ward, "Phase Out Crude Bauxite Exports to Save the Cockpit Country," *Jamaica Observer*, November 29, 2022, www.jamaicaobserver.com/columns/phase-out-crude-bauxite-exports-to-save-the-cockpit-country/.

²¹⁶"Economic and Social Survey Jamaica 2022: Selected Indicators & Overview," Planning Institute of Jamaica, 2022, www.pioj.gov.jm/product/economic-and-social-survey-jamaica-2022-selected-indicators-overview/.

²¹⁷The Jamaica Environment Trust reports employment in 1975 to be 6,900 direct employees, 4,530 wage workers; in 2018 this declined to 4,000 direct employees, with 1,429 wage workers, see Jamaica Environment Trust, *Red Dirt*.

²¹⁸Diane J. Austin, "Jamaican Bauxite: A Case Study in Multi-National Investment," *The Australian and New Zealand Journal of Sociology* 11, no. 3 (1975), <https://doi.org/10.1177/144078337501100312>.

²¹⁹Silberberg, "The Jamaican Bauxite Industry & Decolonization."

²²⁰"Mining Injunction 'Death Knell' for New Day, Noranda," *The Gleaner*, February 20, 2023, <https://jamaica-gleaner.com/article/lead-stories/20230220/mining-injunction-death-knell-new-day-noranda>.

²²¹"Mining Injunction 'Death Knell' for New Day, Noranda."

Jamaica has struggled with its balance of payments for decades. In particular, high oil prices in the 1970s pushed the problem over the edge, leading the country to take out WB and IMF loans. The country continues to experience economic consequences from the 1980s–90s debt crises that enforced austerity, liberalization of trade, deregulation, wage suppression, privatization, and overall reduced autonomy; one commentator argues the result was “policy making effectively moved from Kingston to Washington.”²²²

Balance of payments and the constant chasing of foreign currency and investment remains a challenge for Jamaica, and is part of explaining the “indispensability” of bauxite, despite its environmental and social impacts, and relatively low economic benefits for employment and state revenue.

Despite WB and IMF loans, the country suffered from rising unemployment, and both urban and rural poverty. The loan conditionalities required removal of import tariffs, which also exacerbated the balance of payments problem and turned the country into a “consuming appendage” to the US.²²³ Balance of payments and the constant chasing of foreign currency and investment remains a challenge for the country, and is part of explaining the “indispensability” of bauxite, despite its environmental and social impacts, and relatively low economic benefits for employment and state revenue. What’s also crucial to note is that the IMF and WB policy prescriptions contributed to problems that bauxite-alumina revenue is now rationalized as solving.

Outlook

Although the bauxite-alumina industry contributes to the economy in ways that international financial institutions and the Government of Jamaica position as indispensable, Jamaican civil society organizations challenge this narrative by asking what the industry delivers in terms of economic benefits, raising questions about an overreliance on an industry with limited time before exhaustion.²²⁴ Downstream communities are making the case before the Supreme Court that the highly constrained development pathway that bauxite represents is not worth the devastation it causes.

Yet development narratives sustained by major lenders and international institutions continue to shape the policy terrain in Jamaica. These narratives foreground austerity and fiscal consolidation measures that impede investment in environmental policy related to bauxite and also, more broadly, the development of alternative development strategies.

²²²Tony Weiss, “Restructuring and Redundancy: The Impacts and Illogic of Neoliberal Agricultural Reforms in Jamaica,” *Journal of Agrarian Change* 4, no. 4 (2004): 461–491, <https://doi.org/10.1111/j.1471-0366.2004.00088.x>; see also Witter, “Prospects for Jamaica’s economic development in the era of the FTAA.”

²²³Witter quoted in Weiss, “Restructuring and Redundancy,” 475; imports of fresh fruits and vegetables overtook exports, which led the World Bank to state that “the market is telling you that agriculture is not the way to go for Jamaica,” Witter quoted in Weiss, “Restructuring and Redundancy,” 471.

²²⁴These organizations include the Southern Trelawny Environmental Agency (STEA), Jamaica Environment Trust, and Windsor Research Centre, among others, see: “Bauxite Mining In Cockpit Country,” STEA, accessed November 18, 2023, <https://stea.net/Issues.html>; “Compensation Within the Bauxite-Alumina Industry in Jamaica,” Jamaica Environment Trust, September 13, 2023, <https://jamentrust.org/download/compensation-within-the-bauxite-alumina-industry-in-jamaica/>; “This is Windsor Research Centre’s Home Page,” Windsor Research Centre, accessed November 18, 2023, <https://wrc.cockpitcountry.com/>.

From the 2000s to present, Jamaica focused on reducing its debt, which also baked austerity into the core of government operations, including wage freezes and a reduction of public programs.²²⁵ As of 2023, the IMF considers the country well-managed because of its low levels of debt and fiscal restraint, but these strong caps on external debt also mean that the government has limited ability to invest in productive infrastructure and industry, poverty measures, climate risks, ecological degradation, and biodiversity loss. The IMF acknowledges that infrastructure development is needed to attract investment and also to become more climate resilient, yet it is unclear where those funds will come from.²²⁶ Jamaica thus finds itself in a cramped space: dependent on an extractive industry that doesn't directly benefit its ecology or economy, and with little ability to shape alternative futures.

²²⁵Michael Witter, "COVID-19: Intensifying the Existential Threat to the Caribbean," *Agrarian South: Journal of Political Economy* 10, no. 1 (2021): 155–172, <https://doi.org/10.1177/22779760211003540>.

²²⁶IMF, "IMF Reaches Staff-Level Agreement with Jamaica on a Precautionary and Liquidity Line (PLL) and the Resilience and Sustainability Facility (RSF) and conducted the 2022 Article IV Consultation," IMF, last modified December 15, 2022, www.imf.org/en/News/Articles/2022/12/15/pr22345-jamaica-imf-reaches-sla-pll-rsf-conducted-2022-article-iv-consultation#:~:text=Building%20on%20Jamaica%E2%80%99s%20commitments%20under%20the%20Paris%20Agreement%2C,climate%20risks%20are%20properly%20managed%20by%20financial%20intermediaries.



Papua New Guinea

The government of Papua New Guinea (PNG) continues to expand the mining and oil and gas sectors despite the social and ecological impacts of extraction. At the root of the problem is PNG's limited ability to access capital and investment in other sectors, coupled with a high debt load, which leads the government to chase extractive sector foreign investment at the expense of other priorities.

Papua New Guinea (PNG) occupies the eastern half of the island of New Guinea, the largest Pacific and tropical island. New Guinea is home to the greatest flowering plant diversity of any island²²⁷ and host to the 3rd-largest expanse of tropical rainforest on the planet.²²⁸ However, ongoing resource extraction threatens PNG's unique and diverse ecosystems, and their intertwined social, cultural, and economic practices.²²⁹ Some of the most significant risks originate from the extraction of minerals, oil, and gas,²³⁰ the vast majority of which is exported abroad rather than consumed domestically.²³¹

The government of PNG recognizes its dependence on extraction poses threats to people and the rest of nature, acknowledging that, among other sectors, "development priorities to promote extractive industries [...] are often in conflict with biodiversity conservation."²³² Papua New Guinea's National Biodiversity Strategies and Action Plan (NBSAP) identifies mineral, oil, and gas extraction among the most significant threats to biodiversity, particularly due to "poor environmental practices in PNG's mining industry," and the "massive habitat loss" associated.²³³ All mines and mining exploration sites in PNG are located within areas deemed to be of high conservation value by the PNG Department of Environment and Conservation.²³⁴

Despite this awareness, the government of PNG continues to pursue development through extractive export sectors. In 2024, the government of PNG reopened the controversial Porgera gold mine, run by Canadian mining company Barrick.²³⁵ The mine ceased operations in 2020 after the PNG government refused to extend its lease, citing environmental and social problems;²³⁶ the large open-pit mine has profoundly altered the environment and harmed nearby residents since it began operations in the 1990s.²³⁷ As PNG is one of the few countries in the world that allows the discharge of mine waste into rivers and oceans,²³⁸ nearby communities

²²⁷Rodrigo Cámara-Leret et al., "New Guinea has the World's Richest Island Flora," *Nature* 584 (2020): 579–583, <https://doi.org/10.1038/s41586-020-2549-5>; CBD, "Papua New Guinea — Main Details," Country Profiles, CBD, accessed August 17, 2023, www.cbd.int/countries/profile/?country=pg.

²²⁸Thomas H. White Jr. et al., "Quantifying Threats to Biodiversity and Prioritizing Responses: An Example from Papua New Guinea," *Diversity* 13, no. 6 (2021), <https://doi.org/10.3390/d13060248>.

²²⁹Luke Fletcher, "From Extraction to Inclusion: Changing the Path to Development in Papua New Guinea," ACT NOW!, Jubilee Australia, and the Oakland Institute, 2020, www.jubileeaustalia.org/resources/publications/extraction-inclusion-2020.

²³⁰Thomas H. White Jr. et al., "Quantifying Threats to Biodiversity and Prioritizing Responses: An Example from Papua New Guinea," *Diversity* 13, no. 6 (2021), <https://doi.org/10.3390/d13060248>.

