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Planetary Health Law and Governance

Eric C. Ip



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PLANETARY HEALTH LAW AND GOVERNANCE

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Planetary Health Law and Governance

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Abstract: This Element examines the legal infrastructure required to address the intertwined health and environmental crises of the Anthropocene. It introduces planetary health law as an emerging transdisciplinary paradigm that integrates global health law and international environmental law to tackle the impacts of climate change, biodiversity loss, and pollution on humanity and the broader biosphere. The Element highlights the shortcomings of current frameworks, which remain largely voluntary and anthropocentric. It makes the case for a comprehensive planetary health law framework that recognizes both the human right to a healthy planet and the planetary right to health. This integrated approach would catalyze systemic institutional reform. Key proposals include the creation of a Planetary Health Organization to coordinate the work of the World Health Organization and the United Nations Environment Programme, alongside a Planetary Health Tribunal to enforce Nature-oriented norms and accountability. This title is also available as Open Access on Cambridge Core.

Keywords: Anthropocene, climate change, planetary health, right to a healthy environment, rights of nature

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1 The Health Crisis of the Anthropocene

1.1 The Anthropocene – A New Geological Epoch

The Holocene has supplied humanity with a stable climate, plentiful freshwater, and fresh air for approximately 11,700 years, a new epochal context that had facilitated the shift from nomadic hunter-gatherer societies into settled agricultural communities and ultimately into complex urban civilizations (Schimel, 2013; Whitmee et al., 2015; Haines & Scheelbeek, 2019). To put it differently, unlike the fluctuating, and on the whole cooler conditions of the preceding Pleistocene, the Holocene was a period with a largely predictable climate that facilitated human flourishing (Dryzek & Pickering, 2019). This epoch witnessed significant cultural and technological advancements across the inhabited continents. Nevertheless, anthropogenic activities have unleashed major transformations in the environment since the Industrial Revolution, such as climate change, widespread pollution, loss of biodiversity, and disturbances of the carbon, nitrogen, and phosphorus cycles (Myers, 2017; Crutzen & Stoermer, 2021). These changes have now produced an existential threat to human flourishing, in turn predominantly increasing vulnerability among children, indigenous peoples, and populations living in low-resource areas (Falk et al., 2022).

The concept of the Anthropocene defines the contemporary geological epoch wherein human activities have emerged as the overriding influence on Earth systems (McMichael, 2016). Human production has altered the planet's processes to a point equivalent to those geological events that have shaped the Earth's existence over 4.5 billion years. The exact dawn of the Anthropocene remains disputed. Proposed dates range from the Industrial Revolution in the late eighteenth century to methane emissions from rice paddies in Asia around 5,000 years ago (Purdy, 2015; Manning, 2020). Regardless of its exact beginnings, the advent of the Anthropocene has a unique aspect: the truly unprecedented scope of the human effect. As Berners-Lee (2021, p. 243) rightly characterizes it, the present Anthropocene is an epoch in which humans have become, in his words, "big people on a small planet," exerting inordinate power over the environment and climate within which they live and requiring a radical change of behavior that humanity has conspicuously failed to adopt. Such a change would demand new economic models, new consumption habits, and new governing systems that are adapted to planetary boundaries.

In a very real sense, the Anthropocene marks a rupture in human history that may make long-term trends difficult to discern due to the complexity and nonlinearity of Earth's systems, once humans become a major influencing factor (Haines & Frumkin, 2021). The Anthropocene doubtlessly constitutes the point at which humanity becomes a planetary-scale force able to destabilize the

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Earth's systems beyond the limits that retain the social and biological good health of the species (Castree, 2019; Reperant, 2023). By scientifically framing the interconnections among global processes like the carbon cycle, atmosphere dynamics, and biodiversity, the Anthropocene offers a non-religious concept of humanity's reciprocal relation with Nature (Knauß, 2018; Castree, 2019). This scaffolding indicates the pressing need for regenerative processes that acknowledge ecological limits and are equitable toward human and environmental health into the future.

The "Anthropocene" is a perplexing term that challenges established geological nomenclature, for it adopts a suffix typically reserved for macro-scale biophysical discontinuities with no direct connection to human affairs (Castree, 2019). It remains a proposed but not formally adopted geological epoch still under consideration by geologists; some believe it to be redundant or that the classification of a geological period cannot be rushed (Hannah, 2021). However, the Anthropocene serves as a powerful reminder that we must never forget our responsibility to alleviate the harm we have caused to the environment. By moving beyond academic discussion, it underscores the urgent ethical and practical imperative of sustainable stewardship.

This section is organized as follows. Section 1.2 introduces the planetary health paradigm, which highlights the interdependence of human health and the health of Earth's biosphere. Section 1.3 examines the Great Acceleration: the post-World War II surge in human activity that has driven exponential growth in carbon dioxide emissions, resource consumption, and socioeconomic change. Section 1.4 details the direct and indirect health consequences of the Anthropocene, including the spread of infectious diseases, extreme weather events, and biodiversity loss, with particular impacts on vulnerable populations. Section 1.5 analyzes the challenges of global environmental governance, including fragmentation, the collective action problem, and the limitations of anthropocentric legal systems. Section 1.6 proposes the foundations of a planetary health law framework that integrates the right to a healthy environment with the rights of Nature. Section 1.7 explores the contribution of law to planetary health, drawing on historical precedents and ethical principles. Section 1.8 summarises the chapter's key arguments and outlines the roadmap for the remainder of this Element.

1.2 Planetary Health

The Anthropocene accentuates the connection between human health and the health of the Earth's natural systems. The goal of planetary health as a field of scholarship and practice is to secure "the highest attainable standard of health, well-being, and equity worldwide," by intervening in the political, economic,

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and social systems that determine humanity's relationship with ecological limits (Whitmee et al., 2015, p. 1978). This paradigm reflects the recognition that human health depends on the health of the biosphere which includes all terrestrial, freshwater, and marine ecosystems and their biota (Somsen & Trouwborst, 2019). Human existence and prosperity rest entirely on the planet's living systems, which freely supply the nourishment, clean water, breathable air, and climatic stability upon which all societies depend.

Health risks are amplified with climate change through the rise and spread of vector-borne diseases (e.g. malaria, dengue, Chikungunya), water-borne diseases (e.g. cholera), and Salmonellosis and campylobacteriosis (Phelan & van Daalen, 2023). The warming of the Earth leads to more extreme weather conditions, such as heatwaves, floods, and droughts, that in turn cause physical injuries, displacement, and mental health challenges, such as depression and post-traumatic stress disorder (Phelan & van Daalen, 2023). For example, heatwaves can threaten vulnerable populations like the elderly, children, and individuals with preexisting conditions; floods and droughts can compromise food security and access to clean water, compromising nutrition and contributing to injury and illness (Sarfaty, 2022). Ecological degradation, particularly deforestation, has paved the way for zoonotic diseases like Ebola, Zika, and COVID-19, highlighting the complex interconnections between environmental disruption and health (ten Have, 2021). Addressing these challenges requires an integrated approach to environmental sustainability and public health, and a shift from individual interventions to tackle the systemic roots of the health and environmental crises.

Planetary health extends beyond conventional global health, which typically addresses health issues that transcend borders and involve pandemics and health inequalities, by emphasizing the reliance of human well-being on natural systems (ten Have, 2019). It also evokes ancient medical value systems, such as that of Hippocrates, who acknowledged how closely environmental conditions are associated with health, and coherent integration with indigenous knowledge frameworks in which humans are not apart from Nature, but rather part of Nature (Redvers et al., 2020; Haines & Frumkin, 2021). Through a focus on ecosystem integrity, planetary health seeks to prevent pandemics and promote sustainable health, calling for a definition of health that is more expansive and includes the life-support system of the planet (Lemm & Vatter, 2022). It resists the atomistic focus of the biomedical model and instead calls for collective interventions that target the social, economic, and environmental determinants of health.

The concept of planetary health also builds on the idea of "planetary boundaries," or the ecological limits in which human civilization can safely operate (Rockström et al., 2009, p. 32). Pushing these limits through activities such as

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extreme greenhouse gas emissions or biodiversity loss threatens human health and societal resilience. Drawing on ecology, public health, and the social sciences, planetary health offers an interdisciplinary approach to addressing complex challenges in the Anthropocene, promoting resilience and equity amid global environmental change. Recent scholarship, including the 2024 Planetary Health Roadmap and Action Plan endorsed by the Planetary Health Alliance, frames global governance as a modality for planetary health (Planetary Health Alliance, 2024). This aligns with calls for planetary health diplomacy that transcends both health and environmental policy domains through holistic, transdisciplinary action (de Paula, 2021).

1.3 The Great Acceleration

Approximately two-thirds of industrial carbon dioxide and methane emissions since 1751 can be linked to around ninety major carbon-producing entities, including oil and gas firms and cement manufacturers that extract crude oil, natural gas, and coal. Most of these units are privately rather than state-owned (Heede, 2014). The "Great Acceleration" (McNeill & Engelke, 2014, p. 211), since World War II, is a time of unparalleled human impact on the systems of the planet. Defined by its carbon emissions, energy consumption, resource use, and population explosion (McNeill, 2017), this period has shifted the Earth's ecological equilibrium in never-before-seen ways. Between 1945 and 2016, CO_2 levels in the atmosphere increased from 310 ppm to 401 ppm, primarily due to the burning of fossil fuels (Dryzek & Pickering, 2019). These alterations are responsible for global warming, ocean acidification, and the loss of biodiversity, as evidenced by a decline in vertebrate populations of around 50 percent since the 1970s, which is attributed to both habitat degradation and climate change (Gowdy, 2021).

The Great Acceleration has been a period of major societal changes, with rapid industrialization, global economic growth, and automation radically transforming societies and landscapes (Gowdy, 2021). Those advancements have led to increased longevity and quality of life for many, but have also been accompanied by a massive ecological price tag (van Schalkwyk et al., 2022). China, for example, was responsible for 30 percent of world emissions in 2019, as a consequence of its rapid industrial development and its dependence on coal for energy (Smil, 2022, p. 202). A worldwide economy based upon capitalism and industrialization has placed greater value on short-term growth rather than long-term sustainability; as a result, environmental decay and health disparities have intensified. The Great Acceleration is not simply an era of intense human activity, but rather that of a structural change in the relationship

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between humanity and the planet. The exponential rise in resource consumption, urbanization, and global trade has generated a "social metabolism" that exceeds the earth's ability to draw in waste and replenish resources (Jaria-Manzano, 2019, p. 32). Another feature of this period is globalization, which has made economies and societies more interdependent, yet also amplified the environmental consequences of long supply lines and carbon-intensive trading (Jacobsen, 2024). The path of the Great Acceleration highlights a pressing need for governance arrangements that guide economic development to integrate it with ecological sustainability in the face of finite resources on a planet.

1.4 Health Consequences of the Anthropocene

Human induced influence on the natural environment is causing climate change at an unprecedented pace. Atmospheric greenhouse-gas concentrations reached record levels in 2019 (410 ppm of CO_2, 1,866 ppb of methane, and 332 ppb of nitrous oxide), concentrations not similarly observed for at least 2 million years for CO_2 and for at least 800,000 years for methane and nitrous oxide (IPCC, 2023). The decade from 2011 to 2020 was the hottest in at least 100,000 years, and global surface temperatures have increased more rapidly since 1970 than during any other 50-year period in at least 2,000 years. Summer sea ice in the Arctic has declined by 40 percent since the 1980s, the lowest in 1,000 years; the retreat of glaciers around the world, linked to rising temperatures, has accelerated since the 1950s at a rate not seen in 2,000 years. Ocean acidification is higher now than at any time in the last 2 million years, and global sea level increased by around 0.20 meters between 1901 and 2018, faster than any century in the last 3,000 years, and oceans are warming even faster than at the last deglacial transition 11,000 years ago (Connors et al., 2025). The risk of negative effects increases with global warming, with the increases being substantial at 1.5°C and higher at 2°C. Limiting warming to 1.5°C, consistent with achieving net-zero CO_2 emissions by 2050, would require rapid reductions in CO_2 and methane by 2030, reducing air pollution. Stabilizing temperatures requires net-zero greenhouse gas emissions, which must be balanced by the permanent removal of CO_2 from the atmosphere.

However, other changes, including sea level rise, could be irreversible unless net-negative emissions are achieved. These changes in environmental conditions have important implications for human health, transforming and broadening exposure to infectious diseases such as dengue, Zika, and Chikungunya, whose transmitting vectors, such as mosquitoes, in turn thrive under warmer temperatures (Phelan & van Daalen, 2023). Injuries, displacement, and mental health problems, such as depression and anxiety, are consequences of extreme

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weather events such as heatwaves, floods, and droughts (Phelan & van Daalen, 2023). Climate-related deaths (malnutrition, malaria, and heat stress) average 250,000 more per year from 2030 to 2050; adults increased to 529,000 climate-related more deaths by 2050 (Haines & Ebi, 2019). Separately, climate change impacts on food production and diets could result in approximately 529,000 additional adult deaths by 2050 (Springmann et al., 2016).

Biodiversity depletion, largely due to habitat destruction, overutilization, and climate change, undermines the ecosystem services that are fundamental to human health, including food supplies, clean drinking water, and air quality regulation (Visseren-Hamakers & Kok, 2022). According to the "dilution effect," in which disease risk decreases at high levels of biodiversity because pathogens are spread over a greater number of species, humans are undermining this natural protection and increasing the risk of zoonotic disease (Keune et al., 2022, p. 96). For instance, deforestation and habitat fragmentation have been cited as factors making it easier for pathogens like Ebola and COVID-19 to move from wildlife to humans, thereby signaling the health risks of ecological disruption (ten Have, 2021). Many of the health effects of the Anthropocene are related to environmental degradation and global dynamics that are felt disproportionately by poor nations, indigenous groups, and coastal communities. Case studies include low-lying small island states such as Tuvalu, where rising sea levels are projected to submerge more than half of the land by 2050; residents will be displaced and their traditional livelihoods destroyed (McNeill & Engelke, 2014). These injustices are compounded by the stark disparity that industrialized nations, the largest historical emitters of greenhouse gases, suffer far fewer immediate consequences than developing nations (Natarajan, 2022). It is desirable to adopt an integrated approach to such health effects that combines public health interventions with environmental restoration, with emphasis on equity and resilience.

1.5 Anthropocene, Challenges of Governance

Providing solutions to the entwined health and planetary crises of the Anthropocene demands strong global governance. Governance, the intentional exercise of authority to guide human societies toward specific ends, involves multiple actors, including governments, businesses, nongovernmental organizations (NGOs), and individuals (Gostin, 2014; Young, 2017). But global environmental governance is a fragmented arena, characterized by overlapping regimes of hard and soft law, the dispersal of political power, and weak regulatory power (Scicluna, 2021). This fragmentation makes coordinated action difficult as actors with different goals compete, often focused on short-term

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economic benefits rather than long-term sustainability (Park & Kramarz, 2019). The collective action problem is a cornerstone of global environmental governance due to the potential that independent actors will favor their personal interests over collective goals, and thus free-ride, and under-supply cooperation (Scicluna, 2021). As an example, even though international treaties like the Paris Agreement pursue the goal of keeping global warming under a specific target, contributions at national levels are generally below sufficient, illustrated by the predicted 10.6 percent increase of cumulative greenhouse gas emissions on a global scale between 2019 and 2030 according to the current Policies Scenario (UNFCCC, 2022). This is compounded by the lack of global government and enforcement mechanisms to compel sovereign states to comply and coalesce (Ip, 2010).

