RIGHTS OF NATURE: AN EARTH-CENTRED LEGAL THINKING ROOTED IN AFRICAN ANCESTRAL WISDOM

TOWARDS A CONCEPTUAL UNDERSTANDING

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Forward

Humanity across cultures in different parts of the world has grappled with their relationship with the natural elements within the biosphere. This relationship has been defined by stewardship largely in indigenous communities who have not severed their harmonious relationship with nature. Anthropocentric lifestyles have dominated many modern communities around the world, treating nature as a mere resource to be exploited. This has resulted in a non-peaceful relationship between humans and other ecological beings in the biosphere. This has led to an accelerated ecological degradation, climate instability, and widening social inequities, that has exposed the limits of legal and ethical systems that treat nature primarily as property or resource. The concept of the W emerges as a transformative response to these limits, proposing a paradigm in which ecosystems and natural entities are recognized as rights-bearing subjects rather than objects of regulation alone.

Rights of Nature: An Earth-Centred Legal Thinking Rooted in African Ancestral Wisdom Towards a Conceptual Understanding participates in the global discourse on the foundational origins of the rights of nature with clarity and ambition. It does not merely describe laws or recount advocacy milestones. It sets out to deepen conceptual foundations, bridge disciplines, and offer practical pathways for implementation and enforcement of the rights of nature. By weaving together legal instruments, ethical traditions, scientific insights, and community-based practices, this work contributes meaningfully to one of the most consequential movements of our time.

This book will be valuable to scholars, practitioners, policymakers, and community advocates who seek a principled and workable framework for living within planetary boundaries while advancing social and ecological justice and dignity for present and future generations.

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A Message from Rights of Nature Global Expert

Advancing the Rights of Nature in Ghana is essential to advancing legal protections that truly protect the natural world. As such, this book is essential reading, providing the foundation for moving rights-based change forward.

Message by

Mari Margil
Executive Director
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This work is informed by the scholarship, advocacy, and lived experiences of countless individuals and communities across the world who have advanced the Rights of Nature in theory and practice. The excellent contributions of these defenders of nature's inherent rights, offer the intellectual and moral foundation for this book.

Any errors or omissions remain the responsibility of the author alone.

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Rights of Nature: An Earth-Centred Legal Thinking Rooted in African Ancestral Wisdom Towards a Conceptual Understanding invites readers to rethink humanity's position within the ecosystem and to consider how culture, law, ethics, and collective action might better reflect the interdependence of all living beings in the biosphere.

Preface

The foundational principle of the rights of nature is that nature possesses inherent rights. This challenges long-standing assumptions in law, governance, and economics . Yet it is an idea with deep roots in indigenous cosmologies, religious ethics, and early environmental thought. Like the Ghanaian cultural symbol, *Sankofa* (Go back and fetch), the rights of nature has gained renewed urgency as environmental crises intensify in this 21st Century. This book was written to clarify what the Rights of Nature means conceptually, how it has evolved historically, and how it is being translated into law, policy, and practice across the world.

Rather than advancing a single doctrinal position, the book adopts a pluralistic approach. It recognizes that the Rights of Nature is not a monolith but a family of ideas and practices shaped by cultural context, legal tradition, ecological realities, and social struggle. The aim is to provide readers with a coherent conceptual reasoning that illuminates shared principles while respecting diversity in application in different regions of the world.

At its core, this work argues that recognizing the Rights of Nature is inseparable from broader questions of environmental justice, democratic participation, and social equity. The protection of ecosystems cannot be sustained without addressing power imbalances, historical harms, and the lived realities of communities who should endeavour to live in harmony with, and respect the inherent rights of nature as a living being to be valued, cherished and respected.

Purpose and Scope of the Book

The purpose of the book is driven by three objectives that are interrelated. First, the book attempts to define the Rights of Nature to assist in understanding it as a concept within its historical, cultural, ethical, ecological, and legal foundations. Second, it bridges international legal frameworks that potentially support the propositions in the rights of nature in relation to scientific studies as well as justice-oriented perspectives. Finally, the book described tools, strategies and case studies that demonstrate how the Rights of Nature can be advocated, monitored, and enforced in practice.

Methodological Approach

The book adopts a narrative synthesis of the discourse on the Rights of Nature from a pluridisciplinary trajectory, namely culture, law, science and activism. The book

scholarly compare legal instruments and reviews policy documents, judicial decisions, and monitoring platforms on the Rights of Nature. Also, it analyses the extant literature on ecosystem integrity and resilience. Finally, it critically examines community-led initiatives and advocacy movements within the Rights of Nature movement globally.

Intended Audience

This book is intended for:

1. Students and scholars of environmental law, policy, and ethics;
2. Policymakers and legal practitioners engaged in environmental governance;
3. Civil society organizations, activists, and community leaders working within the Rights of Nature movement;
4. Readers seeking a rigorous yet accessible introduction to the Rights of Nature.

No prior specialization is assumed, though the book is written to reward careful and critical engagement.

Structure of the Book

The book is organized to guide the reader from foundations to practice:

1. Early chapters establish definitions, historical context, and normative justifications.
2. Subsequent sections examine legal frameworks, justice dimensions, and scientific underpinnings.
3. Later chapters focus on global initiatives, advocacy strategies, monitoring tools, judicial enforcement, and critical debates.
4. The concluding sections situate the Rights of Nature within the evolving global environmental governance landscape and outline prospects for collaboration and future development.

Each section is designed to stand on its own while contributing to a cumulative understanding of the subject.

Language and Terminology

The term **"Nature"** is used throughout this book as a broad, inclusive concept encompassing ecosystems, species, and natural processes. Where appropriate, more specific terms such as rivers, forests, or ecosystems are employed to reflect legal or ecological precision. The book adopts rights-based language not to anthropomorphize nature, but to articulate legal and ethical obligations within an ecocentric framework.

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Introducing the Rights of Nature: Definition and Historical Background

The Rights of Nature (RoN) concept came as a transformative movement to challenge the traditional views of environmental law and advocate for the recognition of nature's intrinsic rights (Alves et al, 2023). This movement stands to create awareness on how rights and nature are connected, as seen in various global agreements aimed at environmental protection (Bétaille, 2019; Phillips, 2023) and the growing discourse surrounding sustainable development. As these frameworks gain attention, they prompt a scholarly analysis of legal structures and the roles governmental institutions play in safeguarding ecological integrity (Suárez, 2024). This is crucial, as existing environmental laws often treat nature merely as property that must be exploited for the benefit of man, limiting its protection and perpetuating ecological degradation (Kotzé & Adelman, 2022). In order to protect non-human elements, nature must be revered as a legal entity with rights to exist, thrive, and grow (Kauffman & Martin, 2021). Rights of Nature (RoN) has the potential of creating a legal environment that acknowledges the inherent values of nature and promotes its resilience in the face of ongoing environmental challenges (Bétaille, 2019; Borrás, 2017). This change will not only empower local communities to advocate for their environment, but it will also align with a broader biocentric approach that emphasizes the rights of nature to exist, thrive, and evolve (Alves et al, 2023). This change from a legal point of view could lead to stronger protection and more sustainable practices that recognize the critical role ecosystems play in our survival (Borrás, 2017). This transformation is essential as it integrates the recognition of ecosystems or the environment as an active participant in governance, rather than passive resources to be exploited. RoN also challenges the existing paradigms that prioritize economic gain over ecological health, thus pushing for a more holistic approach to environmental stewardship (Borrás, 2017). The right of nature advocates that acknowledging these rights would benefit a more sustainable relationship between humans and the environment, and this can prevent its destruction.

Alves et al (2023) defined RoN as a legal and judicial theory according to which the natural elements and the general environment have intrinsic rights that can be compared to Human Rights Theory. The RoN movement challenges the idea of having the environment as a mere resource that must be exploited for human consumption (Peluso, 2023), but for nature to be legally recognised as an entity with rights that need protection.

According to the Global Alliance for the Rights of Nature, "It is the recognition that our ecosystems including trees, oceans, animals, and mountains, have rights just as human beings have rights. Rights of Nature is about balancing what is good for human beings against what is good for other species, what is good for the planet as a whole. It is the holistic recognition that all life, all ecosystems on our planet, are deeply intertwined" (GARN, 2021).

The discourse on Rights of Nature laws emerged from a biocentric or ecocentric philosophy, which challenges the traditional anthropocentric view that treats natural environment as a resource to make the existence of human beings worthwhile. This shift reflects a broader recognition of the intrinsic value of nature and the need for a more balanced relationship between humans and the environment (Halkis & Waldani, 2024; Jeffs, 2022). Advocates note that modern science shows humans are fundamentally interconnected with nature, and thus legal systems must move beyond "nature as property" towards recognizing ecosystems as "fellow Earth citizens" with enforceable rights (Sheehan, 2025). The rights of nature movement is generally credited to Christopher Stone because of his essay titled "Should Trees Have Standing?" which was published in 1972. He made a case for the trees, rivers, and other natural objects to have legal rights as those attributed to humans. The concept of Rights of Nature was borne from a growing critique of anthropocentric worldviews that dominated Western legal and philosophical traditions. According to Nash (1989), the development of Rights of Nature represents an extension of American liberalism beyond humans to the ecosystem. His seminal work, "The Rights of Nature: A History of Environmental Ethics," provided a historical account of how nature's inherent rights were conceptualized over time. His publication demonstrates how environmental ethics evolved from viewing nature as a mere resource toward recognizing its intrinsic value and inherent rights. RoN challenges the "twentieth-century laws as generally grounded in a flawed frame of nature as 'resource' to be owned, used, and degraded" (*Rights of Nature*, 2022). This critique is consistent with two lines of thought. One of these is that nature's rights emanate from its own existence just as human rights come from humanity's existence; and the second is that human survival depends on healthy ecosystems, making nature's rights instrumental to human wellbeing (*Rights of Nature*, 2022). The right of nature movement is just like the animal rights movement since they both seek to promote the rights of nonhuman entities (Chapron et al., 2019). Regan posited that every individual living being has inherent value and must be accorded rights by virtue of being alive, however, human rights and animal rights alike only focus

on the individual (Regan, 2004; Chapron et al., 2019). The discussions on rights of nature go beyond the individual rights mentioned above. It focuses on the entirety of nature as an entity that should be granted rights. Advocates have over the years focused their discussions around the rights of natural communities, ecosystems, or other natural entities that are alive or sustain life, such as mountains or Mother Earth (Chapron et al., 2019).

