

REIMAGINING INTERNATIONAL ENVIRONMENTAL LAW

BY

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The piecemeal creation and formation of international environmental law (IEL) dates to the 1972 United Nations Conference on the Human Environment in Stockholm and continues today. In 2018, the UN Secretary-General recognized that there is “[n]o single overarching normative framework that sets out what might be characterized as the rules and principles of general application in [IEL],” and further identified existing gaps in IEL that hinder its implementation. This Article builds upon the Secretary-General’s report, canvasses where IEL currently stands, and elaborates on crucial ways IEL can be reimagined in the future. Pathways by which IEL can be enforced and strengthened with regard to future issues such as space law and geo-engineering are explored. The Article also discusses the growing focus on human rights in the IEL context, as well as how IEL reaches beyond national jurisdictions on issues concerning plastic pollution and biodiversity. It is imperative that IEL develop a more holistic, integrated approach centered on sustainable development in order to meet the increasing challenges brought by the triple planetary crisis.

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I. INTRODUCTION

International environmental law (IEL) is a developing legal framework that was first introduced in 1972 at the United Nations (U.N.) Conference on the Human Environment, *i.e.*, the Stockholm Declaration.¹ This declaration was the first non-binding document to recognize a right to a healthy environment.² The same year, the U.N. General Assembly (UNGA) created the U.N. Environment Programme (UNEP) as the “global authority that sets the environmental agenda within the United Nations system.”³ Throughout the decades, a series of meetings resulted in various documents addressing aspects of IEL, including the World Commission on Environment and Development, *i.e.*, the Brundtland Commission.⁴ The Commission defined sustainable

¹ U.N. Conference on the Human Environment, *Stockholm Declaration and Action Plan for the Human Environment*, U.N. Doc. A/CONF.48/14/Rev.1 (June 16, 1972) [hereinafter *Stockholm Declaration*].

² *See id.* ch. I, princ. 21 (“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”).

³ *Improving the Science-Policy Interface to Address Ongoing Planetary Crises*, U.N. ENV’T PROGRAMME (Nov. 30, 2022), <https://perma.cc/T3JE-9EU5>.

⁴ Rep. of the World Comm’n on Env’t & Dev., *Our Common Future*, U.N. Doc. A/42/427, annex (Aug. 4, 1987).

development as “meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs.”⁵ Additionally, in 1992, the United Nations reconvened with the U.N. Conference on Environment and Development, *i.e.*, the Rio Declaration,⁶ where delegates attempted to find harmonies between reducing poverty and ensuring environmental protection.⁷ The most recent example occurred in May 2018 when the UNGA adopted resolution 72/277,⁸ entitled *Towards a Global Pact for the Environment*, to produce “a technical and evidence-based report that identifies and assesses possible gaps in international environmental law.”⁹ As of 1993, there were nearly 900 international agreements that are environmentally oriented,¹⁰ leading to “treaty congestion.”¹¹

According to the U.N. Secretary-General, despite various developments over the past fifty years since the Stockholm Declaration, there is “no single overarching normative framework that sets out what might be characterized as the rules and principles of general application in [IEL].”¹² Rather, IEL has been criticized as lacking coordination, being “piecemeal,” and being held back by implementation challenges.¹³

This Article builds upon the Secretary-General’s findings, canvassing where IEL stands today and elaborating on ways IEL can be reimagined. Part II of the Article reviews which IEL treaties have succeeded and argues that the future of IEL should focus on solving issues by recognizing the interlinkages between planetary boundaries rather than working in silos. Part III of the Article focuses on IEL enforcement and reviews the rise of climate litigation as a useful mechanism, as well as ways to strengthen the rule of law. Part IV assesses the future of IEL in addressing problems that reach beyond national jurisdictions, such as biodiversity and plastic pollution, and discusses future issues IEL may cover, including space law and geo-engineering. Part V discusses the rise of human rights being incorporated with IEL, primarily within the context of climate change. The Article concludes with recommendations to reimagine IEL by connecting to other areas of law and incorporating a sustainable development framework.

⁵ *Id.* ¶ 27.

⁶ U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol.1), annex I (Aug. 12, 1992) [hereinafter *Rio Declaration*].

⁷ *Id.* princs. 4–5.

⁸ G.A. Res. 72/277, *Towards a Global Pact for the Environment* (May 14, 2018).

⁹ U.N. Secretary-General, *Gaps in International Environmental Law and Environment-Related Instruments: Towards a Global Pact for the Environment*, ¶ 6, U.N. Doc. A/73/419 (Nov. 30, 2018) [hereinafter *Towards a Global Pact for the Environment Report*].

¹⁰ Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 GEO. L.J. 675, 675 (1993) (defined as “either primarily directed to international environmental issues or contain important provisions on them”).

¹¹ *Id.* at 697; see also David Freestone, Book Note, 107 AM. J. INT’L L. 284, 284 (2013) (reviewing DANIEL BODANSKY, *THE ART AND CRAFT OF INTERNATIONAL ENVIRONMENTAL LAW* (2010)) (“The phrase is attributed to Edith Brown Weiss.”).

¹² *Towards a Global Pact for the Environment Report*, *supra* note 9, at Summary.

¹³ *Id.*

II. DEFINING THE ENVIRONMENT IN SILOS

A. Current Status

The Secretary-General's report, prepared pursuant to UNGA resolution 72/277, titled *Towards a Global Pact for the Environment*, discussed the "gaps and deficiencies" of IEL.¹⁴ First, the Secretary-General found that while other aspects of international law have binding frameworks or codified norms, "customary [IEL] is sparse," leading to implementation gaps.¹⁵

Second, the Secretary-General argued that IEL is "reactive," as demonstrated by the multitude of environmental treaties.¹⁶ According to the Secretary-General, "[a] vast body of multilateral environmental agreements, comprising more than 500 instruments, have been adopted so far."¹⁷ The multitude of environmental agreements and resolutions "ignore the unity, interconnectedness and interdependence of the Earth's ecosystem."¹⁸ Instead of complying with the first principle of ecology, that all beings are interconnected,¹⁹ negotiators have developed environmental treaties that primarily work in silos. For example, the United Nations Framework Convention on Climate Change (UNFCCC) and subsequent agreements aim to stabilize greenhouse gasses in the atmosphere to prevent dangerous climate change,²⁰ the Convention on Biological Diversity (CBD) aims to conserve biodiversity,²¹ and the United Nations Convention on the Law of the Sea (UNCLOS) sets maritime rules.²² These agreements, and others like them, fail to account for how the issues they aim to address are infinitely interconnected with other areas of IEL.

Third, the Secretary-General claimed that implementing environmental agreements is problematic due to the "lack of clarity of many environmental principles."²³ Principles serve as a source of international law, and common environmental principles that guide

¹⁴ *Id.*

¹⁵ *Id.* ¶¶ 3–4.

¹⁶ *Id.* at Summary.

¹⁷ *Id.* ¶ 2.

¹⁸ *Id.* ¶ 80.

¹⁹ BARRY COMMONER, *THE CLOSING CIRCLE: NATURE, MAN, & TECHNOLOGY* 33 (1971).

²⁰ U.N. Framework Convention on Climate Change, art. 2, May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC].

²¹ Convention on Biological Diversity, art. 1, Jun. 5, 1992, 1760 U.N.T.S. 79 [hereinafter CBD].

²² Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 3 [hereinafter UNCLOS].

²³ *Towards a Global Pact for the Environment Report*, *supra* note 9, at Summary.

treaties include: (1) prevention (*Trail Smelter*),²⁴ (2) precaution,²⁵ (3) polluter pays,²⁶ (4) environmental democracy,²⁷ (5) cooperation,²⁸ (6) the right to a healthy environment,²⁹ (7) sustainable development,³⁰ (8) common but differentiated responsibilities,³¹ and (9) progression.³² The Secretary-General stated that clarifying environmental principles can “help unify [IEL’s] current sectoral approach,” potentially through a “comprehensive and unifying international instrument.”³³

Fourth, the Secretary-General stated that IEL is fragmented by a “heterogeneous set of actors,” leading to coordination challenges.³⁴ This is demonstrated by the “lack of international consensus concerning environmental principles” by international courts and tribunals.³⁵ Lastly, the Secretary-General argued that implementing IEL is challenging at both the national and international level.³⁶

²⁴ *Id.* ¶ 11; see also *Trail Smelter (U.S. v. Can.)*, 3 R.I.A.A. 1905, 1965 (1938) (“[U]nder the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another . . . when the case is of serious consequence and the injury is established by clear and convincing evidence.”).

²⁵ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 12; see also Rio Declaration, *supra* note 6, princ. 15 (“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”).

²⁶ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 13; see also Rio Declaration, *supra* note 6, princ. 16 (“National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.”).

²⁷ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 14; see also Rio Declaration, *supra* note 6, princ. 1 (“Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.”).

²⁸ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶¶ 16–17; see also Rio Declaration, *supra* note 6, princ. 7 (“States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem.”); see also *id.* princs. 12–14.

²⁹ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶¶ 18–19; see also Stockholm Declaration, *supra* note 1, princ. 1 (“Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations.”); Rio Declaration, *supra* note 6, princ. 1 (“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”).

³⁰ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 20.

³¹ *Id.* ¶ 21.

³² *Id.* ¶ 22 (“The Paris Agreement is explicit in this regard and provides, in article 4, paragraph 3, that each successive nationally determined contribution ‘will represent a progression beyond the Party’s then and current nationally determined contribution and reflect its highest possible ambition.’”).

³³ *Id.* ¶ 10.

³⁴ *Id.* at Summary.

