

“It’s the Ecology, Bretton Woods”

On why ecological economics should
be front and center at the International
Monetary Fund and the World Bank
Group

AVAAZ



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An Open Letter from Avaaz

Bretton Woods people: We need you in
Montreal this December to save the world
economy and keep our world habitable for all

11' Read



Washington DC, October 12, 2022

Dear Delegates to the 2022 Annual Meetings of the International Monetary Fund (IMF) and the World Bank Group (WBG):

In less than eight weeks, after the Annual Meetings, in early December, the international community will convene in Montreal to negotiate a new deal to halt biodiversity loss under the Convention of Biological Diversity (at its 15th Conference of the Parties, or COP15, December 7-19, 2022). One central issue of these negotiations concerns the economic reforms and financial resources that will be necessary to implement this new deal.

If you're more used to mainstream economic discussions, you may think biodiversity policy has nothing to do with monetary and financial policy. You may think the world faces other challenges that are more urgent than protecting the living fabric of our world. And you may think this should not be the core agenda of the World Bank and the International Monetary Fund meetings.

It's time to think again.

Without biodiversity, there's no viable global economy

As we face the worst recession in modern history, the combined impact of climate change and biodiversity loss is rendering our planet uninhabitable for an increasing share of the human population. This is happening gradually, but faster than anticipated. Since the start of the COVID-19 disruption, the need to protect biodiversity in order to prevent future pandemics has become clearer than ever¹.

So far, the impacts of climate change on the world economy have been subject to more analysis and discussion, but we are now better informed on the fact that these impacts will come

1. Daszak, P., Amuasi, J., das Neves, C. G., Hayman, D., Kuiken, et al, IPBES (2020) *Workshop Report on Biodiversity and Pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services*. <https://zenodo.org/record/4158500#.Y0H9xy-LGgQ>

on top of impacts caused by the widespread loss of biodiversity, which is mostly caused by how much and how fast we are destroying Earth’s ecosystems to extract an unsustainable quantity of resources globally.

Biodiversity is the main underlying foundation of the global economy: it is estimated that more than half of the world’s economic output - US\$ 44 trillion - is either moderately or highly dependent on biodiversity and its ecosystem services, and as a result, is vulnerable to biodiversity loss². A recent report by the Swiss Reinsurance Company Ltd (SwissRe) shows that 55% of global GDP depends on high-functioning biodiversity and ecosystem services. It also found that one-fifth of countries worldwide are at risk of ecosystem collapse due to a decline in biodiversity and related services³. Moody’s estimates that \$1.9 trillion is at stake as biodiversity loss intensifies nature-related risks and provides a further warning about the devastating ramifications in the economy of a depleted natural world⁴.

In the words of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), “the health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide”⁵. Such a dire warning should be a wake-up call for all the international financial institutions. We urgently need to make the transition towards an economy that prioritizes keeping the planet habitable for all of us. Biodiversity should no longer be viewed as a “cost”, but instead be understood as an asset and investment for a sustainable future. A growing body of evi-

dence supports this paradigm change: without biodiversity, there’s no viable global economy⁶.

This logic is already at the heart of the Agenda 2030 and its 17 Sustainable Development Goals, adopted in 2015. Its implementation has stalled, and during the latest meeting of the UN High-Level Political Forum on Sustainable Development (HLPF), Member States particularly highlighted the difficulties related to inequalities in access to vaccines, the worsening of climate change, the food crisis, the setback in development and human rights, the loss of biodiversity and the debt issue. The need for urgent structural changes was at the heart of discussions and comments of the HLPF.

A moment of deep KRISIS for the IMF and the World Bank

This sense of urgency is growing across experts and diplomats in the international policy fora, and even in actors from businesses that are now sometimes even more ambitious in their calls for structural reforms than what governments seem ready to do.

But really meaningful, structural decisions to bring these macroeconomic and microeconomic changes are still awaited. This is what’s at stake in Montreal, because the post-2020 global biodiversity framework that is to be adopted there will give the direction to these reforms. And this is why international financial institutions, and first and foremost the Bretton Woods institutions among them, need to really engage and support this process now.

We are living in a moment of crisis, in the etymological sense of the term from ancient Greek (from *krisis*, decision): a moment when a difficult or important decision must be made. As Interna-

2. Herweijer, C., Evison, W., Mariam, S., et al. World Economic Forum - PwC (2020). *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

3. Rettsa, A., Schelske, O., Wilke, B., Rutherford, G., de Jong, R., Swiss Re Institute (2020). *Biodiversity and ecosystem services: a business case for re/insurance*. <https://www.swissre.com/dam/jcr:a7fe3dca-c4d6-403b-961c-9fab1b2f0455/swiss-re-institute-expertise-publication-biodiversity-and-ecosystem-services.pdf>

4. Bloomberg. US edition (2022). *Moody’s \$1.9 Trillion Warning Over Biodiversity*. Consulted 10/04/2022: <https://www.bloomberg.com/news/articles/2022-09-28/moodys-s-1-9-trillion-warning-over-biodiversity-green-insight>

5. Brondizio, E. S., Settele, J., Díaz, S., Ngo, H. T., et al. IPBES (2019). *The global assessment report on biodiversity and ecosystem services*, ISBN: 978-3-947851-20-1 <https://zenodo.org/record/6417333#Y0H7ly-LGgQ>

6. TEEB (2010) *The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB*. <https://teebweb.org/wp-content/uploads/Study%20and%20Reports/Reports/Synthesis%20report/TEEB%20Synthesis%20Report%202010.pdf>; Dasgupta, P. (2021), *The Economics of Biodiversity: The Dasgupta Review*. (London: HM Treasury). <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

tional Monetary Fund Managing Director Kristalina Georgieva warned in her inaugural speech of this year’s annual IMF meetings, “the world faces growing recession risks and a ‘fundamental shift’ away from relative stability to an age of breakdown in international relations and more frequent natural disasters”⁷. As a result, governments will be tempted to increase their investment in environmentally destructive projects for the short term economic benefits they supply. This will inevitably lead to more biodiversity loss and climate instability, thus more economic instability, more poverty and more conflicts in the years ahead.

Financial institutions play a big role in biodiversity loss. For instance, in 2019 the world’s largest financial institutions provided more than US\$ 2.6 trillion worth of loans and underwriting services to sectors identified as primary drivers of biodiversity loss including food, forestry, mining, and fossil fuels⁸. More recently, three central banks⁹ have been accused of exacerbating deforestation rates and land grabs through investments in agribusiness bonds, instead of setting an example by evaluating climate and biodiversity loss risks to financial stability. Likewise, the Organisation for Economic Co-operation and Development (OECD) estimates the sum of harmful subsidies to be slightly more than US\$ 500 billion per year, but a startling new study¹⁰ released earlier this year, estimates that governments spend at least US\$ 1.8 trillion a year on subsidies that are depleting biodiversity – equivalent to 2% of global GDP.

In this context, both public and private financial institutions are missing the call of urgency to stop biodiversity loss and increase financial flows for biodiversity-compatible investments.

7. Partington, R., The Guardian (2022) *IMF chief warns world heading towards age of greater instability*. Thu 6 Oct 2022 - 09:52 EDT <https://www.theguardian.com/business/2022/oct/06/imf-chief-warns-world-is-heading-towards-an-age-of-breakdown>

8. OECD. (2021). *Biodiversity, natural capital and the economy: A policy guide for finance, economic and environment ministers*. OECD Environment Policy Papers, No. 26. Paris: OECD Publishing. <https://doi.org/10.1787/1a1ae14-en>.

9. Global Witness (2022). *Bankrolling deforestation: Central banks accused of financing environmental destruction*. Briefing September 2022. <https://www.globalwitness.org/en/campaigns/forests/bankrolling-deforestation/>

10. Koplow, D, Steenblik, R. (2022). *Protecting Nature by Reforming Environmentally Harmful Subsidies: The Role of Business*. Earth Track and The B Team. <https://www.earth-track.net/document/protecting-nature-reforming-environmentally-harmful-subsidies-role-business>

The time to engage with the CBD and the post-2020 global biodiversity framework is now.

Because of their power to unite countries, mobilize funds, and influence thinking, we believe that the World Bank and the International Monetary Fund are one of the key fora from which the direction of the paradigm shift must emanate towards economic actors. Both can play a critical role in the upcoming negotiations in Montreal.

Countdown: seven weeks to save the world’s ecology, and the global economy with it - Bretton Woods, now is the time to engage

What needs to happen in the coming decade is what scientists call “transformative change” for biodiversity¹¹: we need ambitious conservation targets, legal and macroeconomic reforms so that we stop funding the destruction of **biodiversity and support its recovery, and more strongly support the current leaders of positive change** on the ground. As we describe in this paper, this means:

- Conserving at least half of the planet (see the Avaaz petition that has been signed by more than 3 million people in the world)¹²,
- Eliminating all public support to activities that are harmful to biodiversity,
- Making available at last US\$ 1 trillion a year to support the implementation of the post-2020 global biodiversity framework,

11. Leadley, P., Gonzalez, A., Obura, D., Krug, C. B., Londoño-Murcia, M. C., Millette, K. L., Xu, J. et al. (2022). *Achieving global biodiversity goals by 2050 requires urgent and integrated actions*. One Earth, 5(6), 597-603. <https://www.sciencedirect.com/science/article/abs/pii/S2590332222002640>

12. AVAAZ (2021) *Let’s win a real plan to save life on earth -- this week!* Avaaz campaign with 3,093,805 signatures until October 9th, 2022, https://secure.avaaz.org/campaign/en/protect_half_our_planet_2021_56/

- Recognizing and protecting the land rights of Indigenous Peoples and Local Communities and increase their direct access to international funding,
- and reaching economic equality between men and women and closing the gender gap at work.

We believe the leadership of Bretton Woods institutions should engage right now to help unlock biodiversity negotiations, so that we can achieve the deal we all need in Montreal.

But we will need you all to engage individually, as well. Some of you might still wonder how the topics above are interconnected, and we have built this report to share our perspectives. This report is based on a comprehensive literature review of the economics of biodiversity, reports by leading multilateral organizations, and studies by influential financial associations such as the Network of Central Banks and Supervisors for Greening the Financial System, the Financial Stability Board and others. You won’t find “avant-garde” theories here, nor an idealistic tale of “the world we want”. Instead, you’ll find a direct, and sometimes blunt, assessment of “the world we need”, in a humble effort from activists, ecologists, economists and political scientists to articulate feasible solutions for really building back better.

And yet, we are not writing here only as experts and thought leaders in this field: we’re writing to you as genuinely concerned mothers, fathers, uncles and aunts, that already made the choice to advocate for the changes we all know we need, since we’re the last generation with real chances to avert an ecological and economic catastrophe that would destroy our social fabric and jeopardize the chances of survival of our children.

In these times of recession and ecological crisis, we don’t have the luxury to give up. We don’t have that right, we don’t have that choice. Hence, the Avaaz community, comprising 70 million individuals around the world, is presenting this paper before you not only as an “economic case” for the Bretton Woods institutions, but as a deeply personal plea to all decision mak-

ers at the IMF and WBG, on behalf of the next generations: please, please, please... Save the Humans.

Looking forward to seeing you in DC, but even more so in Montreal.

With hope and determination,

The Avaaz community

PS: We also know that some of you, unfortunately, might be hearing about the Montreal biodiversity talks for the first time. Please know that you can count on us if you need more information about this event, if you need a crash course on the negotiations, or even if you would like to be put in touch with some biodiversity negotiators or key players of this process.

You can find more information on our website: https://secure.avaaz.org/campaign/en/biodiversity_hub/

And please, do not hesitate to contact us directly, our team will always be ready to discuss with you: biodiversity@avaaz.org



Let’s cut to the chase and talk business: what needs to happen at the U.N. Montreal talks on biodiversity and after

14’ Read

Montreal must pave the way for transformative changes on 100% of the planet: US\$ 1 trillion per year to support conserving at least 50% of the planet and for putting in place major reforms in all economic sectors

Biodiversity loss is causing economic havoc, and the impacts of climate change will worsen this situation. Not acting for biodiversity now will cost us at least 2.3 percent of global GDP (-\$2.7 trillion) annually by 2030, according to a World Bank study¹³.

We need the post-2020 global biodiversity framework, to be adopted in Montreal in December, to be ambitious enough that the global economy stays resilient. This will be a major contribution to achieving the goals of the Paris Agreement on climate as well: unbeknownst to most, biodiversity is at the heart of climate action and protecting ecosystems is a sine qua non condition to achieve global net zero emissions (article 4.1 of the Paris Agreement) by 2050.

To deliver on the promises made in Paris, we need a strong deal in Montreal. And this means, according to the latest research, mobilizing at least US\$ 1 trillion per year to support:

- **The conservation of at least 50% of continents and the global ocean by 2030, to protect what is left of key ecosystems and contribute to containing global warming at 1.5°C by 2100.**
- **Supporting the transformation of economic (productive) sectors so that they switch from practices that are harmful to biodiversity (and climate) to models that rely on the sustainable use of biodiversity as their foundation.**

See section 1 ([page 14](#)) and section 2 ([page 18](#)), as well as short articles on [Note 1](#), [Note 2](#), [Note 3](#), [Note 4](#), [Note 5](#), [Note 6](#), [Note 7](#).

13. Johnson, J. A., Ruta, G., Baldos, U., Cervigni, R. et al. The World Bank Group (2021). *The Economic Case for Nature: A Global Earth-Economy Model to Assess Development Policy Pathways*. <https://www.worldbank.org/en/topic/environment/publication/the-economic-case-for-nature>

How to get there? Clean up the books and get the money where it is (hidden)

This task seems enormous but we do have the resources, the difficulty is to employ them where they are needed. Three immediate steps need to happen within this decade, and the UN biodiversity talks in Montreal in December is our only chance to change course.

Stop perverse subsidies and harmful incentives. According to the OECD, 2020 government spending on subsidies that drive the destruction of ecosystems was at least five times higher than the total spending to protect biodiversity.¹⁴ In 2019, these kinds of subsidies for agriculture, fisheries and forestry were estimated to total US\$ 273 - 542 billion¹⁵. In a more comprehensive 2022 study that number increased to \$1.8 trillion a year¹⁶, equivalent to 2% of global GDP. This figure also comprises subsidies received by other economic sectors that have proved to contribute to biodiversity loss, such as water supply and consumption, construction and transport. Other subsidies for industries that negatively impact biodiversity like hardrock mining have not been estimated yet. Part of this harmful public support has to be redirected towards positive incentives for sustainable practices and sustainable global supply chains.

Put an end to the deadly tax havens. They are terribly harmful for social cohesion and public budgets, but evidence shows how much they are related to biodiversity and climate havoc too. The money that is lost from public budgets because of fiscal evasion and avoidance could cover up to more than 90% of the global financial resources needed for biodiversity conservation

every year. Worse: the IPBES 2019 report - based on a noteworthy research paper that quantifies the connexions between tax havens and the environment- highlights that “funding via tax havens provided 68% of foreign capital for Amazonian soy and beef production and supported 70% of the vessels that are implicated in illegal, unreported and unregulated fishing”.

Debt justice is ecological justice. While biodiversity provides goods and services to the entire global economy, a small number of countries, known as megadiverse countries, house most of the world’s biodiversity. Occupying only 12% of the surface of the globe, these countries harbour at least 70% of the planet’s terrestrial biological diversity as well as rich marine biodiversity, over 45% of the population of the world, and an extraordinarily rich cultural diversity and associated traditional knowledge. They also happen to be amongst the most financially indebted countries. While crucial discussions about debt relief take place as part of global recovery from the pandemic, the ecological debt that wealthiest countries owe to indebted countries has to be taken into account, and instruments such as Debt-For-Nature-Swaps (DNS) further explored. See section 3 (page 29) and short articles [Note 8](#), [Note 9](#).

An economy for the billions, not the billionaires: rights and justice also make economic sense

Across the globe, human rights are being violated and disregarded as a result of economic activities. Beyond the fundamental moral argument of the necessity of upholding international human rights standards, Avaaz believes there is also a case for human rights as a foundation for a more resilient global economy.

Invest in the real CEOs: Indigenous Peoples and Local Communities are the Chief Ecological Officers. Indigenous Peoples and Local Communities (IPLCs) have historically been excluded from important discussions and decisions adopted by governments about the lands and territories they inhabit, and the exploitation and utilization of the natural resources

14. Perry, E. and Karousakis, K., OECD (2020), *A Comprehensive Overview of Global Biodiversity Finance*, <https://www.oecd.org/environment/resources/biodiversity/report-a-comprehensive-overview-of-global-biodiversity-finance.pdf>

15. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) *Financing Nature: Closing the global biodiversity financing gap*. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability. https://www.paulsoninstitute.org/wp-content/uploads/2020/09/FINANCING-NATURE_Full-Report_Final-Version_091520.pdf

16. Koplow, D, Steenblik, R. (2022). *Protecting Nature by Reforming Environmentally Harmful Subsidies: The Role of Business*. Earth Track and The B Team. <https://www.earth-track.net/document/protecting-nature-reforming-environmentally-harmful-subsidies-role-business>

Summary: Let’s cut to the chase and talk business: what needs to happen at the UN Montreal talks on biodiversity and after

found therein. But their lands harbor the biggest share of biodiversity and this is where it is in the best shape, thanks to their cultures and practices that they have managed to sustain despite centuries of colonialist and productivist oppression. Governments are still failing to secure direct financing to IPLCs. Less than 1% of all aid money to climate and biodiversity reaches communities. Maximizing investments to IPLC-led conservation efforts will be instrumental to achieve global biodiversity goals, as well as fulfilling the Paris climate agreement. Their rights and effective participation in political and decision-making processes must also be guaranteed and protected.

No economic solution works without including women, half of the population: closing gender gaps at work would add as much as \$28 trillion to annual GDP by 2025. Extractivism is rooted in the abuse of women and the invisibilization of their labor. Evidence demonstrates that when women hold secure rights to land, efforts to protect biodiversity and build climate resilience are more successful, as women have a different, more inclusive and community-wise approach to natural resource management resulting from their higher vulnerability and marginalization. According to the McKinsey Global Institute, fully closing gender gaps at work would add as much as \$28 trillion to annual GDP by 2025.

Financially supporting youth and those in vulnerable conditions will ensure resilient environments, reducing global economic risks. Securing credit and direct funding for social groups under the most vulnerable conditions, and allowing them to manage such funds for conservation activities is de facto how this respect and collaboration is enacted. An additional gain of supporting traditional practices is that youth are given roles for participation in conservation and sustainable use of biodiversity. Young women and men, Indigenous, farmers, campesinos, herders, and fishers will continue honoring biodiversity and natural resources as they are nurtured by approaches that have proven to be successful for generations. Securing opportunities for increasing development and wellbeing is key for leaving no one behind in building back a better

present and a better future for all. See section 4 ([page 44](#)) and short articles [Note 10](#).

Bretton Woods: reinvent your role in today’s world history, or become a symbol of the past

- 1. Assemble a high-level and strongly engaged delegation for CBD COP15 in Montreal.** Get immediately involved in these discussions, put proposals on the table before the end of November, and go to Montreal and actively participate to help unlock the crucial discussions on resource mobilization to implement the post-2020 global biodiversity framework. This delegation should be headed by no less than the leadership of the World Bank and the IMF; **David Malpass** and **Kristalina Georgieva** should be there in person.
- 2. Launch an inter-agency Biodiversity Task Force to increase the inclusion of biodiversity criteria in the process of debt sustainability analysis.** There is significant accumulated experience on natural capital accounting methodologies and attempts to better take into account biodiversity in macroeconomic development policies. A Biodiversity Task Force is needed to assess what progress Bretton Woods institutions have achieved so far, and the many challenges that must be addressed in international economic policies in order to implement the post-2020 global biodiversity framework. This task force should release its first report ahead of CBD COP16 and make proposals on how Bretton Woods institutions could support the implementation of the post-2020 framework throughout the decade.
- 3. Call for a future (either annual or extraordinary) Statistical Forum dedicated to biodiversity:** this should include calling for papers and proposals to further explore debt relief and restructurings that include biodiversity criteria in frameworks to reduce risks and

increase debt sustainability, as well as innovative monitoring systems such as the use of open-source technologies and big data for citizen feedback. This could be piloted through partnerships with initiatives such as the UN Global Pulse¹⁷.

4. Stimulate more in-house research at the IMF on debt and biodiversity: Researchers at the IMF are encouraged to continue their work on debt management and debt transparency and its relation to environmental deterioration as a progressive process which affects individual countries natural assets, not as a permanent asset stock. Prior IMF staff research on the fiscal space needed to meet the Sustainable Development Goals might be a good starting point to develop economic scenarios for SDG 14 and 15 regarding biodiversity.

5. Explore additional climate and nature-friendly mechanisms to channel existing and potential Special Drawing Rights allocations in favor of resilient, diversified and inclusive economies in developing countries.

6. Develop pilot initiatives with both highly concessional and non-loan financing to create standards and policy advice on biodiversity risk management in developing countries that can guide the incorporation of standards on biodiversity within the IMF, such as a future biodiversity-related qualifying challenge in the Resilience and Sustainability Trust.

7. Support increased participation by all segments of society in the implementation of debt relief measures: Partner with other IFIs and UN agencies in-country to promote country-level dialogue and engagement of all relevant stakeholders including civil society, grassroots organizations and IPLCs, increasing transparency

and accountability and allowing for more effective monitoring and evaluation of debt relief measures.

8. Encourage innovations such as citizen observatories and capacity development measures that address human rights, gender equality, and youth inclusion issues while supporting the transition to more just and equitable economic systems.

9. Support a significant expansion of direct financial support to IPLCs –commensurate to their presence and relevance as effective conservation leaders– to scale up sustainable use and conservation of traditionally managed terrestrial and coastal/marine ecosystems and to protect and secure their land rights and customs.

10. Support a new and much more ambitious round of Debt-for-Nature Swaps. The IMF, WB and their regional multilateral development partners should mobilize support within their institutions and with key actors such as the Paris Club and bilateral creditors to promote a new round of Debt-for-Nature Swaps (DNS) at scale as part of wider debt relief action, in recognition of their importance for conservation and sustainable use efforts and their role in leveraging other resources. Beyond the financial support that should be mobilized to help countries, technical and financial capacities -a role often filled by NGO third-parties but which fits within the institutional mandates of the IMF and WB- are also required to enable these countries to build a low-carbon trajectory for sustainable development and biodiversity- and climate-related investments to help them fulfill their national priorities and commitments to multilateral environmental agreements. Basic guides (as in the ABCs of debt swaps) should be developed to help countries conduct stock-taking exercises to evaluate the suitability of national conditions for DNS. See section 5 (page 53).

17. UN Global Pulse (2022) *National Citizen Feedback Dashboard for Enhanced Local Government Decision-Making*. Pulse Lab Jakarta <https://www.unglobalpulse.org/project/national-citizen-feedback-dashboard-for-enhanced-local-government-decision-making/>

Summary: Let’s cut to the chase and talk business: what needs to happen at the UN Montreal talks on biodiversity and after

Biodiversity actors preparing for Montreal: engage with Bretton Woods and give the post-2020 global biodiversity framework the ambition we all need

1. **Get in touch right now with your colleagues following Bretton Woods institutions, and with experts from these institutions.** CBD delegates of every level need, at the same time, to better understand how these institutions function and to convey the message of how much these institutions are urgently and effectively needed in the discussion around resource mobilization for biodiversity conservation and sustainable use.
2. **Include debt relief and debt restructuring proposals in the post-2020 global biodiversity framework.** Considering that the most recent estimates for financing measures that are needed to address both the conservation and sustainable use of biodiversity are already US\$ 967 billion per year¹⁸ (Deutz et al.), or US\$ 1 trillion per year as Avaaz has presented the case for, Debt Swaps for Nature are a feasible option for resource mobilization and they have to be included as a source among resource mobilization options that are being considered for the post 2020 GBF implementation.
3. **Support and cement the roles of Indigenous Peoples and Local Communities, and of women:** the target(s) on resource mobilization should include language reflecting how financial flows for biodiversity will take into account the leading roles of Indigenous Peoples and Local Communities. Leaving no one behind also means that the CBD is to address the marginalization and other different forms of oppression IPLCs face worldwide. Funds should also be distributed in a

gender-responsive way, to ensure women get stronger roles in economic decision-making on the use and conservation of biodiversity. IPLCs and women should be able to access credits and direct funding.