The idea of planetary health law articulated in this Element is a rights-based legal infrastructure that systematically integrates environmental and health governance (Ip, 2023c). In this context, the growing legal recognition of the right to a healthy environment is understood as an emerging "rights of Nature" paradigm shift that challenges established legal norms in addressing planetary health issues (Borràs, 2016). Yet, the existing legal frameworks are segregated, as environmental law, health law, and human rights law are applied separately by myriad agencies and courts, and without an overarching planetary vision (Garver, 2021). A planetary health constitution that integrates soft law (e.g., advancing the right to a healthy environment through international declarations) and hard law (e.g., the Framework Convention on Planetary Health) may narrow these gaps, establishing system coherence in governance (Ruger, 2020). Historical examples such as England's Charter of the Forest (1217) demonstrate the ability of legal systems to mediate between human welfare and environmental care. The Charter was acknowledged as a framework for common land use and the enabling of sustainable access to resources by communities (Westra, 2016, p. 119). Modern planetary health law may draw lessons from such ancient documents incorporating ecological integrity and social justice into the governance frameworks of the present era of environmental and social crisis.

1.6 Toward a Planetary Health Law Framework

This preliminary typology is designed to support the holistic development of planetary health law at the international level. It does not examine the normative content or strength of individual treaty provisions, nor does it structurally incorporate norms from domestic legislation or soft law instruments. Planetary health law as a scholarly approach aims at consolidating fragmented

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norms into a coherent, rights-based legal infrastructure to address climate change, biodiversity loss, and pollution as interconnected challenges that require more integral responses than those afforded by technocratic strategies (Williams et al., 2022). By combining the right to a healthy environment with the new rights of Nature, this framework aligns with the United Nations's view on "Peace, Dignity and Equality on a Healthy Planet" (Ip, 2023c, p. 1049) It challenges anthropocentric judicial paradigms and argues for a de-anthropocentric perspective that considers humans as a part of Nature, and not above it (Borràs, 2016). To achieve this, systemic legal norms need reorienting to give precedence to ecological integrity over resource extraction and should be guided by principles such as the precautionary principle, the prevention principle, and common but differentiated responsibilities (Scicluna, 2021).

Planetary health governance is heavily shaped by non-state actors such as NGOs and multinational companies. Organizations such as the World Wide Fund for Nature contribute to developing ethical norms, while organizations affect environmental technology and investment (Kramarz & Park, 2019). Nonetheless, actor competition and the "accountability trap," where accountability measures do not lead to better environmental results because the incentives of those held accountable are out of alignment, prevent good governance (Balboa, 2019; Park & Kramarz, 2019). A strong planetary health law infrastructure will need to harness the collective potential of these players, tearing down shared regulatory architectures toward sustainable results (Haas et al., 2014). For example, public–private partnerships between NGOs and firms can ensure adherence to environmental and health standards while commercial practices remain consistent with population health objectives. The São Paulo Declaration on Planetary Health emerged from a worldwide consultation in 2021 and is an example of the plea for a common purpose to preserve both planetary and human health (Myers et al., 2021). It highlights the value of liberation from systems of indignity stemming from exploitative worldviews and indoctrination, and supports diverse worldviews as essential to the wellness of people, communities, and the Earth (Prescott et al., 2018). The principles of planetary health law can make these aspirations a reality by offering a single conceptual architecture to integrate disparate legal norms and thereby secure governance systems that work in the interest of the health of both people and planet.

1.7 The Contribution of Law to Planetary Health

Law is central in conditioning human behavior and confronting the ecological crises of the Anthropocene (Garver, 2021). Nevertheless, current legal structures tend to reinforce environmentally harmful activities, which are essentially seen as

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human-centered and focus on the use of environmental resources by humans (Garver, 2021). This was evident in property laws, which saw the nonhuman world as something to be commodified; and deforestation and industrial pollution, therefore, were seen as permitted (Dryzek & Pickering, 2019, p. 24). Such norms would reset the legal landscape away from ecological disintegrity toward ecological integrity, drawing on existing ideas such as the precautionary principle and common but differentiated responsibilities (Scicluna, 2021).

Through facilitating interdisciplinary cooperation and drawing on the perspectives of environmental justice and indigenous knowledge systems, planetary health law aspires for a more equitable and sustainable legal architecture (Gabrys, 2020). Environmental justice recognizes the inequitable effects of ecological ruin on the poor and the oppressed, whereas postcolonial theory examines how industrialization and resource extraction were historically rooted in colonial barbarism (Natarajan, 2022, p. 205). Indigenous ways of knowing provide holistic worldviews on the relations between humans and Nature, focusing on care and reciprocity (Redvers et al., 2020). Recall that the Charter of the Forest (1217) established a precedent for ecological governance that safeguarded common lands and controlled their use to enable communities to maintain sustainable access to resources (Westra, 2016, p. 119). This ancient legal settlement captured the interplay between human requirements and environmental preservation and provides lessons for planetary health law today. Contemporary examples, like the granting of legal personality to Nature by states like Ecuador and New Zealand, underline the capacity of legal innovation to meet the challenges of the Anthropocene (Knauß, 2018, p. 720).

Finally, planetary health law must deal with the normative challenges of environmental and health governance. Public health ethics can help inform the development of legal domain standards that value equity and sustainability (Lee, 2017, p. 10). Integrating ethics training into formative legal and policy education would better equip decision-makers to grapple with the dynamic intersection of human health, environmental health, and social justice.

1.8 Summary

The Anthropocene is a deep historical moment in history in which human activity has become the most important driver of change in the systems of the Earth, with potentially disastrous consequences for environmental stability and human health. Epochal and exceptional climate disruption represents a departure from the relative climate and ecological stability of the Holocene, which has largely sustained human civilization for 11,700 years. The profound changes made by human beings (e.g., climate change, loss of biological

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diversity, and pervasive pollution and disturbances in biogeochemical cycles) jeopardize the integrity of Earth's systems on which life depends and can have negative consequences for humanity, including children, indigenous populations, and disadvantaged groups.

Planetary health, as an emerging scholarly and professional paradigm, offers a transformative and unifying framework for combating these multiple, interrelated threats, one that recognizes the inherent connections between the human population and the health of Earth's natural systems: the biosphere, atmosphere, and hydrosphere. By protecting these systems, planetary health aims to promote resilience, equity, and sustainability in a global era of environmental change. The challenges of the Anthropocene are of a kind little suited to be tackled within existing systems of regulatory and political order. They are separated out by fragmented environmental, health, and human rights laws that do not form a coherent system. The problem is closely related to the collective action problem, as any given actor, be it a state, corporation, or individual, is motivated to pursue immediate benefits rather than sustainable collective long-term well-being. This is aggravated by anthropocentric legal philosophies that traditionally favor human use of natural resources over ecological well-being with practices that are harmful to planetary health. Even though some of the world's leading nations pledged uphold the Paris Agreement, much-needed international efforts remain insufficient, and it is estimated that greenhouse gas emissions will increase substantially by 2030, which emphasizes the need for novel governance solutions.

Planetary health law as a conceptual framework presents itself as a viable way forward to meet these challenges by bringing together fragmented norms through a rights-based lens (see Ip, 2021, 2023a, 2023b, 2023c). Drawing on the right to a healthy environment, which is gaining traction in international law, and the emerging rights of Nature movement, this framework challenges the anthropocentrism that underlies many legal systems and advocates for a paradigm shift that reintegrates humans as part of, rather than apart from, Nature. Drawing on hard law standards (e.g., binding treaties, such as a potential Framework Convention on Planetary Health) and soft law principles (e.g., declarations and norms that promote the right to a healthy environment), this framework aims to foster coherence and solidarity in global governance. It also aims to mobilize a broad coalition of players, including governments, companies, nongovernmental organizations, indigenous peoples, and even individuals, to work together to address and tackle interrelated environmental crises such as climate change, species extinction, and pollution.

This new paradigm is inspired by historical models, such as the Charter of the Forest (1217), which enabled the coexistence of human needs and ecological

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guardianship by protecting commons, as well as modern models, like the recognition of the rights of Nature, in jurisdictions like Ecuador and New Zealand. The proposed account of planetary health law as an approach of scholarship, practice, and advocacy, also gives effect to the demand for action that is contained in, for example, words like those in the São Paulo Declaration on Planetary Health (2021), which urges for a diversity of perspectives that nonetheless resonate with the health of individuals, populations, and the planet. Through interdisciplinary cooperation among public health, ecology, law, and social science, the framework seeks to create governance that prioritizes long-term resilience over short-term economic gain. It acknowledges that technocratic solutions are insufficient and advocates a shift in direction toward systemic intervention that addresses environmental and health disasters at their root causes.

The remainder of this Element will explore the types of legal forms, obstacles, and opportunities that are conducive to good planetary health governance. From here, it will probe the construction of a planetary health constitution, the fusion of the human right to a healthy planet and a planetary right to health, and the impact of non-state actors in molding effective governance. In providing a roadmap to help us understand and respond to the challenges of the Anthropocene, this work shares multiple pathways forward to a better future for current and future generations on a luscious, flourishing planet. This broader lens of planetary health law attends not only to imminent crises but also provides the groundwork for a forward-looking vision of global governance based on ecological justice and integrity.

2 The Fragmentation of Planetary Health Law and Governance

2.1 Introduction

Planetary health has become a vitally important scientific field for understanding the complex relationships between the well-being of humanity, including human civilization, and the health of Earth's natural systems (see Horton & Lo, 2015). Construed broadly as the study and practice of domestic and international law of public health designed to protect Earth's biological legacy, planetary health law brings planetary health one step further by drawing from the fields of global health law and international environmental law to confront the exigencies posed by the Anthropocene commons. Unprecedented human influence on the planet calls for a rethinking of legal and governance systems in order to support the continuity of ecosystems supporting human health and societal stability. Yet, at present, the emergent field of planetary health law is obstructed by pervasive fragmentation, under which global health law and

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international environmental law function as separate regimes with only limited cross-fertilization. This section investigates that fragmenting tendency and its implications and advocates for an integrative synthesis between these siloed geographies of law as an approach to encouraging a more coherent collective governance of planetary health.

Obstacles to the development of planetary health law arise in part from the divergent goals, principles, and institutional frameworks of global health law and international environmental law. The purpose of global health law is to realize the highest attainable standard of physical and mental health for the world's people by way of international agreements and institutions (Gostin, 2014). By contrast, international environmental law seeks to prevent damage to the environment and is characterized by a "sustainable economic approach" that depends on state controls over natural resources and an emphasis on economic issues (Hunter, 2022). This section investigates that fragmentation and its implications as well as advocates for an integrative synthesis of global health law and international environmental law to create a more coherent planetary health governance.

This Section is organized as follows. Section 2.2 defines global health law and international environmental law, traces their historical development, and examines the roles of hard and soft law. Section 2.3 analyzes the disaggregation of planetary health governance, its institutional and normative obstacles, and the Anthropocene conundrum. Section 2.4 charts a path toward a unified planetary health law framework, its core principles, and necessary institutional reforms. Section 2.5 identifies implementation challenges and opportunities, including state sovereignty, anthropocentrism, and the need for global cooperation. Section 2.6 articulates the purpose and character of an integrated legal system for a sustainable future.

2.2 Fragmentation of Global Health Law and International Environmental Law

2.2.1 Global Health Law

The global health law refers to the examination and utilization of international legal tools, both binding and nonbinding, to create norms, procedures, and institutions that advance global health (Gostin, 2014). It is rooted in the understanding that health crises such as pandemics and environmental emergencies do not respect territorial borders and necessitate international cooperation. The essential tools are the WHO Constitution, the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the FCTC. These tools are intended to promote accountability, framework regulation, and convergence

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of national law toward equitable public health (Gostin & Meier, 2023). Yet global health law remains relatively silent about environmental aspects, including climate change and biodiversity destruction, a silence that hobbles its potential to engage with the wider determinants of health (Meier et al., 2021). For example, Article 12 of the ICESCR requires states to improve environmental and industrial hygiene, and Article 18 of the FCTC calls for the protection of the environment in tobacco growing (Harmer et al., 2020). However, the coverage of these provisions is limited, and planetary health considerations are not fully incorporated. The International Health Regulations (2005), as a significant pillar of global health governance, are inappropriate to list the climate crisis as a public health emergency of international concern, which also underscores the tension between health and environment governance (Harmer et al., 2020).

2.2.2 International Environmental Law

"International environmental law" is an umbrella term to describe an intricate web of bilateral, regional, and global treaties, customary principles, and judicial pronouncements that collectively seek to manage transboundary environmental injury and to balance economic growth with sustainability (Hunter, 2022). It finds its roots in the 1972 Stockholm United Nations Conference on the Human Environment (UNCHE) and that has developed over time through pivotal agreements, including the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the Paris Agreement (Kotzé et al., 2020; Rosendal, 2020; Chasek, 2021). Such agreements combine legally binding "hard law" obligations, as in the Kyoto Protocol, with nonbinding "soft law" norms, such as the Rio Declaration on Environment and Development (Stephens, 2017; Dupuy & Viñuales, 2018).

The UNFCCC, the legal pillar of global climate governance, was concluded in 1992, and has played a critical role in the diffusion of key principles, including common but differentiated responsibilities and sustainable development (Biermann, 2014; Guruswamy & Neville, 2022). The Paris Agreement, agreed upon in 2015, advances this framework by holding parties to a target temperature increase of 1.5–2°C above preindustrial levels, through Nationally Determined Contributions (NDCs) (Jepsen et al., 2021; Prado & Trebilcock, 2021). But its reliance on voluntary stakes and the absence of means to enforce sanctions underscore its substantial limitations in achieving robust climate objectives (Nordhaus, 2021; Sarfaty, 2022). In *VZW Klimaatzaak v Kingdom of Belgium and Others* [2023] 2022/AR/891, [283] the Brussels Court of Appeal was energetic enough to declare that:

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> The national contributions of each of the States party to the UNFCCC, including Belgium, to reducing GHG emissions are the world's main tool for preventing and mitigating the risk of dangerous global warming. These international agreements are based on the mutual trust of the States that are party to them in the fact that each will contribute to the effort required to achieve the desired result, and it is in this way that the contribution of each State, including a "small" State like Belgium (on a global scale), plays a decisive role in the fight against global warming.

The same does not hold for larger states, which contribute a greater share of their greenhouse gas emissions. The United States, under Democratic and Republican administrations, has systemically sabotaged the UNFCCC process (Guenther, 2024). The United States withdrew from the Kyoto Protocol in 2001, during the presidency of George W. Bush. The United States is said to have withdrawn from the Paris Agreement twice under President Donald Trump, in 2020 and 2025. Both Presidents Barack Obama and Joe Biden have quietly resisted binding commitments to cut emissions or phase out fossil fuels, often blaming the lack of progress on low- and middle-income nations. The first global stocktake, concluded at COP28 in 2023, revealed a substantial mitigation gap that illustrates the practical limits of the Paris Agreement's voluntary compliance framework despite near-universal participation (UNFCCC Decision 1/CMA.5, 2023). Another flagship agreement is the CBD, which defines biodiversity as differences among living organisms and their ecosystems, and focuses on conservation and sustainable use of these resources (Rosendal, 2020). By focusing on the ecosystem, which aligns with the planetary boundaries concept, the framework promotes an ecosystem-based approach to managing natural resources (Diz, 2019). Despite these developments, international environmental law and normative frameworks continue to favor economic and political interests at the expense of ecological health and planetary systems (Garver, 2021; Kotzé & Kim, 2020).

2.2.3 The Interconnectedness of Hard and Soft Law

The hard-soft law distinction is essential for understanding the current fragmentation that plagues planetary health law and governance. Soft law, in the form of declarations, resolutions, and guidelines, is not legally binding but can still shape policy and normative expectations (Jahren, 2020). For instance, the principles of the Rio Declaration, such as the precautionary principle and the polluter-pays principle, have been incorporated into treaties and national laws, and in some cases, even into customary international law (Hey, 2016). Soft law tools, including the SDGs and the Stockholm Declaration, are no less vital for

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establishing aspirations and building consensus (Weiss, 2013; Hernández, 2022). Yet, being nonbinding, they are frequently disregarded, as enforcement is weak, particularly in the face of conflicting economic interests (Gill & Cutler, 2014; Jahren, 2020). The SDGs, adopted in 2015 under Resolution 70/1, seek to unite the social, economic, and environmental dimensions of sustainability but do not fully account for planetary boundaries and health interdependencies (Steffen et al., 2020; Haines & Frumkin, 2021).