³⁵ *Id.*

³⁶ *Id.*

The lack of progress within the UNFCCC demonstrates the danger of implementing IEL in silos. Since 1994, parties to the UNFCCC have been working toward reversing catastrophic climate change with no clear success. In fact, Intergovernmental Panel on Climate Change (IPCC) reports show that annual global average greenhouse gas emissions between 2010 and 2019 were the highest in history, and “[e]very increment of global warming will intensify multiple and concurrent hazards.”³⁷ Even with the full implementation of Nationally Determined Contributions (NDCs), exceeding 1.5°C of warming is likely.³⁸

One aspect of this failure is the fact that emissions from the aviation and maritime industries (2.5%³⁹ and 3%⁴⁰ of global emissions respectively) are completely left out of national totals.⁴¹ Emissions from the aviation and maritime industries are under the jurisdiction of the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO).⁴² While these two organizations have been involved with the discussions of the UNFCCC since 1995, little progress has been achieved.⁴³ Civil society advocates point to the fact that the targets set under the ICAO and IMO are not in line with the goals of the Paris Agreement.⁴⁴ U.N. Secretary General Antonio Guterres has also stated that such targets correlate with 3°C of warming.⁴⁵

This failure underlines the need for more cooperation, integration, and synergy between these various organizations to achieve the overall goals of the UNFCCC and the Paris Agreement. In October 2022, the ICAO adopted a 2050 net-zero CO₂ goal for international aviation,⁴⁶ while the IMO adopted its revised Strategy in July 2023 which indicates a 40%

³⁷ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [IPCC], CLIMATE CHANGE 2023: SYNTHESIS REPORT 4, 12 (2023), <https://perma.cc/EX66-RB3M>; IPCC, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE: WORKING GROUP III CONTRIBUTION TO THE SIXTH ASSESSMENT REPORT OF THE IPCC 6 (2022), <https://perma.cc/8PY7-AAT3> [hereinafter IPCC, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE].

³⁸ IPCC, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE, *supra* note 37, at 14.

³⁹ Jocelyn Timperley, *The Fastest Way Aviation Could Cut Its Carbon Emissions*, BRIT. BROAD. CORP. (May 25, 2021), <https://perma.cc/MUZ7-Q9D4>.

⁴⁰ Isabelle Gerretsen, *Shipping Is One of the Dirtiest Industries. Now It's Trying to Clean Up Its Act*, CNN BUS. (Oct. 3, 2019), <https://perma.cc/ZPD7-YGDH>.

⁴¹ *Emissions from Fuels Used for International Aviation and Maritime Transport*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, <https://perma.cc/2NKV-S3DJ> (last visited Oct. 15, 2024).

⁴² *Emissions from International Transport (AKA the Elephant in the Climate Change Policy Room)*, INT'L INST. FOR SUSTAINABLE DEV. (Feb. 18, 2016), <https://perma.cc/9WLG-73ZC>.

⁴³ See *id.* (highlighting that a provision that “would have had Parties to the UNFCCC agree on ‘the need for global sectoral emission reduction targets for international aviation and maritime transport and on the need for all Parties to work through’ ICAO and IMO to develop global policy frameworks to achieve these targets” was dropped from a previous iteration of the Paris Agreement, “and the final text . . . [was] conspicuously silent on the issue of bunker fuels”).

⁴⁴ Reinhold Pape, *IMO and ICAO Fail to Implement the Paris Agreement*, AIRCLIM: ACID NEWS, Oct. 2019, at 22, 22; SHRAEYA MITHAL & DAN RUTHERFORD, INT'L COUNCIL ON CLEAN TRANSP., ICAO'S 2050 NET-ZERO CO₂ GOAL FOR INTERNATIONAL AVIATION 1–2 (2023).

⁴⁵ Joe Lo, *UN Boss Calls for Stronger Aviation and Shipping Climate Goals in Line with 1.5C*, CLIMATE HOME NEWS (Oct. 14, 2021, 1:31 PM), <https://perma.cc/3Q52-QKG3>.

⁴⁶ MITHAL & RUTHERFORD, *supra* note 44, at 1.

reduction in carbon intensity of international shipping by 2030 to reach net-zero by or around 2050.⁴⁷ However, it remains to be seen how these new policies will be implemented.

B. Reimagining IEL: Synergies and Interconnections

Scientists have found that there are various tipping points that cannot be passed without triggering catastrophic global effects. These tipping points include climate change, biodiversity loss, ocean acidification, ozone depletion, atmospheric aerosol pollution, freshwater use, biogeochemical flows of nitrogen and phosphorus, land-system change, and releases of novel chemicals.⁴⁸ Keeping the equally urgent imperatives of economic development, poverty eradication, and social equity in mind, the need to solve these issues in an integrated and harmonious way is abundantly clear.

The UNGA is advocating for greater synergies and interlinked implementations of the 2030 Agenda and the Sustainable Development Goals (SDGs). The Secretary-General stated that “[m]ore efforts could be made to establish or strengthen mechanisms to harness interlinkages and promote synergies for more effective implementation.”⁴⁹ Identifying interlinkages could also help in aligning national policy towards more efficient strategies. In exploring the link between the environment and the economy, the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) stated that “[p]athways exist where economies can be made cleaner and greener at the same levels of productivity, and interlinkages of the SDG framework could be used to explore, leverage and monitor these opportunities.”⁵⁰

There are some examples that have demonstrated how integrated policies and linked implementation between various agreements could work. The most notable and commonly cited is the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), which phased out ozone-depleting substances (ODSs) such as chlorofluorocarbons (CFCs).⁵¹ The Protocol was successful for several reasons, but most scholars attribute the incorporation of trade restrictions and measures under the General Agreement on Tariffs and

⁴⁷ 2023 IMO Strategy on Reduction of GHG Emissions from Ships, INT’L MAR. ORG., <https://perma.cc/CEK2-5AKV> (last visited Oct. 27, 2024).

⁴⁸ DAVID ATTENBOROUGH, A LIFE ON OUR PLANET: MY WITNESS STATEMENT AND A VISION FOR THE FUTURE 110 (2020); Will Steffen et al., *Planetary Boundaries: Guiding Human Development on a Changing Planet*, SCIENCE, Feb. 2015, No. 1259855, at 4–5.

⁴⁹ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 80.

⁵⁰ INTERLINKAGES WORKING GROUP OF THE INTER-AGENCY AND EXPERT GROUP ON SUSTAINABLE DEVELOPMENT GOAL INDICATORS [IAEG-SDGs], INTERLINKAGES OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT 19 (2019).

⁵¹ Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, T.I.A.S. No. 89-101 (entered into force Jan. 1, 1989) [hereinafter Montreal Protocol].

Trade (GATT) as a major impetus for its effective implementation.⁵² Limiting the trade of ODSs and increasingly limiting supplies of CFCs within Parties to the Protocol forced countries to participate in the agreement and coordinate with other countries rather than to rely on individual cooperation.⁵³ Trade restrictions also prevented non-Parties from gaining an advantage against Parties and prohibited the flow of ODSs and their production facilities to non-Parties.⁵⁴

Efforts to incorporate the Montreal Protocol with climate efforts under the UNFCCC were successful. The Kigali Amendment, which came into effect in 2019, targets the use of hydrofluorocarbons (HFCs) equivalent to more than 70 billion tons of CO₂ over the next thirty-five years.⁵⁵ The goal is a nearly 90% reduction in global warming from unconstrained HFCs by the end of the century.⁵⁶ The success of interlinking the Montreal Protocol to GATT demonstrates how and why the international community should continue to find synergies between existing treaties and between issues to effectively ensure environmental protection.

Moving forward, the Conference of the Parties to the UNFCCC can assess new mechanisms of mitigating climate change, as demonstrated by the Montreal Protocol and GATT. For example, trade restrictions could also be employed with respect to climate emissions from transport and other energy intensive sectors, such as aluminum production, by raising automobile standards and employing more effective smelting technologies.⁵⁷

The use of nature-based solutions (NbS), beneficial tools that can increase biodiversity and mitigate climate change, can also result in multiple synergetic benefits.⁵⁸ NbS are defined as “actions to protect, sustainably manage, and restore natural or modified ecosystems,” that “address societal challenges” effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.⁵⁹ The Nature-Based Solutions Initiative claims that out of the 122 updated NDCs submitted by Paris Agreement signatories in 2021, 84% included

⁵² See, e.g., Scott Barrett, *Climate Change and International Trade: Lessons on their Linkage from International Environmental Agreements*, CLIMATE CHANGE, TRADE, AND COMPETITIVENESS: ISSUES FOR THE WTO, 2010, at 9–11, <https://perma.cc/MNK9-GLZX>.

⁵³ *Id.* at 10–11.

⁵⁴ Douglas Jake Caldwell, *International Environmental Agreements and the GATT: An Analysis of the Potential Conflict and the Role of the GATT “Waiver” Resolution*, 18 MD. J. INT’L L. 173, 182 (1994).

⁵⁵ Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, October 15, 2016, T.I.A.S. No. 23-129 (entered into force Jan. 1, 2019); Anjali Jaiswal & Prima Madan, *Cooling with Less Warming: Fighting Global Superpollutants*, NAT. RES. DEF. COUNCIL (Oct. 21, 2021), <https://perma.cc/8QRA-GJK5>.

⁵⁶ Jaiswal & Madan, *supra* note 55.

⁵⁷ Barrett, *supra* note 52, at 21–22.

⁵⁸ See Emma Barnes, *Mangroves as a Solution to the Climate Crisis*, WORLD WILDLIFE FUND (Jan. 4, 2022), <https://perma.cc/RPZ3-C2RN> (discussing mangroves as a NbS to store carbon).

⁵⁹ *Nature-based Solutions*, INT’L UNION FOR THE CONSERVATION OF NATURE & NAT. RES., <https://perma.cc/BEX4-6E4R> (last visited Oct. 14, 2024) [hereinafter IUCN NbS].

“protection or restoration of ecosystems, or agroforestry, in their mitigation and/or adaptation plans,” an increase of 6% from the previous submission round.⁶⁰ Moreover, 41% of NDCs, representing 50 countries, now mention the term “nature-based solutions,” a term absent in the previous submission round.⁶¹ One-third of the mitigation needed to meet the Paris Agreement’s climate targets can be achieved through NbS, according to the International Union for the Conservation of Nature.⁶² Investing in NbS, including prioritizing these actions for funding and allowing for joint implementation between relevant agreements, will catalyze progress towards various SDG targets at the same time.