²³¹Ernst & Young, "2021 Papua New Guinea Extractive Industries Transparency Initiative (PNG EITI) Report," Extractive Industries Transparency Initiative, March 2023, 13, <https://eiti.org/sites/default/files/2023-11/2021-PNG-EITI-REPORT.pdf>.

²³²John Aruga et al., "Papua New Guinea National Biodiversity Strategic Action Plan 2019–2024, Papua New Guinea Conservation and Environmental Protection Authority," 2019, 3, www.cbd.int/doc/world/pg/pg-nbsap-v2-en.pdf.

²³³Aruga et al., "Papua New Guinea National Biodiversity Strategic Action Plan," 31–32.

²³⁴Ibid.

²³⁵"Barrick Cleared to Restart Porgera Gold Mine in Papua New Guinea," *Mining*, October 13, 2023, www.mining.com/barrick-cleared-to-restart-porgera-mine-following-special-mining-lease/; "Porgera Gold Mine Set to Restart Production This Month," Barrick, December 10, 2023, www.barrick.com/English/news/news-details/2023/porgera-gold-mine-set-to-restart-production-this-month/default.aspx.

²³⁶Ian Morse, "Gold Miner Faces Global Protests as it Rekindles a Mine with a Violent Legacy," *Mongabay*, May 1, 2023, <https://news.mongabay.com/2023/05/gold-miner-faces-global-protests-as-it-rekindles-a-mine-with-a-violent-legacy/>.

²³⁷Accounting for 10 percent of PNG's total exports when the mine closed in 2020; see: Jonathan Pryke and Shane McLeod, "Politics and Porgera: Why Papua New Guinea Cancelled the Lease on One of its Biggest Mines," *The Guardian*, May 12, 2020, www.theguardian.com/world/2020/may/12/politics-and-porgera-why-papua-new-guinea-cancelled-the-lease-on-one-of-its-biggest-mines; Jerry K. Jacka, *Alchemy in the Rain Forest: Politics, Ecology, and Resilience in a New Guinea Mining Area* (Durham: Duke University Press, 2015).

reported a “red river” of warm tailings waste” flowing from the mine,²³⁹ which contaminate water, contribute to food insecurity and poor health, and damage local connection to land.²⁴⁰

What drives PNG to expand the footprint of this industry, in conflict with its own environmental ministries? While domestic pressures exist, this case study points to additional factors, such as PNG’s limited ability to access capital and investment in other sectors, coupled with a high debt load, which leads the government to chase foreign investment through preferential tax treatments that ultimately increase extractive footprints and negatively impact biodiversity.

Limited access to capital and investment

Since its independence from Australia in 1975, PNG’s economic development has been tied to extraction.²⁴¹ At the time of independence, mining accounted for 50 percent of PNG’s export economy.²⁴² In recent decades the extractive sector, including oil, gas, and mineral extraction, has accounted for close to 80 percent of the value of PNG’s exports,²⁴³ averaging 82 percent between 2018 and 2022 (see Table 1). This means that extractive exports are one of the key ways that PNG earns foreign exchange, which is needed to pay for key imports and repay costly external debts. In 2022, public debt interest payments were over 13 percent of government revenues, compared with an average of 4 percent in developed countries.²⁴⁴

Papua New Guinea relies on foreign direct investment flowing toward extractive sectors in part because the government has few other sources of revenue to meet its external debt spending commitments. The result is that, despite expanding extractive frontiers, PNG is currently at risk of a public debt crisis.²⁴⁵ While participation in the G20 Debt Service Suspension Initiative (DSSI) in 2020 and 2021 temporarily lowered PNG’s debt servicing costs, these deferred costs must be paid from 2023 onward. Extractive exports are crucial to these payments, which often must be paid in USD or other foreign currencies.

Moreover, PNG is considered a “risky”²⁴⁶ investment jurisdiction, which constrains the conditions on which PNG is able to access capital, putting the country in a weaker negotiating position with foreign mining

²³⁸Recent changes to mine waste disposal policies only apply to new mining projects and won’t address cumulative impacts to date and their potential remediation; see Gavin M. Mudd et al., “Mining in Papua New Guinea: A Complex Story of Trends, Impacts and Governance,” *Science of the Total Environment* 741 (2020), <https://doi.org/10.1016/j.scitotenv.2020.140375>.

²³⁹Sarah Knuckey et al., “Red Water: Mining and the Right to Water in Porgera, Papua New Guinea,” Columbia Law School Human Rights Clinic and Advanced Consortium on Cooperation, Conflict and Complexity (AC4), 2019, https://hri.law.columbia.edu/sites/default/files/publications/red-water-report-2019_1.pdf; see also J. Hettler, G. Irion, and B. Lehmann, “Environmental Impact of Mining Waste Disposal on a Tropical Lowland River System: A Case Study on the Ok Tedi Mine, Papua New Guinea,” *Mineralium Deposita* 32 (1997): 280–291, <https://link.springer.com/article/10.1007/s001260050093>.

²⁴⁰Tony Crook, “If You Don’t Believe Our Story, At Least Give Us Half of the Money’: Claiming Ownership of the Ok Tedi Mine, PNG,” *Journal de la Société des Océanistes* 125 (2005): 221–228, <https://doi.org/10.4000/jso.939>; M. D. E. Hayward et al., “Mine Waste Disposal Leads to Lower Coral Cover, Reduced Species Richness and a Predominance of Simple Coral Growth Forms on a Fringing Coral Reef in Papua New Guinea,” *Marine Environmental Research* 115 (2016): 36–48, <https://doi.org/10.1016/j.marenvres.2016.02.003>; Knuckey, et al., “Red Water.”

²⁴¹Since the 1800s, what is now known as Papua New Guinea was colonized by Germany, Britain, and Australia. The Dutch colonized the Western part of New Guinea, what is now West Papua in the Republic of Indonesia. The Australian Territory achieved full independence as the Independent State of Papua New Guinea in 1975. Papua New Guinea remains a member of the Commonwealth of Nations; the Head of State is King Charles III, represented by Governor-General Sir Bob Dadae. To this day, PNG is categorized as an extremely mineral-dependent economy; see: Colin Filer and Imbun Benedict, “A Short History of Mineral Development Policies in Papua New Guinea, 1979–2002,” in *Policy Making and Implementation – Studies from Papua New Guinea*, ed. R.J. May (Canberra: ANU E Press, 2009), 75–116.

²⁴²Fletcher, “From Extraction To Inclusion,” 30.

²⁴³Colin Filer and Pierre-Yves Le Meur, eds., *Large-Scale Mines and Local-level Politics: Between New Caledonia and Papua New Guinea* (Canberra: ANU Press, 2017), <http://doi.org/10.22459/LMLP.10.2017>.

²⁴⁴UNCTAD, “A World of Debt”, UNCTAD, 2023, <https://unctad.org/publication/world-of-debt>; To access this data, one must navigate to the “Debt Dashboard” tab and select Papua New Guinea as the basis of comparison, then click on “Public debt interest payments as a share of revenues” on the wheel-like display, and finally select “Trend over time” on the graphic on the right side of the screen.

²⁴⁵Debt Justice measures whether a country is in a debt crisis, defined as “where debt payments are undermining a country’s economy and/or the ability of its government to protect the basic economic and social rights of its citizens,” see: “Debt Data Portal,” *Debt Justice*, last modified on May 22, 2023, data.debtjustice.org.uk.

companies and subject to higher borrowing costs.²⁴⁷ And as those borrowing costs rise, so do debt servicing costs, which manufactures further demand for foreign currency via extractive sector development.

Papua New Guinea relies on foreign direct investment flowing toward extractive sectors in part because the government has few other sources of revenue to meet its external debt spending commitments.

In response to repeated economic crises, the government has pursued a series of stabilization measures,²⁴⁸ including borrowing from the WB and the IMF, increasing the country's overall debt load. Extractive sector development is often seen by international financial institutions as the primary route for economic development for PNG; according to their own report, the WB "was directly implicated in the birth of PNG's oil and gas industry" but their "techno-centric sectoral efforts ultimately contributed little to sustainable economic development in PNG."²⁴⁹

Among the most resource-dependent economies in the world,²⁵⁰ PNG's reliance on these boom-and-bust commodity sectors leads to macroeconomic instability. Because global prices for natural resources are more volatile than prices of other goods, countries like PNG that primarily export natural resources — particularly oil — are more exposed to economic volatility.²⁵¹ Pinned to the end of the commodities supercycle, PNG has faced foreign exchange shortages since 2015.²⁵² Yet even as PNG pursues extraction to generate foreign exchange, commodity price volatility impacts government take from the sector, while the need to attract investment through mechanisms like tax incentives further maintains the shortage.²⁵³ According to one analysis, "A great part of the earnings from extractive industries in PNG — over 70 percent in many cases — flows offshore to service debt and reward shareholders."²⁵⁴

Overall, revenue from extraction has not been a source of bridge funding to a more diversified economy. Mirroring other export-dependent economies,²⁵⁵ even as its extractive sectors have grown, PNG has "struggled to convert its mineral wealth into forms of economic development that can benefit the broad mass of the population."²⁵⁶ Thus, despite investment in the extractive sector increasing, profits largely flow

²⁴⁶"2021 Investment Climate Statements: Papua New Guinea," US State Department, 2021, www.state.gov/reports/2021-investment-climate-statements/papua-new-guinea/.

