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Rescuing the Planet: Role of the United Nations⁺

Patricia Kameri-Mbote^{a,*} and Macharia Kaguru^b

^aDirector, Law Division, United Nations Environment Program (UNEP), Nairobi, Kenya ^bTutorial Fellow, Strathmore University Law School, Environmental Law and Policy Specialist UNEP, Nairobi, Kenya

Abstract. Since its inception, the United Nations (UN) system has been instrumental in fulfilling the objectives of the UN Charter. Despite these successes, environmental degradation has escalated to critical levels especially in the last six decades. The prevailing development model, reliant on infinite natural resource extraction, is unjust and unsustainable. Growing scientific evidence on planetary boundary warns that this unbalanced developmental model is driving the humanity toward irreversible damage to essential ecological processes. Radical transformations and extraordinary cooperation among nations are required to reverse these. This paper argues that the UN system is critical in facilitating this extraordinary cooperation and charting pathways to a sustainable planetary future by harnessing its convening power, scientific & technical expertise and global presence. To achieve this, the UN must strive for stable and sustainable pathways as a common good by all the 193 member states. This commitment will require structural reforms, robust governance architecture, strengthened multilateralism, and, above all, moving away from artificial geographical boundaries while recognizing the critical role of the UN member states. As a corollary, the UN needs to build capacity and assist sovereign states in translating the ambitious action plans for our planetary future.

Keywords: UN system, essential ecological processes, sustainable pathways, robust governance architecture, planetary boundaries, multilateralism, law-making, environmental rule of law, just space, implementation

1. Introduction

Since its formation, the UN has remained the foremost center for harmonizing state actions for common ends,¹ largely fulfilling its objectives.² While the economic and social conditions of life have improved, societal inequalities persist between and within countries and extreme environmental degradation is discernible.³ As the

⁺This article was prepared by the authors in their personal capacity. The views and opinions expressed herein are the authors' own and do not reflect the view of the United Nations.

*Corresponding author. E-mail: patricia.mbote@un.org.

- 1 See Charter of the United Nations, San Francisco, 26 June 1945, Article 1(4), available at: https://www.un.org/en/about-us/uncharter/full-text.
- 2 Surya Deva (2023), UN Special Rapporteur on the Right to Development, Reinvigorating the Right to Development: A Vision for the Future (A/HRC/54/27); A/HRC/54/27 (undocs.org)
- 3 UN General Assembly (2024), Implementation of the Second United Nations Decade for the Eradication of Poverty (2008-2017)—Report of the Secretary General, UN Doc. No. A/71/181, 21 July 2016, available at https://digitallibrary.un.org/record/ 838485?v=pdf&ln=en.

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character of the world problems has evolved, the UN has evolved to keep pace, albeit slowly. In response to environmental degradation, the UN as a whole and United Nations Environmental Programme (UNEP) as the global environmental authority has been at the forefront in highlighting threats to the environment and supporting States to halt degradation and accelerate earth restoration. However, these efforts have been inadequate to prevent the world's ongoing existential threats from nature and species loss, pollution and climate change.

Development, so far, has proceeded as if Earth's resources are infinite, leading to unsustainable exploitation of natural resources.⁴ While this developmental path has lifted billions out of poverty, many more remain below the just operating space. Developing countries still yearn for development. Science indicates that this development path is unsustainable and is risking breaching the planetary boundaries. Planetary boundaries are vital biophysical systems and processes that govern the stability and functioning of the Earth's life supporting systems.⁵ They define the limits within which humanity can sustainably flourish, widely known as the safe operating space.⁶ There are nine identified planetary boundaries namely climate change, biodiversity integrity, depletion of ozone layer, land systems change, ocean acidification, freshwater use, biogeochemical flows of nitrogen and phosphorous, novel chemicals and atmospheric aerosol pollution.⁷ Transgressing these boundaries poses significant risks to triggering abrupt change or destabilization of the Earth system stability.

The planetary boundaries scientific research elicited a study of human social floors. This literature seeks to delimit the critical minimal conditions of human dignified life; the just safe.⁸ These critical resources are food, water, income, education, resilience, voice, jobs, energy, social equity, gender equality and food safe.⁹ It combines the safe planetary boundaries targets which form the outer limits of earth systems and just space being the inner limits where each human being has access to vital resources for a dignified life.¹⁰ This outer and inner limit forms a safe and just operating space representing an "environmentally safe and socially just space for humanity to thrive".¹¹ Planetary future envisions human beings operating in the safe and just operating space. The UN has a crucial role in facilitating member states realize this future.

The Summit of the Future taking place in September 2024 serves as a pivotal juncture for UN member states to conduct a critical examination of global governance frameworks and the evolving challenges facing the international legal order. In the context of the planetary future, there are two critical questions that UN members must confront as they convene in this global meeting. First, how is it that wealth creation through human activities for a fraction of the world's population has led to extensive degradation risking destabilizing earth systems for the everyone, including those living far below the social floor? Secondly, what are the necessary changes to the current architecture to guarantee development within the safe and just operating space? Answering these questions requires introspection and bold decisions and the latter requires extraordinary just development transformations.

The threat posed by breaching the tipping points is existential and urgent, calling for extraordinary cooperation. As the earth stability dims, there is need for the UN to utilize its legendary convening power to spur the recommitment of nations to common good for all, uninhabited by artificial boundaries of states. The UN system has facilitated milestone achievements including protection of the ozone layer, passing of the the Paris Agreement and the passage and implementation of the "Sustainable Development Goals (SDGs)". However, these commitments have been state compromises largely informed by state interests and often falling

- 4 L.J. Kotzé and S. Adelman (2023), "Environmental Law and the Unsustainability of Sustainable Development: A Tale of Disenchantment and of Hope", *Law and critique* 34(2): 227-248, See also J. Mensah & S. Ricart Casadevall (2019), "Sustainable Development: Meaning, History, Principles, Pillars, and Implications for Human Action: Literature Review" *Cogent Social Sciences* 5(1), https://doi.org/10.1080/23311886.2019.1653531.
- 5 J. Rockström et al. (2009), "Planetary Boundaries: Exploring the Safe Operating Space for Humanity", Ecology and Society, 14(2).
- 6 J. Rockström et al. (2009), "A Safe Operating Space for Humanity", Nature, 461(7263): 472-475.
- 7 K. Richardson et al. (2023), "Earth Beyond Six of Nine Planetary Boundaries", *Science Advances*, 9(37), https://www.science.org/doi/10.1126/sciadv.adh2458.
- 8 A. Lähteenmäki-Uutela et al. (2024), "Planetary Boundaries Nurturing the Grand Narrative of the Right to a Healthy Environment?", Environmental Policy and Law, 54(1): 15-26.
- 9 K. Raworth (2012), "A Safe and Just Space for Humanity: Can We Live Within the Doughnut?", Oxfam Discussion Papers, https://www-cdn.oxfam.org/s3fs-public/file_attachments/dp-a-safe-and-just-space-for-humanity-130212-en_5.pdf.
- 10 J. Gupta (2021), "Reconciling Safe Planetary Targets and Planetary Justice: Why Should Social Scientists Engage with Planetary Targets?", *Earth System Governance*, 10:100122, https://www.sciencedirect.com/science/article/pii/S2589811621000264.
- 11 Raworth (note 9).

short of the necessary actions and ambitions.¹² While 'healing' the ozone layer has been arguably the most successful multilateral environmental agreement in reversing a global catastrophe,¹³ implementation of both the Paris Agreement and SDGs have remained low, failing to translate into deliberate and accountable policy actions. Operating in the safe and just space requires that the earth system's interests trump over state interests. Here, the UN must not only set ambitious targets, it must utilize its global presence and expertise to assist countries in radical transformations required to reverse the impeding catastrophe.

