

Environmental Rule of Law:

Tracking Progress and Charting
Future Directions



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Acronyms

ACODE	Advocates Coalition for Development and Environment
ADR	Alternative Dispute Resolution
AI	Artificial Intelligence
AIS	Automatic Identification System
AJENEL	Africa Judicial Education Network on Environmental Law
AMCEN	African Ministerial Conference on the Environment
AMFJN	Asociación de Magistrados y Funcionarios de la Justicia Nacional (Argentina's Association of Magistrates and Officials of the National Justice)
BBNJ	Marine Biodiversity of Areas Beyond National Jurisdiction
BHRRC	Business & Human Rights Resource Centre
BLM	Black Lives Matter
CBD	Convention on Biological Diversity
CCJ	Caribbean Court of Justice
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CEPAL	Comisión Económica para América Latina (United Nations Economic Commission for Latin America and the Caribbean)
CESCR	United Nations Committee on Economic, Social and Cultural Rights
CIEL	Center for International Environmental Law
CJEU	Court of Justice of the European Union
CMC	Crisis Emergency Committee
COAPIMA	Coordination of Organizations and Articulations of the Indigenous Peoples of Maranhão
CONADEH	Comisionado Nacional de los Derechos Humanos (Honduras' National Commissioner for Human Rights)
CONAMA	Conselho Nacional do Meio Ambiente (Brazil's National Environment Council)
CRC	Convention on the Rights of the Child
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
ECOSOC	United Nations Economic and Social Council
ECT	Environmental Courts and Tribunals
EIA	Environmental Impact Assessment
ELI	Environmental Law Institute
EPR	Extended Producer Responsibility
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FFF	Fridays for Future
FGRM	Feedback and Grievance Redress Mechanism
FIE	Friends of the Irish Environment
FPIC	Free, Prior and Informed Consent

GEF IEO	Global Environment Facility Independent Evaluation Office
GHG	Greenhouse Gas
GIHR	German Institute for Human Rights
GJIE	Global Judicial Institute on the Environment
GLAD	Global Land Analysis and Discovery
HLCP	High-level Committee on Programmes
IACHR	Inter-American Commission on Human Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
IDB	Inter-American Development Bank
IIED	International Institute for Environment and Development
IIFB	International Indigenous Forum on Biodiversity
ILC	International Law Commission
ILO	International Labor Organization
ILRI	International Livestock Research Institute
INC	Intergovernmental Negotiating Committee
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
ISPAN	Instituto Sociedade, População e Natureza (Brazil's Institute for Society, Population and Nature)
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated fishing
IWA	International Water Association
KSH	Kenyan Shillings
NASA	National Aeronautics and Space Administration
NDC	Nationally Determined Contribution
NEA	Uganda's National Environmental Act
NGO	Non-Governmental Organization
NHRI	National Human Rights Institution
NIRMS	National Institutions and Regional Mechanisms Section
OAS	Organization of American States
OBK	Operasi Bersepadu Khazanah (Malaysia's Khazanah Integrated Operation)
OHCHR	Office of the United Nations High Commissioner for Human Rights
OECD	Organisation for Economic Co-operation and Development
OECM	Other Effective area-based Conservation Measures
OEWG	Open-Ended Working Group
PCB	Polychlorinated Biphenyls
PPA	Privately Protected Area
REDD+	Reducing Emissions from Deforestation and forest Degradation
RLB	Rodrigo Lara Bonilla
RPPN	Reserva Particular do Patrimônio Natural (Brazil's Private Natural Heritage Reserve)
SDGs	Sustainable Development Goals

SEA	Strategic Environmental Assessment
SEP	Supplemental Environmental Project
SETENA	Secretaría Técnica Nacional Ambiental (Costa Rica's National Environmental Technical Secretariat)
SLAPP	Strategic Lawsuits Against Public Participation
TEEB	The Economics of Ecosystems and Biodiversity
TMT	Trygg Mat Tracking
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNEA	United Nations Environment Assembly
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNHRC	United Nations Human Rights Council
UNICEF	United Nations International Children's Emergency Fund
UNODC	United Nations Office on Drugs and Crime
UNSG	United Nations Secretary-General
UNWTO	United Nations World Tourism Organization
US EPA	United States Environmental Protection Agency
USAID	United States Agency for International Development
WDPA	World Database on Protected Areas
WEBOR	Wekiva River and Econlockhatchee River Bill of Rights
WHEJAC	White House Environmental Justice Advisory Council
WHO	World Health Organization
WOAH	World Organisation for Animal Health
WRI	World Resources Institute
WWF	World Wide Fund For Nature

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Foreword



The world is facing triple existential threats of climate change, catastrophic loss of biodiversity and growing chemical contamination. In the face of this triple planetary crisis, environmental rule of law has never been more important or relevant. Environmental rule of law provides an essential toolbox of approaches for strengthening the implementation and enforcement of, and compliance with, environmental law. It empowers us to fortify the application, strengthen enforcement and ensure better environmental actions for the planet for both present and future generations.

In a relatively short period of time, countries around the world have come together to negotiate multilateral environmental agreements and adopt domestic legislation. Yet, the efficacy of these laws and agreements hinges on their translation into tangible action—on their execution, enforcement and adherence.

Like environmental rule of law itself, this toolbox continues to evolve and adapt. There are new challenges (such as the pandemic) and new opportunities (such as social reckoning); and in many cases, the challenges and opportunities intersect (such as technologies). Practitioners, scholars and decision-makers continue to innovate, and we continue to learn what works under what circumstances. It is through the tenets of the environmental rule of law that we nurture the aspiration that these transformations find realization, transcending theoretical intent to become tangible realities.

The urgency and seriousness of the triple planetary crisis require transformation. With environmental rule of law, there is hope that the transformations will work in practice and not just in the books.

A handwritten signature in black ink, appearing to read 'P. Kameri-Mbote'.

Patricia Kameri-Mbote
Director, Law Division
UNEP

Executive Summary

Since the publication of the First Global Report on Environmental Rule of Law in 2019, environmental rule of law has both advanced and been challenged. Climate change and addressing historical social inequities have dominated political and social discourse in many countries, shaping recent developments in the environmental rule of law. The COVID-19 pandemic created new challenges in implementing and enforcing environmental laws. However, it also spurred technological developments and the uptake of technologies.

Although many countries worldwide have implemented various environmental laws, their effectiveness in practice remains a challenge for addressing the triple planetary crisis of climate change, biodiversity loss and pollution. The existing climate pledges and legislation are not adequate to achieve the goal of limiting global average temperatures to below 2°C, as agreed upon in the Paris Agreement. In addition, the loss of biodiversity caused by landscape transformation is accelerating at an unprecedented rate, and national governments have not fulfilled their commitments to protect and preserve conserved areas. Pollution of both air and water is a widespread problem, with emerging pollutants such as pharmaceuticals and plastic putting waterways at risk. Approximately 99 per cent of people live in areas that do not meet the air quality standards set by the World Health Organization (WHO 2021a).

This report aims to support countries in promoting and strengthening environmental rule of law by addressing challenges and good practices. It responds to the need identified in the First Global Report to undertake regular global assessments of environmental rule of law. This report also seeks to fulfil the United Nations Environment Programme's (UNEP's) mandate to promote and advance environmental rule of law pursuant to UNEP's 2013 Governing Council Decision 27/9, the 2019 United Nations Environment Assembly (UNEA) Resolution 4/20 which adopted the Fifth Montevideo Programme for the Development and Periodic Review of Environmental Law, as well as the Political Declaration of the special session of the UNEA to commemorate the fiftieth anniversary of the establishment of UNEP.

Building on the First Global Report, this report expands the initial findings to provide a comprehensive data-informed assessment of global trends, gaps and opportunities related to environmental rule of law. UNEP, in collaboration with its partners, developed and collected data on a series of questions related to each of the key components of environmental rule of law: laws, institutions, civic engagement, rights and justice. By analysing data on these indicators, UNEP has created a global snapshot of environmental rule of law to identify which aspects of environmental rule of law are most prevalent across countries, and to track progress over time. The analysis of the data is provided in four substantive chapters.

In addition, this report provides a range of good practices integrated into each chapter. These good practices provide evidence of what successful promotion and implementation of environmental rule of law look like in reality. By presenting good practices, UNEP aims to deepen understanding of environmental rule of law through case studies and inspire states and other stakeholders to replicate good practices whenever possible.

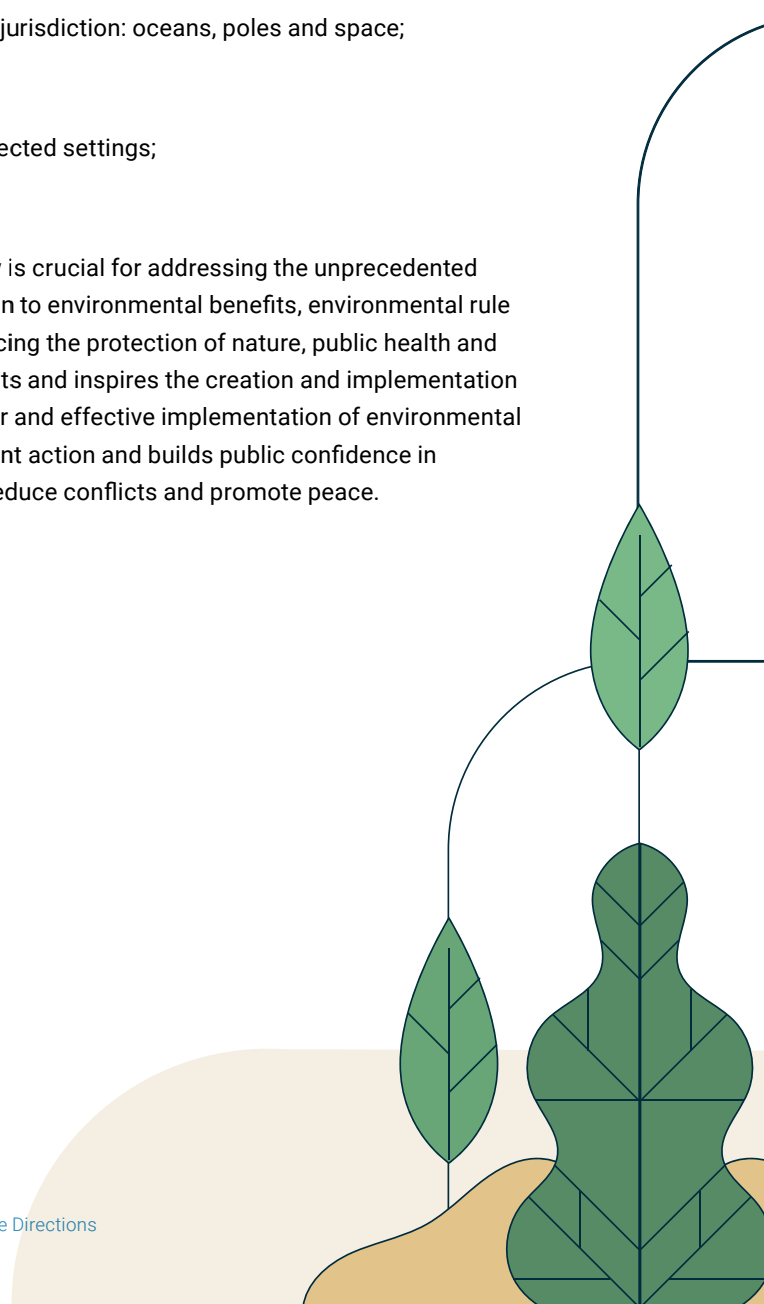
Six cross-cutting findings are highlighted: The COVID-19 pandemic has had significant impacts on environmental rule of law, both positive and negative; the recognition and integration of environmental rights has accelerated; there is growing attention to specialised environment enforcement, particularly in the development and capacity building of institutions; women are champions of environmental rule of law; environmental rule of law is undergoing a technological revolution; and climate change continues to be both a dominant context for environmental rule of law efforts and a driver of actions to advance it.

Furthermore, several overarching recommendations are proposed for future action and collaboration in connection with current global events and challenges, with an eye toward ongoing analyses and efforts to continue strengthening environmental rule of law. Firstly, prioritise the standardization and tracking of environmental rule of law indicators. Secondly, develop guidance on environmental rule of law in emergencies and disasters. Thirdly, integrate social justice in environmental institutions. Finally, establish a technology-policy interface.

A number of issues warrant further research and investigation, and will require collaboration between academic researchers and practitioners that are innovating and pilot testing approaches. This horizon-scanning exercise also highlights future directions for exchange, learning and programming. The five issues are:

- Expanding conceptions of gender;
- Environmental rule of law in areas beyond national jurisdiction: oceans, poles and space;
- Challenges of emerging technology;
- Environmental rule of law in fragile and conflict-affected settings;
- Environmental rule of law and civil disobedience.

Understanding and improving environmental rule of law is crucial for addressing the unprecedented challenges that our planet and societies face. In addition to environmental benefits, environmental rule of law provides economic and social benefits by enhancing the protection of nature, public health and economically valuable natural resources. It also supports and inspires the creation and implementation of ecosystem restoration measures. The consistent, fair and effective implementation of environmental laws strengthens the perceived legitimacy of government action and builds public confidence in institutions. It contributes to greater security and can reduce conflicts and promote peace.



1. Introduction

In January 2019, the United Nations Environment Programme (UNEP) published the First Global Report on Environmental Rule of Law (UNEP 2019), which highlighted a need to undertake a regular global assessment of the state of environmental rule of law.

Photo: Pexels

In January 2019, the United Nations Environment Programme (UNEP) published the First Global Report on Environmental Rule of Law (UNEP 2019), which highlighted a need to undertake a regular global assessment of the state of environmental rule of law.

Since then, environmental rule of law has both advanced and been challenged. The COVID-19 pandemic has created a new set of challenges for implementing and enforcing environmental laws (see section 1.3.1), and spurred technological developments as well as uptake of technologies (see 1.3.2). Political and social discourse in many countries have been dominated by the themes of climate change and addressing historic social inequities (see sections 1.3.4 and 1.3.3, respectively). While other themes and dynamics have also shaped environmental rule of law, the recent dominance of these two themes means that they have had the greatest impact.

Despite adoption of a range of environmental laws, challenges in implementation continue to test global capacity to avert environmental crises, particularly climate change, biodiversity loss and pollution. Existing climate pledges and legislation are still insufficient to meet the goal of limiting global average temperatures to less than 2°C, as agreed in the Paris Agreement (UNEP 2021a; United Nations Framework Convention on Climate Change [UNFCCC] 2022). The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019) and UNEP (2021b) report that biodiversity loss associated with transformation of landscapes is accelerating at an unprecedented rate and in many cases is connected to public health risks. National governments have also fallen short on delivering on conservation commitments for protected and conserved areas (IPBES 2019). Pervasive pollution of water and air is evident: 80 per cent of global wastewater goes untreated, and pollution of freshwater ecosystems is significantly impacting the habitat and quality of life of fish and other wildlife (UN Water 2021). Plastic pollution and emerging pollutants such as pharmaceuticals also increasingly put the world's waterways at risk (UNEP 2021c). Globally, 99 per cent of people live in areas that do not meet World Health Organization (WHO) air quality standards, and air pollution kills an estimated seven million each year (World Health Organization [WHO] 2021a).

1.1 Purpose and structure of this report

This report is to support countries to promote and strengthen environmental rule of law. It responds to the need identified in the First Global Report on Environmental Rule of Law (hereafter referred to as the First Global Report) to undertake a regular global assessment of environmental rule of law, and extends beyond the first report to provide a comprehensive data-informed assessment of global trends, gaps and opportunities related to environmental rule of law. This report establishes benchmarks and identifies opportunities for future action and collaboration, while examining the role of environmental laws and institutions in connection with current global events and challenges.

The report is organized into four substantive chapters.

Chapter 2 (Laws and Institutions) reviews the critical role of environmental laws and institutions in the development and implementation of environmental rule of law. It identifies key components for effective laws and institutions for achieving environmental rule of law; provides a summary of the global status of key indicators related to laws and institutions; and discusses trends such as pluralism and decentralization of norms and institutions, integration and coordination across sectors and ecosystems, and criminalization of environmental offenses; as well as the effects of broader contextual trends (such as COVID-19 and climate change) on environmental laws and institutions.

Chapter 3 (Civic Engagement) explores the legal and practical tools for civic engagement that underpin effective environmental rule of law. The chapter discusses meaningful ways in which states can provide access to environmental information and enhance public participation in environmental decision-

making, especially for people who have been marginalized such as women, children, people living in poverty, indigenous peoples, racial and ethnic minorities, and local communities. After surveying the global status of key indicators of civic engagement, the chapter explores the use of technology in mobilizing and engaging the public in environmental decision-making and enforcement, the relationship between civic engagement and racial and social justice in relation to environmental issues, and the impacts of COVID-19 on civic engagement.

Chapter 4 (Rights) reviews the evolving relationship between environmental rule of law and constitutional, human and other rights related to the environment. It reports on the status of these rights—legal protections for indigenous peoples, women and groups that have historically been marginalized—and the work of human rights mechanisms. The chapter discusses the global recognition of the right to a healthy environment, integration of various rights and emerging topics such as rights of nature and rights of future generations.

Chapter 5 (Justice) outlines how a fair, inclusive and transparent justice system that efficiently resolves environmental disputes is critical in establishing environmental rule of law. The chapter surveys key global indicators such as the establishment of specialized environmental courts and tribunals, provisions for open standing to bring environmental cases and employment of the ‘loser-pays principle’ in environmental litigation. It identifies barriers in environmental justice and examines key components of effective remedies. The chapter explores significant trends such as judicial engagement in climate-related cases, diversification of remedies for environmental harm and extension of extraterritorial jurisdiction in cases of international or transnational environmental damage.

The final chapter provides conclusions and recommendations for future directions.

1.2 What is environmental rule of law?

This subsection defines environmental rule of law, outlines the importance of the concept and reviews the evolution of the framework. Further analysis and information is available in the First Global Report (UNEP 2019).

1.2.1 Defining environmental rule of law

While there is currently no inter-governmentally agreed definition of environmental rule of law, for the purposes of this report it is defined as “the principles of rule of law applied in the environmental context”. Rule of law describes a governance system in which all persons, including public and private individuals and institutions, are accountable to laws that are public, equally enforced, independently adjudicated and consistent with human rights. UNEP has identified seven core elements of environmental rule of law (see box 1.1).

While rule of law is generally accepted as fundamental to good governance, in the environmental context rule of law is often lacking. Despite a global proliferation in national environmental laws and institutions over the past 50 years, implementation and enforcement have lagged behind other sectors, resulting in mounting crises of pollution, biodiversity loss and climate change (UNEP 2019). This implementation gap coupled with the extreme urgency and dire consequences of global environmental problems creates a need for an explicit focus on environmental rule of law.

Environmental rule of law is distinct from environmental governance. Environmental governance encompasses a broader range of principles and approaches that relate to how decisions are taken and implemented in relation to the environment. While environmental rule of law focuses particularly on implementation, compliance and enforcement. Through the lens of environmental rule of law, issues

such as public participation, transparency and adherence to human rights mechanisms are necessary for ensuring fair and effective enforcement and compliance. Environmental rule of law is necessary for environmental governance, yet environmental governance comprises additional objectives as well as environmental rule of law.

1.2.2 Importance of environmental rule of law

Understanding and improving environmental rule of law is important for addressing the unprecedented challenges facing the planet and human societies (UNEP 2021b).

Strong environmental laws and institutions are essential to achieving environmental goals and developing effective responses to pressing environmental crises. Laws provide the requirements, standards, procedures and rights necessary to achieve environmental objectives, and strong institutions are necessary to give force to those environmental laws.

In addition to environmental benefits, environmental rule of law provides economic and social benefits. By improving the protection of the natural environment, environmental rule of law protects public health and economically valuable natural resources. By increasing transparency and reducing corruption, environmental rule of law can attract investment, support sustainable economic growth and ensure that resulting benefits to nature are fairly shared.

The absence of environmental rule of law undermines good governance beyond the environmental sector. Consistent, fair and effective implementation of environmental law strengthens perceived legitimacy of government action and builds public confidence in institutions. This contributes to greater security and can reduce conflict and promote peace (Bruch, Muffett and Nichols 2016; Ide *et al.* 2021)

Efforts to improve governance and implementation of environmental law are not new, raising the question: why is it important to focus on environmental rule of law, or even use the term 'environmental rule of law' instead of just 'rule of law'? First, the concept of environmental rule of law represents a targeted and strategic policy focus on implementation and enforcement. Second, the term environmental rule of law situates the issue as a rule of law problem, not just an environmental problem. Third, the term acknowledges that there are rule of law issues, dynamics, and considerations that are particular to the environmental context (UNEP 2019). Finally, the term engages a broader set of stakeholders and interests to generate political will among actors beyond the environmental community.

Photo: Unsplash

Box 1.1: Core elements of environmental rule of law

UNEP (2015) has identified seven core elements of environmental rule of law.

1. *Fair, clear and implementable environmental laws.* Environmental rule of law is premised on laws that are fair and non-discriminatory in their development, application and impact; easily understood and unambiguous; and able to be implemented to effectively achieve their aims in the particular institutional, cultural and economic context of the country.
2. *Access to information, public participation and access to justice.* Access to environmental information allows the public to identify violations and determine how to engage. Public participation in environmental decision-making informs the development of fair and implementable laws and improves public support and compliance. Access to justice helps protect access to information and participation and strengthens enforcement by ensuring the public has access to mechanisms for protecting their rights and resolving disputes.
3. *Accountability and integrity of institutions and decision-makers.* Environmental institutions must demonstrate accountability, transparency and integrity to ensure public support and compliance and to deliver effective environmental protection.
4. *Clear and coordinated mandates and roles, across and within institutions.* Environmental governance implicates multiple normative systems (statutory, customary, religious, etc.), levels (local, national and international) and sectors (forests, agriculture, waste management, water, etc.) resulting in institutional overlap and gaps. Clear mandates and cross-sectoral coordination are essential for effective implementation.
5. *Accessible, fair, impartial, timely and responsive adjudication.* Dispute resolution and enforcement mechanisms that are fair, impartial, timely and responsive increase compliance with environmental regulations, support for environmental initiatives and public confidence in the judicial process.
6. *Recognition of the relationship with rights.* Environmental rule of law has a mutually reinforcing relationship with constitutional, human and other rights. A healthy environment is necessary for realizing rights to life, property and health as well as cultural, economic and political rights. Constitutional, human and other rights—including both substantive and procedural rights—provide tools for strengthening and enforcing environmental protections.
7. *Specific criteria for interpretation of environmental law.* Clear and detailed guidance on environmental laws enable implementing agencies to adopt consistent regulations and enforcement practices and facilitate compliance on the part of regulated communities and the public.

1.2.3 Evolution of environmental rule of law

The late 20th century saw a proliferation of international environmental agreements and national environmental laws (UNEP 2019). By the early 2000s, problems of compliance and implementation were recognized as a serious challenge to realizing environmental goals. This gave rise to a focus on environmental governance, evident in the 2012 UN Conference on Sustainable Development (Rio+20) and the emergence of the term 'environmental rule of law'. In 2013, UNEP's Governing Council adopted Decision 27/9, which was the first internationally negotiated document using the term 'environmental rule of law'. The decision invited governments and others to reinforce international, regional and sub-regional

cooperation to address noncompliance with environmental laws. In 2014, the UN Environment Assembly called on countries “to work for the strengthening of environmental rule of law at the international, regional and national levels,” and in 2015 rule of law was included in the Sustainable Development Goals (SDGs) (target 16.3). In 2016, participants at the 1st IUCN World Environmental Law Congress adopted the IUCN World Declaration on Environmental Rule of Law (International Union for Conservation of Nature [IUCN], World Commission on Environmental Law 2016).

Since the publication of the First Global Report, international awareness of environmental rule of law has continued to grow. It forms part of the overall vision of the Montevideo Environmental Law Programme V, adopted by the United Nations Environment Assembly (UNEA) in March 2019. In March 2022, member states adopted a ‘Political Declaration of the Special Session of the United Nations Environment Assembly to Commemorate the Fiftieth Anniversary of the Establishment of the United Nations Environment Programme’ (UNEP@50 Political Declaration). The UNEP@50 Political Declaration, *inter alia*, recognizes the importance of fostering environmental rule of law for addressing biodiversity loss, climate change, and desertification and land degradation, as well as pollution and unsound management of chemicals and waste (UNEP 2022).

The concept of environmental rule of law has been taken up in national courts as well. In 2019, the Supreme Court of India extensively discussed the importance of environmental rule of law when determining that the approval process for setting up a new airport did not meet procedural requirements, noting that the environmental impact assessment ignored significant information and that concerns raised in the public consultation were not accurately reported or addressed (*Aroskar v. Union of India* 2019).

1.3 Environmental rule of law in the current global context

The recent challenges and advancements of environmental rule of law can be categorised under four general themes: COVID-19, development and use of technology, social justice and environmental justice, and climate change.

There is also the important issue of the ongoing war in Ukraine which has had a range of environmental and human impacts that are widespread, potentially long-lasting and severe. However, it is too soon to ascertain precisely how the conflict might affect environmental rule of law.

1.3.1 COVID-19

The SARS-CoV-2 virus, responsible for the COVID-19 disease, first appeared in December 2019 and by March 2020 had spread around the world. Many countries adopted a series of restrictions and lockdowns that have lasted over two years and created previously unimagined social, economic and political consequences.

The environmental impacts of COVID-19 have been mixed. Global greenhouse gas emissions decreased by roughly 2.4 billion tons in 2020, a seven per cent decrease from 2019, owing largely to dramatic reduction in car commuting and air travel (Friedlingstein *et al.* 2020). Decreased boat traffic reduced ocean noise; median daily sound levels in Glacier Bay, Alaska were 50 per cent quieter in 2020 than 2019, and researchers observed humpback whales socializing and napping in the middle of channels previously loud and busy with boats (Calma 2020). At the same time, the pandemic triggered a rise in the use of plastic packaging and disposable personal protective equipment—an estimated 129 billion face masks and 65 billion gloves per month—contributing to escalating waste levels and an increase in plastic pollution (Prata *et al.* 2020; Benson, Basseby and Palanisami 2021; UNEP 2022a). In Thailand, the average

amount of plastic waste rose from 2,120 tons per day in 2019 to 3,440 tons per day between January and April 2020 (Godbole 2020).

In addition to its direct impacts on the natural environment, COVID-19 has had serious repercussions for environmental rule of law. At least 46 countries relaxed environmental requirements, and several countries waived or suspended obligatory compliance with environmental law, purportedly to ease the burden on industries already affected by COVID-19, leading to accusations that the pandemic was being used as an excuse by some policy and lawmakers to eliminate environmental protections. In some cases, quarantine and distancing requirements put in place to reduce risk of contagion limited field inspections and created barriers to compliance with environmental monitoring or reporting requirements that have in-person components, sometimes resulting in a formal relaxation of such requirements (see chapter 2).

Social distancing measures and restrictions on transport put in place to combat the spread of the virus created barriers for traditional means of civic engagement. Public hearings were cancelled, consultation requirements waived and public assembly limited. The pandemic affected the ability of civil society to participate in decision-making both directly—through limits on access to government processes—and indirectly through a precipitous decrease in financial support to civil society organizations in many countries. Many jurisdictions responded with a shift toward virtual engagement, which has the potential to expand opportunities for participation but can exacerbate inequality in access to technology and internet access, known as the digital divide, and can also be used to target—and even silence—activists (e.g. through illegal surveillance, hacking, cloning or red-tagging, among other measures) (see chapter 3).

Similarly, the justice systems in most countries were forced to quickly transition to virtual platforms and remote functioning. In Ukraine, Switzerland and Türkiye, among many others, courts adopted systems and processes to hold legal proceedings online. These transitions highlighted the need for emergency plans for administration of justice and protection of constitutional rights in times of crisis (see chapter 5).

Economic losses related to the pandemic have been linked to an increase in illegal exploitation of natural resources in at least two ways. First, desperation and lack of economic alternatives have led individuals to illegally hunt, fish or harvest natural resources. In Brazil, economic losses associated with COVID-19 were credited with driving an increase in illegal fishing (Quirino 2021). Coupled with an economic policy that subsidized fishers and a decrease in enforcement capacity due to lockdowns, this led to overfishing and sale of fish that do not meet size and labelling requirements. Second, loss of revenue from tourism and other industries affected by the pandemic reduced budgets for conservation and may have led to an increase in poaching and other illegal activities affecting natural resources. The pandemic devastated the global tourism market, resulting in significant loss of revenue for protected areas, including private and community reserves as well as government parks (United Nations World Tourism Organization [UNWTO] 2020). Conservationists noted increases in hunting of protected species as a result of loss of alternative livelihood options. For example, three critically endangered giant ibises were killed in Cambodia in April following an economic downturn in the area (Briggs 2020).

The negative effects of COVID-19 on environmental rule of law appear to reflect broader global trends in the rule of law. According to the World Justice Project's Rule of Law Index, 2021 saw global decreases in seven of eight indicators with most notable decreases in fundamental rights and constraints on government powers (World Justice Project 2022).

It is not clear whether environmental degradation or illegal species trade directly contributed to the emergence or spread of COVID-19. Following a month-long fact-finding mission in China, a WHO team concluded that the virus likely originated in bats and passed to humans through an intermediate animal (Mallapaty 2021). To date, the intermediate animal has not been identified, but researchers believe that

it may have been a wild species sold as food in a wet market; a collection of open-air stalls selling fresh seafood, meat and produce often including live animals slaughtered on site (Mallapaty 2021). The discovery of SARS-CoV-2-related coronaviruses in pangolins seized in anti-smuggling operations in southern China suggested that they could be possible hosts in the emergence of the virus (Lam *et al.* 2020).

Illegal wildlife trade and habitat fragmentation can bring different species into closer contact, increasing the risk of zoonotic outbreaks (see figure 1.1). Studies have found that rodents, bats and primates that live among people in urban environments and around farms and crops share more viruses with people (Johnson *et al.* 2020). Before the global emergence of the COVID-19 pandemic, scientists predicted a new coronavirus would emerge from bats in Asia, partly because of the impact of deforestation. They hypothesized that because different kinds of bat species find urban environments compatible with their roosting and hunting needs, there would be an increase in the risk of transmission of viruses through direct contact, domestic animal infection or contamination by urine or faeces (Afelt, Frutos and Devaux 2018).

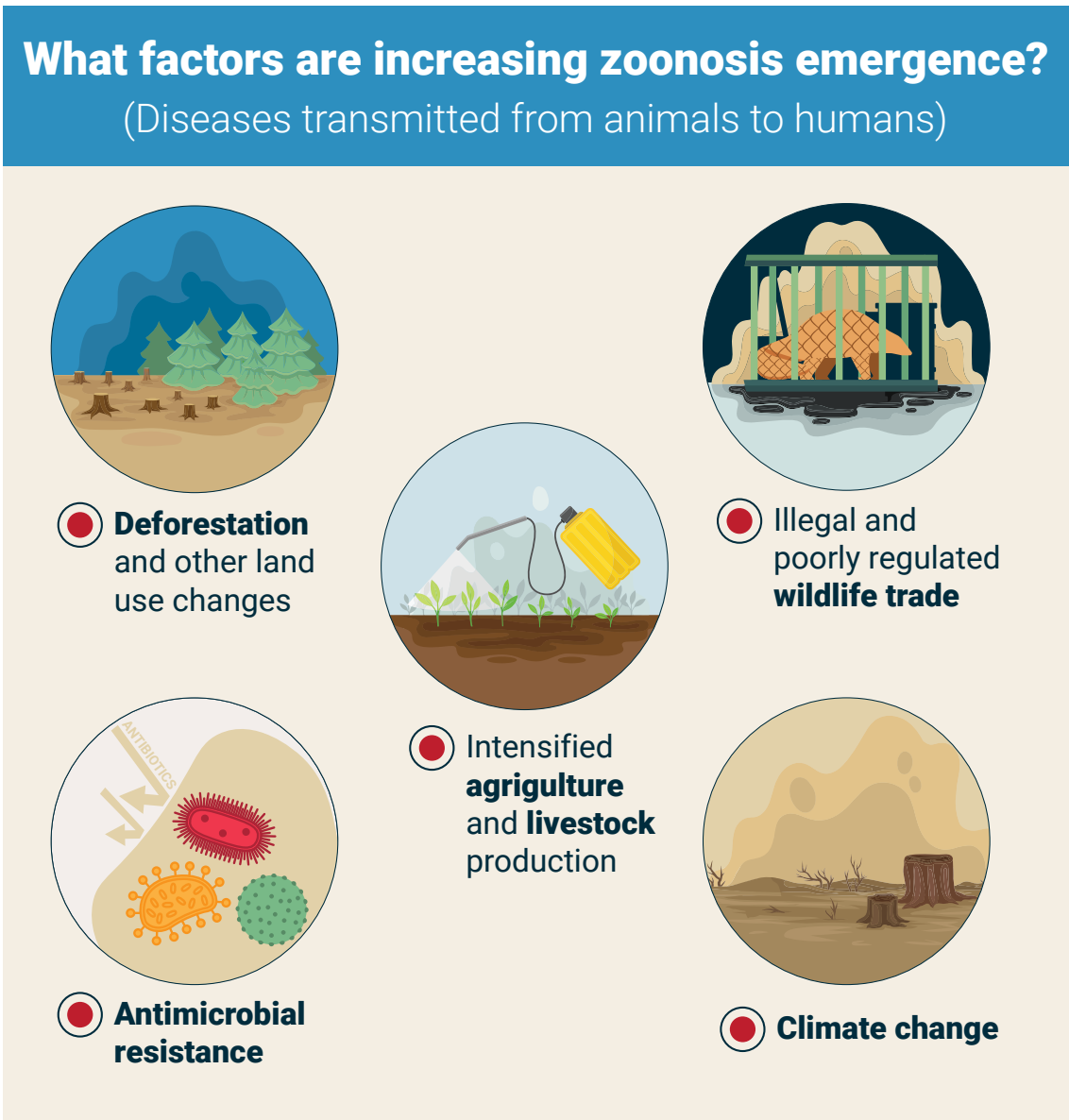


Figure 1.1: Environmental factors related to emergence of zoonotic diseases (Source: UNEP *Frontiers 2016 Report: Emerging Issues of Environmental Concern 2016*)

Past zoonotic outbreaks have been linked to habitat degradation. Deforestation in Africa contributes to increased malaria transmission by creating habitats suitable for mosquito breeding (Afelt, Frutos and Devaux 2018). The epicentres of first infections of the Ebola virus in Africa occurred in areas where the average extent of forest fragmentation was significantly higher than in the rest of the region. Ebola spill over events from wildlife to humans occurred in populated and forested areas, where deforestation had reshaped the forest boundaries and enhanced human contact with wildlife (Rulli *et al.* 2017).

More broadly, the health and well-being of humans are dependent on a healthy environment, as expressed in the concept of 'One Health' (Ruckert *et al.* 2020). While it is not yet certain that the COVID-19 pandemic directly resulted from environmental degradation or illegal wildlife trade, the relationship between environmental and human health is well documented. As such, environmental rule of law is necessary to safeguard a healthy environment and reduce the risk of future outbreaks.

1.3.2 Development and use of technology

Recent technological advances can potentially transform environmental implementation, compliance and enforcement (Glicksman, Markell and Monteleoni 2017). Satellite and drone technology provide new tools for monitoring compliance with environmental laws and regulations, while social media and citizen science platforms create mechanisms for increasing public engagement in enforcement, as described below.

As satellite imagery becomes more accessible, more detailed, and lower cost, it is increasingly useful for environmental monitoring and enforcement. Earth observation technology has been used to monitor deforestation, detect illegal gold mines, and track fishing vessels to detect violations. New radar satellite imaging can detect activity even under heavy canopy or clouds (see chapter 2).

Artificial intelligence (AI) can support both development and implementation of environmental law. Machine learning has enabled automated image processing, which lets a computer watch for certain triggers that might indicate a violation, without the need for constant manual review. AI has also been used in assessing existing and potential laws and regulations to identify opportunities and costs (Freeman Engstrom *et al.* 2020). Such applications require full transparency and public participation to preserve democratic accountability (see chapter 2).

Technology has also empowered citizen engagement in environmental protection (Owen and Parker 2018; Skarlatidou and Haklay 2021). Citizen science is used by environment agencies around the world to track rainfall, monitor air quality and measure concentrations of chemicals (Volten *et al.* 2018). Recent initiatives also engage the public more or less directly in environmental enforcement (Owen and Parker 2018). One example is the 'See it? Say it!' app developed by the Irish Environmental Protection Agency to allow citizens to report illegal dumping of trash. Users can input a photograph and a description of the incident, which the app sends to the relevant authorities together with GPS coordinates. The app processed 1,500 complaints in the year it was launched (Owen and Parker 2018). Similarly, the EU-funded Natura Themis project in Crete developed an app to allow members of the public to submit anonymous reports about environmental and wildlife crime. In 2018, an incident of illegal waste disposal in a protected area resulted in a 2,000 Euro fine (Life Natura Themis 2018).

In 2018, New York City created a Citizens Air Complaint Program, which allows citizens to submit complaints of vehicles illegally idling for more than three minutes (more than one minute adjacent to a school) together with video evidence. People who file a complaint can receive 25 per cent of any fine imposed as a reward (Local Law 058 of 2018). The program received over 12,000 complaints in 2021, around 85 per cent of which can be attributed to a group of about 20 citizens calling themselves the 'Idling Warriors' (Wilson and Blesener 2022).



Photo: Pexels

Digital information sharing platforms and social media have created new avenues for transparency in law-making and enforcement. Government authorities and agencies have started using social media to share environmental information and solicit participation. Civil society organizations are also taking advantage of social media to raise awareness and build public support to achieve environmental aims (see chapter 3).

1.3.3 Social justice and environmental justice

In recent years, racial justice movements—and their links with environmental justice—have grown in power and significance. In 2020, following the murder of George Floyd by an American police officer, Black Lives Matter (BLM) protests erupted globally (Haworth 2020). By November 2020, there were BLM protests in over 4,400 cities in countries around the world, including Mexico, Brazil, Germany and Japan (Kirby 2020). In Chile, chants of ‘Mapuche Lives Matter’ were used to protest the assassination of indigenous leader Alejandro Treuquil (Harris 2020). In Netherlands, the Dutch Coalition Party compared the death of George Floyd to the death of Aruban Mitch Henriquez at the hands of Dutch police years earlier, and called for an end to police-sanctioned chokeholds (*NL Times* 2020). In June 2020, the UN Human Rights Council called for an examination of systemic racism, violations of human rights laws and government responses to peaceful protests (HRC RES 43/1 2020).