²⁴⁷Diane Kraal, "Chapter 13: Risks and Fiscal Concerns in the Extraction of Natural Resources: A Study of Transnational Corporations in Papua New Guinea," in *Research Handbook on Transnational Corporations*, eds. Alice de Jonge and Roman Tomasic (Northampton: Edward Elgar Publishing, Inc., 2017), <https://doi.org/10.4337/9781783476916.00023>; PNG's credit rating is B-, which is not investment grade, and considered highly speculative.

²⁴⁸Including cuts to government spending, currency devaluation, wage restraint, and tightening of monetary policy, see: Peter Larmour, "Conditionality, Coercion and Other Forms of 'Power': International Financial Institutions in the Pacific," *Public Administration and Development* 22, no. 3 (2002), 209–291, <https://doi.org/10.1002/pad.228>.

²⁴⁹Sunil Mathrani, "Evaluation of the World Bank Group's Activities in the Extractive Industries, Background Paper, Papua New Guinea Country Case Study," Operations Evaluation Department assessment of World Bank Group, 2003, <https://documents.worldbank.org/curated/en/591491468057857472/pdf/294540PNG0Eval10industries01public1.pdf>.

²⁵⁰Stephen Howes and Alyssa Leng, "PNG as Resource Dependent as Saudi Arabia," Devpolicy Blog, February 16, 2023, <https://devpolicy.org/png-as-resource-dependent-as-saudi-arabia-20231216/>.

²⁵¹Dhaneshwar Ghura et al., "Macroeconomic Policy Frameworks For Resource-Rich Developing Countries — Background Paper 1 — Supplement 1," International Monetary Fund, 2012, 12, www.imf.org/external/np/pp/eng/2012/082412a.pdf.

²⁵²Martin Davies and Marcel Schröder, "The Path to Kina Convertibility: An Analysis of Papua New Guinea's Foreign Exchange Market," *Asia and the Pacific Policy Studies* 9, no. 1 (2022): 465–482, <https://doi.org/10.1002/app5.358>.

²⁵³Davies and Schröder, "The Path to Kina Convertibility."

²⁵⁴Avalos et al., "Papua New Guinea and the Natural Resource Curse."

²⁵⁵Nayda Avalos et al., "Papua New Guinea and the Natural Resource Curse," *Comparative Economic Studies* 57, no. 2 (2015): 345–360, <https://doi.org/10.1057/ces.2015.1>.

outwards, and government revenues are used to pay costly debts. Papua New Guinea is left to manage the impacts of distressed ecosystems and economic instability, but with fewer and fewer resources to do so.

Preferential tax supercharges

One key way that PNG aims to attract resources via foreign investment is by granting extractive industries preferential tax treatment in order to incentivize further mining investment and development.²⁵⁷ For example, a 2021 analysis found that while Australian companies operate most of the major mines in PNG and export 97 percent of PNG gold, they pay almost no income tax.²⁵⁸ Despite PNG's dire need for revenue to invest in sustainable development, the country continues to take financial and ecological hits in order to attract further investments in mining, oil, and gas.

Because of these preferential tax rates, even as extractive industries make up a significant portion of GDP and export earnings, the sector contributes a proportionally small share of tax revenue. A 2022 IMF report notes that compared to other commodity export countries, "the share of government revenue coming from the resource sector is very low in PNG relative to the share of resource sector in GDP."²⁵⁹ According to the Extractive Industries Transparency Initiative (EITI), "In 2018, oil and mineral products made up almost 90 percent of the value of Papua New Guinea's exports but less than 10 percent of government revenues" and in previous years, "Oil and mineral products contributed an even smaller share of government revenues."²⁶⁰ Tax write-offs, loopholes, holidays, and other exemptions granted to companies through confidential resource agreements account for the shortfall in corporate tax receipts.²⁶¹ Thus, even as the resource sector's share of GDP has more than doubled to a third of GDP in the last decade, average government revenue from the resource sector has fallen.²⁶²

A 2021 analysis found that while Australian companies operate most of the major mines in PNG and export 97 percent of PNG gold, they pay almost no income tax. Despite PNG's dire need for revenue to invest in sustainable development, the country continues to take financial and ecological hits in order to attract further investments in mining, oil, and gas.

²⁵⁶Nicholas Bainton et al., "Land, Labour and Capital: Small and Large-Scale Miners in Papua New Guinea," *Resources Policy* 68 (2020), <https://doi.org/10.1016/j.resourpol.2020.101805>; often characterized as an "enclave economy," PNG's public services, including health, education, electricity, and education infrastructure, remain under-financed, see: Fletcher, "From Extraction to Inclusion"; Jonathan Gamu, Philippe Le Billon, and Samuel Spiegel, "Extractive Industries and Poverty: A Review of Recent Findings and Linkage Mechanisms," *The Extractive Industries and Societies* 2 (2015): 162–176, <http://dx.doi.org/10.1016/j.exis.2014.11.001>.

²⁵⁷Fletcher, "From Extraction to Inclusion," 37; "The taxation system in PNG is a legacy from when PNG was an Australian colony and offered tax holidays and other exemptions to attract foreign investors"; see Josh Nicholas and Kate Lyons, "Australian Mining Companies Have Paid Little or No Corporate Income Tax in PNG Despite Huge Profits," *The Guardian*, June 8, 2021, www.theguardian.com/world/2021/jun/09/australian-mining-companies-have-paid-little-or-no-corporate-income-tax-in-png-despite-huge-profits.

²⁵⁸Nicholas and Lyons, "Australian Mining Companies."

²⁵⁹"Papua New Guinea Staff Report for the 2022 Article IV Consultation and Review of the Staff Monitored Program," International Monetary Fund, 2022, 11, www.imf.org/en/Publications/CR/Issues/2022/09/20/Papua-New-Guinea-2022-Article-IV-and-the-Staff-Monitored-Program-Press-Release-Staff-Report-523626.

²⁶⁰Emphasis added; quoted in Nicholas and Lyons, "Australian Mining Companies."

²⁶¹Fletcher, "From Extraction to Inclusion," 37; while it is known that the PNG government has routinely used tax incentives to attract extractive enterprises, the total value of tax breaks remain unknown as tax expenditure statements go unpublished; see Diane Kraal, "Petroleum Industry Tax Incentives and Energy Policy Implications: A Comparison Between Australia, Malaysia, Indonesia, and Papua New Guinea," *Energy Policy* (2019): 212–222, <https://doi.org/10.1016/j.enpol.2018.11.011>.

Along with tax revenues and general economic growth, jobs are frequently held up as the necessary trade-off for environmental harms, particularly in resource-based economies. But extractive sectors in PNG employ few people. According to one analysis, the mining sector employed less than 3 percent of the formal sector workforce in 2011—a relatively insignificant amount considering only an estimated 11 percent of the working-age population in PNG is employed in the formal economy.²⁶³ By this calculation, extractive sectors represent less than 1 percent of the total workforce.²⁶⁴ Outside of employment, the promises of direct economic benefit to local communities often go unrealized, while these same communities bear the costs of ecological degradation.²⁶⁵

Outlook

This extraction-for-export model has not translated to increased government budgets to invest in sustainable development or economic diversification. Because there are so few options for accessing capital for social and environmental spending and debt repayment, the extractive sector continues to play a central role in the PNG economy. If PNG increased environmental standards, social benefit contracts, or taxes, under current macroeconomic conditions, they would likely be unable to meet their spending commitments for existing government services or foreign debt.

These broader political economic constraints do not excuse government inaction on human rights abuses related to mining. Following renegotiations over benefit sharing terms, the PNG government allowed Barrick to resume mining at Porgera. Under the new joint venture, PNG stakeholders will reportedly receive 51 percent of the mine's economic benefits.²⁶⁶ However, activists are wary that the government's stake in the project could decrease its responsiveness to environmental and human rights harms and increase state criminalization of activism.²⁶⁷ Local activists continue to resist mine expansions through legal injunctions, petitions, and by simply refusing to comply with eviction orders.²⁶⁸ In 2020, a coalition of chiefs signed a joint declaration against mining the Sepik River, which serves as a foundation for their survival and way of life.²⁶⁹

Papua New Guinea faces a number of complex environmental, social, and political problems beyond biodiversity conservation. But recognizing how and why the PNG government is pressured to give preferential treatment to extractive sectors—even as these sectors have not contributed fairly to further economic or social development in the country—points to the structural forces that hold extractivism in place.

²⁶²"Papua New Guinea Staff Report for the 2022 Article IV Consultation and Review of the Staff Monitored Program."

²⁶³Fletcher, "From Extraction to Inclusion," 32; Employment data for PNG is limited, 75–80 percent of the population of PNG live in rural village communities. The majority of PNG's working-age population participate in the informal labor market, which is "centered on semi-subsistence agriculture, forestry, and fisheries"; see: Filer and Le Meur, eds., *Large-Scale Mines and Local-Level Politics*.