4. **Present a specific text for a COP15 decision calling for Bretton Woods institutions to unblock financial resources for the post-2020 global biodiversity framework and urgently operationalize re-source mobilization schemes to be presented no later than CBD COP16.** Be bolder than the last 26 years and call on Bretton Woods institutions to work with the CBD on the macroeconomic constraints that have impeded the implementation of the CBD so far and that have led us to the current dead-end in negotiations on financing. This work could include other IFIs, other Rio Conventions, and international organizations such as UN DESA. The first result could be a joint report, presented at COP16, highlighting the necessary macroeconomic reforms and who would be responsible for implementing them in order to achieve the targets of the post-2020 global biodiversity framework in the context of Agenda 2030 and the SDGs. This report should then serve as guidance for the work of Bretton Woods institutions with individual countries.
5. **Create an interdisciplinary task force between parties of the Convention on Biological Diversity, the IMF and the WBG to design and implement approaches for countries to effectively remove all perverse subsidies and harmful incentives and support them with in-house research to identify those public resources and provide technical assistance on how to redirect them to practices that have been proven successful in protecting and sustainably using biodiversity.** See section 5 ([page 53](#)) and short article [Note 11](#).

18. Deutz, A., Heal, G. M., Niu, R., Swanson, et al (2020) *Financing Nature: Closing the global biodiversity financing gap*. Idem

01. Biodiversity is key to climate stability (and a resilient economy): to stay below a 1.5°C temperature rise, we need to conserve at least half of the planet by 2030

7' Read

In the following sections, we will be addressing the economic impacts of biodiversity loss. But before we start, we have to remember that this will be worsened by the increasing impacts of global warming this century. We must also remember that actions for climate and biodiversity are intimately intertwined.

1.1. No higher than 1.5°C of warming: climate chaos will trigger more economic vulnerability

We have yet to adequately estimate the future risks that biodiversity loss and climate change pose to the global economy, however, existing projections are serious enough to require accelerated, comprehensive action. According to the IPCC Special Report “Global Warming of 1.5 °C”, the risks to global economic growth as a result of climate change are projected to be lower at 1.5°C than at 2°C by the end of this century¹⁹. It is the countries in the tropics and Southern Hemisphere subtropics that would suffer the most if we reached 2°C instead of 1.5°C.

A 2022 study²⁰ by S&P Global found that climate change could lead to losses of 3.3%, 4%, and 4.5% of world GDP by 2050 under climate pathways RCP2.6 (compatible with Paris Agreement’s “well below 2°C target”), RCP4.5 (current policies if implemented; a little bit less than 2°C), and RCP8.5 (about 3.7 °C average warming).

A 2017 paper²¹ estimated that by 2100, per capita GDP could be 5% higher if temperatures are stabilized at a 1.5°C warming rather than 2°C. While these GDP estimates can seem rather abstract, other more concrete differences can be expected be-

19. Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, et al. Cambridge University Press (2022), *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Summary for Policymakers. pp. 3-24. <https://doi.org/10.1017/9781009157940.001>

20. S&P Global (2022). *Weather Warning: Assessing Countries' Vulnerability To Economic Losses From Physical Climate Risks* <https://www.spglobal.com/esg/insights/weather-warning-assessing-countries-vulnerability-to-economic-losses-from-physical-climate-risks>

21. Pretis et al. (2017): see a summary in Timperley, J., Carbon Brief, (2018), *Limiting global warming to 1.5C would have 'significant economic benefits'*. <https://www.carbonbrief.org/limiting-global-warming-1point5-celsius-would-have-significant-economic-benefits>

01

Biodiversity is key to climate stability (and a resilient economy): to stay below a 1.5°C temperature rise, we need to conserve at least half of the planet by 2030

tween a world at 2°C warming and 1.5°C warming. For instance,²² twice as many people will experience water stress at 2°C compared to 1.5°C; 37% of the global population will be exposed to extreme heat at least once every five years, instead of the 14% at 1.5°C; and 18% will lose half of their habitable habitat, against 6% at 1.5°C.

1.2. No Paris without Montreal

What can appear as a small difference in global warming could thus affect the world economy quite strongly, and increase inequalities. This is one more reason why reaching the 1.5°C goal of the Paris Agreement is absolutely crucial. And this is where a strong ambition for biodiversity has a major role to play. The UNFCCC and the CBD are “highly compatible treaties”, as legal experts say²³. Climate change is a major threat to biodiversity, and thus implementing the Paris Agreement is vital in order to achieve global goals for biodiversity. But stopping biodiversity loss is necessary for climate action too, because it will conserve the biosphere’s carbon stocks that are needed to achieve climate goals. This is why, to achieve the “net zero emissions” goal of the Paris Agreement (article 4.1), efforts are needed at the same time to urgently decarbonize our economies AND preserve terrestrial and marine ecosystems. We can therefore only deliver the promises of Paris if we have a strong agreement in Montreal.

Economic actors are increasingly aware of these connections. In the most recent report on Global Risks published by the World Economic Forum²⁴, the first five of ten risks predicted to become critical global threats in the next 5 to 10 years are environmental risks. Biodiversity loss, as well as climate action failure, extreme weather, natural resource crises and human envi-

ronmental damage are perceived to potentially be the most damaging. Risks to the global economy linked to the loss of biodiversity are increasingly being acknowledged and assessed. Moody’s recently released report estimates a US\$ 1.9 trillion financial risk for several economic sectors resulting from biodiversity loss²⁵.

1.3. No less than half, no later than 2030

There is no silver bullet to stop and revert biodiversity loss, and it is the post-2020 global biodiversity framework in its entirety, to be adopted in Montreal, that is needed to achieve the deep transformations that we need²⁶. However, while we transform economic sectors to end harmful pressures in production-oriented seascapes and landscapes, we must also urgently find ways to better protect the remaining places that harbour the richest biodiversity, and restore degraded ecosystems as well. The urgency to do it now is made even greater because climate change is adding to the other anthropic impacts and worsening the state of biodiversity and land degradation. As a consequence, the latest assessment of IPCC’s Working Group II (2022) states, with high confidence, that “maintaining the resilience of biodiversity and ecosystem services at a global scale depends on effective and equitable conservation of approximately 30% to 50% of Earth’s land, freshwater and ocean areas, including currently near-natural ecosystems”.

In this range of potential protection goals (30% to 50%), if we want to meaningfully contribute to building resilient economies (by both mitigating climate change and conserving biodiversity), **we need at least 50%**, for both terrestrial and marine ecosystems. The international community has already recognised the importance of protecting and restoring ecosystems, both for biodiversity and climate. In September 2021, during the

22. Fleming, S., World Economic Forum, (2021) What’s the difference between 1.5 and 2 degrees of global warming?, <https://www.weforum.org/agenda/2021/07/2c-global-warming-difference-explained/>

23. Maljean-Dubois, S. and Wemaere, M. (2017). *Climate Change and Biodiversity*. Ed. Elisa Morgera et Jona Razzaque. Biodiversity and Nature Protection Law, III, Edward Elgar Publishing, 2017, Elgar Encyclopedia of Environmental Law series, 978-1-78347-424-0. <https://hal.archives-ouvertes.fr/halshs-01675503>

24. World Economic Forum (2022). *The Global Risks Report 2022, 17th Edition*. <https://www.weforum.org/reports/global-risks-report-2022/> pp 25 and 26

25. Quinson, T., Bloomberg (2022), *Moody’s Has a \$1.9 Trillion Warning Over Biodiversity* <https://www.bloomberg.com/news/articles/2022-09-28/moodys-1-9-trillion-warning-over-biodiversity-green-insight>

26. Leadley, P., *Achieving global biodiversity goals by 2050 requires urgent and integrated actions*. Idem

01

Biodiversity is key to climate stability (and a resilient economy): to stay below a 1.5°C temperature rise, we need to conserve at least half of the planet by 2030

Avaaz calls for financing of at least US\$ 1 trillion per year, that will enable the urgent conservation of half of the continents and the global ocean while supporting major transformations of economic sectors around the globe.

World Conservation Congress, IUCN members adopted resolution WCC 2020 Res 125: Setting area-based conservation targets based on evidence of what nature and people need to thrive²⁷, and called for recognition of the science that says that “protecting, conserving and restoring at least half or more of the planet is likely necessary to reverse biodiversity loss, address climate change and as a foundation for sustainably managing the whole planet”. This must be set in motion now.

At least half of the continental land and waters must be conserved. By mapping different types of remaining terrestrial habitats, and considering both their value for biodiversity and carbon storage, Dinerstein et al. (2020), in “A ‘Global Safety Net’ to Reverse Biodiversity Loss and Stabilize Earth’s Climate”, have concluded that protecting 35.3% of land area –in addition to 15.1% of land area currently protected– is needed to conserve sites of particular importance for biodiversity and ecosystem services, including the preservation of carbon sinks vital for limiting global warming to 1.5°C. The analysis proposes a disaggregation of these numbers to the national level, and also identifies that Indigenous lands constitute an important share of the most biodiverse and carbon-rich places in the world²⁸ (See [Note 1](#)).

At least half the global ocean must be conserved. Concerning the global ocean, a recent study²⁹ points out that conserving 45% of the ocean would be compatible with a scenario that optimizes, at the same time, the conservation of biodiversity, food security, and climate change mitigation. The authors also conclude that it could be possible to protect “as much as 71% of the ocean, obtaining 91% of the biodiversity and 48% of the carbon benefits, with no change in the future yields of fisheries”. Evidence is also mounting on the importance of preserving marine sediments, including in the high seas, as they sequester

very large amounts of carbon³⁰. Recently, 1.5 million people have signed a petition demanding the protection of the Antarctic Ocean, as a step towards conserving half of the planet³¹ ([Note 2](#)).

1.4. No less than US\$ 1 trillion dollars per year

What are the investment needs to achieve this? The most recent **estimates for the financing of measures that are needed to transform sectors** and implement more protected areas gives between US\$ 722 and **US\$ 967 billion per year**³² (Deutz et al.), an estimate that is close to what the economic expert panel of the CBD has proposed as well for the implementation of the post-2020 global biodiversity framework. These estimates address both the conservation and sustainable use of biodiversity, and are based on a diverse policy mix that is not limited to protected areas. But on this point, it must be noted that they considered the estimates for the needs to preserve only 30% of the planet³³ (which is not sufficient as explained above). These estimates are that the annual investment needed for an expanded (30%) system of protected areas is US\$ 103 – \$178 billion, which includes US\$ 68 billion for the existing system, of which only \$24.3 is currently spent. **This is why Avaaz calls for financing of at least US\$ 1 trillion per year, that will enable the urgent conservation of half of the continents and the global ocean while supporting major transformations of economic sectors around the globe** (see [Note 3](#)).

30. Rankovic, A., Jacquemont, J., Claudet, J., Lecerf, M., Picourt, L., (2021), *Protecting the ocean, mitigating climate change? State of the evidence and policy recommendations*. https://ocean-climate.org/wp-content/uploads/2021/11/Policy-Brief_MPA.pdf

31. *President Macron accepts petition of 1.5 million worldwide signatures urging protection of Antarctica's waters*: The petition was delivered to several world leaders during the IUCN Congress in Marseille, and was part of a joint effort by Antarctica 2020, Ocean Unite, Pew Charity Trusts, WeMove Europe, Only One, Antarctic and Southern Ocean Coalition, Blue Nature Alliance, Sea Legacy, and Avaaz. (September 2020) <https://antarctica2020.org/president-macron-accepts-petition-of-1-5-million-worldwide-signatures-urging-protection-of-antarctica-waters/>

32. Deutz, A., Heal, G. M., Niu, R., Swanson, et al (2020) *Financing Nature: Closing the global biodiversity financing gap*. Idem

33. Waldron et al. (2020). *Protecting 30% of the planet for nature: costs, benefits and economic implications*. https://www.conservation.cam.ac.uk/files/waldron_report_30_by_30_publish.pdf

27. IUCN (2020) *Setting area-based conservation targets based on evidence of what nature and people need to thrive* WCC-2020-Res-125-EN https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2020_RES_125_EN.pdf

28. Dinerstein, E., et al, (2020). *A ‘Global Safety Net’ to reverse biodiversity loss...* Idem

29. Sala, E., Mayorga, J., Bradley, D., Cabral, R. B., Atwood, T. B., Auber, A., ... & Lubchen-co, J. (2021). *Protecting the global ocean for biodiversity, food and climate*. *Nature*, 592(7854), 397–402. <https://www.nature.com/articles/s41586-021-03371-z>



**Show us the climate money
Where's the \$100 Billion?**

AVAAZ

Biden: Show us the climate money!
Where's the 32-49 USD billion per year?
AVAAZ

Trudeau: Show us the climate money!
Where's the 4.4-6.0 billion CAD per year?
AVAAZ

Morrison: Show us the climate money!
Where's the 3.4-4.4 billion AUD per year?
AVAAZ

Draghi: Show us the climate money!
Where's the 3.3-5.1 billion EUR per year?
AVAAZ

Blair: Show us the climate money!
Where's the 2.4-4.8 billion GBP per year?
AVAAZ

02. Our case for a deep economic transformation to avoid ecological collapse: doing nothing will cost us at least 2.3 percent of global GDP (-\$2.7 trillion) annually by 2030

17' Read

For decades, biodiversity finance has been focused on raising money to invest in "classic" conservation measures, such as protected areas, whether seen as the government's duty or as an objective of private philanthropy. More recently however, attention has started to focus on understanding the systematic interdependencies and impacts between the global economy, the financial sector, and biodiversity.

We remained paralysed by an economic model that is only focused on economic growth. It was believed that economic growth, no matter its "side effects", would solve all social problems such as poverty and inequality, and enable innovations that would "decouple" growth from environmental havoc. We are clearly witnessing the consequences of this model now, and that this model is by its own design unable to tackle these vital issues (see [Note 4](#)).

2.1. It's all interconnected: systemic interdependencies between our global economy, the financial sector and biodiversity dynamics should guide all macroeconomic policies

There is now ample evidence that biodiversity loss and climate change have caused severe disruption to economic activity around the globe,³⁴ affecting growth, prices and employment, and negatively impacting macroeconomic conditions and the performance of financial institutions. While the risks of having negative impacts on the economy and the financial system due to climate change (climate-related financial risks) are now widely acknowledged, interest in risks related to biodiversity loss for the financial and the corporate sector have only recently started generating interest and concern. The Task Force on Nature-related Financial Disclosures (TNFD) has recently published a framework, identifying those impacts and dependencies on nature (see [Note 5](#)).

34. Network for Greening the Financial System (NGFS) (2021). *Biodiversity and financial stability: exploring the case for action*. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/06/NGFS-Occasional-Paper_Biodiversity-and-financial-stability-exploring-the-case-for-action-17-06-2021.pdf

02
Our case for a deep economic transformation
to avoid ecological collapse: doing nothing
will cost us at least 2.3 percent of global
GDP (-\$2.7 trillion) annually by 2030

More than half of the
world’s economic
output – US\$ 44
trillion of GDP – is
either moderately
or highly dependent
on biodiversity
and its ecosystem
services, and as a
result, is vulnerable to
biodiversity loss.

Estimates suggest that the extent to which the economy depends on biodiversity is extremely high, as are the costs caused by its loss (Table 1). For instance, in 2020 the WEF estimated that more than half of the world’s economic output - US\$ 44 trillion of GDP - is either moderately or highly dependent on biodiversity and its ecosystem services, and as a result, is vulnerable to biodiversity loss.³⁵

TABLE 1: ESTIMATES OF THE DEPENDENCE OF THE ECONOMY ON BIODIVERSITY

Estimates	Source
UNEP’s report Becoming #Generation Restoration found that half of the world’s GDP is dependent on biodiversity, and every dollar invested in restoration creates up to 30 dollars in economic benefits.	UNEP, FAO, 2021 ³⁶
US\$ 479 billion annually in a business-as-usual scenario.	Roxburgh et al, 2020 ³⁷
US\$ 44 trillion of GDP, or more than half of global economic value generation, is dependent on biodiversity and its ecosystem services.	WEF, 2020 ³⁸
55% of global GDP depends on “high functioning biodiversity and ecosystem services”.	Swiss Re Institute, 2020 ³⁹
The value of ecosystem services such as climate regulation, water purification and pollination, is estimated to be US\$ 125–140 trillion per year.	OECD, 2019 ⁴⁰
Between 1 - 1.5 billion people derive benefits from forests in the form of food and livelihoods.	Agrawal et al., 2013 ⁴¹
The forest sector contributes more than US\$ 1.52 trillion to world GDP and employs 33 million people.	FAO. 2022 ⁴²
Between 58 - 120 million livelihoods are supported by fisheries and aquaculture.	UN Environment, 2019 ⁴³
SOURCE: OWN ELABORATION	

35. Herweijer, C., World Economic Forum - PwC (2020). *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. Idem

36. United Nations Environment Programme (2021). *Becoming #Generation Restoration: Ecosystem restoration for people, nature and climate*. Nairobi. <https://wedocs.unep.org/bitstream/handle/20.500.11822/36251/ERPNC.pdf>

37. Roxburgh, T., Ellis, K., Johnson, J.A., Baldos, U.L., Hertel, T., Nootenboom, C., and Polasky, S. (2020). *Global Futures: Assessing the global economic impacts of environmental change to support policy-making*. Technical Report, https://www.wwf.org.uk/sites/default/files/2020-02/Global_Futures_Technical_Report.pdf

38. Herweijer, C., World Economic Forum - PwC (2020). *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. Idem

39. Retsa, A., Schelske, O., Wilke, B., Rutherford, G., et al, Swiss Re Institute (2020). *Biodiversity and ecosystem services...* Idem

40. OECD (2019). *Biodiversity: Finance and the Economic and Business Case for Action*, report prepared for the G7 Environment Ministers Meeting, 5-6 May 2019, Updated in December 2019. https://read.oecd-ilibrary.org/environment/biodiversity-finance-and-the-economic-and-business-case-for-action_a3147942-en#page1

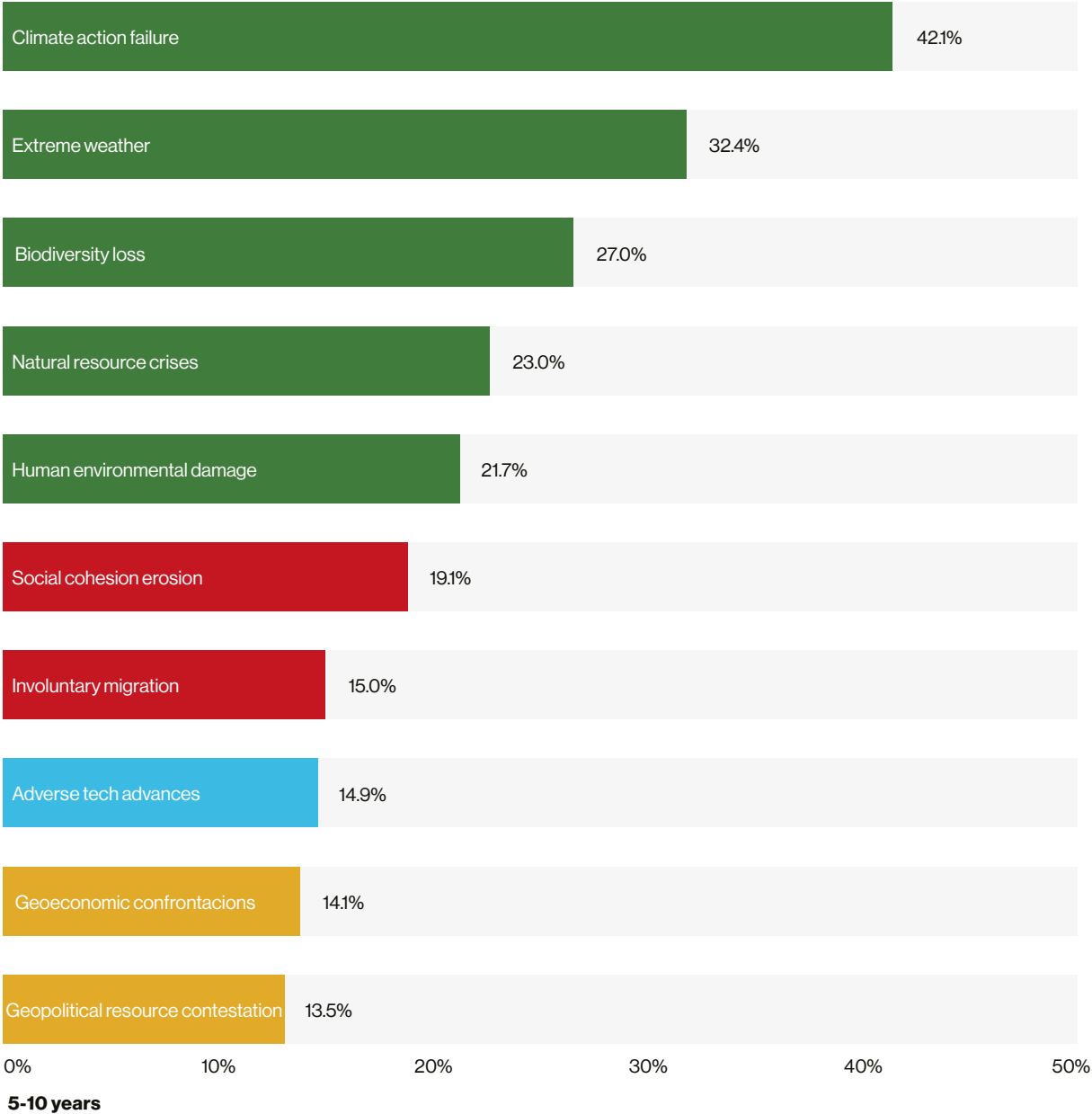
41. Agrawal, A., Cashore, B., Hardin, R., Shepherd, G., Benson, C. and Miller, D. (2013). *Economic contributions of forests*. *United Nations Forum on Forests Tenth Session*. Istanbul, 8-19 April 2013. United Nations Forum on Forests. Retrieved from <https://enb.iisd.org/events/10th-session-unff/summary-report-8-19-april-2013>

42. FAO (2022), *The State of the World's Forests 2022. Forest pathways for green recovery and building inclusive, resilient and sustainable economies*. <https://www.fao.org/3/cb9360en/cb9360en.pdf>

43. UN Environment (2019). *Global Environment Outlook - GEO-6: Healthy Planet, Healthy People*. Cambridge: Cambridge University Press. <https://wedocs.unep.org/handle/20.500.11822/27539>

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Our case for a deep economic transformation
to avoid ecological collapse: doing nothing
will cost us at least 2.3 percent of global
GDP (–\$2.7 trillion) annually by 2030



Three sectors are particularly dependent on biodiversity and/or natural resources: construction, generating annually US\$ 4 trillion of gross value added (GVA); agriculture, generating US\$ 2.5 trillion GVA; food and beverage, generating US\$ 1.4 trillion GVA. Some industries, such as cosmetics and pharmaceuticals (see Note 6), are especially dependent on the long-term supply of natural resources and biodiversity.⁴⁴

The most recent WEF Global Risks Report 2022⁴⁵ (see Figure 1 and 2) shows that, over a 10-year horizon, environmental risks are perceived to be the five most critical long-term threats to the world as well as the most potentially damaging to people and planet, with “climate action failure”, “extreme weather”, and “biodiversity loss” ranking as the top three most severe risks. Biodiversity ranked third, moving up from the fourth position it was ranking in the previous report⁴⁶, revealing thus the increasing awareness of the importance of biodiversity loss for our societies and economies.