2. Planetary Boundaries and the UN System

The earth system is a cohesive and intricate network of interconnected components that operates as a singular integrated entity with dynamic and complex interactions.¹⁴ Contemporary scientific understanding acknowledges that life is fundamentally reliant on the functional integrity and stability of these systems.¹⁵ The transgressing of planetary boundaries presents a great risk to this functional integrity and stability. Most planetary boundaries, including climate change, biodiversity loss, and biogeochemical flows, have been transgressed, while ocean acidification, ozone depletion, and air pollution remain within or close to their limits.¹⁶ This development raises concerns about potential compounding effects that could arise from the transgression of multiple boundaries.¹⁷

Achieving earth stability within just and safe space raises and reinforces important aspects existing in the UN system but requires adjusting of some fundamental values of the system.¹⁸ First, the UN system has long acknowledged the right of every state to sustainably exploit the environment and obligation of states to commit to achieving the SDGs or their equivalent for the people. This has always required utilization of the resources to improve conditions of life. Stabilization would only require adherence to these principles Secondly, equity and fairness have been important principles of international environmental law.¹⁹ However, fairness required in light of the now known limits requires urgent and fair action to safeguard and guarantee access to the limited and finite resources for all, while ensuring equity in the distribution of and access to these resources. This is particularly important in the context of the non-localized nature of the earth destabilizing agents. This fairness requires distributive justice, a moral and legal duty to devise and share innovative technologies. Third, while environmental conservation has been an important pillar of the UN system, environmental conservation has largely been anthropocentric. However, committing to earth system stability requires centering development on earth system's stability. Recommitting to and adjusting these principles is necessary to guarantee a planetary future.

- 12 See F. Genovese (2014), "States' Interests at International Climate Negotiations: New Measures of Bargaining Positions", *Environmental Politics*, 23(4): 610–631; C.F. Parker & C. Karlsson (2018), "The UN Climate Change Negotiations and the Role of the United States: Assessing American Leadership from Copenhagen to Paris", *Environmental Politics*, 27(3): 519–540; F. Dodds, A.D. Donoghue and J.L. Roesch (2016), "Negotiating the Sustainable Development Goals: A Transformational Agenda for an Insecure World", Routledge; S. Fukuda-Parr (2023), "Sustainable Development Goals (SDGs) and the Promise of a Transformative Agenda", in Thomas G. Weiss, Rorden Wilkinson (eds), International Organization and Global Governance, Routledge, at 708-723.
- 13 C. Perry et al. (2024), "More to Offer from the Montreal Protocol: How the Ozone Treaty can Secure Further Significant Greenhouse Gas Emission Reductions in the Future", *Journal of Integrative Environmental Sciences*, 21(1), https://doi.org/10.1080/1943815X.2024.2362124; R. McKenzi et al. (2019), "Success of Montreal Protocol Demonstrated by Comparing High-Quality UV Measurements with "World Avoided" Calculations from Two Chemistry-Climate Models", *Sci Rep*, 9:12332.
- 14 Earth System Governance Project (2018), "Earth System Governance: Science and Implementation Plan of the Earth System Governance Project", Utrecht: the Netherlands.
- 15 J. Rockström et al. (2023), "Safe and Just Earth System Boundaries", Nature, 619: 102–111.
- 16 K. Richardson (2023), "Earth Beyond Six of Nine Planetary Boundaries", Science Advances, 9(37). https://www.science.org/ doi/10.1126/sciadv.adh2458.
- 17 W. Steffen (2015), "Planetary Boundaries: Guiding Human Development on a Changing Planet", Science, 347(6223): 1259855.
- 18 Sarah Burch et al. (2019), "New Directions in Earth System Governance Research", *Earth System Governance*, 1, https://www.sciencedirect.com/science/article/pii/S2589811619300059.
- 19 Dinah Shelton, 'Equity', in Daniel Bodansky, Jutta Brunnée, and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law*, Oxford: Oxford University Press, at 639–662.

The concept of planetary boundaries has slowly gained traction in the UN system but is yet to find itself in the mainstream UN policy documents.²⁰ For instance, in 2012, the Secretary-General's High-Level Panel on Global Sustainability noted that the long-term vision of the panel was to address social inequalities and sustainability within planetary boundaries.²¹ The 2013 Report of the Secretary-General on Agriculture Development, Food Security and Nutrition, acknowledged the role of human pollution in risking exceeding planetary boundaries.²² In 2014, the Synthesis Report of the Secretary-General on the Post-2015 Agenda outlines that to respect the safe operating space, there is a need to equitably address climate change, biodiversity loss and desertification and unsustainable land use.²³ Further, it calls for the holistic protection of the earth although it does not explicitly indicate that stability of the earth system is at stake.

Substantive incorporation of the concept of planetary boundaries by UN bodies is also emerging. For instance, the UN Office for Disaster Risk Reduction in 2022 released a report on a Planetary Boundaries Thematic Study.²⁴ This report, developed in the context of a Mid-Term Review of the Sendai Framework, draws the relevance of planetary boundary in understanding systemic risks and offers recommendations from it to strengthen implementation of the Sendai framework. Finally, it describes how "how planetary boundaries and systemic risk has or has not been integrated therein, the opportunities for elevating risk-informed decision-making and improving synergies between the regimes"²⁵. More recently, in June 2024, the Secretary General's message to the Austria World Summit noted that humanity is "pushing the planetary boundaries to the brink"²⁶ and urged the members to create a healthy planet safe for all. These sentiments demonstrate the commitment of the UN in some respects to embrace and integrate the safe and just operating space within its mainstream activities.

The uptake of safe and just operating space is critical in achieving many of the UN objectives. For instance, attaining climate stability and SDGs all envision a world in which people have access to critical resources. Similarly, global efforts on environmental conservation majority of which are spearheaded by the UN are targeted to restoration of the earth system. Adopting and mainstreaming earth system and planetary future systems is critical to continued reduction of human depravation and development within acceptable outer limits.

3. UN Convening Power

With a current membership of 193 countries, the UN stands as the most universal international organization that has endured since 1945. This universal membership provides it with a unique convening power.²⁷ It has become an indispensable forum for problem-solving. This convening power is globally recognized by UN members. For instance, the United Nations General Assembly (UNGA) acknowledged in its 75th anniversary that the

21 United Nations Secretary-General's High-level Panel on Global Sustainability (2012), Resilient People, Resilient Planet: A Future Worth Choosing, New York: United Nations.