In reimagining IEL to operate in a more effective and successful way, the international community should aim to tackle environmental issues by considering the many synergies that exist between IEL and all other aspects of our planet.

III. IEL COMPLIANCE AND ENFORCEMENT

As the Secretary-General recognized, IEL faces large enforcement challenges. This Part will recap the problems the international community faces in enforcement and explore other mechanisms that can help enforce IEL, such as the creation of an International Environmental Court (IEC), including ecocide as a crime within the International Criminal Court (ICC), utilizing litigation, and creating a separate enforcement agency.

A. Current Status

Despite growing numbers of international treaties which attempt to address environmental crises, critics state IEL largely exists on paper.⁶³ Current enforcement mechanisms almost exclusively target and obligate individual nations to execute the enforcement of environmental mandates. Deficits in IEL enforcement include: (1) a lack of motivation on an individual state level, (2) economic inability to implement IEL enforcement mechanisms, (3) societal obstacles to implementation, (4)

⁶⁰ *Revised Climate Pledges Show Enhanced Ambition for Nature-Based Solutions*, NATURE-BASED SOLUTIONS INITIATIVE (Feb. 22, 2022), <https://perma.cc/A3H4-SAGB>.

⁶¹ *Id.*

⁶² IUCN NbS, *supra* note 59.

⁶³ See CARL BRUCH ET AL., U.N. ENV’T PROGRAMME, ENVIRONMENTAL RULE OF LAW: FIRST GLOBAL REPORT 3 (2019), <https://perma.cc/K455-DCAX> [hereinafter *Environmental Rule of Law: First Global Report*] (“While environmental laws have become commonplace across the globe, too often they exist mostly on paper because government implementation and enforcement is irregular, incomplete, and ineffective.”); see also Matúš Štulajter, *Problem of Enforcement of an International Law – Analysis of Law Enforcement Mechanisms of the United Nations and the World Trade Organization*, 33 J. MOD. SCI. 325, 326 (2017) (“The problem of enforcement of judicial decisions within the institutional system and the peaceful resolution of international disputes UN is a phenomenon which threatens the integrity, authority and the viability of an international judicial body.”).

lack of environmental enforcement mechanisms at the international level, and (5) inequity in current enforcement mechanisms.

Implementation of environmental laws faces challenges including a lack of motivation, economic inability, and conflicting political agendas. Since the 1992 Rio Earth Summit, 176 individual states have developed environmental framework laws, and 164 states have established executive bodies responsible for environmental protection.⁶⁴ Despite this positive response, implementation of environmental laws has waned globally. Environmental enforcement bodies are largely underfunded and under-supported in comparison to bodies responsible for the economy and natural resource extraction.⁶⁵ Environmental laws lack direct mandates and clear standards and are not tailored to meet specific conditions at the national or local levels.⁶⁶

Additionally, varying degrees of civil unrest are common societal obstacles to implementation. Environmental defenders are publicly criticized and, in some cases, met with violence.⁶⁷ In a study of nearly 3000 cases of environmental conflicts, 20% included criminalization of environmental defenders, 18% involved physical violence, and 13% involved assassination.⁶⁸ These numbers significantly increased when Indigenous peoples were involved.⁶⁹ Furthermore, government ties to fossil fuel extraction companies and scientific misinformation often funded by these companies have halted progress in environmental enforcement and implementation.⁷⁰ Inequity among marginalized groups has also significantly contributed to the lack of response to global environmental crises by cutting off solutions and perspectives contained within these populations.

In the absence of a specialized international environmental court, disputes between nations pertaining to environmental issues are handled by the International Court of Justice (ICJ),⁷¹ as well as specialized courts

⁶⁴ BRUCH ET AL., *supra* note 63, at viii.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ Arnim Scheidel et al., *Environmental Conflicts and Defenders: A Global Overview*, GLOB. ENV'T CHANGE, June 2020, No. 102104, at 1–2.

⁶⁸ *Id.* at 10.

⁶⁹ *Id.*

⁷⁰ Nicholas Kusnetz, *Lifting the Veil on Tens of Billions in Oil Company Payments to Governments*, INSIDE CLIMATE NEWS (Oct. 22, 2024), <https://perma.cc/E7WL-DK3J>; Belén Balanyá et al., *From Paris to Glasgow: Fossil Fuel Interests Continue to Block Climate Action*, OPENDEMOCRACY (Oct. 27, 2021, 3:29 PM), <https://perma.cc/P3B8-9FCH>; KATHY MULVEY ET AL., UNION OF CONCERNED SCIENTISTS, THE CLIMATE DECEPTION DOSSIERS: INTERNAL FOSSIL FUEL INDUSTRY MEMOS REVEAL DECADES OF CORPORATE DISINFORMATION 1–2 (2015), <https://perma.cc/A7A8-Q3HH>.

⁷¹ Christina Voigt, *International Courts and the Environment: The Quest for Legitimacy*, in INTERNATIONAL JUDICIAL PRACTICE ON THE ENVIRONMENT 1, 5 (Christina Voigt ed., 2019) (“Because no special [international court] exists for international environmental affairs, states and other actors seek to address environmental issues of a transboundary nature in different courts and tribunals on the international and regional stage.”). The ICJ is the “principal judicial organ of the UN,” and its role is to “settle, in accordance with international law, legal disputes submitted by States.” *UN International Law Documentation*, U.N. DAG HAMMARSKJÖLD LIBRARY, <https://perma.cc/X8S5-4U2Q> (Jan. 31, 2025).

such as the International Tribunal for the Law of the Sea and the Permanent Court of Arbitration.⁷² In 2018, the ICJ issued its first environmental compensation judgment in the case *Certain Activities Carried Out By Nicaragua in the Border Area*.⁷³ There, the ICJ held that “damage to the environment, and the consequent impairment or loss of the ability of the environment to provide goods and services, is compensable under international law.”⁷⁴ The ICJ has also contributed to environmental law, arguably in three waves.⁷⁵ The first wave involved the *Corfu Channel*⁷⁶ and *Nuclear Tests* cases.⁷⁷ The second wave involved the *Certain Phosphate Lands in Nauru*⁷⁸ and *Gabčíkovo-Nagymaros Project* cases.⁷⁹ The third wave involved the *Pulp Mills on the River Uruguay*.⁸⁰ While the ICJ has contributed to IEL’s development by its application of various environmental principles, including its “embrace[] [of] sustainable development as a source of law,”⁸¹ it is still not the proper forum to enforce environmental agreements.

The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) is the first of its kind to impose obligations on non-State actors.⁸² The Aarhus Convention requires “the same standards of access to environmental information and public participation in decision-making by both State bodies and non-State actors performing public administrative functions.”⁸³ Article 2 of the Convention defines public authorities as not only national, regional, or local level governments, but includes any individual or entity having public responsibilities or

⁷² Anne McMillan, *Time for an International Court for the Environment*, INT’L BAR ASS’N, <https://perma.cc/2998-M4EU> (last visited Feb. 2, 2025).

⁷³ *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicar.)*, Judgment, 2018 I.C.J. 16, ¶ 42 (Feb. 2). For a summary of the judgement, see Nilufer Oral, *ICJ Renders First Environmental Compensation Decision: A Summary of the Judgment*, INT’L UNION FOR CONSERVATION OF NATURE & NAT. RES.: NEWS & EVENTS, (Apr. 9, 2018), <https://perma.cc/4J9T-S5TN>.

⁷⁴ *Costa Rica v. Nicar.*, 2018 I.C.J. ¶ 42.

⁷⁵ Jorge E. Viñuales, *The Contribution of The International Court of Justice to the Development of International Environmental Law: A Contemporary Assessment*, 32 *FORDHAM INT’L L. J.* 232, 235–36 (2008).

⁷⁶ *Corfu Channel (U.K. v. Alb.)*, Judgment, 1949 I.C.J. 4 (Apr. 9).

⁷⁷ *Nuclear Tests (Austl. v. Fr.)*, Judgment, 1974 I.C.J. 253 (Dec. 20); *Nuclear Tests (N.Z. v. Fr.)*, Judgment, 1974 I.C.J. 457 (Dec. 20); Viñuales, *supra* note 75, at 235 (discussing cases involved in the first wave of environmental law produced by the ICJ).

⁷⁸ *Certain Phosphate Lands in Nauru (Nauru v. Austl.)*, Judgment, 1992 I.C.J. 240, (June 26).

⁷⁹ *Gabčíkovo-Nagymaros Project (Hung./Slovk.)*, Judgment, 1997 I.C.J. 7 (Sept. 25); Viñuales, *supra* note 75, at 236 (discussing cases involved in the second wave of environmental law produced by the ICJ).

⁸⁰ *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, Judgment, 2010 I.C.J. 14 (Apr. 20).

⁸¹ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 20.

⁸² Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, June 25, 1998, 2161 U.N.T.S. 447 [hereinafter Aarhus Convention].

⁸³ U.N. ECON. COMM’N FOR EUR. (UNECE) AARHUS CONVENTION SECRETARIAT, *THE ROLE OF THE AARHUS CONVENTION IN PROMOTING GOOD GOVERNANCE AND HUMAN RIGHTS: SUBMISSION BY THE UNECE AARHUS CONVENTION SECRETARIAT* ¶ 8 (2012), <https://perma.cc/M4RX-W67M>.

functions, or providing public services in connection with the environment.⁸⁴ For example, in 2004, the non-governmental organization Green Salvation reported to the Aarhus Convention Compliance Committee that a State-owned company in Kazakhstan was importing and discarding radioactive waste.⁸⁵ However, as stated by the Secretary-General, “compared to the international human rights mechanisms there exists a significant gap in international environmental law regarding effective participation by non-State actors in international law-making and implementation.”⁸⁶

While the Aarhus Convention and the ICJ provide certain enforcement mechanisms, IEL needs to be strengthened to improve enforcement of various agreements.