The rise in global awareness of the injustices facing racial minorities has collided with understanding of the disproportionate impact of environmental degradation and climate change to give rise to a wave of protests that combine BLM and environmental justice. In 2015, BLM protesters gathered at the Conference of the Parties for the UNFCCC to call for climate justice (Floyd 2016). In 2016, BLM activists chained themselves together at London City Airport to highlight climate change as a racial justice issue (Hornak 2016). In the same year, Greenpeace formally endorsed the BLM platform and called for creation of space for Black voices in the environmental movement (Greenpeace 2016). Extinction Rebellion, well known for its weekly climate change awareness protests, demonstrated in solidarity with BLM in June 2020 in St. Ives, United Kingdom of Great Britain and Northern Ireland (Nieves *et al.* 2020). The message of these protests is that climate change is a racial justice issue and addressing racial inequities in the global justice system is necessary for addressing climate change.

In countries around the world, there have been deliberate attempts to site toxic contamination in communities that have been marginalized in so-called ‘sacrifice zones’ where residents suffer devastating health consequences and human rights violations as a result of environmental degradation (United Nations Human Rights Council [UNHRC] 2022). There is no shortage of examples of the disparate impact of environmental decision-making on racial minorities. The UN Special Rapporteur

on the Issues of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment has documented sacrifice zones in 85 countries.¹ These are particularly well documented in the United States of America. In the 1980s, North Carolina's decision to dump cancer-causing PCB (polychlorinated biphenyls) waste in the predominantly African American town of Warren was met with protests that marked the early stages of the environmental justice movement; thirty years later, the town still experiences health effects resulting from the decision (Bergman 2019). In 2018, researchers at the United States Environmental Protection Agency National Center for Environmental Assessment published a study showing that racial minorities in the United States of America are more likely to live near polluters, even accounting for poverty and socioeconomic conditions. According to the study, the health burden created by this pollution is 50 per cent higher for Black people than the overall population (Mikati *et al.* 2018). Moreover, Black and minority communities exposed to polluted air have higher mortality rates (Kioumourtzoglou *et al.* 2016). Predominantly Black neighbourhoods contain twice as much hazardous waste materials as non-minority communities and disproportionately high exposure to unsafe drinking water and toxic chemicals, and Black Americans have a higher risk of cancer (Jones 2021). Groups in vulnerable situations such as women, children and Indigenous Peoples experience disproportionate impacts with health consequences due to exposure to toxic substances resulting in gender- and age-differentiated health outcomes (United Nations Development Programme [UNDP] 2011).

Attacks on environmental defenders often target indigenous peoples and those working with them. Global Witness (2021) documented that one in three attacks on environmental defenders targeted indigenous peoples. The Forest Peoples Programme (2021) recorded 110 murders of indigenous leaders and human rights defenders in 2020, 26 more than in 2019. In many instances, the persons killed were connected to indigenous peoples' groups attempting to protect their traditional lands from resource extraction and environmental degradation. As children and youth have gained prominence as environmental and human rights defenders (United Nations [UN] 2022), they too have been targeted.

Measures to address and mitigate environmental problems can also have negative impacts on vulnerable communities. Attempts to green urban neighbourhoods can lead to gentrification, as environmental improvements attract developers focused on richer, more powerful, and often whiter groups. Current residents become a form of 'environmental refugees' who are forced to relocate to more affordable, and less environmentally healthy, neighbourhoods (Gould and Lewis 2012; Kern and Kovesi 2018).

Environmental law enforcement is not immune to the abuses and human rights violations that plague law enforcement in other settings. In 2019, BuzzFeed reported on a series of human rights abuses by park rangers in Central Africa and South Asia, who were funded by the World Wide Fund for Nature (WWF), dating back as early as 2008 (Warren and Baker 2019). WWF responded with an internal investigation, focusing on Cameroon, Democratic Republic of the Congo, Central African Republic, Nepal and India (WWF 2020). The report revealed that WWF was aware of alleged violations, but failed to act. The report was accompanied by a public apology and a commitment to influence governments to protect human rights in the future.

While engaging citizens can be an important means for detecting violations and enforcing environmental laws, it raises questions in the context of environmental rule of law. Encouraging the public to report on their neighbours potentially opens the door to discriminatory treatment or even personal vendettas. In the United States of America, there have been a number of recent high-profile examples of White people calling the police on Black people for minor disagreements or frivolous reasons motivated by racial bias (Weaver 2018; Asare 2020). Thus, there is a risk that citizen complaints about idling could disproportionately impact racial minorities, given the ways that loitering laws have historically been used

¹ These include Antigua and Barbuda, Argentina, Azerbaijan, Bahamas, Barbados, Brazil, Bulgaria, Cabo Verde, Canada, Chile, China, Colombia, Comoros, Costa Rica, Côte d'Ivoire, Croatia, Cuba, Czechia, Democratic Republic of the Congo, Dominica, Dominican Republic, El Salvador, Equatorial Guinea, Estonia, Ethiopia, Fiji, France, Germany, Ghana, Greece, Grenada, Guatemala, Haiti, Hungary, India, Indonesia, Iran, Italy, Jamaica, Kazakhstan, Kenya, Kiribati, Madagascar, Malaysia, Maldives, Marshall Islands, Mauritius, Mexico, Micronesia, Namibia, Nauru, Netherlands, Nigeria, North Macedonia, Pakistan, Palau, Papua New Guinea, Peru, Poland, Romania, Russian Federation, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, São Tomé and Príncipe, Serbia, Seychelles, Solomon Islands, South Africa, South Sudan, Suriname, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tuvalu, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uzbekistan, Vanuatu, Venezuela and Zambia.

to target Black people in America (Goluboff 2018). Public involvement in enforcement where there is a risk of racial bias has the potential to undermine, rather than support, environmental rule of law.

The connection between race and environmental enforcement speaks to the heart of environmental rule of law: the importance of ensuring that the law applies equally to all individuals and legal entities, without discrimination or prejudice. For this, it is not enough for a law to be written or enforced without blatant discrimination: even facially non-discriminatory laws can have disproportionate impact on populations that have been marginalized, which undermines rule of law. Engagement of communities that have been marginalized, legal requirements to consider race in environmental decision-making, and increasing diversity in environmental institutions can contribute to improving racial and social equity and strengthening environmental rule of law (see chapter 3). Protection of rights, including environment-related rights, is integral to addressing environmental racism and discrimination (see chapter 4).

1.3.4 Climate change

Climate change is a subject of increased public recognition and concern as well as a wave of policymaking and litigation; as such, it has been both a context for and driver of environmental rule of law. The proliferation of reporting on the impacts of climate change has accompanied growing public awareness of the problem. The United Kingdom of Great Britain and Northern Ireland Government Public Attitudes Tracker has shown an increase in respondents who say they are ‘very concerned’ about climate change, rising from 23 per cent in 2017 to 43 per cent in 2021 (Department for Business, Energy & Industrial Strategy 2022). A Pew Research Center Survey in the United States of America found that 31 per cent of American adults rate addressing climate change as a top personal concern, and 24 per cent have taken action to address climate change in the form of volunteering, donating money, attending protests, or contacting their elected officials (Tyson, Kennedy and Funk 2021). A 2021 global survey by the United Nations Development Programme (UNDP) and the University of Oxford found that out of 1.2 million respondents from 50 countries, 64 per cent characterized climate change as an emergency (UNDP and University of Oxford 2021).

Civic engagement around climate change is on the rise. Climate activist groups like ‘Fridays for Future’ and ‘Extinction Rebellion’ use social media tools to mobilize millions to protest in person and spread their messages online (Hall, Lawrie and Priano 2021). Young people have played a key role in this movement, from school strikes to speeches at international negotiations, many of which go viral online (Yeo 2019; Ballew *et al.* 2020). Indigenous peoples and representatives from developing countries are among this emerging generation of climate influencers (see chapter 4).

Concerns about climate change have driven much of the recent development, implementation and enforcement of laws and regulations. Since 2019, countries around the world have adopted new climate laws and regulations, and at least 34 countries have declared climate emergencies (see chapter 2). National Human Rights Institutions have called for a human rights-based approach to climate change and have conducted investigations into the impact of climate change on human rights, while the UNEA and the UNHRC, among others, have adopted resolutions recognizing the linkages between climate change and human rights, including rights of women (see chapter 4). As of July 2023, the number of cases tracked in the Sabin Center for Climate Change Law’s climate litigation databases continues to increase, with at least 2,369 climate change cases filed in 55 countries and international adjudicatory bodies. Courts have ordered governments to adopt and implement more stringent commitments, affirmed climate-related human rights, and held the private sector accountable for emissions (see chapter 5).

1.4 Methodology

This report was developed by an international team of experts based in every region of the world. Authors were selected on the basis of recognized expertise and disciplinary, geographic and gender balance.

UNEP partnered with the Environment Program of the Cyrus R. Vance Center (the Vance Center) and the global law firm White & Case LLP to develop a dataset reflecting each of the four substantive aspects of the rule of law discussed in this report (see table 1.1). Responses to questions indicated whether a particular law, institution or practice was present in each of the 193 UN Member States. By collecting data on these indicators, UNEP is able to build a global snapshot of environmental rule of law worldwide and identify which aspects of the environmental rule of law are most prevalent across countries and to track progress over time. The questions also align, to the extent possible, with relevant Sustainable Development Goal indicators.

Table 1.1 List of indicators

Laws	
1	Has the country relaxed, removed or suspended environmental protection laws or policies, and/or their enforcement, as a direct response to COVID- 19 at national and/or sub-national level?
2	Has the country introduced new laws or policies increasing environmental protection as a direct response to COVID-19 at national and/or sub-national level?
Institutions	
3	Does the country have an independent environmental protection agency/institution or equivalent at the national level?
4	Does the national level environmental agency/ministry, if there is one, have a guaranteed allocation of funding from the national budget?
5	Does the country have specialized public prosecutors for prosecuting environmental offences at the national and/or sub-national level?
6	Do the general enforcement agencies (e.g. police, customs) at the national and/or sub-national level have an explicit legal mandate to enforce environmental legislation?
7	Does the country's National Human Rights Institution have an explicit mandate, policy or work programme relating to the environment?
Civic Engagement	
8	Does the country have provisions in its legal framework at national and/or sub-national level guaranteeing the right of access to information, rights of public participation in decision-making and/or access to justice in matters concerning the environment?
9	Have any environmental defenders been killed in the country in 2019–2020 due to their activities connected to environmental protection?
10	Does the country have laws at the national level or have obligations set out in regional or international treaties that explicitly protect environmental defenders or promote their activities?
11	Does the country have any legislation or other measures at any level that explicitly prohibits discrimination in environmental decision-making (i.e. not general discrimination prohibition) by public authorities?
12	Is environmental law required by law to be a compulsory subject in law school curriculums?
Rights	
13	Is the right to a healthy environment explicitly recognized in the constitution, held by a court to be implicit in other constitutional rights, or otherwise guaranteed by legislation in some form (e.g. regional treaty obligation) at national and/or sub-national level?
14	If the country recognizes the right to a healthy environment, have the courts adjudicated cases on the right to a healthy environment at national and/or sub-national level?
15	Does the country explicitly recognize rights of nature in its constitution, legislation, regulations, decrees or judicial decisions at national and/or sub-national level?

16	Is the country legally required to take gender considerations into account in any environmental legislation or regulation at national and/or sub-national level?
17	Does the country have provisions in its national and/or sub-national legal framework seeking to protect indigenous rights, including Free, Prior and Informed Consent?
18	Did the country's national report submitted to the Universal Periodic Review of the UN Human Rights Council in 2019 or 2020, if applicable, include consideration of environmental issues?
Justice	
19	Does the country have in its national and/or subnational legal framework 'open standing' for environmental matters (i.e. every person has legal standing with no requirements or restrictions)?
20	Does the country apply the 'loser-pays principle' (i.e. the losing party covers the costs for the opponent) in environmental matters?
21	Does the country have a specialized environmental court or tribunal or environmental 'bench' at national and/or sub-national levels?
22	Does the country have a judicial training institute at national and/or sub-national level(s) that includes environmental law in its judicial training activities for 2019–2020?

Working with its partners, UNEP developed a survey to collect data on these questions. Most questions were simplified into binary 'yes/no' response options. Questionnaires were completed largely by White & Case lawyers from across the world with their team of environmental law experts reviewing responses and cross-checking for quality control and consistency together with the Vance Center. Lawyers completing the survey were given information on the background and purpose of some indicators, as well as a general briefing on the scope and content of this report. Lawyers were also asked to cite the source of the information relied on in relation to each question. Finally, some survey results were cross-referenced against existing trusted databases. The final data as presented in the survey thus reflects a process of data collection and quality control which was overseen by UNEP and the Vance Center, and with a considerable contribution from White & Case lawyers. More information on the review methodology can be found at <https://wedocs.unep.org/20.500.11822/43674>.

It is important to note that the collected data have limitations. UNEP does not intend to use this information to evaluate or rank countries' laws and practices, and the quantitative data collected must be read together with other factors. Most of the indicators relate to a set of 'yes/no' binary questions. While this ensures simplicity, it also precludes consideration of context and complexity. For example, a country may not have specialized prosecutors for prosecuting environmental offenses, but nevertheless has an effective system of law enforcement that includes generalist prosecutors who are able to effectively prosecute environmental cases. The data also do not reflect instances where some legal systems within a country (such as a subnational state) report the presence of an indicator, while others do not; instead, for most indicators these responses are coded as 'yes' if any subnational jurisdiction meets the indicator's criteria. In addition, it is difficult to ensure consistency of responses across different languages and legal systems—different lawyers may have had different interpretations of certain questions. Finally, some of the information required to answer several of the survey questions may not be available in some countries or may be difficult to access. Despite these caveats, the data gathered in this dataset helps to build a picture of the global state of environmental rule of law in a quantitative form.

To further inform the report, UNEP solicited examples of good practices through a public 'researchathon'. To verify findings and analysis of rule of law trends, UNEP consulted with relevant stakeholders with diverse background at key stages of drafting of the report.

2. Laws and Institutions

This chapter examines five major trends in environmental laws and institutions. It focuses on key factors affecting the scope, application and capacity of environmental laws and institutions.

The five trends are:

1. Impacts of COVID-19 on environmental laws and institutions
2. Technology in environmental enforcement
3. Pluralism and decentralization
4. Integration and coordination
5. Criminalization of environmental offenses

Photo: Pexels

2.1 Introduction

Laws and institutions are the fundamental building blocks of environmental rule of law. Laws not only establish the rules and basic architecture of environmental governance, but they also create safeguards against corruption and discrimination. Institutions are the primary mechanisms for implementation, monitoring and enforcement of the law. Effective and well-implemented laws coupled with empowered institutions provide the critical enabling environment necessary to deliver the environmental dimensions of the 2030 Agenda for Sustainable Development and other internationally agreed environmental goals (Raine and Pluchon 2019).

Environmental laws and institutions have expanded dramatically across the globe since the 1972 Stockholm Declaration on the Human Environment (UNEP 2019). All countries now have environmental laws and regulations, and the vast majority of countries have established and, to varying degrees, empowered environmental ministries. However, the global COVID-19 pandemic has significantly tested the resolve of many governments to maintain effective environmental laws and institutions.

This chapter assesses the global status and key trends in environmental laws and institutions, particularly since the release of the First Global Report on Environmental Rule of Law in 2019. It first revisits the key aspects of the relationship between laws and institutions and environmental rule of law. It then reports on the global status of environmental laws and institutions. The main section of the chapter traces five key trends, including the impacts of COVID-19 on environmental regulation and its implementation; the use of technologies in law-making, monitoring and enforcement; integration and coordination of environmental regimes across sectors and landscapes; decentralization and engagement of local communities, the private sector and other actors in environmental laws and institutions; and the criminalization of environmental offenses.

2.1.1 Efficient and implementable legal frameworks

Implementation and effectiveness of environmental law can often be traced to the design of laws themselves. Effective laws are often those that are clear, equitable, feasible and developed through a participatory process (UNEP 2019).

Laws that are clear and consistent are easier to implement and enforce than laws that are vague or conflicting. Too often, laws or regulations governing different sectors overlap or even contain outright contradictions. This is frequently the case in relation to environmental law, as environmental regimes overlap and depend on a range of other fields, including, *inter alia*, health, agriculture, finance, land use, energy, infrastructure, national security, extractives and tax (see section 2.1.3). For example, where a conservation law conflicts with a law governing mining, the latter usually prevails in practice (Organization of American States [OAS] 2015). Unclear or overlapping laws open the way to judicial challenges that can delay or block the implementation of measures to protect the environment.

The process of developing legislation can be as important as the content of the legislation itself. A participatory process can strengthen both the legitimacy and feasibility of legislation, leading to higher compliance. Including a wide range of stakeholders in law-making and regulation can also ensure that laws are culturally appropriate and align with community norms. Participation in law-making is discussed in more detail in chapter 3.

Other aspects of legal design, including its degree of centralization and incorporation of incentives, are often important. Some scholars have argued that legal frameworks that set up decentralized or community-based environmental management systems can result in higher levels of compliance and better outcomes than centralized 'fortress' conservation measures (Zhang and Li 2020). Laws

that employ market-based measures, like environmental taxes or incentives, can be effective alongside command-and-control measures (Blackman, Li and Liu 2018; Guo *et al.* 2021). Some of the most innovative legal mechanisms currently in development put some of the burden and cost of implementation and enforcement on private entities. For example, extended producer responsibility schemes can make producers legally responsible for ensuring that packaging or other waste is appropriately disposed of, which alleviates some of the work of municipal waste management authorities (Andreasi Bassi *et al.* 2020; Cai and Choi 2021).

2.1.2 Capable and effective institutions

Strong and capable institutions are a prerequisite for environmental rule of law. Effective institutions have been empirically linked to better environmental outcomes, including lower levels of pollution, reduced greenhouse gas emissions and better water quality (Dasgupta and De Cian 2018). Beyond their role in enforcement, institutions provide resources and guidance to improve capacity for compliance, engage the public to foster trust and inform rulemaking, and monitor implementation and effectiveness of environmental law to ensure accountability and identify areas for improvement (Bennett and Satterfield 2018; UNEP 2019).

Elements of effective institutions include, but are not limited to:

- *Authority*: a clear legal mandate and sufficient power to take necessary measures to carry out the mandate;
- *Capacity*: adequate funding to fulfil its mandate as well as personnel with appropriate knowledge, experience and skills;
- *Will*: political support from outside the institution as well as leadership and commitment from within;
- *Accountability and transparency*: a culture of integrity and safeguards against corruption and undue influence, including mechanisms for inclusivity and transparency in engaging with both the public and other government agencies;
- *Coordination*: mechanisms to align activities with those of other institutions at different levels of governance to take advantage of synergies and ensure measures are mutually reinforcing and supportive (UNEP 2019).

2.1.3 Governance across sectors and levels

A wide range of laws and institutions are relevant for environmental rule of law. Almost all countries now have a framework environmental law and one or more national environmental ministries or agencies (UNEP 2019). In many countries, the environmental legal framework includes a set of laws and regulations governing, *inter alia*, environmental impact assessment, protected areas, wildlife, clean air and water, waste management, toxic pollutants, coastal and marine management, crimes that affect the environment and, increasingly, climate change (see figure 2.1). In addition, laws and institutions related to agriculture, food, health, forestry, mining and extractives, energy and rights of indigenous peoples are directly relevant to environmental management. Beyond these areas, a number of legal frameworks and institutions are essential for environmental rule of law because of the role they play in implementation and enforcement. These include laws and institutions related to criminal justice, tax, intellectual property, customs, securities, education, housing and even national security, among others (UNEP 2019). Human rights, constitutional rights and other rights-based approaches are playing an increasing role in environmental rule of law, as discussed in chapter 4.

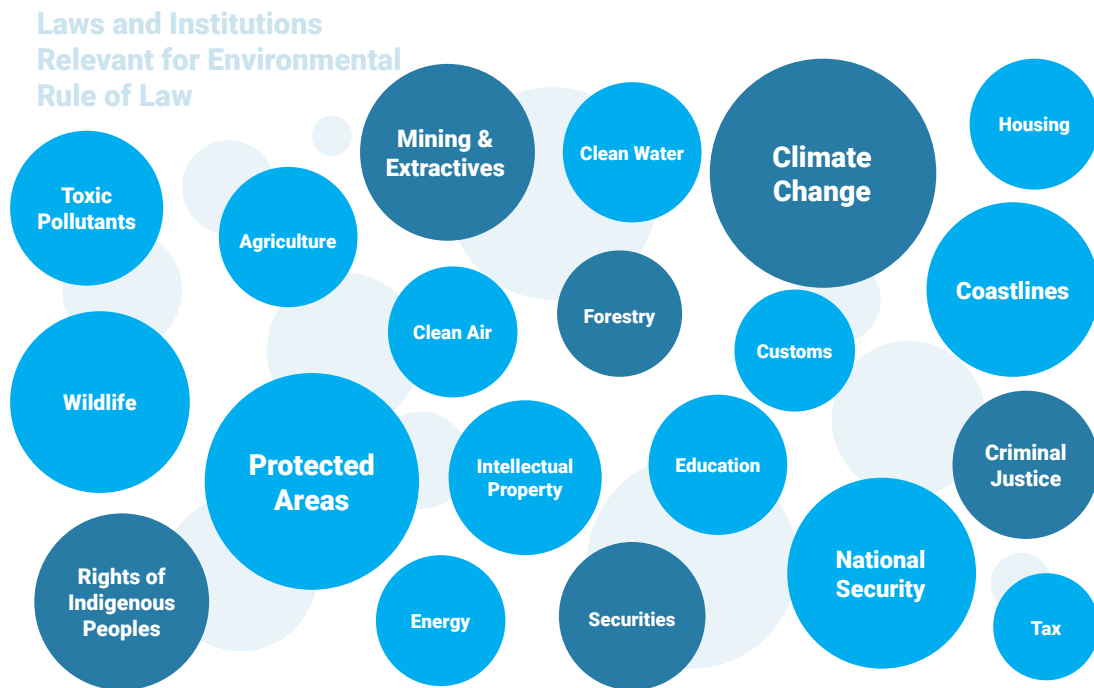


Figure 2.1: Laws relevant for environmental rule of law

Environmental rule of law crosses multiple levels of governance. National legislation and institutions are the main focus of this report, but subnational and municipal laws and institutions play an integral role in addressing pressing environmental crises. In urban areas, municipal traffic, zoning and housing ordinances are at the front lines of addressing climate change, and cities around the world have experimented with ambitious and innovative decarbonization strategies (Bernstein and Hoffmann 2018; Fuhr, Hickmann and Kern 2018; van der Heijden 2018). Land use systems and reforestation and conservation efforts are often governed and implemented by local authorities and norms, and community-based natural resource management has proven successful in many cases (Milupi 2017; Pani and Mishra 2021). Waste management and recycling schemes are often governed and implemented locally (Rajmohan *et al.* 2019; UNEP 2021a). Local policing authorities are often the ones to discover and apprehend those involved in poaching and illegal wildlife trade, and local communities often play an important role in detecting environmental violations from illegal dumping to illegal logging (Child 2019; Roe and Booker 2019). In addition, international and regional frameworks and organizations such as river basin organizations, transnational protected area agencies, regional enforcement networks and regional human rights institutions can work with and reinforce national and subnational systems to improve environmental rule of law (UNEP 2019).

Customary or indigenous laws and authorities exist alongside statutory systems in jurisdictions around the world. Failure to acknowledge legal pluralism can undermine governance and create conflict (Swenson 2018). Examples are discussed in section 2.3.3.

2.2 Status

This section provides an overview of the current status of environmental laws and institutions around the world: environmental legislation in different sectors; strengthening and weakening of laws in response to COVID-19; existence of specialized environmental institutions such as environmental protection agencies; inclusion of environmental issues in mandates of prosecutors and law enforcement; and requirements for inclusion of environmental law in law school curricula. The data in this section is based on indicators developed and monitored for the period 2019–2020. For the full methodology, see chapter 1.

In addition to the analysis in this section, specific legal and institutional aspects are addressed in other chapters. Laws designed to protect rights of minorities, women and indigenous peoples, as well as national human rights institutions are discussed in chapter 4. Laws guaranteeing rights of access to information and public participation in decision-making are addressed in chapter 3. Laws intended to ensure access to justice and protect environmental defenders as well as specialized environmental courts and judicial training institutes are covered in chapter 5.

2.2.1 Status of environmental legislation

In recent years, environmental legislation and reform has dramatically increased in some areas, while others have seen challenges or shifts in focus. Several countries—including Bosnia and Herzegovina, Kazakhstan, Saudi Arabia and Surinam—have adopted new framework environmental legislation. In November 2021, the United Kingdom of Great Britain and Northern Ireland adopted a new Environment Act that mainstreams five key principles across domestic policymaking: integration, prevention, precaution, rectification at source and polluter pays (United Kingdom of Great Britain and Northern Ireland 2021). Climate change, plastic pollution and illegal wildlife trade have received significant attention in international fora and national law-making chambers. At the same time legal frameworks governing water and protected areas have been challenged by climate change and developmental pressures, leading to some rethinking of basic frameworks, described below. Moreover, a small but growing number of countries have adopted the non-regression principle to prevent weakening of environmental law (Bryner 2022). This section provides an overview of the global status of environmental legislation across three pillars: climate change, biodiversity and pollution.

In addition to environmental legislation, laws governing public administration can be essential for environmental rule of law, particularly through transparency and accountability. These are discussed more in box 2.2 (corruption), chapter 3 (civic engagement) and chapter 5 (justice, including access to justice).

Pillar 1: Climate change

International legal instruments, such as the Paris Agreement, have motivated and informed an increase in national climate commitments, legislation and jurisprudence in recent years. As of 2021, at least 18 countries and the EU have declared climate emergencies, although these declarations typically have little legal weight and do not grant any additional powers to the executive (Ripple *et al.* 2021; Climate Emergency Declaration 2023). A growing number of countries are committing to net-zero emissions goals by around mid-century (UNEP 2020). A number of states now include responsibilities relating to climate change in their constitutions, including Algeria, Bolivia (Plurinational State of), Côte d'Ivoire, Cuba, Dominican Republic, Ecuador, Thailand, Tunisia, Venezuela, Viet Nam and Zambia (UNHRC 2019; Ghaleigh, Setzer and Welikala 2022).

There has been a rapid expansion of national and subnational climate laws and regulations. Many countries—including Spain, Mauritius, Argentina, Germany, France, Tuvalu, Nauru and Russian Federation—adopted new climate legislation between 2019 and 2021 (see figure 2.2). Panama adopted two climate change decrees pursuant to its General Environmental Law Framework. The first specified climate change mitigation actions, including developing greenhouse gas inventories and setting up a national program to support low-carbon social and economic development (Panama 2020). The second focused on adaptation, creating a National Data System for evaluation, management and monitoring of climate risks and establishing a Climate Change Adaptation Fund (Panama 2021). The European Union (EU) adopted Regulation 2021/1119 aimed at achieving carbon neutrality by 2050 (EU 2021). Box 2.1 examines innovative aspects of Spain's climate change law in more detail.

Box 2.1: Climate change law in Spain

Spain's climate change law, adopted in July 2021, aims to turn political commitments enshrined in the Nationally Determined Contributions (NDCs) of the EU and Spain into legally binding obligations. The law considers climate change as an opportunity to modernize the country's economy and to address wealth inequality through the decarbonization process.

The law is innovative in several areas. It integrated short, medium and long-term goals for climate mitigation and set a framework for progressively increasing its ambition. It set minimum targets of emissions reduction of 23 per cent relative to 1990 by 2030 and carbon neutrality by 2050, as well as targets for renewable energy use and energy efficiency. These targets are considered minimums that must be accomplished within the established timeframe and they can be strengthened over time. They also provided a national floor, while allowing autonomous communities to establish more ambitious targets within their own jurisdictions.

The law adopts an integrative approach designed to be adaptable over time. It incorporated two new planning instruments that will coordinate climate action across sectors in Spain and with the EU: (1) the Integrated National Plans of Energy and Climate; and (2) the 2050 Decarbonization Strategy. Similar to the NDCs under the Paris Agreement, the Integrated National Plans must be updated every 10 years, with more ambitious targets, starting from 2021–2030. Every update must be in line with the long-term goals set under the Decarbonization Strategy by 2050. The law establishes the National Adaptation Plan as the main planning instrument to promote a coordinated and coherent action to face the effects of climate change; it also provides for the integration of climate change risks in other sectoral policies, such as those governing biodiversity and agriculture, among others (title V).

The law uses a combination of regulatory mechanisms to facilitate a shift to a low carbon economy. It sets up payments and incentives to enable the attainment of targets related to renewable energy (title II) and to promote the use of renewable fuels such as biogas, biomethane, and hydrogen (title III). It prohibits the development of new projects to explore for or exploit fossil fuels, radioactive minerals, and coal within the Spanish territory (title III). To encourage use of electric cars, the law provides for construction of charging stations and removal of obstacles to mainstreaming green mobility (title IV). It also includes measures to reduce emissions from maritime transport.

By including indicators and monitoring and evaluation provisions, the law addresses one of the main challenges related to adaptation to climate change. To facilitate the evaluation and improvement of public policies, it provides for a system of indicators on the impacts of climate change and the effectiveness of adaptation actions (title V).

An often-neglected aspect of climate change is the social impact and benefits of the energy transition. Spain's climate change law includes provisions promoting fair employment to minimize negative impacts. It also addresses gender equity in relation to climate mitigation and adaptation (title VI). Finally, the law provides for financial resources to implement the climate action plans and set up an institutional framework for effective climate governance (titles VII, IX).

Recent Climate Legislation Adopted Since 2019

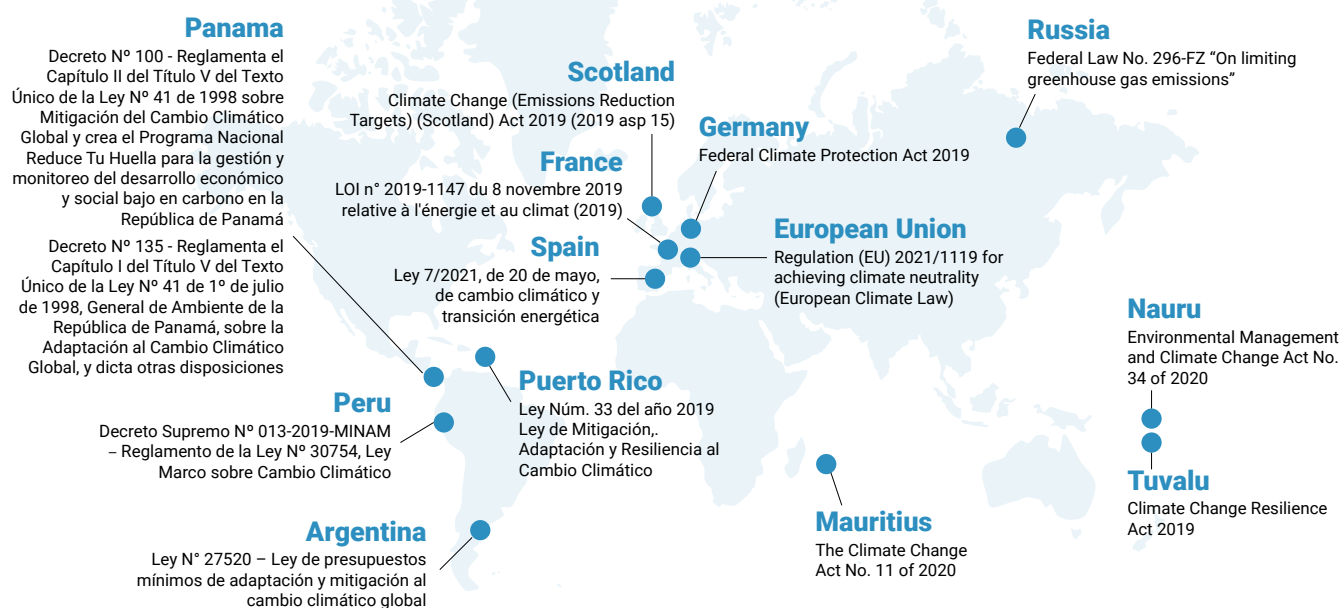


Figure 2.2: Selected examples of new climate legislation adopted since 2019.

Pillar 2: Pollution

Public concern over plastic pollution has increased dramatically in the past five years, as news stories, documentaries and social media posts on the impacts of plastic waste on marine wildlife have multiplied (Buranyi 2018). There is also public concern about human exposure to plastic through accumulation in the food chain and contamination of water, soil and air (UNGA A/76/207 2021). The rapid growth of global interest in addressing plastic pollution pressed several states into taking legislative action (UNEP 2016a). Around 127 countries have adopted legislation intended to regulate plastic pollution, and over 90 countries have imposed bans on single-use plastic products such as plastic bags and drinking straws (UNEP and World Resource Institute [WRI] 2020). For example, in 2018, Samoa adopted a national law to ban the import, manufacture, export, sale and distribution of plastic shopping bags, packing bags and straws effective 30 January 2019. United Republic of Tanzania's 2019 Prohibition of Plastic Bags Regulations impose fines up to US\$ 400,000 and prison terms of up to two years for importing or manufacturing plastic bags and fines of up to US\$ 85 for possessing or using plastic bags (United Republic of Tanzania 2019). Beyond outright bans, several countries, including Portugal, Denmark, Tunisia, Fiji and Ireland, impose taxes on plastic bags (UNEP 2016b; UNEP and WRI 2020; UNEP 2021d). The United Nations Environment Assembly (UNEA) has adopted resolutions related to plastics (UNEA 2018; UNEA 2019a).

The COVID-19 pandemic raised new concerns regarding long-term planning for pandemic waste management. Rather than using a comprehensive approach to COVID-19 waste management that takes the environmental and social impacts of increased pandemic-related waste into account, most states' approaches had a more limited scope focused mainly on health-care waste and infection risks (UNEP 2022b).

In 2022, the United Nations Environment Assembly agreed to create an International Negotiating Committee (INC) to develop a legally binding instrument on plastic pollution, including in the marine environment (Ferraro and Failler 2020; UNEA 2022a). In response to Resolution 5/14, an ad hoc open-ended working group (OEWG) developed draft rules of procedure, a draft timetable of INC meetings, a OEWG report, as well as a proposed

list of documents to be reviewed and discussed by INC-1 (UNEP 2022c). The first session of the INC took place in Punta del Este, Uruguay in November-December 2022 (UNEP 2022d); the second session in Paris, France quickly followed in May-June 2023; and the third session is anticipated to occur in November 2023 in Nairobi, Kenya (UNEP 2022d).

One key legal development in addressing plastic pollution is the use of Extended Producer Responsibility (EPR) systems, which place the legal responsibility for the end-of-life management and impact of plastic waste on the producer or distributor (Andreasi Bassi *et al.* 2020; Cai and Choi 2021) (see figure 2.3). For example, South Africa’s EPR scheme, which came into force May 5, 2021, requires any company engaged in manufacturing, refurbishment or import of certain products including paper, packaging, e-waste and some single-use plastics must establish or join an EPR scheme and pay a fee to cover the cost of collection, recycling and disposal (South Africa 2020; South Africa 2021).



Figure 2.3: Extended producer responsibility system (Source: Adapted from Andreasi Bassi *et al.* 2020)

Pillar 3: Biodiversity

Much of the recent legislative development related to biodiversity relates to two key issues: illegal wildlife trade and protected areas.

Before the COVID-19 pandemic, illegal wildlife trade (including illegal fishing and forestry) was seen as one of the most pressing international environmental issues due to its impact on high-profile endangered species and its connection to international organized criminal groups. In 2020 and 2021, the issue gained even more attention as countries identified connections between illegal wildlife trade and zoonoses and various theories linked the pandemic with international trade in pangolins and unregulated wet markets (Wacharapluesadee *et al.* 2021). This led to calls for increased regulations and strengthened enforcement of laws relating to wildlife trade (see section 2.3.1). In 2020, China adopted a national decision cracking down on illegal wildlife trade and prohibiting hunting, trading and consumption of terrestrial wildlife of important ecological, scientific and social value (China 2020). The decision notes the link between trading and consumption of wild animals and the spread of the coronavirus. While most countries have laws governing zoonotic diseases, they typically regulate domestic animals rather than wildlife trade and its value chain despite the fact that over 70 per cent of recent zoonotic diseases originate from wildlife (Wingard *et al.* 2021). Legal frameworks governing wildlife are also at the centre of the trend of criminalization of environment-related offenses (see section 2.3.5).

Protected areas are under frequent threat from downgrading, downsizing and de-gazettement (Golden Kroner *et al.* 2019). In 2020, several key organizations in different states called upon the World Commission on Protected Areas (WCPA) and the International Union for Conservation of Nature (IUCN) members, including governments, to safeguard the importance of protected areas, and acknowledged the need to preserve the rich geodiversity and geological heritage of the planet (IUCN 2021).

Biodiversity laws have started to incorporate adaptive management and other measures to adapt biodiversity management to a changing climate. Climate change poses serious threats to protected areas, including marine protected areas. As weather patterns shift, ranges of vulnerable species can move out of protected areas bringing them into areas with less legal protection and creating conflict with human activities. In response, scientists and scholars have proposed dynamic protected areas and other area-based protection measures that have more flexibility to respond to climate change (D'Aloia *et al.* 2019; Cashion *et al.* 2020). This adaptive approach builds on existing examples of dynamic ocean management. Since 2003, Australia has utilized dynamic spatial management practices to reduce bycatch in longline fisheries. Managers use real-time data from remote-sensing systems and satellites to map the projected habitat of vulnerable marine species and update management lines demarcating restricted zones, which are posted online and sent to fishers in the form of maps and numerical coordinates (Hobday *et al.* 2010). This approach has proven successful in reducing bycatch of southern bluefin tuna (Gilman, Kaiser and Chaloupka 2019).

