Comment

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Health in global biodiversity governance: what is next?



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The dependency of human health and wellbeing on nature is documented across disciplines, regions, cultures, and economies. Environmental degradation contributes substantially to the global burden of disease and concurrent global environmental changes are increasingly recognised as public health threats, worldwide.1 The 196 parties to the UN Convention on Biological Diversity (CBD) have called for increased engagement on biodiversity and health since 2014,2 while calls from stakeholders for integrated decision making are similarly long standing.3 Yet few civil society health organisations have historically engaged with the CBD and its intergovernmental negotiating process.4 This situation is, however, changing. In 2022, civil society health professionals and organisations were involved in the CBD agenda-setting (intersessional subsidiary body) and decision-making (Conference of the Parties [COP]) meetings. Five civil society health organisations attended the 15th UN Biodiversity Conference (COP 15) in Montréal, Canada, as newly accredited delegations to the CBD. The new participation of these organisations in global biodiversity governance embodies the interdisciplinary work needed to take a whole-of-society approach to respecting planetary boundaries and prioritising the environmental determinants of health. The agenda of the UN CBD

recognises and increasingly includes health. Now is the time to mobilise contributions from diverse health experts to inform integrated policy.

Adoption of the 2022 Kunming-Montréal Global Biodiversity Framework (GBF),⁵ an international agreement with a new set of global goals and targets to protect nature, was a major outcome of the CBD and COP 15 that will steer global action and the design of national strategies in the next decade and beyond. This framework aims to advance policies, regulatory measures, and investments to reduce the risks of biodiversity loss and restore natural ecosystems. The GBF and the process to implement it provide new opportunities to connect health stakeholders to environmental decision making. The 2021 Kunming Declaration, a demonstration of political will at the ministerial level made in advance of the GBF's adoption, contributes to framing the GBF in the context of health since it commits governments to "increase application of ecosystem-based approaches to", among other ambitions, "promote health" and "contribute to enhancing One Health and other holistic approaches", such as planetary health.6

Importantly, the GBF's four global biodiversity goals for 2050 and its 23 targets for 2030 do not explicitly define a role for health organisations. Health stakeholders will need to translate the GBF targets into

Panel: Elements of the biodiversity and health dialogue that deserve greater attention in global governance

- Conservation, sustainable use, and equitable access and benefit sharing of biodiversity are linked to and affect global health, health equity, and justice.⁹
- Conservation of biodiversity is fundamental to both western and non-western health care¹⁰ and is explicit in Indigenous medical models.¹¹
- Nature and its destruction shape the epidemiology of communicable and non-communicable disease including mental health¹² and emergency health conditions.¹³
- Wellbeing and disease prevention depend on upstream environmental management that addresses the drivers of global environmental change. Comprehensive analyses of biophysical changes and non-linear factors must be taken into account.¹⁴
- Biodiversity and environmental stewardship need to be better integrated into local health systems, such as through radical listening methods, ¹⁵ nature prescribing, ^{16,17} regaining human awareness of interconnectedness within nature, ¹¹ and intergenerational learning practices, ¹⁸ and by directly

- funding interdisciplinary biodiversity-health work in communities.
- Science, Indigenous, and diverse knowledge systems recognise the importance of nature for promoting health and wellbeing. Refining interdisciplinary language and methods of valuation is key¹⁹—eg, by ensuring the One Health approach is environmentally comprehensive and by anchoring the term planetary health in government dialogue in UN Convention on Biological Diversity meetings.
- Integrating international biodiversity and human rights law unites environment and health sectors²⁰ by helping steer public authorities to prevent negative impacts on human health from the microbial to the planetary level²¹ and holding them accountable for disregarding the interdependency of human health and biodiversity in their decisions.²²
- Health impacts and potential gains are undervalued in finance discussions for biodiversity. Biodiversity-health interlinkages and the importance of biologically sustainable commodities²³ need to be mainstreamed into valuation.²⁴

the global health agenda. They can do this by ensuring accountability in terms of alignment and integration of biodiversity action with public health, such as in the development of monitoring metrics that account for environmental burden of disease that can be applied across health and environmental sectors. Several GBF targets (5, 7, 10, 11, and 12) provide clear starting points for action. These focus on ensuring reduced spillovers;7 reduced plastic pollution and use of pesticides and hazardous chemicals; sustainably managed terrestrial, aquatic, and marine food systems; restored ecosystem services that regulate air, water, climate, soil, pollination, and disaster risk; and increased urban green and blue space. The GBF encourages increased recognition of the interconnection of the health of all species rather than maintaining a traditional focus on human health.