According to Raz, "an entity has a right if and only if they are capable of having rights, and some aspect of their interest or well-being is a sufficient reason for holding some other person(s) to be under a duty" (Raz, 1986). These rights may simply be grounded in the interest theory of rights, and some interests of nature which were formally argued to be sufficient to produce rights include existence, habitation, and fulfilling ecological expectations (Berry, 2015; Hadley, 2015; Chapron et al., 2019). The interest theory indirectly advocates that the entities that have value for their own sake, rather than for the value they provide for others, can have rights (Raz, 1986). Other opinions on the rights of nature came from the traditional knowledge and practices of the indigenous people in a particular community. A typical example is when New Zealand recognized the Whanganui River and its surrounding area as a legal person Te Awa Tupua was made possible because of a treaty that was settled on with a Maori tribe that viewed the river as an entity with life (Yanquiling et al, 2024; Chapron et al., 2019).

Legal Frameworks that advances the Rights of Nature

The concept of granting legal rights to natural objects has evolved significantly since Christopher Stone's 1972 article; *Should Trees Have Standing?- Toward Legal Rights for Natural Objects*. Stone's work proposed that natural objects should have legal standing to protect their ecological integrity, arguing that "streams and forests cannot speak" but could be represented by guardians, akin to legal incompetents or corporations (Stone, 1972). This advocacy could yield a long-lasting relationship between humans and the natural environment. Rights of Nature is a legal and judicial theory by which the natural environment has inherent rights that are comparable to Human Rights Theory (Alves et al, 2023). This view is in line with the term proposed by Berry (1999) as **"Earth Jurisprudence"**. Berry's motivation was ingrained in the philosophy of **"Deep Ecology"**, in which all living things, regardless of their usefulness to humans, must have a moral and ethical claim (Devall, 1980). Other researchers have proposed ideas such as the critical zone science in the Anthropocene (Minor et al., 2020) and the **"Critical Zones of the Anthropocene"** (Seixas et al., 2021). These ideas were aimed at bringing out the various sides of the Anthropocene (Epstein, 2022), which are the Coloniality of humans over nature, the Ecological paradigm, and the conviviality with nature (Catton & Dunlap, 1980; Gudynas, 2015). The goal behind all these ideas and concepts is to overcome the situation where humans have become the most dominant force against nature (Alves et al, 2023).

The Environmental Philosophy or Ethics has, in recent times, highlighted the effort of protecting Nature and the Environment, which is the foundation of the actual conventional Western and Euro-American environmental legal paradigm (Gonçalves & Tárrega, 2018). The laws meant to protect nature have been translated into environmental laws; however, these laws in the long run only meet the interests and well-being of humans (Varvastian, 2019; Benjamim, 2011). In other words, humans continue to see nature as a resource meant to benefit them.

Environmental rights have been perceived over the years as the rights humans have to a clean, safe, and healthy environment. These rights have gained international recognition and are often embedded within international agreements to show the link between human well-being and ecological integrity. International agreements and declarations play a crucial role in shaping environmental law and promoting environmental rights. These instruments establish principles, standards, and obligations for states

to protect the environment and ensure that individuals can enjoy their environmental rights. This response will explore various international agreements and declarations relevant to environmental rights, examining their scope, content, and impact.

Legal Milestones for the Rights of Nature: Stockholm Declaration (1972)

The first major declaration was the Stockholm Declaration of 1972 at the United Nations Conference on the Human Environment. This declaration marked the beginning of a global awareness creation campaign on the protection of our environment as a fundamental component of human rights (Al-Hammouri et al, 2023). This declaration recognized the fundamental right to freedom, equality, and adequate conditions of life in an environment of quality that permits dignity and well-being (Kingston et al, 2017). The Stockholm Declaration had twenty-six (26) principles that affirmed the need for an international environmental governance (UN, 1972).

Researchers such as Atapattu (2002) highlighted that the Stockholm Declaration serves as the foundation on which the relationship that exist between humans and the environment was introduced to international laws and eventually setting the stage for numerous treaties and agreements aimed at solving specific environmental challenges. There are also critics who say that the declaration does not generally hold parties accountable and the kind of tension it created between environmental protection and the economic development of developing countries (Birnie et al, 2009). The first principle of the Stockholm Declaration specifically affirms the right to an environment that ensures the well-being of humans (Kingston et al, 2017), underscoring the link between environmental quality and human life.

Legal Milestones for the Rights of Nature: Rio Declaration (1992)

The Rio Declaration on Environment and Development was built upon the foundation laid by the Stockholm Declaration of 1972 and adopted at the 1992 Earth Summit in Rio de Janeiro. This Declaration further developed the integration of Environmental protection and sustainability, with the 10th principle emphasizing the need to have access to environmental information, public participation, and justice in environmental matters (Giupponi, 2019). This principle recognizes the need for transparency, inclusivity, and accountability in order to enhance environmental governance by allowing individuals, together with their communities, to take part in making decisions that affect their environment.

Additionally, Principle 4 of the Declaration also serves as the basis for the integration of environmental protection and economic growth for sustainable development by highlighting the need to have a balance between economic progress and environmental stewardship (Boyle, 2012). The Rio Declaration acknowledged the importance of harmonising the environment and development, with an emphasis on the fact that the environment and development are dependent on each other (Boyle, 2012). This Declaration is also the reason why there is environmental democracy in Latin America and the Caribbean (Menezes & Rodríguez, 2022), making sure that there is access to environmental information, public participation, and access to environmental justice, which are the three pillars of environmental democracy (Giupponi, 2019). The Rio Declaration's Principles, such as "precaution," "polluter-pays," and "inter- and intra-generational equity" (Hussey, 2014), have significantly contributed to environmental laws and policies.

Legal Milestones for the Rights of Nature: Aarhus Convention

"The Aarhus Convention is an international agreement that enables individuals and groups of people to actively participate in environment protection and sustainable development" (Velkavrh et al., 2011). The Aarhus Convention was formally known as the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, and is a regional agreement that gives precedence to procedural environmental rights (Mason, 2010). This convention has been noted to provide actual effects to procedural environmental rights as described in Principle 1 of the Stockholm Declaration and Principle 10 of the Rio Declaration (Haklay et al., 2020). These rights include access to information, public participation, and legal redress (Mason, 2010), which are essential for promoting environmental democracy and ensuring that environmental decisions are made in a transparent and accountable manner. The Aarhus Convention helps to guarantee environmental democracy (Mason, 2010) by empowering citizens to participate in environmental governance and hold public authorities accountable.

Legal Milestones for the Rights of Nature: Escazú Agreement

The Escazú Agreement, officially known as the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, is a major and important treaty designed to promote environmental democracy and foster regional progress towards sustainability (Stec & Jendroka, 2019).

This agreement is firmly rooted in Principle 10 of the Rio Declaration, which emphasizes the crucial importance of access to information, public participation, and access to justice in environmental matters for effective environmental governance (Colombo, 2018; Stec & Jendroka, 2019; Guerra & Parola, 2019).

The Escazú Agreement aims to improve upon water governance within international basins and to extend its benefits to regional and indigenous levels interconnected through hydrological systems, ensuring sustainable management of water resources that are essential for human health, economic development, and ecosystem integrity (Nascimento et al, 2023).

The agreement can serve as an instrument to improve existing environmental protection standards in countries such as Colombia, aligning seamlessly with its political framework and strengthening various structural elements of its constitution, promoting environmental governance and the rule of law (Vila et al, 2021). The Escazú Agreement provides opportunities for indigenous communities and human rights advocates to gain access to information, participate in decision-making processes, and utilize the justice system to address environmental issues, especially in regions where economic interests often take precedence, ensuring that marginalized voices are heard and their rights are protected (Gaete, 2025).

Legal Milestones for the Rights of Nature: Paris Agreement (2015)

"The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015" (UNFCCC, 2015). This agreement was aimed at fighting climate change, and while it does not explicitly mention human rights, the agreement recognizes the effects of climate change on the well-being of humans and the need to ensure that carbon emissions are low (UN, 2015). The Paris Agreement came out after 6 years of discussions, representing a landmark achievement on climate diplomacy and a global commitment to fighting the growing global warming (Rajamani, 2016), successfully replacing the Kyoto Protocol, which served as the only framework for the fight against climate change and thus establishing a collaborative action (World Bank Group, 2018).

The Paris Agreement was adopted at the 21st Conference of Parties (COP21) in Paris in December 2015, The Agreement represents a collective effort to recognize the urgent need for coordinated global action against greenhouse gas emissions and limit the adverse effects of climate change (Viuales, 2015; World Bank Group, 2018). The agreement is a hybrid approach combining top-down and bottom-up elements to foster

widespread support and participation from the international community (Delbeke & Vis, 2019). One of the weaknesses of the Paris Agreement is that it has no proper channels of enforcement (Stankovic et al, 2023).

Legal Milestones for the Rights of Nature: Early Victories

A study by Baldin (2014) reported that there were only two known legal systems that guarantee the protection of the Rights of Nature movement, and these are the Ecuadorian and the Bolivian ones, even though the European Union had taken a few steps to support RoN as part of its efforts to promote environmental sustainability (Darpö, 2021). Legal Rights of Nature come from sources including constitutions, laws, and court decisions (Boyd, 2017). Ecuador became the first nation to implement the Rights of Nature into its constitution, thus enabling lawsuits to protect the ecosystems (Chapron et al, 2019; Kauffman & Martin, 2018; Macpherson, 2021). The 2008 Constitution of the Republic of Ecuador granted rights to Pacha Mama (nature) a revered goddess in the Andean region, particularly among the Quechua people, which includes respect for its existence, life cycles, structure, functions, and evolutionary processes, as well as restoration (Chapron et al, 2019). It is reported that Ecuador drew its inspiration from the United States of America after it passed a bylaw in 2006 recognizing the Rights of Nature and consequently allowing other local municipalities to follow suit (Macpherson, 2021; Chapron et al, 2019).