In 2018, the Parties of the Convention on Biological Diversity (CBD) adopted a definition of 'other effective area-based conservation measures' (OECMs) that recognizes areas that achieve effective in-situ biodiversity conservation outside of protected areas (Convention on Biological Diversity 2018). While protected areas must be managed primarily for the long-term conservation of nature, OECMs can be managed primarily for other reasons as long as they contribute to sustained, positive conservation outcomes. Although areas qualifying as OECMs exist in many countries around the world, the definition of OECMs is relatively recent; accordingly, as of 2021 only nine countries and territories have reported OECMs to the World Database on Other Effective Area-Based Conservation Measures (Protected Planet 2021).

There is a continuing push to recognize areas protected by indigenous peoples and local communities and incorporate them into national and international protected areas accounting (see section 2.3.3 and figure 2.4). This endeavour is related to the efforts to recognize OECMs; it also seeks to reinforce indigenous and community-based management.



Figure 2.4: Examples of Indigenous and community conserved areas (Source: ICCA Registry n.d.)

2.2.2 Weakening and strengthening environmental legislation in response to COVID-19

The COVID-19 pandemic has affected many aspects of governance and environmental protection. Over the course of 2020, at least 46 states relaxed, removed or suspended environmental protection laws, policies and/or their enforcement activities as a direct response to COVID-19 at the national and/or subnational level (see figure 2.5). In some cases, COVID-19 accelerated measures to relax environmental laws that were already underway. Measures included waiving or streamlining planning processes and permit approvals, waiving environmental taxes and charges, or delaying the planned implementation of regulations on fuels or plastics. Such measures were often characterized by governments as means

to support businesses impacted by the pandemic or to promote economic recovery. In other cases, enforcement activities were suspended because of practical concerns associated with the inability of governments and businesses to carry out their usual monitoring and inspection functions. For example, some states relaxed reporting obligations on businesses, suspended inspection or adjudication services, or extended permit deadlines (UNEP dataset 2021). Moreover, a small number of states used COVID-19 as a pretext to weaken existing environmental protection regimes.

The COVID-19 pandemic and efforts to recover from it also provided opportunities for states to strengthen environmental laws and practices. By 2021, at least 41 states introduced new laws or policies that strengthened environmental protection as a direct response to COVID-19 at the national or subnational level (see figure 2.5). Such measures were often enacted as part of efforts to incorporate sustainability into post-pandemic economic recovery plans, sometimes framed as ‘build back better’. Examples include infrastructure investments, green jobs programs, waste management reform or subsidies for environmentally friendly business projects (especially tourism). In other cases, measures were justified by public safety concerns. For example, some governments strengthened regulation of biodiversity and trade in wild animals, introduced measures to improve air quality, enacted new waste disposal regulations or passed laws to strengthen the environmental regulatory powers of governments in the event of national or regional emergencies. These various developments are discussed in further detail in section 2.3.1.

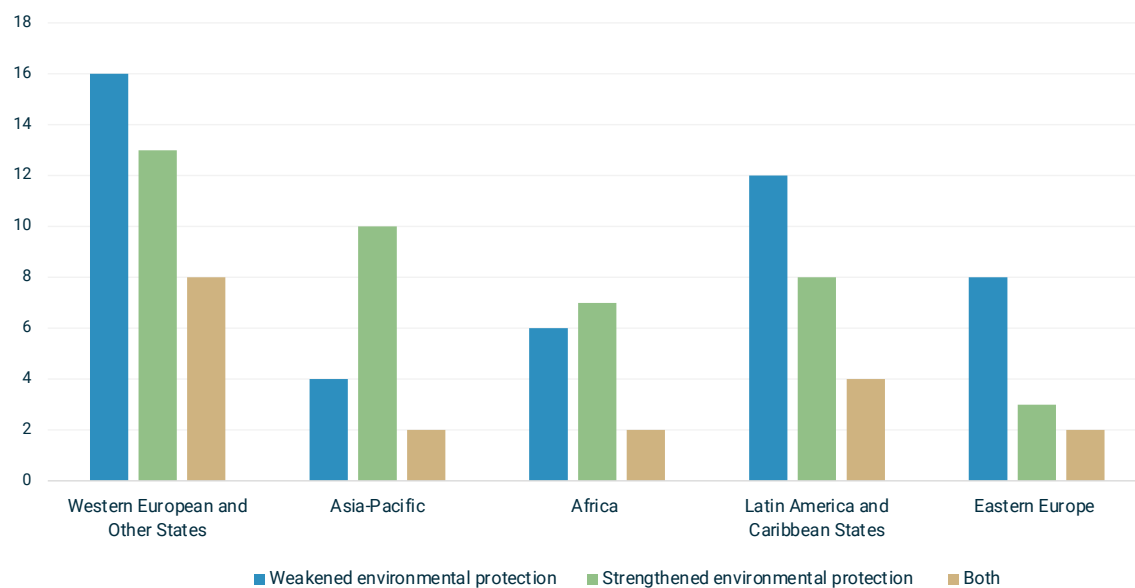


Figure 2.5: Countries that modified environmental protection laws and policies and/or their enforcement in response to COVID-19 (2020-2021) (Source: UNEP dataset 2021)

2.2.3 Independent environmental protection institutions

Environment ministries and related institutions are now ubiquitous around the world (UNEP 2019). These include ministry offices, bureaus, license and/or permitting units, adjudicatory bodies and regulatory divisions, as well as bodies tasked with investigatory functions, monitoring duties and technical review and auditing.

A small number of countries have established independent environmental protection agencies separate from other executive bodies. For example, the National Environment Commission of Bhutan operates as an independent agency at the national level (Bhutan 2007). In addition to independence, integrity of the institutions is important to environmental rule of law (Kreilhuber and Kariuki 2020). As a complement to independent environmental protection institutions and to broaden the range of expertise and perspectives in decision-making, many countries utilize a range of multi-stakeholder bodies and task forces, specifically public-private partnerships, co-management and other management approaches.

2.2.4 Explicit environmental mandates for prosecutors and law enforcement

An important component of environmental rule of law is the existence of prosecutorial and enforcement institutions with the mandate and capacity to enforce environmental protection measures through investigations, administrative actions and prosecutions before courts and tribunals.

States have a range of options in designing effective prosecutorial and enforcement institutions. A significant number of states (72) have a specialized agency, office, department or staff for the investigation and prosecution of environmental offenses (figure 2.6). One approach is to build the capacity of prosecutors with specific responsibility for prosecuting environmental offenses. These prosecutors are often housed within dedicated environmental protection agencies at either the national or subnational level. This approach helps to ensure that there is a cadre of prosecutors with dedicated time and resources to focus on environmental cases, and to develop specialized expertise in environmental law.

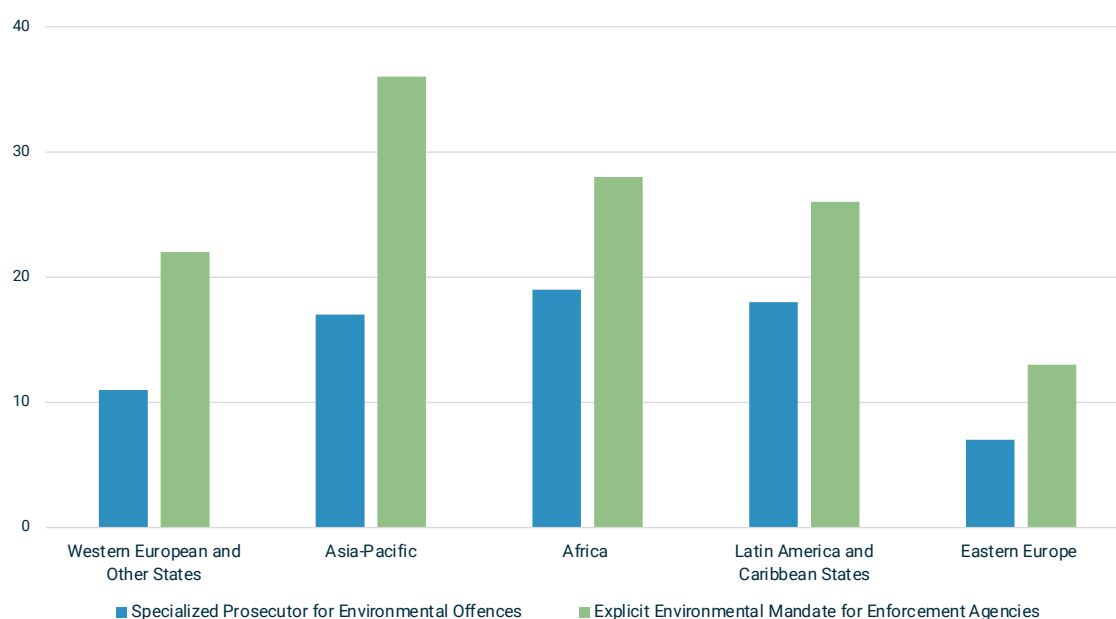


Figure 2.6: Countries with specialized environmental prosecutors and explicit environmental mandates for enforcement agencies (Source: UNEP dataset 2021)

For example, in Mauritius, the Department of Environment contains an Environmental Law and Prosecution Division dedicated to enforcement of the Environment Protection Act (Mauritius 2002) and other environmental laws (Mauritius, Environmental Law and Prosecution Division n.d.). In many countries in Latin America, environmental prosecutors are located in specialist units within the public prosecutor's office. In Brazil, the public prosecution office has specialized staff for the investigation of real or potential environmental damage (Pring and Pring 2016). Many EU countries also use specialized prosecutors to improve compliance with European and national environmental law. In Spain, the Environmental Prosecutor is charged with conducting the procedures established in article 5 of the Organic Statute of the Prosecution Ministry for offenses relating to spatial planning, the protection of historical heritage, wildlife, forests, and natural resources and the environment (Spain 1982).

Alternatively (and sometimes concurrently), states have enacted mandates giving general enforcement agencies, such as police and customs, the power to enforce environmental laws, through inspections, seizures, infringement notices and prosecutions. This approach allows for flexibility in prosecutorial approaches and other enforcement actions, thereby enabling states to deploy general enforcement resources in response to environmental law violations. One hundred and twenty-five states have enacted explicit legal mandates which give general enforcement agencies (national or subnational) the power to prosecute environmental offenses. Explicit legal mandates for general enforcement agencies to enforce environmental laws exist in both framework and specific subject-matter environmental legislation (such as legislation dealing with wildlife, waste management or pollution).

These options may be complementary: a majority of states with specialized environmental prosecutors (52 of 72) also have enacted explicit mandates for general enforcement agencies to enforce environmental legislation. In many of these cases, general enforcement agencies (such as police or customs) are responsible for enforcement actions, and refer prosecutions to specialized agencies or units.

Many countries divide responsibility between different types of institutions, for example, with respect to civil versus criminal offenses. This is generally the case in Latin American countries such as Colombia and Peru, for example. It is important to ensure that environmental prosecutors have a mandate to pursue both criminal and civil charges, to avoid gaps in environmental enforcement.

Kenya has developed a specialized nationalized investigation and prosecution unit particularly focusing on wildlife crime (Wildlife Direct 2018). It brings together relevant law enforcement agencies and experts to target high-level traffickers and work closely with international teams in the region to pursue targets across borders. Kenya is also the host to the Lusaka Agreement Task Force, a regional wildlife law enforcement network.

Brazil's Constitution outlines that one of the functions of the Ministerio Publico is "to institute civil investigation and public civil suit to protect public and social property, the environment and other diffuse and collective interests" (Brazil 1988, article 129(3)). Pursuant to its mandate, Brazil's Ministerio Publico has, in the state of São Paulo alone, brought over 4,000 environmental cases and, in recent years, it has used the threat of prosecution as means to negotiate settlement agreements with polluters (referred to as 'conduct adjustment agreements') to avoid the high costs, delays and uncertainty of proceeding through the court system (Mueller 2006; Boyd 2012).

Box 2.2: Corruption and environmental rule of law

Corruption poses serious challenges to environmental governance (and particularly the environmental rule of law), especially in developing countries (Nolan García and Aspinwall 2019). Corruption can both be enabled by and reinforce weak institutions and inadequate expertise. Corruption jeopardizes efforts to meet the SDGs and undermines a fair and equitable global response to the COVID-19 pandemic (Transparency International 2020). In addition, corruption enables some of the most serious drivers of biodiversity loss, wildlife trafficking and deforestation (UNEP 2016c; United Nations Office on Drugs and Crime [UNODC] 2019a; United Nations Food and Agriculture Organization [FAO] and UNEP 2020).

During the last decade, many countries have made little progress in tackling corruption. As of 2020, two thirds of the countries analysed in the Corruption Perception Index score below 50, where 100 reflects a government that is transparent, accountable and enforces the law. In Latin America, corruption has played a part in enabling criminal actors to terrorize indigenous communities and environmental defenders who fight to protect environmental rights (Duri 2020). Many countries have strong environmental laws and policies but corruption undermines implementation. Corrupt practices are often linked to inconsistent application of laws and disappearance of evidence and other interference in investigations and prosecutions. At the international level, Resolution 8/12 of the Conference of the States Parties to the United Nations Convention against Corruption urged States to take concrete measures to prevent, and combat corruption as it relates to crimes that have an impact on the environment by strengthening legislation, international cooperation, capacity-building, criminal justice responses and law enforcement efforts (UNODC 2019b).

Tackling corruption requires an investment in transparency and accountability; it also requires political leadership. States can take (and have taken) a variety of measures to address corruption (Transparency International 2020). First, they can strengthen oversight and anti-corruption authorities with adequate funding, resources and independence. Second, they can ensure open and transparent contracting so that citizens and oversight institutions can combat wrongdoings, unfair pricing and other conflicts of interest in public procurement processes. Indeed, this is a substantial motivation for countries joining the Extractive Industries Transparency Initiative. Third, they can guarantee democracy and promote civic space in order to ensure that governments will be held accountable. Fourth, they can guarantee access to information, especially disaggregated data on spending and distribution of resources. Many of these measures are discussed in more detail in chapter 3.

2.2.5 Capacity and resources

Institutional capacity is an integral component of environmental rule of law. This requires both budgetary and human resources.

Institutions need to be sufficiently funded in order to perform adequately. The budget allocated to environmental institutions and agencies vary greatly from country to country. Often environmental agencies are under-resourced and the public spending is relatively low compared to other areas. For example, in EU member states, the ratio between environmental spending to GDP has been about two per cent over the last 15 years (Eurostat 2021). The COVID-19 pandemic has brought a deep economic crisis for all the regions, which produced further reductions in the resources allocated to environmental agencies and institutions (OECD 2021). According to one estimate, the pandemic set back economic development in poor countries in Latin America by ten years (CEPAL 2021a).



Photo: Pexels

Effective and capable decision-making, administration, implementation and enforcement requires a legal profession with the capacity to understand, apply and develop environmental law. One way of fostering this profession is to ensure that all lawyers receive at least rudimentary training in environmental law. Nine countries have made environmental law a mandatory component of legal training. This requirement appears either as a specific legislative or regulatory requirement listing environmental law as a mandatory component of legal education, or as a general law which requires environmental issues to form a part of vocational training at all levels of the national education system.

2.3 Trends

This section examines five major trends in environmental laws and institutions. It focuses on key factors affecting the scope, application and capacity of environmental laws and institutions.

2.3.1 Impacts of COVID-19 on environmental laws and institutions

COVID-19 has directly and indirectly impacted the development, implementation, monitoring and enforcement of environmental laws and operation of institutions. These impacts range from government regression of environmental protections and relaxation of enforcement to increased noncompliance due to economic strain and lack of alternatives to the need for institutions to adapt to remote working conditions.

In the wake of the outbreak, at least 46 countries relaxed environmental requirements, under the theory that such requirements might be difficult to meet under lockdown conditions and might further burden companies that were already economically struggling. South Africa, for example, deferred initial submissions and payments of its recently adopted carbon tax (South Africa Revenue Service 2020). The Brazilian government passed 195 executive acts that dismantled or bypassed environmental laws between March and May 2020 (Spring 2020). The United States of America used the COVID-19 emergency as justification to lower vehicle emission standards and open the Northeast Canyons and Seamounts Marine National Monument for commercial fishing (Nyekwere 2020). China suspended environmental standards for small businesses (Nyekwere 2020). In Colombia, some private sector companies requested the government reduce the time taken to grant or deny an environmental license, based on the need to boost large infrastructure and extractive industry projects; ultimately, the request was denied by Colombia's environmental authority (Rojas 2020; Amaya-Arias 2021). Additionally, some countries used the COVID-19

pandemic to pass legislation that expands powers of the state and limits human rights. Philippines, for instance, passed the Anti-Terrorism Act of 2020, which uses a broad definition of terrorism that allows the governments to arrest accused terrorists without warrants and detain them without charge. Journalists, activists and human rights defenders, including land and environmental defenders, have been labelled as terrorists and communist insurgents and targeted by the law since its passing (Qureshi 2020).

Where environmental requirements and standards were maintained, several governments waived or suspended obligatory compliance of environmental law. China modified the environmental supervision of companies to help industries bounce back from production halts (Xu and Goh 2020). Some companies in China were deemed exempt from environmental inspections if they were involved in the production of materials to fight against coronavirus. In Chile, the Superintendent of the Environment established that the pandemic qualified as a force majeure event that could be used to exonerate liability for failure to comply with environmental obligations. The Superintendent further suspended all sanctioning proceedings and reporting requirements (Chile 2020). The Peruvian government deferred fines and suspended environmental and social reporting requirements to facilitate reopening of forestry, mining and hydrocarbon extraction industries (Peru 2020).

The United States Environmental Protection Agency (EPA) announced in March 2020 that it would use its enforcement discretion to decide whether or not to punish noncompliance with federal environmental requirements that resulted from impacts caused by the pandemic, such as staffing problems or physical access for monitoring. In May, nine states filed a lawsuit challenging the EPA policy, and it was rescinded in August (Congressional Research Service 2020).

In other cases, governments reduced enforcement activities due to lack of resources and/or concern for the health and safety of both enforcement officers and regulated entities. Many countries including, for instance, Brazil, Cambodia, Colombia, India, Madagascar and Venezuela reduced patrolling of forest areas, resulting in an increase in poaching and deforestation (Nyekwere 2020). In Brazil, environmental fines issued during the pandemic were down 72 per cent compared to previous years (Vale *et al.* 2021). This may have contributed to a dramatic increase in Amazonian deforestation in 2020 and 2021 relative to previous years (Spring 2021). In the Brazilian coastal town of Caravelas, local fishers reported an increase of illegal fishing, which they attributed to an absence of federal inspectors (Lima 2020).

In Colombia, environmental authorities suspended administrative and enforcement actions that involved personal interaction, including technical visits to projects and on-site collection of environmental information, citing a need to limit spread of the virus (Colombia 2020). With reduced environmental inspections and oversight, illegal mining and resource exploitation increased, often linked to increased violence against communities trying to defend their land and resources. In 2020, 177 murders of indigenous leaders and human rights defenders were recorded in Colombia (Front Line Defenders 2021a), including 65 land and environmental defenders (Global Witness 2021).

Local law enforcement became more challenging during government-imposed lockdown measures as forest guards and other enforcement agents were unable to monitor poaching and illegal wildlife trade, leading to a spike in illegal poaching and incursions in protected areas (Evans 2020). In Indonesia, enforcing rules against forest fires became close to impossible under pandemic conditions (Nugroho and Syahrudin 2020). In African wildlife areas, a reduction in tourism operations left fewer eyes and ears on the ground and less income for anti-poaching patrols, leaving conditions ripe for poachers (Reinstein 2020).

The need to limit unnecessary physical contact led institutions to adopt remote working practices and pause in-person inspections, public consultations and even court hearings. Many parliaments shifted to digital platforms in order to continue to try to enact laws in an open, transparent and inclusive manner (Inter-Parliamentary Union 2020). Several countries modified their laws and procedures to allow for remote operation. For example, in Belgium, remote voting for the members of the national parliament



Photo: UNEP

was not allowed before COVID-19; in March 2020, a proposal was adopted to modify the rules of procedure in order to convene parliamentary sessions and vote remotely (Crego and Manko 2020).

COVID-19 drove international concern for zoonotic diseases and accordingly for ensuring the integrity of natural ecosystems. The pandemic has highlighted the need to reduce the risk of the economic, social and environmental impacts of disasters, many of which are exacerbated by climate change, desertification, and biodiversity loss (United Nations General Assembly [UNGA] 2020). The transmission of zoonotic diseases like COVID-19 between animals and humans threatens economic development, animal and human well-being and ecosystem integrity (UNEP and the International Livestock Research Institute [ILRI] 2020). Zoonotic diseases can spread more easily when human settlements and human activity overlap with wildlife zones or when humans interact with dense populations of species under stress.

Some countries have introduced new laws or policies increasing environmental protection (especially related to illegal wildlife trade) as a direct response to COVID-19 at the national and sub-national levels (Evans 2020). For example, China's highest legislature adopted an urgent decision in 2020 to expand the scope of the China Wildlife Protection Law to ban the trade and consumption of terrestrial wild animals due to suspicions that animals sold in wildlife markets were the source of the novel coronavirus. The ban aims to safeguard human health in response to the COVID-19 pandemic, and also to combat illegal wildlife trade and protect vulnerable species. The revision of the country's Wildlife Protection Law is expected to bring about long-term and systematic changes to wildlife conservation. Already, species that are threatened by human consumption, such as the pangolin and yellow-breasted bunting, are being promoted to the highest protection level in China (Koh, Li and Lee 2021). This ban aims to address the link between wildlife trafficking and spread of zoonotic diseases to prevent future outbreaks.

A number of countries view the circular economy as an integral part of the recovery from the pandemic. For instance, in 2020, the Bureau of the African Ministerial Conference on the Environment recognized the need to implement a previous decision from its 17th ordinary session to promote and scale up the circular economy as part of Africa's COVID-19 recovery process (African Ministerial Conference on the Environment [AMCEN] 2020). Denmark provided extra funding to help companies stick to green transition and circular economy principles amidst the COVID-19 crisis (Nørgaard and Jensen 2020).

Parliaments also have the opportunity to introduce recovery laws that provide incentives for green investments, such as in sustainable transport, energy efficiency technologies and waste management. Laws

that promote healthy ecosystems and reduce environmental stresses (including through green fiscal reforms that reduce income tax and shift the tax burden to environmentally harmful goods and services) could promote productivity, advance local solutions and support displaced workers (Inter-Parliamentary Union 2020). However, according to a survey by Oxford University's Smith School of Enterprise and the Environment, only four per cent of G20 COVID-19 fiscal emergency policies were green (Hepburn *et al.* 2020).

2.3.2 Technology in environmental enforcement

Recent technological developments and new applications of existing technology have the potential to revolutionize environmental law-making, implementation and enforcement with significant implications for environmental rule of law. These range from the use of artificial intelligence to inform development of legislation to the use of satellite monitoring systems, drones and machine learning to detect illegal activity.

Many technological developments to support environmental law enforcement utilize earth observation technologies. For example, Global Forest Watch provides near-real time data on forest coverage around the world, which allows users to track deforestation or reforestation over time (Global Forestwatch n.d.). In 2016, Global Forest Watch and the University of Maryland launched Global Land Analysis and Discovery (GLAD) alerts, which notify users of likely forest loss events based on weekly updates. GLAD alerts are used by government officials, civil society organizations and researchers for areas across the tropics. According to a 2021 study, areas in Africa with active GLAD alert subscriptions showed an 18 per cent decrease in probability of forest loss relative to previous years, suggesting that the alerts may contribute to improved environmental enforcement (Moffette *et al.* 2021). Although the GLAD alert system still depends on Landsat satellites that cannot see through clouds, a new Radar for Detecting Deforestation (RADD) system, launched in 2021, uses satellite-based radar data to detect changes on cloudy days (Weisse 2021).

The company SkyTruth partnered with the Wildlife Conservation Society to develop a platform for identifying illegal mining in the Peruvian Amazon. They are using radar satellite imagery from the European Space Agency to detect activity beneath the dense canopy and cloud cover (Matthews 2020). The National Aeronautics and Space Administration (NASA) and the United States Agency for International Development (USAID) have undertaken similar projects using radar monitoring technology to provide near-real time detection of illegal gold mining in Ghana (NASA Earth Observatory 2021) and Peru (NASA 2021).

Satellite technology and remote sensing have also proven an effective means of tracking illegal fishing (Merten *et al.* 2016). Global Fishing Watch partnered with Spire to use nanosatellites to track the signals from 60,000 vessels using Automatic Identification Systems (AIS) across the seas (Spire Global 2020). This allows comprehensive mapping of movement of fishing vessels to detect suspicious behaviour. In 2019, a partnership between the United States Coast Guard and Global Fishing Watch contributed to an 867 per cent increase in identified violations compared to the year before (Bladen 2019).

While satellites can provide spatial and temporal detail at the global level, unmanned aerial vehicles (often referred to as 'drones') can provide a higher quality image and greater flexibility for covering a specific area (Manfreda *et al.* 2018). Drones can access areas where traditional field observation is dangerous or impossible and provide continuous monitoring more efficiently than manned patrols (Wallace, Martin and White 2018). A 2018 study that used drones to survey Nile crocodile populations found that the drone recorded 26 per cent more crocodiles than a ground survey, which can support more informed conservation and management decisions (Ezat, Fritsch and Downs 2018). Community groups in the United Kingdom of Great Britain and Northern Ireland have used drones to gather evidence on illegal dumping of waste to present to local council members (Berardi 2016). A 2018 team developed and tested SPOT, a system that combines drone sensors and machine learning to automatically detect wildlife poachers in real time. SPOT was designed to replace drone monitoring systems that require operators to manually monitor the video feed (Bondi *et al.* 2018).

Machine learning has significant potential for aiding environmental enforcement. The University of Nairobi and UNEP's Green Customs Initiative have developed software using machine learning and x-ray image processing to help customs agents detect illegally trafficked goods such as refrigerants prohibited under the Montreal Protocol. The software uses an image processing algorithm on x-ray images to automatically flag suspect containers for further investigation.

2.3.3 Pluralism and decentralization

Environmental governance exists at multiple levels, from the local to the transnational. It is based on multiple legal and institutional systems (including customary and indigenous legal systems) and engages different actors (including the private sector and civil society). In recent years, a continuing trend of recognition of legal pluralism and the role of local level government has become more apparent.

Decentralization of authority to govern renewable resources such as forests, irrigation systems, and inland fisheries has been gathering steam since the mid-1980s (Lemos and Agrawal 2006). Local institutions can be more efficient and effective than centralized governance mechanisms (Kiwango *et al.* 2015). There are at least three distinct reasons for this. First, decentralization can produce greater efficiencies because of competition among subnational units. Second, it can bring decision-making closer to those affected by governance, thereby promoting higher participation and accountability (Guha and Chakrabarti 2019). Finally, it can help decision makers take advantage of more precise time- and place-specific knowledge about natural resources (Larson and Ribot 2004). By creating greater opportunities for meaningful participation of stakeholders, decision-making at a more local level can also result in more appropriate, legitimate and accepted regulations and management approaches, increasing compliance.

Cities and subnational governments

Cities and subnational governments have become major drivers of environmental action. Local governments have put in place green building standards, bicycle lanes and public transit infrastructure, and sustainable waste management policies (Fuhr, Hickmann and Kern 2018). The importance of cities and local governments in addressing environmental problems has been recognized internationally, through SDG 11 and the UN Habitat New Urban Agenda adopted in 2016. To empower local government authorities to act, it is important that they have control over their own revenues and resources (Guha and Chakrabarti 2019).

Subnational governments are well placed to innovate and undertake policy 'experimentation' that may be politically difficult at the national level (van der Heijden 2018; Jensen, Nielsen and Russel 2020). Subnational governments in the United States of America, Canada, and China have set up their own emissions trading systems (Bernstein and Hoffmann 2018). Toronto established a sustainable neighbourhood on its waterfront with green building requirements significantly stricter than those in other neighbourhoods, with the idea that such requirements would help, rather than hurt, developers by proving attractive to a public concerned about sustainability (Bernstein and Hoffmann 2018).

In the context of climate change, cities are engaging at the international level. Transnational networks such as ICLEI and the C40 Cities Climate Leadership Group facilitate sharing experiences and resources among municipalities around the world and amplify local voices in international discussions around climate change (Fuhr, Hickmann and Kern 2018; van der Heijden 2018; Jensen, Nielsen and Russel 2020). Many cities and subnational regions have set ambitious emissions reduction targets. Both California and Scotland have set zero emissions targets; indeed, total reductions from subnational commitments would be sufficient to keep emissions below 2°C—in line with the objectives of the Paris Agreement (Hsu *et al.* 2020).

As with national governments, local governments can face conflicts across sectors or jurisdictions which undermine environmental rule of law (Jensen, Nielsen and Russel 2020). Mechanisms for coordination and policy integration are as important at the local level as the national (see section 2.3.4).

Local level action, though often a response to inactivity on the part of national governments, can be most effective with national support (van der Heijden 2018; Croese *et al.* 2021). As part of its national roadmap on SDG implementation, Kenya established an SDG liaison office in the Secretariat of the Council of Governors to improve coordination between national and subnational levels, and all counties established SDG focal points. The Council of Governors worked with the national government to build the capacity of county institutions to implement the SDGs. For example, Kisumu County adopted a County Integrated Development Plan that mainstreams the SDGs (Croese *et al.* 2021).

Local communities and co-management

Co-management arrangements between national or subnational government agencies and local community groups have shown promise in achieving social and ecological goals worldwide (Ayers *et al.* 2017). By fostering stakeholder engagement in decision-making, co-management arrangements can increase legitimacy of management decisions and improve both the effectiveness and efficiency of environmental law. In Côte Bleue Marine Park in Marseille, France, the active involvement of stakeholder fishers in the management and monitoring of the marine park proved effective in ensuring sustainability (World Wide Fund for Nature [WWF] 2021). Community-led approaches in coastal and marine governance in Soufriere, St. Lucia and Scott's Head, Commonwealth of Dominica help resolve zoning conflicts and promote conservation of fishing grounds from land-based sources of pollution. In St. Lucia, a memorandum of understanding between public, private, NGO and community groups serve as the basis of the institutional arrangement to manage the marine coastal space, grounded in an established zoning plan of the area and its resources. For over twenty years this arrangement has addressed conflicts and supported conservation of the marine area (Thurlow and Jones 2021). Both examples are informing discussions of marine spatial planning and protected areas throughout the Caribbean Region.

Communities are often involved in wildlife management, including through support for law enforcement. This can take the form of community patrols or community members providing information to wildlife officers to help them identify and prosecute violators. A study of community-based initiatives aimed at addressing illegal wildlife trade found that of cases where information on effectiveness was available, 74 per cent were reported as fully or partially effective (Roe and Booker 2019). Initiatives were most effective when solutions came from within the community rather than outside, where the community retained decision-making power and ownership over the project and where measures were linked to community norms and customary values. For example, a group of village elders from the Koi indigenous group of Cambodia voluntarily formed themselves into community patrols to protect the Chom Penh Forest from illegal logging. The patrols confront poachers and deliver an 'impassioned scolding' before escorting them back to the village to be turned over to the police or suffer additional lecturing from a respected elder. Following this treatment, at least one former poacher has joined the patrol team (Blomberg 2018; IUCN, International Institute for Environment and Development [IIED] and TRAFFIC 2018).

Within communities—and at all levels—research has shown the importance of considering and engaging women in the development, implementation and enforcement of environmental laws (box 2.3).

Box 2.3: Importance of engaging women in environmental laws and institutions

Environmental degradation and climate change have particular impacts on women. In many communities, women are primarily responsible for providing food, water and fuel for their families (Yoshida 2021). Often they are engaged in biodiversity-dependent activities such as subsistence farming and harvesting of natural resources (Alvarez 2019). Water scarcity, weather variability and loss of biodiversity can significantly impact these activities. Environmental degradation is also linked to gender-based violence. When women have to walk farther for water and fuel, it can put them at greater risk of assault and can leave their daughters at home vulnerable to sexual violence (Yoshida 2021). Intersectionality is an important concept for understanding environmental impacts on women. Environmental degradation may have greater impacts on socially stigmatized groups, like widows, orphans and single mothers. Indigenous women and other ethnic minorities are often the most underrepresented in environmental decision-making (Yoshida 2021).

At the same time, women play an essential role in environmental law implementation. Crafting laws and policies from a gender-sensitive perspective and opening opportunities for women to take leadership roles in relevant institutions can have significant positive impacts on conservation outcomes.

The need for a gender perspective in environmental policy

Environmental policies and initiatives that fail to consider gender often exclude or actively harm women and girls. Women may have traditional rights to access natural resources, but may lack formal ownership of land or the ability to inherit real property. In these cases, initiatives involving resource privatization can be devastating to women's livelihoods, as resources they depended on but did not legally own are recognized as the exclusive property of others, including foreign corporations or powerful men. For example, in many cases, reforestation projects designed to provide community benefits, instead primarily benefit property-owning male community members or external middle-men (Alvarez 2019). Payment-for-ecosystem-services schemes can be based on land ownership or allocated to households represented by a male head (Yoshida 2021). Reparations and compensation for displacement can also be based on land ownership and therefore exclude women.

In rural areas women may be more engaged in subsistence activities, while men are more active in the cash economy. In these cases, market-based conservation measures, such as monetary incentives and subsidies, can put women at a disadvantage (Alvarez 2019). Jobs created as part of benefit-sharing arrangements or corporate social responsibility projects may go to men, while biodiversity damage caused by the corporate activities disproportionately impact women (Yoshida 2021). Women's social position may also prevent them from participating fully in conservation governance. In societies that exclusively recognize men as heads of households, many women—including single mothers—have not been able to participate equally in community forest management (Saputri *et al.* 2020).

Taking gender into consideration in design and implementation of environmental laws and policies can enable women to more fully engage and benefit, which can result in better environmental outcomes. In particular, there is a need for collecting and using gender-disaggregated data to inform policymaking and environmental management (Alvarez 2019). Understanding the gendered impacts of government decisions can improve the effectiveness of environmental law by avoiding unintended social and economic impacts and allowing all members of society to participate in its implementation.



Photo: Unsplash

The importance of women in environmental institutions

Women and girls play an important role in environmental governance, as leaders, custodians of traditional knowledge and providers of solutions. Around the world, women's organizations are involved in on-the-ground conservation efforts, including planting trees and sustainability education (Giaqueto Gomes and Canela 2021; Yoshida 2021). These initiatives often receive significantly less support than foreign-financed projects that engage primarily male community representatives (Alvarez 2019). Women's traditional knowledge related to biodiversity and sustainable land management can be a valuable resource for conservation. In Uganda and Liberia, eco-feminist exchanges have allowed women to share knowledge on sustainable farming, planting and storage. Women's resilience clubs provide fora for women to meet and find solutions to environmental issues, while women's sustainability schools let them build capacity in environmental management (Yoshida 2021). Global studies have shown that women are more likely to engage in environmental activism (DiRienzo and Das 2019). Women act as environmental defenders at the forefront of protecting environmental rights, at great risk to themselves (see chapter 3).

Increasing numbers of women in government institutions and political positions are associated with better environmental outcomes. A global study in 2019 found that women's political empowerment is related to improved national environmental performance (Lorenzen 2019). Another study found that higher percentages of women in politically powerful roles was linked to lower rates of corruption and better environmental outcomes (DiRienzo and Das 2019).

Involvement of women in leadership roles in the private sector also relates to stronger environmental compliance. A study of American companies found that greater gender diversity in corporate boards relates to fewer lawsuits for environmental infractions (Liu 2018). Research in France showed a positive relationship between the percentage of women on corporate boards and environmental disclosures and sustainability reporting (Chebbi, Aliedan and Alsahlawi 2020). An analysis of 96 banks in Europe, Africa and the Middle East found that female leaders, together with high numbers of women on governing boards, contributed to better environmental performance (Birindelli, Iannuzzi and Savioli 2019).

Indigenous peoples and customary law

Indigenous peoples are often at the heart of conservation efforts because conserving unique biodiversity relies on the knowledge, innovations and practices of those who live in direct contact with nature.

Forests managed by indigenous peoples and local communities are at least as effective at maintaining forest cover as those under stricter protection regimes (United Nations Special Rapporteur on Human Rights and the Environment 2020). For example, areas in the Brazilian Amazon where the forest rights of indigenous peoples are recognized enjoy a deforestation rate that is eleven times lower than areas where these rights lack recognition (WRI and Rights and Resources Institute [RRI] 2014; United Nations Special Rapporteur on Human Rights and the Environment 2020). The indigenous peoples of Kayapó in the Brazilian Amazon play a key role in deterring deforestation and in climate change mitigation (Le Tourneau 2015). The Kayapó people's deep respect for nature has led to their spirited protection of their resources using indigenous knowledge about tropical rainforest ecosystems and to resist the construction of the dams and other developmental initiatives based on the possession of the knowledge regarding the negative impacts on the forest ecosystem (Daas 2018).

Often indigenous peoples' management of natural resources is grounded in customary law. Ambiguity in the relationship between state and nonstate legal systems can result in forum shopping and conflict, undermining rule of law (Swenson 2018). Formal recognition of customary law can allow traditional communities to effectively

manage their natural resources and achieve sustainable outcomes (see box 2.4). For example, in 2021, Ukraine adopted a special law that creates a framework for interaction between indigenous groups and local, regional and central government bodies (Ukraine 2021). In Brazil, the Policy for Territorial and Environmental Management of Indigenous Lands includes objectives to consult with indigenous peoples in the environmental permit process and the conservation unit creation process (Brazil 2012).

Box 2.4: Sasi customary law and practice in West Papua: An example of local communities' marine resources management

The biodiverse marine environment of the West Papua region of Indonesia has been conserved and sustainably managed by local communities through the implementation of *sasi* customary law (Febrica, Dyspriani and Widiastuti 2021). *Sasi* is a principle and practice of customary law grounded in traditional knowledge that bans the extraction of natural resources during certain time frames in an effort to conserve stock abundance (Rufiati 2021). For example, when *sasi* is instituted by traditional knowledge guides and local community leaders in a certain village, geographic, temporal and species-specific restrictions are placed on the harvesting of marine resources (Febrica, Dyspriani and Widiastuti 2021). These bans can apply to both outsiders and community members. The local community monitors the maximum sustainable harvest of the marine resource that is subject to the ban and in time, the leaders will lift the *sasi* to allow harvesting to resume.