2.3 The Disaggregation of Planetary Health Governance

2.3.1 Global Health versus Environmental Legal Regimes

The two sets of standards are incommensurate. The fragmentation of planetary health law is reflected in the silo mentality of global health and international environmental law. While the approach successfully brings a more human-centered perspective into health law, it has yet to develop a robust framework for understanding how ecological conditions fundamentally shape health outcomes (Foster et al., 2020). Scholars have long debated fragmentation. The International Law Commission's 2006 Report on Fragmentation of International Law remains the foundational analysis, yet prominent voices caution against overemphasizing division, stressing techniques of systemic integration and the unity of international law (Murphy, 2013; Peters, 2017). The International Court of Justice's 2025 Advisory Opinion reinforces these integrative perspectives by synthesizing environmental and human rights duties. While systemic integration helps avoid forum-shopping, overzealous harmonization risks diluting stronger obligations, leading to a "race to the bottom," and must therefore be pursued with care.

The WHO's 2021 Special Report on Climate Change and Health does not speak to law, using the term "legal" only in reference to national air pollution targets (World Health Organization, 2021). Positive developments illustrate growing convergence. The COP28 Declaration on Climate and Health (2023), WHA77.14 resolution (2024), and the Global Plan of Action on Climate Change and Health adopted at WHA78 (2025) explicitly link climate and health agendas. Climate change is now the first strategic priority in the WHO's Fourteenth General Programme of Work (2025–2028). The WHO Pandemic Agreement's One Health article and its Pathogen Access and Benefit-Sharing system, together with the CBD's Global Action Plan on Biodiversity and Health (2024), further exemplify productive regime interaction (Willetts et al., 2025).

Likewise, none of the major health-related treaties, such as the WHO Constitution and the ICESCR, address climate change or biodiversity loss,

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despite their significant implications for health (Gostin & Meier, 2023; Oguamanam, 2020). By contrast, global environmental law has lagged in incorporating health considerations. The UNFCCC recognizes the human health risks of climate change, but does not contain binding provisions for its protection (Atapattu, 2016). Although the Preamble to the Paris Agreement acknowledges the right to health, the operative provisions do not mandate health measures; consequently, the Agreement's capacity to address the health impacts of climate change is limited (Boyle, 2012; Corrigan, 2017). This separation is also exacerbated by the SDGs, as SDG 3 (health and well-being) does not address climate change, and SDG 13 (climate action) does not include a healthcare perspective (Haines & Frumkin, 2021).

Such fragmentation is perpetuated by the institutional architecture of planetary health governance. As the leading international health institution, the WHO focuses on state-based health governance and has a limited role in environmental matters (McInnes & Lee, 2012). The International Health Regulations (2005) are a framework designed for acute health threats, such as a new epidemic threat, a pandemic, or the emergence of an unknown or new disease without prior warning (Wiley, 2022). Meanwhile, environmental institutions such as the United Nations Environment Programme (UNEP) and those governing the Conference of the Parties (COP) of the UNFCCC operate independently, with limited coordination with health agencies (Axelrod & VanDeveer, 2020; Coen et al., 2020). The anthropocentrism of both regimes structurally prevents a holistic planetary health approach. International environmental law has tended to reduce Nature to a means of human consumption, consistent with a utilitarian vision of ecology as a resource and an object that can be bought and sold (Kotzé & French, 2018; Jones et al. 2022). Global health law expresses a commitment to human rights, but it seldom recognizes human beings as ecologically enmeshed creatures whose health is embedded within planetary processes (Woods, 2018). This anthropocentrism is reflected in the concept of sustainable development, which aims to integrate economic development with environmental protection, but often promotes the former (Dauvergne, 2016; Viñuales, 2021).

2.3.2 The Anthropocene Conundrum

The Anthropocene, marked by processes driven by humanity that are altering Earth's systems, underscores the imperative for integrated governance (Arias-Maldonado, 2022). Climate change, biodiversity loss, and human health crises are interconnected problems that require collective

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action (Gostin & Friedman, 2013; Phelan & van Daalen, 2023). Nonetheless, the state-centered, consent-based character of public international law stifles the effective response (Scott et al., 2020; Scicluna, 2021). The Paris Agreement, a landmark in multilateralism, relies on voluntary NDCs that are usually uncoordinated and inadequate to keep global temperature change within limits (Nordhaus, 2021; Guruswamy & Neville, 2022). Similarly, the CBD's orientation to biodiversity conservation is poorly enforced, resulting in ongoing ecosystem decline (Somsen & Trouwborst, 2019; Scicluna, 2021).

The principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) underpins equity under the UNFCCC and the Paris Agreement. While it reflects an ethical conception of fairness, it continues to struggle with adequately addressing historical responsibilities and persistent global inequalities (Harris, 2021). The SDGs, although introduced as an integrated framework, are criticized for both their vagueness (Haines & Frumkin, 2021) and their failure to explicitly address planetary boundaries (Adelman, 2019). These normative and institutional impediments underscore the necessity of a paradigm changeover toward an ecocentric, systemic law configuration.

2.4 Toward Unification

2.4.1 Toward Planetary Health Law

Planetary health law, as an integrative infrastructure for global health and sustainable development, can fill the governance gap between public health and environmental law. As an emerging legal paradigm, it aims at bridging the values and methods of an environmentally holistic, relationally focused approach to ecological law with global health law's emphasis on fairness and equality (Zelle et al., 2021; Phelan & van Daalen, 2023). The existing field of Earth Law provides inspiration for planetary health law. Earth Law advocates call for ecocentric legal systems that embody the rights of Nature and protect ecological health (Zelle et al., 2021). This is evidenced in constitutional language in countries like Ecuador, where the Loja Provincial Court has granted rights to the Vilcabamba River, and in movements for a Universal Declaration of the Rights of Mother Earth (Turner, 2019; Hickel, 2020). These trends underscore the human-centered underpinnings of classic environmental law and resonate with the planetary health paradigm's focus on systemic interconnectedness.

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2.4.2 Core Tenets of Planetary Health Law

To remedy the widespread fragmentation that pervades what this Element identifies as the building blocks of planetary health law, it is necessary to advance a suite of foundational principles that integrate the aims of global health and environmental governance, thereby promoting a coherent legal foundation to address the interrelated crises of the Anthropocene. These principles, rooted in both normative and practical values, form a strong foundation for aligning human well-being with the integrity of Earth's ecosystems.

Firstly, the principle of intergenerational equity, a staple of sustainable development, demands that the environment be kept in good order for future generations to be able to meet their needs as they see fit, without undue restriction based on what is being done by present generations (Young, 2017; van Calster, 2020). It is promoted in international covenants (e.g., Stockholm and Rio Declarations) and is incorporated in the constitutions of a number of countries, which require in force the protection of resources for future generations (May & Daly, 2015; Everand, 2022). By integrating the intergenerational equity dimension, planetary health law focuses on the temporal dimension of sustainability, highlighting the need to maintain long-term ecological and social stability. Entrenched in international conventions, soft law, and the decisions of disparate international and national tribunals, it casts the current generation as the Earth's trustees who must reconcile their right to its natural resources with the obligation to safeguard it for future generations. As a normative ideal, it emphasizes flexibility and fairness, especially in the context of climate change, calling on decision-makers to achieve justice by considering the distributive effects of climate harms, government policies, and environmental inaction (Bookman & Wewerinke-Singh, 2025). This principle encourages a future-oriented logic to ensure that planetary health law supports equitable resource management and appropriately addresses the long-term effects of environmental degradation.

Secondly, ecological integrity is a guiding principle that emphasizes the importance of functional ecosystems in supporting planetary health. Drawing from the CBD's ecosystem perspective and the planetary boundaries model, both of which highlight the need to maintain ecological integrity, the principle advances a framework for understanding environmental exposures that factors in the unintended side effects of development activities on natural systems. This principle rejects the commodification of Nature, so prominent in established environmental law systems, and demands an integrated management of natural systems focused on long-term ecosystem resilience rather than short-term economic gain. In doing so, it aims to redress the impunity of human–Nature

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relations and affirms ecosystems as an essential answer to environmental and human health.

Thirdly, the precautionary principle, as reflected in relevant documents such as the Rio Declaration and the Stockholm Declaration, requires that states take precautionary steps in the absence of certainty over environmental impacts or where scientific evidence is not yet complete, but where possible harm could be larger (Mbengue & Waltman, 2018; Kurze & Lamont, 2023). It is particularly important in the context of emerging health challenges associated with climate change and biodiversity loss, where the window of opportunity for meaningful action is rapidly closing. Championing preventive governance, the precautionary principle keeps planetary health law alive to emerging risks, protecting our human populations and ecosystems from avoidable harm.

The principle of common but differentiated responsibilities and respective capabilities, as set out in the UNFCCC and the Paris Agreement, acknowledges that states have different historical responsibilities and economic abilities to address global environmental problems (Reynolds, 2019; Harris, 2021). This principle is gaining relevance within the climate litigation landscape, as claimants raise CBDR-RC before international human rights bodies, including the Committee on the Rights of the Child, the Human Rights Committee, and the European Court of Human Rights. As judges continue to engage with the CBDR-RC principle and its implications, its influence on future climate litigation is likely to grow, particularly in the areas of climate finance, adaptation, and loss and damage. Centered on the principles of equity, CBDR-RC, this framework assigns countries with heavier historical burdens and greater wealth to a fairer share of responsibility and helps support less affluent countries on a path to sustainable development. This fosters a fairer and more inclusive process, which is essential for strengthening global cooperation toward achieving planetary health targets.

Last but not least, the right to a healthy environment, which is emerging as a legally enforceable human right that underpins environmental health and affirmed in soft law, such as the UNEP's Framework Principles on Human Rights and the Environment of 2018, addresses the inherent connection between human health and environmental sustainability (Woods, 2018; Atapattu et al., 2021). This right is further supported by the World Health Organization's (WHO) recognition of certain entitlements, including the "right to breathe clean air" and the "right to water," which emphasize the inseparability of human and environmental health (Hesselman & Meier, 2023). Furthermore, the International Court of Justice's *Advisory Opinion on Obligations in Respect of Climate Change of 23 July 2025* recognizes that a clean, healthy, sustainable environment is a human right, necessary for life, health, and adequate living

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standards. States are, in the view of the International Court of Justice, obliged to protect the climate and the environment for the enjoyment of human rights by synthesizing these duties with international law. As part of planetary health law, it will ground the moral and legal obligation to safeguard environments that promote good health while narrowing the normative divide between global health and environmental governance.

Together, these established and universally accepted principles: intergenerational equity, ecological integrity, the precautionary principle, common but differentiated responsibilities and respective capabilities, and the right to a healthy environment constitute the foundation of planetary health law. They present a whole of system nexus approach that compares favorably to the siloed measures applied by current laws, which can do much to integrate health and environmental goals to build resilience within Earth's life-support system. In grounding these principles into planetary health law, we lay the foundation for a path to a sustainable and equitable future, one that can meet the challenges of the Anthropocene.

To realize planetary health law requires institutional reforms to increase coordination and consistency. Proposals for a "World Environment Organization" (WEO) have been discussed for many decades, with the goal of consolidating environmental governance and establishing norms (Biermann, 2015). But the pushback of great powers such as the United States and Japan illustrates the hindrances to supranational governance. On the contrary, by reinforcing existing institutions such as UNEP and promoting greater cooperation with WHO, the health-environment divide can be bridged (Aginam, 2019; Axelrod & VanDeveer, 2020). The global stocktake process of the Paris Agreement and the COP of the UNFCCC are venues for incorporating health within climate governance mechanisms (Gupta & van Asselt, 2019; Coen et al., 2020). The CBD's ecosystem approach can also lead to health-oriented environmental policies (Diz, 2019). Polycentric forms of governance and collaborative arrangements between state and non-state actors are essential for effectively addressing cross-border health and environmental problems (Aginam, 2019).

Sustainable development, a unifying concept in global health and environmental law, must be interpreted to place ecological limits on economic growth (Griggs et al., 2013). The definition of the Brundtland Commission: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," should be refined to encompass the protection of life-support systems of the Earth (Griggs et al., 2013). This reframing is compatible with the SDGs' intersectional approach, but it emphasizes the importance of reinforcing recent findings spanning planetary

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boundaries and health linkages (Adelman, 2019; Gostin & Sridhar, 2016). The idea of degrowth, which would see resource consumption fall in high-income countries, is one such way to address the ecological crisis (Hickel, 2020). By enhancing the human–Earth relationship in a mutually beneficial way, planetary health law can facilitate sustainable human and planetary health (Garver, 2021; Zelle et al., 2021).

2.5 Challenges and Opportunities

The shift to the planetary health law paradigm has its share of stumbling blocks, a number of obstacles that, while formidable, are not insurmountable, opening at least several prospects that may pave the way toward a new legal paradigm. The issues are multilayered, reflective of the challenges of managing a planet under siege in the Anthropocene.

Firstly, the existing principle of sovereignty, enshrined in the consent-based foundation of international law, severely limits the enforceability of any kind of binding obligations. The Paris Agreement is a case in point, as it relies on voluntary NDCs with little or no enforcement mechanisms, rendering global carbon-emissions-reduction efforts futile (Nordhaus, 2021; Scicluna, 2021). Secondly, the priority given to economic growth over ecological sustainability, in which states and institutions frequently give ecological integrity a backseat to their immediate economic interests, thereby frustrating our trajectory toward planetary boundaries (Garver, 2021; Guruswamy & Neville, 2022). Thirdly, institutional fragmentation further complicates matters because institutions governing health and environment (e.g., WHO and the COP to the UNFCCC) are usually considered in isolation and lack the desired coordination to support integrated governance (McInnes & Lee, 2012; Veidis et al., 2019). Finally, the anthropocentric nature of current legal frameworks ecosystems, and fosters the entrenched utilitarianization of ecosystems without regard for their intrinsic value, thereby hindering the trajectory toward an Earth-conscious perspective (Kotzé & French, 2018; Ali, 2022). Yet, in the face of these daunting obstacles, there are numerous opportunities to advance planetary health law and to realize and integrate it into global governance.

Soft law instruments, for example, the Sustainable Development Goals (SDGs) and the Rio Declaration, are important triggers of norm-formation; they create consensus and normative expectations that are vital for the development of (hard, i.e., legally binding) commitments (Hernández, 2022; Ku, 2023). These nonmandatory agreements, although unenforceable, are crucial in developing policy and galvanizing support for stronger legal obligations. Legal innovation presents a potentially fruitful path forward, as evidenced by the

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Vilcabamba River decision in Ecuador in which courts have acknowledged the rights of Nature and, in so doing, have set precedent for Earth-conscious legal paradigms in opposition to anthropocentric ones (Turner, 2019). International cooperation offers crucial tools to mainstream health into environmental objectives and vice versa, building on opportunities to integrate health and environmental aims through near-universal participation in the Paris Agreement or the ecosystems approach of the CBD (Diz, 2019; Chasek, 2021). Growing public participation, such as grassroots initiatives for a Universal Declaration of the Rights of Mother Earth, can forge systemic policy change by creating planetary health dialogue and galvanizing societal backing for radical legal transformations (Veidis et al., 2019; Hickel, 2020). These opportunities highlight the pathways by which planetary health law can respond to these challenges and build an integrated, fair, and sustainable infrastructure for governing the integrated systems on Earth. Despite the formidable obstacles to the consolidation of planetary health law, a range of pathways remains available for advancing its transformative vision.