B. Reimagining Enforcement and Compliance

IEL can be reimagined by being enforced by an IEC. The International Court for the Environment Coalition, a group of various stakeholders including environmentalists, lawyers, business officials, and academics, “call[s] for the creation of a new international environmental court to hold . . . actors accountable, strengthen global environmental laws and promote cooperation across borders for environmental justice.”⁸⁷ An international court could be equipped to handle complex cases, such as those dealing with environmental disasters like the BP Deepwater Horizon oil spill, and could be modeled off courts like the International Criminal Court.⁸⁸ The Secretary-General has stated that existing tribunals which currently handle environmental disputes such as the ICJ are not equipped to handle “[d]ata-intensive environmental cases.”⁸⁹ The IEC could be shaped to include subject-matter expertise to handle data-intensive environmental cases.

Advocates have assessed ways to utilize the ICC to prosecute environmental crimes, including through the addition of ecocide as a defined crime.⁹⁰ The ICC has subject-matter jurisdiction over (1) genocide, (2) crimes against humanity, (3) war crimes, and (4) crimes of

⁸⁴ U.N. ECON. COMM’N FOR EUR. (UNECE) AARHUS CONVENTION SECRETARIAT, *supra* note 83; Aarhus Convention, *supra* note 82, art. 2, ¶ 2.

⁸⁵ U.N. Econ. Comm’n for Eur., *Report on the 7th Meeting*, ¶¶ 1–2, U.N. Doc. ECE/MP.PP/IC.1/2005/2/Add.1 (Mar. 11, 2005).

⁸⁶ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 84.

⁸⁷ INT’L CT. FOR THE ENV’T COAL., <https://perma.cc/D3J9-CB38> (last visited Jan. 20, 2025).

⁸⁸ See generally Maya Steinitz, *The Case for an International Court of Civil Justice*, 67 STAN. L. REV. ONLINE 75 (2014) (arguing that an International Court of Civil Justice “is needed to resolve weighty problems of justice and inefficiency on a global scale”).

⁸⁹ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 90 (citing the joint dissenting opinion in *Pulp Mills on the River Uruguay* (Arg. v. Uru.), Judgment, 2010 I.C.J. 14, 108 (Apr. 20)).

⁹⁰ *June 2021: Historic Moment as Independent Expert Panel Launches Definition of Ecocide*, STOP ECOCIDE INT’L [hereinafter *Definition of Ecocide*], <https://perma.cc/SFV6-JW79> (last visited Jan. 20, 2025); *Ecocide Crime*, ECOCIDE L., <https://perma.cc/X3FX-RUT2> (last visited Jan. 20, 2025).

aggression.⁹¹ In 2016, the ICC issued a policy report announcing that it will prosecute crimes involving (1) destruction of the environment, (2) illegal exploitation of natural resources, and (3) the illegal dispossession of land.⁹² Currently, the word “environment” is only mentioned in Article 8, paragraph 2(b)(iv) in the context of prohibiting attacks against civilians that would cause “severe damage to the natural environment.”⁹³ However, a growing movement aims to make ecocide a punishable crime within the ICC’s jurisdiction, potentially defined as: “unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.”⁹⁴ If successful, the forum can be utilized to address climate change and biodiversity loss. States would still have to submit to the Court’s jurisdiction and ratify the Rome Statute.⁹⁵ Yet ecocide is a defined legal crime in several countries, including but not limited to Armenia, Ukraine, France, and Ecuador.⁹⁶

Litigation can also be utilized to enforce environmental rights, and it is increasingly pursued in both the Global North and South at national and regional levels to reach environmentally favorable outcomes, especially regarding climate change duties. “Globally, the cumulative number of climate change-related cases has more than doubled since 2015. Just over 800 cases were filed between 1986 and 2014, while over 1,000 cases have been brought in the last six years.”⁹⁷ As of December 2022, there have been 2,180 climate-related cases filed in 65 jurisdictions, including international and regional courts, tribunals, quasi-judicial bodies, or other adjudicatory bodies.⁹⁸ In fact, climate-related cases have more than doubled over the last five years according to data collected by

⁹¹ INT’L CRIM. CT., UNDERSTANDING THE INTERNATIONAL CRIMINAL COURT 9 (2020), <https://perma.cc/7JCY-KUEU>.

⁹² OFF. OF THE PROSECUTOR, INT’L CRIM. CT., POLICY PAPER ON CASE SELECTION AND PRIORITISATION 14 (2016), <https://perma.cc/ALN5-YVF4>.

⁹³ Rome Statute of the International Criminal Court, art. 8, ¶ 2(b)(iv), July 17, 1998, 2187 U.N.T.S. 3 [hereinafter Rome Statute].

⁹⁴ *Definition of Ecocide*, *supra* note 90.

⁹⁵ For a description of the process by which the Rome Statute may be amended, see *Ecocide Crime*, *supra* note 90 (“There are currently 124 nation States that are signatories to the Rome Statute. Amendments to the Rome Statute of the International Criminal Court must be proposed, adopted, and ratified in accordance with Articles 121 and 122 of the Statute. Any State Party to the Statute can propose an amendment. Adoption of the proposed amendment is by a two-thirds majority vote in either a meeting of the Assembly of States Parties or a review conference called by the Assembly. An amendment comes into force for all States Parties one year after it is ratified by seven-eighths of the States Parties. Any amendment to articles 5, 6, 7, or 8 of the Statute (the crimes) only enters into force for States Parties that have ratified the amendment. A State Party which ratifies an amendment to Articles 5, 6, 7, or 8 is subject to that amendment one year after ratifying it, regardless of how many other States Parties have also ratified it. For an Article 5, 6, 7, or 8 amendment, the Statute itself is amended after the amendment comes into force for the first State Party to ratify it.”).

⁹⁶ *Ecocide/Serious Environmental Crimes in National Jurisdictions*, ECOCIDE L., <https://perma.cc/W8WA-E76T> (last visited on Oct. 10, 2023).

⁹⁷ JOANA SETZER & CATHERINE HIGHAM, GLOBAL TRENDS IN CLIMATE CHANGE LITIGATION: 2021 SNAPSHOT 4 (2021), <https://perma.cc/93HS-9PNU>.

⁹⁸ U.N. ENV’T PROGRAMME, GLOBAL CLIMATE LITIGATION REPORT: 2023 STATUS REVIEW, at xiv (2023), <https://perma.cc/4GJM-YH77>.

the Sabin Center for Climate Change Law at Columbia University, further demonstrating the key role that litigation plays in IEL.⁹⁹

Most notably, in *State of the Netherlands v. Urgenda Foundation*,¹⁰⁰ the “Dutch Supreme Court ordered the government to cut its greenhouse gas emissions by 25% by the end of 2020, compared to 1990 levels.”¹⁰¹ Utilizing human rights doctrines, the Court ruled that the Dutch government violated Article 2 (right to life) and Article 8 (right to respect for private and family life) of the European Court of Human Rights.¹⁰² The Sabin Center’s database containing a list of global climate change litigation demonstrates the importance of utilizing litigation as a mechanism to enforce environmental rights within nations and highlights the weakness of current international frameworks, particularly the UNFCCC and subsequent agreements on climate change.¹⁰³ IEL will likely continue to be shaped by the multitude of lawsuits being filed around the world and in different forums, including the Inter-American Court of Human Rights.¹⁰⁴

IEL can also be reimagined by requiring compliance mechanisms within treaties. The existence of the ICC and the WTO support the notion that States are willing to give up portions of their national sovereignty for the global good. With the international community increasingly acknowledging that humanity is reaching planetary tipping points, States may also voluntarily limit their power and submit to enforcing their environmental obligations. Treaties can contain certain provisions, including sanctions, dispute resolution mechanisms, or referrals to an international court (such as the IEC) to help enforce environmental obligations. In reimagining IEL, States may submit to a treaty which grants UNEP, or a yet-to-be established network of advisory bodies, the authority to issue sanctions, violations, orders, or recommend parties to a dispute forum.

In reimagining IEL enforcement, the international community can improve by focusing on interlinkages between various treaties rather than approaching environmental violations as an isolated issue.

⁹⁹ Press Release, U.N. Env’t Programme, Climate Litigation More Than Doubles in Five Years, Now a Key Tool in Delivering Climate Justice (July 27, 2023), <https://perma.cc/BH45-ECHQ>.

¹⁰⁰ HR 20 december 2019, AB 2020, 24 m.nt. G.A. van der Veen & C.W. Backes (De Staat der Nederlanden/Stichting Urgenda).

¹⁰¹ Isabelle Gerretsen, *How Youth Climate Court Cases Became a Global Trend*, CLIMATE HOME NEWS (April 30, 2021, 3:52 PM), <https://perma.cc/72TS-NQ5B>.

¹⁰² *Id.*

¹⁰³ See *Global Climate Change Litigation*, SABIN CTR. FOR CLIMATE CHANGE L., <https://perma.cc/UD7A-F6HS> (last visited Oct. 23, 2024).

¹⁰⁴ See, e.g., *IACtHR (Inter-American Court of Human Rights)*, INT’L UNION FOR CONSERVATION OF NATURE & NAT. RES., <https://perma.cc/9Z5D-6LDH> (last visited Jan. 20, 2025) (“On January 9, 2023, the Republic of Chile and the Republic of Colombia presented a joint request for an advisory opinion to the Inter-American Court of Human Rights (IACtHR) to clarify the scope of State obligations, in their individual and collective dimension, in order to respond to the climate emergency within the framework of international human rights law, paying special attention to the differentiated impacts of this emergency on individuals from diverse regions and population groups, as well as on nature and on human survival on our planet.”).

International tribunals have been more successful in ordering sanctions and other penalties in areas such as human rights, trade, maritime jurisdiction, and war. The international community can maximize the strengths of these mechanisms and address the concerns of individual States and non-State actors together. Moreover, marginalized populations should be a part of the conversation to address inequities within IEL. Regional and individual contextual factors can be accounted for in implementing sanctions and dispute resolutions, and consultations from a wide diversity of sectors must be utilized in enforcing these newly strengthened mechanisms.