The Indonesian government formally recognized the customary fisheries law of local communities and granted these communities fisheries management rights through Law No. 31/2004 and Law No. 45/2009 (Government of Indonesia 2004; Government of Indonesia 2009). Law No. 45/2009 enshrines customary law and practices as a principle of national environmental protection and management. These laws promote a participatory management approach of marine areas amongst stakeholders and local communities and seek to involve local communities in marine area policy planning, implementation and monitoring.

The Indonesian government's commitment to employing the customary law practices of *sasi* into effective marine resource management fulfills Target 20 of the Convention on Biological Diversity post-2020 global biodiversity framework, which seeks to include traditional knowledge of Indigenous Peoples and local communities in decision-making processes to promote inclusive environmental governance and equitable management conservation and sustainable use of biodiversity (Convention on Biological Diversity 2021; Febrica, Dyspriani and Widiastuti 2021).

Private conservation

While private initiatives have helped to conserve nature for centuries, in recent years, private land conservation has increased in profile among policymakers and academics since conservation initiatives on privately owned land have been shown to help mitigate global biodiversity loss (Gooden and Sas-Rolfes 2020).

Privately Protected Areas (PPAs) play an important role in achieving global targets. The identification and recognition of PPAs has great potential to complement and supplement national protected area networks, contributing to a mosaic of land, wetland and coastal areas that enhance connectivity and biodiversity conservation. PPAs are already a familiar part of conservation in the United States of America, Australia, and parts of Latin America, Europe and Africa; they are now emerging as a new conservation model in other countries (Mitchell *et al.* 2018). In Australia, PPAs are recognized as important to the national protected area system. Recently, New Zealand recognized the importance of such areas by recording 4,700 PPAs in the World Database on Protected Areas (WDPA) hosted by

Protected Planet (Bingham *et al.* 2021). Currently, only 40 countries report PPAs to the WDPA, although PPAs exist in many other countries.

Private Natural Heritage Reserves (RPPNs) in Brazil are also protected perpetually; land use cannot be changed, even by the government, except in exceptional cases. However, RPPNs are not without challenges. The process to create RPPNs is complex and bureaucratic, which can dissuade landowners from taking part. Furthermore, as the government cannot control the location and type of RPPN a landowner decides to create the most important or representative habitats for protecting biodiversity may not be protected. Finally, although the government must authorize a management plan and can inspect RPPNs, there is no obligation for landowners to involve third parties, such as local communities, in managing the land (Ladle *et al.* 2014).

2.3.4 Integration and coordination

Global recognition of the ecological, political and economic connections among sectors and resources has led to a rise in integrated governance approaches that seek to break down silos and promote coordination across sectors. Examples include environmental policy integration, climate policy integration, integrated landscape management, integrated water resources management, nexus approaches such as the water-energy-food nexus and ecosystem-based approaches (for two examples, see figures 2.7 and 2.8). While such approaches are not new, recent years have seen an increase in legal and institutional mechanisms to implement such approaches at the national and subnational levels.

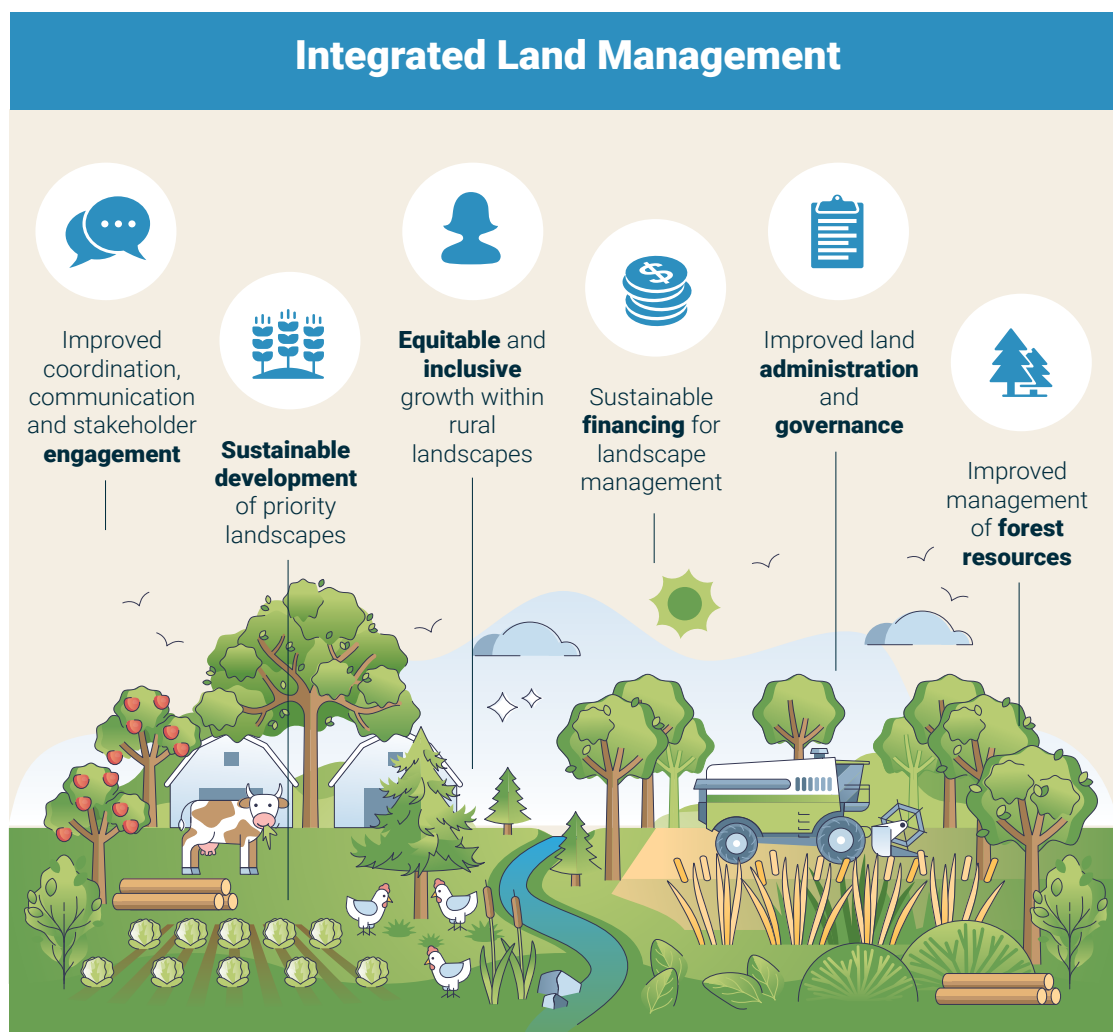


Figure 2.7: Integrated land management (Source: Adapted from Rodrigues De Aquino and Henttinen 2021)

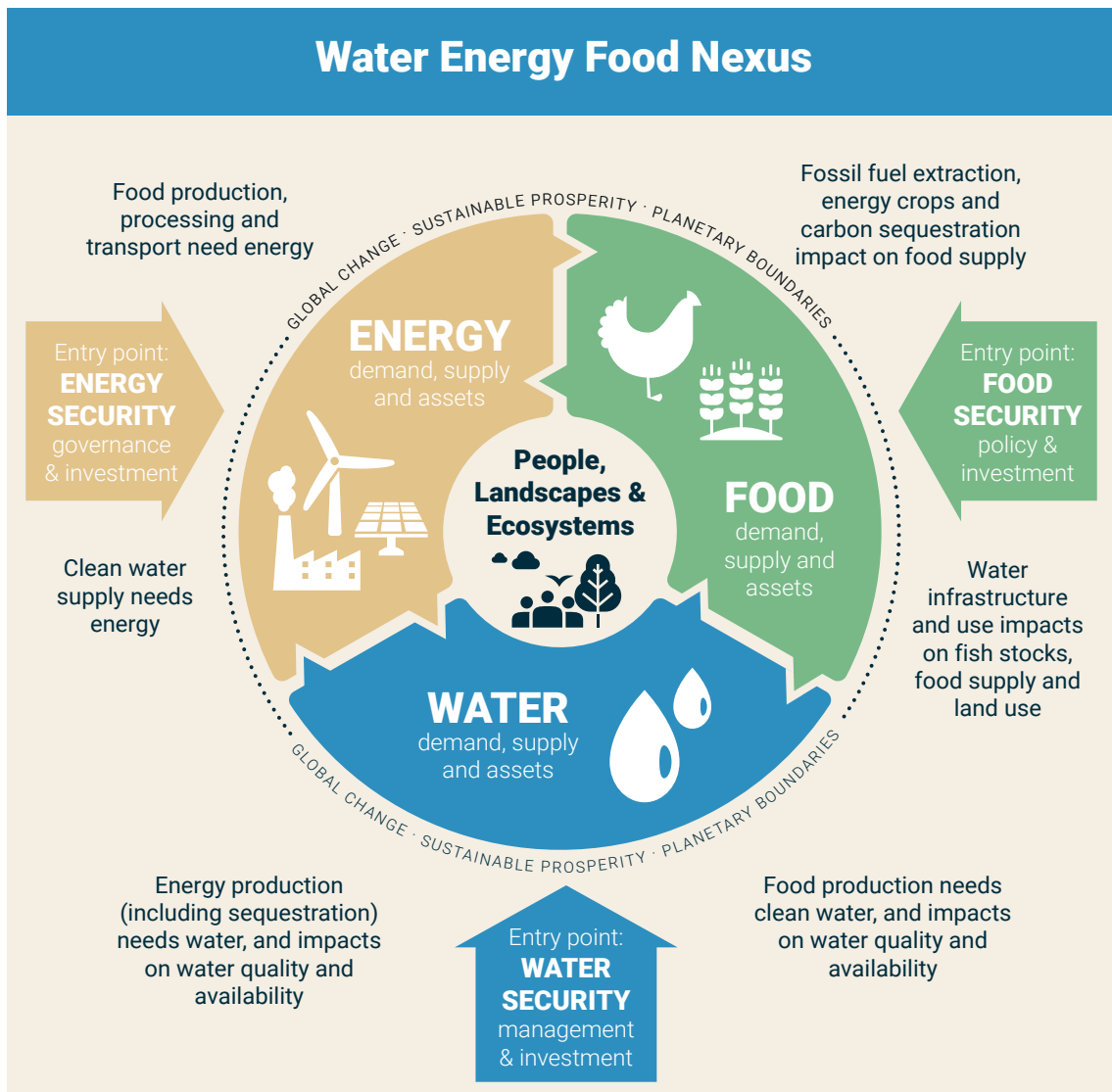


Figure 2.8: Water energy food nexus (Source: Adapted from International Water Association [IWA] 2018)

Integrated approaches form an important part of efforts to achieve global targets related to climate change, biodiversity and sustainable development. The 2019 Global Sustainable Development Report highlighted the need for integrated approaches to achieve the SDGs (Independent Group of Scientists 2019). The Bonn Challenge, a global restoration goal involving commitments by more than 60 countries, promotes principles of forest landscape restoration that highlight connections and balance among ecosystems, sectors and stakeholders (IUCN n.d.). Climate policy integration—the incorporation of climate issues across different sectors—has emerged as a significant pattern in national policymaking (Schmidt and Fleig 2018). The One Health approach takes a multi-sectoral approach to health, recognizing the interdependence of humans, animals and ecosystems. The FAO has identified One Health as a Programme Priority Area of its Strategic Framework 2022-2031, and countries such as Rwanda and Ethiopia are beginning to incorporate One Health into their institutions and programming (FAO 2022).

Integrated approaches differ depending on their scope and goals, but they share certain characteristics:

- They seek to create, protect or enhance multiple environmental, social and economic benefits by addressing linkages among sectors and ecosystem functions;
- They must navigate trade-offs while negotiating competing claims among multiple stakeholders;
- They operate at different scales of governance and often require multidisciplinary expertise and engagement (Arts *et al.* 2017; Ros-Tonen, Reed and Sunderland 2018; van Oosten, Uzamukunda and Runhaar 2018).

Often integrated approaches are place-based, in that they take a specific landscape, basin or other geographic area as the defining unit. Other approaches are defined by a specific concern, such as climate change, which they seek to address and integrate across policy areas.

Integrated approaches can significantly bolster environmental rule of law. They can improve the consistency and coherence of legal frameworks and resolve conflicts and ambiguities that create problems for implementation (see box 2.5). They can ensure that competing interests are considered and that all stakeholders are heard, while sharing benefits to give everyone a stake in ensuring laws are followed.

At the national level, integrated approaches are realized through requirements and mechanisms for policy harmonization and institutional coordination. This can include development of common principles across sectors or mechanisms for sharing planning information at local and regional levels (Olawuyi 2020). Implementing an integrated approach can require rethinking existing jurisdictional boundaries to recognize a diversity of governance arrangements within a landscape (Ros-Tonen, Reed and Sunderland 2018). In some cases, existing laws and institutions are used as the framework for an integrated approach, while others involve creation of new institutions and laws (van Oosten, Uzamukunda and Runhaar 2018). In practice, fragmented governance structures and institutional silos can block realization of integrated policies, leaving language of integration on paper but unimplemented (Medina Hidalgo, Nunn and Beazley 2021).

Mexico's 2017 REDD+ Strategy adopts a landscape approach, with the objective of a coordinated, coherent, integrated operation of programs and policies (Špirić and Ramírez 2021). REDD+ is a framework created under the UNFCCC for reducing emissions from deforestation and forest degradation. The Mexican Strategy aims to achieve zero net deforestation by 2030, and includes safeguards to ensure transparency, participation, protection of ecosystem services and respect for indigenous and local communities' rights (Mexico 2017). Since its adoption, the strategy has supported improved efficiency and coordination between agriculture and environmental sectors. In 2018, the Ministry of Agriculture started including environmental considerations in the Agricultural Promotion Program's operating rules, such as restrictions on forest land use change. Subnational entities were set up to support participation of municipalities and local agricultural authorities in the REDD+ program, and helped align local level public policies with climate goals (Špirić and Ramírez 2021).

Box 2.5: Implementing integrated approaches for forest landscape restoration in Rwanda

When Rwanda committed to restore two million hectares of degraded and deforested landscapes under the Bonn Challenge in 2011, it was beset by conflicting policies and fragmented institutions. Production targets under the agricultural policy conflicted with the agroforestry goals of the natural resources ministry. The patchwork of regulation allowed companies to follow the rules that worked for them and find loopholes to avoid the ones that did not (van Oosten, Uzamukunda and Runhaar 2018).

To tackle these challenges, Rwanda set up an inter-sectoral task force on forest landscape restoration that brought together high-level staff from the Ministry of Agriculture and the Ministry of Natural Resources as well as district authorities. Members of the task force set up a WhatsApp group to keep one another updated on relevant activities, to avoid overlap or conflict. The task force coordinated the development of a National Agroforestry Strategy (van Oosten, Uzamukunda and Runhaar 2018).

Authorities in Rwanda are also engaging inter-sectorally at the local level. For example, the government of Rulindo District negotiated an agreement with the neighbouring city of Kigali under which the Kigali Water and Sanitation Corporation covers the cost of restoring degraded catchment areas in Rulindo which provide important water resources for the city. Implementation of the agreement is overseen by the Nyabugogo Catchment Committee (van Oosten, Uzamukunda and Runhaar 2018).

The results are promising. As of its latest report in 2019, Rwanda had put over 700,000 hectares under restoration (IUCN 2020).

Strategic environmental assessment (SEA) has emerged as an important tool for integrated approaches to environmental management. Where environmental impact assessment (EIA) addresses impacts on a project-by-project basis, SEA considers the impact of a policy or program, considering cumulative impacts of different projects across sectors and sites (Whitehead, Kujala and Wintle 2017). In Chile, SEA has been required for spatial planning at all levels since 2010. A 2018 analysis of SEA reports showed that they consistently included environmental objectives and considered impacts on ecosystem services (Rozas-Vásquez *et al.* 2018). The Protocol on Strategic Environmental Assessment (Kyiv Protocol) to the UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), which lays out a procedure for SEA, has 33 parties as of 2022. Pursuant to the Protocol, many countries of the UNECE region have adopted or are considering adopting SEA legislation (Espoo Convention 1997; United Nations, Economic Commission for Europe [UNECE] n.d.).

Institutional coordination is an important factor in environmental enforcement. In Malaysia, the Operasi Bersepadu Khazanah (OBK) is a multi-agency, multi-sectoral government task force set up in 2019 to protect Malayan tigers from poachers with the 'Save Our Malaysian Tiger Campaign'. The task force brings together resources from the Department of Wildlife and National Parks and the Royal Malaysia Police, and works closely with state agencies and civil society. In 2020, OBK patrols in protected areas led to 140 arrests and the destruction of 672 wire snares (Save Our Malaysian Tiger Campaign 2021).

2.3.5 Criminalization of environmental offenses

Recent years have seen an increase in use of criminal law to address illegal and unsustainable environmental activities (A/CONF.234/16 2021). Several countries have revised or adopted legislation to increase criminal penalties for environmental offenses or create new categories of environmental crimes. In many cases, these new laws are well-tailored and appropriate responses to a rise in criminal activity that threatens biodiversity at an unprecedented scale. There is, however, a danger of excessive criminalization and militarization of environmental enforcement that can ironically undermine environmental rule of law.

There is a well-documented increase in criminal involvement in environmental violations (Nellemann *et al.* 2016; UNEP 2018a). In 2018, environmental crime was estimated to be the fourth largest criminal area in the world worth an estimated US\$ 90-250 billion per year (UNEP 2018a). This trend has only increased during the pandemic, as criminals have taken advantage of lockdowns and disruptions in government monitoring to increase their activities (UNODC 2020a; Paz Cardona 2021a). Criminal operatives have adopted increasingly sophisticated methods to conduct their business; for example, they post listings for illegally trafficked pets through social networking sites such as Facebook and Twitter, and then negotiate deals through encrypted messaging apps (UNODC 2020a; Cimatú 2021).

There is also increasing recognition of links between environmental crime and other forms of international organized crime. In many countries, criminal groups active in the illegal drug trade have diversified into environmental crime, which can provide lucrative returns (Jones 2021a). Legal actors, often in league with public officials or state authorities, act as facilitators to ensure the smooth operation of illegal logging, illicit cocoa crop cultivation, illegal mining, illegal trafficking in metals and minerals and wildlife trafficking (Jones 2021b). As such, environmental crime comprises a broad range of illegal activities.

In part, the growth in environmental criminal activity has been attributed to lack of adequate legislation and enforcement. Environmental crime has been seen as a low priority for law enforcement and often warranted only minor sanctions, which may have led offenders to see it as low risk and high reward (UNEP 2018a).



Photo: Pexels

Many countries have responded by adopting or strengthening criminal penalties for activities affecting wildlife. In 2021, Colombia adopted amendments to the Criminal Procedure Code to create new criminal offenses and strengthen criminal penalties related to environmental damage (see box 2.6). The Legislative Council of Hong Kong amended the Organized and Serious Crimes Ordinance in 2021 to categorize certain wildlife-related crimes as ‘serious and organized’ offenses, to allow for greater prosecutorial and sentencing power and shift focus to organized criminals and networks instead of carriers and mules (Hong Kong Special Administrative Region 2021). In May 2021, France adopted a circular to consolidate the role of justice in environmental matters, which establishes principles regarding prosecution, penalties and fines, restoration and corporate liability for environmental offenses; it also encourages institutional cooperation and synergies in environmental criminal investigation (France, Ministry of Justice 2021). To this end, the French Minister of Justice announced the creation of environmental criminal investigation officers to be integrated into the French Office for Biodiversity (Idjeri 2021).

Box 2.6: Criminal law reform to address environmental destruction in Colombia

Colombia has emerged at the forefront of the fight against organized criminal groups involved in environmental crime. In 2021, Colombia modified the Criminal Code to criminalize a range of illegal activities including promotion and financing of deforestation, financing invasion of important ecological areas, illegal appropriation of wastelands and wildlife trafficking (Colombia 2021). The inclusion of criminal penalties for financing and promotion of environmental damage illustrates an understanding of links between environmental crime and other forms of organized crime and the need to broaden the spectrum of powers to prosecute these crimes (Kjelstad and Puerta 2019; Jones and Ramírez 2021; Paz Cardona 2021b).

The new law made penalties for environmental crimes more severe by establishing aggravating circumstances and events in cases where, for example, a crime is committed within a protected area; where it is committed against protected species; where it impacts marine, mangrove, seagrass or coral ecosystems; or when it introduces toxic substances into the ground or water (article 338). The law increased imprisonment penalties and fines for environmental offenses by approximately 25 per cent (García Pachón 2021).

The Colombian law includes a provision on a new crime of ‘ecocide’ defined as “the massive damage and widespread serious and systemic destruction of ecosystems” (Colombia 2021). It is punishable by imprisonment from 60-135 months and a fine of up to 18,750 times the current legal monthly minimum wage (article 333).

Before the law was enacted, illegal activities related to deforestation and other environmental damage were prosecuted under the generic crime of ‘damage to natural resources’. As part of the fight against deforestation, the Colombian government launched the military operation Artemisa, which sought to capture illegal loggers in the country’s strategic ecosystems (Ministerio de Ambiente y Desarrollo Sostenible 2021). This military operation was strongly criticized because it focused on the peasants who were carrying out deforestation activities—the weak links in the chain—but it did not reach the large organizations that were behind the illegal activities because such operations require intelligence, capacities, time and concentration of resources (*El Espectador* 2020; Valbuena Leguízamo 2020). The new law explicitly shifts the focus to organized criminal groups, by giving law enforcement and prosecutors the legal tools and mandates to reach the powerful criminal actors responsible for biodiversity loss.

Beyond criminalization of specific environmentally harmful activities, there is a growing push to recognize ecocide as a serious crime. Ecocide has been discussed at the international level for decades, and in the 1990s Viet Nam and the Russian Federation included the crime of ecocide in legislation (Gauger *et al.* 2013; Montaña Sandoval 2021). Ecocide also appeared in the criminal codes of several other countries in the region, including Armenia, Belarus, Georgia and Kyrgyzstan. In recent years, the movement has gained new momentum. In December 2019, speaking to the International Criminal Court, the ambassador of Vanuatu suggested an amendment to the Rome Statute, making destruction of the environment an international crime (Yeo 2020). In late 2020, the Stop Ecocide Foundation convened an Independent Expert Panel for the Legal Definition of Ecocide, which proposed a new definition that could serve as the basis for international developments (Independent Expert Panel for the Legal Definition of Ecocide 2021). The 2021 Colombian Law on environmental crimes created a new crime of ecocide (see box 2.6). In 2023, the European Parliament agreed on a new Environmental Crimes Directive that includes a definition of ecocide that largely follows the proposal of the Independent Expert Panel (OpinioJuris 2023).

Enforcing criminal penalties requires sufficient authority and mandates as well as coordination among different agencies and institutions (UNEP 2018a). Many of the newly adopted laws and regulations on environmental crime include provisions to facilitate investigation and prosecution. In some cases, this leads to the establishment of new units or task forces specifically dedicated to addressing environmental crime. For example, in 2020 the Government of the United Kingdom of Great Britain and Northern Ireland launched the Joint Unit for Waste Crime, a multi-agency task force that brings together environmental regulators and law enforcement agencies to tackle serious and organized waste crime (Environment Agency *et al.* 2021).

Transnational and regional efforts to fight against environmental crime continue to grow, and increasingly take advantage of new technologies for sharing information (Stoett and Omrow 2021). For example, in 2021 the East Africa Association of Prosecutors launched the Forum for Wildlife and Environmental Crimes Prosecutors, a secure platform accessible only to those with credentials, to promote coordination among the different agencies working against environmental crime in the region (Ledger 2021). The Kyoto Declaration on Advancing Crime Prevention, Criminal Justice and the Rule of Law, adopted at the Kyoto Conference on Crime Prevention and Criminal Justice Reform in 2021, recognizes the strong linkages between environmental crime and rule of law, and includes commitments to enhance capacity of law enforcement and criminal justice, promote cooperation and multidisciplinary efforts and responsibly employ new technological tools against transnational crime (A/CONF.234/16). Signatories of the Declaration undertake to promote rule of law by supporting access to justice, fighting corruption and ensuring integrity, impartiality and accountability of institutions.

Prosecuting environmental crimes can be particularly challenging in cases involving corporations. In response, several countries have established specific legal provisions on corporate criminal liability in environmental matters, including Brazil, Sierra Leone, Sweden and Türkiye (UNEP 2018a). The 2021 French Circular to consolidate the role of justice in environmental matters explicitly clarifies corporate liability for environmental crimes, including in cases of mergers and acquisitions, in which case the circular specifies that the acquiring company may be held criminally liable for environmental offenses committed prior to the merger (France, Ministry of Justice 2021).

Problems related to corporate liability are evident, for example, in the fisheries sector, which utilizes complex ownership structures such as shell companies, front companies and joint ventures to both cover up illegal operations and hide ultimate beneficial ownership (Trygg Mat Tracking [TMT] and C4ADS 2020). This creates opportunities for widespread illegal activities tied not just to overfishing and oil



Photo: Unsplash

dumping but also to fraud, bribery, tax evasion, weapons trafficking and human slavery (Norsworthy and Sullivan 2021).

While criminalization of environmental offenses can be an important tool in strengthening environmental rule of law, there is a danger of over-criminalization. This can involve use of heavy criminal penalties disproportionate to offenses, exclusion (sometimes violent) of local communities from conservation areas and activities involving natural resources, and military-style approaches to enforcement. In some cases, governments have employed military-level firearms, counterinsurgency-like strategies and informant networks, and technologies originally developed by the military, among other tactics (Duffy *et al.* 2019). While strong responses to conservation threats are broadly seen as justified, excessive criminalization and militarization is widely criticized as counterproductive and unjust (Goeschl and Jürgens 2014; Stoett and Omrow 2021). Such tactics can alienate local communities, whose cooperation and support is often central to long-term conservation (Duffy *et al.* 2019).

Some researchers have noted a countertrend to the criminalization of environmental law: a blurring of the line between administrative law and criminal law, sometimes referred to as the 'administrativization' of criminal environmental law (Smith, Galarza and Romero 2020). The administrative process can be more agile than the criminal system, allowing administrative sanctions to be more effective in achieving environmental enforcement and actually causing a deterrence factor between violators (Smith, Galarza and Romero 2020). In the European Union, criminal prosecutions are reserved as *ultimum remedium* or *ultima ratio* which means that criminal law sanctioning is reserved as a last resort in environmental law enforcement (Faure 2017). In most Member States, the imposition of administrative fines is cheaper than criminal sanctions due to the low standard of proof required to impose administrative fines, and the administrative track may be able to act more quickly than the criminal sanctioning track (Faure and Svatikova 2012).

2.4 Conclusions

Effective legal frameworks and capable institutions are necessary components of environmental rule of law. Legal frameworks are most effective when they are clear, unambiguous, informed by science and data, fair, gender-sensitive and appropriate to the cultural and social context. Institutional capacity goes beyond educated personnel to include clear mandates, adequate financial resources, sufficient authority and appropriate coordination with other institutions across sectors and jurisdictional levels.

During the past two years, COVID-19 has had an unmistakable impact on laws and institutions. The global response to the pandemic has highlighted the problem of prioritization of environmental issues in times of emergency. Many countries have rolled back environmental protections or enforcement in the interest of health, safety and economic damage control. At the same time, growing global awareness of climate change and public protests connecting racial inequality with environmental justice clearly juxtapose the long-term damage from environmental degradation with the short-term health and economic crisis. Ultimately, there is growing consensus that the solution to these problems can be mutually reinforcing, in the form of initiatives to build back better.

Technology has the power to revolutionize environmental enforcement as well as environmental policymaking itself. However, such technologies raise questions relating to transparency, bias and privacy, which have the potential to undermine their effectiveness. Effective implementation of such technologies, as any new governance initiative, will require public participation and safeguards to protect rights.

Recent years have seen a continuation of complementary trends of integration and decentralization of environmental governance, with positive implications for environmental rule of law. Integration of environmental policies across sectors and fields and coordination of relevant institutions and agencies can strengthen implementation and avoid loopholes and conflicts that jeopardize compliance. Devolution of environmental authority to local governments, communities and indigenous peoples can result in more legitimate and culturally appropriate norms and enforcement measures, increasing effectiveness as a result.

Finally, at a time when police brutality against minorities has spurred global protests (see chapter 3), increasing criminalization and military enforcement tactics in the environmental space are a potential cause for concern. At the same time, there is a need for a strong response to organized criminal groups involved in illegal wildlife trade and environmental degradation. Indiscriminate increases in criminal penalties for unsustainable activities are not effective, and can result in disproportionate punishment of low-level offenders, often racial or ethnic minorities. Instead, a focus on targeting leaders of organized criminal groups through strategic and coordinated investigations, informed adjudication and appropriate sentencing can create an important deterrent to environmental crime.

Environmental laws and institutions constitute the essential framework for environmental rule of law. They are not enough in themselves to ensure positive environmental outcomes. Unjust or ineffective environmental laws can undermine environmental rule of law.

3. Civic Engagement

Three recent global trends have impacted civic engagement:

1. The COVID-19 pandemic shifted how the public accesses information and participates in environmental decision-making
2. Technology is shaping multiple aspects of civic engagement
3. Racial and social justice movements are driving more inclusive participation

Photo: Pexels

3.1 Introduction

Active involvement of diverse actors and interests is an essential component of environmental rule of law. Civic engagement encompasses sharing of information between the government and the public, participation by civil society organizations and other stakeholders—including academics, businesses and media—in decision-making processes, and political action by citizens to influence the adoption and implementation of policies and laws. Civic engagement is a dynamic process that supports inclusive, consultative and accountable decision-making and implementation.

The 1992 Rio Declaration on Environment and Development established three pillars of civic engagement in environmental decision-making in Principle 10: (1) broad access to information concerning the environment that is held by public authorities; (2) realistic and meaningful opportunities to participate in decision-making processes related to the environment; and (3) effective access to judicial and administrative proceedings (UNGA 1992). These pillars of civic engagement have continued to develop through a combination of international and regional treaties, environmental norms and standards, and a growing body of national constitutional and other legal provisions (UNEP 2019). Access to information, public participation, and access to justice in environmental matters are now widely recognized as key environment-related rights, collectively referred to as ‘access rights’ (see chapter 4). These access rights are related to procedural rights, although procedural rights are often considered broader; for example, also encompassing freedom of expression and free, prior and informed consent. This chapter addresses access to information and public participation, and access to justice is addressed in chapter 5.

Civic engagement connects to all branches of government. Lawmakers and executive actors must ensure sufficient avenues and opportunities for civic engagement, and enshrine protection of access rights in law, policy and administrative action. Judges are often called upon to protect rights to information and to participation, and increasingly need to address strategic litigation against public participation (see box 3.1).

Environmental defenders play a critical role in ensuring and enhancing civic engagement. This report uses the term ‘environmental defenders’ to mean individuals and groups working to conserve and restore the environment and protect environment-related rights.² These defenders interrogate environmental laws and policies that may promote or enable the unsustainable exploitation of natural resources, and examine State, corporate and other conduct that may have detrimental consequences for the environment and human lives and livelihoods. However, environmental defenders increasingly face intimidation, killings, assault and persecution. The status of environmental defenders, and how this relates to the environmental rule of law, is explored in section 3.2.2 and box 3.3.

Civic engagement supports environmental rule of law in several ways (Sisilana 2019; Akerboom and Craig 2022). First, public consultation in environmental rulemaking processes informs the design of laws and regulations, resulting in legal frameworks and tools that are better tailored for effective implementation because they take stakeholder knowledge and interests into account, while public consultation in permitting processes for specific projects can help mitigate negative impacts. Second, laws and regulations that result from an inclusive and participatory process are perceived as more legitimate, contributing to increased compliance. Third, ensuring access to environmental information allows civil society groups and individuals to act as watchdogs, creating accountability for both government institutions and private corporations. Fourth, actively engaging civil society in monitoring environmental

² Other institutions and individuals use similar terms. For example, the UN Human Rights Council uses the term ‘environmental and human rights defenders’ (EHRDs), which refers to human rights defenders working in environmental matters and is defined as “individuals and groups who, in their personal or professional capacity and in a peaceful manner, strive to protect and promote human rights relating to the environment, including water, air, land, flora and fauna.” (A/71/281 2016). Notably, few groups in South and North America, Africa, Asia, and Europe self-identify as environmental defenders or environmental human rights defenders (Menton and Le Billon 2021). The Escazú Agreement uses the term ‘human rights defenders in environmental matters’ which it defines in Article 9 as “persons, groups and organizations that promote and defend human rights in environmental matters” (*Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean* 2018). Global Witness uses the term ‘land and environmental defenders’ (Global Witness 2021).



Photo: UN

quality, e.g. through the employment of citizen science, can help to identify violations and policy and implementation gaps. Finally, sharing information and involving the public in environmental governance raises awareness about the nature of environmental threats and can help entities and individuals understand the legal requirements with which they must comply. Taken together, civic engagement enhances environmental rule of law by enabling citizens to help identify environmental problems and opportunities, set priorities, inclusively develop policies and monitor progress on implementation, thereby holding institutions and private actors accountable and upholding fundamental rights.

Participation in decision-making is important in developing plans and solutions to respond to environmental challenges and undertaking compliance and enforcement actions. A 2019 empirical study demonstrated that participation in decision-making is strongly related to the achievement of the SDGs. Looking at the influence of five different aspects of governance on the achievement of the SDGs for 41 high and middle-income countries, the study found that participation was positively correlated with goals on poverty, health, inequality and partnerships (Glass and Newig 2019). Effective participatory governance encourages sustained public dialogue and greater accountability by public agencies, which can result in the reform of policies and practices that better reflect the needs of a community. However, participatory systems that fail to implement public input can reinforce existing imbalances of power (Lee 2021). Participatory governance improves environmental rule of law by promoting the inclusive, stakeholder-driven development of laws and policies, a practice that improves trust and can result in more just application and enforcement of laws and policies.

Environmental education supports effective civic engagement and helps citizens understand their rights and duties, so that they can decide when and how to engage (Parra *et al.* 2020). Environmental education also helps people individually and collectively to identify causes of environmental problems, assess potential solutions and deploy appropriate measures (Ardoin, Bowers and Gaillard 2020).

3.2 Status

This section reports on the national status of access rights and environmental defenders. The data is drawn from the UNEP dataset 2021. While the dataset attempts to be globally comprehensive, it was not possible to get data for all countries. For the complete methodology used, see chapter 1.

3.2.1 Rights of access to information and public participation

As of 2021, more than 70 per cent of UN member states (138 of 193) have legal provisions at the national and/or sub-national level that specifically guarantee the right of access to information, rights of public participation in decision-making, and/or access to justice in matters concerning the environment. These rights are widely guaranteed across all regions of the world (see figure 3.1). Collectively, these are referred to as 'access rights'. In many cases, access rights are explicitly guaranteed in framework environmental statutes; sometimes, all three elements are guaranteed, while other countries focus on access to information and participation. For example, provisions in Montenegro's Law on the Environment explicitly establish the right of citizens to be informed about the state of the environment and guarantee a right to participation in environment-related matters (Montenegro 2008). In other laws, environmental participation or access to information are referred to as guiding principles or objectives, rather than established as rights or state obligations. Creating and safeguarding access rights in environmental matters reinforces the commitment of the government to just and equitable administration of laws, fostering trust and an atmosphere of compliance and respect for rule of law.

Box 3.1: Strategic lawsuits against public participation

While access to justice is discussed at length in chapter 5, it is important to highlight the role of the judiciary in keeping channels of civic engagement open and protected. This includes judicial alertness to strategic lawsuits against public participation (SLAPP), which are legal actions brought with the intention of limiting public participation by burdening groups or people with the cost of litigation (Environmental Defenders Office *et al.* 2022). SLAPP litigation is designed to exploit judicial procedure and undermine the freedoms of assembly, association and expression with the goal of intimidating and undermining the credibility and reputation of human rights defenders (Gilbert 2018). In this context, judges stand in a uniquely powerful position that greatly influences whether environmental defenders, civil society organizations and concerned citizens are able to exercise their rights and are protected from abuse of procedure.

The High Court of South Africa held that defamation suits brought against six environmental activists by an Australian mining company and its local subsidiary were an abuse of the legal process (Centre for Environmental Rights 2021). The presiding judge held that the mining companies' defamation claims were an example of SLAPP and ruled for the activists, stating that the legal system cannot be weaponized by corporations against citizens and activists (*Mineral Sands Resources & Zamile Qunya v. Christine Reddel, Tracey Davies and Davine Cloete (SLAPP Exception Application)*, Case No. 7595/2017). The decision is important for civic engagement because it demonstrates that an alert judiciary system can detect, deflect and deter SLAPP and the threat of SLAPP as a weaponizing tactic. Thus, the judiciary can actively work to uphold the procedural and substantive rights of human rights defenders and civil society organizations.

UNEP and other institutions have developed tools to empower judges and others to recognize and effectively address SLAPP litigation. For example, *Environmental Courts and Tribunals: A Guide for Policy Makers* (UNEP 2022f) provides guidance for judges to understand and identify SLAPP suits, as well as potential approaches and remedies. And the Business and Human Rights Resource Centre maintains a searchable database of SLAPP suits (Business & Human Rights Resource Centre [BHRRC] n.d.).

In some countries, access rights specific to the environmental context are included in national constitutions. For example, the Constitution of Albania affords everyone the right to be informed about the condition and protection of the environment (Albania 1998). Similarly, the Constitution of Thailand (2017) guarantees the rights of access to information and public participation in decision-making related to activities affecting the environment. Elevating civic engagement to a constitutional level signals its importance and the commitment of the government to good governance. Many additional countries have general constitutional procedural rights, such as a right of access to governmental information, that are not specific to, but can be applied in, environmental matters. For example, South Africa and Mexico do not have constitutional rights to access information, public participation or access to justice explicitly in the context of environmental matters, but they do have general constitutional access rights, as well as legislation on access rights in the environmental context (UNEP 2019).

An increasing number of countries have signed or ratified international agreements that specifically safeguard procedural environment-related rights, such as the Aarhus Convention and Escazú Agreement (see section 3.2.2). For these protections to be effective, the agreements are often translated to domestic law, either through direct effect or via implementing legislation.