²⁶⁴See also Ernst & Young, "2021 Papua New Guinea Extractive Industries Transparency Initiative (PNG EITI) Report."

²⁶⁵Legally, subsoil assets belong to the state. Developers of resource projects generally enter into an agreement with the state in addition to obtaining a resource development license or mining tenement and people identified as beneficiary landowners in extraction areas (and along pipeline corridors) are meant to receive a share of the benefits that the companies pay to the state. However, in the context of PNG's customary land tenure system, there have been problems properly identifying and fairly compensating "beneficiary landowners."

²⁶⁶Stakeholders include the national government, Enga provincial government, and landowning groups; see: "Porgera Gold Mine Set to Restart Production This Month."

²⁶⁷Morse, "Gold Miner Faces Global Protests as It Rekindles a Mine with a Violent Legacy."

²⁶⁸Bruno Venditti, "Landowners Working on Injunction Against Barrick's Restart of Porgera Gold Mine," *Mining*, April 25, 2023, www.barrick.com/English/news/news-details/2023/porgera-gold-mine-set-to-restart-production-this-month/default.aspx; John Cannon, "Deep-Sea Mining Project in PNG Resurfaces Despite Community Opposition," *Mongabay*, August 18, 2023, <https://news.mongabay.com/2023/08/deep-sea-mining-project-in-png-resurfaces-despite-community-opposition/>.

²⁶⁹"Supreme Sukundimi Declaration," Save the Sepik, accessed August 17, 2023, <https://savethesepik.org/the-supreme-sukundimi-declaration/>.

Key Findings

1

Governments support extractive sectors, in part, because they are trying to attract foreign investment to their country and maintain investability.

2

Governments also support extractive sector expansion and continuity to obtain foreign currency.

3

International financial institutions uphold the unequal structures that subordinate states, while often incentivizing and sometimes mandating policy choices that force austerity and supercharge extractivism.

4

Under the current political economic system, the pursuit of financial stability pushes states towards extractivism, constrains policy options, and is in direct conflict with ecological stability.

Key Findings

Why do governments struggle to meet agreed-upon targets to protect and restore biodiversity? What prevents governments from dismantling extractivism, with its known social and environmental costs?

Across these 5 case studies, this report finds that governments are structurally incentivized to maintain and expand extractive sectors by the pressures of the international financial system — to maintain investability, to earn foreign exchange, and to comply with international financial institutions (IFIs) that manage economic crises. They do all of this, in part, because to do otherwise would risk financial stability within a highly unequal international financial system, in which many subordinated states already struggle to pay for basic imports and services and the imperatives of economic development remain urgent. While these findings may seem obvious to those who study macroeconomics and trade, their significance is rarely recognized in conversations about biodiversity loss and extractivism.

The usual explanations for ongoing extractivism include local corruption, regulatory capture, short-term economic benefits, and a lack of political will. While there is no doubt these factors exist and must be addressed to halt biodiversity loss, this research reveals that policy decisions encouraging extractivism are also influenced by states' subordinate position in the global economy. As explained below, this subordination results in considerable financial, monetary, and political pressures that shape policymaking in the Global South, and generates strong incentives to expand and deepen the industries most in conflict with countries' environmental objectives. These structures, therefore, represent a significant underlying driver of biodiversity loss, among other ecological and social crises.

Drawing insights across the case studies, this study has 4 key findings:

1. Governments support extractive sectors, in part, because they are trying to attract foreign investment to their country and maintain investability.

While governments often recognize export-oriented sectors as drivers of biodiversity loss, in all 5 cases they continue to support, enable, and incentivize those same export-oriented industries through domestic policies such as subsidies, preferential tax treatment, and lowered environmental standards. Governments support these extractive sectors, in part, to attract foreign investment, with the aim of promoting development and maintaining financial stability.

Take, for example, the preferential tax treatment that extractive sectors receive in Papua New Guinea (PNG), or the privatization and deregulation of the mining industry in Colombia. Policies such as these serve to maintain and/or attract capital to the country and sector by making investments more appealing, in turn generating revenues for the state and improving other dimensions of economic governance, like maintaining credit ratings that are crucial to access financial resources. But these policies also mean governments and their citizens are getting less for their resources, while companies and shareholders get more.

For example, a 2021 analysis found that while Australian companies operate most of the major mines in PNG, sending 97 percent of PNG gold to Australia, they often pay almost no corporate income tax.²⁷⁰ The

cumulative result of policies like these is that the sector is considered “undertaxed,” with a large part of the earnings from extractive industries in PNG — over 70 percent in some cases — flowing offshore to service debt and reward shareholders.²⁷¹

International investment can create jobs and bring in tax revenue. But this research shows governments often give their resources away in order to keep investment flowing in and to prevent it from flowing out. In the Democratic Republic of the Congo (DRC), the investment arrangement with Sicominex gives Chinese partners preferential export rights to DRC cobalt and copper until 2050. The government entered into this agreement in order to access infrastructure finance, even though the export value from mining concessions is predicted to be far greater than the gains for the DRC.²⁷² A major reason why the DRC accepts these terms is because the country’s low credit rating makes accessing other avenues of finance for infrastructure projects difficult.²⁷³ On the surface this is attributable to the perceived risk of the investment — but it is also clear that these patterns are rooted in long histories of uneven development, colonialism, and imperialism.²⁷⁴

In addition to letting investors take disproportional shares of the profit from a country’s natural resources, deregulation is another way that governments compete for extractive investment, at the explicit expense of more robust environmental protections. For example, in search of foreign investment to manage their financial crisis, Argentina dissolved all agricultural regulatory boards and dismantled the national forest conservation agency, paving the way for the expansion of the industrial soy sector.²⁷⁵

International investment can create jobs and bring in tax revenue. But this research shows governments often give their resources away in order to keep investment flowing in and to prevent it from flowing out.

While chasing foreign capital is one primary incentive for expanding extraction, the international financial and monetary system also imposes penalties for not doing so. International investment agreements and credit ratings — key tools for promoting investability — can lock states into unsustainable policies or resource decisions. This reliance on investability can lead governments to favor the interests of extractive companies over the political, social, and environmental rights of their people (“regulatory capture”) or to weaken their responses due to fear of downgraded international credit ratings or international trade litigation (“regulatory chill”) — a justifiable fear demonstrated by, for instance, Ecuador’s recent credit rating downgrade in the run-up to a national referendum that restricted oil and mineral extraction in some ecologically sensitive regions.²⁷⁶

²⁷⁰Nicholas and Lyons, “Australian Mining Companies have paid little or no corporate income tax in PNG despite huge profits.”

²⁷¹Nayda Avalos et al., “Papua New Guinea and the Natural Resource Curse,” *Comparative Economic Studies* 57, no. 2 (2015): 345–360, <https://doi.org/10.1057/ces.2015.1>.

²⁷²Marysse and Geenen, “Win-Win or Unequal Exchange?”

²⁷³David Landry, “The Risks and Rewards of Resource-For-Infrastructure Deals: Lessons From the Congo’s Sicominex Agreement,” *Resources Policy* 58 (2018): 165–174, <https://doi.org/10.1016/j.resourpol.2018.04.014>.

²⁷⁴Kasper Hoffmann, “Ethnogovernmentality: The Making of Ethnic Territories and Subjects in Eastern DR Congo,” *Geoforum* 119 (2021): 251–267, <https://doi.org/10.1016/j.geoforum.2019.10.002>.

²⁷⁵Sarah L. Burns and Lukas Giessen, “Dismantling Comprehensive Forest Bureaucracies: Direct Access, the World Bank, Agricultural Interests, and Neoliberal Administrative Reform of Forest Policy in Argentina,” *Society & Natural Resources* 29, no. 4 (2016): 493–508,

The Colombia case study demonstrates how international investment law can lock states into extractive projects over decades, even if costs increase or state environmental policy changes over time. Colombia's current (2024) government explicitly prioritizes a just transition off coal, but is forced to continue to operate the country's largest open-pit coal mine due to an international investment settlement. This settlement legally prevents Colombia from backing out without facing severe financial penalties, despite documented human rights violations associated with water grabbing, desertification, air pollution, and displacement by the mining company.²⁷⁷

While chasing foreign capital is one primary incentive for expanding extraction, the international financial and monetary system also imposes penalties for not doing so. International investment agreements and credit ratings — key tools for promoting investability — can lock states into unsustainable policies or resource decisions.

There are powerful industry lobby groups, as well as revolving doors between industry and governments that demand urgent attention. But the omnipresent fear of capital flight makes improving environmental regulation and capturing more value through increased taxation and other fiscal arrangements challenging, to say the least. In a world of highly mobile and globalized capital, “state policy everywhere must conform to the demands of finance.”²⁷⁸ If a country defies these demands, say by increasing taxes or passing strict environmental laws, in many cases capital can simply leave, an exit that may precipitate overall financial instability. While this is true in all countries to some extent, the options are further constrained for subordinated states, given their structural dependence on foreign currency.

Governments need foreign currency — most commonly US dollars — to pay for key imports (including energy, food, machinery, technology, and medicines), to pay costly, and at times unfairly imposed, external debts. Without inflow of foreign currency, countries risk financial instability, including defaults, credit downgrading, and currency devaluations. In other words, under the current monetary and financial system, earning foreign exchange is necessary for financial stability.