The WHO Pandemic Agreement of 2025 was adopted after months of deliberation in the aftermath of the COVID-19 pandemic. For the present purposes, it distinguishes itself with its explicit affirmation of the One Health approach and emphasis on the interconnectedness of human, animal, and environmental health, which signifies a substantive departure from the modus operandi of the preexisting global health governance system (Zhang et al., 2025). The Agreement requires coordination across sectors, data sharing, and institutional frameworks, but has its obstacles, especially in low- and middle-income countries with limited infrastructure. Article 1(b) of the WHO Pandemic Agreement defines the One Health approach as an approach that works to prevent, prepare for, and respond to pandemics taking into account the interconnected health of humans, animals, plants, and the broader environment, including ecosystems; and that seeks to promote a sustainable, equitable, and integrated multisectoral and transdisciplinary approach to sustainable development. Article 5 requires states to take this One Health approach, recognizing the interconnectedness of human, animal, and environmental health, and to promote a multidisciplinary, interdisciplinary, and multisectoral approach in accordance with domestic and international law and adapted to the national context. States should, as appropriate and in line with available resources, identify and take action with respect to the drivers of pandemics and risks of emergence of infectious diseases at the human–animal–environment interface, including by incorporating interventions into

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pandemic prevention, preparedness, and response plans, in accordance with national and international law.

Additionally, within their available resources, states should adopt and implement national and regional policies aligned with the One Health approach to improve human, animal, and environmental health, including through community-based engagement. They should also develop joint training and education programs to strengthen the capacities of professionals working at the human -animal -environment interface, with guidance and support from WHO and other relevant international bodies as appropriate.

By addressing zoonotic disease risks at the ecological roots, the Pandemic Agreement is poised to incentivize sustainable behavior to help counteract the environmental degradation that precipitates pathogen spillover, ranging from deforestation to intensive farming. But the challenge here would be to overcome institutional and resource barriers, a particularly difficult task in low-income areas. Proper deployment could protect biodiversity and ecosystem stability by lessening the likelihood and severity of pandemics. Community engagement and academic research will also help create fair and scalable solutions, building resilience to future planetary health challenges. However, failure to overcome impediments to coordination and resourcing may continue to leave global health systems vulnerable clouding long-term prospects for planetary health.

2.6 Summary

The idea of planetary health law draws on the related but separate orders of global health law and international environmental law to combat the Anthropocene's tripartite crises of climate change, biodiversity loss, and health inequities (Ip, 2023a). Even though global health law, as epitomized by the WHO Constitution and the International Covenant on Economic, Social, and Cultural Rights, focuses on human health, it fails to account for the environmental determinants of that health. Numerous international environmental laws and agreements, such as the UNFCCC, the Paris Agreement, and the CBD, promote the goal of sustainable development but disregard health effects. Motivational disconnect, institutional silos, and anthropocentric norms ensure that wholeness remains elusive and, as a result, also effective governance.

A focused planetary health law framework should therefore focus on core intersections of human health, climate, biodiversity, and pollution to remain politically and diplomatically feasible. Broad intergovernmental instruments risk deepened fragmentation across regimes; some scholars therefore

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recommend avoiding the precise term "planetary health" in treaties while still operationalizing its principles (de Paula, 2021; Planetary Health Alliance, 2024). This targeted approach respects state sovereignty while enabling concrete progress. The One Health lens of the WHO Pandemic Agreement acknowledges the interdependence of human, animal, and environmental health, offers a step forward by requiring multisectoral coordination and addressing zoonotic risks driven by environmental breakdown. Planetary health law advocates would call for a comprehensive approach to sustainable development, grounded in governance norms such as intergenerational equity, ecological integrity, the precautionary principle, common but differentiated responsibilities and respective capabilities, and the right to a healthy environment.

Decisive institutional changes, including reinforced collaboration between UNEP and WHO and an updated definition of sustainable development that emphasizes ecological limits, are necessary. Such opportunities include soft law consensus-building, judicial innovation, international cooperation, and public engagement, while challenges, such as state sovereignty and economic priorities, remain. There are potential benefits if the strategy is implemented effectively, including bolstering ecosystem resilience and promoting health equity, yet resource and coordination challenges, particularly in poor countries, will need to be overcome to sustain impact.

3 The Right to a Healthy Planet Under Law

3.1 Introduction

The human right to a healthy environment provides a core structure for addressing the interrelated crises of degraded environment and poor health that dominate the Anthropocene, the epoch defined by human activity as a major influence on the planet's natural systems. An emerging right at the national, regional, and international level, and one that tries to close the normative gap between human rights and environmental protection, the right to a healthy environment acknowledges the fact that the protection of the environment is a sine qua non for the enjoyment of most fundamental rights, including the right to life, health, or dignity. As a developing paradigm, planetary health law extends this right to the planetary level, focusing on the interconnectedness of human health and Earth's ecosystems. This Section discusses the legal basis of, the development of, and the impact of the right to a healthy environment. It claims that it is essential to the development of sustainable governance and justice for the present and coming generations.

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The right to a healthy environment has evolved from a soft law ideal, as seen in the 1972 Stockholm Declaration, into a norm that is enshrined in over 160 national constitutions and a number of regional treaties (see Boyd, 2024). However, its application is only partial and marred by legal uncertainty, anthropocentric prejudices, and a lack of universal binding rules. Planetary health law provides a revolutionary response by reconceptualizing this right as a planetary entitlement, not confined to local environs, but extended to global ecosystems and biosystems. This Section is structured as follows. Section 3.2 describes the theoretical and array of legal frameworks of the right to a healthy environment, its development from soft law to customary, and its relationship with other human rights. Section 3.3 analyzes its incorporation in national and regional legal frameworks, and its effect on environmental governance and justice.

This Element examines the planetary dimension of this right and proposes reformulating it as the human right to a healthy planet. It points toward courses of action conducive to its coherent integration with preexisting environmental legal norms such as ecological integrity, intergenerational equity, and the rights of Nature. Section 3.4 discusses hindrances to the implementation of the norms, such as the vagueness of legal language and enforcement, and solutions, including procedural rights, judicial creativity, and cooperation around the world. Section 3.5 urgently calls for a planetary perspective for sustainable and just governance.

3.2 The Justification of a Right to a Healthful Environment

The right to live in a healthy environment is based on the inherent relationship between human rights and environmental preservation, given that a livable natural environment is necessary for the dignified existence of humanity (Rodríguez-Garavito, 2018). Located in the 1972 Stockholm Declaration, this right is grounded in Principle 1, which states that "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being" (Piselli & van Asselt, 2021). Notwithstanding its soft law status, the Stockholm Declaration was of great importance to environmental law, constitutional law, and human rights law, and has influenced national constitutions to include rights and duties relating to the environment (Boyd, 2018). In the first instance, the right operated as a nonbinding norm that served as guidance rather than enforceable obligations (Kotzé, 2018). Nevertheless, its uptake in instruments that are legally binding has increased in national or international instruments and supporting soft law declarations like the 2007 Malé Declaration or the 2012 ASEAN Human Rights Declaration (Boyd, 2018).

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This extensive phenomenon, combined with general state practice and opinio juris, indicates that the right has likely attained the status of customary international law, thus elevating legally transnationally shared attitudes and expectations above uniform practice among states (Rodríguez-Garavito, 2018).

The right is inextricably linked to other human rights, including the rights to life, health, and a decent standard of living. In 2000, the UN Committee on Economic, Social and Cultural Rights (CESCR) revised its interpretation of the right to health in the ICESCR through General Comment 14, which directly addresses a right to a healthy environment as a determinant of health (Phelan & van Daalen, 2023). Under this interpretation, states have an obligation to reduce the risk of people coming into contact with harmful environmental conditions (including pollution and radiation) that affect health (Committee on Economic, Social and Cultural Rights, 2000). The UN Human Rights Committee also addressed the violation of the right to life through climate inaction in General Comment 36 (Human Rights Committee, 2019), calling on states to prevent environmental harm. The right also includes procedural dimensions, such as the rights to information, participation, and access to justice, as in Principle 10 of the Rio Declaration and in regional treaties such as the Aarhus Convention (Schapper et al., 2022). These procedural rights enable communities to participate in environmental governance, which, in turn, increased their visibility and responsibility (Boyle & Redgwell, 2021). These combined developments position the right as a bridge between human rights and environmental law, clearing the way for its planetary reach.

3.3 The Human Right to a Healthy Planet

The right to a healthy environment, or what this Element proposes to rename as "the human right to a healthy planet," has been established as one of the foundational principles of the contemporary international and comparative environmental law. This right has been industriously embedded within the contours of constitutional, legislative, and judicial institutions in most jurisdictions around the world, including constitutions of sovereign states, legislation, judicial rulings, and regional human rights compacts. Cemented through the adoption of half of the world's constitutions, and motivated by the international wave of constitution-making and the rise of environmental consciousness, this right has gained international recognition as a foundational element of rights' bills in more than half of the countries of the world and has been critical in the transformation of the normative landscape of human rights and environmental-related law (Boyd, 2012; Rodríguez-Garavito, 2018). The globalization of this right registers a deep understanding around the world of the bond between human well-being

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and the health of ecosystems, underpinned by ever-growing awareness of climate change, extinction, and pollution. The 1976 Portuguese Constitution emerged as a groundbreaking text by explicitly recognizing the right to a healthy environment, triggering a process whose momentum, inspiring eighty-four other countries in just twenty-five years to include equivalent clauses, has laid out the groundwork for environmental constitutionalism (May, 2020).

Rights-based climate litigation is a valuable resource for holding states and corporations accountable for their human rights obligations in the context of climate change. The growing recognition that human rights and climate change are linked has affected institutional structures promoting it, allowing human rights arguments to be incorporated in climate cases before national and regional courts and, indeed, international ones. Case law points to the potential of litigation of this kind in advancing climate action while safeguarding human rights (Wewerinke-Singh and Maxwell, 2025). Where there are no express constitutional provisions, the courts have demonstrated considerable creativity in carving out the right from existing fundamental rights, such as the right to life. One such example is *Tan Tek Seng v Suruhanjaya Perkidmatan Pendidikan* [1996] 1 MLJ 261, where the Malaysian Federal Court took a generous reading of the guarantee to life contained in Article 5(1) of the Constitution, in order to hold that an unpolluted environment fell within the scope of this right; the Malaysian Court thus demonstrated the potential of the judiciary in creating innovative inroads into planetary governance (Atapattu & Schapper, 2019).

Regional human rights systems have been instrumental in consolidating this recognition and implementing the right to a healthy environment within a broader human rights protection framework. In 1981, through the adoption of the African Charter on Human and Peoples' Rights, there emerged an important international landmark convention where a provision (Article 24) states categorically that all peoples have the right to "a general satisfactory environment favorable to their development." This right is reinforced by strong monitoring from the African Commission on Human and Peoples' Rights and the African Court on Human and Peoples' Rights, which have presided over cases that connect environmental harm with the breach of human rights, with increasing normative force of the right in the African context (Knox & Pejan, 2018).

In the Americas, the Protocol of San Salvador (1988), an Optional Protocol to the American Convention on Human Rights related to economic, social, and cultural rights, explicitly requires that states take measures to protect, conserve, and improve the environment, establishing an obligation to actively guarantee the quality of the as a precondition for the dignity and well-being of humanity (see Smith, 2013). The Inter-American Court of Human Rights has taken this right even further, in its 2017 landmark *Advisory Opinion OC-23/17*,

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establishing that the right to a healthy environment includes the protection of not only individual but also collective rights holders, including future generations. It attributed state responsibility for transboundary environmental damage, thereby representing an important first step in acknowledging the extraterritorial scope of environmental human rights duties (Rodríguez-Garavito, 2018; Atapattu & Schapper, 2019).

The European Court of Human Rights has developed the principle that environmental rights are not standalone but must be derived from and implemented through existing Convention rights, such as the right to life (Article 2), the right to respect for private and family life (Article 8), and the right to property (Article 1 of Protocol No. 1). A leading case is *López Ostra v Spain* (1994) 20 EHRR 277, in which the Court ruled that serious environmental pollution affecting a person's home constituted a breach of Article 8, paving the way for the "greening" of conventional human rights to address environmental damage (Lavallée, 2015). These developments at the regional level highlight the dynamic relationship between human rights and environmental law, where courts and commissions are shaping the existing normative landscape to accommodate current environmental realities.

The European Court of Human Rights judgment in the case of *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* (App No. 53600/20, ECtHR) April 9, 2024, constitutes a turning point in climate litigation. The judgment marked the first time that the Court recognized the impact of climate change on rights protected by the ECHR and set out concrete requirements for States to tackle climate change. The judgment also clarified the test for standing in *actio popularis* by environmental protection associations (Connors et al., 2025). It is this more comprehensive approach that the Court emphasizes here, in which the states' obligations in international climate change law, combined with the strongest scientific evidence, form the benchmark for their obligations under the ECHR. In line with international commitments entered into by member states, in particular under the UNFCCC and the Paris Agreement, and in the light of scientific evidence from the Intergovernmental Panel on Climate Change, contracting states have to adopt specific legislation and measures in order to prevent coal, at the level of emissions of greenhouse gases, and global increases in average temperature which would result in severe and irreversible impact on human rights, notably on the right to respect for private and family life and home pursuant to Article 8 of the European Convention on Human Rights.

The integration of constitutional environmental rights into domestic legal regimes has crucially strengthened environmental governance, yielded demonstrable environmental benefits, and contributed to the rule of law. There is

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empirical evidence that countries with constitutional recognition of the right to a healthy environment perform better on a range of environmental indicators, such as having a smaller carbon footprint, better biodiversity conservation, and greater reductions in air pollution and greenhouse gas emissions (Collins, 2017). These provisions represent potent legal instruments that impose limits on governmental power, allowing courts to respond to regulatory lacunae, invalidate insufficient policies, and enforce environmental norms. By establishing a constitutional minimum standard for environmental quality, these rights ensure that marginalized and vulnerable communities, which are often disproportionately affected by pollution and resource depletion, are afforded equal opportunities (Boyd, 2018; Atapattu, 2019).

Constitutional environmental rights have facilitated stronger enforcement of environmental laws and regulations, judicial orders addressing climate change impacts, and legal remedies for communities affected by industrial activities. In South Africa, the Constitutional Court has interpreted Section 24 of the 1996 Constitution, which enshrines "the right to an environment that is not harmful to health or well-being," in groundbreaking court cases that prioritize ecological sustainability and public health over unfettered development. In India, too, the Supreme Court has invoked the right to life under Article 21 of the Constitution to protect the environment, insisting that clean air and water are basic necessities of a dignified life. Enforcement of constitutional environmental rights is, however, not without difficulty, as the effectiveness of such rights differs widely between individual jurisdictions on account of judicial, legislative, and administrative limitations. In many jurisdictions, constitutional environmental provisions are framed in largely aspirational or programmatic terms. As a result, they lack self-executing effect and cannot be directly invoked in judicial review, but instead require implementing legislation, the enactment and adequacy of which remain uncertain (Daly & May, 2018).

For example, although the Brazilian 1988 Constitution is strong on environmental protection, it has faced political opposition, and the absence of institutional capability limits its implementation. In some contexts, enforcement is weakened by judicial reluctance to tackle complex environmental concerns and by a lack of access to justice for disadvantaged communities. In addition, the lack of clear interpretive frameworks can result in contradictory judicial decisions in the small number of countries where environmental rights are implied rather than explicitly mentioned in the constitutional text. In response to these challenges, legal scholars and human rights advocates have emphasized the value of self-executing constitutional provisions that are directly enforceable without the need for enabling legislation. This type of provision allows citizens

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to litigate against governments and helps to build a culture of environmental responsibility and democratic involvement.