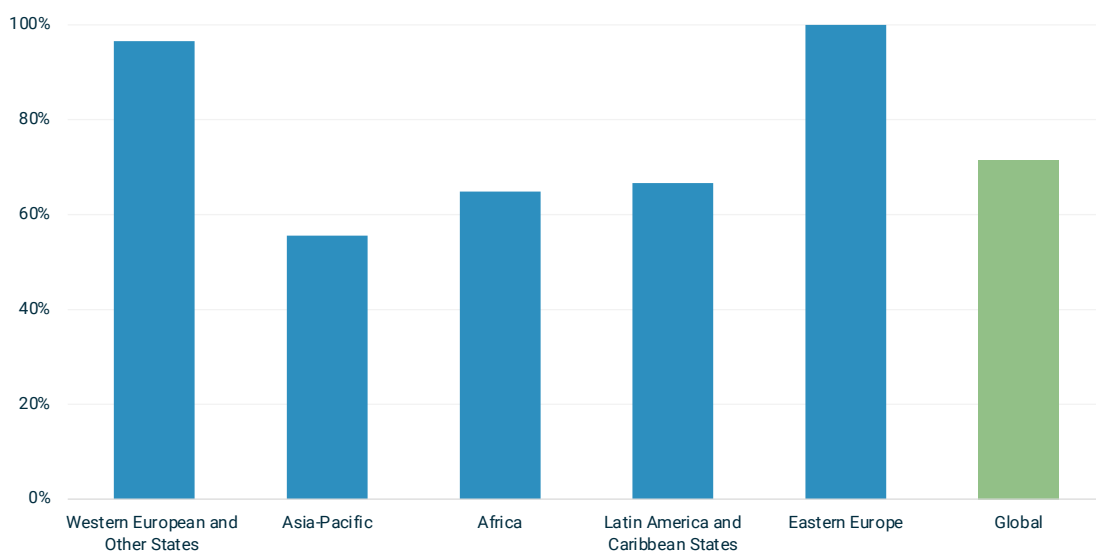


Figure 3.1: Percentage of countries with legal provisions on access to information, participation, and/or access to justice in the environmental context (2021) (Source: UNEP dataset 2021³)

Courts play an important role in protecting and enforcing access rights. For example, in Brazil, a court in the State of Maranhão granted a preliminary injunction to suspend all environmental licenses issued by the State for projects, whatever their purpose, that are located in areas of traditional communities or that impact them, directly or indirectly, and that were not preceded by informed consultation. The decision took into consideration the intergenerational principle, article 5 of the Rio Declaration, article 6 of the ILO Convention No. 169, and constitutional and national provisions (Estado do Maranhão Poder Judiciário Comarca da Ilha de São Luís Vara de Interesses Difusos e Coletivos 2021). Courts can also act to protect environmental activists against strategic lawsuits against public participation (box 3.1).

³ For the full methodology regarding the UNEP dataset, see discussion in chapter 1.

Box 3.2: Access to information and copyright law in Trinidad and Tobago

A 2021 judicial decision from a Trinidad and Tobago court, in a case initiated prior to the pandemic, demonstrates the way that courts can ensure access to critical environmental documents and emphasizes the legal importance of a right to environmental information. In 2018, a lawsuit was initiated because environmental impact assessments (EIAs) were not fully viewable online—the public was only allowed to access a limited percentage of the entire document. The defendant asserted that their full disclosure was limited by domestic copyright laws. Without this information, the citizenry was left uninformed about the potential environmental impacts of proposed projects, and therefore could not adequately participate in any decision-making processes.

In a 2021 decision, a High Court judge found that the full text of the EIAs must be made public to ensure the public has an opportunity to participate in the rulemaking process (*Fishermen and Friends of the Sea. Environmental Management Authority, Case Claim No. CV 2020-01251*). The court recognized the importance of the right to access these environmental documents and through its decision reiterated that the public right to know prevailed over copyright law, particularly for documents used in governmental decision-making.

3.2.2 Environmental defenders

Recent years have seen an increase in environmental activism, especially in the context of local communities affected by development projects. For example, in the Amazon and Andes, there has been a rapid growth of activism by local communities affected by industrial mining, oil and gas extraction, timber operations and large-scale agriculture, as well as hydropower development (Robins and Fraser 2020). The environmental defenders who spearhead this activism often put themselves at risk of harassment, violence, legal challenges and other threats.

Threats to environmental defenders are increasing in intensity and frequency (see box 3.3), and include intimidation, killings, assault, criminalization of activity and defamation, among others. Attacks on environmental defenders are often intended to have a chilling effect on voices and activities that advance environmental rule of law. The attacks target both the individual defenders and their families and seek to dissuade others from speaking out.

Between 2012 and 2021, at least 1,733 environmental defenders from 61 countries were murdered, an average of a killing nearly every two days (Global Witness 2022). In 2021 alone, 200 environmental defenders were killed globally (Global Witness 2022) (see figure 3.2). In many instances, the persons killed were seeking to protect specific ecosystems or were connected to indigenous peoples' groups attempting to protect their traditional lands from resource extraction and environmental degradation by state or private actors. This corresponds with recent studies that have noted the prevalence of 'high intensity' environmental conflicts in Asia and Latin America. One study found that defender killings are more likely to happen in countries that have a high level of foreign direct investment and mineral extraction, have large indigenous populations, experience frequent protests, have a large share of young males, are highly dependent on forest rents, have high population density, have high homicide rates and/or are neither strong democracies nor autocracies. It found some evidence that middle income countries have higher numbers of killings than very poor or high-income countries (Le Billon and Lujala 2020).

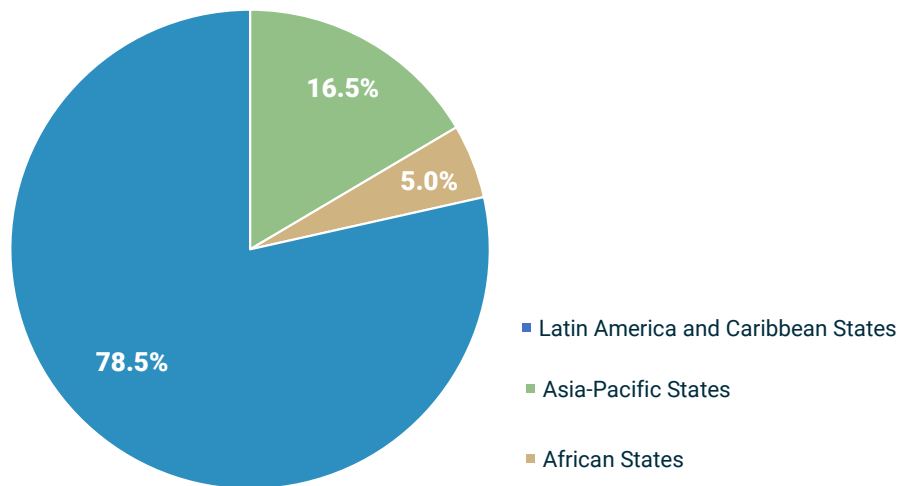


Figure 3.2: Regional distribution of environmental defenders killed in 2021 (Source: Based on data from Global Witness 2022)

Explicit legal protections for environmental defenders reinforce the rights to participate and demonstrate to the citizenry that defence of the environment matters. Twenty-five per cent of countries (48 of 193) have enacted specific protections for environmental defenders, either through domestic law or through ratification of international agreements such as the Escazú Agreement (see figure 3.3) (UNEP dataset 2021). In some cases, domestic laws provide for the registration of certain environmental organizations, which are then formally recognized as possessing certain rights and privileges which can help protect them. In a few instances, states have provided specific procedures for such defenders to seek redress and protection, or enacted specific laws or declarations in support of environmental defenders, such as Peru’s Protocol to Guarantee the Protection of Defenders of Human Rights (2019).

Laws protecting defenders are important, but may not be sufficient—especially if the laws are not consistently enforced. Environmental defenders were killed in ten countries that had laws specifically protecting defenders. The region with the highest number of environmental defenders killed, Latin America and the Caribbean, is also the region with the most countries (19) to have enacted laws or ratified international agreements protecting environmental defenders.

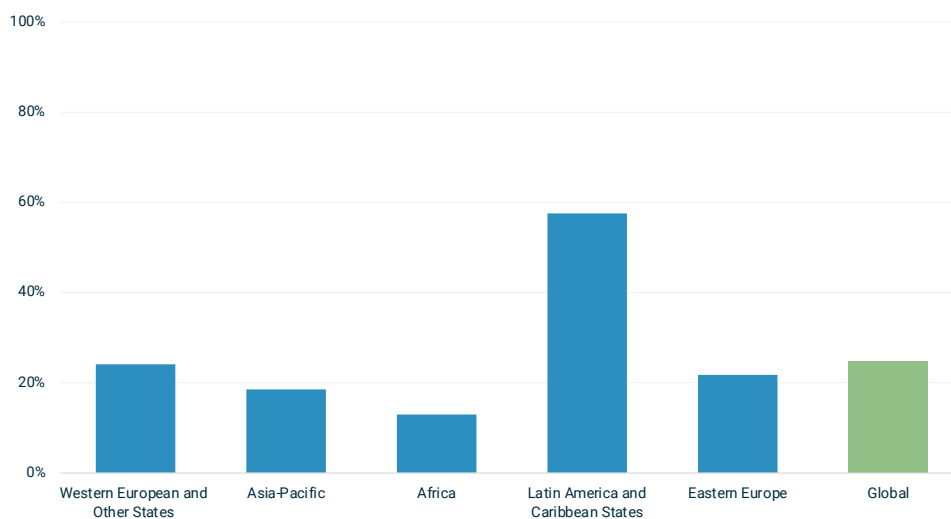


Figure 3.3: Percentage of countries with laws at the national level or obligations set out in regional or international treaties that explicitly protect environmental defenders or promote their activities (2021) (Source: UNEP dataset 2021)

Box 3.3: Environmental defenders

Increase in lethal attacks

Global Witness reported 212 killings of environmental defenders in 2019 (Global Witness 2020). In 2020, that number increased to 227 killings (Global Witness 2021). Front Line Defenders found that in 2020, 331 human rights defenders (287 men and 44 women) promoting social, environmental, racial and gender justice in over thirty countries were killed (Front Line Defenders 2021b). Sixty-nine per cent of these defenders worked on indigenous peoples' rights and environment-related rights. Forest Peoples Programme recorded 110 murders of indigenous leaders and human rights defenders in 2020, 26 more than in 2019 (Forest Peoples Programme 2021).

Of the 227 lethal attacks on environmental defenders in 2020 reported by Global Witness, all but one occurred in the Global South. One in three attacks targeted indigenous peoples, and one in ten of the victims were women (Global Witness 2021). Women who are active environmental defenders are also at higher risk of sexual violence, targeting of children or other family members or delegitimization of their work (Tran *et al.* 2020; Rodrigues, Campos and Santana 2022).

In many cases, violence against land and environmental defenders is linked to their work in specific environmental contexts. Global Witness reported that of the 227 land and environmental defenders murdered in 2020, 17 killings were linked to the mining and extractives sector, 17 to agribusiness, 17 to illegal crop substitution, 23 to logging, 20 to water and dams, 6 to poaching, 1 to fishing and 2 to roads and infrastructure (Global Witness 2021). 112 killings were not confirmed to be linked to a specific sector. For cases where Global Witness could identify a specific ecosystem for which defenders were killed, 71 per cent involved protection of forests from deforestation and industrial development.

Legal obstacles to the work of environmental defenders

Environmental defenders can face myriad legal obstacles. These range from the imposition of disproportionate fees and bail conditions to threats of dissolution (Environmental Defenders Office *et al.* 2022). Moreover, the legal system may be abused through strategic litigation against public participation as a method to further pressure environmental defenders (see box 3.1). A lack of accountability for governments and corporations that engage in surveillance tactics also limits civic engagement and speech and free association. For example, climate activists and cybersecurity experts in Australia claim that the government and corporations use facial recognition software and metadata to track protestors and may include them in law enforcement databases, which can deter peaceful and legal activity (Environmental Defenders Office *et al.* 2022).

Counteracting violence against defenders

Some organizations and governments have adopted and are implementing measures to counteract the violence against environmental defenders. Examples of this include regional treaties, such as the Escazú Agreement (see section 3.2.3), as well as national laws, such as Mongolia's Law on the Legal Status of Human Rights Defenders that codifies protection for human rights defenders and went into effect in July 2021 (Office of the High Commissioner for Human Rights [OHCHR] 2021a; Mongolia, Congress of Mongolia 2021). Parties to the Aarhus Convention created the first Special Rapporteur on Environmental Defenders (UNECE 2022a). In addition to providing legal protections for human rights defenders, Mongolia's law anticipates adding a new member responsible for rights defenders to the country's Human Rights Commission and creating a committee to advance protections of defenders. Both are the first in their respective regions to explicitly recognize and adopt a framework for protecting those who defend the environment and human rights.



Photo: UNEP

In 2018, UNEP adopted an internal policy on Promoting Greater Protection for Environmental Defenders. The policy takes both a substantive and procedural approach to upholding environment-related rights and opposing the growing wave of violence against environmental defenders and the prevailing impunity with which these acts are being committed (UNEP 2018). A response mechanism is integrated into the policy to provide guidance to UNEP staff on dealing with cases that are brought to UNEP's attention, and to recommend a series of steps that UNEP can take to address the matter. While the response mechanism is not a formal human rights complaints handling mechanism, it provides options for UNEP to speak out on a particular matter brought to its attention through, for instance, social media messaging, formal correspondence with concerned government actors or official principled statements, including those jointly released with other entities of the United Nations (UNEP 2018).

COVID-19 has driven innovation to protect environmental defenders. Sri Lanka's Centre for Environmental Justice regularly offers legal advice to environmental defenders. In response to COVID-19 restrictions, the centre launched an online environmental legal aid clinic to provide urgent legal advice to defenders who could not have an in-person consultation (Centre for Environmental Justice 2021).

3.2.3 Women and environmental advocacy

Women have varied roles as environmental advocates and defenders influenced by intersecting identities of culture, race, class, sexuality, gender identity and education. Notwithstanding their multiple, intersecting identities, women are in a unique position as environmental advocates due to their gendered experiences and knowledge. For example, women often play an important role as guardians of biodiversity and providers of food security and nutrition (The Economics of Ecosystems & Biodiversity [TEEB] 2015), and they experience disproportionate impacts from climate change. As women and girls depend more on natural resources, they are powerful agents for promoting sustainable development and effective responses to climate change (UN Women 2022).

However, there are links between climate change and gender-based violence as a consequence of displacement, resource scarcity and food insecurity. For example, women may need to take longer journeys outside the safety of their home or community to find water, food or fuel, which can put them at greater risk (UN Women and IUCN 2022). Women also face gendered impacts of any environmental

health effects, like social rejection for physical manifestations of harms such as chemical burns (Nyantakyi-Frimpong *et al.* 2016).

Additionally, women's gendered experience of violence informs the advocacy of female environmental defenders, yet their advocacy tends to employ non-violent actions to bolster legitimacy, reject systems that perpetuated previous experiences of violence, and protect women activists from state violence (Tran 2021). For example, in Brazil, indigenous women from the Caru Indigenous Land in the State of Maranhão support and promote environmental and territorial management actions in the defence of their ancestral lands through a group called Guerreiras da Floresta (Instituto Sociedade População e Natureza [ISPN] 2022). They seek to strengthen the defence of Mother Earth. Marcilene Guajajara, coordinator of the Coordination of Organizations and Articulations of Indigenous Peoples of Maranhão (COAPIMA) emphasized "[f]or us, the forest is like our life. We protect it like our mother. We depend on it to maintain our cultural traditions" (Erisvan 2019). In their visits around the Caru's villages, these women discuss the importance of environmental conservation of the forest and ecosystem services that extend to indigenous and non-indigenous people, and explain the importance of avoiding any form of conflict (ISPN 2022).

Gendered knowledge from traditional gender roles also informs advocacy. Since women are often more responsible for unpaid care work, including childcare, they take on more responsibility for creating a healthy environment for their children. Moreover, women's environmental management responsibilities and their domestic roles as providers of food, energy and water also generates knowledge that informs advocacy. As such, environmental advocacy by women has often used maternalistic framings (Tran 2021). Given that women are more often excluded from formal justice systems like political representation, maternalistic framings constitute an important avenue for women-led advocacy (Fotaki and Daskalaki 2021). However, some authors argue that such framings can also constrain environmental advocacy by women by reinforcing exclusion from the public sphere, and thus reinforcing unequal distribution of decision-making power (Cousins 2021; Tran 2021).

In the face of this political exclusion and ongoing environmental conflict, there is a lot of long-term, peaceful grassroots activism led by women (see box 3.4). This kind of 'everyday activism' is often unrecognized by the mainstream, but plays an important role in environmental advocacy worldwide (Tran 2021). For example, women have been prominent leaders of the seed movement in India, which has subsequently laid the foundation for their engagement in biodiversity conservation and climate change advocacy (Shiva 1992; Singh 2020).

Box 3.4: Women-led activism against agrochemicals in pineapple plantations in Costa Rica

Pineapple plantations dominate the landscape of the northern region of Costa Rica, and heavy agrochemical use has contaminated several sources of potable water across the region (Valverde and Chaves 2020). Many believe that this agrochemical exposure is responsible for health issues in rural populations next to the pineapple plantations, such as allergies, respiratory issues and nausea (Cuadrado-Quesada 2020). Women have been most affected as they are generally responsible for finding and distributing potable water in these communities (Sánchez 2020).

Over the years, residents have advocated for access to clean water, for stricter regulation of agrochemical use, and even the closing of noncompliant plantations. This case study illustrates the kind of longstanding environmental conflict where the 'everyday' and long-term activism of women is often seen.

Participation by women activists in the movement against pineapple plantation expansion has been characterized by community organizing, information sharing and the collection of evidence of pineapple company violations (Camacho 2019). One of the women-led organizations leading the movement against over-use of agrochemicals is the National Front of Sectors Impacted by Pineapple Production (FRENASAPP), an organization co-founded and coordinated by Guácimo community leader, Erlina Quesada in 2004 (Barraza *et al.* 2013). In 2017, activists requested that the National Environmental Technical Secretariat (SETENA) annul the environmental permit granted to the Del Monte Palma Sur plantation due to lack of proper review (Artavia 2017). In April 2019, FRENASAPP asked the Ministry of Agriculture and Livestock to declare a moratorium on the expansion of pineapple cultivation and for stricter enforcement of agrochemical bans (Angulo 2019).

In response to this activism, women activists in Costa Rica have faced backlash in the form of defamation lawsuits, sexual harassment online and blacklisting from future employment (Camacho 2019).

However, the Costa Rican government has taken several recent actions. In 2017, SETENA responded to activist requests, annulling the permit given to Del Monte (Ministry of Environment and Energy Executive Decree No. R-0352-2019-MINAE 2019). Additionally, the herbicide Bromacil was banned in 2017 (Executive Decree No. 40423-MAG-MINAE-S) and there has been more regulation of agrochemical use by pineapple plantations (Valverde and Chaves 2020).

3.2.4 Regional agreements on access rights

There have been important developments in regional agreements on access rights to advance civic engagement, particularly with respect to environmental defenders. In many instances, these regional agreements both draw upon and inform national efforts.

On April 22, 2021, the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) entered into force. The Escazú Agreement was adopted in March 2018 in Escazú, Costa Rica, and has 24 signatory countries and 15 ratifications, as of July 2023. Like the Aarhus Convention, the Escazú Agreement is a binding international agreement that expands upon the general protections provided in principle 10.

The Escazú Agreement is the first international treaty with provisions on environmental defenders. It calls upon national governments to guarantee the right of access to justice in environmental matters and to ensure the safety of human rights defenders in environmental matters (articles 8 and 9). Among other provisions of the Agreement, Parties commit to “take appropriate, effective and timely measures to prevent, investigate and punish attacks, threats or intimidations that human rights defenders in environmental matters may suffer while exercising the rights set out in the present Agreement” (article 9(3)). The Agreement further enshrines the public’s rights of access to environmental information and of participation in environmental decision-making processes (articles 6 and 7).

In most instances, the countries that have ratified the Agreement (and enabled it to enter into force) have yet to adopt national legislation implementing the Agreement—especially as it relates to environmental defenders. There is global interest in the Agreement and its pioneer protections of environmental defenders, as evidenced by interest in the topic at UNFCCC COP26, where the Escazú Agreement was highlighted in five organized events (CEPAL 2021b).

The first Conference of the Parties of the Escazú Agreement adopted Decision I/6 on human rights defenders in environmental matters (UN Economic Commission for Latin America and the Caribbean [UN ECLAC] 2022). This decision reaffirms the critical importance of guaranteeing an enabling environment for the work

of persons, associations, organizations or groups that promote environmental protection, by recognizing and protecting them, per article 4.6 of the Agreement. The decision also recalls article 15, which states that the Conference of the Parties shall examine and promote the implementation and effectiveness of the Agreement and shall examine and adopt the measures needed to achieve its goal. The COP established an open-ended ad hoc working group on human rights defenders in environmental matters, to allow for meaningful public participation, especially by Indigenous Peoples and local communities, endeavouring to include persons or groups in vulnerable situations. The decision also included a commitment to hold an annual forum on human rights defenders in environmental matters with recognized specialists.

The Third Extraordinary Meeting of the Parties to the Aarhus Convention (held June 23-24, 2022), operationalized the Convention's rapid response mechanism to address the situation of environmental defenders (UNECE 2022b). It also appointed the first Special Rapporteur on Environmental Defenders (UNECE 2022a).

3.3 Trends

Three recent global trends have impacted civic engagement. First, the COVID-19 pandemic shifted how the public accesses information and participates in environmental decision-making. Second, technology is shaping multiple aspects of civic engagement. Third, racial and social justice movements are driving more inclusive participation.

There has also been an increase in public and civil society participation in governance through, for example, co-management of protected areas. This is discussed in chapter 2.

3.3.1 New challenges related to the COVID-19 pandemic

The COVID-19 pandemic has had profound impacts on environmental rule of law. Beyond the devastation on people's health, livelihoods and well-being, the pandemic led to restrictions on public participation and access to justice in many countries, reductions in or even avoidance of consultation procedures, reduced or deferred inspections and relaxed some environmental quality requirements. The pandemic also impacted resource allocation and agency budgets, which led to delays in processing information access requests (United Nations Educational, Scientific and Cultural Organization [UNESCO] 2020). At the same time, there have been some positive developments, such as the opening up of engagement opportunities through a transition to remote and virtual meetings, and the increased capacity and capability of online resources (see box 3.5). For more on the technology-specific aspects of this trend, see section 3.3.2. Additionally, since the outbreak of COVID-19, cases of gender-based violence intensified with restricted movement and social isolation measures made it impossible for women to leave abusive households while being cut off from normal support services (UNODC and UNDP 2020).

The COVID-19 pandemic has substantially affected one of the key approaches for effective public engagement: the use of multiple methods of engagement. In early 2020, countries and cities throughout the world enacted measures to contain the COVID-19 pandemic that included restricting movement and closing public spaces and institutions. In many cases, there was a failure to adhere to consultation procedures, with public participation opportunities often being postponed or denied at the national and local levels. At the international level, many events were postponed, including the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP26), the 15th Conference of the Parties to the Convention on Biological Diversity (CBD COP15) and the final scheduled Intergovernmental Conference on Marine Biodiversity in Areas Beyond National Jurisdiction (BBNJ IGC4).

In response to COVID-19, countries suspended public administration and engagement processes that brought people together, including hearings, meetings, parliamentary sessions and consultative



Photo: Unsplash

engagements (Hale *et al.* 2021; Norheim *et al.* 2021). For example, in Long Beach, California, United States of America, public meetings were held without public comment for multiple months in an effort to mitigate the spread of COVID-19 (Ruiz 2020). Similarly, the Department of Environmental Protection of Pennsylvania (United States of America) cancelled three public hearings about a contested natural gas pipeline in Philadelphia. While the citizens opposed to the project were under stay-at-home orders, the pipeline won a waiver to continue construction, despite previous orders to shut down due to the pandemic (Pontecorvo 2020). The Canadian province of Ontario eliminated requirements for public consultation on projects affecting the environment during the pandemic emergency, while Alberta (Canada) decided without public consultation to open the Eastern Rocky Mountains for open-pit coal mining (Nyekwere 2020). A survey from Tigers Alive and WWF found that community engagement was stopped in 75 per cent of the 40 protected and conserved areas in tiger range states during the pandemic (Waithaka *et al.* 2021).

Many countries enacted measures that had the effect of limiting access to information and public assembly. Typically issued as a way to curb the spread of the virus, these actions also resulted in the closures of public offices, the suspension of distributing paper copies of government newspapers and restrictions on political gatherings (Hale *et al.* 2022). Suspension of environmental monitoring and reporting requirements, or reduced enforcement of such requirements, also impacted access to environmental information in several countries (see chapter 2). A move to virtual proceedings limited access for many people who lacked access to adequate technology (see section 3.3.2.4).

The pandemic also affected the capacity of civil society to participate in environmental governance. Donations to environmental non-profit organizations dropped in 2020, as fundraising events were postponed or cancelled. One study that surveyed over 400 general charity organizations in 125 countries found that 96 per cent were negatively impacted by the pandemic, and one third would be forced to close within 12 months (CAF America 2020). Another found that over 80 per cent of non-profits were suffering financially in 2020 and over two-thirds had to cut back on programs (Charity Navigator 2020). These financial hardships affected the ability of environmental organizations to effectively engage in environmental decision-making, implementation and enforcement (Nyekwere 2020).

COVID-19 drove a transition toward virtual public engagement (see box 3.5). Many countries developed and expanded online platforms for participation in environmental decision-making and experimented with virtual meetings. These platforms, meetings and approaches are discussed in detail in section 3.3.2, and such virtual engagement faced challenges and raised questions regarding the digital divide and accessibility. However, involving stakeholders in meeting design and incorporating considerations of language, internet access and other barriers to participation can help make such meetings more accessible (Center for International Environmental Law 2021). In 2020 the Aarhus Convention Compliance Committee issued a recommendation (in response to a request made by Kazakhstan) regarding the application of the Convention's provisions during COVID-19. The committee stated that “even in the case of a crisis such as the pandemic, the binding rights set out in the Convention cannot be reduced or curtailed” (United Nations, Economic Commission for Europe 2021, p. 2). In view of the

Committee, if the usual modalities for ensuring effective public participation in decision-making cannot be used, any alternative means must be considered.

There is growing international attention (e.g. United Nations Conference on Trade and Development [UNCTAD] 2019) to addressing the digital divide—for example, focusing on access to devices, digital literacy and language barriers—and some of this attention focuses specifically on gender aspects of the digital divide (OECD 2018). However, relatively little of this international guidance focuses on or is adapted to the environmental context.

Box 3.5: Making virtual work for all in Nigeria

In response to the COVID-19 pandemic and the related concerns that in-person events could spread the disease, Nigeria's federal government began to interface with the public digitally by creating an online forum for the public to submit written comments in response to draft environmental impact assessment (EIA) reports. The Environmental Assessment Department of the Federal Ministry of Environment also adapted to the pandemic by migrating 'public involvement' sessions to discuss EIAs to online communication platforms such as Zoom. Moreover, proponents of development projects in Nigeria are actively seeking to engage the public by purchasing network data for members of the public who may be adversely affected by proposed projects in an effort to facilitate their participation in the virtual EIA decision-making and implementation process. Although the COVID-19 pandemic has hindered public involvement in environmental governance in Nigeria, evidence indicates that administrative justice concerns may have decreased as government regulatory agencies at the federal, state, and local levels began encouraging online or virtual public involvement (Bristol-Alagbariya 2021).

The COVID-19 pandemic drew increased attention to the need for transparency in corporate environmental, social and governance reporting. Some have pointed to the relationship between opaque business practices and environmental degradation that can contribute to global health impacts, including potential future pandemics (Hassan *et al.* 2021). Others claim that corporations that were socially accountable during the pandemic were more likely to survive in the context of pandemic-related global economic stress because of stronger brand loyalty on the part of consumers (Fishman *et al.* 2020). Researchers and practitioners have highlighted that, as part of their pandemic recovery efforts, corporations should consider society and citizens as stakeholders in their business and to disclose non-financial business decisions in their reporting (Fishman *et al.* 2020; Hassan *et al.* 2021).

3.3.2 The rise of virtual public engagement

Using technology as a tool for civic engagement is not new. Before the pandemic, the use of technology in the democratic processes of environmental decision-making was expanding, with growth at the international, national and local levels (Pérez 2020). A shift was already underway from physical public participation platforms to virtual spaces where physical participation tools were remodelled and adapted, and innovative facilitation techniques were employed (Elstub and Escobar Rodríguez 2019).

The pandemic accelerated and magnified this trend. Governments responded to the challenges associated with the pandemic by using technology to improve access to information and finding creative ways to deploy technology that opened opportunities for participation. Leveraging these tools can mean more citizens have access to environmental information that can improve transparency and accountability, thereby increasing trust and compliance. These additional modes of engagement can increase participation and improve trust among stakeholders, especially those that may be limited by geographic, economic, familial or other circumstances. Technology can also potentially facilitate increased access to justice and democratization of access to justice (Prescott 2017). This is discussed further in chapter 5.



Photo: UN

3.3.2.1 Digital platforms for information sharing and participation

Online platforms for developing laws and regulations and sharing information related to licenses and permits can facilitate civic engagement. In this way, the public can track proposed policies, draft laws and regulations, and permit applications; peruse and comment on documents; and be involved from the earliest stages of environmental decision-making. Assessing the needs of affected communities and targeting outreach strategies to meet local circumstances can help to maximize engagement. Virtual engagement can thus enhance environmental governance and environmental rule of law by increasing trust and promoting accountability.

With the expansion of laws requiring civic engagement and the growing connectivity of people and communities globally, countries were exploring ways to share information and foster participation online before the pandemic. For example, in 2018, the UN Human Rights Council provided guidelines advocating for more availability for online consultation and opportunity to participate in order to better comply with human rights principles, including gender equality, and help minimize impacts on marginalized individuals or groups (UNHRC 2018 A/HRC/39/28).

The gravity and persistence of the COVID-19 pandemic, however, required identifying, adopting and promoting innovative means, methods and platforms for online engagement on a scope and scale not yet envisioned. Governments tested a number of methods and strategies. These include video and teleconferencing, online seminars (webinars) and social media. In United States of America, many municipalities use teleconferencing or video-streaming services to provide residents with live access to governmental proceedings (National League of Cities 2020). A new law in Netherlands allows municipal councils to use digital meetings to make legally binding decisions. Spain has implemented legislative adjustments to allow local government bodies to use a digital format for their sessions (OECD 2020).

Multifunctional digital communication platforms such as Zoom are broadly used because they support discussion, content sharing and video conferencing presentations on multiple device types (Enwereji and Uwizeyimana 2020). The uptake was dramatic. On December 31, 2019, there were 10 million Zoom users globally every day; by March 31, 2020, that rose to 200 million; by April 21, 2020, there were 300 million (Dean 2022). With 20 million users in November 2019, Microsoft Teams also saw dramatic growth from the pandemic, with 44 million users in March 2020 and 75 million users in April 2020 and 250 million monthly users in July 2021 (Curry 2022).

Online communication platforms can provide a pathway for citizens—including those with family, work or school obligations that may present scheduling barriers to traditional outreach methods—to participate. Moreover, accessibility settings, such as closed captioning or subtitles, can likewise broaden the audience, reach more demographics and ensure all interested stakeholders are consulted in decision-making (Gernsbacher 2015). The Chinese Government has been increasing access to information via the internet since 2019. In early 2019, the Legal Affairs Office website was restructured to make the interaction between government and citizens simpler (Jiang 2020). Website users can identify and learn about draft regulations

seeking public comment (including in the environmental context) and submit opinions online. In Ukraine, the government has provided more measures for public participation in EIAs. These include placing EIA information and procedures on an open access electronic register and a computer program that notifies users of new EIAs as they come in.

Civil society organizations and community-based organizations also reported that virtual platforms provided a way to participate in national, regional and international events and activities that they would otherwise not have been able to attend physically due to costs (Rubinger *et al.* 2020). This includes civil society organizations with limited budgets who could not attend international environmental events or meetings. In 2021, UNEP convened a virtual Asia Pacific Environmental Human Rights Defenders Forum to create a safe space for exchange and support among environmental human rights defenders and enable them to formulate recommendations to address the challenges they face in the region (OHCHR 2021b). Cognizant of the impacts of the digital divide and internet access issues and language barriers, UNEP used interpretation and other solutions to make the virtual event as inclusive as possible. More than 200 active users took part from 30 countries across Asia and Oceania.

These solutions are not a panacea. In particular, some British grassroots organizations have stressed that utilizing digital spaces does not replace engaging in in-person opportunities such as council meetings (Hibbett 2020). Online commenters generally share short statements of approval or disapproval, rather than making deliberative contributions. Often virtual processes fail to attract a sufficient number of participants due in part to technological capabilities, educational background, and capacity to participate in complex deliberations. Inequalities in internet access across countries and stakeholders can lead to exclusion, as discussed in section 3.3.2.4. As more governments adopt this e-democracy model, these issues are becoming more evident (Pérez 2020).

Despite the numerous benefits and opportunities digital communication platforms may have provided to environmental governance during the COVID-19 pandemic, data on its effectiveness and implementation is largely anecdotal, preliminary and as yet inconclusive. Researchers seeking to assess the impact of COVID-19 on public participation in environmental decision-making acknowledged that at the time of writing, their literature review did not reveal a single published article that discussed the impact of the pandemic on EIAs or on the public participation elements of EIAs (Hassan and Megantara 2021). Few documented case studies to date consider the means by which governments have altered the rulemaking process to accommodate online participation or how accessibility to environmental documents such as an EIA improved or diminished because of the pandemic. More research is needed on the specific impacts of the pandemic on participatory environmental governance, especially as national, regional and local environmental authorities begin to determine the future framework by which they will engage with the public on environmental matters in the wake of COVID-19.

Box 3.6: Harnessing blockchain technology to address illegal, unreported and unregulated fishing

Blockchain technology is being used to address a variety of environmental challenges. For example, fishers and other actors across the seafood supply chain such as importers, buyers and sellers are using blockchain technology to address illegal, unreported and unregulated (IUU) fishing and improve traceability in the seafood sector. This technology can be enhanced through public participation.

Blockchain technology uses digital ledgers and algorithms to manage and secure online transactions. As such, it can help to ensure the entire commercial chain from capture to commercial sale, ensuring that consumers are purchasing only legally caught fish.

Blockchain technology can be used across the fishing sector supply chain by using video records on the fishing vessel during harvesting and shipping, and then providing inspection results at the time of landing (Blaaha and Katafona 2020). During the harvesting phase of the supply chain, blockchain can track key data elements such as fishing licenses of flag State vessels, compliance with food safety regulations and permitted catch areas in exclusive economic zones. Once the fish have entered into cold storage or processing (e.g. for products like canned tuna), blockchain technology can improve traceability and confirm rapid lab test results. Finally, retailers and consumers can use digital data to cross-reference the product for consumption.

A pilot project in Indonesia successfully deployed blockchain technology through a mobile app which allowed fishers to geographically tag and register their catch via SMS as a digital blockchain asset (Blaaha and Katafona 2020). On land, suppliers then received the physical catch and confirmed receipt through the app. Then, the catch and its accompanying digital data were transferred to a factory for processing. Critical to this scheme was the involvement of NGOs, who verified for fishers the social and environmental conditions surrounding implementation of the program and whose work demonstrates an effort to balance stakeholder interest in the industry. Finally, retailers were able to use 'smart labels' on the tuna products to convey to consumers the movement of the product through the supply chain. Although this Indonesia-based project attempted to tackle fisheries concerns in the Global South, the use of blockchain platforms is expensive and further efforts are necessary to make it cost-effective for artisanal fishers and small-scale fishing companies (Howson 2020).

3.3.2.2 Social media

Government authorities, agencies and institutions are increasingly relying on social media platforms to disseminate environmental information and advertise opportunities to participate in events. These social media platforms range widely, and include Facebook, Twitter, YouTube, Instagram, Snapchat, LinkedIn, WhatsApp, Weixin/WeChat, TikTok, Douyin, Pinterest and Reddit (Mallick and Bajpai 2019). Social media has enabled and empowered users to discuss issues such as environmental degradation, plastic pollution and climate change and to call for government transparency, accountability and enforcement of environmental law at the local, regional and international levels.

Engagement through these social media platforms tends to advance civic engagement with environmental protection (Roshandel Arbatani, Labafi and Robati 2016; Zhang and Skoric 2018; Simionescu *et al.* 2020). Online platforms encourage and depend on users developing meaningful and personalized connections with substantive issues and then sharing these messages within their networks. As a result, the personalization of environmental protection can strengthen one's own sense of connection to environmental issues, which may result in positive behavioural change and nurture participatory action through offline environmental activism (Büssing *et al.* 2019). It can also foster community environmental values. Perhaps as an example of the power of social media to spread awareness and reach broad audiences, on World Environment Day in 2021, in partnership with Indian government agencies and NGOs, UNEP helped launch two campaigns (Not Your Medicine and Sad Emojis) on social media platforms which reached 120 million people in India (BestMediaInfo Bureau 2021).

Diverse online networking platforms represent a new forum for the public to access and engage government agencies on environmental news and developments. For example, the Department of Forestry, Fisheries and the Environment for the Republic of South Africa posts content on its Facebook, YouTube, Twitter and Instagram accounts related to environmental topics such as marine plastic pollution, desertification and fisheries and offers ways for the community to get involved in

events such as World Oceans Day and World Wetlands Day. Similarly, the National Environment Agency of Singapore posts content on its social media account pages advocating for recycling and using reusable containers (National Environment Agency n.d.). The Environmental Protection Authority of New Zealand shares informational flyers and posters about chemical regulation, toxic and hazardous substances, the e-waste industry and development projects across the country through Facebook (Environmental Protection Authority n.d.a). The Environmental Protection Authority of New Zealand also posts links on Twitter, alerting the public when the agency is accepting public submissions on projects or regulations or projects concerning products, substances and organisms (Environmental Protection Authority n.d.b).