Civil society health professionals and organisations should also contribute to the development of a comprehensive global action plan on biodiversity and health (COP 15 Decision 15/L17),5 ensuring it is ready for intergovernmental adoption at COP 16. This work was originally called for by governments under the CBD in 2018,8 and must be a main objective for the next 2 years in the biodiversity-health field. The scope of the plan should encompass broad biodiversity-health interlinkages and prioritise actions for uptake across and between sectors. Elements of other COP 15 outcomes⁵ are also relevant to the health community and to steering health civil society organisation priorities, including separate decisions⁵ on climate change, biocultural diversity, food systems and soil biodiversity, and synthetic biology. Core elements of the global biodiversity and health dialogue that deserve greater attention are highlighted in the panel.9-24

Civil society health stakeholders can strengthen biodiversity governance. Biodiversity–health interlinkages should be prioritised within institutions and governments as core topics and across medical specialties. Partnerships between local health and environmental organisations will strengthen such efforts. Health professionals can sharpen global dialogue with technical expertise and new evidence on health outcomes and determinants and the inclusion of Indigenous-focused knowledge. For instance, health experts can bolster the health dimension of environmental impact assessments, national ecosystem assessments, and strategic environmental assessments, and ensure their inclusion in decision making.²⁵ The full environmental footprint, including planetary pressures

from material use and waste, biodiversity loss, and carbon dioxide emissions, must be estimated for the health sector and addressed. ^{26,27} As emphasised in the GBF, health professionals also need to strengthen their roles in efforts to expand interdisciplinary biodiversity education, and integrate holistic biodiversity–health approaches into national biodiversity and health plans. ²⁸

CBD COP 16 will take place in Türkiye in 2024. The roadmap to building out a comprehensive biodiversity and health action plan, informed by a broad range of health stakeholders and buttressed by robust, integrated, and updated national biodiversity strategies and action plans (NBSAP), must start now. Biodiversity values need to become more prominent and civil society health stakeholders can contribute to accelerating transformative change of systems and behaviours. COP 15 is a milestone in global environmental governance and its outcomes provide an important opportunity for new collective action and wider stakeholder engagement in global biodiversity governance.

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- 1 Myers SS, Gaffikin L, Golden CD, et al. Human health impacts of ecosystem alteration. Proc Natl Acad Sci USA 2013: 110: 18753-60.
- Willetts L. Nature negotiations: sharing responsibility for global health. Lancet Planet Health 2022; 6: e554–56.
- Whitmee S, Haines A, Beyrer C, et al. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. Lancet 2015; 386: 1973–2028.
- Willetts E, Grant L, Bansard J, et al. Health in the global environmental agenda: a policy guide. International Institute for Sustainable Development. 2022. https://www.iisd.org/publications/health-globalenvironment-agenda-policy-guide (accessed Jan 16, 2023).
- 5 Convention on Biological Diversity. Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (Part Two). December, 2022. https://www.cbd.int/meetings/COP-15 (accessed Jan 16, 2023).
- 6 Convention on Biological Diversity. Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (Part One). Kunming Declaration: Ecological Civilization: Building a Shared Future For All of Life on Earth. Oct 13, 2021. https://www.cbd.int/doc/c/c2db/972a/fb32e0a277bf1ccfff742be5/cop-15-05-add1-en.pdf (accessed Jan 22, 2023).
- 7 Vora NM, Hannah L, Lieberman S, Vale MM, Plowright RK, Bernstein AS. Want to prevent pandemics? Stop spillovers. Nature 2022; 605: 419–22.