IV. IEL BEYOND NATIONAL JURISDICTION

IEL will continue to shift by focusing on protecting nature beyond national jurisdictions. In his report, the Secretary-General acknowledged that gaps persist among the global commons.¹⁰⁵ This Part will focus on treaties concerning marine biodiversity and plastic waste. This Part will also briefly discuss developments on outer space and geo-engineering as emerging issues in the global commons that need attention from the international community.

A. Current Status

Traditionally, IEL strictly applies and is governed by the principle of permanent sovereignty. Permanent sovereignty, as enshrined in various multilateral environmental agreements such as the CBD and the UNFCCC, gives States the sovereign right to exploit their own natural resources pursuant to their own environmental policies, as long as activities within their jurisdiction do not cause damage to the environment of other States or areas beyond the limits of their national jurisdiction.¹⁰⁶ The international community will continue to face the challenge of transboundary environmental issues, as legal instruments have failed to develop an overall strategy which considers threats that “do not respect national boundaries or are found in areas beyond national jurisdiction.”¹⁰⁷

1. Marine Biodiversity

The limitation of the principle of permanent sovereignty extends to the conservation of the world’s oceans. The United Nations has grappled with the challenge of protecting biodiversity beyond national

¹⁰⁵ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 93.

¹⁰⁶ See UNFCCC, *supra* note 20, at pmbl para. 9; CBD, *supra* note 21, at art. 3.

¹⁰⁷ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 40.

jurisdictions, considering that these areas comprise 95% of the ocean.¹⁰⁸ While states are responsible for ensuring the health of waterways within their jurisdiction, existing international agreements have been ineffective in protecting the high seas, defined by the UNCLOS as all parts of the sea that are “not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State,”¹⁰⁹ from pollution, dumping, and overfishing.¹¹⁰ As such, an “*Ad Hoc* Open-ended Informal Working Group” was established in 2004 to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (BBNJ).¹¹¹ This working group identified regulatory gaps and prompted calls for the creation of a new treaty or implementing agreement under the UNCLOS to specifically protect marine biodiversity.¹¹²

At the 2012 U.N. Conference on Sustainable Development (Rio+20), countries committed “to address, on an urgent basis, the issue of the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, including by taking a decision on the development of an international instrument under [UNCLOS].”¹¹³ In 2017, the United Nations General Assembly adopted a resolution to convene an intergovernmental conference (IGC) to develop a legally binding agreement on BBNJ.¹¹⁴ The negotiations for the treaty were delayed by the COVID-19 pandemic but were finally adopted by consensus on June 19, 2023.¹¹⁵

The treaty contains provisions on marine genetic resources, including the fair and equitable sharing of benefits; traditional knowledge

¹⁰⁸ *Protecting the Ocean, Time for Action*, EUR. COMM’N, <https://perma.cc/U94C-UEP6> (last visited Oct. 8, 2024).

¹⁰⁹ UNCLOS, *supra* note 22, at art. 86.

¹¹⁰ *Beyond Borders: Why the New ‘High Seas’ Treaty Is Critical for the World*, UN NEWS (June 19, 2023), <https://perma.cc/DNN5-34EV>; Valentina Lovat, *High Seas Treaty: Why Its Adoption Is a Crucial Step for the Future of the Ocean*, MEDITERRANEAN SEA DECADE (June 21, 2023), <https://perma.cc/6BCY-P545>.

¹¹¹ G.A. Res. 59/24, ¶ 73 (Nov. 17, 2004).

¹¹² *Do We Need a New Treaty to Protect Biodiversity in the Deep Seas?*, INT’L INST. FOR SUSTAINABLE DEV.: SDG KNOWLEDGE HUB (Jan. 21, 2015), <https://perma.cc/8JK9-AQXG>.

¹¹³ G.A. Res. 66/228, annex, *The Future We Want* ¶ 162 (July 27, 2012); *Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ)*, INT’L UNION FOR CONSERVATION OF NATURE & NAT. RES., <https://perma.cc/7PDM-V7HB> (last visited Oct. 14, 2024) [hereinafter IUCN BBNJ].

¹¹⁴ G.A. Res. 72/249, ¶ 1 (Dec. 24, 2017); IUCN BBNJ, *supra* note 113.

¹¹⁵ Intergovernmental Conference on an International Legally Binding Instrument Under the U.N. Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, *Report of the Intergovernmental Conference on an International Legally Binding Instrument Under the U.N. Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction at its Fifth Session*, ¶ 4, U.N. Doc. A/CONF.232/2023/5 (June 30, 2023); Intergovernmental Conference on an International Legally Binding Instrument Under the U.N. Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, *Agreement Under the U.N. Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction*, U.N. Doc. A/CONF.232/2023/4 (June 19, 2023) [hereinafter UNCLOS BBNJ Agreement].

of Indigenous peoples (TK); area-based management tools, including marine protected areas; and environmental impact assessments, to name a few.¹¹⁶ During the negotiations, several countries also advocated for the inclusion of TK as a central part of the treaty.¹¹⁷ The EU recognized the relevance of TK as a source of information for general standards for marine protected areas, and Nauru advocated that the international legally binding instrument “include the role of traditional knowledge and indigenous peoples in the conservation and sustainable use of BBNJ.”¹¹⁸ TK was eventually included throughout the Agreement, including in Article 7 (General Principles and Approaches), which states that “use of relevant traditional knowledge of Indigenous Peoples and local communities” shall guide the Parties in achieving the objectives of the Agreement.¹¹⁹ In addition, Article 13 (Traditional Knowledge of Indigenous Peoples and Local Communities Associated with Marine Genetic Resources in Areas Beyond National Jurisdiction) requires Parties to take legislative, administrative, or policy measures to regulate and ensure proper access to TK, among other provisions.¹²⁰

On the other hand, the inclusion of fisheries in the agreement was a controversial topic during the negotiations, with Russia and Iceland calling for its removal.¹²¹ China, along with Japan, South Korea, the United States, and Chile also called for the exclusion of fisheries and other biological resources used as commodities to avoid overlapping mandates for fisheries management.¹²² The agreement ultimately excludes from its provisions “[f]ishing regulated under relevant international law and fishing-related activities” under Article 10.¹²³

As of January 2025, the treaty has received 106 signatories.¹²⁴ With this treaty, Parties acknowledged the need to conserve valuable marine resources and to protect the high seas for a multitude of reasons, and restricted sovereign rights to marine genetic resources beyond national jurisdiction.

¹¹⁶ UNCLOS BBNJ Agreement, *supra* note 115, arts. 7, 13–14, 22, 27.

¹¹⁷ Tallash Kantai et. al., *BBNJ IGC-2 Highlights: Monday, 25 March 2019*, EARTH NEGOTS. BULL., Mar. 26, 2019, No. 186, at 1–2 [hereinafter Kantai et al., *BBNJ IGC-2 Highlights*]; Tallash Kantai et al., *Summary of the Third Session of the Intergovernmental Conference (IGC) on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 19–30 August 2019*, EARTH NEGOTS. BULL., Sept. 2, 2019, No. 218, at 8–10 [hereinafter Kantai et al., *Summary of IGC-3*].

¹¹⁸ Kantai et al., *BBNJ IGC-2 Highlights*, *supra* note 117, at 1; Kantai et al., *Summary of IGC-3*, *supra* note 117, at 8.

¹¹⁹ UNCLOS BBNJ Agreement, *supra* note 115, at art. 7.

¹²⁰ *Id.* art. 13.

¹²¹ Rosie Julin, *The U.N. Treaty that Could Be the Ocean’s Last Great Hope*, FOREIGN POL’Y (Mar. 10, 2022), <https://perma.cc/D7YU-QFXS>.

¹²² Annie Young Song et al., *China’s Approach to Global Fisheries: Power in the Governance of Anti-Illegal, Unreported and Unregulated Fishing*, 32 ENV’T POL. 407, 417 (2022).

¹²³ UNCLOS BBNJ Agreement, *supra* note 115, at art. 10.

¹²⁴ *Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction*, U.N. TREATY COLLECTION, <https://perma.cc/W2Z3-B9R5> (Jan. 22, 2025).

2. Plastic Waste

The Secretary-General has noted that gaps exist in addressing the geographical and jurisdictional scope of certain environmental instruments, particularly concerning plastic pollution, where “several global, regional and national instruments” exist, but none of which “are specifically dedicated to these issues.”¹²⁵ As of February 2022, global plastic production has exceeded eight billion tons and is still growing unchecked.¹²⁶ In fact, the plastics industry knew that its products would cause disastrous consequences for the ocean and beyond since the 1970s and continued to spend decades avoiding responsibility, taking lessons from Big Oil’s tactics on climate change to “deny, confuse, and fight regulation and effective solutions.”¹²⁷

Most of the conversation on plastic pollution among the international community focused on its impact on marine ecosystems and was spearheaded by the ad hoc open-ended expert group on marine litter and microplastics (AHEG), a temporary subsidiary body of the U.N. Environmental Assembly (UNEA).¹²⁸ Scholars analyzed the need to work on issues in synergetic ways, potentially incorporating measures to help plastic pollution within BBNJ negotiations and the subsequent treaty, rather than waiting for negotiations to finalize on a new treaty.¹²⁹ Effective January 2021, the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal (Basel Convention) was amended to address transboundary jurisdiction over plastics.¹³⁰ However, these amendments still failed to effectively and equitably address plastic pollution and its threat to our oceans; rather, the updates to the Basel Convention merely established that international plastic shipments require the written consent of receiving countries which the plastic waste may pass through¹³¹ and included recycling protocols for certain types of listed hazardous plastic.¹³²

¹²⁵ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 61.

¹²⁶ *Plastics and the Environment*, GENEVA ENV’T NETWORK, <https://perma.cc/PPN7-T5HQ> (last visited Oct. 23, 2024).

¹²⁷ Press Release, Ctr. for Int’l Env’t L., *Plastics Industry Knew Its Products Were Polluting Oceans by 1970s, then Spent Decades Denying Responsibility and Fighting Regulation* (Dec. 5, 2017), <https://perma.cc/KH4Y-KKUS> (quoting Steven Feit, Attorney, Center for International Environmental Law).