FIGURE 1.
GLOBAL RISKS HORIZON. WHEN
WILL RISKS BECOME A CRITICAL
THREAT TO THE WORLD?

SOURCE: WORLD ECONOMIC FORUM (2022) THE
GLOBAL RISKS REPORT 2022, 17TH EDITION.

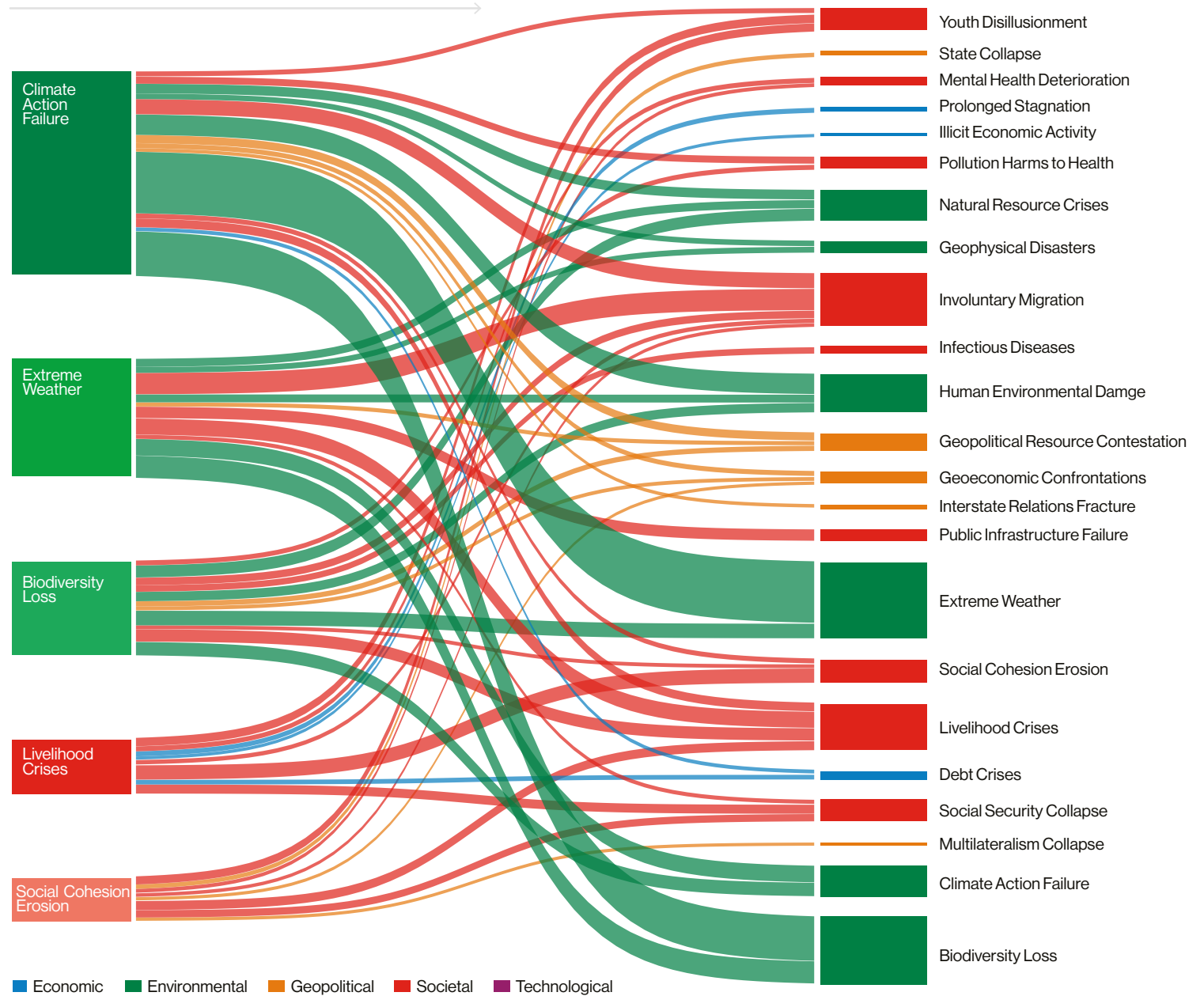
44. Ibid
45. WEF (2022).The Global Risks Report 2022, 17th Edition. <https://www.weforum.org/reports/global-risks-report-2022/>
46. WEF (2021) The Global Risks Report 2021,16th Edition. <https://www.weforum.org/reports/the-global-risks-report-2021>

Our case for a deep economic transformation to avoid ecological collapse: doing nothing will cost us at least 2.3 percent of global GDP (~\$2.7 trillion) annually by 2030

FIGURE 2. GLOBAL RISKS EFFECTS.

Most potential damaging risks (left row) and risks they will aggravate (right row)

SOURCE: WORLD ECONOMIC FORUM (2022) *THE GLOBAL RISKS REPORT 2022*, 17TH EDITION.



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Our case for a deep economic transformation to avoid ecological collapse: doing nothing will cost us at least 2.3 percent of global GDP (-\$2.7 trillion) annually by 2030

According to the OECD, fewer than 1% of the business models of 3,500 companies representing 85% of global market capitalisation align with SDGs 14, Life below water, and 15, Life on land.

Nonetheless, there is a gap between the current evidence on how business and the financial sector as a whole depends on biodiversity, and the actions that investors and the financial system as a whole are taking to face biodiversity related risks. According to the OECD, fewer than 1% of the business models of 3,500 companies representing 85% of global market capitalisation align with SDGs 14, Life below water, and 15, Life on land.⁴⁷ Other sources report on the absence of any biodiversity policy among the world's 75 largest asset managers.⁴⁸

And yet, financial institutions keep channeling trillions of dollars into economic activities identified as primary drivers of biodiversity loss including intensive food production, industrial forestry, mining, and fossil fuels. For instance, the OECD estimated that in 2019 the world's largest financial institutions provided more than US\$ 2.6 trillion worth of loans and underwriting services to finance biodiversity loss activities.⁴⁹

Regulations and policies need to be redesigned to reflect the alignment between development needs and environmental objectives, especially biodiversity and not only climate objectives, and certainly including people in this equation. In line with their core mandates, central banks and regulators need to identify and implement economic and financial system reforms, and to scale up innovative financial tools to support biodiversity conservation and sustainable use and strengthen financial stability.⁵⁰

Governments and regulators also need analytical frameworks to identify which activities are sustainable so as they can lower the risk of greenwashing. Green and sustainable taxonomies provide this framework. The most comprehensive and developed framework is the EU taxonomy (see Note 7).

In recent years, the interest in sustainable finance has grown around the world, from private initiatives creating their own standards to policymakers launching regulatory and non-regulatory measures. Nevertheless, there is a clear need to enhance harmonization across different policies and regulations. Standardization and disclosure of non-financial information such as environmental impacts to evaluate risks, is needed to increase data availability, make it more comparable, and bring more transparency and clarity to investors as well as for reporting and compliance purposes.

Furthermore, the financial sector should include investments on biodiversity conservation and sustainable use as part of risk management strategies. The Dasgupta report on the Economics of Biodiversity puts it well: "just as diversity within a portfolio of financial assets reduces risk and uncertainty, so diversity within a portfolio of natural assets increases Nature's resilience to shocks, reducing the risks to Nature's services. Reduce biodiversity, and nature and humanity suffer."⁵¹ The global financial resources needed for biodiversity conservation every year have been estimated in US\$ 722-967 billion per year and the world spends only US\$ 124-143 billion per year⁵². However, these estimations are based on a 30% conservation goal by 2030 and as science has proved, we need to raise the bar up to 50% conservation or more. Therefore, the resources needed are much more.

Finance can support economic development while reducing pressures on biodiversity. For instance, the WEF reported in 2020 that activities favoring biodiversity conservation and sustainable use could generate up to US\$ 10.1 trillion in annual business value and create 395 million jobs by 2030.⁵³

47. OECD. (2021). *Biodiversity, natural capital and the economy...* Idem.

48. Springer, K., Nagrawala, F., Kuhn, W., Livesey, B., Uhlenbruch, P., Hierzig, S., ShareAction (2020). *Point of No Returns. Part IV- Biodiversity. An assessment of asset managers' approaches to biodiversity.* <https://api.shareaction.org/resources/reports/ShareAction-Biodiversity-Report-Final.pdf>

49. OECD. (2021). *Biodiversity, natural capital and the economy...* Idem.

50. NGFS (2021). *Biodiversity and financial stability...* Idem

51. Dasgupta, P. (2021). *The Economics of Biodiversity: the Dasgupta Review*. HM Treasury. <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

52. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) *Financing Nature...* Idem

53. WEF (2020). *The Future of Nature and Business*. WEF and AlphaBeta. http://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf

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Our case for a deep economic transformation to avoid ecological collapse: doing nothing will cost us at least 2.3 percent of global GDP (-\$2.7 trillion) annually by 2030

WEF reported in 2020 that activities favoring biodiversity conservation and sustainable use could generate up to US\$ 10.1 trillion in annual business value and create 395 million jobs by 2030.

Moreover, financial institutions should be aware and resolve inequities and the limited access to financing observed in developing regions that pay a much higher cost of financing for green initiatives, for example, related to green energy. It has been estimated that policy interventions lowering the cost of capital for low-carbon and high-carbon technologies by 2050 would allow Africa to reach net-zero emissions approximately 10 years earlier than when the cost of capital reduction is not considered.⁵⁴ The current sustainable finance frameworks are focused on developed markets, representing an obstacle for the allocation of resources towards the regions in greatest need of investment. International coordination is urgently needed to improve access to finance in developing economies and increase investment rates to allow an equitable transition to finance sustainability.⁵⁵

Public and private finance systems should take into account that strategies like the Task Force on Nature-related Financial Disclosures (TNFD) are enabling financial disclosures on biodiversity impacts. It is expected that in the next few years, no financial institution will be exempt from the responsibility of investing directly and indirectly in biodiversity conservation and sustainable use in order to mitigate, disclose and manage natural resource loss-related financial risks.

2.2. Procrastination is over: the international community should urgently start structural changes for the global economy

Biodiversity has been widely disregarded in economic decisions of industrial and industrializing societies. In the last 25 years, a very large number of academic papers, reports from civil society, and initiatives from international organizations have all considered that not reflecting the values of biodiversity in, for instance, how collective wealth and welfare are measured at the level of a nation (or even globally), or in how cost-benefit analyses are conducted for economic decisions (for specific infrastructure projects, for instance), was a major factor contributing to the loss of biodiversity. During this period, most academic and policy analysts converged on the idea that attaching an economic value to biodiversity (either through monetary valuations, or through standards and norms) would contribute to halting its loss. The four-year methodological assessment adopted by IPBES in July 2022⁵⁶ reflected these conclusions too, as did different partners of the World Business Council for Sustainable Development when stating that “*Ultimately, nature is priceless. However, it is not valueless. There have been many studies calculating natural capital’s value in financial terms. The days of measuring business success through financial metrics alone are over*”⁵⁷.

In this debate, it is striking to see that such a conclusion becomes accepted for a while, but is very often forgotten and then appears disruptive again when it re-emerges in policy circles every 4 to 5 years. The *Nature* paper by Costanza et al. (1997)⁵⁸, that built upon well established theories and methods

56. Pascual, U., Balvanera, P., Christie, M., Baptiste, B., IPBES (2022) *Summary for policy-makers of the methodological assessment of the diverse values and valuation of nature of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, <https://zenodo.org/record/7043608#.YONshC-LHUQ>

57. Sustainable Business Council - NZ (2018), *Natural Capital*, <https://sbc.org.nz/our-work/climate-action/natural-capital/>

58. Costanza, R., d’Arge, R., De Groot, R., Farber, S., Grasso, M., Hannon, B., ... & Van Den Belt, M. (1997). *The value of the world’s ecosystem services and natural capital*. *Nature*, 387 (6630), 253-260. <https://www.nature.com/articles/387253a0>

54. Ameli, N., Dessens, O., Winning, M., Cronin, J., Chenet, H., Drummond, P., Calzadilla, A., Anandarajah, G., Grubb, M., (2021). *Higher cost of finance exacerbates a climate investment trap in developing economies*. <https://www.nature.com/articles/s41467-021-24305-3>

55. ibid

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in environmental economics to assess the economic value of the “world’s ecosystem services and natural capital”, is still one of the most cited papers in environmental sciences (close to 30,000 citations on Google Scholar). In March 2007, it was the G8+5 environment ministers that called for “a global initiative to study the economics of biodiversity loss”, which led to The Economics of Ecosystems and Biodiversity (TEEB)⁵⁹, whose first flagship study was released in 2010. The Dasgupta Review, commissioned by the UK Treasury in 2019 and released in 2021, closely reflects the conclusions and recommendations of its numerous predecessors.

These are just a few examples that show how this issue, and the proposed response to it, have actually now become quite mainstream, both in academic and policy-making circles. It is thus worth wondering why it seems that such little progress has been made. There is, first, a problem of optics. For many of the economists involved in this field, the fact that biodiversity is eluded from economic decisions is a “mistake” or “failure”, and not something that is done by design, or that is at least a by-product of some very structural choices that were made for the world economy. The solution, therefore, lies in showing the economic benefits of better managing biodiversity, for instance through its economic (and especially monetary) valuation.

If we look at the situation from the perspective of productive sectors, however, biodiversity loss is often completely disregarded or seen as a small price to pay for major successes in, for instance, increasing the national production of agricultural commodities to boost exports and have a better trade balance – and reimburse national debt or its interests. If these structural issues are not addressed directly, trying to provide a correction on how we consider and measure biodiversity can only be but a small contribution, although a significant one, to solving the problem: it is important for awareness-raising and opening the conversation with actors whose primary language and world-

view is in these “monetary” terms⁶⁰. But other, more relevant contributions to actual decision-making are more limited, or happening in more diffuse ways than the claims made by prominent authors of this field. For instance, the empirical evidence that monetary valuations of biodiversity have a real weight in decision-making is actually still extremely scarce⁶¹.

It is necessary, rather, to put structural transformations at the heart of the aforementioned collective discussions. Economic analysis has a key role to play here, too, which is quite different from the approaches that have dominated economic discussions about biodiversity in the last 25 years⁶². This could be done through following and understanding financial flows, assessing public support to all economic sectors (subsidies and other forms of incentives) and the effect they have on the choices and practices of actors regarding biodiversity, or, for instance, how the distribution of power within a given global value-chain influences its effects on biodiversity. It is now clearer than ever that this is what we need to put at the front and center of global debates. Inger Andersen, head of the United Nations Environmental Program (UNEP), for instance, affirmed back in 2020 how unsustainable production and consumption practices and systems are a common thread that runs through the planetary emergency of climate change, biodiversity loss, and pollution.

60. Laurans, Y., & Mermet, L. (2014). *Ecosystem services economic valuation, decision-support system or advocacy?* *Ecosystem Services*, 7, 98-105. <https://www.sciencedirect.com/science/article/abs/pii/S2212041613000843>

61. Laurans, Y., Rankovic, A., Billé, R., Pirard, R., & Mermet, L. (2013). *Use of ecosystem services economic valuation for decision making: questioning a literature blindspot*. *Journal of Environmental Management*, 119, 208-219. <https://www.sciencedirect.com/science/article/pii/S0301479713000285>

62. Vadrot, A. B., Rankovic, A., Lapeyre, R., Aubert, P. M., & Laurans, Y. (2018). *Why are social sciences and humanities needed in the works of IPBES? A systematic review of the literature*. *Innovation: The European Journal of Social Science Research*, 31(sup1), S78-S100. <https://www.tandfonline.com/doi/full/10.1080/13511610.2018.1443799>

59. TEEB (2010) *The Economics of Ecosystems and Biodiversity (TEEB)* <https://teebweb.org/>

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2.3. The cost of inaction will be paid for dearly by low-income and lower-middle-income countries, where drops in 2030 GDP may be more than 10 percent

In 2021, the World Bank presented a simulation on how an economy might react to changes in selected ecosystem services: pollination, provision of timber, food from marine fisheries, and carbon sequestration by forests⁶³. One of the main findings is that the cost for not acting results in no winners. Under this business-as-usual scenario, the world is projected to lose about 46 million hectares of natural land (more than the area of Colombia) and face a continuous decline in fish stocks. The reduction in ecosystem services results in slower growth and hence a loss of real global GDP in 2030 of US\$ 90 billion. If the impact on carbon sequestration services is also considered, the projected economic cost increases to US\$ 225 billion. This cost represents a loss equivalent to 2.3% of world GDP until 2030. The impact estimated is higher in low-income countries where the loss represents 10% of GDP per year.

It is evident to many that we are collectively at the end of a major cycle. The expectations embedded in “growth models” to eradicate poverty through economic growth are both morally dubious and physically impossible. It has been estimated that with the current rate of wealth redistribution from the richest to the poorest regions, the size of the world economy would have to increase by 175 times to eradicate poverty, which is simply not feasible⁶⁴.

As pointed out by the Co-Chairs of the International Resource Panel, “decision makers, whether in government or the corporate sector, operate within an economic framework that does

not formally recognize how much we rely on biodiversity, for everything from food and medicine to climate resilience. This means our economic systems are failing to account for the real cost of environmental damage and harmful resource use. And so far, our efforts to protect and restore nature have overlooked the biggest single factor in biodiversity loss: the world’s inefficient and irresponsible use of natural resources”.⁶⁵

Economic actors themselves are well aware of these trends. The World Economic Forum (WEF) equally reinforced the notion that a business-as-usual scenario will no longer result in economic development in its 2020 Global Risks Report. For the first time in the survey’s 10-year outlook, five of the top ten global risks in terms of likelihood are all environmental. As mentioned above, two years later, the Global Risks Report 2022 still highlights environmental and societal concerns, with respondents signaling environmental and societal risks as the most concerning risks for the next five years. Over a 10-year horizon, environmental risks are perceived to be the five most critical long-term threats to the world as well as the most potentially damaging to people and the planet. Respondents also signaled “debt crises” and “geoeconomic confrontations” as among the most severe risks over the next 10 years.

Redefining our guiding paradigms for human well-being, and translating them in practice, is the collective challenge we face. The United Nations Development Program (UNDP) titled its 2020 Human Development Report “The Next Frontier: Human Development and the Anthropocene”⁶⁶ to precisely reflect this challenge. It is at the heart of the 2030 Agenda and its 17 different Sustainable Development Goals (SDGs), too, that are supposed to be implemented together. A guiding vision will be the key to reaching compromises to carry out these goals. TEEB has, for instance, proposed to illustrate the necessary transfor-

63. Johnson, J., Ruta, G., Baldos, U. L., Cervigni, R., et al. (2021). *The Economic Case for Nature: A Global Earth-Economy Model to Assess Development Policy Pathways*. <http://documents.worldbank.org/curated/en/445311625065610639/A-Global-Earth-Economy-Model-to-Assess-Development-Policy-Pathways>

64. Woodward, D. (2015). Incrementum ad Absurdum: Global growth, inequality and poverty eradication in a carbon-constrained world. *World Economic Review*, 4, 43-62. <http://wer.worlddeconomicsassociation.org/files/WEA-WER-4-Woodward.pdf>

65. Potočník, J., Izabella Teixeira, I., IRP (2021). *Building Biodiversity, the Natural Resource Management Approach* <https://www.resourcepanel.org/reports/building-biodiversity>

66. UNDP (2020) Human Development Report 2020. The Next Frontier: Human Development and the Anthropocene, <https://hdr.undp.org/system/files/documents/hdr2020pdf.pdf>

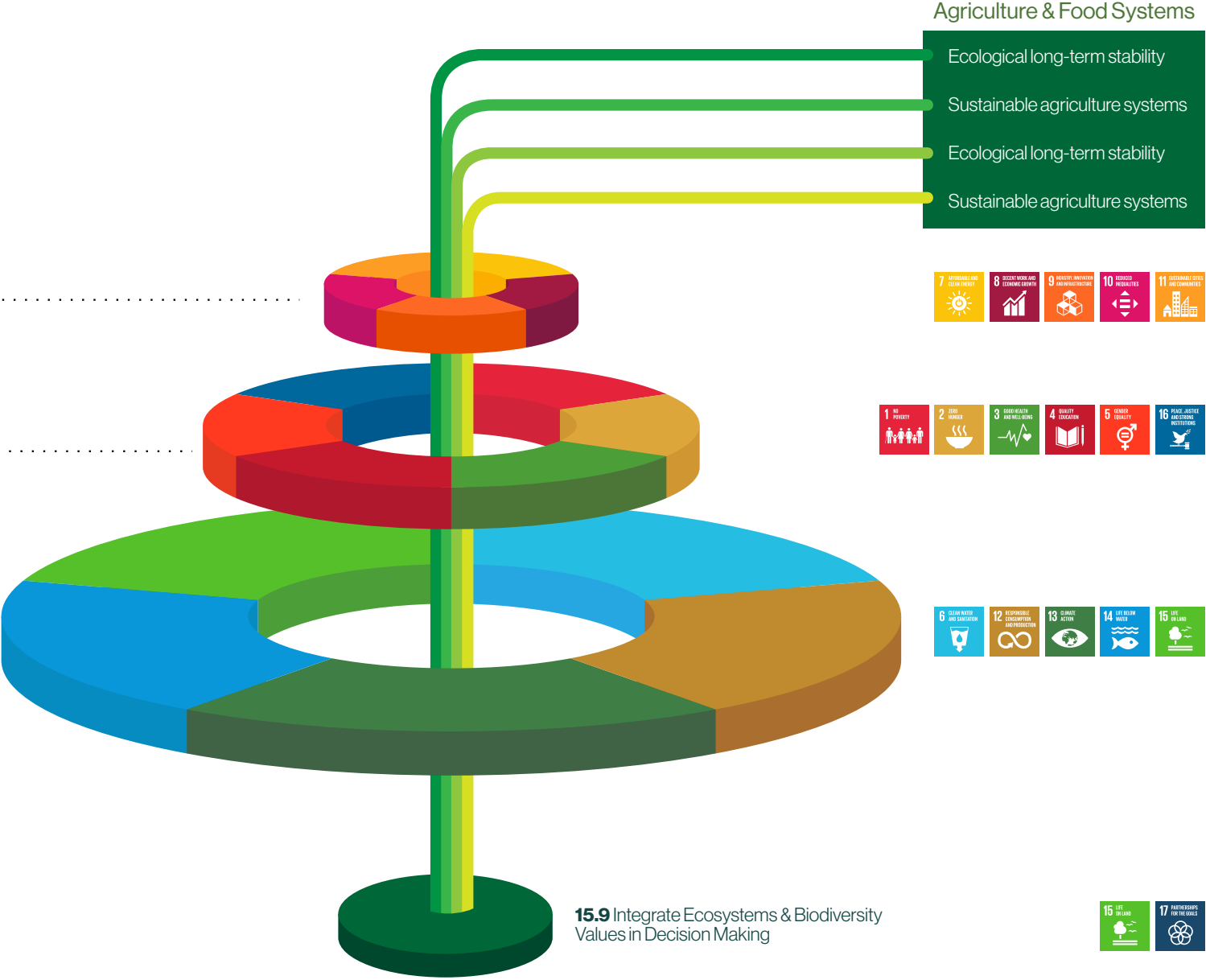
FIGURE 3
SDG’S THREE-TIERED
STRUCTURE AND
LINKS TO ECO-AGRI-
FOOD SYSTEMS

SOURCE: ADAPTED FROM WEI-
GELT ET AL., 2018

Prosperity

People, Dignity, Justice

Planet



"It's the ecology, Bretton Woods"

On why ecological economics should be front and center at the International Monetary Fund and the World Bank Group

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mations of the agrifood systems by using the SDGs, organized in a three-layer “wedding cake”⁶⁷ (see Figure 3).