22 United Nation General Assembly (2013), "Agriculture Development, Food Security and Nutrition—Report of the Secretary General", UN Doc. No. A/68/311, 13 August 2013, https://documents.un.org/doc/undoc/gen/n13/425/92/pdf/n1342592.pdf.

23 United Nations Secretary-General (2014), "Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet—Synthesis Report of the Secretary-General on the Post-2015 Agenda", https://www.un.org/disabilities/ documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf.

24 UN Office for Disaster Risk Reduction (2022), "Planetary Boundaries Thematic Study", 13 October 2022, available at https://www.undrr.org/media/85696/download.

²⁰ Inclusion of planetary boundaries in negotiations leading to the SDGs met resistance from some member states for concerns including that it would relegate poverty reduction and development and that it was still a new concept that needed further interrogation before adoption into the UN negotiations, See E.F. Fernandez and C. Malwé (2019), "The Emergence of the 'Planetary Boundaries' Concept in International Environmental Law: A Proposal for a Framework Convention", *Review of European, Comparative & International Environmental Law*, 28: 48–56.

²⁵ Ibid. at 3.

²⁶ United Nations Secretary-General's Video Message to the Austria World Summit, 20 June 2024 https://www.un. org/sg/en/content/sg/statement/2024-06-20/secretary-generals-video-message-the-austria-world-summit August 29, 2024.

²⁷ United Nations (2006), "Report of the Secretary-General on the Work of the Organization", UN Doc. A/61/1, https://documents.un.org/doc/undoc/gen/n06/461/94/pdf/n0646194.pdf.

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"there is no other global organization with the legitimacy, convening power and normative impact of the United Nations".²⁸

Meetings of the UN have consistently drawn some of the largest delegations of participants. Not only do all member states participate, the UN has increasingly extended participation to non-state parties convening non-governmental organizations, companies, and individuals.²⁹ For instance, in 1995, 17,000 participants and 30,000 activists attended the opening of 4th World Conference on Women.³⁰ In 2023, the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) had in excess of 85,000 participants, exceeding previous attendance by 80% and surpassing the expected 70,000 participants.³¹

To strengthen multilateralism and universal representation in environmental matters, UNGA in 2012 changed the designation of the Governing Council to the United Nations Environment Programme (UNEP), to the United Nations Environment Assembly (UNEA).³² Unlike its predecessor, UNEA was opened to all member states as the governing body of UNEP.³³ It is the world's highest decision-making body on environment. All the UN Member states are UNEA members, and participation in the UN for regional economic integration organizations including the European Union can participate as observers with similar rights as they have in the General Assembly. During its sessions, UNEA allows non-state actors to participate as observers with a view to consolidating all stakeholders for a collective effort. Participation has arisen from 1,200 participants in its inaugural sitting in 2014³⁴ to attracting more than 7,000 delegates in its sixth session (UNEA 6) in 2024.³⁵ Harnessing this power is critical in promoting the extra-ordinary collective action required for promoting earth systems governance.

The UN serves as a crucial platform for connecting diverse constituencies and providing a forum for global dialogue. Despite the divergence of views on issues, the world looks at the UN as "an impartial, peaceful means to see and strengthen the foundations....work in concern with the will of the people."³⁶ This platform grants member states an equal voice to address world problems and brings together expertise, resources, and partnerships in pursuit of a common agenda.³⁷ The inclusion of non-state actors is particularly critical, as they play a key role in both agenda-setting and working with and within countries to meet obligations arising from multilateral agreements.³⁸ The capacity of non-state actors to participate or file parallel reports on state obligations

29 J. Lüdert (2022), Non-state Actors at the United Nations: Contesting Sovereignty, Routledge.

30 UN (1995), Report of the Fourth World Conference on Women, UN Doc. No. A/CONF.177/20/Rev.1 https://www.un.org/womenwatch/daw/beijing/pdf/Beijing%20full%20report%20E.pdf.

- 31 UNFCCC, What Was Achieved and What Happens Next?, https://unfccc.int/cop28/5-key-takeaways; Kenza Bryan (2023), "Biggest-ever UN Climate Summit as UAE Hosts Swells Guest List", *Financial Times*, 16 December 2023, https://www.ft. com/content/f33c1a24-f146-493b-a2ef-9f90483f4e17.
- 32 UN General Assembly (2013), Report of the Governing Council of the United Nations Environment Programme on its twelfth special session and the implementation of section IV.C, entitled "Environmental pillar in the context of sustainable development", of the outcome document of the United Nations Conference on Sustainable Development, UN Doc. No. A/RES/67/213, 21 December 2012, https://documents.un.org/doc/undoc/gen/n12/491/38/pdf/n1249138.pdf.
- 33 See the universal membership in the Governing Council of the United Nations Environment Programme, as well as other measures to strengthen its governance as well as its responsiveness and accountability to Member States.
- 34 Bharat H. Desai (2015), "The Advent of the United Nations Environment Assembly", *Insights from the American Society of International Law*, 19(2), https://www.asil.org/insights/volume/19/issue/2/advent-united-nations-environment-assembly.
- 35 UNEP (2024), "At UNEA-6, Heads of State Call for Greater Cooperation on the Environment", 29 February 2024, available at https://www.unep.org/news-and-stories/press-release/unea-6-heads-state-call-greater-cooperation-environment August 29, 2024.
- 36 Ban Ki-moon (2009), Remarks at the United Nations Democracy Fund Event on International Day of Democracy, 15 September 2009, https://www.un.org/sg/en/content/sg/speeches/2009-09-15/remarks-united-nations-democracy-fund-event-international-day.
- 37 UN (2021), Report of the Secretary General: Our Common Agenda, UN Doc. A/75/982, https://documents.un.org/doc/ undoc/gen/n21/217/01/pdf/n2121701.pdf.
- 38 J.W. Kuyper, B.O. Linnér and H. Schroeder (2018), "Non-state Actors in Hybrid Global Climate Governance: Justice, Legitimacy, and Effectiveness in a Post-Paris Era", *Wiley Interdisciplinary Reviews: Climate Change*, 9(1): e497.

²⁸ I. Roele (2022), "Style Management: Images of Global Counter-terrorism at the United Nations", *Law and Critique*, 33(3): 273-297. See also United Nations General Assembly (2020), Declaration on the Commemoration of the 75th Anniversary of the United Nation, UN Doc. A/Res/75/1, 28 September 2020, https://documents.un.org/doc/undoc/gen/n20/248/80/pdf/n2024880.pdf.

in various UN processes,³⁹ alongside official state reports, offers an essential mechanism for collaboration and accountability.