NGOs also interact directly on social media with their membership and online supporters to reinforce their mission, drive public opinion and advance their environmental objectives (Jacqmarcq 2021). Some of these NGOs have tailored environmental messaging on social media to unique place-based concerns affecting local and regional communities. The Environmental and Social Development Organization in Bangladesh shares content across its social media networks on topics such as plastic pollution, renewable energy, soil pollution and environmental justice (Environmental and Social Development Organization n.d.). In Uganda, the Advocates Coalition for Development and Environment (ACODE) regularly shares on Twitter and Facebook environmental news and updates on the organization's efforts to promote the rule of law and civic engagement on environmental matters in the country (Advocates Coalition for Development and Environment [ACODE] n.d.a; ACODE n.d.b; ACODE n.d.c) Recently, ACODE shared on its Facebook page a link to a YouTube documentary which details the organization's work to implement a project that aims to promote the inclusion of women and youth in the governance of natural assets at the national and subnational levels across various Ugandan districts (ACODE n.d.c).

The Ol Pejeta Conservancy in Nanyuki, Kenya partnered with the social app Tinder in 2017 to launch a campaign to protect the northern white rhino from extinction (Ol Pejeta Conservancy 2017). The Ol Pejeta conservancy created a Tinder profile for Sudan, the last known male northern white rhino (who died in 2018), hoping users would swipe right on Sudan's photo and follow the link to donate towards the US\$ 9 million goal to support in-vitro procedures to save the species (Dupere 2017). As of July 2021, an international team of scientists and conservationists working with the Conservancy have successfully implemented assisted reproduction procedures to develop twelve northern white rhino embryos (Ol Pejeta Conservancy 2021). Such efforts do more than raise money; they also raise awareness about the threats facing endangered species, which can increase public support for and compliance with regulations on trade in wildlife products.

Young people have been particularly effective in harnessing the power of social media by liking, sharing and hash tagging environmental information to mobilize in-person protests and demand immediate action on climate change (see box 3.7). Fridays for Future (FFF), a student-led movement that began in 2018 after Greta Thunberg protested for three weeks in front of the Swedish Parliament to bring awareness to the climate crisis, maintains a strong social media presence on Twitter, Instagram and Facebook, regularly connecting with global youth activist-members and country chapters of the organization through hashtags such as #ClimateStrike, #SchoolStrike4Climate and #UprootTheSystem. On 19 March 2021, FFF organized the Global Day of Climate Action. Protesters used the hashtag #NoMoreEmptyPromises in more than 20,000 Instagram posts to share the purpose behind the strike and to demand world leaders divest from fossil fuels, establish binding carbon budgets and promote citizen involvement in climate decision-making (Fridays for Future [FFF] 2021). Indigenous youth are leading initiatives to address environmental challenges by blending Indigenous Peoples' knowledge and practices with new technologies and resourceful networks. For example, Indigenous youth from Navajo Nation in the United States of America have played an important role in amplifying the group's efforts on social media which has helped them raise funds (Van Uffelen *et al.* 2021).

Box 3.7: Environmental influencers

Environmental activists are utilizing social media platforms to educate and mobilize a new generation about the climate crisis (Conlan 2021). Through blogs, videos, voice overs, images and news posts, influencers such as Xiye Bastida and Elizabeth Wathuti (profiled below) have sought to educate their social media audiences on ocean health, the impacts of waste on the environment, sea level rise, the climate crisis, deforestation and many other topics, in the hopes that increased awareness will result in real-world mobilization and action. These individuals are encouraging citizens to engage with decision makers on environmental issues to make their voices heard. They reach a wide audience and provide one pathway to increase participation and promote the environmental rule of law.

Xiye Bastida is a 20-year-old Mexican-Chilean climate justice activist and member of the Otomi-Toltec who has utilized social media outlets to shed light on the climate movement (NPR/TED 2020). Bastida regularly posts content on issues concerning indigenous peoples and environmental and climate justice. Bastida co-founded the New York City chapter of Greta Thunberg’s Fridays for the Future movement. The New York Chapter organized 300,000 youth to strike and spread awareness about the climate crisis (Berger 2021). Bastida also founded Re-Earth Initiative, an international, youth-led NGO dedicated to making the climate movement more inclusive, accessible, and united, by organizing global digital protests, hosting webinars and writing toolkits (Re-Earth Initiative n.d.).

Elizabeth Wathuti, a 27-year-old Kenyan environmentalist and Green Climate Fund Youth Champion, is the founder of Green Generation Initiative. This youth-led non-profit’s mission is to create an environmentally conscious generation by educating and empowering children and local communities to use nature-based solutions to address climate change and food insecurity through school gardens, storytelling and environmental education (Green Generation Initiative 2022). Elizabeth spoke at COP26 in Glasgow and uses social media to highlight the impact of climate change on frontline communities in the African continent and the climate solutions that are coming from these same communities.



Photo: Alan Harvey / UK Government

While there are questions about the effectiveness of virtual activism, evidence to date indicates that social media can rapidly and efficiently reach huge numbers of people, and many are motivated to translate that online enthusiasm into offline action. Some scholars have criticized virtual activism as ‘clicktivism’ or ‘slacktivism’, where engagement with salient issues is not accompanied by offline mobilization but instead accomplished by liking or following with a simple ‘click’ (Büscher 2016). Despite the limitations of social media as public-engagement tools, evidence largely indicates that at the macro-level social media stimulates awareness and activism and at the micro-level, there is a positive correlation between digital activism and protests and other offline engagement (Greijdanus *et al.* 2020).

3.3.2.3 Citizen science

The use of citizen science in multiple areas has increased, a trend that has also accelerated with COVID-19 (Provenzi and Barelo 2020; Posthumus *et al.* 2021; Samuel 2021) and the development of new technologies, such as the Internet of Things, Big Data and Artificial Intelligence (Wyeth *et al.* 2019). Citizen science is “scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions” (OED Online 2022).

Citizen science can empower community members to generate their own data focusing on local conditions, often fills gaps in official data and is an opportunity to reduce dependence on data generated by government agencies or businesses (Moodley *et al.* 2020). The data collected by citizens can enhance environmental rule of law by supporting decision-making processes and assisting in the identification of violations through monitoring air and water quality, biodiversity and other environmental indicators (UNEP 2019). For example, in the United States of America, citizen science has been used in pollution cases, primarily in the areas of air and water pollution, as well as in dealing with toxic waste issues to aid in compliance and enforcement (Wyeth *et al.* 2019).

Participatory monitoring involves community members in gathering environmental data to detect violations and inform regulatory decision-making (see box 3.8). For example, in the Peruvian Amazon, mapping of oil spills by Quechua and Achuar communities has led to stronger negotiating positions and ultimately resulted in sanctions for some companies found to be violating environmental laws (Fernández-Llamazares *et al.* 2020).

Box 3.8: Stopping deforestation with community monitoring

Founded in 2013, the Rainforest Connection (RFCx) project works with partner organizations to deploy acoustic, forest-monitoring technology to stop deforestation. Currently operating in 22 countries on 5 continents (including Indonesia, Brazil and Peru), the project uses solar panels to power recycled cell phones fitted with artificial intelligence software to monitor the activity and biodiversity of forest surroundings. Phones are mounted throughout the forest. The software is designed to listen to the sounds of the forest and send mobile alerts to rangers in the field when unusual sounds are detected, particularly the sounds of chainsaws. This allows the local partners to investigate an issue within minutes, rather than the days or weeks that it may take to detect similar activity through satellite imagery.

The local communities are a part of this monitoring. The application allows anyone to see the bio-acoustic waves collected in real time. When there is an alert, indigenous and local people are well-positioned to ground truth it to determine if indeed there is a violation. This involves people in managing environmental problems like fighting illegal deforestation, and helps promote practices that protect forests. In addition to functioning as a real-time monitoring system against illegal hunting and logging, the devices also allow non-intrusive analysis of the behaviour of the ecosystem (Wolzak 2019; Amaya-Arias 2021; Brooklyn 2021; *El Comercio* 2021; Pérez 2021).

In the United States of America, citizen complaints have been used by agencies to identify potential violations (Emmett Environmental Law and Policy Clinic 2019; Wyeth *et al.* 2019; Suman and Schade 2021). Many citizen science activities can serve this purpose including, for example, volunteers collecting water samples may indicate non-compliance warranting subsequent enforcement action. Moreover, agencies have used new technology to improve the public's ability to report otherwise elusive violations and provide the type of information required to support legal action, such as citizen-submitted photos that form the basis of enforcement actions in anti-idling programs in New York City and Washington, D.C. (Owen and Parker 2018; Environmental Law Institute 2020).

Although authorities increasingly recognize the importance and role of citizen science, there may be legal barriers to its use. For example, there may be requirements to use only data and publications that have undergone formal peer-review processes. Accordingly, in certain countries and contexts, it may be necessary to amend the law to enable the use of citizen science in administrative decisions and judicial processes (UNEP 2019).

In 2016, the United States of America adopted the Crowdsourcing and Citizen Science Act (15 U.S.C. § 3724), which encourages agencies to carry out citizen science and crowdsourcing projects, and provides that federal agencies may fund and utilize volunteer citizen science data to advance their missions (Wyeth *et al.* 2019).

In addition to legislative recognition of citizen science, courts are increasingly recognizing the role of citizen science in environmental enforcement. For example, United States of America federal courts have relied on citizen science in holding companies liable for pollution. *San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics Corporation* (2019) represents a notable example of the use of citizen science in a judicial decision. In the absence of any official governmental records regarding discharges of certain pollutants by a petrochemical company, a civic group organized and collected evidence, including volunteer observations through photographs and collection of samples of plastic pellets, powder and flakes in the water. Their data collection formed the foundation of a lawsuit against the company. The data, which revealed a wealth of evidence of plastic pollution, went unquestioned by both the company and the court and was a determinative factor in convincing the court that the company had violated the conditions of its Clean Water Act permit. In June 2019, a federal judge, on the basis of the citizen-collected data, found the company liable for violating the United States Clean Water Act (*San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics Corp.*, No. 6:17-CV-0047 (S.D. Tex. 2019)). The case is important because it fills a gap between ongoing pollution and institutional enforcement, and uncovers violations that might have otherwise gone unnoticed (Suman and Schade 2021). While it is not the first example of a court admitting this type of evidence, the *Formosa* case does illustrate a novel approach to environmental enforcement in the United States of America by having citizen-collected and submitted evidence play a central role in proving responsibility.

Citizens and regulatory bodies are pushing for greater use of citizen science in the European Union. In Europe, citizen science supports the Nature Directives, EU Pollinators Initiative, as well as environmental compliance and reporting generally (Turbé *et al.* 2019). In 2020, the European Commission published a report on Best Practices in Citizen Science for Environmental Monitoring that sets out recommendations and potential actions to enhance the uptake of citizen science for environmental monitoring (European Commission 2020). Complementing this effort, the Sensing for Justice project fills knowledge gaps by providing research capacity on the ability of civic monitoring to inform environmental litigation (Sensing for Justice 2021). That research is hosted by the European Commission Joint Research Centre, a leading actor on citizen science for environmental monitoring and reporting, and aims to support measures to amplify citizen science's potential for litigation and mediation across the EU (Suman 2020). While these developments demonstrate progress in the incorporation of citizen science into the environmental rule of law, further legal research is needed to determine whether citizen science can be used in environmental

litigation within the EU not only as a source of evidence, but also as a tool to facilitate environmental mediation (Suman 2021; Suman and Schade 2021).

Despite its benefits in promoting data collection and monitoring of environmental quality indicators, there are challenges with the adoption and implementation of citizen science. Some government agencies are hesitant to rely on citizen-generated data due to concerns about data quality, interoperability and consistency. While community-generated data may not meet the rigorous technical standards used by environmental agencies, such data can still add value by broadening the knowledge base, building confidence in the planning process and affording the community a meaningful role in decision-making (Moodley *et al.* 2020). It can also provide impetus for further formal investigations.

There can also be barriers to using citizen science in a courtroom, such as limits on collecting data, privacy concerns and reliability of the information. Assuming citizens can collect the data, there are also challenges when trying to use the data in enforcement actions and in litigation. For example, the United States Environmental Protection Agency has declined to use citizen science data that failed to align with approved methods (Wyeth *et al.* 2019). In the courtroom, the issue largely turns on how the judge characterizes and evaluates the evidence, since the term 'citizen science' does not typically have a specific legal definition in the evidentiary context. Thus, a court has to determine whether evidence from any source, e.g. data collected from a stream by a non-scientist citizen, meets the applicable evidentiary standard. This can create uncertainty for citizen scientists if there is no specific set of court rules expressly addressing citizen science evidence.

The full potential of citizen science for environmental rule of law is still largely unexplored (Turbé *et al.* 2019). To date, there has not been a comprehensive assessment of the impacts of citizen science projects on environmental policy. Recent studies point to the limited number of existing cases, the difficulty in transferring lessons learned from one case to another and the rapid and growing availability of affordable, reliable environmental monitoring technologies that continue to present new and different challenges (Emmett Environmental Law and Policy Clinic 2019; Wyeth *et al.* 2019; Suman and Schade 2021).

As knowledge of the impacts of citizen science grows, there are a growing number of platforms. For example, UNEP (n.d.) launched the World Environment Situation Room Citizen Science Portal, which provides a one-stop knowledge platform on environmental citizen science, with links related to citizen science initiatives and tools related to health, biodiversity, hydro-meteorology and air quality, oceans, pollution and other spheres.

3.3.2.4 Digital divide

The increased use of virtual and electronic forms of engagement has highlighted a digital divide among communities and citizens who do not have access to technology and infrastructure or cannot afford the cost of data. As a result, these communities may be excluded from civic engagement. This impacts people across educational backgrounds, age levels, abilities and social classes (Jiang 2020).

Virtual engagement has demonstrated shortcomings, particularly in vulnerable and poor communities, and in remote areas without widespread access to information and communications technology and/or reliable electricity. The digital divide is an intersectional and multi-dimensional issue that includes both a lack of access and equipment and inequalities in technical skills that are influenced by gender, race, class and age (Aissaoui 2021; Zheng and Walsham 2021). The digital divide is especially pronounced for women in low and middle-income countries, where reduced use of technology combined with increased family and household responsibilities widens disparities in opportunities when access to information about educational and economic resources is accessible online (Zheng and Walsham 2021). This inequality of access is demonstrated by the five-week loss of internet access Tonga faced after a January 2022 volcanic

eruption severed an undersea cable. ‘Thin routes’ like Tonga, where the population is too low to attract investment in cable routes, are unlikely to have affordable backup options (Frost and Glanz 2022). As such, these areas may not be equitably served by virtual-only engagement processes.

Marginalized groups are disproportionately affected in their opportunities to participate in decision-making due to the digital divide (Hochschild 2020). In particular, there has been a significant focus on how young people have relied on internet access to further their education and interact with their communities. However, issues such as scarcity of equipment and internet shutdowns make it difficult for many people to access the tools they need to engage in environmental decision-making, including understanding the underlying information and opportunities for engagement.

In Colombia, for example, the Ministry of the Interior repealed an order that recommended the use of technological tools and virtual channels during mandatory isolation imposed during the pandemic, including during consultations with the country’s ethnic communities (Amaya-Arias 2021). The majority of Colombia’s Indigenous communities live in territories and regions with the highest rates of poverty in the country, and they have extremely limited internet and cellular connectivity, coverage and access to information and communication technologies. These barriers hinder members of marginalized populations from exercising their rights to be informed and to participate in consultations and decision-making practices. The decision to repeal the order followed an extended debate, and it demonstrates the importance of making consultations that are meaningful and responsive to affected communities and their specific circumstances. Ultimately, when using digital technologies to engage people, it is also important to implement measures to effectively engage those on the other side of the digital divide, or risk undermining the overall consultative effort.



Photo: Léa-Kim Châteauneuf

The increased dependence on digital data sharing through social media, despite the notable benefits, has also deepened and exacerbated the digital divide. Although many platforms are free to sign up for, technological and financial barriers hinder access by many to these online forums. As a result, the digital landscape of environmentalism does not accurately represent the entire demographic or voices that are involved or interested in and affected by environmental decision-making.

3.3.3 Growing activism connecting racial, social and environmental justice

Social justice movements across the globe, such as Black Lives Matter (BLM), have expanded to impact civic engagement and environmental rule of law in recent years. These movements have been driven by reactions to racism, gender-based violence and social and economic exclusion. In turn, they have increased attention and focus on issues of environmental justice. Highlighting the disproportionate health, social and economic impacts faced by marginalized communities can help drive more inclusive participation and promote environmental outcomes that are more procedurally and substantively sound, thereby strengthening environmental rule of law.

In 2020, just months after COVID-19 quarantined people in their homes around the world, millions of people took to the streets to show a massive wave of support for the BLM movement (Haworth 2020). Estimated as the largest protest movement in American history, 15–26 million Americans demonstrated across 2,500 towns and cities in the weeks following George Floyd’s murder (Buchanan *et al.* 2020). BLM protests were held around the world, including in Belgium, Brazil, England, Liberia, New Zealand, South Africa and South Korea, among other countries (Kirby 2020).

The BLM movement put a spotlight on systemic racism and environmental justice not just in the United States of America, but around the world (Mullin 2020). Environmental justice in this sense is premised on achieving equal protection from environmental harms and hazards and equal access to environmental decision-making processes for all. Environmental injustices range from exclusion from environmental planning to deliberate attempts to site toxic contamination in communities that have been marginalized, in so-called ‘sacrifice zones’. These sacrifice zones are defined as heavily contaminated areas where residents suffer devastating health consequences and human rights violations as a result of environmental degradation. Examples include the severe air pollution caused by industry in Quintero-Puchuncaví in Chile and the radiation caused by nuclear testing in the Marshall Islands where women continue to suffer from reproductive health problems (UNHRC 2022 A/HRC/49/53).

The Brazilian Black Movement organizations made their voices heard in 2021 at the Glasgow Climate Conference (COP26). In the event on ‘land, territories and the fight against racism in the fight against the climate crisis’, the Black Coalition for Rights together with the delegation of quilombolas, activists and scholars advocated for climate change mitigation policies, zero deforestation and defence of quilombola lands and territories and against environmental racism (Coalizao Negra por Direitos 2021).



Photo: Unsplash

However, incorporating environmental justice principles and strategies into legal frameworks has been a challenge (see box 3.9). Integrating environmental justice into legal frameworks and then mainstreaming environmental justice into environmental governance can strengthen civic engagement and environmental rule of law through stronger participation mechanisms and more robust and coordinated data collection.

Box 3.9: Environmental justice in the United States of America

Long-standing efforts to achieve racial and social equality in environmental decision-making have been reflected in legal efforts to institutionalize and mainstream environmental justice. The legal environmental justice framework in the United States of America, premised on a combination of civil rights law and environmental law, can be traced to Executive Order 12898, signed by President Bill Clinton in 1994. The Order directs federal agencies to integrate environmental justice into their framework, and provides guidance for considering environmental justice issues during agency decision-making. Despite the guidance, critics claim agencies have largely failed to integrate these environmental justice considerations into their practice (Paul *et al.* 2021).

In 2021, Executive Order 14008 provides for a whole-of-government approach to integrating environmental justice into federal decision-making; it focuses particularly on addressing climate impacts. The Order created a White House Environmental Justice Advisory Council (WHEJAC) to address “a broad range of strategic, scientific, technological, regulatory, community engagement, and economic issues related to environmental justice” (United States Environmental Protection Agency [US EPA] 2021). In a 2021 report, the WHEJAC recommended amending Executive Order 12898 so that, to the maximum extent permitted by law, each agency must make achieving environmental justice part of its mission (White House Environmental Justice Advisory Council [WHEJAC] 2021). The WHEJAC is also seeking to hold agencies accountable for incorporating environmental justice by establishing an Interagency Council within one year of the updated Order and every five years thereafter. A primary goal of these efforts is to strengthen participation and collaboration between environmental justice communities and government to address environmental problems.

To remedy injustices and strengthen inclusion in public decision-making, communities have organized environmental justice networks and embraced the notion that ‘we speak for ourselves’ (Youngblood 2019). These communities operate under the principle that a proper understanding of environmental justice must begin with the voices most impacted. Communities traditionally underrepresented in governmental decision-making have developed communication channels, grassroots groups and professional associations with local scientists and public policy makers in an effort to correct these longstanding imbalances (1% for the Planet 2020).

The BLM movement also seeks to increase inclusion of Black and other minority lawmakers at local and national levels (Szetela 2020). Activists believe that if citizens and other stakeholders are elected to government positions, the elite will become less powerful, leading to a more fair, equitable and transparent process and enhancing environmental rule of law (Szetela 2020). This effort to increase diversity and inclusion is also essential to environmental institutions (see box 3.10).

Box 3.10: Diversity, equity and inclusion in environmental institutions

Promoting inclusive hiring practices within environmental institutions is a critical component of ensuring diverse perspectives are represented. This diversity is key at all stages of decision-making, from research to policy development to implementation and evaluation.

Having diverse representation in NGO staff and leadership is important because more perspectives broaden the knowledge of community-specific issues, enhances accountability and amplifies scholarship (Boström and Ugglå 2016). Since environmental issues concern complex problems at multiple levels, the demand for varied scientific and cultural knowledge is crucial to NGOs' success (Boström and Ugglå 2016). Diversity also enhances access to rulemaking for communities of colour since NGOs are often on the forefront of policymaking and litigation. If governments have a greater understanding of the communities that NGOs are representing, they can more effectively create opportunities like public forums and community information sessions that reinforce stakeholder inclusion.

The problem of minority underrepresentation in environmental governance has slowly improved over the past 20 years. According to 2014 data, in the United States of America, minorities comprised only about 16 per cent of the boards or staff of nearly 300 surveyed conservation and preservation organizations, government environmental agencies and environmental grantmaking foundations, and were typically concentrated in less powerful positions within the organization (Taylor 2018). The BLM movement helped grow this number, with significant increases in staff, senior staff and board members by the top environmental NGOs and foundations in the United States of America recorded between 2017 and 2020 (Green 2.0 2020). Analysis suggests that there may also be differences in how male and female minorities are motivated and engaged in natural resource-related jobs (Mejia and Griffis-Kyle 2020).

In addition to problems associated with race and gender (see section 3.2.3), advocates have noted the disproportionate impact of environmental degradation on youth. Approximately one billion children are at extremely high risk of being affected by the climate crisis (United Nations Children's Fund [UNICEF] 2021). Children are more vulnerable to climate and environmental shocks, especially the poorest, most disadvantaged, and those living in fragile contexts. Climate change and environmental degradation exacerbate existing vulnerabilities, increasing the threat of violence against children. At the same time, children and youth have gained prominence as environmental and human rights defenders, increasingly acting at the forefront of climate action worldwide, and using the justice system as a strong and powerful tool to demand climate justice (UN 2022).



3.4 Conclusions

Civic engagement is a crucial aspect of environmental rule of law and will continue to be vital in the context of worsening environmental degradation and climate change. A growing number of countries have laws that ensure access to information, rights of public participation and access to justice. Despite this progress, environmental defenders are faced with arbitrary arrests, violence and death. The adoption of laws and policies protecting the rights of environmental defenders—a relatively recent legislative development globally—can help to ensure attacks on environmental advocates are investigated and prosecuted, and to contribute to non-recurrence of violations.

Three key global trends have impacted civic engagement and environmental rule of law since the first global report. The COVID-19 pandemic, technology and environmental, racial and social justice movements are impacting the way citizens accessed information, participated in public meetings and engaged with governments and institutions. Some of these impacts have been negative, but many are driving enhanced civic engagement.

The COVID-19 pandemic presented significant challenges to the wellbeing and livelihoods of people across the globe. It also reduced the capacity of NGOs and government to engage interested and affected communities in their environmental work which may decrease trust and local support for conservation measures. While the utility of virtual engagement was highlighted by the pandemic, the shortfalls of such engagement combined with the devastating economic and health outcomes of the pandemic presented an overall negative impact on civic engagement and conservation work.

With restrictions on in-person gatherings and offices closed due to the pandemic, operations were often shifted online, or in some cases halted altogether. Virtual engagement platforms became standard, a shift that expanded involvement because people could participate from home, but also presented challenges with digital security and access as many people lacked sufficiently reliable infrastructure and internet to maintain a quality connection. The rise in social media as a driver for environmental engagement and information dissemination has been bolstered not only by governments that maintain social media accounts, but also by activist influencers who have used social media to plan large-scale protests and other actions.

Racial and social justice movements and protests, especially BLM, have driven engagement on environmental justice issues across the world; at the same time, environmental groups have increasingly incorporated racial and social justice issues into their work (Black Lives Matter Global Network Foundation 2020; Westerman, Benk and Greene 2020; Saric 2021; Silverstein 2021). Meaningful public participation and community-led conversation on issues concerning environmental matters can be improved when relevant executive, legislative and judicial bodies augment methods of engaging the public, such as through utilizing diverse online platforms. Extending discourse into virtual spaces may lead to the co-creation of environmental laws and policies, co-governance regimes and effective co-management of natural resources and protected areas with indigenous and affected local communities.

The examples highlighted in this chapter illustrate how countries have responded to these three trends. They also emphasize three broad points. First, it is widely recognized that civic engagement is essential to environmental rule of law and to effective environmental governance more broadly. Accordingly, even as the world faces new challenges—including a pandemic, the digital divide and social reckoning—civic engagement remains a priority. There may be temporary set-backs. Some may try to use these other challenges as a pretext for restricting civic engagement. But ultimately governments, civil society, affected communities and individuals navigate these challenges, innovate and in doing so further expand the scope and impact of civic engagement.

4. Rights

Since the publication of the First Global Report on Environmental Rule of Law (in early 2019), progress around the world to strengthen the rights dimension of environmental rule of law has been characterized by five major trends:

1. Responses to the COVID-19 pandemic
2. Integration of environment-related rights
3. Recognition of the right to a healthy environment
4. Elaboration of rights of future generations
5. Growth of initiatives toward rights of nature



Photo: UN

4.1 Introduction

Rights are among the core components of effective legal systems. They structure interactions between individuals, communities, businesses and governments. They provide legal certainty regarding access to basic services and use of natural resources. They clarify that people must live a life with dignity. Every right creates a corresponding set of legally enforceable duties (Hohfeld 1917). Clearly defined, fairly recognized and well-implemented rights are a requirement for the environmental rule of law.

Environmental protection relies on rights in multiple ways. Human rights to life, health, property, culture, food, housing and privacy, among others, depend on the quality of the natural environment, and are increasingly used to protect the environment. Many countries have adopted constitutional provisions recognizing an explicit right to a healthy environment or rights to access natural resources, such as a right to water (UNHRC 2020a A/HRC/43/54). In 2022, the UN General Assembly recognized the right to a clean, healthy and sustainable environment as a human right, following a 2021 UN Human Rights Council resolution recognizing the right (UNHRC 2021c A/HRC/RES/48/13; UNGA 2022 A/RES/76/300). Rights of access to information, public participation (i.e. access to decision-making processes) and access to justice—collectively referred to as ‘access rights’—strengthen environmental decision-making and implementation of environmental rules and standards. In addition to access rights, other procedural rights—including the rights of freedom of expression and of peaceful association—are also important to the development, implementation and enforcement of environmental laws. Procedural rights also provide a legal basis to ensure that substantive environmental laws and rights are implemented, and as such they are a key enabling condition for the environmental rule of law (Daly 2012). Indigenous peoples’ rights to use and manage the natural resources in their territory and participate in decisions that affect them are strongly connected to protection of the natural environment, as are rights of populations and communities that have been marginalized. Human rights principles of equality and non-discrimination empower women and girls to participate in environmental decision-making on equal footing. Some jurisdictions are beginning to recognize the rights of nature itself through constitutions, statutes or judicial decisions.

This section introduces basic concepts and definitions related to substantive and procedural rights; it then discusses the significance of rights and rights-based approaches for the environmental rule of law. It provides an overview of the status of recognition and realization of specific rights—including national recognition of rights, protection of rights of individuals and groups that have been marginalized and integration of environment-related rights into national and international human rights mechanisms—based on a dataset of indicators developed by UNEP together with the Vance Center and the global law firm White & Case (referred to as UNEP dataset 2021 - see the discussion of the methodology in chapter 1).

The chapter then examines five recent trends related to rights: (1) the impact of COVID-19 on the realization of rights; (2) integration of environment-related rights; (3) recognition of a right to a healthy environment; (4) elaboration of rights of future generations; and (5) growth of initiatives recognizing rights of nature.

4.1.1 Understanding rights

There are a wide range of rights that governments, communities, advocates and others use to protect the environment. They can be substantive or procedural (Fan 2017; Zhu, Wang and Ehemann 2017; Pepper and Hobbs 2020). Substantive rights relate to specific resources and needs, such as rights to life, property, food, water and health. These include both human rights and other rights found in constitutions, statutes and multilateral environmental agreements. Procedural rights relate to processes for making, implementing and enforcing laws, rules and decisions, such as rights of access to information, public participation and access to justice.

Many of the rights are human rights, and there has been substantial progress in understanding the breadth of human rights related to the environment. There have been thematic reports, for example, on the substantive elements of the right to healthy environment including clean air (UNHRC 2019d A/HRC/40/55), a safe climate (UNHRC 2019e A/74/161), healthy ecosystems and biodiversity (UNHRC 2020e A/75/161), safe and sufficient water (UNHRC 2021d A/HRC/46/28), healthy and sustainable food (UNHRC 2021e A/76/179) and non-toxic environments (UNHRC 2022 A/HRC/49/53). Synthesizing the various rights, the Special Rapporteur articulated 16 Framework Principles on Human Rights and the Environment (see box 4.1).

Box 4.1: Framework principles on human rights and the environment

Culminating five years of consultation and research, the Special Rapporteur to the Human Rights Council produced Framework Principles on Human Rights and the Environment (UNHRC 2018a A/HRC/37/59). The principles set forth a range of actions States should undertake, ranging from ensuring a safe, clean, healthy and sustainable environment (principle 1) to non-discrimination (principles 3 and 11) to protecting environmental defenders (principles 4 and 5). Many of the principles are procedural, focusing on information, participation and access to justice.

For each of the Framework Principles, the Special Rapporteur provided sources that included “international agreements and decisions of human rights tribunals, human rights treaty bodies and other human rights bodies interpreting and applying those agreements”; they also include other instruments, such as the 1972 Stockholm Declaration and the 1992 Rio Declaration on Environment and Development.

A growing number of researchers, practitioners and policymakers refer to the diverse rights related to the environment as ‘environmental rights’ (see box 4.2). As this term does not yet have an agreed upon definition, this Second Global Report does not frame the rights discussion around ‘environmental rights’; rather, it focuses on the specific rights that are used to protect people and the environment, referring to them collectively as ‘environment-related rights’.

This chapter focuses primarily on substantive rights. Trends and good practices in relation to access to information and public participation are covered in more detail in chapter 3, while access to justice is discussed in chapter 5.

Both substantive and procedural rights can be created and recognized in international agreements, constitutions, statutes and judicial decisions. As such, different rights have different legal effect. For example, the UN World Water Development Report distinguishes between water rights, which are normally tied to property or land rights and can be temporary, and the human right to water, which is inherently held by every individual and cannot be withdrawn or sold (UNESCO World Water Assessment Programme [WWAP] 2019).

Box 4.2: The emergence of environmental rights

There is a growing trend among researchers and practitioners to refer to the diverse rights relating to the environment as ‘environmental rights’ (Daly 2012; Fan 2017; Zhu, Wang and Ehemann 2017; Gellers and Jeffords 2018; Giunta 2019; Kotzé and Grant 2019; May and Daly 2019; Mesa Cuadros 2019; Pedersen 2019; Reynolds 2019; Fitzgerald and Spencer 2020; Ojo 2020; Pepper and Hobbs 2020; Townsend 2020; UNEP and OHCHR 2020; Gönenç 2021; Ryan, Curry and Rule 2021; Gómez-Betancour *et al.* 2022). In November 2022, a search for the term ‘environmental rights’ on Google Scholar yielded 46,300 results; a similar search on ResearchGate yielded 1,000 publications.

While the term has been used in different contexts, it is still emerging and evolving. There is, as yet, no clear, globally agreed upon definition. Often, environmental rights include rights of both humans (individually and communally) and non-humans (i.e. the rights of nature). They also include both substantive rights (such as the right to a healthy environment) and procedural rights (such as the right to participate in environmental decisions). Moreover, environmental rights may include both rights that are framed as applying specifically in environmental contexts (such as the right of access to environmental information) and other rights that are framed more broadly but directly relevant to environmental contexts (such as the right of access to information generally).

One of the reasons for using the term ‘environmental rights’ is to recognize that rights come from various sources, including those that are recognized as human rights (such as the right to a healthy environment and the right to water), constitutional rights, statutory rights and rights granted by international environmental instruments. Current discourse around environmental rights builds on years of work on the nexus between human rights and the environment. However, it is important to note that the concept of environmental rights goes beyond the sphere of international human rights laws to encompass rights grounded in environmental agreements, international labour law, international norms related to indigenous peoples, domestic environmental statutes and national and subnational constitutions. While human rights are inherently anthropocentric, environmental rights also are often understood to include rights of nature.

The right to a healthy environment has grown into a centrepiece of the development of environment-related rights, encompassing procedural rights of access to information, participation and justice, as well as substantive components relating to clean air, a safe climate, healthy and sustainably produced food, safe, sufficient water and adequate sanitation, non-toxic environments and healthy ecosystems (UNHRC 2019c A/HRC/43/53).

Due to their varying origins of environmental rights—both at the level (international, regional, national and subnational) and in the type of legal instrument (human rights, multilateral environmental agreement, constitution and statute)—it is important to note that different jurisdictions will recognize different environmental rights and they may accord certain rights different legal effect.

At the inter-governmental level, the term ‘environmental rights’ was first agreed in 1993 as a concept for further consideration and development as part of the second Montevideo Programme (HC A/48/25). Ten years later, UNEP Governing Council Decision 22/17 called on the UNEP Executive Director to support the protection and advancement of environmental rights. States have used the term ‘environmental rights’ routinely in international discussions, particularly within the framework of human rights. Since 2010, the term ‘environmental rights’ has been used in the Universal Periodic Review reports adopted by the Human Rights Council (e.g. UNHRC 2010a A/HRC/13/15; UNHRC 2010b A/HRC/14/7; UNHRC 2013 A/HRC/24/7; UNHRC 2012 A/HRC/21/3; UNHRC 2014 A/HRC/27/13; UNHRC 2019b A/HRC/41/15). The term environmental rights has been used at the national and subnational level in court decisions and discussions around constitutional provisions (Kotzé and Grant 2019).

4.1.2 Significance of rights for environmental rule of law

Clear, fair and consistently implemented rights are a prerequisite for environmental rule of law regardless of the nature of the right: substantive and procedural rights; human rights, statutory rights, and constitutional rights; rights of people and rights of nature. Environmental rule of law problems arise where:

- Rights are unclear or ambiguous, or rights established under different legal systems conflict;
- Rights are discriminatory or unfair, as when groups that have been marginalized are systematically denied rights that are granted to other groups;
- Rights are not consistently implemented or enforced; or
- There is limiting language that could frustrate implementation of the rights (Jeffords 2013).

A rights-based approach to environmental protection and sustainable development uses a rights framework to achieve environmental aims, strengthening environmental rule of law. This approach seeks to empower rights-holders to claim their rights and build the capacity of duty-bearers (especially governments) to protect and fulfil these rights (UNEP 2019).

Invoking rights can provide access to courts, tribunals, investigative bodies and other established mechanisms for strengthening implementation of environmental law. At the national and subnational levels, a rights-based approach harnesses the power of judicial systems to protect environmental interests and provide a check on legislative and administrative processes. Enshrining the right to a healthy environment and other rights in constitutions can make courts more likely to defend environmental laws, ensure lawmakers consider the environmental impact of new laws and regulations, encourage governments to enact stronger environmental laws and increase public involvement in environmental governance (Boyd 2021). Recognition of rights can create additional pathways for access to justice and open new types of remedies (Pepper and Hobbs 2020). Recognition of new kinds of rights-holders, such as future generations and nature itself, can expand the potential for using rights to advance environmental rule of law by providing a basis to bring claims in cases where it may be difficult to prove significant current harm to identifiable living human claimants. This is evident in the spate of cases brought on behalf of future generations in the context of climate change (see box 4.3).

At the international level, connecting environmental challenges to human rights can open access to human rights mechanisms such as regional tribunals, human rights treaty bodies, Human Rights Council Special Procedures and the Universal Periodic Review. These human rights mechanisms can be more powerful and prominent than processes originating within the sphere of environmental law, and accessing them can create an additional layer of accountability, promoting environmental rule of law.

Using a range of rights and rights-based approaches can help promote a more holistic approach to environmental management and ease perceived tensions between human and environmental interests. By casting the need for environmental protection and sustainable resource management as a right, and by expanding the group of rights-holders to include future generations and nature, a rights-based approach can build on existing mechanisms and frameworks to reinforce environmental rule of law.

While rights are an important tool for protecting humans and the environment, they are not a panacea. In some cases, regulatory approaches that are able to continually balance multiple uses, backed by procedural rights to ensure fairness and accountability, are more appropriate than expansion of substantive rights. This is particularly evident in the case of rights to natural resources, such as water or land. For example, although the human right to water is generally understood as guaranteeing water

for household use (and in some cases for producing food), there is discussion of potentially expanding this right to include a right to water for agriculture (Morgera *et al.* 2020). This could have implications for the sustainability of the water resource if not handled carefully and with consideration for ecological requirements (Grönwall and Danert 2020; Hildering 2020; Morgera *et al.* 2020).

If water for agriculture is a human right and climate change decreases the water available to a country, it could be difficult for a country to reallocate water from agriculture to meet the household needs of urban centres. International human rights law does not allow sacrificing the rights of some to meet the rights of others. If, however, water for agriculture is a property right, a government could expropriate agricultural water rights (paying just compensation) and reallocate as necessary. Both human rights and property rights rely on rights-based approaches, albeit with different rules related to their potential abrogation. Accordingly, while a rights-based approach is important to environmental rule of law, and environmental rule of law also requires effective utilization of regulatory systems and other approaches.

Recognition of rights alone is not enough to ensure environmental sustainability. Many countries that have adopted environmental provisions in their constitutions continue to struggle with environmental degradation due to lack of adequate legal frameworks, good governance and capacity to implement such rights (Kotzé and Grant 2019; Ojo 2020; Pepper and Hobbs 2020; May 2021). Similarly, in some wealthy nations, the constitutional right to a healthy environment has not prevented unsustainable activities, such as continued



Photo: Unsplash

fossil fuel exploitation and excessive levels of consumption. Likewise, recognition of environment-related rights by courts has not always led to environmental improvement (May 2021). At the same time, some states succeed in achieving some degree of environmental protection without constitutional rights to a healthy environment, instead relying on safeguarding the environment through statutory and regulatory frameworks which are well implemented and fairly enforced (Pepper and Hobbs 2020).