<https://doi.org/10.1080/08941920.2015.1089608>.

²⁷⁶In August 2023, Ecuador held a referendum to halt oil drilling in the Yasuni National Park in the Amazon. Fifty-eight percent of the country voted in favor. Citizens in Quito also voted to block gold mining in another biodiverse region, winning 68 percent of popular support. But another result of this popular support for limiting extraction was that Moodys and Fitch, 2 big ratings agencies, downgraded the country's sovereign credit rating. These ratings agencies are meant to be objective to reflect whether the country will be a stable investment, but the result is a kind of financial discipline that leads towards extractivism, and thus biodiversity loss, see: Dan Collins, “Ecuadorians Vote to Halt Oil Drilling in Biodiverse Amazonian National Park,” *The Guardian*, August 21, 2023, www.theguardian.com/world/2023/aug/21/ecuador-votes-to-halt-oil-drilling-in-amazonian-biodiversity-hotspot.

²⁷⁷Cajar Press, “10 Verdades Sobre Carbones del Cerrejón,” Colectivo de Abogados José Alvear Restrepo, July 9, 2019, www.colectivodeabogados.org/10-verdades-sobre-carbones-del-cerrejon/; Astrid Ulloa, “The Rights of the Wayúu People and Water in the Context of Mining in La Guajira, Colombia: Demands of Relational Water Justice,” *Human Geography* 13, no. 1 (2020), <https://doi.org/10.1177/1942778620910894>; Jen Moore, “Colombia: Corporate Claims vs. Human Rights,” Institute for Policy Studies, July 17, 2023, <https://ips-dc.org/colombia-corporate-claims-vs-human-rights/>

²⁷⁸Prabhat Patnaik, “Foreword” in *Economic and Monetary Sovereignty in 21st Century Africa*, eds. Maha Ben Gadha et al. (London: Pluto

2. Governments also support extractive sector expansion and continuity to obtain foreign currency.

Exports are the key way that governments earn foreign currency, and in all cases the extractive sectors studied represented a significant proportion of total export earnings (see Table 1). For example, in the years 2018 to 2022, on average 25 percent of Argentina's export earnings have been derived from industrial soy products. In the DRC, metal products and byproducts account for as much as 84 percent of national exports by income. Depending on the year, in Jamaica the bauxite/alumina sector can make up to a third or even half of all export revenue and is a key source of foreign exchange. These states are highly dependent on this extraction — and stable commodity prices — to pay for critical imports like energy, medicine, and food, and to repay debts.

Dependence on foreign exchange is also influenced by highly unequal access to finance, which leads already-disadvantaged states to amass larger external debt burdens.

Dependence on foreign exchange is also influenced by highly unequal access to finance, which leads already-disadvantaged states to amass larger external debt burdens. Governments take out loans under different conditions. For example, African countries borrow on average at 4 times the interest rate of the United States and 8 times the rate of Germany,²⁷⁹ compounding the burden that subordinated states face in repaying debts. These differential borrowing costs also impact states' abilities to invest in sustainable development. For example, the International Energy Association found that the cost of capital for a typical photovoltaic (PV) plant in 2021 was 2 to 3 times higher in the Global South (excluding China).²⁸⁰

When debts are denominated in foreign currency, external debts require repayment in foreign exchange — again, typically in US dollars — which increases pressure to export in order to access those currencies. Across all 5 cases, the majority of public and publicly guaranteed debt is denominated in US dollars.²⁸¹ But this also makes the value of those debts vulnerable to shifts in the monetary policy of the nation controlling the currency in question. For example, US Federal Reserve decisions to raise interest rates have significantly raised the cost of capital for countries across the Global South, contributing to the debt distress sweeping the world.²⁸² These interest rate increases, the largest in 4 decades, have forced the planet's poorest countries to spend USD 88 billion servicing a record high debt of USD 443 billion, while they struggle to pay for basic services.²⁸³

Press, 2021), viii.

²⁷⁹UNCTAD, "A World of Debt."

²⁸⁰"Cost of Capital Observatory — Data Tools," IEA, accessed January 31, 2024, www.iea.org/data-and-statistics/data-tools/cost-of-capital-observatory-data-explorer.

²⁸¹2022: PNG - 58.1 percent of public debt is in USD, 91.4 percent for Argentina, 83.3 percent in the DRC, 94.5 percent in Colombia, 99 percent in Jamaica, see: "International Debt Statistics (IDS)," The World Bank, accessed January 29, 2024, <https://www.worldbank.org/en/programs/debt-statistics/ids>.

²⁸²Ivana Vasic-Lalovic and Lara Merling, "The Growing Debt Burdens of Global South Countries: Standing in the Way of Climate and Development Goals," Center for Economic Policy and Research, October 12, 2023, <https://cepr.net/report/the-growing-debt-burdens-of-global-south-countries-standing-in-the-way-of-climate-and-development-goals/>.

Sovereign debt is not a de facto bad thing — it helps countries accomplish important social development and infrastructure objectives. But in all case studies, it was found that external debt, and the terms on which it is accessed, is one key constraint in reforming extractive sectors, as repayment of these debts puts increased pressure on governments to earn foreign currency through industries driving biodiversity loss. Argentina is a crucial example of this phenomenon of debt-induced extractivism: the country has experienced 50 years of debt crises, with heavy IMF loan burdens accumulating in the 1980s and 1990s and persisting into the present, such that a 2018 loan made the country the IMF’s biggest borrower.²⁸⁴ Argentina’s primary exports generating foreign exchange are soy and other industrial agricultural products, which take a heavy toll on biodiversity and agroecosystem sustainability. Instead of reforming these sectors, Argentina has little option but to double down on exports. The country’s own biodiversity strategy recognizes that the resulting economic model contradicts their stated commitments to ecosystem protection.²⁸⁵

Moreover, an external debt burden with high interest rates can reduce states’ fiscal space to support environmental and social objectives, since such a high percentage of government revenue is redirected toward debt servicing.²⁸⁶ For example, in Colombia, interest payments on public debt were 15 percent of net government revenues from 2019 to 2021, and for Jamaica this figure was 19 percent, compared to the average of 4 percent for developed countries.²⁸⁷ In 2019, on the eve of the COVID-19 pandemic, the Jamaican government spent nearly double on debt service as it did on health, one of 64 countries across the world that spent more on interest than healthcare.²⁸⁸ Debt service pressures are only increasing under the current debt crisis accelerated by the fallout of COVID-19 (Argentina, DRC, and PNG all took out new IMF loans during this time). Recent research suggests that growing indebtedness, rising US interest rates, and commodity price hikes are leading governments toward a “new wave of austerity,” risking needed public health investments.²⁸⁹ These conditions do not bode well for Global Biodiversity Framework (GBF) implementation.

In all 5 cases there is local resistance to extractive projects and paradigms. However, states often side with the extractive industry. In Jamaica, a 2022 Supreme Court case saw the Government of Jamaica appealing an injunction against a bauxite mining company that brings in important foreign exchange, but destroys forests, degrades water quality, and imperils livelihoods. Land defenders consequently face layers of environmental injustice from their own states, transnational corporations, and the international investment legal system.²⁹⁰

In the current global political economic system, declining exports and declining access to foreign currency can be existential problems for governments.

²⁸³“International Debt Report 2023,” World Bank, 2023, <http://hdl.handle.net/10986/40670>.

²⁸⁴Jorgelina Do Rosario, “IMF has a Tough Call on Argentina: Force Major Reforms or Pull the Plug,” *Reuters*, September 15, 2023, www.reuters.com/world/americas/imfs-argentina-predicament-look-reforms-tango-or-kill-music-2023-09-15/.

²⁸⁵“Estrategia Nacional Sobre La Biodiversidad Plan de Acción 2016–2020,” República Argentina, 2017, www.cbd.int/doc/world/ar/ar-nbsap-v2-es.pdf.

²⁸⁶“International Debt Report 2023,” The World Bank, 2023, <http://hdl.handle.net/10986/40670>; Jessica Dempsey et al. “Biodiversity Targets Will Not Be Met Without Debt and Tax Justice,” *Nature Ecology & Evolution* 6 (2022): 237–239, <https://doi.org/10.1038/s41559-021-01619-5>; Thomas Stubbs et al. “The Return of Austerity Imperils Global Health,” *BMJ Global Health* 8, no 2. (2023), <https://gh.bmj.com/content/8/2/e011620>; “The Growing Global South Debt Crisis and Cuts in Public Spending,” Jubilee Debt Campaign, 2020, <https://go.nature.com/3DF2RpM>; Daniel Munevar, “A Debt Pandemic: Dynamics and Implications of the Debt Crisis of 2020,” Eurodad, 2021, https://www.eurodad.org/2020_debt_crisis.

²⁸⁷This data comes from the United Nations Conference on Trade and Development’s “Debt Dashboard,” which can be accessed here: <https://unctad.org/publication/world-of-debt/dashboard>. For specific numbers, enter the country of interest to see public debt interest payments as a share of net revenue.