The vision describes that achieving social goal objectives (such as the SDG 1 on poverty and SDG 10 on reduced inequalities) and economic ones (such as SDG 8 on good jobs and economic growth), should be solidly based on biodiversity (land and oceans), natural resources (water), climate systems, markets and policies promoting responsible consumption and production (SDG 12). At the policy level, this means a complex range of multilayer mechanisms between all SDGs, implying potential compromises or managing risks among different goals.

67. Weigelt, J., Lobos Alva, I., Aubert, P.M., Azzu, N., Saad, L., Laurans, Y., Rankovic, A., Treyer, S. and Zanella, M.A. (2018). Chapter 10, *TEEBAgriFood and the sustainability landscape: linking to the SDGs and other engagement strategies*. In *TEEB for Agriculture & Food: Scientific and Economic Foundations*. Geneva: UN Environment. 377-399. Available at: <https://teebweb.org/wp-content/uploads/2018/11/Ch10.pdf>

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According to recent information from the International Labour Organization (ILO), over 1.2 billion jobs worldwide that depend on biodiversity, including work in forestry, tourism and agriculture, are currently at risk due to environmental degradation and unsustainable management practices.

2.4. Biodiversity loss is an economic loss

Biodiversity loss causes existential threats to humankind in the short and mid-term and is comparable in impact and likelihood to threats such as climate change, weapons of mass destruction and the collapse of State and multilateral actors⁶⁸. The accelerated decline in biodiversity, along with environmental degradation and climate change, will very likely exacerbate food and water insecurity in poor countries, and erode human security and global resilience to emerging health challenges leading to dramatic increases in conflicts and migration⁶⁹.

According to the IPBES **we are exploiting biodiversity far more rapidly than it can renew itself⁷⁰.** The result of inaction to stop biodiversity loss and curb climate change could include the disappearance of up to one million known species by 2050 (with further catastrophic consequences for peoples and ecosystems). As noted by the OECD in its report to the G7 in 2019⁷¹, financial flows to biodiversity are three to ten times smaller than what is actually needed to secure our planet’s healthy, sustainable biodiversity. An intensive science-based **official framework (increasing investments in sustainable financial products) would be the ideal catalyst for the necessary synergies between governments, private sector, financial regulators, banks and investors who must agree to dramatically increase finance for biodiversity-friendly investments. In this context, investment in nature is an insurance policy for humankind.** According to the recent State of Finance for Nature⁷² report by the United Nations Environment Program (UNEP), the World Economic Forum (WEF), The Economics of Land Degradation Initiative (ELD) and Vivid Economics, **investing just 0.1% of global GDP every year in**

restorative agriculture, forests, pollution management, and protected areas could close their estimation of US\$ 4.1 trillion financial gap by 2050, thereby **avoiding a breakdown of vital natural ecosystem services** such as clean water, food, and flood protection, among many others. It might be worth mentioning that most of the current flows to biodiversity financing come from governments: “the current investments in Nature-based solutions amount to US\$ 133 billion – most of which comes from public sources”.

In fact, research from **the WEF shows that businesses highly depend on nature and its ecosystem services – either directly or through their supply chains– to the tune of US\$ 44 trillion of economic value generation.** This is more than half of the world’s total GDP. Therefore, businesses are highly exposed to risks from biodiversity loss⁷³.

It is imperative that the international community gradually **increases official development aid to meet the UN target of 0.7% of Gross National Income** in order to help many low-income developing countries meet their sustainable development goals by 2030, while also increasing their natural capital. This is noted by the IMF⁷⁴, The Nature Conservancy⁷⁵ and others. Scaling up finance from both public and private sources, with full involvement of Indigenous People and Local Communities, is critical. According to recent information from the International Labour Organization (ILO)⁷⁶, **over 1.2 billion jobs worldwide that depend on biodiversity**, including work in forestry, tourism and agriculture, are currently at risk due to environmental degradation and unsustainable management practices.

73. Herweijer, C., World Economic Forum - PwC (2020). *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. Idem

74. IMF - International Monetary Fund (2021). *A Post-Pandemic Assessment of the Sustainable Development Goals*. <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2021/04/27/A-Post-Pandemic-Assessment-of-the-Sustainable-Development-Goals-460076>

75. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) *Financing Nature... Idem*

76. International Labour Organization (2020). *Green works, Creating decent jobs through investments: Promoting forest restoration, irrigation, soil and water conservation, and flood protection*. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_758537.pdf

68. World Economic Forum (2021) *The Global Risks Report 2021*, 16th Edition. <https://www.weforum.org/reports/the-global-risks-report-2021>

69. US National Intelligence Council (2021) *Global Trends 2040 A more contested world*. https://www.dni.gov/files/ODNI/documents/assessments/GlobalTrends_2040.pdf

70. Deutz, A., Heal, G. M., Niu, R., Swanson, et al (2020) *Financing Nature: Closing the global biodiversity financing gap*. Idem

71. OECD (2019). *Biodiversity: Finance and the Economic and Business Case for Action*. Idem

72. UNEP (2021) *State of Finance for Nature. Tripling investments in nature-based solutions by 2030* <https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/36145/SFN.pdf>

03. Clean up the books for a reliable, functioning and healthy global economy: phase out harmful incentives, clamp down on tax havens and restructure sovereign debt based on solid biodiversity conservation goals

32' Read

We need to switch towards an economy that prioritizes maintaining planetary habitability for all. Biodiversity is not a “cost”, it is an asset and an investment towards a sustainable future. Yet, too many governments continue to view biodiversity as a cost and as a budgetary line item competing with other priorities. That thinking has paralyzed vital discussions and significantly slowed progress on biodiversity conservation and sustainable use. However, there’s a growing body of evidence and literature that is challenging that paradigm and showing that without biodiversity, there’s no viable global economy.

For example, a study from the Swiss Reinsurance Company Ltd (SwissRe) revealed that 55% of global GDP depends on high-functioning biodiversity and ecosystem services. It also found that one-fifth of countries worldwide are at risk of their ecosystems collapsing due to a decline in biodiversity and related services⁷⁷. Meanwhile, the World Economic Forum (WEF) estimates that US\$ 44 trillion worth of economic value generation –over half of global GDP– depends moderately or highly on biodiversity and its services.

In addition, there are also other instruments that have the potential to channel financial resources to biodiversity protection and these need to be escalated. Among them are public and private investments in ecosystems-based approaches, green financial products to facilitate the flow of investment capital into companies and projects that can have a positive impact on biodiversity, and improving supply chains by incorporating better sustainable management practices as an opportunity to avoid harm and positively impact biodiversity and natural resources. Biodiversity taxes are another necessary instrument, though not the most popular one.

Several publications have documented the lack of resources and the need to increase budgets for protected areas and biodi-

77. Retsa, A., Schelske, O., Wilke, B., Rutherford, G., et al, Swiss Re Institute (2020). *Biodiversity and ecosystem services... Idem*

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A study from the Swiss Reinsurance Company Ltd (SwissRe) revealed that 55% of global GDP depends on high-functioning biodiversity and ecosystem services. It also found that one-fifth of countries worldwide are at risk of their ecosystems collapsing due to a decline in biodiversity and related services.

versity-beneficial investments in developing countries⁷⁸. It is also well known that most of the megadiverse countries (15 out of 17) are developing and emerging economies, housing at least 70% of the planet’s terrestrial biological diversity. Those countries that are wealthy in biodiversity or natural capital are the most financially indebted; emerging or developing economies with huge national debts, like Brazil whose debt to GDP ratio is 89%, or India with nearly 70%⁷⁹ are examples of this.

Considering the real needs -US\$ 967 billion per year- and the crucial role of these economies to meet global biodiversity conservation goals, the US\$ 10 billion per year to developing countries proposed in the First Draft of the post-2020 global biodiversity framework seems pitifully low. Due to lack of estimates of the amount needed in developing economies and their importance in terms of biodiversity richness, we propose that at least half of the financing needed should flow to those countries (US\$ 483-500 billion per year).

78. Vivid Economics (2020). NbS investment rates for a Net Zero and Nature Positive World. G20 EMD meeting, 28th May 2020. <https://www.vivideconomics.com/wp-content/uploads/2021/06/210528-G20-EMD-presentation-R-Smale-Vivid-Economics.pdf>

BIOFIN (2018). *The Biodiversity Finance Initiative Workbook*, https://www.biofin.org/sites/default/files/content/knowledge_products/BIOFIN%20Workbook%202018.pdf

79. WorldBank (2021) International Debt Statistics. <https://www.worldbank.org/en/programs/debt-statistics/ids/products>

3.1. Put the money in the right places: eliminate perverse subsidies, push economic incentives for biodiversity, and build a sustainable global value in supply chains and beyond

Governments must eliminate the perverse subsidies that harm biodiversity and provide incentives for conservation and sustainable use. Policies providing subsidies to support environmentally sensitive sectors including agriculture, fisheries, energy production, transport, and heavy industry invariably provide incentives for larger-scale production, which leads not only to biodiversity degradation but also to an increase in the use of polluting materials (e.g. pesticides, fertilizers) and carbon emissions, exacerbating environmental damage^{80,81} (see Note 8).

Furthermore, some subsidies indirectly encourage unsustainable production or consumption behaviors that lead to social inequality, trade distortion and, again, biodiversity degradation and loss. These subsidies are referred to as harmful incentives.⁸²

According to the OECD (2020), government spending on subsidies that drive the destruction of ecosystems was at least five times higher than the total spending to protect biodiversity.⁸³ In 2019, these kinds of subsidies for agriculture, fisheries and forestry were estimated to total US\$ 273 - 542 billion⁸⁴. In a more comprehensive 2022 study that number increased to US\$ 1.8 trillion a year⁸⁵, equivalent to 2% of global GDP. This figure also comprises subsidies received by other economic sectors that have proven to contribute to biodiversity loss, such as wa-

80. Greenfield, P. (2021). *Redirect Harmful Subsidies To Benefit The Planet... Idem*

81. Secretariat of the Convention on Biological Diversity (2011). *Incentive measures for the conservation and sustainable use of biological diversity. Case studies and lessons learned*. CBD Technical Series No. 56 <https://www.cbd.int/doc/publications/cbd-ts-56-en.pdf>

82. OECD (1996) *Saving Biological Diversity: Economic Incentives*. <https://www.oecd.org/env/resources/2089495.pdf>

83. Perry, E. and Karousakis, K., OECD (2020), *A Comprehensive Overview... Idem*

84. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) *Financing Nature... Idem*

85. Koplow, D, Steenblik, R. (2022). *Protecting Nature by Reforming Environmentally Harmful Subsidies... Idem*

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ter supply and consumption, construction and transport. Other subsidies for industries that negatively impact biodiversity like hardrock mining have not been estimated yet (Table 2).

Food production from extensive agriculture is the leading cause of biodiversity loss. It implies land-use change, pollution and intensive productive practices that lead to the degradation of ecosystems, which in turn increases the risk to biodiversity resilience, the frequency and intensity of climate-related disasters, and other environmental impacts that result in the disruption of commodity supply chains.

Nonetheless, in 2019 the agriculture sector continued to receive over US\$ 1 million per minute in government subsidies globally.⁸⁶ Much of this financial support is spent on the excessive use of fertilizers, cutting down forests to expand agricultural frontiers, and in furthering high-emission livestock production.

TABLE 2 FLOWS OF PERVERSE SUBSIDIES TO BIODIVERSITY, 2022. (US\$/YEAR)

TOTAL \$1.8 Trillion			
Fossil fuel \$640 billion	Agriculture \$520 billion	Water supply and consumption \$350 billion	Forestry \$155 billion
Construction \$90 billion	Transport \$85 billion	Marine fisheries \$50 billion	Hard rock mining: no estimate yet

SOURCE: OWN ELABORATION BASED ON KOPLow, D. AND STEENBLIK, R. (2022)

86. The Food and Land Use Coalition (2019), *Growing Better: Ten Critical Transitions to Transform Food and Land Use* <https://www.foodandlandusecoalition.org/global-report/>

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In 2019 the agriculture sector continued to receive over US\$ 1 million per minute in government subsidies globally. Much of this financial support is spent on the excessive use of fertilizers, cutting down forests to expand agricultural frontiers, and in furthering high-emission livestock production.

In the United States alone (where oil and gas represent 80% of national fossil fuel production), the government provided US\$ 20.5 billion in subsidies in 2015 and 2016 to the fossil fuel industry.⁸⁷

The same trends are observed in the developing world. In Latin America, despite global energy transition narratives, fossil fuels are the protagonists of post-pandemic economic recovery support and policies in the region, receiving great financial support from governments. For instance, in Argentina, subsidies to the oil industry in 2020 accounted for 1% of the national budget and the public financial support to Yacimientos Petrolíferos Fiscales, S. A. (YPF), the main oil company, accounted for more than a half of the estimated annual social security budget⁸⁸. According to the International Monetary Fund (IMF) 2019 report *Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates*, global subsidies to fossil fuel production accounted for 6.3% of global GDP.⁸⁹ Despite the many discourses and initiatives around “building back better” since the COVID-19 pandemic started, this still remains a central issue that is blocking the way to sustainability⁹⁰.

A redirection of subsidies could have a positive impact on biological diversity. Some existing examples are biodiversity-friendly systems supported through repurposed subsidies towards primary activities - agriculture, forestry, fishing and cattle raising - that are able to conserve biodiversity.⁹¹

87. Redman, J., Oil Change International (2017) *Dirty Energy Dominance: Dependent on Denial: How the US Fossil Fuel Industry Depends on Subsidies and Climate Denial*, https://priceofoil.org/content/uploads/2017/10/OCI_US-Fossil-Fuel-Subs-2015-16_Final_Oct2017.pdf

88. Vega Aratújo, J.A., Arond, E., Muñoz Cabré, M., (2021). *Apoyos públicos a los combustibles fósiles en cuatro países latinoamericanos en el contexto de COVID-19*. SEI. Informes de Políticas. Nov 2021., <https://www.sei.org/publications/apoyos-publicos-a-los-combustibles-fosiles-covid-19/>

89. Coady, D., Parry, I., Piotr Le, N., et al, IFM (2019) *Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates*, <https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509>

90. Urpelainen, J., George, E. (2021). *Reforming global fossil fuel subsidies: How the United States can restart international cooperation*, <https://www.brookings.edu/research/reforming-global-fossil-fuel-subsidies-how-the-united-states-can-restart-international-cooperation/>

91. García-Vega, D and Aubert, P-M. (2020) *Reclaiming the place of agro-biodiversity in the conservation and food debate*. Idem

In the fishing sector,⁹² preliminary research on agri-environmental payments has shown that they can increase profitability while providing benefits for the environment and improving the living standards of targeted populations, thereby leading to socio-economic improvements, too.⁹³

As with subsidies, governments can use economic incentives to weigh the price system to achieve their environmental objectives.⁹⁴ Taxes, charges, fees, payments and tradable permits, when based on inclusive and right-based approaches, are effective policy instruments that can be used to promote the sustainable use of biodiversity, and have the potential to be scaled up. Examples include taxes and charges on pesticides, fertilizers and other sources of nitric oxides (NOx) and carbon dioxide (CO₂) emissions and on the extraction of natural resources.⁹⁵ An example of a “biodiversity-relevant” tax (BRT) is the tax on groundwater extraction.

Despite their potential effectiveness, the use of economic incentives for biodiversity conservation is still marginal. The latest reports mention 194 fees and charges in force in 50 countries, and current data on the revenue collected is not consistently reported. As for BRT use, some progress has been observed in recent years⁹⁶ (Table 3). For example, in 2018, 150 different BRTs were reported in 49 countries. In 2012-2016, BRTs raised on average an estimated total of US\$ 7.5 billion across all countries (including OECD). In 2020, 226 BRTs were reported in 59 countries, while the average revenue during the period 2016-2018 rose to US\$ 7.7 billion per year across all 49 countries (including OECD countries).

92. The Common Fisheries Policy (CFP) from UE is an example of a set of standards for the sustainable management of fishing fleets and the conservation of fish stocks. Sumaila, U., Skerritt, D., et al (2019), *Updated estimates and analysis of global fisheries...* Idem

93. Martini, R. and J. Innes (2018), *Relative Effects of Fisheries Support Policies*. Idem

94. OECD (1996) *Saving Biological Diversity: Economic Incentives*. Idem

95. IPBES. (2020). *Biodiversity-relevant taxes, charges and fees*. Definition. <https://ipbes.net/policy-support/tools-instruments/biodiversity-relevant-taxes-charges-fees>

96. Karousakis, K., OECD (2021). *Tracking Economic Instruments and Finance for Biodiversity 2021*. <https://www.oecd.org/environment/resources/biodiversity/tracking-economic-instruments-and-finance-for-biodiversity-2021.pdf>

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Of those that track the impact of their supply chains on biodiversity, the results often reveal a substantial level of impact. For example, in 2019 the French luxury group Kering found that 92% of its environmental impacts originated within its supply chains, with 76% derived from the extraction or use of raw materials alone

TABLE 3 : BIODIVERSITY-RELATED TAXES (BRT) IN THE OECD AND ACROSS ALL COUNTRIES

Year of publication	Number of countries with BRTs	Number of BRTs	Average revenue per year from BRTs in OECD countries	Average revenue per year from BRTs across all countries
2018	49	150	US\$ 7.4 billion (2012-2016)	US\$ 7.5 billion (2012-2016)
2020	59	226	US\$ 7.5 billion (2016-2018)	US\$ 7.7 billion (2016-2018)

SOURCE: KAROUSAKIS, K., OECD (2021). TRACKING ECONOMIC INSTRUMENTS AND FINANCE FOR BIODIVERSITY. & OECD. (2021). BIODIVERSITY AND THE ECONOMIC RESPONSE TO COVID-19: ENSURING A GREEN AND RESILIENT RECOVERY.

Furthermore, and regardless of the reported steady increase in BRTs prior to COVID-19, the OECD reported in 2020 that they remain underused.⁹⁷ While revenue from BRTs averaged US\$ 7.5 billion per year (2016-2018) in OECD countries, this still accounts for less than 1% of total revenue (0.9%) from environmentally-relevant taxes (this share has decreased marginally from 1.2% in 2000).⁹⁸ Taxes with potential positive impact on the environment account for approximately 5% of all tax revenue.⁹⁹ Revenue from BRTs and other environment-relevant taxes could be used to reduce budget deficits, or be redirected to sustainable agriculture, for example¹⁰⁰.

Payments for environmental services (PES) can promote biodiversity protection, by directing resources to activities that maintain and promote the conservation of habitats and species

97. OECD. (2020) Biodiversity and the economic response to COVID-19: Ensuring a green and resilient recovery. <https://www.oecd.org/coronavirus/policy-responses/biodiversity-and-the-economic-response-to-covid-19-ensuring-a-green-and-resilient-recovery-d98b5a09/#section-d1e1502>

98. OECD (2021), Biological resources and biodiversity", in *Environment at a Glance Indicators*, OECD Publishing, Paris. <https://doi.org/10.1787/7afe55f8-en>.

99. OECD. (2020) Biodiversity and the economic response to COVID-19... Idem

100. Colombia and Costa Rica are using biodiversity-related carbon taxes to fight deforestation and climate change.^a Colombia's tax of US\$ 5 per ton of emitted carbon for companies that produce or import fossil fuels raised revenues of US\$ 148 million in 2017 and US\$ 91 million in 2018. This revenue goes to the Colombian Peace Fund, 30% of which is used to manage and conserve natural ecosystems and strengthen the country's National System of Protected Areas. Costa Rica has generated \$26.5 million annually since 1997 by taxing fossil fuels. This revenue is invested in the country's National Forest Fund (FON-AFIFO). Barbier, E., Lozano, R., Rodriguez, C., Troëng, S. (2020). *Adopt a carbon tax to protect tropical forests*. Nature Vol. 578. <https://www.nature.com/articles/d41586-020-00324-w>

diversity. These include payments for ecological compensation, biological quality and habitat connectivity. The central principles of PES are that those who provide environmental services should be compensated for doing so and that those who receive the services should pay for their provision. IPLCs, the best guardians of biodiversity and its resources, have to be considered in such schemes in order to be effective.

Due to unsustainable extractive activities, including fisheries, and unsustainable land management practices linked to the production of traded commodities, the impact of global supply chains on biodiversity has for the most part been negative. Despite several ongoing initiatives on sustainable production and consumption, there are still very few companies that take into account the environmental costs of their supply chains, or the dependence of their supply chains on biodiversity and ecosystem services.¹⁰¹ Of those that track the impact of their supply chains on biodiversity, the results often reveal a substantial level of impact. For example, in 2019 the French luxury group Kering found that 92% of its environmental impacts originated within its supply chains, with 76% derived from the extraction or use of raw materials alone.¹⁰²

101. OECD (2019). *Biodiversity: Finance and the Economic and Business Case for Action*, Idem

102. Kering's EP&L (2019). *Our 2019 EP&L Report*. <https://kering-group.opendatasoft.com/pages/report-2019/>

03

Clean up the books for a reliable, functioning and healthy global economy: phase out harmful incentives, clamp down on tax havens and restructure sovereign debt based on solid biodiversity conservation goals

Industries with low direct dependence on biodiversity become medium to highly dependent on biodiversity in their supply chains.

Therefore, although varying considerably across industries and sectors, supply chains tend to be highly dependent on biodiversity.¹⁰³ A study by the World Economic Forum (WEF) shows, by industry, the direct and supply chain-related levels of dependency on biodiversity and natural resources (Figure 4)¹⁰⁴. For example, the primary sector of construction and electricity industries have a high direct dependency on nature, representing nearly 100% of their Gross Value Added (GVA).

In contrast, industries such as information services, banking and digital communications tend to have low direct dependency on nature. However, the picture changes when focus is placed on their supply chains: industries with low direct dependence on biodiversity become medium to highly dependent on biodiversity in their supply chains.

Both the impacts and the dependence that supply chains have on biodiversity are currently being fully reviewed by the IPBES through the “Business and Biodiversity Assessment”, expected to be concluded in 2025.¹⁰⁵ (See Figure 4)

Supply chains are largely cross-border frameworks, and multinational corporations are involved in over 80% of global trade.¹⁰⁶ These corporations have significant influence over the suppliers and producers in their supply chains through their spending power. According to the World Trade Organization, multinational corporations hold the equivalent of 20% of global GDP in imports and exports (\$19.7 trillion in 2019)¹⁰⁷. It is time that their influence converted to accountability and be compatible with “leaving no one behind” in the shift towards sustain-

ability and the effective respect of human rights.

On the consumer side, the market for ethically and sustainably produced goods has grown over the past decade, particularly for goods that are organic, deforestation-free, and have sustainability certifications. Prior to economic upheavals triggered by the COVID-19 pandemic, the global organic food and beverage market was expected to grow 16% per year to reach US\$ 327 billion by 2022, driven by increased consumer demand, governmental policies to support organic agriculture in the Asia-Pacific, European, and North American regions, and investments from key private players.¹⁰⁸ Consumer demand has encouraged companies to make sustainability commitments¹⁰⁹ within their supply chains (see “Note 9”). Moreover, there’s also increasing pressure from consumers for authentic policy transformation in the value chain and corporate strategies, with mounting legal demands around the world against “greenwashing” and misleading advertisement.

Adopting a sustainable supply chain requires paramount investment. Currently, it is estimated that globally sustainable supply chains are only allocating US\$ 5.5–8.2 billion annually toward biodiversity conservation.¹¹⁰ This cost is associated with certified products. However, there are additional resources invested directly by supply chain actors to implement internal policies and standards related to biodiversity in sourcing areas, but data on this spending category are not widely available at a global or sector level.