¹²⁸ U.N. Env’t Assembly Res. 3/7, U.N. Doc. UNEP/EA.3/Res.7, at pmb., ¶ 10 (Dec. 6, 2017); DAVID AZOULAY ET AL., CTR. FOR INT’L ENV’T L., *TOWARD A NEW INSTRUMENT ADDRESSING THE FULL LIFE CYCLE OF PLASTICS: OVERVIEW OF THE TYPOLOGY OF INTERNATIONAL LEGAL INSTRUMENTS 1* (2021).

¹²⁹ Rachel Tiller & Elizabeth Nyman, *Ocean Plastics and the BBNJ Treaty—Is Plastic Frightening Enough to Insert Itself into the BBNJ Treaty, or Do We Need to Wait for a Treaty of Its Own?*, 8 J. ENV’T STUD. & SCI. 411, 412 (2018).

¹³⁰ *Basel Convention Plastic Waste Amendments*, BASEL CONVENTION, <https://perma.cc/FL46-H79R> (last visited Jan. 21, 2025) (explaining the amendments made to the Basel Convention).

¹³¹ *Id.*; Giulia Carlini, *One Small Edit for a Legal Text, One Giant Leap for Addressing Plastic Pollution: A New Plastic Waste Proposal for the Basel Convention*, CTR. FOR INT’L ENV’T L. (Aug. 30, 2018), <https://perma.cc/5RVN-6QG5>.

¹³² *Questions and Answers Related to the Basel Convention Plastic Waste Amendments*, BASEL CONVENTION, <https://perma.cc/B9HK-DMR7> (last visited Jan. 21, 2025).

Yet efforts to create a new treaty are underway. On March 2, 2022, the UNEA passed the End Plastic Pollution resolution with 175 nations in favor and began to recognize the plastic crisis as one that exceeds national jurisdictions.¹³³ The resolution obligated the Intergovernmental Negotiating Committee to develop an international legally binding instrument to address the full lifecycle of plastic and its consequences across the globe.¹³⁴

In September 2023, the UNEP released a draft of the new plastics treaty, a legally binding instrument that aims to reduce plastic pollution through a full-life-cycle approach.¹³⁵ Some organizations have criticized UNEP's willingness to allow fossil fuel industry heads to influence the negotiation process.¹³⁶ For example, the draft "does not set robust targets for reduction, and it includes text on recycling and waste management that could allow producers to avoid reduction, undermining the goal of the treaty."¹³⁷ Most plastic waste does not get recycled and is often buried in landfills or incinerated, harming the air, water, health, and climate of those living nearby.¹³⁸ Action to legitimately reduce the effects of the plastics crisis must include "worldwide limits on plastic production."¹³⁹

If such a treaty were ultimately implemented, it must take a proactive approach that considers plastic pollution's entire lifecycle from its birth as a by-product of fossil fuel extraction and must recognize the transboundary nature of plastic pollution. The negotiation process must be inclusive and acknowledge the unique and inequitable consequences of plastic pollution on non-plastic producing States and the harmful effects of the plastic production process on the most marginalized. Consumers should also be able to access information about "the chemical makeup of plastics and their potential impacts on their health,"¹⁴⁰ so the treaty could include "an explicit reference to human rights."¹⁴¹ To

¹³³ Press Release, U.N. Env't Programme, Historic Day in the Campaign to Beat Plastic Pollution: Nations Commit to Develop a Legally Binding Agreement (Mar. 2, 2022), <https://perma.cc/3GJJ-QUP7>; Mary Ellen Ternes & Jeffery Seay, *Unpacking the UNEA Resolution to End Plastic Pollution*, GLOB. COUNCIL FOR SCI. AND THE ENV'T (Jan. 2023), <https://perma.cc/W8JT-XLGZ>.

¹³⁴ U.N. Env't Assembly Res. 5/14, U.N. Doc. UNEP/EA.5/RES.14, ¶ 3 (Mar. 2, 2022).

¹³⁵ U.N. Env't Programme, Intergovernmental Negotiating Committee to Develop an International Legally Binding Instrument on Plastic Pollution, Including in the Marine Environment, *Zero-Draft Text of the International Legally Binding Instrument on Plastic Pollution, Including in the Marine Environment*, U.N. Doc. UNEP/PP/INC.3/4, annex (Sept. 4, 2023).

¹³⁶ Press Release, Just Zero, Just Zero Condemns UN for Fossil Fuel Industry Influence on Global Plastics Treaty (May 25, 2023), <https://perma.cc/Z2N2-MJDW> [hereinafter Just Zero Press Release].

¹³⁷ Press Release, Ctr. for Biological Diversity, Global Plastics Treaty Chair Releases 'Zero Draft' Ahead of Third Meeting: Initial Text Calls for Reduced Plastic Production (Sept. 4, 2023), <https://perma.cc/83GR-KJNN>.

¹³⁸ Courtney Lindwall, *Single-Use Plastics 101*, NAT. RES. DEF. COUNCIL (Apr. 30, 2024), <https://perma.cc/6WXX-X2EW>.

¹³⁹ Just Zero Press Release, *supra* note 136.

¹⁴⁰ HUMAN RIGHTS WATCH SUBMISSION ON THE ELEMENTS NOT DISCUSSED AT INC-2, HUM. RTS. WATCH 2 (2023), <https://perma.cc/F6BP-JS6M>.

¹⁴¹ Hellen Huang, *Plastics Treaty Draft Takes First Step to Reduce Production*, HUM. RTS. WATCH (Sept. 7, 2023), <https://perma.cc/R376-SMQH>.

effectively address the issue of plastic pollution, the treaty must set “worldwide limits on plastic production,”¹⁴² including a phase-out of “fossil fuels as a key measure to reduce plastic production.”¹⁴³ In so doing, the treaty must hold the plastics industry accountable for its decades-long efforts to avoid regulation to maximize profits.

B. Reimagining Areas Beyond National Jurisdiction

1. Outer Space

Seemingly sci-fi, the U.S. Department of Defense’s global Space Surveillance Network sensors track “[m]ore than 27,000 pieces of orbital debris, or ‘space junk.’”¹⁴⁴ In October 2023, the U.S. government’s Federal Communications Commission issued a \$150,000 fine to a satellite television provider for not deorbiting a satellite.¹⁴⁵ IEL will have to cope with emerging environmental issues, in particular, orbital debris or “space junk.”

Like other environmental challenges, “space junk” represents a tragedy of the commons, increasingly polluting the outer atmosphere to society’s detriment. While the Space Race began as a competition between the East and the West, private corporations are now taking charge and commercializing outer space.¹⁴⁶ Some are even concerned that the amount of space debris will prevent humans from leaving the planet and exploring our cosmos by preventing safe launches.¹⁴⁷ Point Nemo, an area in the Pacific Ocean farthest from land, is nicknamed the “space graveyard,” as the United States, Japan, Russia, and some European countries have sunk over 263 pieces of space waste since 1971.¹⁴⁸ The International Space Station may meet the same fate by 2031, with concerns regarding the possibility of releasing environmentally harmful fuels into the ocean.¹⁴⁹

As it stands, no environmental agreement prohibits or regulates these actions. Instead, in 1967, Parties signed a Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer

¹⁴² Just Zero Press Release, *supra* note 136.

¹⁴³ Huang, *supra* note 141.

¹⁴⁴ *Space Debris and Human Spacecraft*, NASA (May 26, 2021), <https://perma.cc/43CN-C4W8>.

¹⁴⁵ *In the Matter of DISH Operating L.L.C.*, 38 FCC Rcd. 8524, ¶ 1 (2023).

¹⁴⁶ See generally, Michael Clormann & Nina Klimburg-Witjes, *Troubled Orbits and Earthly Concerns: Space Debris as a Boundary Infrastructure*, 47 SCI., TECH. & HUM. VALUES 960, 961 (2021).

¹⁴⁷ *Id.* at 962.

¹⁴⁸ Vito de Lucia & Viviana Iavicoli, *From Outer Space to Ocean Depths: The ‘Spacecraft Cemetery’ and the Protection of the Marine Environment in Areas Beyond National Jurisdiction*, 49 CAL. W. INT’L L.J. 345, 346–47 (2019).

¹⁴⁹ Marian Faa and Edwina Seselja, *Why the International Space Station Will Crash down into the Pacific Ocean’s ‘Spacecraft Graveyard’*, ABC NEWS (Feb. 11, 2022, 10:31 AM), <https://perma.cc/238K-APKR>.

Space, including the Moon and Other Celestial Bodies,¹⁵⁰ providing “that the exploration and use of outer space should be carried on for the benefit of all peoples irrespective of the degree of their economic or scientific development.”¹⁵¹ The treaty references the General Assembly Resolution, “Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space.”¹⁵² The treaty also largely focuses on prohibiting States from utilizing “nuclear weapons or any other kinds of weapons of mass destruction.”¹⁵³ However, negotiators may not have been able to foresee the current problem facing the global commons of “space waste.”

The Secretary-General acknowledged in his report that gaps persist among the global commons, which includes outer space, and that “[n]o space law instruments provide for binding and compulsory dispute settlement.”¹⁵⁴ Under Article XV of the aforementioned treaty, any State party can propose amendments.¹⁵⁵ Acknowledgement of the status of space waste must be incorporated into the treaty. Incorporation of the duty to uphold environmental principles such as “Prevention” and “Cooperation” can guide new amendments.¹⁵⁶ Additionally, amendments on binding and compulsory dispute resolution should also be included to support enforcement if violations of the treaty occur.

2. Climate Change and Geo-engineering

Climate change is another area of IEL that is hindered by the limitations of the principle of permanent sovereignty. While climate actions are mostly State-based, our atmosphere is shared, and the impacts of climate change are widespread and indiscriminate. While the UNFCCC has a global mitigation goal to counteract this limitation, one subject that has yet to be addressed effectively is climate geoengineering. Many environmentalists and human rights advocates are wary of the implications of extensive deployment of climate geoengineering technologies given the complexity of the Earth’s atmosphere and oceans. Modeling cannot accurately provide a comprehensive comparison of how these technologies will perform in open air testing and how they can be completely contained.¹⁵⁷ There is no international governance for this as of today.