The Rights of Nature law of 2010 in Bolivia is based on Andean indigenous worldviews, particularly Pachamama (Mother Earth) and Vivir Bien (Living Well), which stress ecological balance and interdependence (Acosta, 2013). This makes nature a legal entity with rights to exist, biodiversity, water and recovery (Asamblea Legislativa Plurinacional de Bolivia, 2010). This law subsequently became a legal Framework Law on Mother Earth in 2012, which established the institutional framework for its implementation (Villavicencio-Calzadilla, 2025). However, the actualisation of such laws is disputed in the light of the fact that Bolivia remains dependent on the extractivist exploitation of natural resources such as mining and hydrocarbons (Farthing & Kohl, 2014; Gudynas, 2011). Scholars have highlighted inconsistencies between the state's ecological rhetoric and its development imperatives, arguing that the laws are more frequently deployed as political symbols than as mechanisms for enforcement (Postero, 2017; Canessa, 2014). However, Bolivia's constitutional law has not only had an impact within the country; it has also contributed to global discussions on Earth jurisprudence, including at the 2010 Cochabamba

People's Conference, a development also reflected in the formulation of the Universal Declaration of the Rights of Mother Earth (World People's Conference on Climate Change and the Rights of Mother Earth, 2010; Cullinan, 2011).

New Zealand is known worldwide for its pioneering legal approach to the Rights of Nature, in particular the river rights with Te Awa Tupua (also known as the Whanganui River) and Te Awa Tupua (Whanganui River Claims Settlement) Act 2017. This comes after a lengthy campaign by the Whanganui iwi (tribe), who believe the river is an interconnected spiritual being they call as an ancestor. The law provides that "Te Awa Tupua is a legal person" and that it has rights and interests represented by two guardians (Te Pou Tupua)—a legal guardian appointed by the Crown and a customary guardian appointed by the iwi (Charpleix, 2018; O'Donnell & Talbot-Jones, 2018). This statutory acknowledgement is derived from Māori world view (Te Ao Māori) that values the interconnectedness of people and nature and recognizes rivers, mountains and forests as living entities with mana (authority) and mauri (life force) (Kawharu, 2010).

The Whanganui River case set a legal precedent internationally, and provided a model for conferring personhood on other natural entities, with similar progress made with the Atrato River in Colombia and the Ganges River in India (O'Donnell, & Macpherson, 2019). It also follows on from earlier developments in New Zealand law, such as the Treaty of Waitangi settlements which increasingly reflect Māori values and mechanisms to control governance.

The Te Urewera Act 2014 where the Te Urewera forest was given legal personhood (and the recognition of Te Urewera as a legal person) was a lead into the Whanganui settlement, mirroring a growing trend of incorporating indigenous cosmologies within legislation (Ruru, 2014).

However, the legal reform in New Zealand is not understood strictly as a symbolic gesture, but exists alongside actual governance arrangements that are underpinned by co-management and partnership, driven by Māori values including kaitiakitanga (guardianship) (Hutchison, 2014). Yet there is the continuation of challenges in the implementation of these frameworks, from how to work with legal pluralism, to preserving Māori epistemologies within state structures (O'Bryan 2018). Notwithstanding its limitations and the other policy tensions outlined here, Aotearoa New Zealand's Rights of Nature law is often cited as one of the most tenable, finest-grained, and culturally specific cases of such law globally, a proof that indigenous worldviews can remake law in ways that achieve greater relational and environmental justice.

Cultural and Ethical Considerations for the Rights of Nature

The Rights of Nature are rooted in cultural and ethical beliefs, including the incorporation of Indigenous knowledge systems that regard nature as not merely a resource that humans utilize, but rather as a living system to which humans belong (Pelizzon, 2025). In a range of jurisdictions that span from New Zealand, Bolivia, Ecuador, and Canada, indigenous cosmologies serve as the foundation for legal reforms that extend beyond personhood or rights to rivers, forests, and other ecosystems (Borrows, 2010; Charpleix, 2018). These perspectives typically emphasize the importance of relationship, reciprocity, and responsibility, contesting prevailing anthropocentric legal paradigms inherited in the Western liberal tradition (Kimmerer, 2013; Ruru, 2018).

Indigenous ontologies regard nature as having agency and a spiritual dimension, as reflected in Maori kaitiakitanga (guardianship) or the Andean notion of Pachamama (Mother Earth) (Acosta, 2013). It is through these frameworks that we are called to rights and responsibilities to care for the land as kin, as opposed to controlling it as property (Whyte, 2018). Ethical considerations of acknowledging nature's rights are also shaped by confronting colonial legacies and structural inequalities that have marginalized Indigenous peoples and their ecological knowledge systems (Collard et al., 2015; Reckien et al, 2018). By embedding Indigenous values in law, as in the New Zealand recognition of Te Awa Tupua, there might be some hope for a more pluralist and ecologically-focused order (O'Donnell & Macpherson, 2019).

Working with Community values and local stewardship are core elements to working with the Rights of Nature. In many indigenous and traditional communities, environmental stewardship is informed by customary norms and spiritual values, rather than by the commands of the state (Berkes, 2012; Acosta, 2013). These practices support sustainability over the long term and provide adaptable, local solutions to managing ecosystems.

Environmental stewardship encompasses the responsible utilization and diligent protection of the natural environment, achieved through proactive conservation measures and the implementation of sustainable practices (Emeka-Okoli et al. 2024). At the core of environmental stewardship is the ethical responsibility that communities bear towards ecological preservation, emphasizing the moral imperative to safeguard the environment for its intrinsic value and the well-being of all living beings (Basri et al., 2024). Cultural and spiritual values play a pivotal role in establishing a robust framework for

environmental ethics, which in turn fosters sustainable resource management practices (Basri et al, 2024). These deeply held values often manifest in tangible practices that directly protect ecosystems and promote environmental stewardship, demonstrating the practical application of community beliefs (Maru et al., 2020).

Rights of nature can be found in countries such as Ecuador, Bolivia, Colombia, Uganda, Bangladesh, India, and New Zealand, where there are large numbers of indigenous people. The constitution of Ecuador has a chapter dedicated to the Rights of Mother Earth (Pacha Mama), and this section posits that the Mother Earth (Pacha Mama) "has the right to integral respect for its existence" and "the right to be restored." (Constitución De La República Del Ecuador [Constitution of Ecuador], 2008, Arts. 71, 72; Racehorse, 2023). Another country that adopted a similar law is Bolivia, enacting the law of the Rights of Mother Earth which clearly states that rights such as right to life, right to the diversity of life, right to water, right to clean air, right to equilibrium, right to restoration, and right to pollution-free living should be enjoyed by Mother Earth Law 71 of 2010 (Bolivian Law of the Rights of Mother Earth; Racehorse, 2023).

In Africa, countries such as Ethiopia and Nigeria have certain cultural practices that protect the natural environment. In the highland areas of Ethiopia, most of the Orthodox churches are surrounded by forests considered to be sacred and hence, made inaccessible for clearing and grazing (Bharath, 2024). Similarly, in Nigeria, the Yoruba Sacred Groves are consecrated to deities, thus forbidding the indigenes of the community to partake in activities such as felling of trees, hunting, fishing, and building houses inside these groves (Probst, 2013; Adeyanju et al., 2022). Traditional taboos and other deeply ingrained cultural beliefs prevalent in Ghana serve as a robust shield, safeguarding forest reserves and actively promoting the conservation of biodiversity, thereby preserving the ecological integrity of these vital ecosystems (Sarfo-Adu et al., 2022; Darkwa & Acquah, 2025). These taboos often restrict access to sacred forests, prohibiting activities such as logging, hunting, or farming. By respecting these taboos, communities contribute to recognising nature as an entity that should be given rights to live and thrive. Lesotho also has indigenous systems that offer a framework for managing solid waste through practices that are culturally accepted and deeply integrated into daily life, although there is a recognized need for enhancements to ensure greater safety and promote long-term sustainability (Senekane et al, 2022).

Critics, however, caution that laws need to do more than symbolically acknowledge Indigenous sensibilities and values. But rather facilitate Indigenous self-determination and co-governance to avoid tokenistic or co-optative outcomes (Postero, 2017; McGregor, 2014).

Environmental Justice and Social Equity in the Context of the Rights of Nature

Rights of Nature overlaps strongly with environmental justice and social equity, especially in terms of its capacities to disrupt longstanding power relations and make vocal the voices of historically exploited groups (Reckien et al, 2018; Skelton & Miller, 2023). Although the legal recognition of nature's rights represents a fundamental shift from human-centred (anthropocentric) to earth-centred (ecocentric) legal systems, scholars caution that in the absence of strategies that can foster equity, such reforms have the potential to support existing injustices (Pellow, 2018). This is particularly salient in areas where indigenous communities and low-income populations are the most affected by environmental degradation, but may not have sufficient political or legal representation (Reckien et al, 2018). Indigenous communities may have been central to and impacted by the Rights of Nature movement. Legal systems that incorporate Indigenous cosmologies, as in the Law of Mother Earth in Bolivia (Ley de Derechos de la Madre Tierra) or New Zealand's Te Awa Tupua Act 2017, demonstrate the ability of traditional ecological knowledge and relational ethics as they are valued and practiced by Indigenous people (Borrows, 2010; Ruru, 2018). Yet, members of the opposition emphasize that legal personhood for ecosystems should not be cosmetic or used as a means to appease Indigenous demands that allow the continuation of an extractivist type of governance that harms communities and landscapes (Gellers, 2021; Postero, 2017). For Rights of Nature to intersect with environmental justice, it should, at a minimum, incorporate Indigenous sovereign authority, cultural resurgence, and the right to influence self-determined environmental governance (Whyte, 2018). The movement also cuts across more general social justice issues, relating to clean water access, land rights, and democratic inclusion in environmental decision-making. These local efforts demonstrate that the Rights of Nature can be used as a medium of resistance and empowerment, despite the fact that they are faced with legal challenges from state and corporate entities.