Achieving the preservation of the Holocene and restoration of the environment, and elevating everyone into the just operating space requires radical transformation from the current state of play.⁴⁰ This process will require re-imagining and abandoning many Holocene approaches. The world must acknowledge that despite global efforts, the current global environmental governance systems are grossly inadequate. While the number of multilateral environmental agreements have increased since 1950, environmental degradation has not been reduced in commensurate terms. The extent of environmental catastrophe appears to be overwhelming these agreements. Stability as an underlying philosophy of environmental conservation must give way to unpredictability, instability and risk-based philosophies.⁴¹ The world needs more sustainable and innovative production and consumption approaches. Discussions on a fairer world must be held and solutions will require transformative environmental frameworks. The urgent need to reorder the world for a sustainable planetary future will require deliberate efforts and an authoritative platform convening all stakeholders. The UN must provide this platform.

4. Safeguarding the Earth: An Integrated Common Good

Although the concept of the common good is slowly being integrated into the UN system, this part argues that mere integration into the UN system is not adequate to provide the change required for the planetary future. Instead, stability and maintenance of the earth system ought to be elevated as a common good. The caution adopted here is that even though a framework on the common good already exists, it is largely concerned with access and control of resources. Elevated as a goal and purpose of its own will seek to reimagine the current frameworks and center the earth system as an overarching value.

The concepts of the common good, global commons, and the common concern of humankind have historically been grounded in philosophies aimed at protecting crucial elements of the earth system,⁴² such as the geosphere, Antarctica, and the climate system. Global commons fall outside exclusive state boundaries. Their protection rationale proceeds as follows: absent any exclusivity in ownership, rational and self-interested states will seek maximum benefit with little regard for the good of the resource. To restrain resource depletion or depletion at the expense of others, states have long sought collaborative action.⁴³ This collaborative action restricts states from claiming sovereignty and proposes shared management and exploitation of benefits.⁴⁴

However, the protection and definition of these global commons, so far is driven by "access rights".⁴⁵ Here, the constraining collective behavior is to avoid depletion and at times unequal and unjust benefits. Importantly, sovereign rights of states are not relinquished; rather, they form the basis for such protections. As Kotzé *et al* observes, even in the commons governed by stringent constraints, the primary motivation remains geopolitical

- 39 See for instance UN Economic and Social Council (1968), "Arrangements for Consultations with Non-Governmental Organizations", Resolution 1296 (XLIV), 23 May 1968, and UN Economic and Social Council (1996), "Consultative Relationship between the United Nations and Non-governmental Organizations" Resolution 1996/31, 25 July 1996 providing consultative basis for non-government organizations same as UNESCO that allows lodging of complaints under respective expertise. See also the involvement of labor unions in the International Labor Organization.
- 40 Johan Rockström, Goodbye Forever, Friendly Holocene, 22 September 2016, https://www.thegef.org/news/goodbye-forever-friendly-holocene.
- 41 United Nations Secretary-General (2014), "Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet—Synthesis Report of the Secretary-General on the Post-2015 Agenda", https://www.un.org/disabilities/ documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf.
- 42 N. Khatwani (2019), "Common Heritage of Mankind for Outer Space", Astropolitics, 17(2): 89–103, https://doi.org/10.1080/ 14777622.2019.1638679.
- 43 J. Rockström et al. (2024), "The Planetary Commons: A New Paradigm for Safeguarding Earth-regulating Systems in the Anthropocene", *Proceedings of the National Academy of Sciences*, 121(5): e2301531121.
- 44 E. Guntrip (2017), "The Common Heritage of Mankind: An Adequate Regime for Managing the Deep Seabed?", in Koen De Feyter (ed), *Globalization and Common Responsibilities of States*, Routledge, 289-318.
- 45 E.A. Clancy (1998), "The Tragedy of the Global Commons", Indiana J. Global Legal Stud., 5:601-619.

balancing.⁴⁶ Consequently, the preservation of these systems is often influenced more by geopolitical considerations than by a genuine commitment to sustainability.

The protection of global commons so far has also been sectoral, through individualized multilateral agreements. While some of the aspects have been successful, for instance the Montreal Protocol in halting the depletion of ozone layer, these efforts remain segregated and fragmented.⁴⁷ However, the interconnectedness, dynamism and interdependence of the earth system suggest that a more holistic approach is appropriate.⁴⁸

This paper, by no means suggests that sectoral governance is not appropriate. However, there is general scientific consensus on the likelihood of compounded and spill over impacts of these commons. For instance, the Intergovernmental Panel on Climate Change (IPCC) has consistently acknowledged that unmitigated climate change is threatening livelihoods, biodiversity, ecosystem health, and water security among others.⁴⁹ In addition, planetary boundaries' scholarship notes, for instance that "boundaries are interrelated processes within the complex biophysical Earth system...understanding the interplay of boundaries, especially climate, and loss of biodiversity, is key in science and practice."⁵⁰ Further, crossing of some of the planetary boundaries may destabilize other boundaries and trigger irreversible changes. Scholarship on designating [the] earth system as global commons abound. For instance, Rockstrom argues for a "nested Earth system governance approach".⁵¹ Under this approach, a new global institution in charge of earth system stability is proposed. Whichever approach is taken; the concept is that a more integrated protection of the earth system is desirable.

At the UN level, the fragmented nature of governance limits meaningful integrated conversations. At state level, specific departments are designated as focal points on specific competencies for instance climate change, environmental law, chemicals and biodiversity. The environment intersects with many facets of regulatory frameworks and government institutions.⁵² The failure of or inadequate integration means that it is difficult to make resolutions on overarching environmental issues within a single forum. For instance, during the discourse in a session of the governing body of a Multilateral Environmental Agreement (MEA), cross-cutting issues arise, and delegates often raise objections on the inappropriateness of one forum to discuss or develop resolutions on issues reserved for other conference of parties dealing with a different area of environmental law altogether.⁵³ In efforts to avoid mandate creeps, some issues may fall between the cracks of mandates of different bodies. The compartmentalized set up makes it difficult for delegates who often cite lack of authority or competence to address interrelated issues effectively. To address this sectoral approach in the UN system, the Environment Management Group chaired by the Executive Director of UNEP brings together UN system entities to forge coordination, coherence and synergy on environmental and human settlement issues.⁵⁴ However, countries are yet to achieve this integrated governance framework limiting their ability to holistically address earth systems.

- 46 J. Rockström et al. (note 42).
- 47 There are four recognized global commons and each of them is regulated by a separate agreement: United Nations Convention on the Law of the Sea (UNCLOS), 1982, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (high seas); Antarctic Treaty System, https://www.ats.aq/e/key-documents.html (Antarctica); UN Framework Convention on Climate Change, 1992, https://unfccc.int/resource/docs/convkp/conveng.pdf and the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, https://treaties.un.org/doc/publication/unts/volume%201522/volume-1522-i-26369-english.pdf (atmosphere); and Treaty on Principles governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 1967, https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html (outer space).
- 48 M. Nilsson and Å. Persson (2012), "Can Earth System Interactions be Governed? Governance Functions for Linking Climate Change Mitigation with Land Use, Fresh-water and Biodiversity Protection", *Ecological Economics*, 75: 61-71.
- 49 See for instance H.-O. Pörtner et al. (eds) (2023), Climate Change 2022: Impacts, Adaptation and Vulnerability—Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press.
- 50 Stockholm Resilience Centre, Planetary Boundaries, https://www.stockholmresilience.org/research/planetary-boundaries.html
- 51 J. Rockström et al. (note 42).
- 52 UNEP (2019), "Environmental Rule of Law", at 24, https://www.unep.org/resources/assessment/environmental-rule-law-first-global-report.
- 53 This is first-hand experience by the authors at UNEP.
- 54 UNEP (2019), "UNEP and the Environment Management Group", https://www.unep.org/unga/our-position/unep-and-environmentmanagement-group.