¹⁵⁰ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, *opened for signature* Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter *Exploration and Use of Outer Space*].

¹⁵¹ *Id.* at pmb1.

¹⁵² *Id.* (“Recalling resolution 1962 (XVIII), ‘Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space,’ which was adopted unanimously by the United Nations General Assembly on 13 December 1963”).

¹⁵³ *Id.* art. IV.

¹⁵⁴ *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 93 n.248.

¹⁵⁵ *Exploration and Use of Outer Space*, *supra* note 150, art. XV.

¹⁵⁶ *See Towards a Global Pact for the Environment Report*, *supra* note 9, at ¶¶ 11–16.

¹⁵⁷ Sam Adelman, *Geoengineering: Rights, Risks, and Ethics*, 8 J. HUM. RTS. & ENV’T 119, 127 (2017).

In 2009, the Oxford Geoengineering Programme authored the Oxford Principles of Geoengineering, which was later endorsed by the government of the United Kingdom.¹⁵⁸ These principles remain the most influential existing national policy statement on climate geoengineering.¹⁵⁹ The principles are as follows:

Principle 1: Geoengineering to be regulated as a public good;

Principle 2: Public participation in geoengineering decision-making;

Principle 3: Disclosure of geoengineering research and open publication of results;

Principle 4: Independent assessment of impacts; and

*Principle 5: Governance before deployment.*¹⁶⁰

The Ecologic Institute in Berlin, on behalf of the German Federal Environment Agency, published a study in 2014 on options for governance of climate geoengineering.¹⁶¹ According to the Institute, an effective governance mechanism could entail having an international general prohibition against outdoor modeling with room for exemptions to be decided upon by a central, international, and independent institution.¹⁶² This would be a progressive development to the principle of permanent sovereignty, as it puts an entire class of activities outside State control, even though it takes place within national jurisdictions.

V. HUMAN RIGHTS LAW UNDER IEL

Recognition of the interlinkages between human rights and IEL is a growing trend amongst the international community, specifically regarding climate change. However, progress in the implementation of these interlinkages is slow moving. Few actionable agendas have been set to address inequities and codify human rights issues manifested by environmental crises. This Part will primarily focus on the deficit in IEL and human rights law considerations in climate change policy, including the concern for climate migrants/refugees, while acknowledging the growing movement incorporating human rights within other aspects of IEL.

A. Current Status

The UNGA declared a universal human right to a healthy environment in July 2022 and further encouraged individual States to adopt and implement the right for their citizens.¹⁶³ The universal right

¹⁵⁸ Steve Rayner et al., *The Oxford Principles*, 121 CLIMATIC CHANGE 499, 500 (2013).

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* at 502–03.

¹⁶¹ RALPHIE BODLE ET AL., ECOLOGIC INSTITUTE, OPTIONS AND PROPOSALS FOR THE INTERNATIONAL GOVERNANCE OF GEOENGINEERING (2014), <https://perma.cc/E9HL-DFS7>.

¹⁶² *Id.* at 156.

¹⁶³ *Human Rights and the Environment*, GENEVA ENV'T NETWORK, <https://perma.cc/65UU-E4FU> (Oct. 19, 2024).

came after over a decade of advocacy from both State and non-State actors that are the most vulnerable to environmental destruction.¹⁶⁴ However, there is pushback against implementation from some States, the United States being among the most notable.¹⁶⁵ Despite such pushback, the right to a healthy environment has been adopted in the national legal frameworks of at least 150 States.¹⁶⁶ Ideally, the explicit recognition of the right to a healthy environment, now at the international scale, should serve as a tool in litigation and can further strengthen the precedent set by *Urgenda*.¹⁶⁷

Additionally, human rights bear little weight under the UNFCCC. Whereas the Kyoto Protocol merely alluded to human rights in its “vulnerability” language, its successor, the Paris Agreement, acknowledged:

[C]limate change is a common concern of humankind[.] Parties should when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity[.]¹⁶⁸

The agreement recognized that those most vulnerable to the effects of climate change are often marginalized groups who bear the least amount of culpability for the present climate crisis.¹⁶⁹

Developing and enforcing equitable means of addressing these inequalities should be part of the action plan moving forward. In October 2021, a Special Rapporteur on the promotion and protection of human rights in the context of climate change was appointed after advocacy from the Marshall Islands and the Climate Vulnerable Forum spanning over a decade.¹⁷⁰ Proponents of the new U.N. Special Rapporteur are hopeful that it will serve as motivation for ambition and political will in mitigating climate change and place pressure on developed countries that bear the most responsibility for the climate crisis.¹⁷¹

¹⁶⁴ *Id.*

¹⁶⁵ Isabella Kaminski, *Moves to Crystallise Right to a Healthy Environment Spark Tension at UN*, CLIMATE HOME NEWS (Apr. 4, 2023), <https://perma.cc/2SPE-3984>.

¹⁶⁶ Ilze Brands Kehris, Assistant Secretary-General for Human Rights, Right to Healthy Environment, Address Before the Expert Seminar on UN Recognition of the Right to a Clean, Healthy, and Sustainable Environment: Past Developments and Future Prospects (Apr. 12, 2022), <https://perma.cc/H25P-P6RL>.

¹⁶⁷ See *supra* notes 100–02 and accompanying text.

¹⁶⁸ Paris Agreement, pmb., Dec. 12, 2015, T.I.A.S. No. 16-1104, 3156 U.N.T.S. 79.

¹⁶⁹ See *id.*

¹⁷⁰ *Creation of a New UN Special Rapporteur on Human Rights and Climate Change*, HUMAN RIGHTS & CLIMATE CHANGE, <https://perma.cc/5MSC-WZF7> (last visited Mar. 6, 2025); CLÉMENCE BILLARD SCHACHTER & FRANCESCA MINGRONE, CTR. FOR INT’L ENV’T L., A UN SPECIAL RAPporteur ON HUMAN RIGHTS & CLIMATE CHANGE? REGIONAL PERSPECTIVES 2 (2021).

¹⁷¹ SCHACHTER & MINGRONE, *supra* note 170, at 5, 7.

B. Reimagining Human Rights Within IEL

1. Rights-based Approach to IEL Implementation

A rights-based approach is a way to achieve full compliance with international environmental principles, as it promotes equal protection and provides defenses for the most vulnerable and disempowered sectors and communities.¹⁷² A rights-based approach is defined as a “conceptual framework . . . that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights.”¹⁷³ This approach looks at obligations and practices using a human rights lens in order to address inequalities and injustices that encumber progress.¹⁷⁴ It would provide a clear standard for evaluating whether climate actions can achieve balance between risks and benefits and would further help States surpass the political paralysis that has delayed effective climate action for over twenty years.¹⁷⁵

One factor which the international community should explore to achieve a rights-based approach is strengthening the partnerships between the UNEP, the U.N. Development Programme (UNDP), and the Office of the High Commissioner of Human Rights (OHCHR). UNEP and the OHCHR announced their partnership in 2019, focusing on protecting the human rights of environmental defenders.¹⁷⁶ This partnership should look to expand focus areas to encompass more of the human rights consequences that arise out of environmental issues, namely, to address the specific situations of marginalized stakeholders. This partnership could be strengthened with the addition of the UNDP to address environmental human rights issues that stem from areas outside of humanitarian crises. Promisingly, in September 2021, UNEP and UNDP partnered with the World Health Organization (WHO) and U.N. International Children’s Emergency Fund (UNICEF) to develop the “Compendium of WHO and other U.N. guidance on health & environment.”¹⁷⁷ It was the first of its kind to offer actionable items and recommendations from experts across the U.N. system in areas such as “air pollution, unsafe water, sanitation, and hygiene, climate and ecosystem change, chemicals, radiation and occupational risks” as human

¹⁷² THOMAS GREIBER ET AL., INT’L UNION FOR CONSERVATION OF NATURE & NAT. RES., CONSERVATION WITH JUSTICE: A RIGHTS-BASED APPROACH 38 (2009).

¹⁷³ *Human Rights-Based Approach*, U.N. SUSTAINABLE DEV. GRP., <https://perma.cc/BKQ4-F2F8> (last visited Oct. 14, 2024).

¹⁷⁴ U.N. HUMAN RIGHTS OFFICE OF THE HIGH COMMISSIONER FOR HUMAN RIGHTS, APPLYING A HUMAN RIGHTS-BASED APPROACH TO CLIMATE CHANGE NEGOTIATIONS, POLICIES AND MEASURES (2010), <https://perma.cc/F3F9-CLXP>.

¹⁷⁵ GREIBER ET AL., *supra* note 172, at 38–39.

¹⁷⁶ Press Release, Off. of the High Comm’r for Hum. Rts., UNEP, UN Human Rights Office Sign New Agreement, Stepping Up Commitment to Protect the Human Right to a Healthy Environment (Aug. 16, 2019), <https://perma.cc/M469-5372>.

¹⁷⁷ *UNDP Partners with WHO, UNEP and UNICEF to Launch 500 Actions to Reduce the Healthy Burden from Environmental Causes*, U.N. DEV. PROGRAMME (Sept. 3, 2021), <https://perma.cc/GE3U-2PHK>.

rights consequences of environmental issues.¹⁷⁸ Likewise, fostering more partnerships that cut across disciplines is paramount to providing fully conceived and effective resources for a vast array of stakeholders in addressing IEL enforcement and its human rights interlinkages.

A rights-based approach to IEL should be explored at every level of international jurisdiction. In 2018, the Inter-American Court of Human Rights issued an advisory opinion on human rights and the environment, recognizing “a fundamental right to the healthy environment under the American convention,” and formulated “a new test to determine the Convention’s extraterritorial application in cases involving environmental harm.”¹⁷⁹ The advisory opinion also “clarified the content of the duty to prevent transboundary environmental harm as a matter of human rights law” in preventing “significant” harm to the environment of other States or the global commons.¹⁸⁰ States are obligated to act in accordance with the high standards of the precautionary principle “to adopt measures to prevent serious or irreversible damage to the environment,” “even in the absence of scientific certainty.”¹⁸¹ In re-imagining IEL, national, regional, and international jurisdictions alike should utilize this precedent in evaluating the human rights implications of environmental issues.