The broadening of the right to a healthy environment is also illustrative of its contribution to the theoretical and normative framework of transnational normative convergence, whereby regional and international legal instruments and norms are said to spur domestic legal reforms. The 1972 Stockholm Declaration and the 1992 Rio Declaration have provided bases for the incorporation of environmental considerations in human rights. Regional norms, such as the Escazú Agreement in Latin America and the Caribbean, replicate the procedural aspects of the right by ensuring access to environmental information, participation, and justice, and contribute to democratic governance and community consolidation (Schapper et al., 2022). More recently, the finding by the UN Human Rights Committee in *Portillo Cáceres v. Paraguay*, of 20 September 2019, CCPR/C/126/D/2751/2016, that environmental degradation, including pesticide-induced pollution, can violate the rights to life and to private life sets a marker for state responsibility for environmental harm (Knox, 2020). This decision not only filled up legal lacunae but also spurred further litigation, generating a virtuous cycle of accountability and norm development. Nonbinding soft law instruments like the SDGs and the Cancun Declarations served an important function of establishing normative expectations to help facilitate movement toward more binding forms of regulation (Ituarte-Lima & Schultz, 2019). The implementation of global norms on environmental sustainability and human rights through these instruments places political and moral pressure on states to adjust their legislation in accordance with international principles.

The UN General Assembly's Stockholm+50 Ministerial Statement reiterated this commitment, declaring it a moral imperative to ensure "a clean, healthy, and sustainable environment for the generations to come," thereby adding a time dimension to environmental justice. The adoption of the UN Human Rights Council Resolution 48/13 indicates an increasing international consensus on the recognition of the right to a clean, healthy, and sustainable environment as a universally applicable human right (Phelan & van Daalen, 2023). These resolutions advance planet-wide legal accountability not only through their normative strength, but also by promoting the inclusion of the right in global governance mechanisms, including multilateral environmental agreements. The global scale of the right to a healthy environment was formally recognized in UN General Assembly (UNGA) Resolution A/76/L.75 of 2022, which acknowledged a healthy environment as a universal human right and emphasized the implementation of multilateral environmental agreements. By expressly emphasizing how the threats posed by climate change, pollution, and

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biodiversity loss compromise the realization of human rights, this resolution illustrates the urgent call for an approach to global governance that goes beyond state-centric legal regimes.

In its highly anticipated *Advisory Opinion on Obligations in respect of Climate Change*, delivered on July 23, 2025, the International Court of Justice at [393] held that:

> [A] clean, healthy, and sustainable environment is a condition sine qua non for the realization of several human rights, including the right to life, the right to health, and the right to an adequate standard of living, including access to water, food, and housing. The right to a sound, healthy, and sustainable environment reflects the interdependence between human rights and environmental protection. If human rights are to be guaranteed by States parties to human rights treaties, then it is hard to understand how this can be done without protecting the right to an environment which is clean, healthy, and sustainable as a human right. The human right to an environment that is not harmful to health or well-being is thus an attribute of all human rights.

What is more, at [402], the Court declared that:

> [T]he enjoyment of human rights cannot be realized without an adequate protection of the climate system and other natural resources. States must take action to ensure effective enjoyment of constraints contained in international instruments to protect the climate system and other areas of the environment and a commitment to respect and consider those rights. These measures may include, inter alia: mitigation and adaptation responses taking due consideration of the protection of human rights; the establishment of standards and laws, and the supervision of the activities of private individuals. States have to take appropriate measures in this regard under international human rights law.

At 404, the Court proceeded to ascertain that:

> States must therefore take their obligations under international human rights law into account when implementing their obligations under the climate change treaties and other relevant environmental treaties and under customary international law, just as they must take their obligations under the climate change treaties and other relevant environmental treaties and under customary international law into account when implementing their human rights obligations.

This groundbreaking judgment was delivered against the background of a solidifying global consensus that safeguarding the environment is not only a policy preference but an essential human obligation, upon which the attainment of other rights, from health to life and dignity, is dependent. This right has transformed the legal landscape through constitutional reforms, judicial

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interpretation, and regional human rights systems, in support of ecological sustainability and environmental justice (Ip, 2021). Despite continuing issues like variability in enforcement and murky rights of subjection, the increased application of self-executing standards and expanded procedural rights provide openings for improving compliance. By fostering stronger synergy between human rights and environmental law, reframing the right to a healthy environment as the human right to a healthy planet can both constrain the actions of states and corporations and empower communities to secure a future in which planetary ecological integrity is preserved for present and future generations.

Planetary health law and governance represents a new institutional paradigm that fundamentally redefines the right to a healthy planet. By expanding this right beyond local ecosystems to encompass planetary systems and the biospheres that sustain life on Earth, it moves beyond the anthropocentric limitations that have long characterized environmental law (Biermann, 2021). This new worldview brings the right into harmony with other fundamental moral and legal values of planetary health, such as ecological integrity, intergenerational equity, and the rights of Nature, which are recognized as reflecting the deep connections between human health and the health of the planet (Phelan, 2020). As a departure from state-centered and human-centered legal approaches, planetary health law represents a comprehensive framework for governance that seeks to ensure the continued health of Earth systems and support them in the face of deepening environmental crises. Ecological integrity, an underpinning of this model, affirms the importance of conserving functional ecosystems capable of supporting biodiversity and human well-being (Garver, 2021).

Planetary health law, once widely acknowledged and elaborated, is bound to alleviate the constraints of the traditional bias of international law toward independent sovereign state actors, and it humanizes the planetary crisis by instilling public understanding of how the human generations, including the generation yet unborn, depend on the health of the biosphere of the planet (Atapattu, 2019). By shifting legal thinking to the planetary scale, planetary health law provides a moral and legal foundation for safeguarding the Earth's life-support systems and strengthening their resilience for present and future generations.

3.4 The Road Ahead

The realization of the right to a healthy planet faces a plethora of serious challenges that prevent it from living out its full potential as a transformative legal norm. These challenges include the ambiguities of legal language, the anthropocentric assumptions at work, and considerable enforcement

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constraints. Critics argue that the right may be overly imprecise and the ambiguity associated with the phrasing of the right – often formulated as a right to a "clean," "healthy," or "sustainable" environment – may risk legal uncertainty and generate variable judicial decisions in other jurisdictions (Boyd, 2012; Atapattu, 2019). This lack of specificity, although not distinctive to environmental rights, has turned out to obstruct the formulation of precise state responsibilities, for courts are left to contend with defining the ambit and substance of the right without democratic input from the electorate. Additionally, the right's anthropocentric emphasis on the well-being of human beings could devalue ecosystems' innate value, which may hold back the right from falling in step with planetary health law's Nature-oriented aims to preserve the planet's life-support systems integrally (Jones, 2018; De Lucia, 2019).

Implementation of these measures is a challenging endeavor, especially at a global scale. In the context of an issue like climate change, the Paris Agreement, which is built around voluntary NDCs, lacks strong accountability mechanisms and leads to variable compliance and minimal global effects (Chan et al., 2018). And proving the direct causal connection between environmental damage and certain human rights abuses involves substantial evidentiary obstacles, particularly in those jurisdictions without express constitutional or statutory rights to the environment, and where claimants in this area are forced to rely on derivative understandings of rights like the right to life or health (Atapattu & Schapper, 2019). These challenges underscore the complexity of translating the right to a healthy environment from a normative aspiration into a truly actionable rule of law.

Nonetheless, various promising avenues are available to promote the implementation of the right, with potential mechanisms in place for addressing its limitations and realizing the right's potential in global environmental governance. Procedural rights, which are firmly grounded in Principle 10 of the 1992 Rio Declaration and regional instruments such as the Aarhus Convention, are crucial for promoting transparency, public participation, and access to justice in environmental decision-making (Boyle & Redgwell, 2021; Schapper et al., 2022). It, in turn, has the potential to create communities, especially those most adversely impacted by environmental damage, that are able to shape policies and hold both government and corporations accountable, of the possible creation of democratic governance and environmental justice.

The Escazú Agreement or the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean takes this further still, offering a regional framework to guarantee environmental information and human rights defenders' protection, amplifying

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the procedural dimensions of the right (Schapper et al., 2022). Judicial activism in the cause of a healthy environment has clearly been a potent weapon (certainly in areas where there are no specific legal provisions). Courts in more than a dozen countries have creatively incorporated existing constitutional rights, such as the right to life, to include environmental protections, thus broadening human rights law to include ecological damage (Boyd, 2012). Important international judicial decisions have further clarified state obligations to prevent transboundary environmental harm and to protect the rights of individuals, communities, as well as future generations, thus including the judiciary in the realization of these rights (Atapattu & Schapper, 2019).

Publics are now playing an increasingly significant role in driving policy changes and raising awareness about environmental issues, particularly through grassroots organizations advocating for laws that protect the natural environment (Kauffman & Sheehan, 2019). Examples that treat the environment as a subject of rights, such as in Ecuador and Bolivia, where ecosystems have been granted personhood in law, illustrate how public mobilization might establish new narratives and put ecological value at the top of the legal agenda. These movements lift up the voices of indigenous peoples, environmental defenders, and young activists, who experience the greatest impacts of environmental degradation, and promote a more democratic, just, and sustainable style of environmental governance. In addition, making the right to a healthy environment a part of existing mechanisms, such as the Universal Periodic Review of the Human Rights Council, could add additional legs to state accountability by better integrating discussions of environmental issues within the UN human rights architecture and without requiring claimants to establish a direct line of causation to particular human rights violations (Knox, 2020). This would enable the systematic scrutiny of the environmental policies of states and promote conformity with international norms.

3.5 Summary

The human right to a healthy planet is a critical legal starting point in addressing the planetary crises of the Anthropocene, an epoch in which the impact of human activity on the earth's ecological systems is unusually far-reaching. The right to a healthy environment has morphed from a soft law aspiration in the 1972 Stockholm Declaration into a norm enshrined in more than 160 national constitutions and affirmed as legally binding by the International Court of Justice. This relatively new right connected human rights law with environmental law to address climate change, biodiversity loss, pollution, and health inequities. It has the potential of being transformative in that it facilitates

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systemic governance changes, and countries with constitutional environmental rights do show better environmental performance and improved justice for marginalized people.

Planetary health law, as articulated in this Element, reconceptualizes this right at a planetary scale. The new paradigm draws its building blocks from existing normative resources, namely, ecological integrity, intergenerational equity, and the rights of Nature as seen in the pioneering work of Ecuador and Bolivia, as well as the 2022 Resolution A/76/L.75 of the UN General Assembly. But the challenges inflicted by legal vagueness, anthropocentric biases, and the inability to enforce the Paris Agreement on the health of the planet and its biosphere persist. Ways to get around include procedural rights-activating public participation, creative judicial intervention by interpreting existing rights as including a right to environmental protection, and global cooperation through soft law instruments, such as the SDGs. Taking a planetary, bird's eye view, the right to a healthy planet builds bridges between international environmental and global health law, promotes resilience in the Earth's climatic life-support system, and secures a dignified future for humanity and the planet.

4 The Planetary Right to Health

4.1 Introduction

As discussed in previous sections, the idea of planetary health, which highlights the deep interlinkage between human well-being and the health of the Earth's ecosystems, stands out as a transformative idea in the Anthropocene, a period characterized by the dominant impact of human society on planetary systems. The planetary right to health expands the usual right to a healthy standard of living, including a healthy environment, to encompass Nature-oriented concepts, including the rights of Nature and indigenous cosmologies that see humans embedded as part of the wider life community. This right counters the anthropocentric tendencies of traditional environmental law, which relegate Nature as a resource exclusively to be exploited by humans, and aims to bring about a legal order that accords primacy to ecological integrity, intergenerational equity, and living in harmony with all systems of life. Amidst global environmental crises, such as climate change, biodiversity loss, and pollution, that are endangering the health of both humans and the planet, the planetary right to health provides a normative basis for re-thinking governance that preserves the resilience of Earth's life-support systems.

The rest of this section is structured as follows. Section 4.2 examines the intellectual underpinning of the planetary right to health by framing it in the planetary health discourse and its historical development and relationship with

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the rights of Nature movement. Section 4.3 considers how this right has or has not migrated into juridical orders, focusing on paraconstitutional experiments in Ecuador, Bolivia, New Zealand, and Colombia, and indigenist laws in the United States. Section 4.4 addresses the Nature-oriented underpinnings of the right, such as the rights of Nature, ecological stewardship, and indigenous legal traditions, and their role in reframing human–Nature relations. Section 4.5 tackles the obstacles to practical realization, such as anthropocentric legal arrangements and problems of enforcement, and explores how the procedural rights, guardianship models, and international cooperation can be adjusted and used as instruments of realization. Section 4.6 brings together these insights to argue for the planetary right to health as a driver of sustainable and just governance in the Anthropocene.

4.2 Fundamentals of the Planetary Right to Health

The right to planetary health is grounded in this deep recognition of the interconnectedness of human health and the health of Earth's ecosystems – the atmosphere, biosphere, hydrosphere, and geosphere (Haines & Frumkin, 2021). Ecological science helps to bring out that functioning ecosystems are dynamic and interconnected communities of living organisms and their physical contexts that are required in order to sustain all life forms, including those that are human (Sala, 2020). The planetary health paradigm is an alternative understanding of health and goes beyond the previous, narrow notions of the WHO on health that health is merely the lack of disease. Instead, it supports a systemic view of well-being that encompasses both human and nonhuman systems and recognizes their mutual interdependence (Kauffman & Sheehan, 2019). This framework unifies considerations of biological, environmental, and social influences on health and can serve as a powerful tool for addressing some of the most pressing global challenges of the twenty-first century – including epidemics as well as the consequences of climate change and biodiversity loss (Haines & Frumkin, 2021). By intentionally revealing the links between these different systems, the planetary right to health offers a bold path toward fostering resilience and sustainability amidst the escalating environmental crises of the Anthropocene.

The laws that have evolved to protect Nature are from the viewpoint of human beings and their needs. For instance, Principle 1 of the Rio Declaration on Environment and Development (1992) makes human development a central tenet of sustainable development, neglecting frequently the intrinsic value of ecosystems (Francioni, 2015). Also, the Convention on Biological Diversity (1992) underlines in its Preamble that the conservation

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of biodiversity is the responsibility of "humanity," for its own benefit, for example, for its domination of Nature as it is declared to be a source for resources, like food resources, medicines, and healthy life, that is to say, a neo-utilitarian view of Nature, one of a place for the exploitation. The planetary right to health contests this anthropocentric stance, assuming an Nature-oriented position, that is, the rights of Nature, where the ecosystems are considered subjects of rights and have the right to exist, flourish, and regenerate (Borràs, 2016). This perspective is rooted in indigenous cosmologies that situate human beings as members of an extended Earth family predicated on kinship, nurturing a relational ethic of care, respect, and responsibility for all sentient beings. These views are in tune with the United Nations' Harmony with Nature initiative, launched in 2009, which champions governance systems that encourage living together with all living systems and encapsulate this interrelated worldview (Schmidt, 2022). By applying these principles, the planetary right to health aims to reorient legal frameworks to a more symmetrical and mutualistic understanding of planetary well-being.

The rights of Nature movement, largely originating with Christopher Stone's 1972 seminal argument that natural objects like trees and rivers ought to have legal standing (see Stone, 2010), helps posit a rights-based underpinning to the planetary right to health. This idea received a major boost when a Universal Declaration of the Rights of Mother Earth was agreed upon at the 2010 World People's Conference on Climate Change in Cochabamba, Bolivia. It upholds the rights of Nature to live, regenerate, and maintain biodiversity, say the two, reflecting cultures like indigenous tribes that have always seen Mother Earth as sacred, a mother deserving respect and protection (Gwiazdon, 2020). These developments reinforce the ethical and juridical necessity of considering ecosystems as indispensable for the well-being of the earth and its people. This planetary right to health is preceded by these legal and ethical developments and situates health as the shared entitlement of humans and ecosystems. It emphasizes the importance of preserving ecosystems as a condition for the enjoyment of well-being, locating such a right on principles of justice, reciprocity, and care, which are not only directed to human interests (Ip, 2023a). Redefining health as an attribute of the Earth community opens new frontiers for the development of creative and effective legal and policy tools to ensure the long-term resilience and sustainability of the Earth's life-support systems to promote a healthier and more equitable future for all beings.