²⁸⁸“Sixty-Four Countries Spend More on Debt Payments Than Health,” Debt Justice UK, April 12, 2020, <https://debtjustice.org.uk/press-release/sixty-four-countries-spend-more-on-debt-payments-than-health>.

Why do governments so often side with the extractive industry, including foreign companies, over their own people and environments? Regulatory capture and elite interests are key factors. But in the current global political economic system, declining exports and declining access to foreign currency can be existential problems for governments. The Jamaican Finance Minister said as much in response to the Cockpit Country mine injunction, stating that the industry’s “survival is under threat and the Jamaican economy faces major upheaval,” pointing directly to the sector’s role in generating foreign exchange.²⁹¹ In his terms, the health of this extractive sector underpins the economic health of the country. Making matters worse, a 2023 UN Conference on Trade and Development study finds that Global South countries’ ability to generate foreign exchange through exports is deteriorating, further compromising their ability to pay debts.²⁹² While not the only pressures on states, these conditions persistently shape what states can and will do to address extractivism, environmental injustices, and biodiversity loss.



Currency hierarchies and the international financial and monetary system

The international financial system treats national currencies as asset classes with differential abilities to store value — all stacking up against the US dollar, which serves as the base unit of the system, the currency with the highest liquidity and trust. After the Bretton Woods’ gold-backed, fixed-exchange rate currency system collapsed in the 1970s, the ongoing supremacy of the US dollar and other Global North currencies like the Euro and Yen created an inequitable global system by maintaining the necessity of obtaining foreign currency for economic development and financial stability. That means that US economic policy — such as interest rate increases — has reverberating impacts on international markets that can quickly destabilize economies, leaving them further dependent on attracting international capital and taking out loans. Subordinated states face pressure to accumulate reserves of foreign currency to service debts and otherwise attain macroeconomic stability, and to engage in trade.²⁹³

3. International financial institutions (IFIs), such as the International Monetary Fund (IMF) and World Bank (WB), uphold the unequal structures that subordinate states, while often incentivizing and sometimes mandating policy choices that force austerity and supercharge extractivism.

International financial institutions have enormous leverage over how governments deal with political economic matters. These institutions include private credit rating agencies like S&P and Fitch, banks and insurers that are part of establishing investability, and the Bretton Woods institutions (including the IMF and WB). These case studies affirm that the Bretton Woods institutions had a foundational role in promoting export-oriented development, and the associated policies of privatization, liberalization, and deregulation.

²⁸⁹Stubbs et al. “The Return of Austerity Imperils Global Health.”

²⁹⁰Scheidel et al., “Environmental Conflicts and Defenders: A Global Overview;” Arce and Nieto-Matiz, “Mining and Violence in Latin America.”

²⁹¹“Mining Injunction ‘Death Knell’ for New Day, Noranda.”

²⁹²The 2023 UNCTAD report found that the share of external public debt to exports increased from 71 percent in 2010 to 112 percent in 2021. During the same period, external public debt service as a share of exports increased from 3.9 percent to 7.4 percent; see: UNCTAD, “A World of Debt.”

These dynamics contribute to the current feedback loops of resource exploitation and export-oriented development.

The Bretton Woods approach to economic crises is to inject capital through loans to deal with countries' immediate needs, but these loans often come with conditionalities that, among other fiscal and monetary policy shifts, require states to cut public spending (austerity), increase productivity, and quickly expand the economy.²⁹⁴ These cases show that plans for financial stability within these loan agreements have encouraged or even required the expansion of extractive sectors. For example, as part of the WB's Heavily Indebted Poor Countries initiative, the DRC received partial debt cancellation in 2010. But this debt relief required the DRC to develop a Poverty Reduction and Growth Strategy that committed the country to implement corporate-friendly tax regimes and regulatory frameworks, and PPPs that transfer partial ownership to private companies.²⁹⁵ In other words, the IFIs encouraged the DRC to implement policies that helped prop up the mining industry, but under terms that risked human and ecosystem health, increased the country's reliance on the sector, and did not bring significant revenue for the provision of public goods and services in the country. Although PPPs can provide states with needed cash for infrastructure, they cede state power to corporate shareholders that are insulated by distance and wealth from the risks of extraction.²⁹⁶

Overall, the cases show that the Bretton Woods institutions have reinforced dependence on extractive exports. As such, these institutions are implicated in sustaining and expanding the extractivism that drives biodiversity loss. This finding is supported by 2021 research that found that from 2015 to 2020 (2015 is when the Paris Agreement was signed), the IMF "endorsed, directly supported the expansion of fossil fuel infrastructure" in Article 4 consultations with 105 member countries.²⁹⁷

Finally, these case studies also show that the austerity baked into many states due to decades of neoliberal policies and conditionalities makes it challenging for governments to expand public institutions that could regulate extractive sectors. While the IMF currently considers Jamaica to be a "success story" because of its low levels of debt and fiscal restraint, these characteristics also mean the government faces severe limitations to investing in productive infrastructure and industry, poverty alleviation, climate adaptation, ecological degradation, and biodiversity loss. Even the IMF says infrastructure development is needed in Jamaica in order to attract investment and also to become more climate resilient, yet it is unclear where those funds will come from, given the limited potential for economic growth — a point also noted by the IMF.²⁹⁸ The structural imbalances in terms of power and representation in these governing bodies also mean that subordinated states have little recourse for reform and little access to expanded resources to move beyond austerity and extractivism. For example, Argentina, which is regularly subjected to IMF conditionalities that act as structural drivers of biodiversity loss, has a vote share of 0.66 percent on the IMF Board of Governors; meanwhile, the United States's vote counts for 14 percent.²⁹⁹

²⁹³ Romain Svartzman and Jeffrey Althouse, "Greening the International Monetary System? Not without Addressing the Political Ecology of Global Imbalances," *Review of International Political Economy* 29, no. 3 (2022): 844–69, <https://doi.org/10.1080/09692290.2020.1854326>; Althouse and Svartzman, "Bringing Subordinated Financialisation Down to Earth."; Alami et al., "International Financial Subordination".

²⁹⁴ Alexander E. Kentikelenis, Thomas H. Stubbs, and Lawrence P. King, "IMF Conditionality and Development Policy Space, 1985–2014," *Review of International Political Economy* 23, no. 4 (2016): 543–582, <https://doi.org/10.1080/09692290.2016.1174953>; Bhumika Muchhala, "The Structural Power of the State-Finance Nexus: Systemic Delinking for the Right to Development," *Development* 65 (2022): 124–135, <https://doi.org/10.1057/s41301-022-00343-2>.

²⁹⁵ IMF, "Democratic Republic of the Congo: Poverty Reduction Strategy Paper, IMF Country Report No. 07/330."

²⁹⁶ Nicholas Hildyard, *Licensed Larceny: Infrastructure, Financial Extraction and the Global South Get Access* (Manchester: Manchester University Press, 2016), <https://academic.oup.com/manchester-scholarship-online/book/33306>.

²⁹⁷ Jon Sward et al., "IMF Surveillance and Climate Change Transition Risks: Reforming IMF Policy Advice to Support a Just Energy Transition," Bretton Woods Project and ActionAid USA, 2021, www.actionaidusa.org/wp-content/uploads/2021/08/IMF-x-climate-FINAL-1.

4. Under the current global political economic system, to achieve financial stability governments are pushed to maintain investability, earn foreign exchange to pay for debts and imports, and comply with IFI dictates that incentivize extractive developments. These pressures simultaneously maintain extractivism and constrain policy choices, scuppering action on biodiversity loss and extinction. As such, the case studies show how under the current political economic system, the pursuit of financial stability is in direct conflict with ecological stability.

All 5 cases are constrained by global political economic forces that affect most, if not all, countries albeit to differing extents depending on their place in the global geopolitical hierarchy. The current political and economic rule book, written largely to benefit the world's wealthiest states, institutions, and people, leaves limited policy choices, even for the Global North.³⁰⁰ These policy options are most limited in countries that scholars describe as subordinate in the international financial system: structurally disadvantaged and subsequently facing ongoing economic instability and constant threat of credit ratings downgrades, currency fluctuations, capital flight, and loan defaults. Shaped by longer interlocking histories of imperialism, colonialism, racism, and capitalism, these subordinated conditions make it challenging for governments to undertake policy action that would address the drivers of biodiversity loss. Instead, the current rules of the game generate strong incentives to expand and deepen the industries most in conflict with countries' environmental objectives, leading these governments to make the same resource-extraction-focused decisions in order to maintain short-term financial stability, but at the expense of long-term ecological stability.

The relationship between international financial subordination and extractivism can be understood as a feedback loop. In this feedback loop of subordination, states depend on extraction, leaving them dependent on costlier imported technologies and capital goods — translating to severe balance-of-payment constraints and external debt burdens. These mutually reinforcing relations of financial, monetary, and productive subordination contribute to ecological destruction.³⁰¹ This is because repeated financial crises, debt servicing, the pursuit of foreign exchange at any costs, IFI conditionalities, and other manifestations of monetary and financial subordination push developing economies to deepen specialization in extractive and polluting sectors. These subordination-induced pressures to intensify extractivism for exports further expose developing and emerging economies to ecological degradation, which increase climate change and biodiversity risks. Under current conditions, these increased ecological and climate risks translate into higher external financial fragility and deteriorating sovereign credit ratings, thereby worsening financial and monetary subordination.³⁰² As a result, global economic patterns continue to transfer wealth to rich governments, domestic elites, companies, and consumers who benefit from Global South governments' constrained position as commodity exporters.³⁰³

pdf.