The UN must hold and provide forums for these conversations in a more integrated and comprehensive manner, and while due to the systemic challenges there may be separate discussion of issues, their compartmentalization must end. Otherwise, getting into a negotiation with complete disregard of the impacts of the other, is unhelpful. The overarching and pervasive nature of the environment demands an integrated approach. Planetary future requires deep integration, so that today's institutions realize they are getting people into the safe space but must do so within the just operating space in whatever mandate there are entrusted with.

5. Accelerated Multilateralism

The environmental crisis is an all-encompassing, complex, and overwhelming challenge that transcends the capabilities of any single state or coalition of few states to address it effectively.⁵⁵ Not surprisingly, this phenomenon is core to the foundation of environmental multilateralism. It promises accelerated actions in a collective global effort. However, inaction or acts of self-preservation by some, may derail all states. Thus, good faith multilateralism has grown in complexity and volume, but environmental challenges such as climate change, biodiversity loss, and pollution have also accelerated. Any delays in the implementation of environmental commitments are not an option.

Environmental multilateralism occurs in a geopolitical context where parties have divergent interests that can lead to divisions. Negotiations on specific issues sometimes splits countries along lines of arguments for and against strongly held views.⁵⁶ While there has been relative stability in geopolitics which has benefited the environment, the world order is currently fractured and multilateral cooperation has to deal with this every day. Unfortunately, this degeneration is taking place at the worst time for the environment when 'networked, inclusive multilateralism' is most needed.⁵⁷ Fragile ecosystems are at tipping points and in the Secretary General's words temperatures have moved from warming to boiling. At the same time, power-based politics are hampering multilateral actions required to tackle these existential threats. The polarization notwithstanding, there is still continued cooperation generally albeit in a diluted manner.⁵⁸

As noted elsewhere, multilateralism actions required to guarantee return to Holocene are not the usual global agreements. Operating in a just and safe space requires reordering the world. Considering earth's limited carrying capacity, focused and deliberate actions are needed to deliver distributive justice, which must occur if the people living below the just space are to benefit. This calls for commitment to the earth system as a common good for its intrinsic value, rather than focusing on the traditional model of access rights.⁵⁹ To achieve this, an obligation must be imposed to radically change existing production and consumption approaches⁶⁰. This will have profound impacts on economies. The UN is the right space for this discussion and must continue to provide a platform to discuss this and other complex issues despite a fractured world order.

It is encouraging that draft documents on the Summit of the Future acknowledge the need for these radical transformations. For instance, the 3rd revision of the Pact for the Future recognizes the "the urgent need for a fundamental shift in our approach in order to achieve a world in which humanity lives in harmony with

- 55 J. Zhao and GR Madni (2021), "The Impact of Economic and Political Reforms on Environmental Performance in Developing Countries", *PLoS One*, 16(10): e0257631, DOI: doi: 10.1371/journal.pone.0257631.
- 56 See for instance, B. Mantlana & A.O. Jegede (2022), "Understanding the Multilateral Negotiations on Climate Change Ahead of COP27: Priorities for the African Region", *South African Journal of International Affairs*, 29(3): 255–270; A. Kalfagianni and O.R. Young (2022), "The politics of Multilateral Environmental Agreements Lessons from 20 Years of INEA", *International Environmental Agreements: Politics, Law and Economics*, 22(2): 245-262.
- 57 United Nations, Our Common Agenda Report of the Secretary-General, 2021 available at https://www.un.org/en/content/commonagenda-report/ August 29, 2024.
- 58 UNEP, Environmental Multilateralism: Unity in Difficult Times https://www.unep.org/news-and-stories/speech/environmentalmultilateralism-unity-difficult-times#: :text=These%20results%20clearly%20show%20that,threat%20to%20all%20of%20us August 29, 2024.
- 59 J. Rockström et al. (note 42).
- 60 It is acknowledged within the United Nations systems that current consumption and production means are unsustainable. For instance, Sustainable Development Goal 12 calls for "changing the way we produce and consume goods and resources" to create a sustainable world.

nature,"⁶¹ and the need to promote "sustainable lifestyles, and circular economy approaches as a pathway to achieving sustainable consumption and production patterns".⁶² Importantly, the draft documents have renewed commitment to multilateralism. For instance, the revision of the Pact for the Future provides that member states commit to ensuring that the "multilateral system can turbocharge our aspirations".⁶³ Turbocharge is a powerful term and has insinuations of injection of immense force to make the multilateral system effective. In the draft Declaration on Future Generations, states further commit to building "stronger, more effective and resilient multilateral system based on international law, with the United Nations at its core, underpinned by transparency, confidence and trust, for the benefit of present and future generations".⁶⁴

The successful implementation of a series of MEAs and the achievements under them is evidence that deliberate implementation actions can contribute to stabilizing the earth system. For instance, through global collaborative efforts, the Montreal Protocol has succeeded in putting on track recovery of the ozone layer within the next four decades.⁶⁵ Due to states' unprecedented collaboration, approximately 99% of ozone depleting substances have been phased out.⁶⁶ In addition, the Convention on International Trade on Endangered Species of Wild Fauna and Flora (CITES) has significantly prevented trade from leading to or threatening endangered species with extinction.⁶⁷

Cognizant of wins in the multilateralism in environmental space, UNEP has made several initiatives to catalyze multilateral cooperation. The Programme for the Development and Periodic Review of Environmental Law, discussed in the sections that follow has been revitalized as an intergovernmental programme on development and implementation of environmental law and provides the much-needed multilateral agenda setting and implementation platform.⁶⁸ With the introduction of national focal points that have held two meetings so far, it has become truly member driven forum.⁶⁹ Also, the 6th session of UNEA dedicated a session on the role of multilateralism in combatting the triple planetary crisis. Consequently, UNEA-6 resolved to accelerate MEAs cooperation by among other things, strengthening the capacity building of member states to facilitate coherent and effective implementation of MEAs at regional and national levels.⁷⁰ This renewed commitment to the power and spirit of inclusive multilateralism is urgently needed in all other facets of international cooperation.

6. Scientific Research and Coordination

Scientific understandings of changing elements of the earth system gave rise to environmental law and has continued to shape environmental policy and actions.⁷¹ The critical role of science has been recognized by the

61 United Nations, Pact for the Future, Revision 3, para. 29, 27 August 2024, available at https://www.un.org/sites/un2.un.org/files/sotf-pact-for-the-future-rev.3.pdf August 29, 2024.