Measures must be put in place to ensure that the Rights of Nature (RoN) enforces equity in its legal dealings. Some of the strategies to promote equity in governing the environment include co-management agreements, legal pluralism, capacity development within marginalized communities, and incorporating legal standards that are culturally relevant. Researchers have discussed the importance of distributive justice, that is, equitable distribution of environmental benefits and responsibilities, and procedural justice,

that is, to ensure that there is substantial participation in environmental decision-making (Schlosberg, 2007; Agyeman et al., 2016). The Rights of Nature have the potential to transform the legal and ethical frameworks that address not only ecological crises but also the social structures that underpin them when it is implemented with these principles. Local knowledge must be incorporated into the policies and systems that have been rolled out to enforce the rights of nature are recognised (Hyolmo, 2024). Education must also be intensified on issues relating to RoN. A study by Tuparevska records that the current generation spends less time interacting with nature, and this in the long run, affects the connection humans have with nature and their reluctance to protect it (Tuparevska, 2022). It is therefore imperative to start introducing our students to nature early in life. The safety of indigenous people who stand against environmental pollution must also be ensured by strengthening global networks (UNEP, 2018).

Knowledge of the environment and the practices accompanying this knowledge is what Berkes referred to as "traditional ecological knowledge" (Berkes 1999). This traditional ecological knowledge is what the Ecuadorian constitution refers to as recognising nature as an essential entity with rights to be protected; however, most of the cases related to environmental degradation affected the natives of the communities and intensified environmental injustice (Broner & Ragozzino, 2022). Thus, the experiences of these indigenous people are often used to review and improve upon existing policies. RoN can be an important instrument in the fight against injustice experienced by indigenous people in the various communities since countries are now moving to recognise it in their constitutions, and it offers protection to the natural resources that native communities rely on (Guzmán 2019), however, Sternäng holds an opposing view; making an argument that the indigenous people could lose access to important natural resources if one the principles of RoN is to ensure that resources are not consumed or exploited by humans (Sternäng, 2018). In the case of Bolivia, many federal indigenous groups fought against the law and hence their continual mining on the ancestral lands (Muñoz, 2023). This, in effect, led to the weakening of the fight against resource extraction.

Countries such as Ecuador have seen their local communities challenging many projects, they perceive to be destroying nature. A typical case is when Ecuador's Provincial Court of Loja gave a ruling that the rights of a river were violated and then went ahead to issue an injunction on the project. The case was that the road construction near the Vilcabamba River was destroying the riverbank, diverting the flow of the river, and exposing the area to flooding (Greene 2011; Oliver, 2024). This ruling was found on the basis that nature has the freedom to exist and every individual's obligation to protect

(Greene 2011). This case marked a significant stride in the RoN movement because the two plaintiffs, who were both owners of plots of land near the river, did not bring the suit for their personal property damages, but instead brought the suit only as representatives of the Vilcabamba itself (Oliver, 2024). Again, Ecuador's Constitutional court ruled in 2021 that mining in the Los Cedros Protected Forest was an act of infringement of the constitutional rights of nature and is therefore forbidden in the forest (Oliver, 2024). These cases marked a significant improvement in the fight for nature to be recognised as an entity with intrinsic rights.

Ecological and Scientific Basis for the Rights of Nature

The Rights of Nature also find their bearing in life's ecological and scientific principles. Rights of Nature recognize that the stability of our planet and wellbeing of man are results of healthy ecosystems (Alves et al, 2023). Possessing the scientific understanding of ecosystems could perhaps point to the importance of biodiversity, resilience, and ecological integrity to the long-term sustainability of life on Earth (Rockström et al., 2009; IPBES, 2019). These perspectives have been filtering into policy reform and legal change more and more, through Earth Jurisprudence and Rights of Nature legislation. Our ecosystems are complex adaptive systems that consists of related species, functions and processes, and when their balance sis disturbed, whether by the actions of human beings or by environmental changes, such as deforestation, contamination, or climate changes, the result is a pile of negative effects at both the human and non-human levels (Folke et al, 2004; Steffen et al, 2015).

The impact of science in shaping Rights of Nature legislation is especially clear in the modern era. Interdisciplinary ecological study has drawn attention to the limitations of the services our ecosystem provides when subjected to misuse, and this knowledge has also contributed to framing the need to consider nature as a subject of rights and not only as a resource (Chapron et al., 2019). In countries such as Ecuador and New Zealand, legal innovations make reference to scientific reports on the health of rivers and forests to support legal personhood and protection of the ecosystem (O'Donnell & Talbot-Jones, 2018). These legal strategies are consistent with modern frameworks, such as the concept of the Anthropocene, that have brought into focus the role humanity plays in disrupting the ecosystem (Steffen et al., 2011).

Science also confirms that ecological health is the same as climate resilience and public health, and food security. The degradation of ecosystems leads to an elevated spread of diseases, extreme weather events, and loss of biodiversity, resulting in an intensification of social and economic vulnerability (IPBES, 2019; IPCC, 2022; Reckien et al, 2018), hence when laws are enacted to protect nature, it is not just ethically and culturally relevant but also scientifically important to the survival of our planetary system. Scholars and advocates have argued for the legal rights of nature to help institutionalize ecological limits and push governments away from considering short-term human interests over generational responsibilities (Bosselmann, 2010; Washington et al., 2018). Incorporating science and an ecological basis into the Rights of Nature legislation strengthens environ-

mental protection and strong foundation for systematic policies that respond effectively to feedback.

Recognizing the Rights of Nature: Global Initiatives and Case Studies

The notion of acknowledging rights for nature has garnered significant scholarly interest in contemporary discourse, with nations across the globe endeavouring to re-conceptualise their relationship with the environment. This study explores various international initiatives and case studies that have adopted the rights of nature framework, concentrating on the diverse methodologies and ramifications of these movements.

A prominent case can be found in that of Ecuador, which, in 2008, became the inaugural country to enshrine the rights of nature within its constitution. The Constitution of the Republic of Ecuador, enacted in 2008, specifically in Article 71, recognized that "Nature or Pachamama" possesses the right to exist, persist, maintain, and regenerate its essential cycles, structures, functions, and evolutionary processes. This constitutional innovation was influenced by significant indigenous influence (Apaza Huanca, 2019) and created an ecocentric legal system. Lawsuits have since invoked those rights: for instance, citizens have taken lawsuits in order to stop mining or highway projects by alleging violation of nature's constitutional rights (Eco Jurisprudence Monitor 2025). Nonetheless, the implementation has been variable, and economic pressures for development and issues of legal interpretation have limited practical impacts (Rivas et al., 2022).

Another prominent case is that of New Zealand, which in 2017 granted the Whanganui River legal personhood and recognized it as a living being with its rights, interests, and responsibilities (Magallanes, 2015). This decision arose out of a long-running conflict between the government and the Whanganui Iwi, an indigenous Māori tribe, in managing the river. The Whanganui River Claims Settlement Act recognizes the profound spiritual and cultural linkage between the river and the Whanganui Iwi, and authorizes the latter as its guardians. In 2017, the Te Awa Tupua (Whanganui River Claims Settlement; Eco Jurisprudence Monitor, 2024) Act declared the Whanganui River a legal person (Te Awa Tupua), recognizing the river's "spiritual and physical" identity. Under this legislation, a dual Māori-government guardianship would defend the river's health and act for it in court. More recently (2023), New Zealand accorded legal personhood status to Mount Taranaki: the Te Kāhui Tupua law recognizes the holy mount as an individual with full legal rights (to be, to regenerate, etc.) and establishes a council (Te Tōpuni Kōkōrangi) with local Māori and Crown appointees acting for it. These reforms focus on indigenous worldviews (Papatuanuku/Mother Earth, ancestor spirits) and direct governance in a co-management direction. While these innovations are new, observers state that they have not

completely stopped pressures of development but rather offer new tools (guardianship, management boards) for infusing indigenous values in the protection of the ecosystem.

Similarly, in 2019, the India's state of Uttarakhand gave the Ganges and Yamuna rivers legal personhood, recognizing their status as "living entities" with rights, obligations, and liabilities (O'donnell, 2018). This ruling was reaffirmed by the Indian Supreme Court, recognizing the rights of the rivers "to be restored" and to be protected from pollution and exploitation. While the Supreme Court overruled its ruling, other state courts continued the precedent. In 2018, the High Court of Uttarakhand granted personhood to the entire animal kingdom; in 2020, the Punjab and Haryana High Court held Chandigarh's Sukhna Lake a "living entity" with legal personality. Frequently, the judgments appeal to ecological and ethical reasoning (the writ petition presented river pollution as an attack on human rights) and appeal to traditional Indian respect for nature (particularly rivers as goddesses). Nevertheless, they are limited to court orders in individual states. Federally, India has no rights-of-nature law on the books; its courts have hesitated to give wider effect to such declarations (Surma, 2022).

Bolivia also followed suit by including nature's rights in national law. In 2010 and 2012, the government enacted the Law of the Rights of Mother Earth (Ley 071) and the Framework Law on Mother Earth and Integral Development for Living Well. Both laws specifically grant rights to Pachamama like "the right to life and to exist," "the right to continue vital cycles," and "the right not to be polluted". They also prevent mega-projects that disrupt ecosystems. Both laws drew on Bolivia's 2009 Constitution and indigenous Andean spiritual practices, whose cosmology treats humans as fellow parts of a living Earth. The 2012 law even established new institutions, a Mother Earth Ombudsman and a Plurinational Mother Earth Authority, charged with ensuring these rights. In reality, implementation has been slow, however. Accounts document delays in establishing agencies and clashes between development priorities (e.g., mining) and Mother Earth's defence. Still, Bolivia's legislation is one of the strongest statutory recognitions of nature's rights, explicitly tying them specifically to indigenous concepts of Pachamama.

In Colombia, rights of nature have developed through the court system, not constitutional language. In Sentencia T-622/2016, the Constitutional Court of Colombia found the Atrato River Basin (Chocó) a subject of rights "which imply its protection, conservation, maintenance and…restoration". This pioneering ruling (initiated by Afro-Colombian and indigenous peoples harmed by gold-mining contamination) instructed the government to restore and safeguard the river. It also created a mechanism of guardianías: the river is to be represented legally by a council of guardians (one of the community plaintiffs, one of the state) to speak up for the health of the river. In 2018, the Supreme

Court of Justice went further still: in STC 4360/2018, the Court held the Colombian Amazon "an entity subject of rights deserving of being protected by law". That ruling, initiated by young climate plaintiffs, instructed the state to stop deforestation in the Amazon and to develop intergenerational action plans.