²⁹⁸IMF, "IMF Reaches Staff-Level Agreement with Jamaica."

²⁹⁹IMF, "IMF Members' Quotas and Voting Power, and IMF Board of Governors," International Monetary Fund, last modified January 14, 2024, www.imf.org/en/About/Executive-board/members-quotas.

³⁰⁰Geoff Mann, *Disassembly Required: A Field Guide to Actually Existing Capitalism* (Chico, California: AK Press, 2013), 199–227.

³⁰¹Althouse and Svartzman, "Bringing Subordinated Financialisation Down to Earth."; Svartzman and Althouse "Greening the International Monetary System?"

³⁰²Matthew Agarwala et al., "Nature Loss and Sovereign Credit Ratings," Finance for Biodiversity Initiative, June 2022, www.bennettinstitute.cam.ac.uk/wp-content/uploads/2022/06/NatureLossSovereignCreditRatings.pdf; "The Vicious Cycle: Connections Between the Debt Crisis and Climate Crisis," ActionAid, 2023, <https://actionaid.org/publications/2023/vicious-cycle>; Anne Löscher and Annina Kaltenbrunner, "Climate Change and Macroeconomic Policy Space in Developing and Emerging Economies," *Journal of Post Keynesian Economics* 46, no 1 (2022): 113–141, <https://doi.org/10.1080/01603477.2022.2084630>; Tobias Franz and Angus McNelly, "The 'Finance-Extraction-Transitions Nexus': Towards a Critical Research Agenda Exploring the Scramble for Transition Minerals," *SOAS Department of Economics* 257 (2023), <https://eprints.soas.ac.uk/40256/1/economics-wp257.pdf>.

³⁰³Jason Hickel, Dylan Sullivan, and Huzaifa Zoomkawala, "Plunder in the Post-Colonial Era: Quantifying Drain from the Global South Through Unequal Exchange, 1960–2018," *New Political Economy* 26, no. 6 (2021): 1030–1047, <https://doi.org/10.1080/13563467.2021.1899>

Conclusion

Under conditions where states are structurally incentivized or even required to maintain and expand biodiversity-destroying extractive sectors, governments — no matter their political stripe — will face enormous challenges in achieving the recently agreed-upon Kunming-Montreal GBF targets. This research concretely demonstrates and advances the findings of the 2019 Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES, the intergovernmental body tasked with strengthening the connection between biodiversity science and policy), which concluded that significant action on biodiversity loss requires transformative change, defined as “a fundamental, system-wide reorganisation across technological, economic, and social factors, including paradigms, goals, and values.”³⁰⁴

A key implication of this research is that genuinely transformative outcomes will require targeting and dismantling the root political economic structures that make extraction profitable and, for so many states, necessary to maintain their financial stability.³⁰⁵ These pressures are structural in that acting otherwise could threaten the overall stability of the case study economies — stability that allows regular people to buy food and deposit their paychecks, and that allows governments to pay for key imports like technology and vaccines. The “choice” to support extraction in these cases is between a rock and a hard place. This points to the critical need for change beyond domestic policy, change that explicitly addresses the political economic rules that constrain government action on biodiversity loss, particularly for subordinated states. This is not to let governments and domestic elites off the hook for bad decisions, regulatory capture, and corruption, but to recognize and address these broader conditions that push states towards extractivism, again and again. Only international efforts undertaken with the spirit of solidarity and redistribution of wealth and power will be able to transform these structures and make viable current efforts to restore ecological stability.

Only international efforts undertaken with the spirit of solidarity and redistribution of wealth and power will be able to transform these structures and make viable current efforts to restore ecological stability.

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³⁰⁴ IPBES, “Global Assessment Report on Biodiversity and Ecosystem Services,” 889.

³⁰⁵ Biodiversity Capital Research Collective, “Beyond the Gap: Placing Biodiversity Finance in the Global Economy,” Third World Network and The University of British Columbia Geography, 2021, <https://climatejustice.ubc.ca/publications/beyond-the-gap-placing-biodiversity-finance-in-the-global-economy/>.

Yet the international financial constraints that expand extraction and hinder action on extinction are rarely on the table in international and domestic biodiversity policy. Instead, biodiversity policy tends to focus on leveraging yet-to-be-convinced private capital to fill the financing gap³⁰⁶ and rolling out unproven biodiversity offset and credit markets,³⁰⁷ while hanging our hopes on protected areas — at least 171 of which worldwide changed their regulations for the purposes of mining between 1980 and 2019.³⁰⁸ None of these approaches have lessened the pressures that perpetuate extractivism and may in some cases actually further legitimize and advance extractivism.³⁰⁹ At the CBD COP 15 in Montreal in late 2022, a draft decision called for a study into the relationship between sovereign debt, austerity, and biodiversity loss, but governments did not endorse it.³¹⁰ As such, the call for the study was deleted. Such exclusion is concerning given that debt service pressures are only increasing in the contemporary moment. Global South sovereign debt has been on the rise since the global financial crisis of the late 2000s and grew precipitously following the COVID-19 pandemic and associated economic shocks.

The international financial constraints that expand extraction and hinder action on biodiversity loss are rarely on the table in international and domestic biodiversity policy. Yet this research suggests that many states will struggle to meet the recently agreed-upon KMGBF targets under the current global political-economic rules, just as they struggled to achieve previous targets set in 2010.

The Kunming-Montreal targets do have some reference to political economic drivers of biodiversity loss. For example, Target 14 calls for integrating the true value of biodiversity into all aspects of government; Target 18 calls to eliminate subsidies harmful to biodiversity. However, this research suggests that many states will struggle to meet these targets under the current global political economic rules, just as they struggled to achieve the previous Aichi Biodiversity Targets set in 2010.³¹¹ Without changing these conditions — these rules of the game — extractivism will continue, while also undermining public investment in sustainable development. It might be tempting to turn away from such daunting structural challenges, but what comes of these debates will have direct bearing on what kinds of nature thrive, or not, all over the world.

³⁰⁶Jessica Dempsey et al., “Thin and Shallow: Financial Instruments for Biodiversity Conservation and Their Outlook,” Working paper prepared for the NGFS + INSPIRE joint study group on Biodiversity and Financial Stability, 2021; Katie Kedward et al., “Heavy Reliance on Private Finance Alone Will Not Deliver Conservation Goals,” *Nature Ecology & Evolution* 7 (2023): 1339–1342, <https://doi.org/10.1038/s41559-023-02098-6>; Jessica Dempsey and Daniel Chiu Suarez, “Arrested Development? The Promises and Paradoxes of ‘Selling Nature to Save It,’” *Annals of the American Association of Geographers* 106, no. 3 (2016): 653–671, www.jstor.org/stable/45387632.

³⁰⁷Sophus O. S. E. Zu Ermgassen et al., “The Ecological Outcomes of Biodiversity Offsets Under ‘No Net Loss’ Policies: A Global Review,” *Conservation Letters* 12, no. 6 (2019), <https://doi.org/10.1111/conl.12664>.

³⁰⁸Juliana Siqueira-Gay et al., “Strategic Planning to Mitigate Mining Impacts on Protected Areas in the Brazilian Amazon,” *Nature Sustainability* 5 (2022): 853–860, <https://doi.org/10.1038/s41893-022-00921-9>.

³⁰⁹See, for example, Evangelia Apostolopoulou and William M. Adams, “Biodiversity Offsetting and Conservation: Reframing Nature to Save It,” *Oryx* 51, no. 1 (2015): 23–31, www.doi.org/10.1017/S0030605315000782.

³¹⁰The decision recommended the CBD Secretariat “prepare a report on the relationship between public debt, austerity measures and the implementation of the Convention, with a view to removing specific impediments to the implementation of the Convention.” For analysis of this decision see: Audrey Irvine-Broque and Jessica Dempsey, “Towards Serious Biodiversity Policy: Foreign Debt in the Long Duree of Extractivism,” *Metapolis*, Jan–Jun 2023, <https://metapolis.net/project/towards-serious-biodiversity-policy-foreign-debt-in-the-long-duree-of-extractivism/>.

³¹¹Aichi Target 3 committed governments to eliminate, phase out, or reform subsidies harmful to biodiversity by 2020. Aichi Target 2 committed governments to integrate the value of biodiversity into national and local accounting. See: CBD, “Aichi Biodiversity Targets.”



Next Steps

Our report concludes that it will be challenging, and perhaps impossible, to reach the Kunming-Montreal GBF goals and targets without direct efforts to alter the global political economic forces that pressure governments to continue extractivism as usual. These efforts will need to take place in a wide variety of fora, from the G7 and OECD where economic and political elites from the Global North gather to change (or more often, reaffirm) the rules of the global economy, to more democratic international bodies like the UN General Assembly, and to the fiscal and political authorities in countries around the world.