- 64 United Nations, Declaration on Future Generations, Revision 3, par. 3 availablel at https://www.un.org/sites/un2.un.org/files/sotf-declaration-on-future-generations-rev3.pdf August 29, 2024.
- 65 United Nations Environmental Programme (2023), "Ozone Layer Recovery is on Track, Helping Avoid Global Warming by 0.5°C", 9 January 2023, available at https://www.unep.org/news-and-stories/press-release/ozone-layer-recovery-track-helping-avoid-globalwarming-05degc accessed August 28, 2024.

68 P. Kameri-Mbote (2023), "The Role of Environmental Law and Governance in Transformational Change to Address the Triple Planetary Crisis", *Law Env't & Dev. J.*, 19(1): 251-265, https://lead-journal.org/content/a1904.pdf.

- 70 UNEA (2024), "Promoting Synergies, Cooperation or Collaboration for National Implementation of Multilateral Environmental Agreements and Other Relevant Environmental Instruments", UN Doc. No. UNEP/EA.6/Res.4, 5 March 2024, https://documents.un.org/doc/undoc/gen/k24/008/07/pdf/k2400807.pdf; UNEA (2024), "Fostering National Action to Address Global Environmental Challenges Through Increased Cooperation Between the United Nations Environment Assembly, the United Nations Environment Programme and Multilateral Environmental Agreements, UN Doc. No. UNEP/EA.6/Res.6, 5 March 2024, https://documents.un.org/doc/undoc/gen/k24/007/71/pdf/k2400771.pdf.
- 71 M.J. Angelo (2007), "Harnessing the Power of Science in Environmental Law: Why We Should, Why We Don't, and How We Can", *Tex. L. Rev.*, 86:1527.

⁶² Ibid. at para. 29(c).

⁶³ *Ibid.* at para. 19.

⁶⁶ Ibid.

⁶⁷ United Nations (2005), "Wildlife Treaty Comes of Age – Cites Celebrates 30 Years of Achievement", ENV/DEV/865 UNEP/299, 30 June 2005, https://press.un.org/en/2005/envdev865.doc.htm accessed August 28, 2024.

⁶⁹ Ibid.

establishment of science-policy bodies such as the Intergovernmental Panel on Climate Change (IPCC) and the International Panel on Biodiversity and Ecosystems Services (IPBES). The IPCC was established to "assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information ..." needed to facilitate science-based climate change policy responses. Through its reports, the IPCC has facilitated climate science knowledge which in turn has greatly informed policy actions.

While science has been critical in shaping environmental policy action, the science-policy interface can be further sharpened. There is a disconnect between the scientific knowledge generation bodies and policy makers who rely on such scientific knowledge.⁷² It is argued that policy makers can be slow in translating scientific findings into policy.⁷³ Scientific bodies can also be slow in taking feedback from policy actions developed relying on the scientific knowledge.⁷⁴ Therefore is need for closer interaction between policy makers and scientists to ensure that scientific findings are understood by policymakers.⁷⁵ This calls for a more active role by the scientific community in shaping policy actions. The question that begs answering is whether for instance, in the case of IPCC, the founding principles should continue to require it to "be neutral with respect to policy" making.⁷⁶

The scientific-policy frustration is understandable. Despite the overwhelming scientific evidence on climate change, biodiversity loss, and pollution, policy actions do not appear commensurate to commitment required to reverse the trends. Scientific research is evidence based, while policy making is often a political process that combines and balances social, political and economic considerations, which in many cases, at least in the short-term can be competitive and incongruent.⁷⁷ In addition, inappropriate policy actions, though well intended, could have far reaching social and economic implications. For instance, there are warnings that attempts to view just transition as mere transition from one dominant source of energy to renewable energy while maintaining the "environmental and socio-economic injustices and inequalities which are intrinsic to the existing energy regime" would be catastrophic.⁷⁸ There are reports that local communities, particularly indigenous communities are losing their lands to carbon offset programmes.⁷⁹ While well intended and likely to significantly contribute to the efforts to combat climate change, such blanket carbon offset schemes are likely to increase poverty levels of such communities. A discussion on how to better forge collaboration between policy makers and scientific research is urgent.

Cognizant of the challenges with science-policy interfaces, UNEP has gone to great lengths to contribute in closing the science-policy gap. For instance, in its 5th session UNEA passed a resolution to start a process towards establishing a science-policy panel to provide robust, independent information on chemicals, waste and pollution.⁸⁰ So far, the open-ended working group established to steer the establishment of the science-policy panel has convened three sessions the last of which was in June 2024 which produced foundational document with proposal on objective and functions, institutional architecture of the proposed panel.⁸¹

- 72 United Nations Environment Programme (2017), "Strengthening the Science-policy Interface: A Gap Analysis", https://stg-wedocs.unep.org/handle/20.500.11822/31049. J.W. Moore (2018), "Towards Linking Environmental Law and Science", *Facets*, 3(1): 375-391.
- 73 See S. Katyaini, A. Barua and R. Duarte (2020), "Science-policy Interface on Water Scarcity in India: Giving 'Visibility'to Unsustainable Virtual Water Flows (1996–2014)", *Journal of Cleaner Production*, 275:124059.
- 74 Ibid.
- 75 B.C. Choi et al. (2005), "Can Scientists and Policy Makers Work Together?", J Epidemiol Community Health, 59(8): 632-637.
- 76 IPCC, Principles Governing IPCC Work, https://archive.ipcc.ch/pdf/ipcc-principles/ipcc-principles.pdf. See also W. Pearce, M. Mahony and S. Raman (2018), "Science Advice for Global Challenges: Learning from Trade-offs in the IPCC", *Environmental Science & Policy*, 80:125-131.
- 77 A. King (2016), "Science, Politics And Policymaking: Even Though Expert Knowledge has Become Indispensible for Policymaking, Providing Scientific Advice to Governments is not Always Easy", *EMBO Rep.*, 17(11): 1510-1512. See also R.T. Watson (2005), "Turning Science into Policy: Challenges and Experiences from the Science–Policy Interface", *Philosophical Transactions of the Royal Society B: Biological Sciences*, 360(1454): 471-477.
- 78 X. Wang and K. Lo (2021), "Just Transition: A Conceptual Review", Energy Research & Social Science, 82:102291.
- 79 Terrence McCoy, Júlia Ledur and Marina Dias, "How 'Carbon Cowboys' are Cashing in on Protected Amazon Forest", 24 July 2024, accessed https://www.washingtonpost.com/world/interactive/2024/brazil-amazon-carbon-credit-offsets/ August 28, 2024.
- 80 UN (2022), UNEA Resolution—Science-Policy Panel to Contribute Further to the Sound Management of Chemicals and Waste and to Prevent Pollution, Doc. UNEP/EA.5/Res.8, 7 March 2022, https://documents.un.org/doc/undoc/gen/k22/007/45/pdf/k2200745.pdf.
- 80 ISSD (2024), "Summary of the Third Session of the Ad Hoc Open-ended Working Group on a Science-Policy Panel to Contribute Further to the Sound Management of Chemicals and Waste and to Prevent Pollution", *Earth Negotiations Bulletin*, 37(16): 1.