They are premised on Colombia's Constitutional right to a healthy environment but apply it to nature itself. They have tangible consequences, for instance, the Atrato ruling provided for river clean-up projects and new wetlands restoration, and the decision in the Amazon has created (indefinitely prolonged) government action plans (Rights of Nature Case Study Atrato River). Enforcement is, however, complicated: guardianship models imply repeated community engagement and litigious follow-through. Academic analysis registers countervailing tensions between Western models of law and indigenous understandings (Afro-Colombian and Amazonian peoples see the river as ancestral, not something that is a mere "legal person"). Nevertheless, Colombia's judiciary have set the world pace in applying rights of nature to large-scale ecosystems, prompted by local activism and environmental imperatives.

In 2019, Uganda was the first African nation to pass rights-of-nature legislation. Section 4 of the Uganda National Environment Act, 2019 categorically establishes that ecosystems and "natural environment" have the right "to exist, persist, maintain and regenerate their vital cycles, structure and functions". The law enables nature as a plaintiff in court ("injured party") and mandates the state to observe nature's rights in the planning of development. In a legal sense, implementation is emerging. No specific guardians were institutionalized at the national level, but passage of the law catalyzed local responses. For instance, in 2020, the Buliisa District Council, where indigenous Bagungu communities reside along Lake Albert, codified customary laws preserving "sacred natural sites" (mpuluma) within the district. Local-level ordinances are premised on the new law, applying traditional Bagungu cultural norms (which have historically protected rivers, forests, and species) to uphold nature's rights (Hal, 2021). In short, Uganda's law reform is shaped by indigenous custodianship values and offers new environmental defence tools, but actual outcomes await future governance and capacity for enforcement (Consortium, 2021).

The Rights of Nature movement is not new and has its origin in 1972 when Christopher Stone made a case for legal rights for environmental entities. The United States had a breakthrough in this area with a RoN ordinance being introduced in 2006, marking a turning point in the journey of the movement (Witlacil, 2022). The Rights of Nature movement in the United States, being a global movement among Indigenous peoples and communities, seeks to shift traditional human-nature relations through a recognition of nature's inherent rights. Based in traditional culture that holds nature to be a living enti-

ty, the movement marks a shift from exploiting natural resources and toward respect for nature as a rights-bearing partner (Davies et al., 2024).

The shift allows for more effective conservation measures in alignment with global environmental agendas like the Global Biodiversity Framework (Convention on Biological Diversity, 2022). The movement, though revolutionary in its nature, encounters legal and political impediments that need to be crossed for its implementation (Davies et al., 2024). RoN, however, marks a significant milestone in promoting environmental justice and sustainability in the United States.

In 2017, Mexico City's government approved a new constitutional document that explicitly enshrines nature's rights. This historical step represented the first official enshrinement of nature's rights in a legal document, seeking to protect natural ecosystems from destruction and misuse (Hiroshi Fukurai & Krooth, 2021). The constitutional amendment became a legal basis for advancing the cause for the environment, and legal action could be taken in nature's name. This tool empowers citizens and institutions to sue parties for inflicting damage to the environment, thereby promoting sustainability in development (Cabanes, 2023).

Mexico enshrined mostly at the subnational level the rights to nature. Going into specifics about Mexico City's 2017 constitution (adopted by popular vote) formally enshrines explicitly "the right to the preservation and protection of nature" and binds the government to ensure citizens participate in its defense. At least two Mexican states soon followed the new legal precedent by recognizing the rights of nature in their constitutions. Legislatures in Colima and Guerrero made constitutional or legal amendments to ensure the government protects nature's rights (centerforenvironmentalrights.org).

These initiatives were advocated for by citizen networks and environmental NGOs (over 150 organizations lobbied for the Mexico City amendmentearthlawcenter.org), yet concrete implementation remains underway. The new instruments obligate officials to consider ecosystems' interests and allow citizens to sue for nature's sake, but specialized enforcement tools (such as special agencies or courts) remain under construction. Civil organizations continue to demand rights-of-nature for specific river bodies (such as the Atoyac and San Pedro River) under these new constitutional instruments.

Canada is observing Rights of Nature (RoN) recognition more through local and Indigenous-led initiatives, rather than through countrywide legislation. Although no RoN legislation exists nationally in Canada, numerous local initiatives have been made in implementing RoN projects. Following such an example is the legal personhood declaration awarded to Magpie River (Muteshekau-shipu) in 2021 through support from the Innu Council of Ekuanitshit and Minganie Regional County Municipality. This marks the first

time for any natural entity within Canada to be awarded legal rights, such as the right to flow, ensure biodiversity, and sue in court (Pellerin, 2024; IORN, 2023). Such rights are wielded through appointed guardians, marrying legal innovativeness and Indigenous worldviews. The Indigenous nations such as the Lake Winnipeg Indigenous Collective and the Anishinaabe of Treaty 3, even go a step further and enter RoN frameworks whereby RoN becomes an extension of traditional environmental stewardship management (McAleer, 2021; Banks, 2022). Such steps form Indigenous governance and ecological kinship whereby RoN becomes a formal legal expression of long-existent traditional values (Grist, 2025).

Beyond the Magpie River, official RoN adoption among Canadian municipalities and provinces has been sparse. While debate and campaigning are growing, especially among researchers, environmental NGOs, and Indigenous organizations, laws for RoN remain mostly symbolic or localized (Chhor & Genovali, 2023; Environmental Law Centre). Policy and legal commentary suggest that the implementation of RoN across a country would require effective Indigenous partnerships and effective utilization of extant legal instruments. Initiatives such as guardian schemes and Indigenous Protected and Conserved Areas (IPCAs) provide frameworks compatible with RoN principles, even though not formally grant ecosystems legal personhood (Federal Research Branch, 2021; RCEN, 2023). While climate and biodiversity pressures increase, RoN is being considered a tool for ecosystem-centered governance and justice.

Panama's National Assembly enacted Law No. 287 in 2022, formally "recognizing the Rights of Nature and the associated obligations of the State" (Panama National Rights of Nature Law - Eco Jurisprudence Monitor, 2024). The statute specifically qualifies Nature as "a collective, indivisible, and self-regulated entity" constituted by all ecosystems (Law 287 of 2022 Animal Legal & Historical Center, 2022). Panama's statute effectively obliges both government and all citizens to protect these rights. The statute took effect in February 2023 (Panama National Rights of Nature Law - Eco Jurisprudence Monitor, 2024b).

Panamá enacted Law 287 in early 2022, and it enshrines Rights of Nature and binds the state to respect and protect them. The legislation provides a legal basis for detailing measures for preserving Nature's rights, including shark populations. The legislation demands that Nature be allowed to exist, regenerate, and be restored, and this is fundamental for safeguarding endangered creatures like sharks. The state is bound to abstain from conduct causing extinctions of species like unsustainable fishing practices (Bustamante, 2023).

Panama's RoN law soon became one among a rush of new legal instruments promoting environmental protection. The Panamanian Supreme Court in November 2023

unanimously quashed the nation's largest copper mine for being unconstitutional and directly mentioned Law 287, calling the ruling a "historic victory" for the rights of nature (Court, 2023). This way, the law has provided judges and civil society a clear basis for standing against projects that harm ecosystems. More broadly, Panama becomes another jurisdiction (e.g., Mexico, New Zealand, Chile, and Colombia) that has afforded legal personhood or constitutional rights to ecosystems (Daunton, 2022). As a whole, Panamá's case study illustrates the Rights of Nature approach's capability to implement a more comprehensive and effective form of shark conservation, focusing on human-environment interconnectedness (Bustamante, 2023).

The Rights of Nature (RoN) movement in the Philippines is gathering rapidity in a worldwide movement toward recognizing ecosystems as legal entities with inherent rights. Although the Philippines has not formally enshrined RoN in domestic law, constitutional and legal processes offered a basis for this recognition. Article II, Section 16 of the Philippine Constitution secures the right of people to a balanced and healthful ecology and provides legal effect for environmental protection (Constitution of the Republic of the Philippines, 1987). A key test case is Oposa v. Factoran (1993), where a group of young people went to court to stop timber license agreements. The Supreme Court ruled in their favour applying "intergenerational equity," and established a precedent for later generations having legal standing in environmental matters (Oposa v. Factoran, 1993). This test case is generally considered foundational for Southeast Asia's RoN template.

More recently, the Writ of Kalikasan, a judicial action conceived in 2010 has enabled communities to sue for environmental destruction spanning wide areas. The Philippine Supreme Court issued a Writ of Kalikasan to suspend mining operations in Mt. Mantalingahan, Palawan, in response to petitions filed by Indigenous Palaw'an communities in 2023. The Court accepted ecological and cultural risks raised by them and reaffirmed indigenous people's roles in ecological governance (IUCN NL, 2023).

The Declaration of Rights of Nature in the Philippines is a complex intersection of instruments of law, Indigenous rights, and measures for environmental conservation. The Philippines has made advances in its recognition for Indigenous rights, most prominently to Indigenous versus extractive struggles. The Philippines has had measures for recognising Indigenous rights in place, most prominently during mining activities (Ciaran O'Faircheallaigh, 2023). The Subanon tribe has fought hard in its attempt to protect a sacred mountain from destruction caused by a Canadian mining company. While they had legal validation of rights, their actions to block the mining activities were not effective.

The recognition of the rights of nature in Bangladesh has gained substantial momentum through constitutional amendments and judicial interpretations that emphasize the importance of environmental protection. The evolving legal framework signifies a commitment to sustainable development and acknowledges the intrinsic value of natural entities. This recognition is prominently displayed in several key areas within the Constitution. The Constitution of Bangladesh has incorporated the right to a safe and clean environment as a fundamental human right. This development reflects a growing global consensus on the significance of environmental rights, which are increasingly recognized through constitutional protections. These rights have been integrated into the Constitution, particularly through the amendment of 2011 that explicitly safeguards the right to a healthy environment (Alam & Atia, 2023).