Rights are widely recognized as a powerful tool for realigning national and international priorities to emphasize environmental issues and providing means of redress to vulnerable populations including indigenous peoples (Kotzé and Grant 2019). Rights are particularly important to indigenous peoples. The vast majority of indigenous peoples' organizations call for human rights-based approaches. For example, the International Indigenous Forum on Biodiversity advocates for a human rights-based approach that centres on respect for indigenous land, traditional knowledge, and informed consent in the Global Biodiversity Framework and conservation generally (International Indigenous Forum on Biodiversity [IIFB] 2022).

An emerging body of empirical research has found that recognition of environment-related rights correlates to positive impacts on environmental outcomes, given the right conditions (Boyd 2012; Jeffords 2021). Researchers have linked the existence of a constitutional provision on rights to a healthy environment to better scores in the Sustainable Development Index (Jeffords 2021). In a 2018 analysis, researchers found that national recognition of procedural rights was related to improved access to water (Gellers and Jeffords 2018). Qualifying these analyses, a 2020 study found that the constitutional recognition of a right to water on its own had no significant impact on access to water. Only as part of a governance system with robust rule of law was recognition of a right to water found to result in significant improvement in access to water resources (Schiel, Langford and Wilson 2020). Where political will and enforcement is lacking, recognition of environment-related rights alone likely does not lead to improvements in environmental outcomes (May 2021). Nevertheless, there are many examples of court cases in which the right to a healthy environment has been used to protect the environment, and there appears to be a growing trend to invoke constitutional rights both when advocates bring cases and when judges decide them (see section 4.3.3).

These findings reinforce the conclusion that the power of rights to create meaningful change depends on governance and implementation. Just as environmental rule of law depends on the realization of certain rights, full realization of those rights depends on environmental rule of law.

4.2 Status

Rights related to the environment and relevant to the environmental rule of law are widely recognized at the national and international levels. This section provides a snapshot of the growing recognition of these rights, protection of rights of individuals and groups that have been marginalized and integration of environmental issues in human rights mechanisms. Indicators related to access rights and environmental defenders are discussed in chapter 3.

4.2.1 Recognition of rights

As of 2023, over 160 countries recognize a right to a healthy environment at a regional, national or subnational level.⁴ The UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment reports that over 100 countries have

⁴ The Report of the UN Special Rapporteur on good practices on the right to a safe, clean, healthy and sustainable environment reports that 80 per cent or 156 of 193 UN Member States recognize a right to a healthy environment (UNHRC 2019c A/HRC/43/53). That report included countries that have ratified regional treaties such as the Aarhus Convention and the Arab Charter on Human Rights which refer to a human right to a healthy environment but excluded countries that only recognize the right at the subnational level. In contrast, the current dataset includes only states where such a right is applicable domestically, either through national legislation or court decisions or through a monist system providing for direct incorporation of international law into national law upon ratification. It also includes countries in which a right to a healthy environment is guaranteed through subnational constitutions but not at the national level, such as Canada (where the right is recognized in five provinces, including Ontario and Quebec) and Bosnia and Herzegovina (where the right is explicitly recognized in the constitution of the Republic of Srpska but not in the constitution of the Federation of Bosnia and Herzegovina).

recognized the right to a healthy environment explicitly or implicitly in their national constitutions (A/HRC/43/53 2019). Most of these constitutions recognize a substantive right to a ‘good’, ‘healthy’, ‘clean’ or ‘non-polluted’ environment;⁵ many also provide for procedural rights to information, participation and/or access to justice in environmental cases (Fan 2017). Constitutions of some countries establish environmental duties of the state and its citizens, even if they do not provide for a right to a healthy environment (Boyd 2012; Pepper and Hobbs 2020). For example, the constitution of Estonia states that “Everyone has a duty to preserve the human and natural environment and to compensate for damage caused to the environment” (article 53). The constitutions of more than 40 countries include environmental issues as national policies or goals (Fan 2017; UNEP 2019). In a number of states, courts have interpreted other legal provisions—such as the constitutional rights to life or health—as necessarily implying the existence of a right to a healthy environment.

Several subnational states, territories and regions recognize a right to a healthy environment. Subnational constitutions around the world, including in, *inter alia*, Argentina, Brazil, Canada, Ethiopia, Germany, India, Iraq, Mexico, Netherlands, Philippines and Switzerland also include environmental provisions (UNEP 2019; May and Daly 2019). For instance, article 206 of the Constitution of the State of Acre in Brazil states that “Everyone has the right to an ecologically balanced environment, with the Public Power, together with community, defending and preserving it for present and future generations” (Brazil, State of Acre 1989). The right to a healthy environment may also be recognized at the subnational level through other legislation, not necessarily constitutions. For example, Ontario’s 1993 Environmental Bill of Rights recognizes the right to a healthful environment (Preamble, article 2(1)).

In 2021, New York State in the United States of America adopted an amendment to its constitution providing that “[e]ach person shall have a right to clean air and water and a healthful environment” (New York State Constitution, article I, section 19, amended 2021). New York joined Pennsylvania, Montana, Illinois, Massachusetts and Hawaii in recognizing constitutional rights to the environment. It is noteworthy that except for New York, the other five American states adopted their constitutional environmental provisions in the 1970s. Moreover, several other American states are considering adding constitutional rights to the environment after four decades of adopting, implementing and enforcing environmental statutes and regulations. Increasingly, state courts are applying these provisions; for example, in 2020, the Montana Supreme Court applied its state constitutional right to a healthy environment to invalidate a mining exploration license and uphold the ability of trial courts to issue equitable relief in cases involving the constitutional right to a healthy environment (*Park County Environmental Council v. Montana Department of Environmental Quality* 2020).

Most countries that guarantee procedural rights constitutionally contain a companion provision that guarantees a substantive right to a quality environment. Moreover, access rights often focus on information, participation and access to justice specifically in environmental matters. Some procedural rights such as non-discrimination tend to be more universally framed. And a number of countries provide access rights beyond the environmental context (for example, through freedom of information laws). In many situations, procedural rights appear designed to complement substantive rights related to the environment.

Several regional and international agreements and human rights instruments recognize the right to a healthy environment. These include the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention 1998), the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement 2018), the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador 1998), African Charter on Human and Peoples’ Rights (African Charter 1981), ASEAN Human Rights Declaration (2012) and the Arab Charter on Human Rights (Arab Charter 2004). In addition

⁵ May (2021) and the Enviro Rights Map report 84 countries whose constitutions include an explicit human right to the environment. In addition, Enviro Rights Map shows 34 countries whose constitution include procedural rights related to the environment.

to reinforcing the national protections, these instruments are important in providing environmental protections through rights to a healthy environment in countries that may not yet include those rights in their constitutions or legislation (see figure 4.1).

International legal instruments advancing the rights of individuals and groups that have been marginalized, such as women, youth and indigenous peoples, often include obligations and rights related to the environment. Under the Convention on Elimination of All Forms of Discrimination Against Women (CEDAW), Member States are obliged to ensure that women have rights to enjoy adequate living conditions, including water (article 14). The International Labour Organization (ILO) Convention concerning Indigenous and Tribal Peoples in Independent Countries (ILO Convention 169) stipulates that member states must take measures to protect and preserve the environment of indigenous peoples' territories and recognize their rights over natural resources pertaining to their traditional lands (articles 7 and 14). The Convention on the Rights of the Child requires countries to consider the risk of pollution in relation to the child's right to health (article 24) and direct education of the child to, among others, the development of respect for the natural environment (article 29).

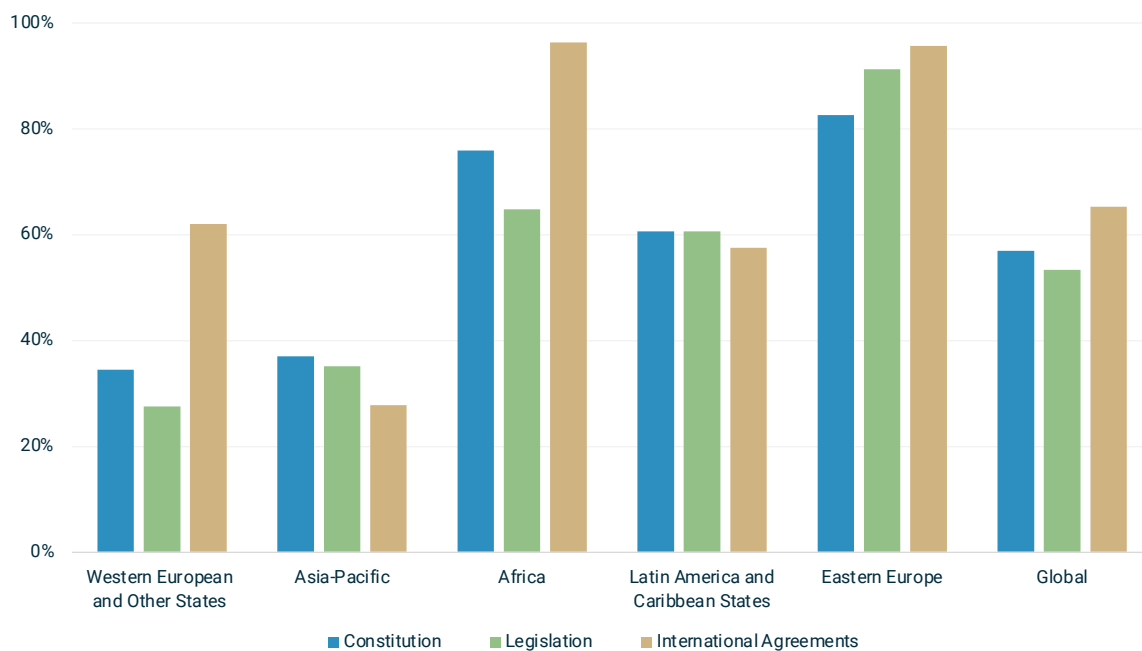


Figure 4.1: Percentage of countries that recognized the right to a healthy environment through constitutions, legislation and international agreements (Source: Based on data from UNHRC 2019c, A/HRC/43/53) Note: Several countries recognize a right to a healthy environment through multiple means.

Cases involving the constitutional right to a healthy environment have been adjudicated at least in 76 countries. These include recent cases in Benin, Brazil, Chile, Colombia, Costa Rica, Czechia, Ecuador, Estonia, Fiji, France, Kazakhstan, Kenya, Norway, Mexico, Pakistan, Philippines, Ukraine and Zambia (UNEP dataset 2021).

The number of countries consistently recognizing and implementing a right to a healthy environment in practice may be lower than the above figures suggest. Many countries that recognize a right to a healthy environment in constitutions or legislation have yet to litigate a case. The lack of judicial adjudication may simply mean that rights are realized through other means and institutions, such as through legislative or administrative processes. However, there may also be barriers to enforcement of environment-related rights. Constitutional provisions on the environment may be ambiguous as to the content and justiciability of the right, and judges may be cautious about being the first in their country to issue a decision (Fan 2017; Pepper and Hobbs 2020). Litigation to protect environment-related rights can be expensive, as can government measures to realize those rights (Pepper and Hobbs 2020). In some countries where a right to a healthy environment has been recognized by courts, cases have been reversed or not implemented, while others (such as in Nigeria and the United Kingdom of Great Britain and Northern Ireland) that are party to an agreement that mentions a right to a healthy environment do not recognize that right as enforceable in domestic law (May 2021).

Courts around the world continue to draw on established human rights and constitutional rights (such as rights to life, health, property and privacy) in cases involving environmental harm (Pepper and Hobbs 2020). For example, in 2021, the High Court of the United Kingdom of Great Britain and Northern Ireland found that the Environment Agency's failure to address pollution from a landfill site would constitute a violation of rights to life and to respect for private and family life under the European Convention on Human Rights implemented through the national Human Rights Act (*The Queen (on the application of Mathew Richards) v. Environment Agency* 2021). The Court issued a declaratory judgment that the Environment Agency was legally obligated to implement the recommendations of Public Health England to reduce toxic emissions.

As of 2023, at least 30 countries have already proposed and/or given legal recognition to nature's rights at the national or sub-national level through legal frameworks or judicial decisions (Harmony with Nature 2023). In Ecuador, rights of nature are incorporated in the national constitution, while in New Zealand, these rights are enacted in national legislation. In other instances, such rights have been fashioned by courts, enacted as subnational laws or municipal ordinances or enshrined in the bylaws of autonomous indigenous tribes. While still limited to a relatively modest number of countries, official recognition of nature's legal personhood appears to be a novel and growing trend (see section 4.3.5).

Box 4.3: The human right to water

In 2010, the United Nations General Assembly recognized a human right to safe and clean drinking water and sanitation (UNGA 2010 A/RES/64/292). This recognition was the culmination of years of legal development, including multiple Human Rights Council resolutions (UNHRC 2008 A/HRC/RES/7/22; UNHRC 2009 A/HRC/RES/12/8) and General Comment no. 15 of the Committee on Economic, Social and Cultural Rights (UNCESCR 2003 E/C.12/2002/11). In the years since, the right to water has gained widespread recognition at the national and international levels (Lee and Best 2017).

The human right to water encompasses the right to access sufficient, safe, acceptable, accessible, and affordable water for personal and domestic use, without discrimination (UNGA 2016b A/RES/70/169). In recent years, a distinction has been made between the rights to water and sanitation, which "are interrelated, but have features that warrant distinct treatment in order to address specific challenges in their implementation" (UNGA 2016b A/RES/70/169; UNHRC 2018d A/HRC/RES/39/8).



In 2018, the Human Rights Council adopted a resolution promoting a human rights-based approach to implementation following the principle of progressive realization (UNHRC 2018d A/HRC/RES/39/8). The human rights-based approach recognizes the importance of good water governance and effective management to a range of human rights, including rights to life, health and food, as well as rights related to a healthy environment; it utilizes human rights frameworks to promote protection and realization of the right to water (WWAP 2019). Under the principle of progressive realization, countries must immediately meet core obligations to ensure access to the minimum essential amount of water and create an enabling environment of policies and laws and ensure non-discrimination including against women (UNHRC 2020b A/HRC/45/10). States must then use the maximum of their available resources to move beyond these minimum standards (UNHRC 2020b A/HRC/45/10).

In 2020, the UN Special Rapporteur on the human rights to safe drinking water and sanitation reported that progress in implementing the rights was significant but slow. The Special Rapporteur called on states and non-state actors to ensure the inclusion of populations that have been marginalized, particularly in light of the disproportionate impact of COVID-19 (UNHRC 2020c A/HRC/45/11).

In 2019, the African Commission adopted Guidelines on the Right to Water in Africa, which find an implicit right to water in the African Charter on Human and Peoples' Rights' provisions on rights to life and a satisfactory environment (African Commission 2019). The guidelines stipulate that states have an obligation to mobilize resources to fulfil the right to water for personal and domestic use, and to give priority to human needs including subsistence agriculture (guidelines 1, 4 and 12). They adopt a rights-based approach to water management, based on the principles of participation, non-discrimination, access to information, sustainability and accountability, and recognizing the rights of present and future generations (guidelines 7–11, 28). Notably, the guidelines touch on issues of implementation and enforcement, requiring states to promote and protect civil society and build capacity of human rights defenders working on water and sanitation issues (guideline 8.4).



Photo: Unsplash

4.2.2 Protection of rights of individuals and groups

Some states have enacted laws that direct governments and decision-makers to avoid discrimination in environmental decision-making. This is to redress a history of imposing disproportionate environmental burdens on certain individuals and groups, as well as a history of unequal access to land, minerals and other environmental benefits. Due to factors such as ingrained prejudice and systemic barriers to participation, the views and knowledge of individuals and groups who have been marginalized have often been neglected or excluded from environmental decision-making processes. Making environmental decisions on the basis of discriminatory factors is inconsistent with environmental rule of law.

At least 15 countries have enacted non-discrimination laws specifically directed at environmental issues, in addition to general legal protections against discrimination that many other countries have adopted. In some cases, such obligations are included in general environmental legislation; in other cases, specific environmental justice laws have been passed through legislation or regulation (UNEP dataset 2021).

International agreements also advance non-discrimination principles in environmental contexts. For example, article 3.9 of the Aarhus Convention prohibits discrimination on the basis of citizenship, nationality or domicile, and article 3(a) of the Escazú Agreement enshrines a principle of equality and principle of non-discrimination (as the first of 11 principles), both in the context of environmental decision-making. As of July 2023, the Aarhus Convention has 47 parties and the Escazú Agreement has 15 (United Nations Treaty Collection).

In addition to general laws prohibiting gender discrimination, environmental rule of law may be strengthened by including specific gender-related requirements in environmental laws. Data suggests

that around 31 countries have done so (UNEP dataset 2021). This includes the 15 states that have ratified the Escazú Agreement, as of October 2023, which states that “Each Party shall establish conditions that are favourable to public participation in environmental decision-making processes and that are adapted to the social, economic, cultural, geographical and gender characteristics of the public” (article 7(10)). In other instances, states have included gender considerations as substantive guiding principles in national framework legislation, procedural requirements that decision-makers consider the differentiated gender impacts of their decisions and requirements for gender parity among environmental decision-makers.

Many international agreements stipulate respect for indigenous rights. For example, ILO Convention No. 169 protects multiple rights of indigenous peoples, including those related to non-discrimination, culture, land, other natural resources, consultation and association, among others. One of the key rights held by indigenous peoples is the right to give or withhold free, prior and informed consent (FPIC) regarding the use of their lands and related resources, and especially efforts by state or public actors to appropriate indigenous lands for commercial development, often by removing existing populations.

Although the vast majority of states have supported FPIC by endorsing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), only 49 countries have national or subnational laws that specifically protect the rights of indigenous peoples. Many countries have included protections for indigenous peoples in national constitutions and legislation focused on indigenous or environmental issues. These rights range from substantive rights to culture, language or property, to procedural rights of consultation and participation in decision-making related to land use. While many countries provide rights of consultation and participation in decision-making, laws in only 12 states made specific reference to FPIC or ‘consent’ of indigenous communities as a requirement for appropriation of their lands. In many instances, laws governing FPIC lack clear procedures for implementation, are subject to override in certain circumstances or may be applied only to certain economic activities or categories of communities, rather than as universal obligations. This suggests that while many countries have supported FPIC and other indigenous rights at the international level, relatively few countries have effectively translated those rights and obligations into domestic law (see figure 4.2).

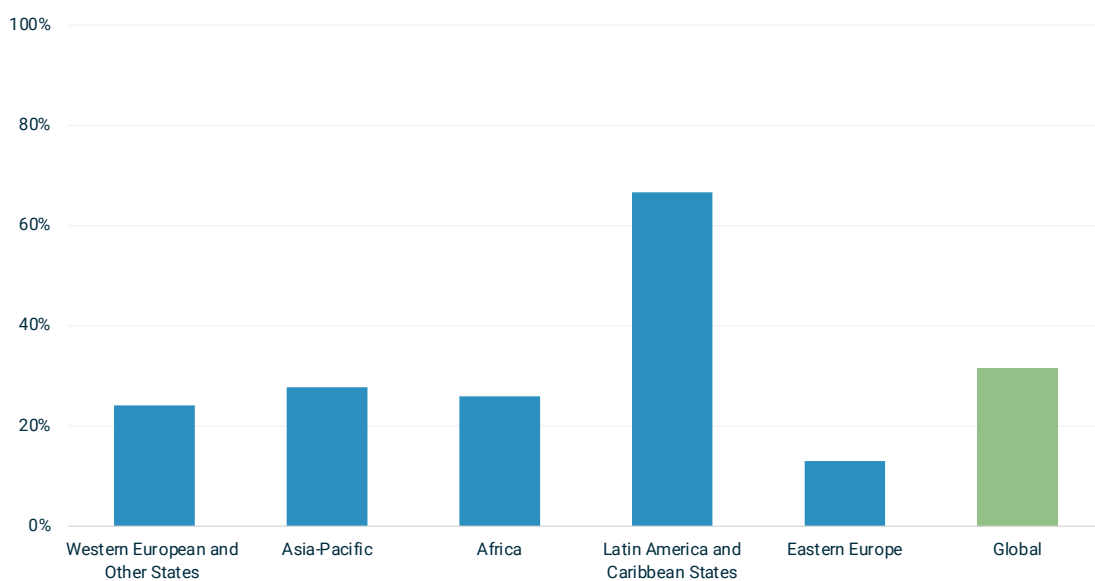


Figure 4.2: Percentage of countries with legal provisions protecting indigenous rights (Source: UNEP dataset 2021)

4.2.3 Integration of environmental considerations in human rights mechanisms

Human rights mechanisms and institutions regularly address environmental matters. The Universal Periodic Review of the UN Human Rights Council offers one of the most comprehensive opportunities for civil society and the global community to scrutinize the extent to which states fulfil their international human rights obligations and make recommendations to improve implementation. This process augments the rule of law by providing a transparent and participatory analysis that encourages states to implement and enforce their human rights obligations. Although the right to a healthy environment has only recently been recognized by the UN, of the 79 national reports to the UN Human Rights Council's Universal Periodic Review 2019–2020, a majority (46 national reports) referred to environmental issues (UNEP dataset 2021). National reports discussed issues such as climate resilience and disaster management, sustainable development, pollution control, desertification, toxic wastes, soil and water conservation, waste disposal, the rights of environmental defenders and support for climate resilience and biodiversity projects abroad. Some reports also discussed the environment through the frame of related rights, such as the rights to health, food and water and sanitation. In some cases, states reported on their progress on fulfilling a domestically enacted right to a healthy environment. These reports show a trend toward increasing prevalence of rights-based approaches to environmental issues.

National Human Rights Institutions (NHRIs) offer an established, internationally recognized mechanism for human rights protection. By scrutinizing states' environmental actions within a human rights framework, NHRIs offer a mechanism for improving states' commitments to environmental protection and upholding the environmental rule of law. As of 2021, 116 UN member states have NHRIs actively accredited with the Global Alliance of NHRIs (Global Alliance of National Human Rights Institutions [GANHRI] 2021). Of the 116 NHRIs, 46 have an explicit mandate, policy or work program relating to the environment, with specific NHRIs adopting a range of different approaches to environmental issues. Some NHRIs have identified environmental themes as key strategic focus points, while others have established committees or staff to focus specifically on environmental issues such as access to safe drinking water, hazardous wastes and the human rights impacts of climate change. In some countries, NHRIs are active in supporting or intervening in human rights-based environmental litigation, formulating policy proposals or disseminating information about the human rights impacts of environmental challenges. In a few instances, NHRIs' environmental mandates are explicitly contained in legislation.

In 2020, the Global Alliance of NHRIs adopted a statement calling for a human rights-based approach to addressing climate change, emphasizing inclusive participation of women and girls, local communities, elderly, disabled persons and all relevant stakeholders. It included NHRI commitments to integrate climate change and the environment into all aspects of their work (GANHRI 2020).

NHRIs play a key role in monitoring and addressing impacts of climate change. In Latin America, NHRIs have developed digital tools to track the impacts of climate-induced droughts on livelihoods (German Institute for Human Rights [GIHR] and Center for International Environmental Law [CIEL] 2020). In the Asia Pacific and Africa regions, NHRIs monitor the disproportionate impacts of extreme weather events on the human rights of groups that have been historically marginalized, such as women and indigenous peoples. NHRIs in Europe use their policy advisory function to place respect for human rights at the heart of their governments' efforts to combat climate change at the international, regional, national and local levels. NHRIs around the world have investigated the negative impacts of climate change mitigation and adaptation on human rights, such as with regard to renewable energy projects (see box 4.4). Some NHRIs also address businesses' human rights responsibilities that arise through the climate impacts of their products and operations.

Box 4.4: National human rights institutions in Philippines, Honduras, Uganda and Australia addressing climate change

The Philippines' Commission on Human Rights conducted an inquiry that began in 2015 on alleged human rights violations of the largest global investor-owned fossil fuel companies (referred to as 'carbon majors') through the climate impacts of their products (GIHR and CIEL 2020; Greenpeace n.d.). The Commission proceeded with the inquiry and gathered extensive evidence, including a number of amicus briefs, which were presented by victims of typhoons in Philippines, experts on climate change and human rights, and the respondents' representatives. In May 2022, the commission issued its conclusions, finding climate change to be a human rights issue in Philippines partly due to the threat that typhoons pose to the right to life, water scarcity to the rights to water and sanitation and decreased fish catch to the right of food security. The report found that the carbon majors have a corporate responsibility to not cause harm to human rights through harm to the environment or climate and established liability for these harms from efforts to obfuscate climate science (Commission on Human Rights in Philippines 2022).

In Honduras, the Comisionado Nacional de los Derechos Humanos (CONADEH) examined the impacts of a climate-aggravated five-year drought on food production and availability (GIHR and CIEL 2020). CONADEH documented the effects on small-holder farmers and those dependent on their output and called for solidarity and support for families affected by the drought from all sectors of society. It urged the government to build the capacity of farmers to adapt to climate change through the use of different seeds, growing practices and market strategies. CONADEH also has issued reports documenting the impacts of climate change on forests via forest fires and the spread of pests.

The Ugandan Human Rights Commission detailed the effects of climate change-worsened drought and floods on food security in the exacerbated El Niño-Southern Oscillation in 2017 (GIHR and CIEL 2020). The Commission's report details how a global phenomenon such as climate change takes local form and intersects with local policies and practices. For example, it underscored the cyclical connections between a national policy to promote cash crops with deforestation, wetlands degradation, climate change and food insecurity.

The 2008 'Native Title' report from the Aboriginal and Torres Strait Islander Social Justice Commissioner of the Australian Human Rights Commission considered first-hand accounts and integrated them with secondary sources on present or future human rights impacts (GIHR and CIEL 2020). The report took two regions as case studies: the Torres Straits Islands and the Murray-Darling River Basin, which account for 14 per cent of the country's land area. Especially in the Torres Straits Islands case study, the report documented existing impacts of climate change on rights to food, culture and housing.

4.3 Trends

Since the publication of the First Global Report on Environmental Rule of Law (in early 2019), progress around the world to strengthen the rights dimension of environmental rule of law has been characterized by five major trends: (1) responses to the COVID-19 pandemic; (2) integration of environment-related rights; (3) recognition of the right to a healthy environment; (4) elaboration of rights of future generations; and (5) growth of initiatives toward rights of nature. In most instances, the progress is positive and incremental, building upon earlier precedents. The COVID-19 pandemic, however, was largely negative and sudden, and it was a new development that countries and civil society had to address on short notice.

4.3.1 COVID-19, rights and the environment

The COVID-19 pandemic has highlighted connections between environmental rule of law and rights. Environmental degradation both increases the likelihood of zoonotic outbreaks and reduces resilience to health crises and economic shocks (UNEP 2020). The strong connection between human health and environmental health has brought attention to the need to rethink the relationship between people and nature in order to protect humans and other species from future catastrophes. Moreover, to the extent that countries have adopted laws and policies addressing these linkages, environmental rule of law is essential to ensuring that those laws and policies are implemented and enforced.

Populations that have been historically marginalized were disproportionately impacted by COVID-19, in part because of underlying health conditions caused by contaminated water and soil, air pollution and lack of nutritious food (Meltzer *et al.* 2021; Njoku 2021; Powers *et al.* 2021). Communities most at risk from COVID-19 are also those communities most vulnerable to climate change impacts such as hurricanes, floods and wildfires, while people displaced by natural disasters have higher exposure to COVID-19 (Tigre 2020). Reduction of environmental protections during the pandemic has proven more likely to impact minority communities (Powers *et al.* 2021).

COVID-19 has particularly threatened indigenous communities around the world. By May 2020, the Navajo Nation had the highest per capita infection rate in the United States of America, as well as more severe cases and a higher probability of COVID-19 related death despite relatively low population density (Parkhurst, Huyser and Horse 2020). Environmental factors such as abandoned uranium mines and other environmental contaminants, poor indoor air quality, water shortage and lack of access to nutritious food created pre-existing health conditions that may have contributed to the higher impacts of COVID-19 on indigenous and minority populations throughout the United States of America (Parkhurst, Huyser and Horse 2020; Meltzer *et al.* 2021). Isolated communities in the Amazon have faced increased risk of exposure from outsiders due to reduced protection and law enforcement (Tigre 2020).

The impacts of COVID-19 on indigenous communities have environmental implications. For example, loss of elders can endanger transfer of traditional knowledge, threatening the cultural survival of indigenous communities as well as the sustainable management of their lands (Norouzi and Ataei 2021).

In 2020, the UN Special Rapporteur on the rights of indigenous peoples expressed concern regarding the impacts of the pandemic on indigenous communities (UNGA 2020 A/75/185; OHCHR 2020). Among the environmental impacts, the Special Rapporteur enumerated situations where governments had suspended



Photo: Pexels

EIAs and community consultation requirements of environmental laws, used the pandemic as a cover to force through environmentally and socially destructive projects, and allowed business interests to take the opportunity to invade indigenous lands and destroy their resources. He urged countries to ensure indigenous peoples' rights to development, self-determination and natural resources, arguing that indigenous communities with control over their own territory and resources are best able to cope with the pandemic.

Courts have sought to protect indigenous rights related to the environment in connection with COVID-19. In Brazil, a federal court ordered the government to evict illegal gold miners threatening indigenous villages (*Decisão No. 477458351* 2021). In Ecuador, a provincial court ordered the government to report on illegal mining and logging and activities of oil companies in the territory of the Waorani Nation (Amazon Frontlines 2020). The decision was in response to a case brought by the Waorani people on behalf of their elders and their uncontacted relatives living in voluntary isolation, alleging that the oil, logging and mining operations served as vectors for COVID-19. An environmental and indigenous rights activist and member of the Waorani community, Nemonte Nenquimo, was at the head of this lawsuit. Recipient of the 2020 United Nations Environment Programme's Champions of the Earth Award for Inspiration and Action, Nemonte Nenquimo is the co-founder of the Ceibo Alliance, an indigenous non-profit that connects different Amazonian indigenous communities to address threats to their territories, increase access to education and create economic opportunities for women (UNEP 2020).

Several NHRIs responded to the COVID-19 pandemic with statements, recommendations and guidance on the environmental dimensions of the pandemic. Commissions in Mauritania, Mongolia and Croatia emphasized the importance of the right to water during the pandemic. The Human Rights and Equality Institution of Türkiye stated that the right to health should be considered together with the right to environment and other rights (OHCHR National Institutions and Regional Mechanisms Section [NIRMS] 2020).

Regional human rights mechanisms also responded (OHCHR NIRMS n.d.). For example, the Inter-American Commission on Human Rights (IACHR) issued a press release calling for guaranteed economic, social, cultural and environmental rights without discrimination, especially for vulnerable groups. The IACHR further promoted a human rights-based approach to finding solutions to the pandemic crisis, within the framework of rule of law, with due regard to the rights of women and minorities and special protection for human rights defenders (IACHR 2020a; IACHR 2020b).

The COVID-19 crisis and accompanying economic shifts created an unprecedented opportunity to undertake a sharp transition to a just and sustainable economy. The disproportionate impacts on indigenous peoples and ethnic minorities are making environmental justice issues more visible and increasing political will to better safeguard rights to a healthy environment (Powers *et al.* 2021).

The pandemic underlines the links between environment, rights and health, and the cumulative nature of environmental injustice, creating an opportunity to better integrate environment-related rights in the new concept of One Health. According to the advisory panel established by the World Organisation for Animal Health, FAO, WHO and UNEP, One Health "is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems" (Joint Statement Food and Agriculture Organization *et al.* 2021). The Special Rapporteur on the human right to a healthy environment, UNEP and other entities have called for integration of the right to a healthy environment into the effort to build back better (UNHRC 2020e A/75/161; UNEP and OHCHR 2020a). In late 2021, a process was started to negotiate a new international treaty on pandemic prevention and preparedness (WHO 2021b).

The COVID-19 crisis provides lessons on how to respond to other global crises, now and in the future. First, environmental rule of law can help prevent future pandemics, particularly those related to zoonotic diseases. Second, international cooperation and collaboration is necessary to protect and fulfil human rights and avert the worst disasters. Third, populations that have been marginalized are often hardest hit by the cumulative impacts of a pandemic and environmental degradation. Finally, a rights-based approach

can reduce environmental degradation, prevent future outbreaks and build resilience of communities around the world to face the next disaster.

4.3.2 Integration of environment-related rights

Global and regional instruments, statements and resolutions evidence efforts to integrating a wide range of rights related to the environment. These include human rights, constitutional rights, rights from multilateral environmental agreements and other international legal instruments that may not (yet) be considered human rights, constitutional rights, statutory rights and others. They include individual rights, peoples' rights and the rights of nature. They include environment-specific rights and more generally applicable rights (such as non-discrimination). And they include both substantive and procedural rights. This illustrates a related trend toward coordination between human rights bodies and environmental agencies and organizations. It also reflects broader trends toward a more integrated approach to international law and integrating international and domestic law.

In 2006, the International Law Commission (ILC) published a report on Fragmentation of International Law, which called for viewing international law as a system (International Law Commission [ILC] 2006). It recognized that there are distinct bodies of international law, each with its own areas of expertise (i.e. being *lex specialis*). It also recognized that multiple bodies of law often apply in a particular context. This was illustrated by the 2022 ILC Principles on the Protection of the Environment in Relation to Armed Conflicts, which draws upon international humanitarian law, international environmental law, international criminal law, the law of occupation, international human rights law, international trade law and the UN Charter, among other bodies (ILC 2022).

In the context of rights related to the environment, there are instruments and provisions found in international human rights law, international environmental law, international law governing indigenous peoples and other bodies of law. In recent years, the linkages between the different bodies of law have grown, as has cooperation among the relevant institutions.

At the international level, there is increasing recognition of the multi-dimensional and multi-faceted nature of rights related to the environment. In 2021, the Human Rights Council adopted a resolution urging cooperation among States, UNEP, UNDP, FAO, OHCHR, WHO and other relevant organizations "building synergies in the protection of human rights and the protection of the environment, bearing in mind an integrated and multisectoral approach" (UNHRC 2021a A/HRC/RES/46/7). This echoes the trend of integration and cross-sectoral coordination among environmental legal frameworks and institutions (see chapter 2).

Several human rights treaty bodies have started to place increasing attention on the environment. For instance, in 2019, five UN human rights treaty bodies (Committee on the Elimination of Discrimination Against Women; Committee on Economic, Social and Cultural Rights; Committee on the Protection of the Rights of All Migrant Workers and Members of their Families; Committee on the Rights of the Child; and Committee on the Rights of Persons with Disabilities) issued a joint statement urging states to consider human rights obligations in their climate commitments (Joint Statement on Human Rights and Climate Change 2019). The Human Rights Committee on the right to life named environmental degradation and climate change as conditions that can threaten the right to life (Human Right Committee 2018 CCPR/C/GC/36). The UN's Committee on the Rights of the Child is working on the General Comment on Children's Rights and the Environment with a Special Focus on Climate Change, and expects to publish its findings in 2023 (Committee on the Rights of the Child 2021). The Committee on Economic, Social and Cultural Rights is developing a General Comment on Sustainable Development and the International Covenant on Economic, Social and Cultural Rights (OHCHR n.d.a; OHCHR n.d.b). In 2018, the Committee on the Elimination of Discrimination against Women released a recommendation that states consider the gender-related dimensions of disaster risk reduction and climate change (Committee on the Elimination of Discrimination against Women [CEDAW] 2018 CEDAW/C/GC/37).

The African Commission on Human and Peoples' Rights has continued to elaborate on the understanding of environment-related rights enshrined in the African Charter on Human and Peoples' Rights, including the right

to a “general satisfactory environment favourable to their development” (article 24), the right to life (article 4), and the right to cultural development and equal enjoyment of the common heritage of mankind (article 22). In 2017, the Commission adopted Resolution 372 on the Protection of Sacred Natural Sites and Territories which calls on states “to recognise sacred natural sites and territories, and their customary governance systems, as contributing to the protection of human and peoples’ rights”; to uphold the rights of custodian communities; and “to recognize and respect the intrinsic value of sacred natural sites and territories” (African Commission on Human and Peoples’ Rights 2017, ACHPR/Res.372(LX)). This resolution combined the established nexus between human rights and the environment with (1) peoples’ rights and customary governance in the environmental context; and (2) the value of nature independent of human interests. While the latter does not constitute recognition of rights of nature, it is aligned with the rights of nature initiatives in that it recognizes nature as having interests separate from those of humans (see section 4.3.5).

In 2021, the Regional Agreement on Access to Information, Public Participation and Access to Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) entered into force. The Escazú Agreement combines concepts from the human rights and environmental spheres, including both procedural and substantive rights. Article 4 stipulates that “each Party shall guarantee the right of every person to live in a healthy environment.” The Agreement aims to implement this substantive right through detailed obligations related to procedural rights of access to environmental information, public participation in environmental decision-making and access to justice. It provides for implementation through obligations to protect and promote human rights of environmental defenders, “including their right to life, personal integrity, freedom of opinion and expression, peaceful assembly and association and free movement” (article 9). Although not itself a human rights agreement, the Escazú Agreement strongly connects to human rights globally and in the region. The IACHR and its Special Rapporteur on Economic, Social, Cultural and Environmental Rights released a statement on the entry into force of the Escazú Agreement emphasizing that “the right to a healthy environment is part of the catalogue of rights that States must respect and guarantee” and calling on States to protect the rights of nature, as provided under national constitutions, law or jurisprudence, highlighting the connection between rights of nature and human rights (OAS 2021). While the COVID-19 pandemic and changes in governments in the region have slowed the adoption and implementation of the agreement (Riaño and Bariche 2020), this demonstrates an integration of concepts from human rights and environmental law.

On 21 February 2022, the Council of the European Union recognized that the direct and indirect effects of climate change, biodiversity loss and environmental degradation represent risks to the realization of human rights (Council of the European Union 2022a). The Council reiterated the need for human rights to be integrated systematically into climate action and energy diplomacy. In addition, it reaffirmed that it intends to uphold, promote and protect gender equality and women’s and girls’ empowerment, as well as support meaningful youth engagement and involvement in decision-making on processes with implications on climate change.