While the concept of planetary boundaries is gaining traction in the UN system, part of the reason it had not taken root as at 2012 is reportedly "because the idea is [was] simply too new to be officially adopted, and needed to be challenged, weathered, and chewed over to test its robustness before standing a chance of being internationally accepted at UN negotiations".⁸² Since its first appearance in a publication in 2009, the concept has attracted significant attention, particularly from the scientific⁸³ and social science communities⁸⁴ and is presently being studied for adoption or has been adopted in European countries as a guiding framework.⁸⁵ In 2023, it was found that "six of the nine boundaries are transgressed, suggesting that Earth is now well outside of the safe operating space for humanity".⁸⁶ Unfortunately, the UN system is yet to take up, consolidate and create a community of scientific researchers to explore earth system science. The UN Secretary General has, however, made several references as discussed above and made appeals to member states about planetary boundaries indicating a growing willingness to embrace and mainstream research in this area. Furthering research would be an essential step towards preserving the Holocene, as the world's current policy actions despite their volumes are risking tipping earth systems and operating outside the safe operating space⁸⁷ while a significant number of people remains below "just operating space".⁸⁸

The Summit of the Future presents an opportunity to recommit to planetary future. Science must be at the heart of crafting that future. Its noteworthy that the draft Pact for the Future acknowledges the role of science in addressing complex global challenges and commits to realizing its potential.⁸⁹ Using the examples of the IPCC and IPBES as recognized science-policy bodies, there is need to accelerate not only the science but also to innovatively close the science-policy gap. Funding research on emerging threats to the earth system would be an important entry point. The UN should innovatively invest in thought leadership rather than being a reactive entity. It should proactively leverage its existing expertise, global presence and close partnership with diverse stakeholders including academics.

- 82 E.F. Fernández and C. Malwé (2019), ≫The Emergence of the 'Planetary Boundaries' Concept in International Environmental Law: A Proposal for a Framework Convention≪, *Review of European, Comparative & International Environmental Law*, 28(1): 48-56.
- 83 See For scientific support or critique of planetary boundary framework or attempts to incorporate the framework into science fields, see J.M. Montoya, I. Donohue and S.L. Pimm (2018), »Planetary Boundaries for Biodiversity: Implausible Science, Pernicious Policies, *Trends in Ecology & Evolution*, 33(2): 71-73; S.R. Carpenter, and E.M. Bennett (2011), »Reconsideration of the Planetary Boundary for Phosphorus, *Environmental Research Letters*, 6(1): 014009; P.M. Kopittke et al. (2021), The Role of Soil in Defining Planetary Boundaries and the Safe Operating Space For Humanity, *Environment International*, 146 : 106245; V. Sandström et al. (2023), »Disparate History of Transgressing Planetary Boundaries for Nutrients«, *Global Environmental Change*, 78 : 102628; De Vries et al. (2013), »Assessing Planetary and Regional Nitrogen Boundaries Related to Food Security and Adverse Environmental Impacts«, *Current Opinion in Environmental Sustainability*, 5(3-4): 392-402; S. Cornell (2012), »On the System Properties of the Planetary Boundaries *«, Ecology and Society*, 17(1); A.S. Downing et al. (2019), »Matching Scope, Purpose and Uses of Planetary Boundaries Science«, *Environmental Research Letters*, 14(7): 073005.
- 84 See for social sciences scholars' effort to create a just space as well as theorize the application of the planetary boundaries' framework in social lives- J. Pickering & A. Persson (2019), >>Democratising Planetary Boundaries: Experts, Social Values and Deliberative Risk Evaluation in Earth System Governance«, *Journal of Environmental Policy & Planning*, 22(1): 59–71; M.D. Mahecha and C. Kraemer (2023), >>Cautionary Remarks on the Planetary Boundary Visualisation«, *EGUsphere*, 1-9; A. Ferretto et al. (2022), >>Planetary Boundaries and the Doughnut Frameworks: A Review of their Local Operability«, *Anthropocene*, 39:100347; H. Schlesier, M. Schäfer and H. Desing (2024), >>Measuring the Doughnut: A Good Life for All is Possible Within Planetary Boundaries«, *Journal of Cleaner Production*, 448:141447.
- 85 See for instance U. Pisano and G. Berger (2013), "Planetary Boundaries for SD: From an International Perspective to National Applications", *European Sustainable Development Network, Vienna* being a study of how application or planetary boundaries framework within the European Union. See also reference of the term in official documents including European Parliament resolution of 24 May 2012 on a resource-efficient Europe (2011/2068(INI)) more particularly summarized in Fernández (note 81).
- 86 K. Richardson et al. (2023), "Earth Beyond Six of Nine Planetary Boundaries", Science Advances, 9(37), https://www.science.org/doi/ 10.1126/sciadv.adh2458.
- 87 See J. Rockström et al. (2009), "Planetary Boundaries: Exploring the Safe Operating Space for Humanity", *Ecology and Society*, 14(2), https://www.jstor.org/stable/26268316 (discussing how human activities effects on the earth's systems stability).
- 88 Analysis of access of the proposed social foundations such as food security, health access, water, income, education, resilience, voice, jobs, energy, social equity, gender equality and food indicate a significant number of world population is below the just space.
- 89 United Nations (2024), Draft Pact of the Future, Revision 2, 17 July 2024, par. 3 and action 29.

7. Beyond Law Making to Concrete Implementation

Despite the exponential growth of environmental law with over 3,700 multilateral agreements now in force and virtually every country having legislation on protection of the environment, environmental problems persists.⁹⁰ Implementation and compliance of commitments in MEAs and national environmental laws remain a challenge.⁹¹ For instance, the 2012 United Nations Conference on Sustainable Development (Rio+20) organized to commemorate 20 years since the Rio Conference reiterated the need to focus on implementing existing environmental laws. The Rio+20 outcome document emphasized that "strong institutions, access to information and justice, and the political will to implement and enforce environmental law" was central to achieving sustainable development.⁹² While these implementation efforts have borne some fruits, a lot is yet to be done.⁹³

To strengthen capacity of states in development and implementation of environmental law, UNEP established the Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme).⁹⁴ This ten-year intergovernmental programme, now in its fifth iteration is housed within the UNEP, Law Division and was established to contribute to the development and periodic review of environmental law.⁹⁵ Since its second iteration, the Montevideo Programme has dedicated significant forts to assisting countries with effective implementation, building capacity, public participation and strengthening institutions and access to justice on environmental laws.⁹⁶ To further strengthen its effectiveness and responsive of the programme, UNEA in 2016 resolved to designate national focal points for "for exchanging information and building capacities in order to collaborate with and guide [UNEP]" and to monitor and evaluate its implementation. So far, there has been two successful global meeting of the focal points. These national focal points have reshaped the focus of the Montevideo Programme as the national focus points set the priority areas that the programme invests in. For instance, the first meeting prioritized of implementation of triple planetary crisis and series of other cross-cutting issues. The second global meeting that took place earlier in 2024 set priority areas including implementation of procedural environmental rights. This intergovernmental meeting now makes the Montevideo Programme a member states driven in setting its agenda and priorities.⁹⁷