In 2019, Bangladesh initiated a pioneering advancement in environmental jurisprudence by formally acknowledging all rivers within its jurisdiction as living entities with rights analogous to those of human beings. This judicial proclamation by the High Court Division of the Supreme Court sought to address the pervasive issues of river encroachment, pollution, and mismanagement. The court designated the National River Conservation Commission as the legal guardian of rivers, thereby empowering it to represent these entities in legal proceedings (Islam & O'Donnell, 2020). This recognition is in harmony with global movements advocating for the Rights of Nature and signifies a transformative shift in the valuation and protection of natural resources. By conferring legal personhood upon rivers, Bangladesh not only recognized the inherent worth of its natural ecosystems but also established a legal framework for enhanced accountability and sustainable environmental governance (Islam & O'Donnell, 2020).

While these developments mark significant strides toward environmental justice, major obstacles remain in matching nature's legal rights with the needs of human communities. This is particularly true for populations that depend on natural resources for their daily livelihood. Finding a balance between ecological protection and economic and social well-being is a complex task. Securing fair and inclusive solutions will be vital for the long-term success of Rights of Nature initiatives.

Strategies for Community Engagement and Advocacy for the Rights of Nature Movement

The Rights of Nature (RoN) movement is an emerging global process that advocates for natural entities, including rivers and forests, being legally granted rights in order for them to be protected from degradation and exploitation. The movement uses numerous advocacy and community mobilization methods for its advocacy. Those methods are critical in the formation of a sustainable future and include legal, political, and grassroots approaches. (Global Alliance for the Rights of Nature (GARN), 2020)

Advocacy and community mobilizing in the Rights of Nature movement encompass a variety of strategies, from legal efforts to raising awareness of a deeper understanding of our relations with the natural world (Huneeus Alexandra, 2022). Legal efforts have played a leading role in advancing the Rights of Nature. In Ecuador, the 2011 case of the Vilcabamba River was the first successful implementation of constitutional rights awarded to nature, creating a precedent for further court actions (Global Alliance for the Rights of Nature, 2011). Likewise, in 2019, Waorani indigenous leader Nemonte Nenquimo co-initiated a suit that shielded half a million acres of Amazon rainforest from being drilled for oil, citing the need for free, prior, and informed consent (Nenquimo, 2024). Globally, legal scholars like Monica Feria-Tinta call for interpreting current treaties as "living instruments" in order to respond to degradation of the environment, correlating state inaction on climate with violations of fundamental rights (The Guardian, 2025).

The Rights of Nature (RoN) movement gained worldwide traction with some nations passing legislation securing nature's inherent rights (Kauffman & Martin, 2021). Yet, its implementation is hindered by competing interests in communities and reducing the complexity of nature (Petel, 2024). Proponents contend that RoN is capable of tackling environmental emergencies and ensuring sustainable development (Jeffs, 2022). It embraces multidisciplinary stakeholders with Earth jurisprudence in common, seeking to harmonize governance with ecosystem processes (Jeffs, 2022). In Ecuador, government policy on socio-environmental conflicts has been questioned for its tendency to characterize them as matters of a technical nature while reconfiguring social-natural relationships to justify extractive pursuits of the oil industry (Valladares & Boelens, 2017).

Despite all of this, RoN laws are expanding, with a minimum of 178 provisions in 17 countries (Jeffs, 2022). The success of the implementation of Rights of Nature is dependent on, however, implementation challenges facing RoN, namely conflicting interests in society and simplification of nature's complexity (Petel, 2024). Proponents of the

use of RoN contend that it is able to tackle the environmental crises and foster sustainable growth (Jeffs, 2022).

Tools for monitoring and enforcing Rights of Nature

Effective implementation and enforcement of the Rights of Nature (RoN) require robust tools and platforms that facilitate monitoring, legal support, community engagement, and institutional accountability. Several organizations have developed digital portals and knowledge bases to track legal developments, promote awareness, and support the practical application of RoN principles worldwide.

Policy and Legal Monitoring Platforms for the Rights of Nature

Eco-Jurisprudence Monitor

It was developed by the Global Alliance for the Rights of Nature (GARN), the Eco-Jurisprudence Monitor constitutes an interactive, open-access platform that consolidates ecological jurisprudence initiatives from across the globe. This tool serves as a comprehensive repository of legislation, policies, and judicial rulings that recognize the rights of ecosystems and non-human entities. It enables researchers, policymakers, legal practitioners, and advocates to track and analyze the global evolution of Rights of Nature (RoN) frameworks (Global Alliance for the Rights of Nature [GARN]). This instrument can be effectively utilized by integrating its database into academic research, environmental legal practices, and policymaking procedures. For example, scholars of environmental law may derive comparative insights across various jurisdictions, whilst policymakers can identify best practices for national implementation. Furthermore, civil society organizations may utilize the platform to bolster litigation and legislative advocacy.

Earth Law Portal

The Earth Law Portal, run by the Earth Law Center, is a dynamic digital resource for communities and governments working to adopt and enforce Rights of Nature (RoN) laws. The portal offers access to model legal texts, training modules, community toolkits, and advocacy materials. These resources aim to simplify the adoption of Earth-centered laws and equip stakeholders with the knowledge they need for effective implementation (Earth Law Center, 2023).

The Earth Law Portal is particularly useful at the grassroots and municipal levels, where local governments and community-based organxizations often lead the way in RoN implementation. The legal templates and guides available through the portal can be cus-

tomized for specific jurisdictions, making them flexible tools for legislative drafting and legal reform. Additionally, training modules can be integrated into legal education and professional development programs to expand institutional capacity.

Community Toolkit for Rights of Nature

The Community Toolkit for Rights of Nature, developed by the Earth Law Center, is a comprehensive guide designed to empower local communities to advocate for, draft, and implement Rights of Nature (RoN) legislation. The toolkit provides a range of resources, including model ordinances, community organizing strategies, and legal enforcement frameworks. Its primary goal is to decentralize RoN implementation by equipping communities with the knowledge and legal templates needed to assert nature's rights at the grassroots level (Earth Law Center, 2019).

The toolkit can be used by incorporating it into community organizing efforts and local governance training. Local leaders, environmental justice organizations, and citizen advocacy groups can adopt the ordinance templates to propose local legislation. Additionally, the toolkit's outreach and enforcement strategies can be used to mobilize public support, train local officials, and establish monitoring systems for ensuring compliance. As a result, this tool bridges the gap between legal theory and regional action, helping RoN principles become a reality in everyday governance.

Technology Monitoring Systems

The integration of advanced technological innovations within the sphere of environmental governance has enabled the advent of new pathways for the enforcement of the Rights of Nature (RoN). Systems predicated on technology augment transparency, enable the collection of real-time data, and promote inter-agency collaboration, thereby fortifying the execution of ecological jurisprudence.

Wildlife Enforcement Monitoring System (WEMS)

Conceived by the United Nations University, the Wildlife Enforcement Monitoring System (WEMS) constitutes a data-sharing platform aimed at enhancing the enforcement of wildlife legislation. It synthesizes and analyses data garnered from customs, law enforcement, and environmental agencies to identify trends in wildlife trafficking and poaching activities. WEMS promotes transnational collaboration and improves access to contemporaneous intelligence for both policymakers and the general populace (Wikipedia Contributors, 2025). WEMS can be institutionalized through national and regional envi-

ronmental protection agencies by assimilating the platform into extant law enforcement protocols. Providing training for enforcement personnel on the utilization of WEMS, in conjunction with cross-sectoral policy integration, can yield a more cohesive response to environmental offenses, particularly those that impact biodiversity and infringe upon the inherent rights of wildlife.

Global Fishing Watch (GFW)

Global Fishing Watch (GFW) is a worldwide partnership that applies satellite technology and machine learning to monitor fishing practices across the globe. By rendering data concerning the movements of fishing vessels publicly available, GFW enhances transparency and accountability in the utilization of marine resources, thereby contributing to the enforcement of regulations that protect marine ecosystem entities frequently regarded as possessing rights within RoN frameworks (Global Fishing Watch, 2019). Governments, marine conservation organizations, and legal advocacy entities can incorporate GFW into marine spatial planning, oversight, and policy enforcement. Furthermore, it may function as a corroborative instrument in legal proceedings pertaining to overfishing or the degradation of marine habitats, thereby reinforcing endeavours to uphold the ecological rights of oceanic systems.

IoT-Based Environmental Compliance Systems

In Estonia and other technologically advanced jurisdictions, devices functioning within the Internet of Things (IoT) framework are being increasingly employed to monitor river flow rates and ensure adherence to environmental flow standards. These IoT-based systems furnish real-time data that is essential for evaluating whether rivers and aquatic ecosystems are receiving adequate water to maintain their ecological functions, which is a fundamental prerequisite for safeguarding their rights to health and restoration (Miasayedava et al., 2020).

Environmental ministries and water management authorities are able to deploy IoT sensors within sensitive aquatic zones to oversee compliance with flow-related regulations. The data that is gathered can be systematically logged, analyzed, and utilized to inform regulatory actions or legal proceedings. Through the integration of IoT within river governance, states can more effectively fulfill their obligation to protect the rights of nature by means of preventative monitoring and timely intervention.

Judicial Enforcement and Legal Precedents for the Rights of Nature

Judiciaries assume a pivotal role in affirming and interpreting the Rights of Nature, particularly in circumstances where constitutional or statutory provisions confer legal personhood or intrinsic rights upon ecosystems. Landmark cases originating from Latin America exemplify how courts can function as stewards of ecological justice, establishing binding precedents and influencing policy reform.

Los Cedros Forest Case (Ecuador)

In a landmark ruling delivered in 2021, Ecuador's Constitutional Court upheld the rights of the Los Cedros Cloud Forest, thereby halting a mining initiative that posed a threat to its biodiversity. The court determined that the Rights of Nature, as enshrined in Ecuador's 2008 Constitution, are not merely symbolic but constitute enforceable legal obligations incumbent upon the state. The decision underscored that nature possesses the right to exist, regenerate, and be restored, thereby elevating ecological protection to the status of a constitutional mandate (Shackle, 2025). This precedent may be cited in both domestic and international legal forums to bolster litigation strategies aimed at safeguarding threatened ecosystems. Legal advocates and environmental defenders may utilize the rationale presented in Los Cedros to argue for injunctions against detrimental development projects, particularly in cases where constitutional or statutory recognition of nature's rights is established.