4.3 The Rights of Nature

The rights of Nature, as expressed by Stone (2010), state that the environment exists in its own right, with trees and water bodies possessing the same legal

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standing as humans who can harm or be harmed. The said principle, based on Earth Law, acknowledges Mother Nature's rights to be, to reproduce its habitat, and to carry out its role within the life processes, balancing corporate rights and supporting the human right to life (Ito & Montini, 2019). The arguments for recognizing juridical rights to Nature are based on two main foundations (Borràs-Pentinat, 2025). If human rights are derived from some absolute value of existence, then Nature should be considered to have a similar right. Second, the enjoyment of healthy ecosystems is fundamental for the survival of humans, which implies that protecting the rights of Nature leads to the well-being of humanity. Environmental stewardship, a synthesis of anthropocentric and Nature-oriented values, highlights human duties to safeguard the integrity, resilience, and beauty of Nature, in order to merely achieve sustainable human–Nature relations (Schmitz, 2017). Taken together, these principles recast health as a collective entitlement that requires laws to prioritize both ecological health and human well-being.

The rights of Nature, which can be reconceptualized as the planetary right to health (Ip, 2023c), have been incorporated into laws of varying jurisdictions around the world, depicting a global trend from anthropocentrism to ecocentrism in governance. The 2008 Constitution of Ecuador, with input from indigenous groups and anti-neoliberal coalitions, became the first Constitution to enshrine rights of Nature, recognizing "Mother Earth" as a legal subject with the right to integral respect, regeneration, and restoration (Echeverria, Romo Leroux, 2020). These rights may be enforced by anyone, regardless of their nationality, pursuant to Articles 71 and 72, who sues to defend them, thereby overcoming enforcement hurdles (Kauffman & Martin, 2021). Bolivia enacted the Law of the Rights of Mother Earth in 2010, which solidified Nature's rights to life, biodiversity, and the ability to regenerate, drawing on indigenous cosmologies (Schapper et al., 2022). In New Zealand, the Te Urewera Act 2014 gave legal personhood to the Te Urewera forest, and in 2017, the Whanganui River was granted by the government legal identity with rights, in accordance with Māori beliefs of the river's spiritual and cultural significance (Knauß, 2018). These laws create legal guardians to represent the health and welfare of entities that rely on them, ordering responsibility above ownership (Kauffman & Martin, 2021).

In *Sentencia C-123* (2014), the Constitutional Court of Colombia held that justice for Nature is not merely human justice, but justice for Nature as a subject with rights. The Court found it necessary to constitutionally protect the Atrato River as one of Colombia's important biodiversity heritage sites. The Court found it necessary to develop an understanding to constitutionally protect the Atrato River as one of Colombia's important biodiversity heritage sites. The environmentalist approach is further justified by the particular importance of

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this area, as elaborately developed throughout constitutional case law. This philosophy is informed by a set of constitutional provisions, sometimes collectively referred to as the "Ecological Constitution" or "Green Constitution," which share a common emphasis on the importance of a healthy environment and the relationship between humans and the state. In *Sentence C-449* (2015), the Court has expressed its understanding of Nature-oriented interpretation, interpreting it as a principle that permeates the entire legal order at its apex and imposes a responsibility on the State to protect the nation's natural wealth. This value presents itself as a basic and communitarian constitutional right reached by each person in a multiplicity of jurisdictions. It also places a responsibility on the State, society, and individuals, encompassing specific obligations to ensure environmental protection. As a matter of fact, the Constitution also considered environmental sanitation as a public service and a fundamental duty of the State. The 2016 decision on the Atrato River by the Court granted the river a legal personality and established a guardian institution with the participation of local communities, promoting inclusive decision and policy making (Wesche, 2021). Other legal decisions followed, recognizing the Colombian Amazon, Lake Tota, and other ecosystems as having legal personhood, placing Colombia at the forefront of the "constitutionalism of nature" (Garver, 2021).

By pronouncing on climate rectification cases, the Supreme Court of Justice of Colombia in *Future Generations v Ministry of the Environment and Others* (*Demanda Generaciones Futuras v Minambiente)* [2018] 1001–22–03–000–2018–00319–01 highlights the co-evolution of legal systems with the natural environment by affirming the rights of Nature. Still emergent, strategic litigation combining human rights, climate, biodiversity, and Nature rights frames is an avenue for multispecies climate justice (Wewerinke-Singh & Mead, 2025). India made inroads into the rights of Nature with a ruling by the Uttarakhand High Court in 2017 declaring the Ganga and Yamuna rivers and their tributaries and glaciers as legal persons to be preserved (Alley & Mehta, 2020). In the United States, local laws in eighty-seven and counting communities as of January 2021, backed by groups like the Community Environmental Legal Defense Fund, have recognized the right of ecosystems to exist or thrive, often in response to crises such as that of the inhospitable Lake Erie (Chilton & Jones, 2020; Kauffman & Martin, 2021). In 2018, the Ho-Chunk Nation of Wisconsin was the first Native American tribe to change its constitution to recognize the rights of Nature based on indigenous caretaking ethics (Kauffman & Martin, 2021). These developments illustrate the power of the planetary right to health to reform the law, even as local regulations encounter legal challenges, such as those posed by corporate lawsuits claiming deprivation of property (Kauffman & Sheehan, 2019).

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4.4 Nature-oriented Principles

The planetary health right's Nature-oriented foundation rejects the anthropocentric divide between people and Nature and promotes a relational and interconnected understanding of health and well-being, which fundamentally values all living species. At the center of this paradigm is ecological integrity, which describes the maintenance of healthy ecosystems that self-regulate energy and material flows and that maintain the resilience and stability of Earth's systems (Haines & Frumkin, 2021). The rights of Nature movement that focuses on the protection of the ability of ecosystems and life processes to self-organize, adapt, and evolve reflects the same concern of the UN World Charter for Nature (1982) with respect to the respect for the fundamental processes of Nature (Harden-Davies et al., 2020). A healthy ecosystem is one that allows itself to be under external stress, but will sustain under such pressures and focus on resilience rather than entropy, and cooperatively shape the future rather than reactively avoiding destruction. From this perspective, environmental health is reconceptualized as a dynamic equilibrium: A state that nurtures the necessary conditions for ecosystems and their inhabitants to flourish together in order to promote the overarching planetary right to health.

Indigenous legal traditions have played a formative role in developing the planetary right to health by emphasizing the interconnectedness of human beings with the Earth's community of life. Indigenous cosmologies, such as those of Māori, Whanganui iwi, and Andean peoples, among others, conceptualize humans in a kin-based relationship with Nature, in which the Earth is viewed as a mother worthy of respect and reciprocity (Jones et al., 2022). These worldviews have given rise to legal inventions, like the Bolivia-based recognition of Pachamama, the Andean deity manifested as Mother Earth, in the country's constitution, and the guardianship model that New Zealand's parliament used to grant legal personhood to the Whanganui River, ensuring the river's rights and health. These developments are in line with the United Nations' Harmony with Nature program (initiated in 2009), which promotes governance models that sustain coexistence with all living systems (Cullinan, 2021). Despite representing less than 5 percent of the world's population, indigenous peoples care for a quarter of the planet's surface and are stewards of 80 percent of the world's biodiversity and advocating for frameworks such as the Universal Declaration of the Rights of Mother Earth, agreed on in 2010 (Jarandilla Nunez, 2019; Zelle et al., 2021). These contributions highlight the significance of indigenous knowledge systems in crafting a planetary right to health oriented to ecological and cultural reciprocity.

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Driven by the rights of Nature, a developing Nature-oriented paradigm questions the anthropocentric tenets underlying traditional legal systems and, by doing so, grants legal rights to ecosystems, resting on their inherent rights to exist, flourish, and regenerate (Borràs, 2016; Kauffman & Sheehan, 2019). This transformation is exemplified by countries like Ecuador and Bolivia, which have incorporated the rights of nature into their constitutions, granting rivers, forests, and other natural entities a voice in the courts. This interpretation has been developed by the Inter-American Court of Human Rights in its *Advisory Opinion OC-23/17*, which held that forests and rivers are entitled to protection even if they are not linked to an actual violation of human rights, evidencing an Nature-oriented approach (Knox, 2021). However, critics argue that the human manifestation of rights in Nature must necessarily be inherently anthropocentric, since human institutions are required to articulate and enforce the rights (Baber & Bartlett, 2020). Nevertheless, the rights of Nature amount to a radical new vision of environmental governance, with ecosystems as co-equal partners in the pursuit of planetary sustainability.

This groundbreaking judgment defined the character of the right to a healthy environment by recognizing the legal interests in environmental elements, such as forests, rivers, or seas, as having intrinsic value that does not depend on risk to human individuals (Borràs-Pentinat, 2025). Unlike most human rights, this right not only considers the services that ecosystems provide to human beings; for instance, it is not just about the effects of habitat loss on human health, life, or bodily integrity. It does not value these natural things in themselves, however, but rather as valuable to the various living organisms that inhabit the planet and, therefore, deserving of protection as part of the larger ecological community. The Court stressed that, by using the term Nature, it was joining a global trend recognizing Nature as a legal entity, as evidenced by judicial decisions and constitutional provisions that grant forests the right to exist and regenerate (Borràs-Pentinat, 2025). This move represents a larger trend to infuse Earth-conscious principles into law and embodies the vision of a planetary covenant for health, cultivating governance that prioritizes the health of both human and nonhuman systems. This approach aims to shape the future sustainably and equitably for all members of the Earth community.

4.5 Future Directions

The realization of the planetary right to health presents formidable obstacles, in large part because legal systems are anthropocentric, and it is difficult to enforce Nature-oriented rights. The dichotomy between legal subjects (humans, corporations) and objects (Nature) in Western law perpetuates the objectification of

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Nature and restrains it from being acknowledged as a right-holder (see Billet, 2021). Critics caution that conferring legal personhood to ecosystems, as pursued in the case of India's Ganga and Yamuna rivers, risks anthropomorphizing Nature and could, instead, exacerbate rather than mitigate human-Nature antagonism or conflict (O'Donnell, 2019; Kauffman & Martin, 2021). The absence of definitions of ecosystem "health" makes it more difficult to define an enforceable standard, and the lack of clear metrics makes current law standards more akin to rules that tolerate degradation up to the onset of harm, rather than a requirement to maintain flourishing systems (Kauffman & Sheehan, 2019). In Ecuador, implementation has proved challenging, given the country's economic dependence on resource extraction, particularly in the ecologically fragile Yasuní National Park, despite its constitutional protection (Laastad, 2020). Municipal rights of Nature ordinances, such as those in the United States, are being legally challenged as violations of property rights by corporations, illustrating a conflict between economic and ecological interests (Kauffman & Sheehan, 2019).

Furthermore, the rights of Nature paradigm pose philosophical and practical challenges to conflicting interests as well. For example, the right to the flow of a river could conflict with climate-friendly hydroelectric projects, requiring a systemic approach to maintain ecological balance (Gutmann, 2021). Opponents also argue that it could be not the concept of rights that is problematic, but other foundational aspects of this thought system, namely its Western heritage and the liberal assumptions concerning individualism, which could be not always proper in terms of the Nature-oriented turn, new dilution of the movement name, and new attempt to diminish its influence on changing capitalism (Jaria-Manzano, 2019; Baard, 2021). Indigenous peoples, who have long been victimized by the Western view of "rights," have expressed wariness of incorporating Earth jurisprudence into frameworks that have been used to subjugate them (Kauffman & Martin, 2021).

Despite these obstacles, there are also important opportunities for expanding the planetary right to health. Procedural rights, including information, participation, and judicial redress for ecosystem trustees, contribute to the transparency and inclusiveness of environmental governance (Schapper et al., 2022). The case of the Atrato River in Colombia illustrates how the guardianship model can engage communities in policymaking, bridge social divides, and amplify the voices of the marginalized (Wesche, 2021). Emulating Stone's guardianship approach, courts exercise their powers of judicial intervention to appoint agents to act on behalf of environmental entities, as in New Zealand and Benegal, promoting accountability (Stone, 2010). Soft-law measures such as the UN's Harmony with Nature resolutions and the 2010 Universal Declaration of the Rights of Mother Earth are normatively compelling decision-making

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toward the creation of binding obligations, reinforced by international agencies such as the IUCN, which approved of rights for Nature in 2016 (Houck, 2017). Policy change is driven by public engagement, and indigenous-led movements and global networks, such as the Global Alliance for the Rights of Nature, inform evidence and advocacy for Nature-oriented values (Gwiazdon, 2020). Incorporating the rights of Nature into international mechanisms, such as the Universal Periodic Review, or in WHO and UNEP mandates, could also increase global accountability, aligning current indigenous rights for self-determination and resource sovereignty (Kauffman & Martin, 2021). It is therefore essential to engage in interdisciplinary work that draws on insights from planetary boundaries research and makes use of the ethical and legal perspectives to establish solid standards of ecosystem health (Haines & Frumkin, 2021).

4.6 Summary

Flourishing ecosystems are indispensable to climate change mitigation because they capture and store carbon dioxide within plants, in the soil, and in sediments. In addition to carbon management, these systems deliver a range of co-benefits that enhance human and environmental welfare, such as better air and water quality, economic opportunities, and protection of biodiversity. These benefits are also determinant for the sustenance of human rights and for the good health and resilience of societies (Borràs-Pentinat, 2025).

The concept of planetary health as a legal right presents a novel legal framework for addressing the interrelated contexts of human and ecological health in the Anthropocene (see Ip, 2023c). Through the incorporation of Nature-oriented norms like the rights of Nature, ecological stewardship, and indigenous cosmologies, the framework seeks to disrupt the anthropocentric logic of classical environmental law. And it is a way of describing a relational view of health that includes all forms of life and promotes a holistic form of governance. The essay develops the concept of the planetary right to health, its normative grounding, legal advancements, obstacles, and procedural functions, and underscores how it can facilitate legitimate and sustainable governance to ensure the maintenance of the life-supporting capacity of Earth.

The planetary right to health demands a reevaluation of the relationship between humanity and the environment in ways that transcend human-centric legal paradigms, on the one hand, and resonate with the intrinsic value of ecosystems, on the other. This sea change is rooted in Earth-conscious philosophies that center the rights of Nature; ecological caretaking; and indigenous cosmologies, which consider humans as woven into a web of life rather than

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overlords of it (Borràs-Pentinat, 2025). These principles confront the exploitative drift of conventional environmental law – a law prone to privilege economic growth over ecological soundness. Infusing a Nature-oriented approach to planetary right to health, the right provides institutional designs in climate litigation that foreground substantive "eco-principles," encouraging courts to factor in ecosystem welfare alongside humans' interests (Borràs-Pentinat, 2025). Perhaps most importantly, this approach fosters a legal culture in which the health of the planet is recognized to be interdependent with the health of humankind, and where the destruction of Earth's systems ultimately undermines the basis for human rights and well-being.

A number of legal developments from various states serve to highlight the revolutionary potential of the planetary right to health. In Ecuador and Bolivia, for example, the constitution provides for rights of Nature where ecosystems have the legal right to thrive and to be repaired (Borràs-Pentinat, 2025). Ecuador's Constitution of 2008, for example, recognizes the rights of Mother Earth to exist, to continue and regenerate, and allows courts to rule on natural objects' behalf. And, as with the Ucayali, New Zealand's Whanganui River was recently given legal personhood status, the case being driven by the indigenous Māori culture, who consider the river a life-giving ancestor who needs protecting. Judicial decisions in Colombia have conferred legal identity on the Amazon River, equipping those acting on its behalf with the ability to exercise its right to prevent degradation. These "first practices" are examples of how the planetary right to health can transform governance premised on the incorporation of Nature-oriented values within law, so that ecosystems are not just resources but also inherent parts of a single Earth community (Borràs-Pentinat, 2025).