Given the urgency created by biodiversity loss, in addition to desertification and climate change, and the risks identified by the WEF for the continued economic growth derived from their negative impacts, changes have to take place in the way

103. Urashima, K., Fujimoto, H., Katagiri, M., & Saito, N. (2013) *Study for Protection of Biodiversity on the Supply Chain*. Journal of Traffic and Logistics Engineering. <http://www.jtde.net/index.php?m=content&c=index&a=show&catid=27&id=32>

104. Herweijer, C., World Economic Forum - PwC (2020). *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. Idem

105. IPBES (2021) Methodological assessment of the impact and dependence of business on biodiversity and nature’s contributions to people (“Business and biodiversity assessment”). Retrieved from [here](https://www.ipbes.org/publications/business-and-biodiversity-assessment/).

106. Thorlakson, T., Zegher, J.F. de, Lambin, E.F. (2018). *Companies’ contribution to sustainability through global supply chains*. PNAS 115, 2072–2077. Retrieved from <https://doi.org/10.1073/pnas.1716695115>

107. World Trade Organization (2019). *World Trade Statistical Review 2019*. https://www.wto.org/english/res_e/statis_e/wts2019_e/wts19_toc_e.htm

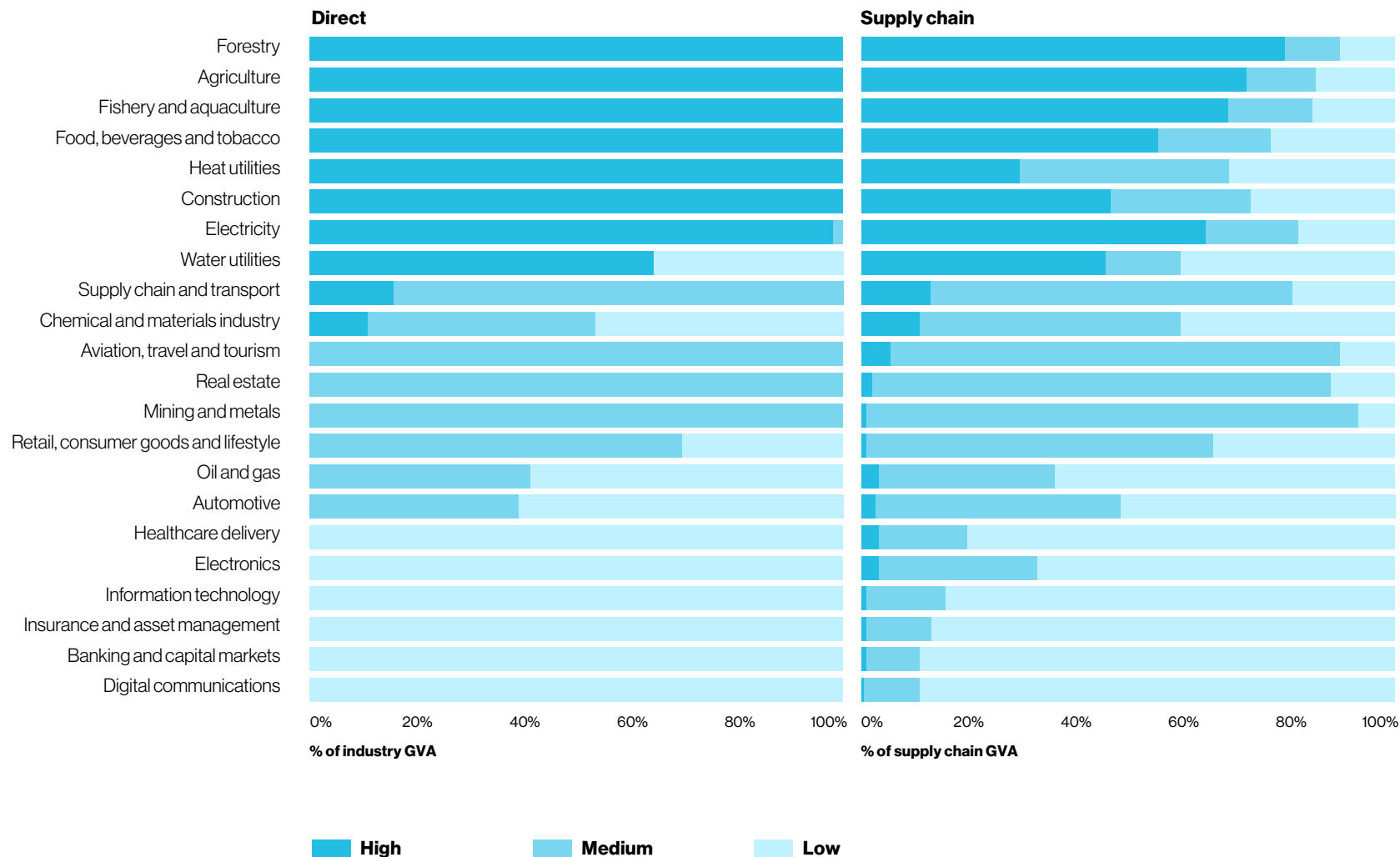
108. OECD (2019). *Biodiversity: Finance and the Economic and Business Case for Action*, Idem

109. Some relevant initiatives are: the Consumer Goods Forum, New York Declaration on Forests (NYDF), G7 Fashion Pact, Business for Nature Coalition, UN Global Compact, and the International Council of Mining and Metals (ICMM).

110. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) *Financing Nature... Idem*

**FIGURE 4
DIRECT AND SUPPLY
CHAIN GROSS VALUE
ADDED (GVA) WITH
HIGH, MEDIUM,
AND LOW NATURE
DEPENDENCY,
BY INDUSTRY**

SOURCE: HERWEIJER, C., WORLD ECONOMIC FORUM - PWC (2020) NATURE RISK RISING: WHY THE CRISIS ENGULFING NATURE MATTERS FOR BUSINESS AND THE ECONOMY.



03

Clean up the books for a reliable, functioning and healthy global economy: phase out harmful incentives, clamp down on tax havens and restructure sovereign debt based on solid biodiversity conservation goals

It has been estimated that the equivalent of 10% of global GDP is held in tax havens around the world, with a great deal of heterogeneity: a small share of GDP in Scandinavia, to 15% in Continental Europe, reaching 60% in Gulf countries and some Latin American economies

supply chains function. Businesses and industries need to make rapid changes, identifying how the economic activities are impacting not only the environment and biodiversity - and mitigating impact - but also human communities, especially groups under vulnerable conditions.

Governments should enable standards and frameworks to measure and report on biodiversity dependencies that provide guidance on where to direct supply chain investment and capital. They also need to put in place stronger public regulations and enforcement, and oversee and reinforce private standards. More transparency on the impacts on vulnerable groups, including IPLCs, is needed, as well as obligations that they be corrected, ensuring compliance with international human rights standards.

3.2. Deadly paradises no more: eliminating tax havens is an existential issue because criminal money that is stolen from people is also heavily financing the Earth's destruction

It’s urgent to develop and strengthen policies and regulations against tax evasion by enforcing monitoring, transparency and compliance practices, especially those regarding the use of and/or the impact on biodiversity and natural resources. These compliance and transparency practices should be applied by governments of countries considered as tax havens.

The structural changes outlined in this document cannot be achieved without addressing the issue of tax havens and their “dirty money”. Tax havens are “countries or places with low or no corporate taxes that allow outsiders to easily set up businesses there,”¹¹¹ limiting public disclosure about companies and their owners. They are also called secrecy jurisdictions. Tax havens exist all over the world -from countries like Panama, the Netherlands and Malta- to territories, like the Cayman Islands. There are also tax havens within countries, like the U.S. state of Delaware. Recent independent investigations and leaks like the Panama Papers have drawn attention to other less known tax havens such as the British Virgin Islands or Wyoming¹¹².

Given the nature of tax havens, it makes it difficult to have accurate estimates on the volume of hidden wealth. However, it has been estimated that the equivalent of 10% of global GDP is held in tax havens around the world, with a great deal of heterogeneity: a small share of GDP in Scandinavia, to 15% in Continental Europe, reaching 60% in Gulf countries and some Latin

111. Fitzgibbon, W. and Hallman, B., ICIJ (2020). *What is a tax haven? Offshore finance, explained.* <https://www.icij.org/investigations/panama-papers/what-is-a-tax-haven-off-shore-finance-explained/>

112. Díaz-Struck, E., and Cecile S. Gallego, C., ICIJ (2016). *Beyond Panama: Unlocking the world's secrecy jurisdictions.* <https://www.icij.org/investigations/panama-papers/20160509-beyond-panama-secrecy-jurisdictions/>

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The average global statutory corporate tax rate has gone from 40% in 1980 to 24% in 2020, with an actual tax rate being much lower in many jurisdictions

American economies¹¹³. This money is a burden to governments' budgets in lost corporate tax revenue, estimated at US\$ 500 billion to US\$ 600 billion per year; low-income economies account for some US\$ 200 billion—a larger share as a percentage of GDP than advanced economies.¹¹⁴ Other estimates suggest that US\$ 7 trillion to US\$ 32 trillion of assets are located in offshore accounts, where little or no tax is paid¹¹⁵.

This lost money could cover more than 90% of the global financial resources needed for biodiversity every year, which is estimated between US\$ 722–967 billion¹¹⁶. This wealth is a loss not only for governments, but for society as a whole, since it is deprived of the necessary resources to adapt and face other global threats like climate change and pandemics, to address social needs and build schools and infrastructure, as well as to address and solve inequality and inequity towards marginalized groups under vulnerable conditions.

Not only is this dirty money not going to protect our planet, but tax havens are financing biodiversity loss. The IPBES 2019 report¹¹⁷ – based on a noteworthy research paper that quantifies the connexions between tax havens and the environment¹¹⁸ – highlights that “funding via tax havens provided 68% of foreign capital for Amazonian soy and beef production and supported 70% of the vessels that are implicated in illegal, unreported and unregulated fishing”.

Meanwhile, the average global statutory corporate tax rate has

113. Alstadsaeter, A., Johannesen, N and Zucman, G. (2017). *Who Owns the Wealth in Tax Havens? Macro Evidence and implications for Global Inequality*. <http://gabriel-zucman.eu/files/AJZ2017b.pdf>

114. Shaxson, N. (2019) *Tackling Tax Havens*. IMF, Finance and Development. <https://www.imf.org/en/Publications/fandd/issues/2019/09/tackling-global-tax-havens-shaxon>

115. Green, J. (2021). *Beyond Carbon pricing: Tax Reform is Climate Policy*. Global Policy, Volume 12, Issue 3, pp. 372-379. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/1758-5899.12920>

116. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) *Financing Nature... Idem*

117. Brondizio, E. S., et al. IPBES (2019), *The global assessment report on biodiversity and ecosystem services*, Idem

118. Galaz, V., Crona, B., Dauriach, A. et al. *Tax havens and global environmental degradation*. Nat Ecol Evol 2, 1352-1357 (2018). <https://www.nature.com/articles/s41559-018-0497-3>

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A global poll on the Panama Papers found that 80% of the respondents agreed that the Panama Papers scandal showed that “there is two sets of rules in the world - one for rich people, and one for everybody else”. People feel we are not all playing by the same rules, likewise people feel that having the wealthier paying little or no taxes at all is unfair.

gone from 40% in 1980 to 24% in 2020, with an actual tax rate being much lower in many jurisdictions¹¹⁹. The combination of lower taxes and greater tax avoidance allow corporations to accumulate more wealth, increasing their lobbying power and influence in policy making. G7 countries recently reached an interim agreement on tax reform that will have multinational corporations pay a minimum tax rate of at least 15% in each country they operate in. While a worthwhile step, this rate is far too low, and it is insufficient in terms of redistributing wealth globally and generating the public resources needed to address global social and environmental challenges, such as biodiversity loss.

As we make the case for scaling up biodiversity taxes, fees and charges on activities that potentially degrade biodiversity, we also believe that change will not be attained if nothing is done to reverse the trend towards shrinking corporate and personal income taxes and ending tax avoidance. Regulating big global corporations is a challenge but also a window of political opportunity and international cooperation. A global poll on the Panama Papers found that 80% of the respondents agreed that the Panama Papers scandal showed that “there is *two sets of rules in the world - one for rich people, and one for everybody else*”¹²⁰. People feel we are not all playing by the same rules, likewise people feel that having the wealthier paying little or no taxes at all is unfair.

Building upon the comments on the role of multinational corporations in achieving sustainable supply chains, the elimination of tax havens is a window for international cooperation - as well as a leadership opportunity - to address inequity, inequality and unfairness while finding the needed resources to move towards sustainability.

119. *Ibid*

120. IPSOS (2016). *Panama Papers*. <https://www.ipsos.com/en/panama-papers>

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In developing countries a substantial share of those resources goes to pay the debt: for example, over the next 6 years, countries in the Vulnerable 20 group will be responsible for nearly half a trillion dollars of debt service payments. According to independent research, developing countries spent up to 40% of government revenues on repaying debt between 2014-2018.

3.3. Recognize the ecological debt: address the global debt crisis with a spirit of justice and solidarity, considering mechanisms such as debt-for-nature swaps

To ensure that a new relationship between economy and biodiversity is built, a new vision, political will and international co-operation are required, but also a dramatic increase in financial flows towards biodiversity conservation. Prior to the COVID-19 crisis, financing for biodiversity-related activities or sustainable development was already critically underfunded:¹²¹ the total global annual flow of funds toward biodiversity conservation amounts to approximately US\$ 124-143 billion per year against an estimated annual need of US\$ 722-967 billion per year¹²², as mentioned before.

While biodiversity provides goods and services to the entire global economy, a small number of countries, known as megadiverse countries, house most of the world’s biodiversity. Occupying only 12% of the surface of the globe, these countries harbour at least 70% of the planet’s terrestrial biological diversity as well as rich marine biodiversity, over 45% of the population of the world, and an extraordinarily rich cultural diversity and associated traditional knowledge.

Megadiverse countries also happen to be amongst the most financially indebted countries. For instance, Brazil is the most biodiverse country in the world, while its national debt reached US\$ 1,393 billion accounting for 78.1%¹²³ of its nominal GDP by mid-2022 and is expected to rise again this year. The Democratic Republic of Congo’s (DRC) tropical rainforest is the second largest tropical rainforest ecosystem in the world (after

the Amazon), and as such, it is also the second biggest carbon sink, making the DRC’s forests a critical global ecosystem service provider. Its debt-to-GDP ratio is 85%.¹²⁴

Despite discussions about promoting “green recoveries” and helping to “build back better”, a marginal amount of fiscal money is earmarked for biodiversity and climate action and it is often subordinated to other economic development choices, while the fiscal revenue goes to other “priorities” like bailing-out banks with negative long term effects¹²⁵. In developing countries a substantial share of those resources goes to pay the debt: for example, over the next 6 years, countries in the Vulnerable 20 group will be responsible for nearly half a trillion dollars of debt service payments¹²⁶. According to independent research, developing countries spent up to 40% of government revenues on repaying debt between 2014-2018¹²⁷. This share has increased due to the pandemic. According to the IMF’s Global Debt Database, borrowing jumped from 28% to 256% of gross domestic product in 2020. About 60% of low-income countries are now in, or at risk of, distress¹²⁸.

This is truly an emergency context on many levels that calls for urgently finding tactical solutions. In countries with high debts and expensive access to credit, Debt-for-Nature Swaps (DNS) have emerged as a feasible method for reducing debt obligations while meeting biodiversity protection goals. By linking a developing-economy country’s large external debt to its high-value natural resources, DNS allow for the payment of debt through biodiversity conservation. These instruments

124. Trending Economies (2022) Congo Total External Debt. <https://tradingeconomics.com/congo/external-debt>

125. Acharya, et al (2020). Euro area bank bailout policies after the global financial crisis sowed seeds of the next crisis. CEPR. <https://cepr.org/voxeu/columns/euro-area-bank-bail-out-policies-after-global-financial-crisis-sowed-seeds-next-crisis>

126. Ramos, L., Bhandary, R., Gallagher, K., Ray, R., Global Development Policy Center (2022). V20 Debt review. An account of debt in the Vulnerable Group of 20. <https://www.bu.edu/gdp/2022/09/16/v20-debt-review-an-account-of-debt-in-the-vulnerable-group-twenty/>

127. Eurodad (2020). Out of Service: How public services and human rights are being threatened by the growing debt crisis. https://assets.nationbuilder.com/eurodad/pages/533/attachments/original/1646391370/A_Out_of_service.pdf?1646391370

128. Gaspar V. Pazarbasioglu C. (2022). Dangerous Global Debt Burden Requires Decisive Cooperation. IMF Blog. <https://www.imf.org/en/Blogs/Articles/2022/04/11/blog041122-dangerous-global-debt-burden-requires-decisive-cooperation>

121. OECD (2018). Global Outlook on Financing for Sustainable Development 2019: Time to face the challenge. OECD Publishing: Paris. <https://www.oecd.org/development/global-outlook-on-financing-for-sustainable-development-2019-9789264307995-en.htm>

122. Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., et al (2020) Financing Nature... Idem

123. CEIC Data (2021) Brazil National Government Debt. <https://www.ceicdata.com/en/indicator/brazil/national-government-debt>

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These instruments work by restructuring, reducing, or buying a portion of a developing country’s outstanding debt, with a percentage of proceeds (in local currency) being used to support biodiversity conservation programs within the debtor country.

work by restructuring, reducing, or buying a portion of a developing country’s outstanding debt, with a percentage of proceeds (in local currency) being used to support biodiversity conservation programs within the debtor country¹²⁹. This could involve both official bilateral and commercial debt.

DNS experiences already exist, since the early debt-for-nature swaps date to 1987. Since then over 100 debt swap operations have been conducted. A renewed interest in DNS has emerged since 2010, particularly in connection to global pledges on climate finance¹³⁰. However, as valuable as they were for ensuring conservation, these swaps in general were on a smaller scale compared to present indebtedness and sustainability challenges, especially when indebted countries may want to use some of the proceeds to fund healthcare, poverty, and energy recovery challenges¹³¹. Therefore, these instruments need to be readjusted in order to be implemented as a solution for a wider range of countries. Most ambitious and on a greater scale are the most recent experiences in the Democratic Republic of Congo (2019), Seychelles (2015) and Belize (2021).

In particular, the 2021 Debt-for-Nature Swap in Belize¹³² has allowed this country to ensure the long-term conservation of marine ecosystems and resources and buy back its outstanding external commercial debt at a discount, equivalent to 30% of the country’s GDP. The insurance provided by the US government’s International Development Finance Corporation was fundamental to the swap’s success and is an example of how decisive action by creditors could contribute to broader debt-relief. A very positive sign backing up the use of debt swap instruments

is a recent IMF research paper¹³³ establishing that there is an economic case for debt-for-climate swaps and that they can reach relevant scale with appropriate reforms and when suitable as a part of more comprehensive debt restructuring.

Avaaz has consulted with finance experts and leading members of civil society in Asia, Africa and Latin America and carried out a pilot exercise focused on the case of Argentina¹³⁴, a middle-income country belonging to the G20 but with a poverty index exceeding 40 percent of its population and a chronic indebtedness that the IMF itself has described as unsustainable. Part of the problem is the “trap” faced by countries classified as middle income like Argentina, which have the infrastructure needs of low-income countries but expensive access to credit – the combination of which hinders the generation of quality jobs and local development, with economies based on extractivism. Argentina has been deeply indebted for decades, caught in a trap of endless sovereign debt. Meanwhile, Argentina – as most developing countries – has provided unpaid vital ecosystem services to the world, making it an ecological creditor despite being a financial debtor.

Beyond the economic rationale, there is a moral issue behind Avaaz’s support for Debt-for-Nature Swaps: the developed countries of the North owe a debt to the often poorer, “emerging” countries of the South. The accumulation of wealth in the Global North was largely possible through the massive exploitation of natural resources, mainly extracted from the Global South¹³⁵. Recently published research shows that during 2015, the Global North appropriated nearly half (43%) of the North’s annual materials consumption was a net appropriation from

129. Sheikh, P.A. (2010). *Debt-for-Nature Initiatives and the Tropical Forest Conservation Act: Status and Implementation*. <https://www.cbd.int/financial/debtnature/g-inventory2010.pdf>

130. UNDP. (2017). *Debt for biodiversity Swaps, Financing Solutions for Sustainable Development*. <https://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/debt-for-nature-swaps.html#mst-1>

131. Echandi, C., Thiaw, E. World Economic Forum, (2021). *How rescheduling debt for climate and nature goals could unlock a sustainable recovery*. <https://www.weforum.org/agenda/2021/03/rescheduling-debt-climate-sustainable-recovery/>

132. Owen, N. (2022) *Belize: Swapping Debt for Nature*. IMF Country Focus. <https://sdgfinance.undp.org/sdg-tools/debt-nature-swaps>

133. Chamon, M., et al (2022). *Debt-for-Climate Swaps: Analysis, Design, and Implementation*. IMF work paper. WP/22/162. <https://www.imf.org/en/Publications/WP/Issues/2022/08/11/Debt-for-Climate-Swaps-Analysis-Design-and-Implementation-522184>

134. Avaaz (2022). *Debt for Debt The Argentine Case: A Post-Pandemic Proposal for the Sovereign Debt of Countries with an Ecological Surplus* (in Spanish) https://secure.avaaz.org/DeudaXDeuda_Argentina

135. Hickel J. et al. (2022). *National responsibility for ecological breakdown: a fair-shares assessment of resource use, 1970–2017* The Lancet. Volume 6, Issue 4, E342–E349, April 01, 2022. [https://doi.org/10.1016/S2542-5196\(22\)00044-4](https://doi.org/10.1016/S2542-5196(22)00044-4)

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Clean up the books for a reliable, functioning and healthy global economy: phase out harmful incentives, clamp down on tax havens and restructure sovereign debt based on solid biodiversity conservation goals

The accumulation of wealth in the Global North was largely possible through the massive exploitation of natural resources, mainly extracted from the Global South.

the South¹³⁶, resources that could have been used to meet local basic needs but instead were used to serve capital accumulation in the North¹³⁷.

Currently, exports of raw materials from developing economies continue to be sold at low prices that do not include compensation for local and global externalities, and very often are rooted in destruction of fragile ecosystems and human rights violations of Indigenous Peoples and Local Communities. Such is the case of lithium extraction in many parts of Latin America. In Mexico, for example, where according to the Woodrow Wilson International Center for Scholars (2022)¹³⁸, the mining of lithium in the northern state of Sonora jeopardizes water availability in general, and for Indigenous Peoples in particular, and political decisions are being made to favour such mining activities over complying with public commitments to construct irrigation systems to serve Indigenous Yaqui and Seri communities in Sonora. Demand for lithium has spiked in recent years, as more people choose electric vehicles, and is likely to continue growing as high gas prices push more to transition to electric modes of transportation, especially in rich, developed economies.

In addition, developed countries have disproportionately used environmental spaces or services without payment. For example, the excessive amounts of carbon dioxide historically emitted by developed countries into the oceans and atmosphere, causing climate change and inordinately harming poorer countries. All of these factors and more contribute to the North’s tremendous (and still growing) ecological debt¹³⁹ to the South. For

instance, the United States has emitted more CO₂ than any other country since 1751, and is responsible for 25% of historical emissions, and the 28 countries of the European Union (EU-28) together have emitted 22% while the African continent has produced only 3% of global historical emissions¹⁴⁰. It is also important to point out that nowadays, China is the world’s largest emitter of carbon, followed by the United States and India. “New polluters” like China and India also bear a big responsibility and, together with rich nations, are called out by the most vulnerable and least responsible countries to also pay for the Loss & Damage (L&D) they endure due to the climate impacts.¹⁴¹

We must acknowledge that any discussion of debt swaps cannot be disarticulated from broader discussions about sovereign debt and its legitimacy. Civil society has repeatedly denounced that swaps are instruments often used to legitimate illegitimate debts that have been contracted and administered with no transparency behind society’s back.¹⁴² Disputes continue over the validity of swapping these debts, since canceling them would have been the correct thing to do.¹⁴³ Any State government that opts to use these mechanisms should duly consult and inform the whole of society of their pros and cons and should ensure effective participation of all sectors of society, including the most marginalized and most affected by environmental destruction – and whose voices are often disregarded – engaging all in a broad, democratic and creative discussion aimed at increasing transparency regarding the commitments that DSN schemes entail¹⁴⁴.