Atrato River Case (Colombia)

In 2016, the Constitutional Court of Colombia rendered a groundbreaking decision acknowledging the Atrato River as a subject of rights. The Court conferred legal personhood upon the river and mandated that the Colombian state undertake measures to ensure its protection, maintenance, and restoration. The judgment assigned guardianship responsibilities to both the government and Indigenous communities, thereby integrating biocultural perspectives into the enforcement of the Rights of Nature (Wesche, 2021).

The Atrato River case presents a replicable legal paradigm for other jurisdictions aspiring to formalize rights-based protections for rivers and water bodies. Legal scholars and drafters of environmental law may reference this judgment when formulating legislation or petitions that seek to recognize rivers, forests, or ecosystems as legal persons. Furthermore, the participatory model that incorporates Indigenous guardianship offers

a blueprint for embedding local knowledge and community stewardship within judicial enforcement mechanisms.

Challenges to the Implementation of Rights of Nature

The implementation of Rights of Nature (RoN) frameworks within diverse legal systems has encountered substantial legal and political obstacles. The prevailing legal frameworks are predominantly founded upon anthropocentrism and property principles; consequently, the characterization of nature as a legal subject presents considerable complexity.

The enactment of Rights of Nature (RoN) legislation has been demonstrated to be legally intricate. The extension of enforceable legal rights to rivers, ecosystems, or species compels courts to confront unprecedented inquiries regarding standing, personhood, and equilibrium. For instance, Guim and Livermore (2021) observe that Ecuadorian courts, recognized as the most experienced in RoN litigation, have encountered difficulties in applying the concept of nature's rights in a manner free from arbitrariness. Litigants representing natural entities may encounter procedural impediments (such as the doctrines of standing) and ambiguous remedies. Bétaille (2019) likewise notes that in practical terms, litigants "face significant legal barriers" under RoN provisions, including the absence of established standing protocols and pervasive judicial corruption, which render successful enforcement improbable. In summary, existing legal systems frequently lack transparent mechanisms for the enforcement of nature's rights, and judges are provided with scant precedent to inform their decisions, thereby diminishing the practical efficacy of these laws.

Even in instances where RoN laws are codified, political dynamics can impede their implementation. Rights of Nature typically necessitate robust governmental or community endorsement for enforcement; in the absence of such support, they remain largely aspirational. Scholars stress that "the success of the Rights of Nature hinges upon the political will to implement these laws and the capability of legal systems to enforce them."

Ul Azam et al. (2025) report that in Ecuador and Bolivia, entrenched developmental interests and insufficient institutional capabilities have restricted enforcement; effectively, RoN protections have been "limited by lack of political will, insufficient institutional capacity, and the continued exploitation of natural resources for economic benefit." In practice, powerful extractive industries, immediate economic priorities, or apathetic regulators frequently supersede eco-centric mandates. Absent a clear political commitment or resources (such as specialized environmental courts or guardians), RoN laws may persist only in theoretical frameworks rather than catalyzing tangible change.

Closely related to political will are institutional limitations. Many governments lack specialized agencies or enforcement mechanisms to give effect to RoN. Judges and officials typically have no long experience managing ecosystem rights, and existing bureaucracies are structured around anthropocentric laws. As a result, even well-intentioned officials may simply treat nature's rights as environmental duties already captured by pollution permits or protected areas, leaving "little enforcement power" Moreover, rights-of-nature statutes often do not specify who will act as guardian for a forest or river, how litigation is funded, or how conflicts with human rights are adjudicated. For instance, after Ecuador's constitutional amendment, thousands of RoN cases were filed, but NGOs criticized the implementation as "incomplete and careless" reflecting the difficulty bureaucracies' face in absorbing such a novel legal paradigm. In short, lack of dedicated institutions and clear procedures means that RoN measures often fail to operate effectively in practice, even when supporters are strong.

Critics of the Rights of Nature

Critics of the Rights of Nature (RoN) model articulate philosophical and practical critiques. Scholars contend that the advocacy for RoN constitutes an exercise in legal idealism, wherein the perceived efficacy of law in reshaping entrenched practices is emphasized (Burdon, 2015). Others assert that the model could inadvertently shift the focus away from human responsibility towards the natural world, leading to challenges in attributing responsibility. Critics further argue that phrases such as "rights of rivers" or "rights of nature" lack clarity in their conceptual meaning, which may culminate in governmental paralysis or conflicting interpretations (Shelton, 2015). This has prompted calls for clearer processes and adherence to other environmental and human rights legislation. Proponents of the RoN model respond by asserting that the articulation of the rights of nature is, in itself, a critical challenge to existing discourse regarding our ethical and legal obligations towards nature, as recognized by mainstream legal traditions.

A fundamental and persistent challenge arises from the apparent tension between the Right of Nature (RoN) and traditional economic growth models. Industrial interests and state authorities typically oppose RoN proposals, anticipating restrictions on activities such as mining, logging, or infrastructure development. This tension is vividly exemplified in countries such as India, where higher courts have granted legal person status to rivers like the Ganges, only to have that status later withdrawn due to administrative and economic pressures (O'Donnell & Talbot-Jones, 2018). Conversely, in recent

cases, such as New Zealand's decision recognizing the Whanganui River as a legal person, success depended on the incorporation of Indigenous perspectives and the establishment of co-governance systems that balance environmental, cultural, and economic interests (Hutchison, 2014).

Many scholars caution that the granting of rights to nature may be more ideological posturing than a feasible solution. Rights serve as powerful symbols; however, without concrete enforcement mechanisms, they risk being aspirational in nature. For instance, Sachs (2023) concludes that Rights of Nature laws provide a "resonant battle cry" for environmentalism, but are ultimately deemed "the wrong approach for addressing the global environmental crisis." Critics contend that embedding abstract environmental rights within constitutions or legislation can "atomize" collective ecological demands, devolving them into individual lawsuits, as highlighted by May and Daly (2015) and Hayward (2004). The outcome may result in fragmented litigation rather than cohesive policy. Moreover, Sachs (2023) posits that because RoN relies on "ad hoc litigation to enforce nebulous rights," it may lead to "arbitrary and oppressive outcomes for humans while under-protecting nature" (UR Scholarship Repository | University of Richmond Research, 2025). Consequently, individuals affected by environmental regulations may encounter unclear directives or excessive restrictions due to ambiguous rights. In summary, critics identify a disconnect between the lofty ideals of eco-centric law and the complex realities of legal practice, suggesting that rights discourse alone cannot ensure enhanced protection.

A significant criticism is that RoN can conflict with prevailing economic imperatives. Environmental policy continuously necessitates trade-offs, and the rights of nature may lack the flexibility to accommodate developmental requirements. Guim and Livermore (2021) exemplify this through a common scenario: a proposed hydroelectric dam. They observe that the permission to construct the dam "may further economic development" for some, yet "destroy the habitat of an endangered species" (Home - Virginia Law Review, 2020). If nature is endowed with a right to "regeneration" or existence, such projects inherently risk infringing upon that right. Courts thus grapple with a paradox: to avoid halting development entirely, the RoN framework "must allow for some method to balance these heterogeneous effects," yet doing so effectively undermines the absolute nature of rights. In practice, judges have struggled to find this equilibrium. In Ecuador, for instance, the world's first RoN constitution, courts have frequently favoured mining and oil enterprises over nature's claims.

Observers note that, in the absence of a clearly defined constitutional hierarchy, judges in Ecuador must confront the tension between economic development and the protection of nature's rights, almost invariably favouring development (Kotze & Calzadilla 2017, as cited in Rajamani 2021). These economic tensions also emerge in discussions surrounding proposed constitutional reforms (e.g., in Chile), where critics caution that the stringent nature rights might jeopardize industries such as mining. Consequently, critics posit that RoN laws may precipitate conflicts with human socioeconomic objectives, and without careful integration, these laws could falter or even incite backlash from development stakeholders.

In conclusion, these instances suggest that while the Right of Nature possesses the potential to challenge the dominant economic paradigm, it also presents opportunities for the acceptance of more sustainable and diverse development models, provided that these are thoroughly contextualized and institutionalized. Complex legal questions, limited institutional support, and often ambivalent political commitment further complicate effective implementation. Simultaneously, legal scholars indicate that rights-based environmentalism suffers from vagueness and oversimplification. If not judiciously structured, these laws may yield arbitrary judicial rulings, failing to protect ecosystems as intended. Addressing these challenges will likely necessitate supplementary measures such as clear procedural rules, robust guardianship frameworks, or hybrid rights-responsibility approaches in conjunction with any formal acknowledgment of nature's intrinsic value.

Collaboration and Advocacy for the Rights of Nature

Development of the Rights of Nature (RoN) is dependent on collaborative efforts and active engagement that integrate diverse stakeholders. Important actors, from governments, Indigenous individuals, NGOs, and grassroots movements, have all played a role in the evolution of RoN. Participation in the Constituent Assembly in Ecuador in 2008, leading to the constitutional affirmation of the rights of nature, was jointly made by Indigenous individuals, green movements, and jurists (Akchurin, 2015). New Zealand's legal personhood of the Whanganui River was the product of a partnership that involved government collaboration with Māori iwi in bringing their cultural and ecological wisdom into the law (O'Donnell & Talbot-Jones, 2018).

Rights of Nature (RoN) advocacy efforts are strongest when they are locally specific, participatory, and culturally responsive, and are motivated by local ecological issues. Grassroots groups have been enabled by community member-authored ordinances, storytelling, and community empowerment through legal empowerment trainings, for instance, in a number of U.S. municipalities, including Toledo, Ohio, and Santa Monica, California (CELDF, 2019). Intermediary technical services, community organization tools, and policy advice have also been provided by civil society organizations in further support of efforts. Framing ecological degradation in terms of public health, water rights, or shared identity that is common provides the social movement with greater political salience, as well as broadening their scope of negotiation (Burdon, 2015).