The planetary right to health, however promising, will also be faced with significant challenges. By the letter of the law, enforcing the rights of Nature proved to be more complex than its proponents had anticipated, with courts and regulators wrestling in ham-fisted fashion with the question of what exactly these rights should cover and how they might operate. Economic interests, especially within resource extraction industries, provide counterintuitive resistance to Earth-conscious legal frameworks. Philosophical conflicts also arise, as anthropocentric visions of the world in many legal systems collide with the sense of relation and placement of Nature to the center of things in the planetary right to health (Borràs-Pentinat, 2025). These problems are exacerbated by the international scope of environmental problems, which need to be addressed at multiple levels of government in disparate cultural, economic, and legal settings.

The procedural components provide routes to navigate these blockages and to work the planetary right to health. Procedural rights – to information, to public

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participation, and to access to justice – ensure that communities have the power to advocate for their environment and their health. Guardianship models, similar to New Zealand's Whanganui River case, assign guardians to represent ecosystems so their interests can be represented in court. Creativity in the judiciary becomes vital, as, more and more, case law is being read with an Nature-oriented perspective, doing so to pave the road to set a precedent of a strengthened planetary right to health (Borràs-Pentinat, 2025). Global collaboration is required to coordinate these policies, as piecemeal sovereignty obstructs the response to cross-border environmental problems. Soft law instruments, including international declarations, and hard law structures, such as agreements, can contribute to consensus-building, defined standards with enforcement, and a coherent global approach to planetary health.

The planetary right to health serves as a mechanism to facilitate sustainable and equitable governance, grounded in the acknowledgment of the interconnectedness between human and planetary health. It resonates with the benefits gained from ecosystems, such as biodiversity recovery, and air and water pollution reduction, directly contributing to human rights to health, food, and clean environment (Borràs-Pentinat, 2025). By placing the emphasis on ecological integrity, this framework tackles the root causes of climate disruption and environmental collapse and safeguards the life-giving systems of the Earth for our descendants. It also highlights the voices of marginalized communities, such as indigenous people, whose cosmologies can provide crucial insights into practices of sustainable living. By incorporating Nature-oriented perspectives, the planetary right to health encourages the law to adopt a relational approach to health that surpasses terrestrial species limits to support all species to thrive symbiotically.

The planetary right to health is a visionary answer to the interlinked crises of human health and ecological health in the Anthropocene. Through the incorporation of Earth-conscious principles like rights of Nature and ecological stewardship, it disrupts anthropocentric legal assumptions and promotes a Nature-oriented form of governance. Even countries that have recently passed bold new pro-Nature laws, such as Ecuador, Bolivia, New Zealand, and Colombia, reveal how much latitude there is in the law to reconstitute the legal status quo. Meanwhile, procedural rights, guardianship schemes, judicial activism, and international cooperation also provide means to grapple with problems of legal uncertainty and economic pressures. Acknowledging the interdependency between human and planetary health, the planetary right to health supports a re-envisioning of the future that is sustainable and just, in which the life-support systems of Earth are maintained for the well-being of humanity and the Earth community.

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5 Toward a Constitution for Planetary Health

5.1 The Way Forward

The Anthropocene epoch, defined by humanity's extensive influence on Earth's ecosystems, significantly endangers global health and environmental stability. A just, healthy, and safe planet is nevertheless essential for human well-being. An Earth-system justice approach is required to safeguard critical Earth functions, enhance health, and ensure basic human needs are met for all to prosper (Gupta et al., 2024). Climate change, biodiversity loss, and pollution undermine ecological integrity and human well-being, intensifying issues such as disease, displacement, and conflict (Myers et al., 2021). Global temperatures are projected to increase until at least the mid-twenty-first century across all emissions scenarios, even with mitigation measures (Connors, 2025). Long-term climate effects, such as sea level rise, are expected to persist for centuries, with projections estimating a rise of 2 to 3 meters over 2,000 years, even if global warming is limited to 1.5°C. Swift and substantial reductions in greenhouse gas emissions, particularly carbon dioxide and methane, are vital to mitigate adverse impacts. Achieving net-zero carbon dioxide emissions, either by eliminating emissions or through permanent offsets, is crucial to stabilizing global temperatures, potentially at slightly varied levels, thereby halting further climate change, though not reversing prior effects (Connors, 2025). Addressing these challenges demands, among other things, extensive institutional reforms that overcome the shortcomings of traditional nation-state governance, which has historically exacerbated environmental degradation (Leite & Ayala, 2019). The fragmented and often ineffective nature of existing international institutions, such as the International Court of Justice, which depends on voluntary state compliance, highlights the need for a robust global constitutional approach (Bess, 2023).

The emerging fields of planetary health law and governance aim to integrate international environmental law and global health law. This section advocates for a global environmental constitution grounded in ecocentrism, equity, and international cooperation to safeguard planetary boundaries and ensure a sustainable future for all life forms (Kotzé, 2016). The section is structured as follows. Section 5.2 outlines the necessity of a global constitutional framework, critiquing the limitations of state-centric governance. It also explores environmental constitutionalism, focusing on embedding environmental rights and responsibilities within legal systems. Section 5.3 proposes a Planetary Health Organization (PHO) that results from a merger of the WHO and the UNEP to more coherently and holistically address the interplay between health and the environment. Section 5.4 examines the potential establishment of an

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independent Planetary Health Tribunal (PHT) to resolve disputes and enforce planetary health norms. Section 5.5 concludes by advocating for a flexible, Earth-conscious planetary health constitution to promote planetary restoration and resilience.

5.2 Environmental Constitutionalism and Planetary Health

Environmental constitutionalism represents a transformative legal paradigm for embedding planetary health principles within the normative structures of governance. It entails the comprehensive integration of environmental rights, responsibilities, and remedies into constitutional frameworks to safeguard ecosystems and secure a healthy environment for both present and future generations (Macpherson et al., 2021). This approach reorients legal systems toward an Nature-oriented ethos, recognizing the interdependence of human health and planetary ecosystems in the Anthropocene, a geological epoch defined by humanity's profound impact on Earth's systems (Kotzé, 2016). By codifying environmental protections as fundamental norms, constitutionalism offers a robust mechanism to address the interconnected crises of climate change, biodiversity loss, and pollution, which threaten global health and ecological stability (Myers et al., 2021).

As of 2024, globally, 161 out of 193 national constitutions of United Nations member-states enshrine the right to a healthy environment, reflecting a burgeoning consensus that the protection of the environment, if not the planet-at-large, is a central political and legal norm (Boyd, 2024). These provisions often encompass procedural rights, such as access to information, public participation in decision-making, and access to justice, as well as substantive rights to clean air, safe water, fertile soil, and sustainable ecosystems (May & Daly, 2018). For instance, South Africa's Constitution (1996) guarantees the right to an environment not harmful to health or well-being, alongside obligations to promote conservation and prevent ecological degradation (Constitution of South Africa, 1996). Such constitutional commitments empower citizens to hold governments accountable, fostering environmental justice and resilience (Jeffords & Gellers, 2018). Legal approaches that combine climate and biodiversity protection are progressively gaining prominence, notably within the realm of litigation (Wewerinke-Singh & Mead, 2025). However, the efficacy of environmental constitutional provisions varies, often hindered by weak enforcement mechanisms or competing economic priorities, particularly in developing nations (Gonzalez, 2017).

The 1972 Stockholm Declaration on the Human Environment marked a seminal moment in the evolution of environmental constitutionalism,

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articulating the fundamental right to a quality environment conducive to dignity and well-being, coupled with responsibilities to protect and enhance Nature for present and future generations (Foster et al., 2020). Principle 1 of the Declaration underscores the linkage between human rights and environmental health, laying a normative foundation for subsequent legal developments (United Nations, 1972). Yet, the absence of explicit environmental provisions in foundational human rights instruments, such as the Universal Declaration of Human Rights and the ICESCR, limits their applicability to planetary health challenges (Knox, 2020). This normative gap underscores the need for a reimagined legal framework that integrates ecological and health imperatives.

Soft law instruments have sought to bridge this divide by promoting Nature-oriented norms, albeit with limited enforceability due to their nonbinding nature (Zelle et al., 2021). The Earth Charter (2000), for example, advocates a "community of life" approach that emphasizes sustainability, intergenerational equity, and justice across human and nonhuman systems (Bosselmann, 2022). Its preamble asserts that the resilience of life and human well-being depend on preserving a healthy biosphere with intact ecological systems. Similarly, the Global Pact for the Environment (2017) proposed a framework for recognizing the right to a healthy environment as a universal norm, though its replacement by a political statement in 2022 diminished its potential as a binding instrument (Kotzé, 2020). Despite their limitations, these soft law mechanisms play a critical role in norm-building, shaping customary international law, and inspiring national constitutional reforms (Gostin & Sridhar, 2016).

Global environmental constitutionalism transcends national boundaries, envisioning a higher-order legal structure to address transboundary and planetary challenges. Kotzé (2019) advocates for a global environmental constitution, analogous to the UN Charter, capable of establishing binding norms to maintain planetary boundaries, thresholds beyond which Earth's systems risk irreversible destabilization (Steffen et al., 2015). Such a constitution would incorporate *jus cogens* norms, peremptory principles of international law from which no derogation is permitted, to elevate environmental protection to a universal, nonnegotiable obligation (Kotzé, 2018). The no-harm rule, a customary norm that requires states to prevent significant transboundary environmental harm, presents a candidate for codification as a *jus cogens* norm. Enshrined in Principle 21 of the Stockholm Declaration and reaffirmed in treaties like the UNFCCC, this rule imposes a due diligence obligation on states, enhancing accountability for ecological damage (Rajamani & Peel, 2021).

The strength of constitutionalism lies in its capacity to provide stability, define governance structures, and regulate relations among state and non-state

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actors (Milewicz, 2020). A global constitution for planetary health would integrate environmental and health rights, building on precedents such as the WHO Constitution's recognition of the right to the highest attainable standard of health (Gostin & Sridhar, 2016). By adopting a "living instrument" interpretive approach, as employed by human rights bodies such as the European Court of Human Rights, existing treaties can be dynamically reinterpreted to address climate-health linkages (Ip & Cheung, 2022). For example, General Comment No. 14 on the ICESCR's right to health could be expanded to explicitly include ecological determinants, such as access to a stable climate and biodiverse ecosystems, thereby aligning human rights law with planetary health imperatives (Committee on Economic, Social and Cultural Rights, 2000).

This living instrument approach enables legal frameworks to adapt to the Anthropocene's evolving challenges, ensuring their relevance and enforceability. Judicial precedents, such as Ecuador's 2011 Loja case, where the Vilcabamba River was granted legal standing, illustrate the potential for Nature-oriented constitutionalism to reshape legal norms (Turner, 2019). Similarly, the Inter-American Court of Human Rights' *Advisory Opinion* OC-23/17, recognized the right to a healthy environment as integral to human rights, urging states to prevent environmental harm. These developments signal a shift toward recognizing Nature's intrinsic rights, complementing human-centric environmental rights and fostering a holistic framework for planetary health.

However, global environmental constitutionalism faces significant challenges. The anarchic nature of international law, rooted in state sovereignty, complicates the adoption of binding global norms (Scicluna, 2021). Powerful states, prioritizing national interests, may resist ceding authority to a supranational constitution, while developing nations may demand equity-focused provisions to address historical environmental injustices (Biermann, 2014). Moreover, the fragmentation of international environmental law, evident in the overlapping mandates of treaties like the CBD and the UNFCCC, hampers cohesive governance (Miller Smallwood et al., 2022). Overcoming these obstacles requires diplomatic consensus, robust institutional mechanisms, and a commitment to Earth-conscious principles that prioritize planetary boundaries over short-term economic gains.

In short, environmental constitutionalism presents a promising approach for integrating planetary health principles into legal systems. By integrating environmental rights and responsibilities at national and global levels, it provides a normative foundation for addressing the Anthropocene's crises. A planetary health constitution, incorporating *jus cogens* norms and a living instrument approach, could unify fragmented legal regimes, ensuring the resilience of Earth's systems and the health of all life forms. Continued research and

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advocacy are crucial to translating these principles into enforceable frameworks, thereby fostering a sustainable and equitable future.

5.3 A Planetary Health Organisation

A key obstacle to responding to the linked crises of the Anthropocene is fragmented governance of health and environment. Bold institutional reform is necessary. The World Health Organization and the UNEP normally work in their respective silos, but not in close partnership, which limits their potential in combating the intertwined issues of climate change, biodiversity loss, and public health (Hesselman & Meier, 2023). The WHO's anthropocentric view prioritizes disease prevention and treatment over ecological determinants of health – such as air quality and ecosystem stability, which are essential for addressing health inequities (Haines & Frumkin, 2021). It was promising that the "One Health" perspective was included in the WHO Pandemic Agreement of 2025; however, that needs to be further developed to encompass planetary perspectives.

By contrast, while the 1987 Montreal Protocol demonstrates strong regulatory authority, UNEP has historically functioned more as a facilitative than prescriptive actor (Dehm, 2022). Such fragmented thinking undermines the holistic view necessary for planetary health, which acknowledges the interconnectedness of human health and the ecosystems of the Earth (Horton & Lo, 2015). Such "wedging" between health and the environment would suggest that the WHO has a role to play not only in addressing the weaknesses within the Environmental Non-Governmental Organization coalition and wider movement but also in making bigger connections between health and the environment: in ways anticipated by plans to merge WHO and the UNEP into an organization focusing on Planetary Health Organization (referred to as PHO) to create an integrated approach to health and environmental governance to tackle planetary challenges, which already exist between WHO and World Organisation for Animal Health (Ip, 2020).

The PHO would need a carefully crafted constitution to define its powers of treaty-making, make decisions, and financial authority to act as a strong, standalone body. Relying more on innovative funding mechanisms to protect its independence would be advisable for the PHO, as, unlike the WHO, it relies on >80 percent of its funds as voluntary contributions, including from private sources, such as the Gates Foundation. In such cases, investment in green economy projects, carbon offset markets, or a fully endowed foundation fund could offer potential for flexible and dependable funding, and, after

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the initial investment, enable a shift away from donor-led priorities (see Gostin, 2014).

Governance reforms are equally critical. The WHO's super-majoritarian voting rule has led to legislative deadlock, for example, in implementing global health security measures (Ip, 2020). It would break new ground if, acting under relatively natural disaster circumstances, the PHO moved to more expedited decision-making mechanisms, for example, entrusting decisions to an expert committee and employing majority voting, giving the organization the ability to act promptly in the face of issues that generate press attention among the world's most vulnerable citizens, such as climate-inflicted health risks (Fidler, 2020). Such reform would place the PHO as a living institution capable of dealing with the rigors of global government.

The PHO's terms of reference would also involve bending and shaping the existing suite of international treaties, such as the UNFCCC, the CBD, and the Minamata Convention on Mercury, to counteract their anthropocentric biases (Reynolds, 2019). For example, the UNFCCC's Article 3.1, focusing on the need to establish an "equitable and sustainable climate regime in order to protect the climate system for present and future generations of humankind," might be reframed to highlight ecosystem integrity as a necessary condition for planetary health (Reynolds, 2019). The PHO might lead work on the Framework Convention on Planetary Health, providing a treaty-based foundation for legal obligations for climate-resilient health systems, biodiversity conservation, and pollution control (Phelan & van Daalen, 2023). Such a convention may require advances in zero-carbon healthcare facilities or ecosystem-based approaches; building on the "WHO-UNEP Health, Environment and Climate Change Coalition" dedicated to mitigating an estimated 12.6 million quarterly deaths linked to environmental risk factors, notably air pollution (Kauffman & Martin, 2021). Existing collaboration efforts, such as the One Health initiative with WHO, UNEP, FAO, and WOAH, serve as a model for this integrated approach and illustrate that such integrated coordination is achievable (Reisman, 2023).