What would it look like — concretely — if governments, IFIs, multilateral bodies, and conservation/ environmental organizations took these structural financial conditions seriously? What conditions of the international financial system would have to change to open policy space for governments to achieve global targets?

There are many ideas circulating about what this change can and should look like; a range of approaches are outlined below. These options may seem to be far from the usual biodiversity policy, but this research report shows that to create the conditions necessary for successful implementation of biodiversity targets and policies, governments and international institutions must urgently take on the global political economic structures that make transformative action on biodiversity loss challenging, or even impossible.

Below we outline some starting points for that effort. None of these are silver bullets and it is clear that advancing such far reaching changes will rely first and foremost on building political constituencies and power in support of this necessary direction of change.

In Phase 2 of this research project we conducted focus groups with biodiversity policy experts, civil society, and international financial institutions to assess these findings and identify possibilities for transformative change. The key findings from this research can be found at: [<https://cfcj.cms.arts.ubc.ca/news/new-report-transformative-biodiversity-policy-at-a-stalemate-consensus-on-age-old-problems-coherent-pathway-forward-needed/>].

Policy starting points

Democratic economic governance

Restructured Bretton Woods institutions, particularly the World Bank (WB) and IMF, could help address these persistent extractivist political economic forms. These institutions have governance structures and operations that are legacies of a post-World War II global order that was laid out in the twilight of formal colonialism, with a one-dollar, one-vote system that shuts the Global South out of decision-making. What further steps could the WB and IMF take to address the structural drivers of biodiversity loss as identified in this report? Some ideas include expanding the distribution of IMF Special Drawing Rights (see below), eliminating surcharges on IMF lending, and making more funding available for in-country capacity building and regulatory implementation rather than continuing to prioritize one-off contracting that does little to build durable local expertise. These institutions could also review their lending and policy programs to address extraction and biodiversity loss. Advancing many of these changes will likely require overhaul of governance

in these institutions, which currently allocates vote shares in a manner that is fundamentally anti-democratic, such that the US and European countries have de facto authority to appoint the heads of the WB and IMF, respectively.

IMF Special Drawing Rights (SDRs) offer ready access to reserve currencies that can stave off a liquidity crunch, but they are mostly allocated to rich countries, such that low-income developing countries received just 1.4 percent of the most recent allocation.³¹² Although they effectively reinscribe the centrality of those currencies rather than disrupt currency relations, they are a potentially useful tool for blunting the harm caused by monetary subordination and currency hierarchies. Another potential stopgap is the creation of swap lines between Global North and Global South central banks to ensure access to reserve currencies under conditions of low liquidity, which could (like SDRs) stave off further economic crisis that results in the need for emergency IFI lending that often come with conditionalities like reduced funding for environmental policy implementation.

International investment law includes conditions that structurally advantage corporations over both Global South states and human rights, and can lock states into extractive projects, imposing steep fees if developing countries attempt to back out due to the ecological or human costs of development. Governments could withdraw from the International Centre for Settlement of Investment Disputes,³¹³ the primary forum for Investor-State Dispute Settlements (ISDS) claims,³¹⁴ as these are the primary mechanisms that enforce unjust investment settlements. Bilateral treaties and free trade agreements could also create a climate change and environmental carve-out that makes environmental regulations ineligible for ISDS,³¹⁵ or remove ISDS as a provision in agreements altogether.³¹⁶

Reparative finance

Significant new and additional resources flowing from Global North to Global South, in accordance with Article 20 under the Convention on Biodiversity and Rio Principles of Common but Differentiated Responsibilities, and within a framework of equity and distributive justice, could allow countries to push forward on Kunming-Montreal GBF targets.³¹⁷

Multilateral debt restructuring and cancellation can reduce pressure on governments to prioritize export-oriented extractive commodities that are so damaging for biodiversity, and to increase public resources for biodiversity conservation and other needed public goods and services, like health care and climate mitigation and adaptation.

³¹²Michael Franczak and Olúfémi O Táíwò, “Here’s How to Repay Developing Nations for Colonialism — and Fight the Climate Crisis,” *The Guardian*, January 14, 2022, www.theguardian.com/commentisfree/2022/jan/14/heres-how-to-repay-developing-nations-for-colonialism-and-fight-the-climate-crisis.

³¹³Martin Khor, “A Summary of Public Concerns on Investment Treaties and Investor-State Dispute Settlement,” Third World Network, 2018, www.twn.my/title2/t&d/tnd42.pdf.

³¹⁴Also called International Investment Treaties (IITs), “These treaties grant foreign investors certain protections and benefits, including recourse to Investor-State Dispute Settlement (ISDS) to resolve disputes with host states,” see: “Primer on International Investment Treaties and Investor-State Dispute Settlement,” Columbia Center on Sustainable Investment, January 2022, <https://ccsi.columbia.edu/content/primer-international-investment-treaties-and-investor-state-dispute-settlement>; for more discussion on ISDS, see the Colombia case study in this report; “What is the World Bank’s International Center for the Settlement of Investment Disputes (ICSID)?” Bretton Woods Project, July 18, 2022, www.brettonwoodsproject.org/2022/07/what-is-the-world-banks-international-center-for-the-settlement-of-investment-disputes-icsid-2/.

³¹⁵Joshua Paine and Elizabeth Sheargold, “A Climate Change Carve-Out for Investment Treaties,” *Journal of International Economic Law* 26, no. 2 (2023): 285–304, <https://doi.org/10.1093/jiel/jgad011>.

³¹⁶Julia Calvert and Kyla Tienhaara, “Beyond ‘Once Bitten, Twice Shy’: Defending the Legitimacy of Investor-State Dispute Settlement in Peru and Australia,” *Review of International Political Economy* 30, no. 5 (2023): 1799–1823, <https://doi.org/10.1080/09692290.2022.2134172>.

³¹⁷Dilys Roe et al., “Loss and Damage Finance Should Apply to Biodiversity Loss,” *Nature Ecology & Evolution* 7 (2023): 1336–1338, <https://doi.org/10.1038/s41559-023-02088-8>.

Progressive tax measures, such as the development of a UN tax convention that aims to address tax havens and tax abuse by multinational corporations and other illicit financial flows could raise billions in Global South own-country revenues (thus reducing demand for foreign currency) that can support biodiversity measures alongside climate and other social/economic priorities. Other progressive tax measures could be considered, like windfall taxes on extractive sectors, international and national wealth taxes, and raising tax rates for global investment banks, private equity, and extraction firms.

Payments for loss and damages is a centerpiece of climate politics, and could also be applied in the CBD to radically scale up public international finance to achieve Kunming-Montreal GBF targets. These payments could partially compensate for the harms to biodiversity caused by the operations of the global economy that have benefited Global North countries and the wealthy. Expanded public funds could support Global South states' capacity to achieve their biodiversity goals and also reduce pressure on Global South states to expand extractivism.



Appendix

A. Reviewers

This report underwent extensive review. Each case study had 2 reviewers with country-level expertise, including:

Argentina

Ana Di Pangrazio, Biodiversity Director and Deputy Director at Fundación Ambiente y Recursos Naturales (FARN)

Gastón Gordillo, Professor, Anthropology, University of British Columbia

Colombia

Diana Ojeda, Department of Geography, Indiana University Bloomington

Juan Felipe Riano-Landazabal, University of California, Los Angeles

The Democratic Republic of the Congo

Ben Radley, Department of Social and Policy Sciences, University of Bath

Divin-Luc Bikubanya, PhD Researcher and Teaching Assistant at the Institute of Development Policy (IOB), University of Antwerp

Jamaica

Alex A. Moulton, Assistant Professor, Geography and Environmental Science, Hunter College and The Graduate Center CUNY

Theresa Rodriguez-Moodie, Chief Executive Officer, Jamaica Environment Trust

Papua New Guinea

Paige West, Department of Anthropology, Barnard College and Columbia University

Patrick Kaiku, Teaching Fellow in the Political Science Department, University of Papua New Guinea

Reviewers of report summary, introduction and key findings

Ilias Alami, Assistant Professor in the Political Economy of Development, University of Cambridge

Lim Li Ching, Senior Researcher, Third World Network

Philippe Le Billon, Professor, Geography, University of British Columbia

Rosemary Collard, Associate Professor, Geography, Simon Fraser University

Sara Holiday Nelson, Centre for Climate Justice, University of British Columbia, Senior Research Manager

Thea Riofrancos, Associate Professor, Political Science, Providence College

B. Export Data

Table 1 presents 5 year averages (2018-2022) of the percentage of export revenue generated from the sector focus of each country case study. The authors calculated this average with data published by the Observatory of Economic Complexity (OEC). The calculations from each country include:

Argentina: the sum of soybeans, soybean meal, and soybean oil.

Colombia: for fossil fuels, the sum of all mineral fuels, mineral oils and products of their distillation, and for coal the sum of coal briquettes, lignite, peat, coke, coal tar oil, and pitch coke.

The Democratic Republic of the Congo: the sum of: metals, precious metals, and mineral products excluding mineral fuels, mineral oils and products of their distillation.

Jamaica: the sum of aluminium ore, aluminium oxide, and all aluminium articles.

Papua New Guinea: the sum of: metals, precious metals, and mineral products.