The advancement of the Rights of Nature (RoN) movement has been significantly shaped by the strategic use of digital media and technology. Social media platforms and digital campaigns have enabled grassroots organizations and Indigenous communities to reach global audiences, share their stories, and garner public support. For instance, Ecuador's *Yasunidos* campaign utilized social media to mobilize support for a national referendum against oil drilling in the Yasuni National Park, effectively raising awareness and encouraging civic participation (Participedia, 2023). Similarly, the Kitu Kara people in Ecuador integrated social media campaigns with legal action to bring attention to the contamination of the Machángara River (Adams, 2024). In the United States, organizations like Movement Rights have used websites, newsletters, and social platforms to maintain engagement, inform supporters, and amplify local legal victories (Biggs & Plant, 2023).

Documentary films and video media have played a key role in translating complex legal concepts into accessible narratives. Films such as *The Rights of Nature: A Global Movement* and *Invisible Hand* offer compelling stories that highlight RoN developments in Ecuador, New Zealand, and the U.S., making the implications of granting legal rights to nature relatable to broader audiences (Public Herald, 2020; Water Alternatives). These films are often screened at academic institutions and film festivals, helping to foster public discourse and policy engagement. Moreover, video recordings of international RoN conferences, such as those held during COP events, are shared online, offering educational content and increasing visibility for Indigenous leaders and environmental advocates (WECAN International).

Podcasts have emerged as another effective medium for RoN advocacy. Organizations such as the Global Alliance for the Rights of Nature (GARN) and Bioneers have developed podcast series featuring environmental lawyers, Indigenous leaders, and activists who discuss the legal, cultural, and ethical dimensions of nature's rights. These podcasts, such as GARN's *Conversations with Mother Nature* and Bioneers' RoN-focused episodes, offer deep, reflective dialogue on the movement's evolution and are instrumental in building a knowledgeable, global listener base (GARN, 2025; Bioneers). Podcasts also facilitate ongoing education and provide listeners with action steps to get involved, thereby strengthening the movement's grassroots foundation.

Web-based platforms and mobile applications further support RoN advocacy by serving as central repositories of information and mobilization tools. Websites of organizations like GARN, Movement Rights, and Earth Law Center host educational materials, reports, webinars, and legal toolkits designed to assist communities in implementing RoN laws. For example, Movement Rights' publication *Rights of Nature: Redefining Global Climate Solutions* was launched digitally and promoted through an online press event, illustrating how web tools can enhance advocacy reach (Biggs & Plant, 2023). Additionally, mobile applications such as *Paxamama News*, developed by the World Conscious Pact, provide users with curated RoN content, ranging from videos to news articles, on their smartphones, helping to keep advocacy efforts active and accessible (Bernal, 2017).

Ultimately, the integration of media technology into RoN advocacy has proven vital for building public awareness, influencing policy, and supporting local and global mobilization. These tools have not only helped communicate the philosophy and legal arguments underpinning RoN but have also empowered communities to take direct action. Whether through online campaigns, educational podcasts, or digital apps, media tech-

nologies have transformed RoN from a niche legal concept into a vibrant, transnational movement.

The Global Landscape of the Rights of Nature Movement

The Rights of Nature (RoN) movement represents a rapidly expanding global initiative aimed at recognizing nature as a legal subject with enforceable rights, rather than treating it solely as property or a resource. The movement challenges anthropocentric legal frameworks and draws on the leadership of Indigenous peoples, legal scholars, and environmental activists to promote ecocentric jurisprudence across diverse regions (Putzer et al., 2022). While the design and implementation of RoN laws vary across jurisdictions, they collectively signify a growing shift toward legal systems that prioritize ecological integrity.

The Rights of Nature (RoN) initiatives have achieved significant success across 39 nations, with over 400 documented instances reflecting the burgeoning global movement to recognize ecosystems as legitimate legal entities (Putzer et al., 2022). The movement first emerged prominently in the United States in 2006 through city ordinances and has since inspired foundational laws, such as Ecuador's 2008 constitution, which provides inherent rights to nature, and the 2017 recognition of legal personhood for the Whanganui River in New Zealand. This initiative is supported by organizations including the Earth Law Center and the United Nations' Harmony with Nature initiative, which offer resources and maps that track the progression of RoN and the diversity of jurisdictions involved. However, the Rights of Nature movement is not homogeneous; it encompasses various legislative approaches, from amendments to national constitutions to local bylaws, and advocates for an array of natural entities, including rivers, lakes, and forests (Viktoria Kahui et al., 2024; Hall, 2023).

Indigenous and local communities play a pivotal role in the most impactful Rights of Nature (RoN) cases globally (Espinosa, 2019). In numerous regions, they are at the forefront, mobilizing, campaigning, and lobbying for legislation that confers rights to nature. This leadership extends beyond legal frameworks, encompassing the profound knowledge and cultural values these communities contribute. Many Indigenous philosophies view humans as an integral part of nature rather than separate from it. They advocate for harmony with the environment, respect for all living beings, and recognition of nature's intrinsic value, even when it does not directly serve human interests (Viaene, 2022). These values often lie at the core of RoN cases, shaping the development of laws and the practical engagement with nature (O'Donnell et al., 2020). The successes of var-

ious campaigns and initiatives illustrate the considerable potential of the Rights of Nature (RoN) movement to transform environmental governance. Ecuador's Constitutional Amendment serves as a notable example of a successful campaign that highlights the RoN movement's ability to reform ecological governance.

The constitutional amendment enacted in 2008 in Ecuador, which granted rights to nature, represented a significant milestone within the global Rights of Nature (RoN) movement. Since its establishment, this amendment has been invoked in the protection of various natural entities, including rivers and ecosystems (Hiroshi Fukurai & Krooth, 2021). Additionally, New Zealand has been at the forefront of conferring legal personhood upon specific natural entities. In 2017, the Whanganui River was officially acknowledged as possessing legal personhood, which encompasses its rights to existence and growth within New Zealand (Dias, 2024). India has similarly undertaken initiatives related to Legal Personhood for Rivers, wherein the High Court of Uttarakhand determined that the rivers Ganga and Yamuna, along with certain glaciers, qualify as legal persons endowed with all rights and obligations typical of a living entity (Salim et al., 2017). This judicial ruling has profoundly influenced the framework of environmental law in India.

The RoN movement is poised to further its growth and evolution in the future, propelled by numerous trends and developments that will shape its trajectory, including an expanded recognition of Nature's Rights. The acknowledgment of the rights of nature is increasingly gaining traction on both national and international levels. This is evidenced by the rising number of judicial decisions and legislative measures that recognize the rights of nature (Cano Pecharroman, 2018). The sustained success of the Rights of Nature (RoN) movement is primarily contingent upon Indigenous leadership and the application of legal methodologies that respect diverse cultural and legal traditions. Inclusive approaches have been demonstrated to render efforts for RoN more effective, sustainable, and capable of instigating genuine change. By integrating Indigenous knowledge with formal legal systems, these methodologies promote enhanced environmental protections (O'Donnell et al., 2020).

Furthermore, they cultivate greater trust within communities and governmental structures, leading to broader support. As the global community confronts escalating environmental challenges, such collaborative efforts will become increasingly imperative. The Rights of Nature (RoN) movement is expected to evolve significantly in the coming years, driven by legal innovation, growing global awareness, and institutional support. One prominent trend is the increased formal recognition of nature's rights through con-

stitutional amendments, judicial rulings, and national legislation. For instance, Ecuador and Bolivia have embedded RoN in their constitutions, while courts in countries like India, Colombia, and Bangladesh have granted legal personhood to rivers and ecosystems (Cano Pecharroman, 2018; Kauffman & Martin, 2018). Such legal frameworks are likely to spread as more nations explore ecological jurisprudence to tackle environmental degradation.

A second development is the integration of Indigenous and customary knowledge into environmental governance. Indigenous-led advocacy and worldviews, emphasizing interconnectedness with the land, are shaping legal reforms and building more holistic ecological protections (Viaene, 2022; O'Donnell et al., 2020). Third, there is an observable shift toward internationalizing RoN principles. UN programs like "Harmony with Nature" and the post-2020 Global Biodiversity Framework explicitly support rights-based approaches to conservation, signaling increasing alignment between RoN and global environmental goals (United Nations, 2023).

Additionally, RoN is being connected to climate justice and the Sustainable Development Goals (SDGs), particularly concerning clean water (SDG 6), climate action (SDG 13), and life on land (SDG 15) (United Nations Department of Economic and Social Affairs). As ecological crises worsen, legal systems may increasingly adopt ecocentric laws that protect ecosystems as rights-bearing entities, ensuring their right to exist, flourish, and regenerate. This transformation suggests a growing recognition that safeguarding nature's rights is essential for sustainable development and intergenerational equity (Kenton et al., 2023; Burdon, 2015).

Conclusion

The global movement for the Rights of Nature (RoN) represents a profound legal and ethical shift in the relationship between human societies and the natural world. As explored throughout this work, RoN challenges traditional anthropocentric legal systems by recognizing ecosystems, rivers, and forests as rights-bearing entities capable of legal standing. This transformative framework is increasingly reflected in global jurisprudence, from Ecuador's constitutional recognition of nature's rights to landmark court decisions in Colombia, India, and New Zealand. Through diverse enforcement tools such as ecological legal portals, community toolkits, judicial precedents, and technology-based monitoring systems, RoN frameworks are gradually being operationalized and institutionalized.

Nevertheless, the implementation of RoN faces significant legal and political challenges, including interpretive ambiguities, economic resistance, and entrenched anthropocentric legal norms. Critical perspectives have rightly questioned the conceptual clarity and practical enforceability of RoN laws, yet they also highlight the need for further dialogue and legal refinement. The movement's strongest outcomes have emerged through inclusive and collaborative approaches, particularly those led by Indigenous communities whose ecological worldviews offer valuable guidance for sustainable governance.

Looking forward, future developments in RoN are likely to build upon the integration of Indigenous knowledge, growing international support, and alignment with broader sustainability and climate justice goals. Media and technological innovation, along with grassroots mobilization, continue to amplify awareness and advocacy for RoN principles. As the world confronts escalating environmental crises, the recognition and enforcement of nature's rights offer not only a legal innovation but also a moral imperative, redefining how humanity relates to the living systems that sustain all life.

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