While some critics may argue that the growing focus on human rights within environmental law reduces nature’s own legal standing as possessing a right to exist, the two philosophies of environmentalism can find ways to co-exist to both protect nature for people’s benefit, as well as protecting nature for its own right to exist under the principle that all ecology is interconnected.

The international community needs to engage with a broader range of actors, including but not limited to women, children, Indigenous peoples, and the disabled to continue to align with a rights-based approach. The Rio Declaration emphasizes the importance of including “women, children and youth, indigenous peoples, non-governmental organizations, local authorities, workers and trade unions, business and industry, the scientific and technological community and farmers, as well as other stakeholders in the development and implementation of sustainable development policies.”¹⁸² A rights-based approach during negotiations would translate to the holding of open comment periods and seeking input from the stakeholders of a proposed treaty. More testimony and declarations by those stakeholders should also be utilized throughout the decision-making process. Lastly, there should always be equality and equity in the distribution of positions of power and decision making.

¹⁷⁸ *Id.*

¹⁷⁹ Maria L. Banda, *Inter-American Court of Human Rights’ Advisory Opinion on the Environment and Human Rights*, AM. SOC’Y INT’L L.: INSIGHTS (May 10, 2018), <https://perma.cc/WZ83-3GQZ>.

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Towards a Global Pact for the Environment Report*, *supra* note 9, ¶ 84.

2. Climate Migrants

While environmental/climate refugees have not received protective status, the international community has made several advancements towards that goal. The Human Rights Committee in *Teitiota v. Chief Executive Ministry of Business, Innovation and Employment*¹⁸³ reasoned that climate change-induced migration can occur through sea level rise, salinization, land degradation, or through intense storms and flooding, and stated that countries must ultimately act to prevent and mitigate climate change.¹⁸⁴

However, there are still no legal protections for climate refugees, and a decision needs to be made on whether to characterize those displaced by environmental challenges as climate refugees or environmentally-displaced persons. The international community has several opportunities to protect individuals. First, the international community can revise the 1951 Refugee Convention; however, opponents have expressed concern that opening the Convention may weaken refugees' current legal status.¹⁸⁵ Second, the international community can implement a new treaty. Law faculty at the University of Limoges have proposed a Draft Convention on climate refugees as environmentally-displaced persons with language stating, "[e]nvironmentally-displaced persons are individuals, families, groups and populations confronted with a *sudden or gradual environmental disaster* that impacts their living conditions, resulting in their forced displacement, at the outset or throughout, from their habitual residence."¹⁸⁶ Third, the international community can appoint a U.N. Special Rapporteur on Human Rights and Climate Change "to guide international action on climate-induced displacement."¹⁸⁷ The Special Rapporteur can be tasked with investigating the strengths and weaknesses of defining climate migrants as "*environmentally-displaced persons*,"¹⁸⁸ determining immediate action plans for incredibly vulnerable States such as Kiribati and Tuvalu,¹⁸⁹ and

¹⁸³ Hum. Rts. Comm., *Views Adopted by the Committee Under Article 5(4) of the Optional Protocol, Concerning Communication No. 2728/2016*, U.N. Doc. CCPR/C/127/D/2728/2016 (Oct. 24, 2019).

¹⁸⁴ *Id.* ¶ 9.11.

¹⁸⁵ Dina Ionesco, *Let's Talk About Climate Migrants, Not Climate Refugees*, U.N. SUSTAINABLE DEV. (June 6, 2019), <https://perma.cc/V6UL-6HPT>.

¹⁸⁶ Anxhela Mile, *Protecting Climate Migrants: A Gap in International Asylum Law*, EARTH REFUGE (Jan. 7, 2021), <https://perma.cc/A58B-GQLM>.

¹⁸⁷ *Protecting Climate Refugees: Securing International Protection for Climate Refugees*, ENV'T JUST. FOUND., <https://perma.cc/75NA-QFD8> (last visited Nov. 2, 2024).

¹⁸⁸ See Michel Prieur et al., *Draft Convention on the International Status of Environmentally-Displaced Persons*, 12 REVUE EUROPEENNE DE DROIT DE L'ENVIRONNEMENT 395, 397 (2008) (defining "environmentally-displaced persons" as "individuals, families and populations confronted with a sudden or gradual environmental disaster that . . . results in their forced displacement . . . and requires their relocation and resettlement").

¹⁸⁹ See Michalis I. Voutsoukas et al., *Small Island Developing States Under Threat by Rising Seas Even in a 1.5 °C Warming World*, 6 NATURE SUSTAINABILITY 1552, 1552–54 (2023).

examining States' duties to climate migrants under the principle of *non-refoulement*.¹⁹⁰

The need to recognize climate refugees is important as “the number of displaced people worldwide reached an all-time high [in June 2022] at over 100 million,” with weather-related disasters tripling in the past forty years and growing in intensity due to climate change.¹⁹¹ According to “Groundswell: Preparing for Internal Climate Migration,” a World Bank report, “without concrete climate and development action, just over 143 million people . . . could be forced to move within their own countries” across sub-Saharan Africa, South Asia, and Latin America.¹⁹² Climate refugees can no longer be defined as the “forgotten victims of climate change,” and the international community must take immediate actions to protect such individuals.¹⁹³

VI. LOOKING AHEAD/CONCLUDING REMARKS

The rate of environmental degradation far exceeds that of IEL implementation. The time in which the world will face the consequences of this inaction grows closer and, for many ecosystems and species, that deadline has already passed. As recent IPCC reports indicate, for many individuals across our globe, environmental disasters are already here and are the new normal.¹⁹⁴ The current generation is in a precarious situation because, while they have inherited a damaged world with its broken and inequitable social and political systems, they have the seemingly impossible task of creating innovative environmental policies that surpass the limits of traditional international law within a short deadline. However, the international community has proven time and again that people can agree on dynamic and creative policies that are effective and exceed national boundaries. This short deadline, while daunting, must not dissuade the international community from universally mobilizing against a future certain to end human life on Earth. It is not too late, and there is everything to gain.

¹⁹⁰ See generally U.N. HIGH COMMISSIONER FOR REFUGEES, THE U.N. REFUGEE AGENCY, ADVISORY OPINION ON THE EXTRATERRITORIAL APPLICATION OF NON-REFOULEMENT OBLIGATIONS UNDER THE 1951 CONVENTION RELATING TO THE STATUS OF REFUGEES AND ITS 1967 PROTOCOL ¶ 5 (2011), <https://perma.cc/796T-E7EN> (defining the principle of *non-refoulement* as prohibiting States from expelling or returning refugees to places where their life or freedom would be threatened on account of their identity). The principle of *non-refoulement* is a bedrock of the protections granted to refugees and other persons seeking protection in other countries. *Id.* With climate change intensifying the need for the vulnerable to migrate, States must have a more appropriate approach towards protecting asylum seekers and not resort to deportation and detainment.

¹⁹¹ Saverio Bellizzi et al., *Global Health, Climate Change and Migration: The Need for Recognition of 'Climate Refugees'*, J. GLOB. HEALTH, Mar. 2023, No. 03011, at 1.

¹⁹² KANTA KUMARI RIGAUD ET AL., WORLD BANK GRP, GROUNDSWELL: PREPARING FOR INTERNAL CLIMATE MIGRATION at xix (2018), <https://perma.cc/A3LN-SHK3>; Mile, *supra* note 186.

¹⁹³ Bellizzi et al. *supra* note 191.

¹⁹⁴ Hans-Otto Pörtner et al., *Summary for Policymakers*, in INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY 1, 11 (2022), <https://perma.cc/9HK4-3GFH>.

Overall, the international community needs to continue to find ways to create synergies between conserving biodiversity, reducing waste, and mitigating climate change. The push toward NbS is a great example of how IEL can promote ecological principles and promote interconnections. Additionally, it is vital that the international community develop progressive and innovative methods of IEL enforcement by employing expertise across all disciplines. As shown by emerging treaties on BBNJ and plastics, IEL often transcends national jurisdictions, and the international community must develop instruments that evolve to meet those challenges and think innovatively about future emerging challenges, such as “space junk” and geo-engineering. It is also essential that the international community develop a rights-based approach to tackling IEL issues, for it is constantly proven across our globe that progress cannot be made without addressing both the challenges of our environment and all our people.

In closing, the following action items are recommended: (1) recognize the ecological principle that all living things are interconnected; (2) find synergies between treaties and incorporate more NbS; (3) utilize a synergistic process between the Conference of the Parties within treaties to tackle various environmental issues at the same time; (4) strengthen existing treaties by implementing amendments that include binding dispute resolutions and/or sanctions; (5) implement an IEC that has the knowledge and expertise to resolve complex matters; (6) incorporate the crime of ecocide within the ICC’s jurisdiction under the Rome Statute; (7) continue to utilize litigation as a tool for enforcement of environmental rights; (8) grant UNEP or a yet-to-be established network of advisory bodies the authority to issue sanctions, violations and orders, or to recommend parties to a dispute forum; (9) consider regional and individual contextual factors for issuing sanctions and dispute resolutions and consult from a wide diversity of areas; (10) focus on environmental issues that challenge the global commons such as implementing a treaty that phases out plastic production and amendments to the Outer Space Treaty to limit “space junk;” (11) recognize the status of climate migrants and environmentally-displaced persons and implement a rapporteur on climate change and migration to determine next steps; (12) incorporate a rights-based approach at the national, regional, and international level to achieve full compliance with international environmental principles and promote equal protection and defense for the most vulnerable; (13) engage with a broader range of actors, including but not limited to, women, children, indigenous peoples, and the disabled; and (14) strengthen partnerships between UNEP, UNDEP, and OHCHR, and foster more partnerships that cut across disciplines to achieve fully conceived and effective resources for a vast array of stakeholders.