136. By net appropriation it is meant that these resources are not compensated in equivalent terms through trade.

137. Hickel J. et al. (2022). *Imperialist appropriation in the world economy: Drain from the global South through unequal exchange, 1990–2015*, Global Environmental Change. <https://doi.org/10.1016/j.gloenvcha.2022.102467>

138. Rudman, A.I. and C. Fasanella (2022). *Before breaking ground: Challenges and opportunities for Mexican lithium*. The Woodrow Wilson International Center for Scholars. <https://www.innovationnewsnetwork.com/breaking-ground-opportunities-mexican-lithium/20680/>

139. Martínez-Alier, Angelouovski, I., Bond, P., Del Bene, D., et al (2014). *Between activism and science: grassroots concepts for sustainability coined by Environmental Justice Organizations*. Journal of Political Ecology. 21. 19–60. https://www.researchgate.net/publication/270635219_27Between_activism_and_science_grassroots_concepts_for_sustainability_coined_by_Environmental_Justice_Organizations%27

140. Ritchie, H., Our World in Data (2019). *How has contributed most to global CO₂ emissions?* <https://ourworldindata.org/contributed-most-global-co2>

141. CVF (2022). *Vulnerable Nations Call on Payment for Climate Damages from World’s Wealthiest and Most Polluting Countries*. <https://thecvf.org/our-voice/news/press-releases/vulnerable-nations-call-on-payment-for-climate-damages-from-world%E2%80%99s-wealthiest-and-most-polluting-countries>

142. Buckley, R.W. (2011). *Debt-for-Development Exchanges: History and New Applications*. Cambridge: Cambridge University Press. Only print version.

143. Kaiser, J. and Lambert, A. (1996). *Debt swaps for sustainable development: A practical guide for NGOs*. Gland and Brussels: IUCN and Eurodad. Only print version.

144. The Convention on Biological Diversity, CBD (2001) *Training Guide on Debt-for-Nature Swaps*. https://www.cbd.int/doc/nbsap/finance/Guide_Debt_Nov2001.pdf

"It's the ecology, Bretton Woods"

On why ecological economics should be front and center at the International Monetary Fund and the World Bank Group

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Developed countries have disproportionately used environmental spaces or services without payment. For example, the excessive amounts of carbon dioxide historically emitted by developed countries into the oceans and atmosphere, causing climate change and inordinately harming poorer countries.

As stated above, we consider DNS as a tactical solution that under the right conditions could function to move towards more justice while financing biodiversity. As the world grapples with the increasing environmental challenges and its effects on people's lives, we urgently need to move beyond speeches and good intentions. We need to quickly increase financial flows to biodiversity conservation where those resources are crucial for the world. As Gustavo Petro, the new president of Colombia (crucial for Amazon conservation), clearly stated in his acceptance speech: "I propose to humanity to exchange external debt for internal expenses to save and recover our jungles, forests and wetlands. Reduce foreign debt and we will spend the surplus on saving human life"¹⁴⁵.

145. Petro, G., Cambio Colombia (2022). "Se acabaron los no se puede": el discurso del presidente Petro. Presidential acceptance speech from Gustavo Petro (in Spanish). Bogotá, Colombia, August, 7, 2022. <https://cambiocolombia.com/articulo/politica/se-acabaron-los-no-se-puede-el-discurso-del-presidente-petro>



04. An economy for the billions, not the billionaires: human rights and environmental justice is not only the right thing to do morally but also the smart thing to do economically

18' Read

Across the globe, human rights are routinely violated and disregarded as a result of economic activities. Beyond the numerous moral arguments in support of international human rights standards, Avaaz believes that upholding these standards could also benefit the economy. A rights-based approach would support public and private investments and enable businesses to risk-proof themselves from vulnerabilities originating from unsustainable development strategies and practices that negatively impact human rights.

We believe that the right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized. The human right to development also implies the full realization of the right of peoples to self-determination, which includes the exercise of their inalienable right to full sovereignty over all their natural wealth and resources¹⁴⁶.

Avaaz believes there is important "catching up" that our societies must do to close the human rights gap that persists in the relationship between global demands for natural resources and the communities that safeguard such resources. Integrating a rights-based approach into economic policies should therefore be a priority for policy-makers pursuing deep transformative changes in our economic system.

Despite their vital role as first-responders to the trio of environmental emergencies currently threatening our planet (biodiversity loss, desertification and climate change), Indigenous Peoples and Local Communities (IPLCs) are regularly sidelined and often persecuted by public and private interests. Oftentimes, when social groups living in vulnerable conditions are subject to severe disenfranchisement by their own governments, by national and international companies, or by market

¹⁴⁶. OHCHR (1986) *Declaration on the Right to Development*. General Assembly resolution 41/128, 04 December 1986 <https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-right-development>

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Recent polling in the EU shows that an overwhelming majority of Europeans (82%) believe that businesses should not sell products that destroy the world’s forests. Meanwhile, 78% want their governments to ban products that drive deforestation. And when informed that the European Parliament has proposed such a law, support rises to 81 per cent.

demands for commodities that directly affect the environment in which those communities live, the consequences for ecosystem services impact the world on a broad scale.

In the case of the Amazon region, which provides major environmental and climate services to the entire world, human rights violations combined with poor supply chain regulations in both exporting and importing countries have put human rights in jeopardy (see [Note 10](#)). In Brazil, roughly 20% of soy exports and at least 17% of beef exports from the Amazon and Cerrado biomes to the EU is estimated to be based on illegal deforestation¹⁴⁷. As a result of Brazil’s intensive export of commodities, direct conflicts between the agribusiness industry and environmental defenders have increased –specifically those involving Indigenous Peoples. Of the total 1,733 deaths of environmental defenders around the world in the past decade, 342 took place in Brazil of which over 85% were IPLCs¹⁴⁸. In fact, the melding of rich natural resources, powerful international companies, violent criminal groups and entrenched government corruption, has made Latin America a hot spot for violence against environmental activists. More than half of the reported attacks worldwide in 2021 took place in just three countries: Brazil, Colombia and Mexico.¹⁴⁹

Something similar is happening in the Sahel and Congo Basin where biodiversity loss, non-stop land-use change and climate change are rapidly transforming these regions and affecting the people who live in them. A recent report by the UN Permanent Forum on Indigenous Issues¹⁵⁰ examining environmental-related conflicts between State and non-State actors in this region

147. Rajão, R., Britaldo Silveira, B., Nunes, F., Börner, J., *The rotten apples of Brazil’s agribusiness. Atlas - The geography of Brazilian agriculture*. https://www.researchgate.net/publication/343017296_The_rotten_apples_of_Brazil's_agribusiness

148. Global Witness (2022). *A deadly decade for land and environmental activists - with a killing every two days*. Sept 29, 2022 <https://www.globalwitness.org/en/press-releases/deadly-decade-land-and-environmental-activists-killing-every-two-days/>

149. Global Witness (2021). *Last line of defense. The industries causing the climate crisis and attacks against land and environmental defenders*. <https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/>

150. Ibrahim, H., Bambanze, V., UN Permanent Forum on Indigenous Issues (2022). *Indigenous peoples and resource conflicts in the Sahel and in the Congo Basin* (Note by Secretariat), 28 January 2022. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/242/99/PDF/N2224299.pdf?OpenElement>

highlights the more than 15,000 deaths related to farmer-herder violence in West Africa since 2010 (with half occurring since 2018). Given the impacts of these conflicts on regional stability, this turmoil-prone area is a clear example of how addressing human rights within the context of natural resource allocation and biodiversity is key for both economic development and peace.

These are just a few examples of how fast unfettered economic growth has proven to be damaging for human societies, especially to social groups under vulnerable conditions, while also impacting future development by depleting strategic national capital. Social turmoil related to environmental and development issues implies an increased risk for business in the short, medium and long terms, especially in an interconnected world, vigilant of the respect of human rights. While there are attempts to strengthen transparency in supply chain (including the EU Directive on Corporate Sustainability Due Diligence¹⁵¹ and the EU 2022 law to help limit global deforestation¹⁵²), changes in the way key sectors of the economy deal with human rights are yet to be seen on a global scale.

There is no doubt that the issue of human rights and environmental degradation deeply resonates with the public. Recent polling in the EU¹⁵³ shows that an overwhelming majority of Europeans (82%) believe that businesses should not sell products that destroy the world’s forests. Meanwhile, 78% want their governments to ban products that drive deforestation. And when informed that the European Parliament has proposed such a law, support rises to 81 per cent.

In addition to the persistent marginalization, negligence, and

151. European Commission (2022) *Just and sustainable economy: Commission lays down rules for companies to respect human rights and environment in global value chains*. 23 February 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1145

152. European Parliament (2022). *Climate change: new rules for companies to help limit global deforestation* <https://www.europarl.europa.eu/news/en/press-room/20220909IPR40140/climate-change-new-rules-for-companies-to-help-limit-global-deforestation>

153. Meridian Institute (2022) *Measuring opinions on proposed EU legislation for Deforestation*. EU Legislation Opinion Poll. https://www.fern.org/fileadmin/uploads/fern/Documents/2022/Meridian_Institute_EU_Legislation_Opinion_Poll_Report_310822_FINAL_1.pdf

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Since the December 2021 Glasgow Leaders' Declaration on Forests and Land Use, covering 90.94% of forests, was endorsed by 148 countries, very little has been seen to effectively implement it and pursue the measures in it, particularly the ones concerning the increase of finance and investment, or the alignment of financial flows to pursue biodiversity and climate change goals.

social ostracism IPLCs regularly face, they also suffer from a persistent lack of support and financial resources that could further their sustainable development and amplify the role they play in helping us all “*build back better*”.

For example, since the December 2021 Glasgow Leaders' Declaration on Forests and Land Use¹⁵⁴, covering 90.94% of forests, was endorsed by 148 countries, very little has been seen to effectively implement it and pursue the measures in it, particularly the ones concerning the increase of finance and investment, or the alignment of financial flows to pursue biodiversity and climate change goals. Therefore, if world leaders are to comply with “the Glasgow pledge”, it should mean investment-wise to put the money on who will use it better: Indigenous Peoples and Local Communities.

Furthermore, according to World Bank guidelines for projects that could impact IPLCs (ESS7)¹⁵⁵, what is needed is to “ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples”. By ensuring that IPLCs are front and center, both public and private sectors could seize the opportunity to revolutionize the economic system's relationship with people and biodiversity in ways that benefit everyone through biodiversity conservation and sustainable use, the creation of green jobs and truly promoting sustainable development.

154. UN Climate Change Conference UK COP 26 (2021) *Glasgow Leaders' Declaration On Forests And Land Use*. 02.11.2021 <https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>

155. The World Bank (2016) *ESS7: Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities*. <https://documents1.worldbank.org/curated/en/972151530217132480/ESF-Guidance-Note-7-Indigenous-Peoples-English.pdf>

4.1. Invest in the real CEOs: Indigenous Peoples and Local Communities are the Chief Ecological Officers – increasing direct funding to them is the only way to avoid economic collapse

Biodiversity conservation and sustainable use will only be possible if human rights are enforced and direct funding gets to the most relevant actors: Indigenous Peoples and Local Communities (IPLCs).

Currently, IPLCs protect and conserve roughly 30% of the world's lands. Failing to secure their human and collective rights has already resulted in serious consequences for biodiversity conservation. According to the 2019 IPBES Global Assessment Report on Biodiversity and Ecosystem Services, “biodiversity is generally declining less rapidly in Indigenous peoples' land than in other lands”. It also highlights that where biodiversity is declining on Indigenous lands, so is the knowledge of how to manage it. This is due to external pressures and lack of support from authorities, resulting in severe consequences for the livelihoods of IPLCs and reducing “the ability of Indigenous Peoples and Local Communities to conserve and sustainably manage wild and domesticated biodiversity that are also relevant to broader society”¹⁵⁶.

IPLCs have historically been excluded from important discussions and decisions adopted by governments about the lands and territories they inhabit, and the exploitation and utilization of the natural resources found therein. This lack of inclusion has also exacerbated conflicts between IPLCs and the sovereignty of States, as if they were necessarily opposites, when, time after time, working together with IPLCs has proven to be fundamental for public and private investments to ensure the protection, conservation, and sustainable use of biodiversity.

156. Brondizio, E. S., et al. IPBES (2019), *The global assessment report on biodiversity and ecosystem services*, *Idem*

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For example, the Board of the Natura & Co Group - a global company with a market capitalization of US 3,879 billion¹⁵⁷- unanimously approved their Human Rights Statement in November 2021¹⁵⁸. In addition to firmly recognizing the intertwined nature of the health of ecosystems and the well-being of people, being committed to take action to ensure the balanced protection of human rights and of the planet, and pledging to being informed by the perspectives of rights holders, Natura’s statement explicitly refers to defending the rights of “the local and traditional communities where ingredients and minerals are sourced” as well as to the protection of forests and biodiversity. Furthermore, the statement makes a point of the relevance of ethical sourcing programs and community-building activities in its supply chains that create economic benefits for Indigenous populations and other producer communities, actions aligned with the UN Declaration on the Rights of Indigenous Peoples.

Even so, governments are still failing to secure direct financing to IPLCs. Less than 1% of all aid money for climate and biodiversity reaches communities. For example, projects supporting IPLCs’ land tenure and forest management received approximately US\$ 2.7 billion between 2011-2020 from bilateral and multilateral donors and private philanthropies, an underwhelming US\$ 270 million per year. Financial institutions have yet to play their part. In November 2021, a joint donor statement made at the Glasgow COP26 to pledge \$1.7 billion to IPLCs¹⁵⁹ reactivated the debate about providing much needed funds to frontline conservationists. However, almost a year after the pledge, it is still unclear how donors and governments will implement it; what principles they will follow to secure human rights, and how they will ensure that the process follows

157. YCharts, Inc.(2022) *Natura & Co Group*, a global company with a market capitalization of US 3,879 billion, Consulted Oct. 7, 2022 https://ycharts.com/companies/NTCO/market_cap

158. Natura & Co (2021) *Group Human Rights Statement* Unanimously approved by the Board in November 2021. <https://api.mziq.com/mzfilemanager/v2/d/67c3b7d4-64ea-4c2fb380-6596a2ac2fbf/3facd6d5-ddaa-539e-2e36-70a4956d6776?origin=2>

159. UN Climate Change Conference UK COP 26 (2021) *COP 26 IPLC forest tenure joint donor statement*. Advancing Support for Indigenous Peoples’ and Local Communities’ Tenure Rights and their Forest Guardianship Glasgow COP26, November 2021 <https://ukcop26.org/cop26-iplc-forest-tenure-joint-donor-statement/>

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the highest standards, as well as upholding the UN Declaration for the Rights of Indigenous Peoples.

And yet studies on the costs and benefits of securing land tenure in IPLC lands show that investing in IPLCs’ land management provides great benefits both locally and globally, and that financially supporting them is one of the most secure investments available given the demonstrated management effectiveness of IPLCs. For instance, according to Ding et al¹⁶⁰, the investment required represented at most 1% of the resulting benefits that include carbon sequestration, regulation of local climate, water cycling, hydrological services, pollination, nutrient retention, existence values, and recreation and tourism values. The same 2016 report shows that providing land tenure rights to IPLCs would imply a carbon mitigation cost of 2.04 - 11.88 US\$/tCO₂ whereas the average cost of avoided CO₂ through fossil carbon and storage is US\$58/tCO₂ for coal-fired power plants, and 85 US\$/tCO₂ for natural gas-fired power plants.

Maximizing investments to **IPLC-led conservation efforts will be instrumental to achieve global biodiversity goals**, as well as fulfilling the Paris climate agreement. While science says **we must protect and conserve at least half of the planet to ensure we halt and reverse biodiversity loss**, and to secure nature’s contributions to mitigating the impact of greenhouse gas emissions, governments are falling short from enabling key stakeholders, such as Indigenous Peoples and Local Communities, in this global effort.

Public and private investments should also focus on social groups under vulnerable conditions to comply with the international pledge to leave no one behind and recent deliberations and resolutions of the UN General Assembly on poverty

eradication¹⁶¹. There are an estimated 476 million Indigenous Peoples around the world, which represents 6% of the global population on the frontlines of the conservation of 80% of global biodiversity, according to the World Bank¹⁶². However, IPLCs also account for about 19% of the extreme poor. This vulnerability is tightly connected with lack of formal recognition over their lands, territories and natural resources. Besides the endurance of extreme marginalization, it is also connected to the fact that they are facing multiple barriers to participate fully in the formal economy, enjoy access to justice, and participate in political processes and decision-making.

A rights-based approach to biodiversity conservation and sustainable use is therefore a *sine qua non* to increase and support sustainable approaches for economic development, whether social, public or private.

Governments and businesses should therefore work with Indigenous Peoples and Local Communities to establish guiding principles that will further strengthen this relationship and ensure financial resources are directed towards the most effective initiatives, both in terms of the financial cost-benefit aspect, and in relation to activities that will further strengthen global efforts to protect half the planet, reverse biodiversity loss, as well as promote true economic justice and inclusion.

161. United Nations (2021), *Eradication of poverty and other development issues: implementation of the Third United Nations Decade for the Eradication of Poverty (2018-2027)*, Resolution adopted by the General Assembly on 17 December 2021, https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2022/04/22-00726-ATT-A_RES_76_218.pdf

162. The World Bank (2022) *There are an estimated 476 million Indigenous Peoples worldwide*. Indigenous Peoples, Understanding Poverty. Last Updated: Apr 14, 2022 <https://www.worldbank.org/en/topic/indigenouspeoples>

160. Ding, H., Veit, P., Gray, E., Reynter, K., et al (2016). *Climate Benefits, Tenure Costs: The Economic Case For Securing Indigenous Land Rights in the Amazon*. <https://www.wri.org/research/climate-benefits-tenure-costs>

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4.2. No economic solution works without including women, half of the population: closing gender gaps at work would add as much as US\$ 28 trillion to annual GDP by 2025

Gender inequality is rooted in patriarchy: women have been excluded from full participation in economic life in a system that has produced wealth based on the exploitation of biodiversity and women’s unpaid work. Extractivism is rooted in the abuse of women; the way we exhaustively exploit biodiversity mimicks how women have been taken advantage of, and vice versa. As the communitarian feminists frame it: patriarchy is therefore the source of systemic oppressions, it is a system that oppresses humanity (women, men and LGBT people) and nature, built historically and every day on the body of women.¹⁶³

Therefore, changing the economic paradigm will not be possible without women, who –by the way – account for half of the population. Full recognition and upholding women’s roles in economic development, with emphasis on Indigenous and rural women, is more critical than ever. Gender equality tends to be overlooked when planning for biodiversity conservation and sustainable use, resulting not only in human rights violations, but in missed opportunities to benefit from valuable experience and knowledge towards economic resilience not only based on women’s knowledge about biodiversity and natural resources, but also on women’s approach to businesses and entrepreneurship.

For example, evidence demonstrates¹⁶⁴ that when women hold secure rights to land, efforts to protect biodiversity and build climate resilience are more successful as women have a different, more inclusive and community-wise approach to natural

163. Guzman A (2022). *Feminismo Comunitario-Bolivia. Un feminismo útil para la lucha de los pueblos*. Revista con la A. No. 83. <https://conlaa.com/feminismo-comunitario-bolivia-feminismo-util-para-la-lucha-de-los-pueblos/>

164. Zongshou, C., Gourlay, S., Osman, M., The World Bank Group (2020) *Gender Equality: Women, Land and Data*, <https://blogs.worldbank.org/opendata/gender-equality-women-land-and-data>

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Globally, women make up 80% of household spending decisions and account for 43% of the global agricultural workforce, yet they continue to have significantly less access than men to credit directed to rural sectors. The Global Gender Gap Report 2021 identified economic participation and opportunity as the second largest gap and estimates that under a business as usual scenario, it will take another 267.6 years to close it.

resource management resulting from their higher vulnerability and marginalization.

In spite of that, women are still radically under-represented in decision-making spaces related to biodiversity conservation, climate action, land governance, and land administration at all levels. Inequality is still happening in all economic sectors. UN Women estimates that “women workers earn an average of 84 percent of what men earn. For women of color, immigrant women, and women with children, the difference is even greater”. In fact, in some developing countries in Africa, Asia and the Pacific, women typically work 12 to 13 hours per week more than men do, while women’s contributions are still often “invisible” and unpaid.

A 2012 report by the Food and Agriculture Organization (FAO) estimates that female farmers receive only 10% of the total aid allocated for agriculture, forestry and fishing, and as little as 5% of all agricultural extension services.

Globally, women make up 80% of household spending decisions and account for 43% of the global agricultural workforce, yet they continue to have significantly less access than men to credit directed to rural sectors. The Global Gender Gap Report 2021 identified economic participation and opportunity as the second largest gap and estimates that under a business as usual scenario, it will take another 267.6 years to close it.

Inequality is also reflected in less access to financial resources that would increase women’s capacity to respond to environmental risks related to climate change and biodiversity loss. Securing women’s access to credit and direct funding would improve conservation results, enhance productivity, improve involvement of youth, and increase the scope and quality of societal policies and institutions, including more inclusive and better-represented decision-making.

The OECD has pointed out¹⁶⁵ that gender-based discrimination costs the world economy \$6 trillion a year, while according to the McKinsey Global Institute, fully closing gender gaps at work would add as much as \$28 trillion to annual GDP by 2025. Experience also demonstrates that in countries with greater gender inequality, just closing the gap in women’s labor force participation could increase economic output by an average of 35 percent¹⁶⁶.

These numbers are not sufficiently accounted for within efforts to address the three planetary emergencies the world is facing now (biodiversity loss, climate change and land degradation and desertification), and this is yet another demonstration of how stakeholders in the global economy have failed to understand that closing economic gender gaps should be a key element in building back better.

165. OECD (2019), *Social Institutions and Gender Index in SIGI 2019 Global Report, Transforming Challenges into Opportunities*. https://www.oecd-ilibrary.org/development/sigi-2019-global-report_bc56d212-en

166. *Idem*

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Policy-makers participating in the IMF fall meeting, and in the upcoming biodiversity and climate change negotiations, as well as in the G7 and G20, should address how to include these social groups in reconstruction strategies if sustainable development is what they are aiming for.

4.3. Earth’s first responders: financially supporting youth and those in vulnerable conditions will ensure resilient environments, reducing global economic risks

Upholding human rights in economic development is a strategic and effective approach for long-term economic resilience and business competitiveness, as is biodiversity conservation and sustainable use. However, lack of access to financial resources that would increase the capacity of Indigenous Peoples and Local Communities, as well as that of women, to address the impacts of biodiversity loss, land degradation and climate change, undermines their necessary participation in building a sustainable economy.

Policy-makers participating in the IMF fall meeting, and in the upcoming biodiversity and climate change negotiations, as well as in the G7 and G20, should address how to include these social groups in reconstruction strategies if sustainable development is what they are aiming for. They need to provide clear guidelines about it, along with creating the adequate policy environment, for mainstreaming biodiversity - as agreed in 2016 and 2018 by the Conference of the Parties to the UN Convention on Biological Diversity - in a way that helps businesses work hand in hand with such communities in their activities, with respect and in a spirit of collaboration.

Securing credit and direct funding for social groups under most vulnerable conditions, and allowing them to manage such funds for conservation activities is *de facto* how this respect and collaboration is enacted. An additional gain of supporting traditional practices is that youth are given roles for participation in conservation and sustainable use of biodiversity. Young women and men, IPLCs, farmers, campesinos, herders, and fishers will continue honoring biodiversity and natural resources as they are nurtured by approaches that have proven to be successful for generations.