There are a number of major obstacles to establishing the PHO, primarily fears about state sovereignty and concerns that parties would raise new obligations in the treaty as a "condition of merger." Advocates can build support through inclusive negotiations that embed common yet differentiated responsibilities and prioritize Global South representation, drawing on lessons from the successful establishment of the International Criminal Court. While developing countries tend to support uniform governance frameworks to leverage their diplomatic power vis-à-vis resource distribution, they may support the PHO as a countervailing force against domination by the most powerful states (Biermann, 2014). In contrast, a great power like the United States or China,

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which is reluctant to relinquish authority, may be inclined to avoid binding agreements that limit its economic or strategic interests (Harris, 2021). We need negotiations to tilt toward equitable representation that addresses the vulnerabilities of the Global South in issues such as exposure to climate impacts, through principles like common but differentiated responsibilities (Rajamani & Peel, 2021). Strong mechanisms for compliance, such as transparent reporting and independent verification, will be required to keep PHOs to the standards, with precedents set by the Paris Agreement's Enhanced Transparency Framework (United Nations, 2015). The PHO's effectiveness relies on the capacity to build social solidarity among different groups of actors, consisting of states, NGOs, scientists, indigenous peoples, private actors, and so on, and to activate joint collective action to protect planetary health (Axelrod & VanDeveer, 2020). If this spirit of inclusiveness and equity is baked into its governance, the PHO can be the engine of an epochal change to a sustainable and equitable global system.

5.4 A Planetary Health Tribunal

The WHO is endowed with executive and legislative, although not judicial, authority under its Constitution. There is a pressing need for an independent PHT to complement and reinforce the proposed PHO as a legitimizing and authoritative mechanism to adjudicate disputes and enforce planetary health norms. In the Anthropocene, a geological era characterized by human disruption of Earth's ecosystems, resilient judicial institutions to deal with interrelated environmental and health crises are crucial (Kotzé, 2016).

Unlike to the International Court of Justice, derided as a "pathetically weak instrument" since it can only act conditionally based on voluntary submission by states and has only weak powers of enforcement, the PHT would have a clear mandate regarding planetary health problems, including violations of environmental and health rights (Bess, 2023). As a place for dispute resolution, the PHT would contribute to global governance, holding to account those who undermine the health of planetary ecosystems and human communities.

Perhaps replicating the International Tribunal for the Law of the Sea (ITLOS) created under the 1982 United Nations Convention on the Law of the Sea, the PHT, if constituted through a multilateral treaty, would be afforded with enormous international legitimacy (Solntsev, 2019). Experts in these domains would split the tribunal's membership, so that half the judges would be specialists in unspecified types of law that could, in theory, affect a dispute over agricultural subsidies in its transnational dimension. Although the International Court for the Environment proposal linked to the Global Pact for the Environment stalled,

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an ITLOS-style PHT remains viable; ITLOS has adjudicated over thirty cases since 1997, demonstrating that specialized bodies can gain legitimacy through focused mandates and expert composition (see Georgoula & Nguyen, 2025). To overcome mandate and sovereignty hurdles, evident in recent WHO climate-health negotiations, proponents should pursue phased implementation: first, a nonbinding declaration, then a treaty open to progressive ratification, supported by civil-society coalitions and pilot regional tribunals. This combination of expertise would prepare the PHT to navigate the thicket of legal principles governing climate change, biodiversity loss, pollution, and public health, ensuring that decisions are legally sound and ecologically informed (Solntsev, 2019).

Such experts in environmental law would moreover indicate a shift away from anthropocentric traditions of the judiciary and toward Nature-oriented principles of planetary health law (Zelle et al., 2021). The PHT's scope would be broad, covering disputes between states, between states and corporate entities, and, critically, between individuals or communities. Such a scope would encompass violations such as over-emission of greenhouse gases, deforestation, or destruction of ecosystems that jeopardize planetary boundaries – that is, limits beyond which Earth systems have the potential to suffer irreversible destabilization (Steffen et al., 2015). For example, the PHT could address complaints related to state parties' noncompliance with NDCs under the Paris Agreement or to corporate activities causing material loss of biodiversity, such as large-scale mining (Rajamani & Peel, 2021). A formal grievance redress mechanism that provides direct access for people, particularly individuals, indigenous peoples, and marginalized communities, will democratize access to justice and enable the most heavily penalized by environmental destruction to reclaim their dignity (Solntsev, 2019). Such a mechanism would take the Inter-American Court of Human Rights as its model, allowing individual petitions and thus giving voice to the vulnerability of such populations.

The PHT would have an enforcement arsenal comprising punitive and remedial enforcement tools to discourage noncompliance and ensure accountability. Enforceable decisions could compel reparation for environmental injury, such as the provision of compensation for recovery projects, or call for sanctions including embargoes or fines against noncooperative states and companies (Solntsev, 2019). Advisory opinions, similar to those granted by ITLOS, would specify state responsibility under planetary health law, providing normative guidance on disputed topics such as climate-induced displacement or health harm from pollution (Solntsev, 2019).

The more geofencing decisions that are passed, the more they might also shape the emerging field of customary international law, as it could buttress rules implemented in the past, such as the no-harm principle, which holds that

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states should not cause significant environmental harm across a border (Kotzé, 2018). At the heart of the PHT is its Nature-oriented approach, which challenges current anthropocentric frameworks in international law. By recognizing rights in nature, the tribunal would follow in the footsteps of rulings such as Ecuador's 2011 Loja decision, which granted legal status to the Vilcabamba River to protect its ecological health (Chapron et al., 2019).

This pioneering court case, based on the 2008 Constitution of Ecuador, which recognizes Nature as a rights-holding entity, illustrates how legal structures can be used to enforce Earth-conscious norms. The PHT could further develop this thinking by proposing the first bill of planetary rights, for example, in the form of a resolution adopted by the UN General Assembly on the content of rights that could be granted to Nature and on how they would be enforced (Guzman & Meyer, 2010). A similar bill could enshrine the rights of ecosystems to exist, regenerate, and maintain their functional integrity, with a basis in the Earth Charter's plea for a non-anthropocentric ethical perspective that honors the interrelatedness of all life (Engel, 2018).

5.5 Enforcing the Planetary Right to Health

For a rights-based approach to effectively protect Nature, punitive mechanisms could include public shaming of violators, or the imposition of negative reciprocity (Thévenot, 2009) whereby sanctions are coordinated by states or entities that fail to comply with biophysical norms. Subtle enforcement measures, although milder in nature than traditional sanctions, can provide a useful means to promote compliance, especially in an era of globalization when the reputational capital that shapes the behavior of both state and non-state actors is significant (Chayes & Chayes, 1995).

The PHT may also ground itself on the Earth Charter's covenantal structure, which articulates moral obligations to renew humanity's relationship with the community of life of which we are an inseparable part, to think of its jurisprudence as a reconciliation of human and nonhuman systems (Engel, 2018). Inclusion of the PHT into the PHO framework would give it both greater credibility and operational integrity. As the judiciary of the PHO, the tribunal would be one of the PHO's system design features to supplement the normative and operational functions of the PHO, including treaty-making and policy coordination (Ip, 2023a). For example, the PHT might ensure adherence to a proposed Framework Convention on Planetary Health, which mandates that states and corporations abide by legally binding norms relating to climate-resilient health systems and the protection of biodiversity (Phelan & van Daalen, 2023). This cooperation would establish the complete governance

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mesh and credence regime, where PHO norm set and PHT norm enforcement would operate, resembling the relationship between the WTO and its (Scicluna, 2021).

The PHT will face formidable obstacles in its establishment and operation. A primary impediment is the procurement of state ratification of the enabling treaty, as powerful states, such as the United States and China, may be reluctant to endorse binding judgments against themselves, which could limit their sovereignty or economic interests (Biermann, 2014). There must be diplomatic efforts, possibly under the PHO, to create consensus on the mutual advantages of a stable planetary environment, especially for climate-vulnerable nations (Harris, 2021). Equally critical will be guarding against political influence on the tribunal. The independence of judges through an open, court-based, and merit-based selection system protected from state interference would protect a culture of impartiality, informed by the governance of the International Criminal Court (Schabas, 2016). Another difficulty is presented by the fragmentation of global environmental governance. The jurisdictional redundancy with existing tribunals, like ITLOS and the International Court of Justice, could cause forum-shopping or conflicting decisions reflecting attempts by states to seek more favorable venues of dispute resolution (Young, 2017). Its constitutive agreement should explicitly define its jurisdiction, including the possibility of serving as the principal body to which planetary health disputes are submitted, and allow it to collaborate with other judicial institutions through MOUs (Solntsev, 2019). Involving non-state actors like NGOs, indigenous communities, and scientific experts in the tribunal's activities would also strengthen its legitimacy and responsiveness to a wider array of viewpoints (Axelrod & VanDeveer, 2020).

5.6 Concrete Steps for Planetary Health Law Advocates

Scholars, NGOs, and other practitioners can play a vital role in advancing these proposals from concept to reality. They can submit amicus curiae briefs to the International Court of Justice and domestic courts that integrate robust scientific evidence with planetary health norms, thereby helping judges develop more ecologically informed interpretations of existing rights and obligations. They can also engage in targeted lobbying of national delegations in preparation for the future sessions of the UNFCCC and the World Health Assembly, advocating for concrete commitments to stronger global institutions.

Additionally, forming cross-sectoral alliances modeled on the Planetary Health Alliance enables diverse stakeholders, including scientists, lawyers, indigenous leaders, and civil society groups, to combine their expertise and amplify their influence on the international stage. Finally, supporting pilot rights

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of Nature litigation at the national level can generate valuable judicial precedents and practical experience that will strengthen the case for establishing an effective PHT. These concrete actions can collectively help build the political momentum, legal foundations, and public support required to realize more coherent and ambitious planetary health governance in the years ahead.

5.7 Toward a Constitution for Planetary Health

The Anthropocene, the epoch when humanity has had a deep impact on Earth's systems, has resulted in interrelated emergencies of climate change, biodiversity loss, and pollution so severe that they threaten the entire planet's ability to support life as we know it. These crises reveal the inadequacies of existing forms of governance that are typically fragmented, anthropocentric, and poorly suited to manage the scale and complexity involved in global environmental and health threats.

Planetary health law, a synthetic framework that integrates international environmental law and global health law, may represent a promising response. Following an approach suggested by Kotzé (2020) to codify Earth-conscious norms, such as the rights of Nature and the no-harm principle, and to promote strong institutions, such as PHO and PHT, to enforce them, a global environmental constitution and institutions are proposed. This Element developed the idea of a global environmental constitution, its normative basis, institutional design, and challenges and opportunities for addressing the problem of a sustainable and fair future. The crises of the Anthropocene necessitate a new paradigm of global governance. Current international agreements, including the Paris Agreement, depend on voluntary pledges and lack mechanisms that bind club members (Popovski, 2019). Like the silos that govern data integration among agencies, global health law tends to focus on human health and overlook the broader ecological framework of well-being. Planetary health law attempts to fill that void by linking the health of humans, animals, and the environment.

A planetary health constitution of the world would provide an overarching legal vehicle to inscribe Nature-oriented norms into the strata of international law. At its heart, such a constitution would enshrine jus cogens norms, peremptory principles from which there can be no derogation, including the prohibition of serious environmental harm and the protection of Earth's vital systems (Kotzé, 2020). They would supersede state sovereignty, forcing nations to put planetary health first. The constitution would also take a "living instrument" approach, meaning that it would be able to change and develop as new scientific and societal possibilities arose (Jaria-Manzano, 2019). Such flexibility is crucial in an era of rapid ecological change, one that demands adaptive governance. It

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would also combine various legal systems and strains of legal philosophy so that it can develop as a pluralistic system that both acknowledges and respects cultural and jurisdictional differences and yet also relies on universal standards.

Environmental constitutionalism at the national level provides a theoretical and practical basis for incorporating planetary health principles in legal systems. At the national level, norms that recognize the rights of Nature have been incorporated into national constitutions, for instance, in Ecuador and Bolivia, thereby providing legal standing for ecosystems to be protected and restored (May & Daly, 2019). The planetary health constitution would extend these principles to the international level, establishing a normative framework in which ecological integrity takes precedence over anthropocentric concerns. For example, the rights of Nature might protect rivers, forests, and other ecosystems not only for exploitation by humans but also as life-supporting systems within the planet Earth.

This normative vision is grounded in reasons related to equity and justice. The Global South, which suffers disproportionately from climate change and environmental degradation, must be privileged in governance (Biermann, 2014). Constitutional clauses should address inequities in resource access, climate vulnerability, and adaptive capacity, without further marginalizing the most marginalized. Equally important are the social and environmental interests of subsequent generations, including intergenerational equity, which concerns the right of those generations to inherit a healthy planet. Furthermore, a planetary health constitution would chart an equitable pathway toward a post-carbon society, one that restores ecological integrity while simultaneously advancing socioeconomic justice (May & Daly, 2019). The PHO would act as the administrative foundation of planetary health governance. A PHO, modeled on the WHO but with a much wider mandate, would coordinate responses to environmental and health crises globally, oversee adherence to constitutional norms, and promote transnational sharing of information and data. Focusing on the Global South, the PHO could also be instrumental in addressing systemic injustice, thereby ensuring the inclusivity and effectiveness of climate adaptation and mitigation actions (Biermann, 2014).

The PHT, in contrast, is an aspirational judicial vehicle for implementing planetary health norms. Unlike domestic courts grounded in human-centered legal approaches, the PHT would adopt an Nature-oriented perspective to resolve conflicts over ecological harm, species extinction, and impacts on human health. Its tasks might also include giving binding decisions, offering advisory opinions, and crafting new enforcement dynamics to hold states and corporations accountable (Kotzé, 2020). For instance, the PHT could hear cases in which industrial activities breach the no-harm principle, holding polluters

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accountable for compromising planetary health. The PHO and PHT could then be amalgamated, thereby establishing a coherent governing body between policy and enforcement.

Soft law initiatives, such as the Earth Charter and WHO's Global Strategy on Health, Environment, and Climate Change (2020), can be instrumental in building consensus and sowing the seeds of binding treaties (Gostin & Sridhar, 2016). The merits of adopting a Framework Convention for Planetary Health, as suggested by Popovski (2019), include providing standards and measures that have teeth, compensating for the failures of voluntary commitments under, say, the Paris Accord. A planetary health constitution encounters significant resistance. National sovereignty continues to pose a challenge, as countries may be unwilling to cede power to supranational bodies such as the PHO and PHT. Moreover, variations in legal traditions and cultural perspectives make the acceptance of global norms difficult. It is in this kind of pluralistic approach, as defended by Jaria-Manzano (2019), that challenges can be mitigated, without losing the initial, basic Earth-conscious core. For example, the constitution might adopt indigenous understandings of the human relationship to and stewardship of the land, thereby enhancing its normative outlook and inclusiveness (May & Daly, 2019).

But there are big opportunities, too. A planetary health constitution would recast humankind's role on Earth, and transform it from exploiter to steward. If we understand the interdependence of all life, we can cultivate a sense of global solidarity to prompt collective action against the crises of the Anthropocene. The PHO and PHT would be the joint institutional backbone for operationalizing these principles, reinforcing accountability and resilience. Further investigation and advocacy are required to flesh out these ideas and create political momentum for their adoption.

In sum, a planetary health constitution offers a transformative answer to the Anthropocene's imperatives. Integrating Nature-oriented standards, especially the human right to a healthy planet and the planetary right to health, and building integrated institutions such as the PHO and PHT would enable the implementation of such a holistic legal structure, protecting Earth's systems and life. Grounded in environmental constitutionalism, this framework would primarily focus on equity, justice, and intergenerational responsibility in relation to the concerns of the Global South and future generations. State sovereignty and the fragmented nature of international governance present challenges; however, structured pluralism and progressive learning, underpinned by soft and hard law mechanisms, are likely to enable sustainability and equity going forward. By recasting humanity's relationship with the planet, a global environmental constitution would maintain survival while also promoting a world where all life flourishes together.

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Earth System Governance

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