The fifth iteration of the Montevideo Programme was adopted by UNEA in 2019 entitled "Delivering for People and the Planet". To accelerate implementation, UNEP has adopted and advanced the concept of the environmental

- 90 A.R. Shelver (2014), "The Answer to Enforcing Multilateral Environmental Agreements: the International Tribunal for the Law of the Sea", Fla. J. Int'l L., 26: 347; E. Garcés and M. Frenanda (2024), "Saving the Planet: Revitalizing the UN for Our Common Future", Environmental Policy and Law, 54(2-3): 89-100.
- 91 X. Wang and G. Wiser (2002), "The Implementation and Compliance Regimes Under the Climate Change Convention and its Kyoto Protocol", RECIEL 11(2): 181-198; Wang-Wiser.pdf (ciel.org).
- 92 UN (2012), "The Future We Want— Outcome Document of the United Nations Conference on Sustainable Development", Rio de Janeiro, Brazil, 20–22 June 2012, Para 266, https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf; UNEP (2019), "Environmental Rule of Law: First Global Report", https://www.unep.org/resources/assessment/environmental-rule-law-firstglobal-report, p. 27.
- 93 For instance, despite setting Aichi Biodiversity Targets some of which were relatively easy to achieve, countries fell short of achieving these targets. For more detailed analysis, see H. Carr (2020). The Aichi Biodiversity Targets: Achievements for Marine Conservation and Priorities Beyond 2020", *PeerJ: Law and Environment*, 21 December 2020, https://peerj.com/articles/9743/; C. Maney *et al.* (2024), "National Commitments to Aichi Targets and Their Implications for Monitoring the Kunming-Montreal Global Biodiversity Framework", *NPJ Biodiversity*, **3**, 6 (2024); A. Perino et al. (2022), "Biodiversity Post-2020: Closing the Gap Between Global Targets and National-level Implementation", *Conservation Letters*, 15(2): e12848, https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12848.
- 94 UNEP (1982), Governing Council Decision 10/21—Environmental Law, in Report of the Governing Council, 10th Session, p. 108, https://documents.un.org/doc/undoc/gen/n82/234/78/pdf/n8223478.pdf.
- 95 UNEP (2019), UNEA Resolution— Fifth Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme V): Delivering for People and the Planet, UNEP/EA.4/Res.20, 28 March 2019, https://wedocs.unep.org/bitstream/handle/20.500.11822/28483/English.pdf?sequence=3&isAllowed=y.
- 96 IISD (2022), Montevideo Programme Bulletin, 12 June 2022, https://enb.iisd.org/resumed-1st-global-meeting-of-national-focalpoints-montevideo-programme-v-summary July 11, 2024.
- 97 P. Kameri-Mbote et al. (2023), "The Role of Environmental Law and Governance in Transformational Change to Address the Triple Planetary Crisis", *Law Env't & Dev. J.*, 19(1): 251-265.

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rule of law. The programme's vision is to promote the development and implementation of environmental rule of law, strengthen capacity and support the environmental aspects of the 2030 Agenda. The overarching objective is to advance environmental rule of law by empowering nations to develop and implement comprehensive legal frameworks.

Environmental rule of law integrates the environmental requirements with the concepts of rule of law as a basis for promoting environmental governance. It locates lacklustre in implementation of environmental laws within a wider rule of law and governance challenges of a country. By addressing environmental implementation as a rule of law problem, it not only brings forth the traditional rule of law actors such as governments, judiciary and civil society but also appreciates the uniqueness of environmental law. Since the release of its First Global EROL report in 2019, the 2nd Report noted significant progress in entrenching the concept. Notably, the report notes that emerging issues including of human rights frameworks, future generations, women led implementation actions and climate litigation have become important pillars in addressing compliance with MEA obligations. Environmental rule of law has gained traction and continues to gain acceptability including within the UN system as an all-encompassing environmental law implementation framework.⁹⁸ Faithful implementation of environmental commitments is a prerequisite to growth within the safe and just operating space. To facilitate this, funding for UNEP's and implementation of MEAs should be significantly enhanced. However, complementary efforts by states through their internal governance systems remain absolutely critical to stabilizing the earth systems.

8. Conclusion

Since its inception, the UN system has played a crucial role in promoting global economic and social conditions. Despite these achievements, extreme inequalities and environmental degradation persist, raising questions on its efficacy in providing concrete solutions to global economic, social, and environmental challenges. Development models that are characteristic of the anthropocentric, reliant on unchecked extraction of natural resources, that is unsustainable and unjust, are pushing societies and economies toward environmental tipping points. Urgent and accelerated action towards entrenching sustainability considerations in development efforts is necessary to lift poor individuals, communities and nations into a just operating space while ensuring growth and respecting planetary boundaries.

Radical transformations in economies and societies, and extraordinary international cooperation are necessary. The UN, leveraging its convening power, scientific expertise, and global presence, is critical in facilitating this cooperation and implementing pathways to a sustainable planetary future. However, this calls for a steadfast commitment to a stable earth system as a common good, which requires structural reforms, embracing scientific research, and strengthened multilateralism. The UN must also support states in translating this ambition into actionable plans, and collaboratively promoting the environmental rule of law through synergistic implementation of Multilateral Environmental Agreements at different levels.

As members of the UN assemble at the *Summit of the Future* (September 22-23, 2024),⁹⁹ they must address the challenges posed by the unsustainable exploitation of natural resources and the resulting environmental degradation. By fostering a recommitment to the common good, unbounded by artificial state lines, the UN can drive the necessary radical transformations. The preservation of the earth system must be placed as an overarching goal, and the concept of the common good must be reimagined to center on environmental stability.

⁹⁸ UNEP (2023), *Environmental Rule of Law: Tracking Progress and Charting Future Directions*, Second Report; Environmental Rule of Law: Tracking Progress and Charting Future Directions | UNEP - UN Environment Programme

⁹⁹ For the ideas and processes on the planetary future see, Bharat H. Desai (2024), "The Moment of Truth: Ideating on The Planetary Future", June 30, 2024: Blog Special: The Moment of Truth: Ideating on the Planetary Future (sisblogjnu.wixsite.com); Bharat H. Desai (2024), Global Webinar on The Planetary Future Part – I, June 05, 2024; EPL Webinar: The Planetary Future: Part – I (youtube.com); Bharat H. Desai, Ed. (2024), *Preface*, EPL Special Issue: The Planetary Future (Part - I): Environmental Policy and Law - Volume 54, issue 2-3; Bharat Desai and Jay Desai (2024), "The Climate Change Conundrum: A Case for Course Correction in the Global Regulatory Approach", EPL 54(1): 2024, 3-14: epl239028 (iospress.com)

The *Summit of the Future* is a crucial opportunity for the UN to recommit to a sustainable planetary future, with science at the heart of crafting this future. We have noted that the draft Pact for the Future acknowledges the role of science in solving global challenges and commits to closing the science-policy gap. Through innovative and inclusive multilateralism, the UN can and must lead the way in addressing the planetary crises and ensuring a sustainable and just future for all.