- 8 Convention on Biological Diversity. Fourteenth meeting of the Conference of the Parties to the Convention on Biological Diversity. Decision adopted by the Conference of the Parties to the Convention on Biological Diversity. Decision 14/4 Health and Biodiversity. 2018. https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-04-en.pdf (accessed Jan 16, 2023).
- 9 WHO, Convention on Biological Diversity. Connecting global priorities—biodiversity and human health: a state of knowledge review. 2015. https://www.cbd.int/health/SOK-biodiversity-en.pdf (accessed Jan 16, 2023).
- 10 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services. Bonn: IPBES Secretariat, 2019.
- 11 Redvers N, Celidwen Y, Schultz C, et al. The determinants of planetary health: an Indigenous consensus perspective. Lancet Planet Health 2022; 6: e156-63.
- 12 Myers S, Frumkin H, eds. Planetary health: protecting nature to protect ourselves. New York, NY: Island Press, 2020.
- 13 Henderson SB, McLean KE, Lee MJ, Kosatsky T. Analysis of community deaths during the catastrophic 2021 heat dome: early evidence to inform the public health response during subsequent events in greater Vancouver, Canada. Environ Epidemiol 2022; 6: e189.
- 14 Myers S, Fanzo J, Wiebe K, Huybers P, Smith M. Current guidance underestimates risk of global environmental change to food security. BMJ 2022; 378: e071533.
- 15 Health in Harmony. Radical listening. 2021. https://radicallistening.org/ (accessed Jan 16, 2023).
- 16 Twohig-Bennett C, Jones A. The health benefits of the great outdoors: a systematic review and meta-analysis of greenspace exposure and health outcomes. Environ Res 2018; 166: 628–37.
- 17 Broom D. Health: what are green prescriptions and which countries offer them? World Economic Forum. Feb 21, 2022. https://www.weforum.org/ agenda/2022/02/green-prescriptions-health-wellbeing/ (accessed lan 16, 2023).
- 18 Ouma A. Intergenerational learning processes of traditional medicinal knowledge and socio-spatial transformation dynamics. Front Sociol 2022; 7: 661992
- 19 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Balvanera P, Pascual U, Christie M, et al, eds. Methodological assessment report on the diverse values and valuation of nature of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Bonn: IPBES Secretariat, 2022.

- 20 Knox J, Morgera E. Human rights and the environment: the interdependence of human rights and a healthy environment in the context of national legislation on natural resources. FAO Legal Papers no 109. 2022. https://www.fao.org/publications/card/en/c/CB9664EN/ (accessed Jan 16, 2023).
- 21 Webster E, Morgera E. Transformative capacity building around a right to a healthy environment: what role for dignity as a human rights value? Griffith J Law Human Dignity 2021; 9: 55–86.
- 22 Morgera E. Biodiversity as a human right and its implications for the EU's external action. European Parliament. April 1, 2020. https://op.europa.eu/en/publication-detail/-/publication/0cf19eab-f3db-11ea-991b-01aa75ed/1a1/language-en (accessed Jan 16, 2023).
- Food and Agriculture Organization of the United Nations. The state of the world fisheries and aquaculture: towards blue transformation. 2022. https://www.fao.org/3/cc0461en/cc0461en.pdf (accessed Jan 16, 2023).
- Dasgupta P. The economics of biodiversity: The Dasgupta Review. HM Treasury, UK Government. 2021. https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review (accessed Jan 16, 2023).
- 25 UN Economic and Social Commission for Asia and the Pacific, International Institute for Sustainable Development. Operationalizing the environment-health nexus in Asia and the Pacific: a policy guide on opportunities for enhancing health, biodiversity, food system and climate action. 2022. https://www.unescap.org/kp/2022/operationalizing-environment-health-nexus-asia-and-pacific-policy-guide-opportunities (accessed Jan 16, 2023).
- 26 Steenmeijer MA, Rodrigues JFD, Zijp MC, Waaijers-van der Loop SL. The environmental impact of the Dutch health-care sector beyond climate change: an input-output analysis. Lancet Planet Health 2022; 6: e949–57.
- 27 Mustard C, Haines SA, Belesova DK, Cousens PS. Achieving good health with a low environmental footprint—a comparison of national indicators. Wellcome Open Res 2022; 7: 299.
- 28 Redvers N, Faerron Guzman CA, Parkes M. Towards an educational praxis for planetary health: a call for transformative, inclusive, and integrative approaches for learning and relearning in the Anthropocene. Lancet Planet Health 2023; 7: e77–85.