"It's the ecology, Bretton Woods"

On why ecological economics should be front and center at the International Monetary Fund and the World Bank Group



05. The case for an economy that builds planetary peace: the choice for Bretton Woods institutions to reinvent their role in today’s world history, or become a symbol of the past

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Our business-as-usual economy, which regularly puts profit ahead of all other considerations, has never before created so many risks and vulnerabilities for human development and wellbeing. Decision-makers fail to consider key planetary boundaries that sustain life. Biodiversity has been completely neglected and as it continues to be degraded and lost, while greenhouse gas emissions continue to rise on their end, our production and consumption patterns move us further away from resilient alternatives. Ahead of 2023, a key year where governments will take stock of (the lack of) progress made towards achieving Agenda 2030, we can already feel that pessimism is in the air (see [Note 11](#)).

Montreal is a key moment to reverse these trends. The work between the Convention on Biological Diversity and Bretton Woods institutions needs to finally start in a real way and go harder, better, faster, stronger.

Since 1995 and the first Conference of the Parties to the CBD (COP1), Parties to the CBD have repeatedly called for a stronger and concrete mobilization of the World Bank, and even of the IMF, to support the implementation of the CBD¹⁶⁷. Yet the leadership of these institutions has been “missing in action” during negotiations on biodiversity. And make no mistake: as highly motivated as their representatives can be when they take the floor or give advice, they do not possess the political weight that is necessary to make commitments or simply be credible enough to unlock the very difficult conversations that transpire about money. Close to US\$ 1 trillion a year must be mobilized to

¹⁶⁷ See, for instance, [paragraph 8 of Decision VI/16](#). Additional financial resources (COP6, 2002): “Urges Parties and Governments, the World Bank, the International Monetary Fund, the United Nations Development Programme and other relevant institutions to take concrete action to review and further integrate biodiversity considerations in the development and implementation of major international development initiatives, such as the Highly Indebted Poor Countries (HIPC) Initiative, Poverty Reduction Strategies (PRSs), and Comprehensive Development Frameworks (CDF), as well as in national sustainable development plans and relevant sectoral policies and plans;”

Or paragraph 2 of the “Bonn Message On Finance And Biological Diversity” (COP9, 2008, pp 49): “The international development and financial cooperation system, including the World Bank, the International Monetary Fund, regional development banks and bilateral development agencies, as well as the United Nations funds, programmes and agencies, are invited to increase direct investment and technical assistance in biodiversity projects and strive to mainstream biodiversity and its associated ecosystem services considerations into their overall programme of work to maximize potential for synergy;”.

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The work between the Convention on Biological Diversity and Bretton Woods institutions needs to finally start in a real way and go harder, better, faster, stronger.

implement the post-2020 global biodiversity framework that is to be adopted in Montreal, in a context in which international solidarity is in crisis. Therefore, Kristalina Georgieva and David Malpass should show up, engage and help Parties to reach a compromise. The Bretton Woods institutions were meant to be instruments of peace, and it is their duty to step up and assist in navigating the gridlock we’re in.

On the other hand, the actors of the CBD must become much more specific about what they expect from these institutions, so that they can collaborate and decide together on where they are the most relevant for the implementation of the post-2020 global biodiversity framework and the CBD objectives in general, in particular at the national level.

Below, Avaaz offers some recommendations for governments and key stakeholders on how to leverage the historic moment that is COP15, to take successful steps towards mainstreaming biodiversity across all sectors, to reshape our economic model into a more solidary and inclusive one, a model that stops working against biodiversity.

5.1. Why it is critical for the Bretton Woods institutions to be present at the UN biodiversity talks: 20 years of rain-checks are enough, Georgieva and Malpass should show up, engage and enact change

Avaaz calls on the World Bank and the International Monetary Fund to:

- 1. Assemble a high-level and strongly engaged delegation for CBD COP15 in Montreal.** Get immediately involved in these discussions and put proposals on the table before the end of November, and go to Montreal and actively participate to help unlock the crucial discussions on resource mobilization to implement the post-2020 global biodiversity framework. This delegation **should be headed by no less than the leadership of the World Bank and the IMF, and David Malpass and Kristalina Georgieva should be there in person.**
- 2. Launch an inter-agency Biodiversity Task Force to increase the inclusion of biodiversity criteria in the process of debt sustainability analysis.** There is significant accumulated experience on natural capital accounting methodologies and attempts to better take into account biodiversity in macroeconomic development policies. A Biodiversity Task Force is needed to assess what progress Bretton Woods institutions have achieved so far, and the many challenges that must be addressed in international economic policies in order to implement the post-2020 global biodiversity framework. This task force should release its first report ahead of CBD COP16 and make proposals on how Bretton Woods institutions could support the implementation of the post-2020 framework throughout the decade.

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The Bretton Woods institutions were meant to be instruments of peace, and it is their duty to step up and assist in navigating the gridlock we’re in.

3. **Call for a future (either annual or extraordinary) Statistical Forum dedicated to biodiversity:** this should include calling for papers and proposals to further explore debt relief and restructurings that include biodiversity criteria in frameworks to reduce risks and increase debt sustainability, as well as innovative monitoring systems such as the use of open-source technologies and big data for citizen feedback. This could be piloted through partnerships with initiatives such as the UN Global Pulse¹⁶⁸.
4. **Stimulate more in-house research at the IMF on debt and biodiversity:** Researchers at the IMF are encouraged to continue their work on debt management and debt transparency and its relation to environmental deterioration as a progressive process which affects individual country’s natural assets, not as a permanent asset stock. Prior IMF staff research on the fiscal space needed to meet the Sustainable Development Goals might be a good starting point to develop economic scenarios for SDG 14 and 15 regarding biodiversity.
5. **Launch the exploration of additional climate and nature-friendly mechanisms** to channel existing and potential Special Drawing Rights allocations in favor of resilient, diversified and inclusive economies in developing countries.
6. **Develop pilot initiatives** with both highly concessional and non-loan financing to create standards and policy advice on biodiversity risk management in developing countries, that can guide the incorporation of standards on biodiversity within the IMF, such as a future biodiversity - related qualifying challenge in the Resilience and Sustainability Trust.
7. **Support increased participation by all segments of so-**

ciety in the implementation of debt relief measures: Partner with other IFIs and UN agencies in-country to promote country-level dialogue and engagement of all relevant stakeholders including civil society, grassroots organizations and IPLCs, increasing transparency and accountability and allowing for more effective monitoring and evaluation of debt relief measures.

8. **Encourage innovations** such as citizen observatories and capacity development measures that address human rights, gender equality, and youth inclusion issues while supporting the transition to more just and equitable economic systems.
9. **Support a significant expansion of direct financial support to IPLCs** – commensurate to their presence and relevance as effective conservation leaders – to scale up sustainable use and conservation of traditionally managed terrestrial and coastal/marine ecosystems and to protect and secure their land rights and customs.
10. **Support a new and much more ambitious round of Debt-for-Nature Swaps.** The IMF, WB and their regional multilateral development partners should mobilize support within their institutions and with key actors such as the Paris Club and bilateral creditors to promote a new round of Debt-for-Nature Swaps (DNS) at scale as part of wider debt relief action, in recognition of their importance for conservation and sustainable use efforts and their role in leveraging other resources. Beyond the financial support that should be mobilized to help countries, technical and financial capacities – a role often filled by NGO third-parties but which fits within the institutional mandates of the IMF and WB – are also required to enable these countries to build a low-carbon trajectory for sustainable development and biodiversity- and climate-related investments to help them fulfill their national priorities and commitments to multilateral environmental agreements. Basic guides (as in the ABCs of debt swaps) should be developed to help countries conduct stocktaking exercises to evaluate the suitability of national conditions for DNS.

168. UN Global Pulse (2022) *National Citizen Feedback Dashboard for Enhanced Local Government Decision-Making*. Pulse Lab Jakarta <https://www.unglobalpulse.org/project/national-citizen-feedback-dashboard-for-enhanced-local-government-decision-making/>

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5.2. Why delegates to the CBD talks (from Parties and other governments) should engage their counterparts at IMF and WBG: the Rio conventions should be front and centre in the new financial architecture

Throughout the history of the CBD, Parties have too often relied solely on the Executive Secretary to establish contact with Bretton Woods institutions and lead discussions on resource mobilization related topics. It is time for CBD Parties to deliver on what they have been “urging” for since 1995 in various COP decisions, repeatedly calling for the IMF and the World Bank Group to support the implementation of the CBD. One of the logical conclusions of this paper is that there has been no better time than now for such support to happen.

The needed coordination between the actors should not wait for Montreal to happen. Parties to the CBD delegates should reach out as soon as possible to their counterparts in the IMF and the WBG and start specifying what they expect from these institutions, so that they can collaborate and decide together on where they are needed for the implementation of the post-2020 global biodiversity framework, in particular at the national level, and the CBD objectives in general.

Avaaz recommends to the delegates of the CBD talks (from Parties and other governments) preparing for Montreal:

1. **Get in touch right now with their colleagues following Bretton Woods institutions, and with experts from these institutions.** CBD delegates of every level need, at the same time, to better understand how these institutions function and to convey the message of how much these institutions are urgently and effectively needed in the discussion around **resource mobilization for biodiversity conservation and sustainable use.**

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2. **Include debt relief and debt restructuring proposals in the post-2020 global biodiversity framework.** Considering that the most recent estimates for the financing of measures that are needed to address both the conservation and sustainable use of biodiversity are already US\$ 967 billion per year¹⁶⁹ (Deutz et al.), or US\$ 1 trillion per year as Avaaz has presented the case for, Debt Swaps for Nature are a feasible option for resource mobilization and they have to be included as a source among the all resource mobilization options that are being considered for the post 2020 GBF implementation.
3. **Support and cement the roles of Indigenous Peoples and Local Communities, and of women:** the target(s) on resource mobilization should include language reflecting how financial flows for biodiversity will take into account the leading roles of Indigenous Peoples and Local Communities. Leaving no one behind also means that the CBD is to address the marginalization and other different forms of oppression IPLCs face worldwide. Funds should also be distributed in a gender-responsive way, to ensure women get stronger roles in economic decision-making on the use and conservation of biodiversity. IPLCs and women should be able to access credits and direct funding.
4. **Present a specific text for a COP15 decision calling for Bretton Woods institutions to unblock financial resources for the post-2020 global biodiversity framework and urgently operationalize resource mobilization schemes to be presented no later than CBD COP16.** Be bolder than in the last 26 years and call on Bretton Woods institutions to work with the CBD on the macroeconomic constraints that have impeded the implementation of the CBD so far and that have led us to the current dead-end in negotiations on financing. This work could include other IFIs, other Rio Conventions, and international organizations such as UN DESA. The first result could be a joint report, presented at COP16, highlighting the necessary macroeconomic reforms, and who would be responsible for implementing them, in order to achieve the targets of the post-2020 global biodiversity framework in the context of Agenda 2030 and the SDGs. This report should then serve as guidance for the work of Bretton Woods institutions with individual countries.
5. **Create an interdisciplinary task force between parties of the Convention of Biological Diversity and the IMF and the WBG to design and implement approaches for countries to effectively remove all perverse subsidies and harmful incentives and support them with in-house research to identify those public resources and provide technical assistance on how to redirect them to practices that have been proven successful in protecting and sustainably using biodiversity.**

169. Deutz, A., Heal, G. M., Niu, R., Swanson, et al (2020) *Financing Nature: Closing the global biodiversity financing gap*. Idem

Annex Notes

Note 1

Degraded continents

Nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide. As highlighted by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) reports¹⁷⁰ that as of 2019, a full 75% of the terrestrial environment, 40% of the marine environment, and 50% of inland water bodies manifest severe impacts of degradation. Humans extract more from the earth than ever before (approximately 60 billion tons of renewable and nonrenewable resources) with population doubling over 50 years and the per person consumption of materials up 15% since 1980.

Since 1970, global extraction of biomass, fossil fuels, minerals, and metals increased sixfold. Urban area doubled since 1992 and half of agricultural expansion (1980–2000) was into tropical forests. Plastic pollution had increased tenfold and over 80% of global wastewater was discharged into the environment without treatment, while 300–400 million tons of heavy metals, solvents, toxic sludge, and other wastes were dumped into the world’s waters each year. Fertilizers entered coastal ecosystems, producing more than 400 hypoxic zones and affecting a total area of more than 245,000 km². The number of recorded invasive alien species doubled over 50 years.

The 2019 report (*ibid*) goes on to reveal that food, energy, water and livelihood security, as well as the physical and mental health of individuals and societies, are in whole or in part a product of biodiversity or somehow dependent on it, and are negatively impacted by land degradation processes. IPBES concludes that land degradation causes biodiversity loss and reduction of its contributions to people, erodes cultural identity and, in some cases, leads to loss of the knowledge and practices that could help halt and reverse land degradation.

Humans are also responsible for the substantial biodiversity decline due to invasive alien species invasions as a result of globalization that has increased the movement of people and goods around the world. According to the Convention on Biological Diversity (CBD), invasive alien species are responsible for substantial biodiversity decline: since the 17th century, they have contributed to nearly 40% of all animal extinctions for which the cause is known¹⁷¹. Invasive alien species impact mainly agriculture, forestry and farming by damaging crops, pastures and forests, also having negative impacts on fisheries. Damage has been estimated at US\$ 1.4 trillion per year, which is approximately 5% of the world’s economy¹⁷².

According to IPBES¹⁷³, calling since 2018 for urgent and concrete action needed to avoid worsening land degradation in the face of population growth, unprecedented consumption, an increasingly globalized economy and climate change, high consumption lifestyles in developed countries, coupled with rising consumption in developing and emerging economies are the dominant factors driving land degradation and associated biodiversity loss, the main direct drivers being unsustainable management of croplands and grazing lands, their expansion into native vegetation, unsustainable agricultural and forestry practices, climate change, and, in specific areas, urban expansion, infrastructure development and extractive industry.

As of 2018, degradation of the Earth’s land surface through human activities was negatively impacting the well-being of at least 3.2 billion people, and costing more than 10% of the annual global gross product in loss of biodiversity and ecosystem services. Loss of ecosystem services through land degradation had

170. IPBES (2019): *Global assessment report on biodiversity and ecosystem services* of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages. <https://doi.org/10.5281/zenodo.3831673>

171. CBD (2006). What are invasive alien species? <https://www.cbd.int/ids/2009/about/what/>

172. Pimentel, D., McNair, S., Janecka, J., Wightman, J., Simmonds, C., O’connell, C., Wong, E., Russel, L., Zern, J., Aquino, T., and Tsomondo, T. (2001). Economic and environmental threats of alien plant, animal, and microbe invasions. *Agriculture, Ecosystems & Environment*, 84(1), 32. pp. 1–20. <https://nature.berkeley.edu/garbelotto/downloads/pimentel2001.pdf>

173. IPBES (2018): *The IPBES assessment report on land degradation and restoration*. Montanarella, L., Scholes, R., and Brainich, A. (eds.). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany. 744 pages. <https://doi.org/10.5281/zenodo.3237392>

reached high levels in many parts of the world, and groups in situations of vulnerability were, and still are, facing the greatest negative effects of land degradation, and often experience them first. Paradoxically, these groups also see the greatest benefits from avoiding, reducing and reversing land degradation.

By 2050, land degradation and climate change together are predicted to reduce crop yields by an average of 10% globally and up to 50% in certain regions. Decreasing land productivity, among other factors, makes societies, particularly on drylands, vulnerable to socioeconomic instability. In dryland areas, years with extreme low rainfall have been associated with an increase of up to 45% in violent conflict. Every 5% loss of GDP, itself partly caused by degradation, is associated with a 12% increase in the likelihood of violent conflict. Land degradation and climate change are likely to force 50 to 700 million people to migrate by 2050.

Short-term gains from unsustainable land management often turn into long-term losses, making the initial avoidance of land degradation an optimal and cost-effective strategy. Therefore, the IPBES assessment report on land degradation and restoration explicitly makes the point that investing in avoiding land degradation and the restoration of degraded land makes sound economic sense; the benefits generally by far exceed the costs. The assessment indicated that the cost of inaction in the face of land degradation is at least three times higher than the cost of action. On average, the benefits of restoration are 10 times higher than the costs, estimated across nine different biomes. While challenging, the benefits of restoration include, but are not limited to, increased employment, increased business spending, improved gender equality, increased local investment in education and improved livelihoods.

Moreover, timely action to avoid, reduce and reverse land degradation can increase food and water security, can contribute substantially to the adaptation and mitigation of climate change and could contribute to the avoidance of conflict and migration. This is especially important considering the projected 4 billion people that will be living in drylands in 2050.

The IPBES 2018 report concludes that inherent feedbacks between the Earth’s land systems, climate and human societies mean that efforts to address land degradation and restore land have multiplicative benefits. Land restoration and reduced and avoided degradation that increases carbon storage or avoids greenhouse gas emissions in global forests, wetlands, grasslands and croplands could provide more than one third of the most cost-effective greenhouse gas mitigation activities required by 2030 to keep global warming to below 2°C.

Note 2 Exhausted Oceans

Our oceans cover two-thirds of the planet and are vital for human well-being. It provides invaluable ecosystem services, contributes to global food security, and offers immense opportunities for economic growth, employment and development.

Oceans also play an important role in climate change mitigation, absorbing 93% of climate heat, and sequestering 25% of global carbon dioxide (CO₂) emissions, while around 680 million people live in low-lying coastal zones - that is expected to increase to a billion by 2050 - 65 million of them alone living in Small Island Developing States, according to the information presented by the UN for the 2022 Ocean Conference (2022 UNOC) in Lisbon, Portugal.

Citing UNESCO, UNDP and the UN Global Compact, the information provided by the UN for the 2022 UNOC highlights that ocean economies are among the most rapidly growing in the world, providing benefits to many sectors of great economic value, such as fisheries, transport, bio-technologies, energy production, seabed resources exploration, tourism and many others; and that globally, the market value of marine and coastal resources and industries is estimated at US\$3 trillion per year or about 5% of global gross domestic product. Marine fisheries provide 57 million jobs globally and provide the primary source of protein to over 50% of the population in least developed countries, and that 15% of the animal protein eaten globally comes from seafood.

Regarding tourism, the UN informed that 80% of all tourism takes place in coastal areas. The ocean-related tourism industry grows an estimated US\$ 134 billion per year; and that the cost of reduced tourism due to coral bleaching has been estimated to be as much as \$12 billion annually, as healthy coral reefs contribute to tourism and fishing, providing millions of jobs and contributing to economies all over the world.

Despite their importance, at least 66% of oceans are experiencing an increase in the cumulative negative impacts derived from human activities carried out inland as well as in coasts and the

ocean itself, from changes in land and sea use, overexploitation, climate change, pollution and the invasion of alien species (IP-BES, 2019 *ibid*). Given that 75% of the Earth's oceans exist beyond national jurisdictions,¹⁷⁴ ocean governance is more challenging than terrestrial management as it underlines coordinated interventions both on land, in freshwater and in the oceans, comprising both areas contained within the 200-mile exclusive economic zones (EEZs) managed by individual coastal nations, as well as the Areas Beyond National Jurisdiction (ABNJ).

As well as on land, invasive alien species are considered to be one of the greatest threats to marine and coastal biodiversity worldwide. Despite being underrepresented compared to terrestrial invasion costs, aquatic invasions costs to the global economy have been estimated at US\$345 billion, North America (48%) and Asia (13%) facing the largest costs. Marine costs are particularly underreported despite being considered substantial.¹⁷⁵

Economic activities on both land and in the sea generate pollution that threatens ocean health. Approximately 80% of marine pollution derives from land-based activities, such as waste and waste water from cities and industry and runoff from agriculture¹⁷⁶. Plastic remains a key form of pollution: a 2021 study for the European Parliament (EP) estimated that the ocean currently contains more than 150 million tonnes of plastic, with a further 4.8 to 12.7 million tonnes entering the ocean every year. Microplastics and nanoplastics building up in the marine food-chain endanger ecosystems and human health¹⁷⁷, a problem ex-

174. Credit Suisse. (2020). *Engaging for a Blue Economy*. <https://www.credit-suisse.com/il/en/private-banking/secure-your-legacy/sustainable-investing/engaging-for-blue-economy.html>

175. Cuthbert, R., et al. (2021). *Global economic costs of aquatic invasive alien species*. Science of The Total Environment. Volume 775, 25 June 2021, 145238. <https://doi.org/10.1016/j.scitotenv.2021.145238>

176. VanderZwaag, D., & Powers, A.. (2008). *The protection of the marine environment from land-based pollution and activities: gauging the tides of global and regional governance*. The International Journal of Marine and Coastal Law, 23(3), 423-452. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2121661

177. Pucino, M., Boucher, J., Bouchet, A., Paruta, P., Zgola, M., Pucino, M., ... & Zgola, M. (2020) *Plastic Pollution Hotspotting and Shaping Action: Regional Results from Eastern and Southern Africa, the Mediterranean, and Southeast Asia*. <https://www.iucn.org/resources/grey-literature/plastic-pollution-regional-report-eastern-and-southern-africa>

acerbated during the COVID-19 pandemic due to improper waste management of single-use personal protective equipment¹⁷⁸.

The excess use and runoff of nitrate and phosphate fertilizers leads to eutrophication, which is the main cause of ocean deoxygenation¹⁷⁹ (the reduction of oxygen content of the ocean), damaging marine biodiversity and fishery resources¹⁸⁰. The shipping industry contributes to marine pollution through plastic and chemical waste, noise pollution as well as oil spills¹⁸¹. Moreover, shipping contributes at least 2.5% of the world’s total carbon dioxide (CO₂) emissions¹⁸². Deep-sea mining, an emerging economic sector with the potential for rapid growth, damages ecosystems and harms marine species through habitat loss, noise, vibration and light pollution.¹⁸³

Regarding fisheries, the 2020 edition of the OECD Review of Fisheries pointed out that the essential target of SDG 14 of the 2030 Agenda for Sustainable Development, which seeks to “conserve and sustainably use the oceans, seas and marine resources for sustainable development”, calling for the restoration of all fish stocks “at least to levels that can produce maximum sustainable yield as determined by their biological characteristics” by the end of 2020, remains unattained.

The OECD 2020 Review states that the fraction of world fish stocks that are within biologically sustainable levels declined

from 90% in 1974 to 66.9% in 2015, and it seems unlikely that the world’s fisheries can rebuild the overfished stocks in the very near future, because rebuilding requires time, usually two to three times the species’ lifespan. Furthermore, according to the data presented by the UN for the 2022 UNOC, astounding waste persists in commercial fishing, and every year, more than 10 million tonnes of fish go to waste due to destructive fishing practices - enough to fill 4,500 Olympic-size swimming pools. It also highlights among the culprits some forms of government support - in particular those that lower the cost of inputs - distort the economic environment in which fishers operate, thereby creating excess capacity and leading to overfishing and illegal, unreported and unregulated (IUU) fishing when excess fishing is not entirely controlled.

As climate change and business-as-usual fishing scenarios are expected to worsen the status of marine biodiversity, and climate change alone is projected to decrease ocean net primary production by between 3 and 10%, and fish biomass by between 3 and 25% (in low and high warming scenarios, respectively) by the end of the century, according to the IPBES 2019 global assessment report on biodiversity and ecosystem services (IPBES, 2019 *ibid*), biodiversity and its contributions to people are projected to decline further in most scenarios of global change over the coming decades, while the demand for biodiversity’s nature’s material contributions to people that have current market value (food, feed, timber and bioenergy) are projected to increase. These changes arise from continued human population growth, increasing purchasing power, and increasing *per capita* consumption.

178. Mehnaz S., Iftaykhairul A., Md Shahriar M. (2021). ‘Plastic pollution during COVID-19: Plastic waste directives and its long-term impact on the environment’, *Environmental Advances*, vol. 5, <https://doi.org/10.1016/j.envadv.2021.10011>

179. Laffoley, D., & Baxter, J. M. (2019). *Ocean deoxygenation: Everyone’s problem-Causes, impacts, consequences and solutions*, Gland, Switzerland: IUCN <https://portals.iucn.org/library/node/48892>

180. Limburg K.E., Breitburg, D., Swaney, Dennis P., Jacinto, G. (2020). ‘Ocean Deoxygenation: A Primer’ *One Earth*, vol 2, issue 1, pp.24-29, <https://doi.org/10.1016/j.oneear.2020.01.00>

181. Ocean conservation trust, Humans Impact on the Ocean; The Conversation, *Why ocean pollution is a clear danger to human health*; <https://theconversation.com/why-ocean-pollution-is-a-clear-danger-to-human-health-152641>

182. UK Research and Innovation, 2021, *Shipping industry reduces carbon emissions with space technology*, <https://www.ukri.org/news/shipping-industry-reduces-carbon-emissions-with-space-technology>

183. Cuyvers, L., Berry, W., Gjerde, K., Thiele, T., & Wilhem, C., 2018, *Deep Seabed Mining, a Rising Environmental Challenge*, Gland, Switzerland: IUC <https://www.iass-potsdam.de/en/output/publications/2018/deep-seabed-mining-rising-environmental-challenge>

Note 3

An urbanized planet

In regards to urban ecosystems, in 2020 the OECD estimated that buildings account for 28% of global energy-related greenhouse gas emissions. This is particularly serious in large cities with emissions from buildings in London, Tokyo and New York respectively accounting for 76%, 71% and 67% of total city emissions. Moreover, global energy-related emissions from the building sector increased by 25% over the 2000-2017 period. In order to align with the Paris Agreement, energy intensity in buildings must be reduced by 30% by 2030.¹⁸⁴

According to the United Nations Department of Economic and Social Affairs, by 2050 nearly 7 billion people - over two thirds of the projected global population¹⁸⁵ - will reside in urban areas that already are the planet's greatest biodiversity sinks consuming about 75% of the Earth's natural resources, and accounting for 60% of greenhouse gas emissions and waste¹⁸⁶.

As the International Resource Panel presented in its 2018 report *The Weight of Cities: Resource Requirements of Future Urbanization*¹⁸⁷ and pointed out that isolated actions will not result in more resource-efficient urban metabolisms, in other words the flow of resources through urban systems, but rather that there is a pressing need for a transformative and integrated approach. In this regard, "The Weight of Cities" shows how parallel actions in terms of urban spatial restructuring and human-scale sustainable design, resource-efficient urban components, urban infrastructure planning for cross-sector efficiency and the promotion of sustainable behaviors, would lead to im-

provements in well-being for all while reducing resource consumption and GHG emissions.

The report also presents the entrepreneurial urban governance required to shift urbanization onto a sustainable trajectory. In addition, in recognizing that 12 out of the 17 Sustainable Development Goals are directly dependent on natural resources, the report raises awareness of the new challenges related to the scarcity of resources and the environmental impacts associated with their use, including CO₂ emissions. Developing resource efficient cities, then, will not only save resources but lower GHG emissions and contribute to healthier cities.

The IPBES 2019 report (ibid) concludes that increased use of green infrastructure and other ecosystem based approaches can help to advance sustainable urban development while reinforcing climate mitigation and adaptation. Urban key biodiversity areas should be safeguarded. Solutions can include retrofitting green and blue infrastructure, such as creating and maintaining green spaces and biodiversity-friendly water bodies, urban agriculture, rooftop gardens and expanded and accessible vegetation cover in existing urban and peri-urban areas and new developments. Green infrastructure in urban and surrounding rural areas can complement large-scale "gray infrastructure" in areas such as flood protection, temperature regulation, cleaning of air and water, treating wastewater and the provision of energy, locally sourced food and the health benefits of interaction with biodiversity.

184. OECD (2020) *Building energy efficiency in cities and regions*. Retrieved from <https://www.oecd.org/greengrowth/Buildingenergyefficiency.pdf>

185. United Nations Department of Economic and Social Affairs (2018), *68% of the world population projected to live in urban areas by 2050, says UN*. Retrieved from www.un.org/development/desa/en/news/population/2018-revision-of-worldurbanization-prospects.html

186. GIREC. Operationalizing urban metabolism at the city level.s. Retrieved from <https://europa.eu/capacity4dev/file/13847/download?token=ohKLITsm#:~:text=Resource%20efficient%20cities%20combine%20greater,consumer%20choices%20and%20sustainable%20lifestyles>

187. IRP (2018). *The Weight of Cities: Resource Requirements of Future Urbanization*. Swilling, M., Hajer, M., Baynes, T., Bergesen, J., Labbé, F., Musango, J.K., Ramaswami, A., Robinson, B., Salat, S., Suh, S., Currie, P., Fang, A., Hanson, A. Kruit, K., Reiner, M., Smit, S., Tabory, S. A Report by the International Resource Panel. United Nations Environment Programme, Nairobi, Kenya. https://wedocs.unep.org/bitstream/handle/20.500.11822/31624/TWOC_SPM_EN.pdf?sequence=1&isAllowed=y

Note 4

Wealth inequalities are rising within and across countries and are threatening our social compact

"Global wealth inequalities are even more pronounced than income inequalities" according to The World Inequality Report 2022. The poorest half of the global population barely owns any wealth at all, possessing only just 2% of the total. In contrast, the richest 10% of the global population own 76% of the wealth produced globally. On average, the poorest half of the population owns Purchasing Power Parity (PPP) USD4,100 per adult per year and the top 10% own USD771,300¹⁸⁸.

The Report also points out that current contemporary global inequalities are close to early 20th century levels, at the peak of Western imperialism: "the share of income presently owned-captured by the poorest half of the world's people is about half what it was in 1820, before the great divergence between Western countries and their colonies. In other words, there is still a long way to go to undo the global economic inequalities inherited from the very unequal organization of production systems between the mid-19th and mid- 20th centuries."¹⁸⁹

On the other hand, the UN "World Social Report 2020: Inequality in a rapidly changing world" explained that in the last 15 years powerful economic, social, and environmental forces had been affecting inequality, and explains the implications of these global forces, on one side to help equalize opportunities, and on the other are exerting mounting pressure on income inequality, mainly through their effect on labour markets. The report examines the impact of four such megatrends on inequality: technological innovation, climate change, urbanization, and international migration¹⁹⁰.

The UN Report "World Social Report 2020" documented finds that current deep divides within and across countries despite

an "era of extraordinary economic growth and widespread improvements in living standards". The report also underscores how ethnicity, race, gender, place of residence and socioeconomic status continue to shape the opportunities people have in life: "In North and South alike, mass protests have flared up, fueled by a combination of economic woes, growing inequalities and job insecurity. Income disparities and a lack of opportunities are creating a vicious cycle of inequality, frustration and discontent across generations", explains the United Nations report¹⁹¹.

Furthermore, the Organization for Economic Cooperation and Development (OECD) examines eight drivers (Income, Gender, Health, Education, Taxes, Regions, Well-being, and Innovation) of growing inequalities, such as globalization, skill-biased technological change, and changes in countries' policy approaches. It assesses the effectiveness and efficiency of a wide range of policies, including education, labour market and social policies, in tackling poverty and promoting more inclusive growth.

Among other conclusions, the OECD points out that the economic crisis has added urgency to the need to address inequality. Uncertainty and fears of social decline and exclusion have reached the middle classes in many societies. Arresting the trend of rising inequality has become a priority for policy makers in many countries.

188. Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. World Inequality Report 2022, World Inequality Lab. <https://wir2022.wid.world/executive-summary/> (Visited September 12, 2022)

189. *Ibid*

190. *The World Social Report 2020: Inequality in a rapidly changing world (UN 2020)* <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/01/World-Social-Report-2020-FullReport.pdf>

191. *Ibid*

Note 5

Economic risks of biodiversity loss: a framework for action and report

The Task Force on Nature-related Financial Disclosures (TNFD) is a framework for acting on and reporting evolving nature-related risks. As with climate change, two broad categories of financial risks related to biodiversity loss have been identified as the “result of impacts and/or dependencies on nature”:¹⁹²

- *Physical risks*: Physical risks are likely to result from at least one of the five direct drivers of biodiversity loss identified by the IPBES (land and sea use change; direct exploitation; climate change; pollution; and invasive alien species). Physical risks can cause direct financial damage to an organization’s assets, to production processes or employee well-being. They can also have an indirect impact through supply chain suspension. For example, reduced pollination from insects, results in local and regional financial losses in the agricultural sector and global financial losses in medicine.
- *Transition risks*: these risks arise from changes in policy, liability, legal, technology, and market preferences. A transition risk may occur when businesses suffer from financial losses resulting from changes that penalize their negative impact on nature, including reputation, compliance, and liability or litigation risks, which could result in an asset becoming unprofitable and “stranded”¹⁹³. An example is the risk arising from policies aimed at changes in land-use and farming practices.

According to the OECD, transition risks for biodiversity are likely more uncertain and harder to identify than those for climate change.¹⁹⁴

192. TNFD (2021). *NATURE IN SCOPE. A summary of the proposed scope, governance, work plan, communication and resourcing plan of the TNFD*. Global Canopy, UNDP, UNEP FI and WWF. Retrieved from https://tnfd.info/wp-content/uploads/2021/06/TNFD-Nature-in-Scope_Final.pdf

193. “Assets that suffer from unanticipated or premature write-offs, downward revaluations or are converted to liabilities [as a result of] a range of environment-related risks”. University of Cambridge Institute for Sustainability Leadership (CISL, 2021). *Handbook for nature-related financial risks: key concepts and a framework for identification*. Retrieved from: <https://www.cisl.cam.ac.uk/resources/sustainable-finance-publications/handbook-nature-related-financial-risks>

194. OECD (2019), *Biodiversity: Finance and the Economic and Business Case for Action*. Paris OECD Publishing. Retrieved from <https://dx.doi.org/10.1787/a3147942-en>

Note 6

The pharmaceutical industry's dependence on biodiversity

The growth of the pharmaceutical industry depends upon the development of new drugs and treatments. The global pharma industry is expected to grow at a compound annual growth rate (CAGR) of 11.34% from 2021 to 2028¹⁹⁵. As much as 50% of prescription drugs are based on a molecule that occurs naturally in a plant, while 70% of cancer drugs are natural or synthetic products that are influenced by natural product structures. In the past 70 years, approximately 75% of approved anti-tumour pharmaceuticals have been non-synthetic, with 49% entirely or partially natural¹⁹⁶.

As tropical forests face threats from felling and wildfires, pharmaceutical companies risk losing a vast repository of undiscovered genetic materials that could lead to the next medical - and commercial - breakthroughs. Species currently endangered by biodiversity loss include the South American cinchona tree, which is the source of the malaria drug quinine.¹⁹⁷ Only 15% of an estimated 300,000 plant species in the world have been evaluated to determine their pharmacological potential. According to some estimates, one potential major drug is already being lost every two years. The field of venomomics (scientific analysis of venom) also makes significant contributions to pharmaceuticals in a variety of areas including cancer, heart disease and diabetes.

195. Market Analysis Report. *Pharmaceutical Manufacturing Market Size, Share & Trends Analysis Report By Molecule Type, By Drug Development Type, By Formulation, By Routes of Administration, By Sales Channel, By Age Group, And Segment Forecasts, 2021 - 2028*. Report ID: GVR-4-68039-014-2 <https://www.grandviewresearch.com/industry-analysis/pharmaceutical-manufacturing-market>

196. Newman and Cragg 2012. *Natural Products as Sources of New Drugs over the Nearly Four Decades from 01/1981 to 09/2019*. *J Nat Prod*. 2020 Mar 27;83(3):770-803. doi: [10.1021/acs.jnatprod.9b01285](https://doi.org/10.1021/acs.jnatprod.9b01285)

197. WEF (2020). *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. Retrieved from http://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

Note 7

Green taxonomies, the EU taxonomy, and progress on sustainable and green finance regulations and policies

Taxonomy is a “classification system identifying activities, assets, and/or project categories that deliver on key climate, green, social or sustainable objectives with reference to identified thresholds and/or targets.” While definitions of sustainable finance are less ambitious in scope, taxonomies bring clarity since they provide more precise and consistent definitions of which investments are sustainable. Taxonomies could facilitate investment by giving confidence and assurance to investors. Easier tracking of sustainable finance flows are other potential benefits that would facilitate policy actions such as setting incentives.

Currently, the most comprehensive and developed framework is the EU taxonomy. It interlinks six environmental objectives based on the “Do No Significant Harm” principle. Second, it includes transition and enabling activities, with thresholds declining over time. This framework development started with climate change criteria - mitigation - as the main focus of the EU taxonomy. In parallel, the EU has been working on a social taxonomy whose final report was published in 2022.

Progress has been made towards a harmonization of national taxonomies. For instance, in 2021 at COP26, China and the EU published a technical comparison of their taxonomies focusing on climate change mitigation. Taxonomies may be designed both to serve domestic or regional environmental objectives, and also could be used by global corporate and financial actors, with activities and investment across various jurisdictions. Disseminating knowledge and guidance for best practices in taxonomy design can support countries in developing their own taxonomies and facilitate international cooperation by harmonizing principles and approaches.

Harmonizing methodologies is fundamental, as it will not be possible to have a single taxonomy for all jurisdictions. Ecosystem health and climate fair shares vary among all countries.¹⁹⁸ On the other hand, investors need certainty for investments

and harmonization sets a common ground among the necessarily unequal taxonomies. According to the Green Finance Platform, 680 policies and regulatory measures in green and sustainable finance have been put in place since 2015, in over 100 countries, advancing more rapidly in developed countries (63% of the total measures).¹⁹⁹

Through the United Nations Environment Programme Finance Initiative (UNEPFI) and the Principles for Responsible Investment (PRI) Fiduciary Duty in the 21st Century program, countries including France, the Netherlands, and the UK have incorporated Environment, Social and Governance (ESG) criteria into their policies. ESG has also been incorporated into guidance on fiduciary duty, thereby enabling the use of risk management tools that incorporate biodiversity loss or gains into investments and investment portfolios. In recent years, there has been increasing interest from regulators and financial market participants in developing taxonomies and other frameworks to provide clear guidance, investment tools, data and metrics. A number of jurisdictions have started to legislate to create official definitions of sustainable finance, among these initiatives:

- EU: Strategy for financing the transition to a sustainable economy.
- China: Green Bond Endorsed Projects Catalog and Green Industry Guiding Catalog.
- India: Disclosure Requirements for Issuance and Listing of Green Debt Securities.
- Chile: Green Bond Framework.
- Morocco: Green, Social and Sustainability Bond Guidelines.
- Singapore: Green Finance Action Plan.
- Norway: Regulation on EU climate benchmarks and benchmarks’ ESG disclosures were incorporated into Norwegian law.

198. A GHG emissions budget based on the principle of common but differentiated responsibilities and capabilities: <http://www.climatefairshares.org> that, in a certain way, defines local mitigation trajectories and transition risks.

199. Green Finance Platform (n.d.) Green Finance Measures Database. Retrieved from <https://www.greenfinanceplatform.org/financial-measures/browse#>

Note 8

Energy production and biodiversity loss

All climate model trajectories show that limiting human-induced climate change to well below 2°C requires immediate, rapid reductions in greenhouse gas emissions or a reliance on substantial carbon dioxide removal from the atmosphere. However, great expansion in the production of food, animal feed, fiber and bioenergy has occurred, and goes on occurring, at the cost of many other contributions of biodiversity to quality of life, including regulation of air and water quality, habitat provision and climate regulation itself.

The 2019 IPBES assessment (ibid) warns that large scale deployment of intensive bioenergy plantations, including monocultures, replacing natural forests and subsistence farmlands, will likely have negative impacts on biodiversity and can threaten food and water security as well as local livelihoods, including by intensifying social conflict. Likewise, large bioenergy crops or afforested areas are expected to compete with areas set aside for agriculture or conservation, including restoration. Consequently, large-scale land-based mitigation measures may jeopardize the achievement of other Sustainable Development Goals that depend on land resources and human wellbeing at the local level.

The Intergovernmental Panel on Climate Change (IPCC) Special Report on Climate Change and Land Degradation²⁰⁰ states that large-scale implementation of dedicated biomass production for bioenergy increases competition for land with potentially serious consequences for food security, disrupted livelihoods and land degradation. This drive for bioenergy results in increasing the extent and intensity of biomass production, for example, through fertilizer additions, irrigation or monoculture energy plantations. Furthermore, the report points out that increasing the area of dedicated energy crops can lead to land degradation elsewhere through indirect land-use change.

Recent research on the impact of biofuel crops on local biodiversity found that the richness and abundance of local species were nearly 50% lower at sites planted with first-generation biofuel crops - oil, sugar or starch that are usually also grown for food- compared with sites with primary vegetation; with soybean, wheat, maize and oil palm having the worst effects. The worst affected regions were Asia and Central and South America; and plant species richness and vertebrate abundance were the worst affected biodiversity measures. As the global demand for these crops increases, biodiversity will decrease. For instance, global production and demand for palm oil is increasing rapidly. Plantations are spreading across Asia, Africa and Latin America. In Indonesia, evidence has shown that intact tropical forests have been, and will continue to be, a major source of new land for palm plantations, which makes this industry the main player responsible for deforestation.²⁰¹

The IPCC report (ibid) clearly states that lack of action to address land degradation will increase emissions and reduce carbon sinks and is inconsistent with the emissions reductions required to limit global warming to 1.5°C or 2°C. Furthermore, measures to avoid, reduce and reverse land degradation are available, but economic, political, institutional, legal and socio-cultural barriers, including lack of access to resources and knowledge, restrict their uptake. It also states that proven measures that facilitate implementation of practices that avoid, reduce, or reverse land degradation include tenure reform, tax incentives, payments for ecosystem services, participatory integrated land-use planning, farmer networks and rural advisory services, and that delayed action increases the costs of addressing land degradation, and can lead to irreversible biophysical and human outcomes. Therefore, early actions can generate both site-specific and immediate benefits to communities affected by land degradation, and contribute to long-term global benefits through climate change mitigation.

200. IPCC (2019) 4 Land degradation in Climate Change and Land, An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. https://www.ipcc.ch/site/assets/uploads/sites/4/2019/11/07_Chapter-4.pdf

201. Petrenko, C., Paltseva, J., & Searle, S. ICCT (2016). Ecological Impacts of Palm Oil Expansion in Indonesia. https://theicct.org/sites/default/files/publications/Indonesia-palm-oil-expansion_ICCT_july2016.pdf

Note 9

Supply Chains

Supply chains can be understood as complex networks of organizations, people, activities, and resources that are involved in production, transport, retail, consumption, and disposal of products from suppliers and producers to end consumers. Supply chain sustainability relates to the management of environmental, social, and economic impacts, and the encouragement of good governance practices throughout the life cycle of any product or service. The sustainability of the supply chain requires the participation of all the actors involved. Each actor has different levels of influence and resources to invest in practices that support biodiversity and avoid harming it.

Different decisions²⁰² of the Conference of the Parties to the CBD invite relevant stakeholders to review and use, as appropriate, existing tools, including policies oriented to business planning, design, supply and value chains, sustainable procurement and consumption and similar policies to promote biodiversity-related sustainable production and consumption, to shift markets towards sustainable consumption and production and innovation, as well as to continue collaborating, developing and implementing other corporate policies and measures. Also to review and update policies and practices, to foster the mainstreaming of biodiversity conservation and sustainable use in socio-economic and business policies and planning, including incentives for best practices in supply chains, sustainable production and consumption and measures, requiring reporting by businesses on biodiversity dependencies and impacts, strengthening voluntary disclosures, and adopting or updating laws on sustainable procurement, and similar policies to shift markets towards more sustainable products and technologies.

202. CBD (2018) Decision adopted by the Conference of the Parties to the Convention on Biological Diversity. 14/3. Mainstreaming of biodiversity in the energy and mining, infrastructure, manufacturing and processing sectors, 30 November 2018 <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-03-en.pdf>

Note 10

Deforestation and land degradation in the Amazonian region

According to a recent report launched by the Coordinator of Indigenous Organizations of the Amazon River Basin (COICA)²⁰³, which represents 511 Indigenous Peoples from the 9 countries of the Amazon basin, and RAISG (Amazon Network of Georeferenced Socio-Environmental Information), oil extraction is also a major issue in the Amazon rainforest. Oil blocks occupy 9.4% of the surface of the Amazon basin (80 million hectares), and 43% of the oil blocks are located in protected areas and Indigenous territories. In this region, Ecuador is by far the country with the biggest crude oil exports, with 89% of all exports originating from the Amazon basin, and the majority of it going to the United States. More than half (52%) of the Ecuadorian Amazon is an oil block, 31% in Peru, 29% in Bolivia and 28% in Colombia, demonstrating a violation of their human rights and how such countries are as of yet failing to abide by their own sustainability narratives, as well as to uphold the UN Declaration on the Rights of Indigenous Peoples and to consider the inherent value of the standing forest and its wealth of biodiversity and natural resources for their own sustainable development, and for the global sustainability agenda.

203. Quintanilla, M., Guzmán, A., Josse, C., (2022). Amazonia against the clock: a Regional Assessment on Where and How to protect 80% by 2025. <https://amazonia80x2025.earth/wp-content/uploads/2022/09/diagramacion-ingles.pdf>

Note 11

The Agenda 2030 and its SDGs

We have international instruments and fora to cooperate so we bring the changes to our political and economic structures urgently needed. It has been 7 years since the United Nations General Assembly adopted the 2030 Agenda and its 17 Sustainable Development Goals (SDGs) that provided a holistic and multidimensional view on development. Its implementation has stalled: last July, during the UN High-Level Political Forum on Sustainable Development (HLPF 2022)²⁰⁴ Member States particularly highlighted the difficulties related to inequalities in access to vaccines, the worsening of climate change, the food crisis, the setback in development and human rights, the loss of biodiversity and the debt issue.

Furthermore, comments of the HLPF 2022 stressed that in order to be effective, the achievement of the SDGs requires a general mobilization of all actors, in particular States and financial institutions. The question of financial flows is indeed central: because the needs are still present (and even increased following the succession of health, economic and war-related crises), and because the collective goals, as well as the promises of funding, have not been reached. Many developing countries feel that they are not receiving enough, especially regarding promises and historic responsibilities in environmental degradation. Donor countries, on their side, are looking for ways to mobilize alternative sources of financing, away from public budgets, to fund the implementation of the 2030 Agenda.

The problem is that, as Paula Caballero, the Colombian negotiator behind the SDGs, pointed out at the last HLPF, “we are trapped in a silo mentality that has brought us to where we are today²⁰⁵. To remedy this, it is necessary to be much more disruptive and to “undo the status quo”. The 2030 Agenda, rather than a distant ideal or aspirational horizon, should thus be seen as an opportunity, a call to transform, to act on the links, syner-

gies and frictions to avoid the blockages that characterize the actions, policies and investments made today. Since this is a transformation agenda, it obviously faces resistance and blocking effects, which we must be able to face.

204. Earth Negotiations Bulletin (2022) Summary of the 2022 Session of the High-level Political Forum on Sustainable Development: 5-15 July 2022.. <https://enb.iisd.org/sites/default/files/2022-07/enb3383e.pdf>

205. Barchiche, D., IDDRI (2022), “Undo the status quo” to achieve the Sustainable Development Goals, blog post September 8th 2022, <https://www.iddri.org/en/publications-and-events/blog-post/undo-status-quo-achieve-sustainable-development-goals>

A case for the IMF and WBG on the urgency of prioritizing a biodiversity-inclusive world economy, and why Bretton Woods institutions should immediately step up in the negotiations on resource mobilization for the global biodiversity framework at the UN talks in Montreal.

**“It’s the Ecology,
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On why ecological economics should be front and center at the International Monetary Fund and the World Bank Group

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