Environment-related rights often have an integrated nature, and their implementation requires breaking down silos between sectors and organizations. As countries and partners seek to implement and enforce both substantive and procedural rights related to the environment, they are finding that it is necessary to bridge sectors and institutional divisions. There are promising examples of this increased cooperation and coordination. In 2019, UNEP and OHCHR signed a memorandum of understanding to cooperate on human rights and the environment (UNEP and OHCHR 2019). They identified areas of collaboration including, *inter alia*: promoting a rights-based approach to environmental matters; collaborating with human rights treaty bodies; protecting human rights defenders; and promoting access to information, participation and access to justice. In 2019, the UN Environment Assembly adopted a resolution on human rights, gender and climate change, which invites States to enhance collaboration with UN-Women, OHCHR, the Special Rapporteur and civil society organizations to address environmental challenges and empowerment of women and girls (UNEA 2019b UNEP/EA.4/Res.17). The Human Rights Council has adopted a series of resolutions related to environmental issues including resolutions addressing the nexus between human rights and the environment (e.g. UNHRC 2021a A/HRC/RES/46/7; UNHRC 2018b A/HRC/RES/37/8), the nexus between human rights and climate (UNHRC 2021b

A/HRC/RES/48/14), the need for gender-responsive approaches in climate change mitigation and adaptation (UNHRC 2018c A/HRC/RES/38/4), the contributions of environmental human rights defenders (UNHRC 2019a A/HRC/RES/40/11) and human rights implications of hazardous materials and toxic waste (UNHRC 2020d A/HRC/RES/45/17). This integration across organizations extends to the private sector (see box 4.5).

Box 4.5: Private sector action to support right to a healthy environment

Private sector actors are important in promoting rights to a healthy environment. The B Team, Business for Nature and the World Business Council for Sustainable Development joined the global 'The Time Is Now' campaign to recognize a universal right to a healthy and sustainable environment and developed a statement signed by business leaders calling on countries "to unite in support of universal recognition of the human right to a safe, clean, healthy and sustainable environment because we recognise it as fundamental to the functioning of our businesses, our societies and our economies" (The Time is Now 2020). Santander's 2019 Human Rights Policy recognizes the right of communities to have a healthy and clean environment. Accordingly, it commits to align its policies with the Equator Principles, the International Finance Corporation guidelines relating to environmental impacts and the United Nations Principles for Responsible Investment (Santander Group 2019). Ford Motor Company's 2022 Human Rights Report favourably notes the rights to water, sanitation and clean air (Ford Motor Company 2022).

On 9 November 2021, the business community released a statement on the vital role that business plays in addressing the devastating impacts of climate change on children's well-being. Recognizing that it cannot remain indifferent to the children and young people who are demanding urgent climate action, the business community emphasized its commitment to set ambitious emissions reduction targets in line with the science; with a view to implement the action required to reduce greenhouse gases to achieve 'net zero' emissions by 2050, and to adopt environmentally friendly practices, among other commitments (UNICEF 2021).



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4.3.3 Recognition of a right to a healthy environment

On 28 July 2022, the UN General Assembly recognized that the right to a clean, healthy and sustainable environment is a human right (UNGA 2022 A/RES/76/300). The final vote was 161 states in favour, 8 abstentions and none opposed. The strong global support was the culmination of decades of development at the local, national, regional and global levels. It reinforced Resolution 48/13 of the UN Human Rights Council (UNHRC 2021c A/HRC/RES/48/13).

The movement to internationally recognize a right to a healthy environment advanced steadily in the decades leading up to Resolution 76/300. Following unsuccessful efforts in the 1990s, the modern movement was rejuvenated by the creation of the mandate on human rights and the environment in 2012 (UNGA 2012 A/HRC/RES/19/10). In 2018, UNEP and the Special Rapporteur on human rights and the environment issued a joint statement calling for UN recognition of the right (UNEP and Special Rapporteur on Human Rights and the Environment 2018). In the same year, the newly appointed Special Rapporteur David Boyd and the former Special Rapporteur John Knox submitted a joint report on the right to a healthy environment to the General Assembly (Knox and Boyd 2018 A/73/188). In September 2020, civil society organizations from over 100 countries sent an appeal to the United Nations Human Rights Council entitled 'The Time is Now!', and called for recognition of a human right to a safe, clean, healthy and sustainable environment (The Time is Now 2020). This was followed in early 2021 by a policy report entitled #TheTimeIsNow – The Case for Universal Recognition of the Right to a Clean, Healthy and Sustainable Environment (Boyd, Knox and Limon 2021). At the 46th Session of the Human Rights Council in February to March 2021, governments of Costa Rica, Maldives, Morocco, Slovenia and Switzerland, with the co-sponsorship of 64 other states, delivered a joint statement announcing the possible recognition of a right to a safe, clean, healthy and sustainable environment (Governments of Costa Rica, Maldives, Morocco, Slovenia and Switzerland 2021, HRC 46). Fifteen UN entities, including the ILO, OHCHR, UNHCR, UNEP, UNDP, UNESCO and WHO, submitted a joint statement declaring that “the time for global recognition, implementation and protection of the human right to a safe, clean, healthy and sustainable environment is now” (Joint Statement of UN Entities 2021).

The Political Declaration of the Special Session of the United Nations Environment Assembly to Commemorate the Fiftieth Anniversary of the Establishment of UNEP (the UNEP@50 Declaration) took note of Resolution 48/13 and recognized that “a clean, healthy and sustainable environment is important for the enjoyment of human rights” (UNEA 2022b UNEP/EA.SS.1/4). This rapid series of events was preceded by decades of countries progressively recognizing the right to a healthy environment at the regional, national and subnational levels, supplemented by civil society advocacy and the international and national levels, ultimately culminating in UNGA Resolution 76/300 (see figure 4.3).

The right to a healthy environment has also been promoted at the regional level. In 2021, the Escazú Agreement entered into force; in addition to its advancement of procedural rights, it is notable for requiring parties to guarantee the right to a healthy environment and for protecting environmental defenders. As of September 2022, the Escazú Agreement has 24 signatories and 15 parties. The Escazú Agreement is partially inspired by—and expands upon—the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention). The Aarhus Convention references the right to a healthy environment as an objective but does not word it as a substantive obligation (article 1). Regional human rights instruments including the African Charter and the Arab Charter also mention a right to a healthy environment. In total, more than 125 states have ratified these regional instruments (UNHRC 2021a A/HRC/RES/46/7).

The HRC and General Assembly resolutions on the right to a clean, healthy and sustainable environment will impact national interpretation and implementation of rights at the national level. According to UN Special Rapporteur David Boyd, international recognition of the right to a healthy environment will lead to stronger environmental laws and new constitutional amendments which will, in turn, result in cleaner air and water,

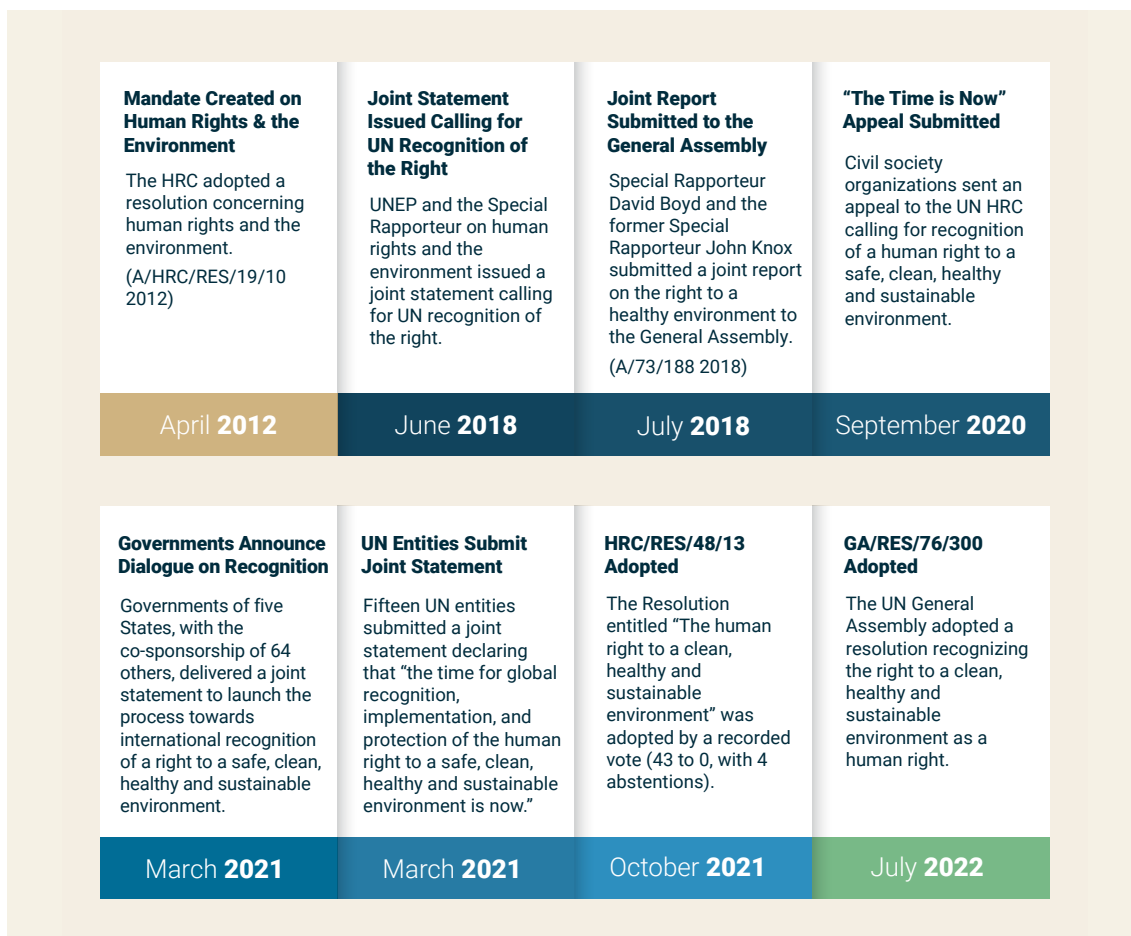


Figure 4.3: Important events leading to the recognition of a human right to a clean, healthy and sustainable environment

increased use of renewable energy and better protection of biodiversity (OHCHR 2021c). For example, following the international recognition of a human right to water (in General Comment 15, adopted in a Human Rights Council resolution), a number of countries revised their constitutions to integrate the right to water (UNHRC 2020c A/HRC/45/11). The resolutions represent political commitments that can facilitate international coordination in addressing global environmental challenges and strengthening environmental rule of law (UN News 2021). The HRC and General Assembly resolutions are also likely to inform how diverse institutions—including advocates, national courts and human rights mechanisms, among others—approach rights to a healthy environment and their role in environmental rule of law.

At the national level, in addition to legal recognition of a right to a healthy environment, as described in Section 4.3.1, a significant body of recent litigation has drawn on the right. Many of these cases address climate change. As of December 2022, 2,180 climate change cases had been filed in 65 jurisdictions, with an increasing number making arguments relying on constitutional rights, including the right to a healthy environment (UNEP 2023). These include cases in Brazil, South Korea, Peru, Pakistan, Norway and Philippines. Many of these cases allege violations of the rights of future generations, often brought by youth plaintiffs (see section 4.3.4; see also chapter 5).

In 2021, Guyanese citizens filed a case, *Thomas and De Freitas v. Guyana*, challenging off-shore fossil fuel production. Relying on rights to a healthy environment guaranteed in Guyana's Constitution, the plaintiffs contend that Guyana's approval of a substantial oil and gas buildout violates the government's constitutional obligations to protect and respect the rights to a healthy environment, sustainable development and the rights of future generations (Kaminski 2021). The case is the first constitutional challenge of fossil fuel production in the Caribbean, and it remains ongoing before Guyana's Constitutional Court.

In addition to climate-related cases, there have been several prominent examples of successful litigation based on a constitutional right to a healthy environment. In the 2019 case *Francisco Chahuán Chahuán v. Empresa Nacional de Petróleos*, the Chilean Supreme Court found that the government had violated the constitutional right to live in an environment free of pollution by failing to regulate refineries, power plants and factories emitting toxic air pollution that led to a public health crisis in the regions of Quintero and Puchuncavi (Chahuan 2019). The Chilean Constitution (1980) provides not only for the substantive right, but also for recourse to the appropriate court for protection against future harms (article 20). In the *Chahuan* case, the court ordered the government to take immediate action to identify and mitigate the damage.

The most successful cases have been grounded in clear constitutional provisions that include not only substantive content of the right but also clear recourse with access to appropriate remedies. Common remedies include judicial orders providing compensation to injured parties, restoring environmental degradation, and seeking to prevent future harm. These are discussed further in chapter 5. A recent case that illustrates these principles was brought by the Owino-Uhuru community in Kenya, challenging a lead acid battery recycling facility (see box 4.6).

Box 4.6: Owino-Uhuru community case

The Owino-Uhuru community brought a case in the Mombasa Environment and Land Court against the Government of Kenya and Metal Refinery (EPZ); in July 2020, the court decided *Musyoka v. Attorney General* 2020. The case concerned a lead acid battery recycling factory which caused air pollution and leaked toxic waste into the community, causing severe illness and more than 20 deaths.

The plaintiffs alleged a violation of their right to a clean and healthy environment under article 42 of the Kenyan Constitution (2010) and article 24 of the African Charter on Human and Peoples' Rights (1981). They also alleged violations of their rights to clean and safe water and their right to life, citing the Kenyan Constitution, the International Covenant on Economic, Social and Cultural Rights (ICESCR 1966) and the Convention on Rights of the Child (1989). They brought the case under article 70 of the Kenyan Constitution which provides that "any person who alleges a right to a clean and healthy environment has been breached ... may apply to a court for redress."

In the decision, the judge cited principle 6 of the Stockholm Declaration (1972) and principle 13 of the Rio Declaration (1992) finding that the metal refinery was liable for the pollution and that the Government of Kenya was also liable for granting licenses to the company to export lead and failing to encourage public participation. The judge ordered the government and the metal refinery to pay a total of 1.3 billion Kenya Shillings (KSHs) (approximately US\$ 11.5 million) to compensate the community for personal injury and loss of life. The judge further ordered the respondents to clean up the affected soil and water within 120 days or pay 0.7 billion KSHs for clean-up to be coordinated by the NGO petitioner. The judge ordered the government respondent to develop and implement regulations with regard to lead and lead alloys manufacturing plants. Finally, though noting it is not normal in such cases in Kenya, the judge ordered the respondents to pay the costs of the petition. The decision is currently under appeal.

While it is too soon to evaluate the implementation of this decision, the decision itself demonstrates several good practices that support the environmental rule of law. First, the constitutional provisions provided sufficient substance, clarity, and recourse to support the petitioner's argument, making the judgment largely a determination of fact. Second, the incorporation of international obligations in the pleading and the judgment reinforced the constitutional provisions and supported elaboration of specific points, for example on liability. Third, the sharing of financial liability between the government and the private corporation helps align incentives for both—creating consequences for the government

in failing to adequately protect its citizens and creating consequences for the company for the harm it caused even when it has obtained all legal permits. Fourth, the amount of damages awarded is sufficiently high to compensate the petitioners and influence future behaviour of the respondents. Fifth, the order to remediate environmental degradation provided a clear deadline and consequence for missing the deadline, while ensuring that if a monetary payment is made it will be earmarked for clean-up and coordinated by a civil society entity likely to use the funds for their intended purpose. Finally, the order for the respondents to pay the costs of the petition created a precedent that could facilitate future cases, particularly to offset the costs borne by the NGO plaintiff.

Recognition of the right to a healthy environment can provide extensive benefits to biodiversity and ecosystems. For example, the Supreme Court of Mexico has held that the right to a healthy environment protects both human health and wellbeing and the protection of nature due to its intrinsic value (Amparo en Revisión 54/2021, Supreme Court of Mexico 2022).

Environmental litigation is not always successful, even when grounded in constitutional provisions. In 2020, the Norwegian Supreme Court found that the right to a healthy environment stated in article 112 of the Norwegian Constitution was a guiding principle rather than an absolute right, and it did not provide an independent cause of action when the Norwegian legislature had already addressed an issue (*Greenpeace Nordic Association v. Ministry of Petroleum and Energy* 2020). In that case, a group of young people challenged the Norwegian petroleum policy as violating their rights by contributing to climate change. The court found that in order to set aside a legislative decision there must be evidence of gross negligence, and that in this case because the Norwegian government had made other plans to combat climate change, it had not violated the constitutional provision.

In addition to providing enforceable rights, environmental provisions in constitutions can send a constitutionally obligatory directive to executive and legislative branches (Weis 2018). From this perspective, a constitutional right to a healthy environment can promote adoption and implementation of laws and policies that balance uses and interests to ensure long-term sustainability and meet short-term needs (see chapter 2). In such instances, the primary responsibility for implementation lies with the legislature (in developing the necessary detailed laws and standards) and the executive branch (in implementing and enforcing those laws and standards).



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Even when focusing on the constitutional obligations of the legislative and executive branches, however, the judiciary has a clear role as a backstop to ensure that a right to a healthy environment is respected, protected, and fulfilled in accordance with environmental rule of law. For example, the Brazilian Constitution (1988) provides for a “right to an ecologically balanced environment” (article 225). A set of resolutions by the Brazilian National Council for the Environment (CONAMA) set up a normative framework for protecting this right. In 2020, the Brazilian Federal Court of Justice blocked the Brazilian government’s attempt to revoke the resolutions, finding that doing so would undermine its constitutional obligations (*Rede Sustentabilidade v. CONAMA* 2020).

4.3.4 Elaboration of rights of future generations

The interests of future generations are a definitional component of sustainable development, which is often defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Report 1987). References to future generations and intergenerational equity are found in the Convention on Biological Diversity (1992), the UN Framework Convention on Climate Change (1992), the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention 1972) and the United Nations Economic Commission for Europe Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention 1992), as well as non-binding instruments such as the Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration 1972), the Rio Declaration on Environment and Development (1992) and the 2030 Agenda for Sustainable Development (UNGA 2016a A/RES/70/1). The UN Secretary-General’s call to action for human rights, issued in 2020, highlights the rights of future generations, particularly in the context of climate change, and calls for consideration of how to take their rights into account (United Nations Secretary-General [UNSG] 2020).

In Our Common Agenda, the UN Secretary-General provided a vision for the future of global cooperation and multilateral governance, with a focus on future generations (UNSG 2021). In this report, the Secretary-General outlined key proposals to accelerate the implementation of existing multilateral agreements and the SDGs. The Secretary-General outlined specific steps to account for future generations, including a repurposed Trusteeship Council, a Futures Laboratory, the appointment of a Special Envoy for Future Generations and the development of a Declaration on Future Generations. The UN has actively engaged in advancing the issue related to future generations. In March 2023, as one of the Our Common Agenda Policy Briefs, the UN Secretary-General published a policy brief on Future Generations. In May 2023, the United Nations System Chief Executive Board for Coordination endorsed the UN Common Principles on Future Generations, developed by the High-level Committee on Programmes (HLCP).

At the intergovernmental level, States are working towards adopting a UN Declaration on Future Generations and the UN General Assembly has decided to convene the Summit of the Future in September 2024.

A number of countries address future generations in their constitutions, including, for example, Brazil, Georgia, Germany, Guyana, Kenya, Norway and South Africa; however, most of these provisions acknowledge the interests of future generations or obligations to future generations without explicitly granting rights to future generations. For example, the constitution of Vanuatu (1980) states that every person has the fundamental duty “to safeguard the national wealth, resources and environment in the interests of the present generation and future generations” (article 7(d)). The Swedish Constitution guarantees that “public institutions shall promote sustainable development leading to a good environment for present and future generations” (Instrument of Government 1974, chapter 1, article 2). The constitutions of South Africa and Kenya both provide that everyone has a right to have the environment protected for the benefit of present and future generations (South Africa Constitution 1996, article 24; Kenya Constitution 2010, article 42).

In 2019, India adopted a National Mineral Policy which incorporates principles of intergenerational equity and sustainable development; it also established an inter-ministerial body to ensure that mining respects the interests of future generations (National Mineral Policy 2019). The policy was developed as a direct result of a 2017 Supreme Court case on illegal mining in which the petitioner argued that the government failed to consider intergenerational equity in licensing mines, leading to an environmental disaster. The court determined that the then-current National Mining Policy was both obsolete and inadequately enforced, and that there was a need to consider intergenerational equity in mining decisions. It ordered the government to revise the policy and create a mechanism to consider future generations in environmental decision-making (*Common Cause v. Union of India* 2017). The 2019 policy was developed as a consequence.

Framing interests of future generations in terms of obligations or benefits instead of rights is one way to navigate around the key conceptual problem in granting rights to future generations: the fact that they do not (yet) exist. Unlike children who hold rights that can be represented by their parents or guardians, or components of nature which hold rights in some countries that can be protected through open standing or named guardians, or even corporations which hold legal rights that can be defended by their representatives, unborn people are not identifiable present entities. This raises broad philosophical questions as well as practical problems related to standing and remedies (Slobodian 2020).

The Basic Law for the Federal Republic of Germany (1949) imposes an obligation on the state to protect the natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order (article 20a). The German Federal Constitutional Court affirmed in April 2021 that article 20a also obliges the state to protect the climate and to transition to climate neutrality for the sake of future generations (*Neubauer et al. v. Germany* 2021). In making this ruling, however, the court found that the obligation to protect future generations does not imply that future generations can be recognized as rights-holders, “because future generations—either as a whole or as the sum of individuals not yet born—do not yet carry any fundamental rights in the present” (paragraph 146).

The Wales Well-being of Future Generations Act of 2015 establishes a ‘well-being duty’ on public bodies to carry out sustainable development to improve the economic, social, environmental and cultural well-being of Wales. The Act requires public bodies to take future generations into account when making decisions. The Act sets seven well-being goals related to prosperity, resilience, health, equality, global responsibility, community cohesion and Welsh language and culture, and requires Ministers to set indicators and milestones to ensure progress towards protecting future generations. The Act also establishes a Future Generations Commissioner to promote the needs of future generations. The Auditor General for Wales is responsible for assessing public bodies to examine the degree to which they have taken sustainable development into account when setting and meeting well-being objectives (Well-being of Future Generations (Wales) Act 2015).

Whereas it is difficult to define rights of individuals not yet alive, one strategy is to link rights of future generations to the rights of living children. This should not undermine children’s recognized rights in any way. In response to the 2020 call to action, heads of UN entities endorsed a joint commitment to promote the rights of children, youth and future generations to a healthy environment and their meaningful participation in decision-making at all levels, in relation to climate action and climate justice (UN 2021a). It included a commitment to advocate for the global recognition of an inalienable right to a safe, clean, healthy and sustainable environment on the part of young people and children, but not rights of unborn generations (UN 2021a). As then-Special Rapporteur John Knox pointed out in his 2018 report, many current children will be alive in 2100 and so in the climate change context it makes sense to take their rights into account in considering intergenerational equity (UNHRC 2018a, A/HRC/37/58).

Articulation of rights of future generations as obligations (rather than rights) or linking their interests to the rights of living children highlights an important point: there are many ways that rights of future generations



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are being considered, addressed and protected in practice. Regardless, this is a rapidly developing area including through the work of academics, civil society actors⁶ as well as through intergovernmental processes such as the on-going discussion on the UN Declaration on Future Generations.

Recent climate litigation has focused on the rights of future generations to make the case for urgent action. Many of these cases are brought by children as representatives of a class that includes future people (e.g. *Thomson v. Minister for Climate Change* 2017; *Álvarez v. Peru* 2019; *Juliana v. United States* 2020; *Kim Yujin v. South Korea* 2020). In some cases, the young people claim that obligations of intergenerational equity apply not just to future generations (i.e. those not yet born) but also to themselves as members of a different generation than decision makers. For example, in the Colombia Future Generations case, plaintiffs argued that “intergenerational equity isn’t only between the present generation and a future generation of people who do not yet exist, but also between those who make decisions today and the generation of younger people who face the effects of those decisions made in the present” (*Future Generations v. the Environment and Others* 2018) (see box 4.7).

The idea of equity among living generations has not only been applied to youth. In 2019 a group of Swiss seniors filed an appeal with the Swiss Federal Administrative Court claiming that they, as older persons, were particularly vulnerable to climate change. The appeal was denied, based on the fact that climate change impacts will affect everyone, and therefore the plaintiffs were not able to claim any specific harm (*Verein KlimaSeniorinnen Schweiz v. DETEC* 2020).

In 2021, the German Federal Constitutional Court found a constitutional duty to equitably share costs of mitigation among generations. In *Neubauer et al. v. Germany*, a group of German adolescents and young adults argued that the German Federal Climate Change Act violated their fundamental rights by pushing the onus of addressing climate change into the future. While the plaintiffs did not claim to represent future generations, the Court based its decision in part on constitutional responsibilities to future generations, which it found require not only preservation of a climate compatible with life but also consideration of how environmental burdens are shared among generations (*Neubauer et al. v. Germany* 2021).

⁶ In February 2023, a group of academics and civil society actors adopted the Maastricht Principles on the Human Rights of Future Generations <https://www.ohchr.org/sites/default/files/documents/new-york/events/hr75-future-generations/Maastricht-Principles-on-The-Human-Rights-of-Future-Generations.pdf>.

Other cases have been brought by communities, tribes, subnational governments and other entities representing their present and future constituents (e.g. *Gbemre v. Shell* 2005; *Massachusetts v. EPA* 2007; *Kivalina v. ExxonMobil* 2009). In *Urgenda v. Netherlands*, an NGO representing the rights of future as well as present generations brought a suit together with hundreds of individual citizens. The court declined to decide whether future generations had standing, finding that the living plaintiffs had sufficient standing to bring the case (*Urgenda v. Netherlands* 2019). These cases invoke rights of future generations to strengthen the argument that there is a legal obligation to address climate change (Slobodian 2020).

Box 4.7: Colombian future generations case

In 2018, a group of young people in Colombia filed a constitutional claim on behalf of themselves and future generations. They argued that the government's failure to address rapid deforestation of the Amazon violates their fundamental rights to life, health, water and food, as well as a 'supralegal' right to a healthy environment. After a lower court ruled against the plaintiffs, they appealed to the Colombian Supreme Court.

Invoking the principle of intergenerational equity, the Supreme Court found that present and future generations hold fundamental rights to a healthy environment based on the fact that "natural resources are shared by all of the inhabitants of Planet Earth, and by the descendants and generations to come" (*Future Generations v. Ministry of the Environment and Others* 2018, page 20). The court also connected rights of future generations to the intrinsic value of nature and the need for an 'ecocentric-anthropocentric' approach "which places humans on a par with the environment" (page 20). Reinforcing this link between human rights, future generations, and the rights of nature, the court stated (page 18):

the scope of protection of fundamental rights is not only the individual, but also the other ... the other people who inhabit the planet, other animals and plants ... but also it includes those not yet born, who also deserve to enjoy the same environmental living conditions as we do.

The court also recognized the Colombian Amazon as a subject of rights entitled to "protection, conservation, maintenance and restoration" (page 45). To protect these rights and ensure implementation of its decision, the court ordered the formulation of an "intergenerational pact for the life of the Colombian Amazon" to adopt measures to achieve zero emissions and zero deforestation (pages 14 and 49). The court ordered the government to develop short-, medium-, and long-term action plans to combat climate change and counteract deforestation (pages 48-49).

Following the decision, deforestation continued, and the intergenerational pact was not set up as ordered, indicating the vital importance of strengthening the environmental rule of law in Colombia. In 2019, plaintiffs brought a new claim that the government had failed to fulfil the court's orders (Setzer and Byrnes 2019). Nonetheless, the case provides a unique example of a holistic approach that integrates rights of nature, rights of future generations and a right to a healthy environment.

Given its limited elaboration in constitutions and national legislation, much of the scope and substance of rights of future generations is being determined by litigation. Several cases draw on the ancient legal concept of a public trust in which public natural resources such as coastlines, rivers and mineral resources are held by the government in trust for the benefit of present and future generations (Wood and Woodward IV 2016; Blumm and Wood 2017; Ryan, Curry and Rule 2021). Public trust cases alleging rights of future



Photo: UN

generations have been brought in both common law and civil law jurisdictions, including India, Netherlands, Pakistan, Uganda, Ukraine and a number of U.S. states (Wood and Woodward IV 2016).

Other cases connect rights of future generations to other rights found in constitutions, such as rights to life, property and a healthy environment (Peel and Osofsky 2018). For example, in *Leghari v. Pakistan*, the Lahore High Court determined that intergenerational equity was included within the ambit of the constitutional rights to life and human dignity. In an Advisory Opinion in 2017, the Inter-American Court of Human Rights reiterated “the existence of an undeniable relationship between the protection of the environment and the realization of other human rights, in that environmental degradation and the adverse effects of climate change affect the real enjoyment of human rights.” (Inter-American Court of Human Rights Advisory Opinion OC-23/17, para. 47). It clarified that the “human right to a healthy environment has been understood as a right that has both individual and collective connotations. In its collective dimension, the right to a healthy environment constitutes a universal value that is owed to both present and future generations” (para. 59).

One of the most significant challenges in realizing the rights of future generations, and one that is highly relevant for environmental rule of law, is the problem of crafting legal remedies that can protect rights across time. In some cases, intergenerational equity cases have been dismissed because the court determined that it had no power to award a suitable remedy (e.g. *Kanuk v. Alaska* 2014; *Juliana v. United States* 2020).

There are two primary approaches for protecting interests of future generations that have been successful: (1) designating institutions to protect future generations’ rights; and (2) mandating consideration of interests of future generations in planning and decision-making processes. As an example of designating institutions to protect the rights of future generations, Canada, Finland, Hungary, Israel, New Zealand and Wales, among others, have experimented with appointing commissioners or ombudsmen to represent the needs of future generations (UNGA 2013 A/68/322).

4.3.5 Growth of initiatives to recognize the rights of nature

Since the early days of the modern environmental development, the idea of using legal personhood as a tool for protecting the environment has fired the imagination of lawyers and legal researchers (Stone 1972; Ryan, Curry and Rule 2021). The idea that rivers, mountains, plants and nature as a whole should and do have rights and interests is centuries older (Nash 1989; Boyd 2017; Ryan, Curry and Rule 2021).

In recent years, the initiatives to recognize rights of nature in national legal systems has gained momentum. In recent years, Bangladesh, Colombia and Uganda have joined Bolivia (Plurinational State of), Ecuador, India, New Zealand and Spain in granting legal rights to elements of the natural world. Indeed, much of the recent movement on rights of nature has happened through judicial opinions, often involving rivers (Ryan, Curry and Rule 2021). In the landmark Future Generations Case in 2018, the Supreme Court of Colombia recognized the Colombian Amazon as a subject of legal rights (box 4.7). The Colombian Constitutional Court had previously recognized the Atrato River as a legal entity (*Judgment T-622-16* 2016). In 2019, the High Court of Bangladesh granted the Turag River legal personhood to protect it from pollution and illegal construction and went on to extend these rights to all rivers in the country, a judgment upheld by the Supreme Court in 2020 (*Human Rights and Peace for Bangladesh v. Secretary of the Ministry of Shipping* 2020). In 2020, the Punjab and Haryana High Court of India held the Sukhna Lake to be a living entity with rights of a legal person (*Court v. Chandigarh Administration* 2020). The same year, the Islamabad High Court recognized the legal personhood of an elephant (*Islamabad Wildlife Mgmt. Bd. v. Metro. Corp. Islamabad* 2020). In 2021, a U.S. District Court recognized a group of hippos brought to Colombia by Pablo Escobar as 'interested persons' for the purpose of taking depositions from wildlife experts in the United States of America (Seewer 2021).

Rights of nature can take different forms. Some recognition encompasses all of nature. For example, the Constitution of Ecuador states, "Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes" (Ecuador 2008, article 71). The Bolivian Law of the Rights of Mother Earth recognizes rights of Mother Earth and all of her constituents, including human communities, as a collective public interest (Bolivia (Plurinational State of) 2010, article 5). In other cases, rights are extended to a specific ecosystem or feature, as in the case of the Whanganui River in New Zealand, the Gangotri and Yamunotri glaciers in India and the Colombian Amazon (see box 4.5). A third category grants rights to an identified species of plant or animal, such as the wild rice protected by the White Earth Band of Chippewa (see below). Finally, rights of a specific individual animal may be recognized, as in the case of the elephant recognized by the Islamabad High Court in the *Metro. Corp.* case (Ryan, Curry and Rule 2021).

Distinctions between these categories are not always clear. For example, in 2022 the Constitutional Court of Ecuador found that constitutional provisions on rights of nature applied in the case of a particular Chorongó monkey named Estrellita who had lived for 18 years in a human home. In doing so, the Court held that rights of wild animals constituted a specific dimension of the rights of nature (*Judgment No. 253-20-JH/22* 2022).

In 2021, the Constitutional Court of Ecuador interpreted its constitutional provision on rights of nature to prohibit mining and other extractive activities in Los Cedros Protected Forest (Case No. 1149-19-JP/21 2021). The court found that the activities in question violated the rights of nature by threatening rare and endemic species, undiscovered genetic resources and important biodiversity corridors. Applying the precautionary principle, the court ordered the state-owned mining company and other companies to stop all mining activities in the forest, remove associated infrastructure and restore forested areas affected

by their operations. It also ordered the government to take measures to protect rights of nature in the future, including by adopting regulations relating to issuance of environmental and water licenses and developing a participatory plan for the management of Los Cedros Protected Forest.

Several countries have incorporated rights of nature into sectoral legislation at the national or subnational level. For example, the Uganda National Environmental Act (NEA) of 2019 explicitly recognizes that nature has “the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution” (section 4). The act creates three mechanisms to implement these rights. First, it establishes that any person has a right to bring an action before a competent court for any infringement of the rights of nature. Second, it requires the government to apply the precautionary approach and regulate activities that could contribute to species extinction, ecosystem destruction or interference with natural cycles. Third, it provides for the designation of conservation areas, where nature can have a safe space to enjoy its rights (section 4).

Indigenous communities have continued to lead the way in the legal evolution of rights of nature both through cases and legislative development. The legal system of the Māori of New Zealand values rivers and other natural landmarks such as mountains as persons with power and authority (Morris and Ruru 2010). In Latin America, the indigenous conception of Pacha Mama (Mother Nature) has directly influenced the development of rights of nature in Bolivia (Plurinational State of) and Ecuador (Cano Pecharroman 2018). In 2018, the White Earth Band of Chippewa Indians (in the U.S. state of Minnesota) adopted a resolution establishing legal rights for *manoomin* (wild rice) (White Earth Reservation Business Committee Resolution No. 001-19-009 2018). In 2019, the Yurok Tribal Council (in the U.S. state of Oregon) unanimously passed a resolution granting “the Rights of the Klamath River to exist, flourish and naturally evolve” and providing for adoption of an ordinance to grant standing to the river and its ecosystem and species (Yurok Tribal Council Resolution No. 19-40 2019). In 2021, the Innu Council of Ekuanitshit, Canada and the regional government of Minganie passed parallel resolutions recognizing the rights of the Magpie River to exist, flow and take legal action (Conseil des Innu de Ekuanitshit 2021; Graham 2021; Province de Québec, Municipalité Régionale de Comté de Minganie 2021).

Local governments, particularly in the United States of America, have also adopted ordinances on rights of nature. For example, Orange County, Florida approved the Wekiva River and Econlockhatchee River Bill of Rights (WEBOR) in 2020, granting the rivers rights to exist and be protected against pollution, and providing standing for citizens to bring claims on behalf of the rivers. In the same year, the Florida State legislature adopted legislation prohibiting such local rights of nature ordinances. Nonetheless, in 2021 local community members filed a lawsuit under WEBOR to stop a housing development that would dredge wetlands and damage the associated ecosystem, and local advocates are pushing for a state-wide amendment including rights of nature (Ryan, Curry and Rule 2021). In 2022, a state circuit court judge dismissed the case, finding that the amendment was pre-empted by the state legislation (*O’Neal v. Beachline South Residential and Valenstein* 2022).

Recognizing rights of nature raises some practical questions, including who represents the interests of nature and how those rights are exercised and protected. Different jurisdictions have taken different approaches (Ryan, Curry and Rule 2021). In Bangladesh, the Supreme Court ordered the National River Protection Commission to serve as the guardian for rivers in the country, under the *parens patriae* doctrine which evolved to allow courts to protect the interests of children (*Human Rights and Peace for Bangladesh and Others v. Secretary of the Ministry of Shipping and Others* 2020). In New Zealand, the state declared the Whanganui River to be a legal person and recognized its special relationship and importance to the Māori. The Te Awa Pua (Whanganui River Claims Settlement) Act created a new office, Te Pou Tupua, to act and speak for the river, with two individuals nominated to promote and protect the river’s health and well-being, one nominated by the Iwi community and one by the Ministers for Environment, Māori Development and Conservation (Te Awa Pua Act 2017). This was similar to the Te

Urewera Act of 2014 which recognized the legal personhood of the Te Urewera ecosystem and created a new legal entity to replace the previous Te Urewera National Park.

Another option is to allow any person to bring a case on behalf of nature through an open standing provision. This is the approach employed in the Uganda National Environmental Act. The Colombian Supreme Court ordered the formulation of an “intergenerational pact for the life of the Colombian Amazon” to empower youth plaintiffs to participate in ensuring protection of the rights of the river. However, to date the pact has not been created (*Future Generations v. Ministry of the Environment and Others* 2018, 45). A final option is to grant legal rights to nature and create corresponding obligations on the part of governments and natural and legal persons, which can be fulfilled through legislation and administrative action.

The connection between rights of nature and environmental rule of law can be understood in at least two ways. The first is practical. Granting legal personhood—including standing—to non-human species, ecosystems and other natural elements opens up additional pathways for implementation and enforcement of environmental norms, reinforcing environmental rule of law. According to this perspective, rights of nature are an instrument to improve the functioning of the legal system. They exist as a legal fiction, analogous to the legal personhood of corporations that facilitates decision-making



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and administrative processes (Gordon 2018). The use of legal personhood of non-humans has a long history in Western European legal traditions, evident in the myriad of animal trials of the Middle Ages (e.g. Dinzelbacher 2002). Moreover, many countries around the world—not just in Europe—currently provide some limited personhood for natural elements. For example, land can hold easements or be party to a lawsuit (Gordon 2018). Seafaring ships can be treated as legal persons (Douglas 2009). This functional approach remains the backbone of academic discourse around environmental personhood (e.g. Gordon 2018; Kahui, Armstrong and Aanesen 2021).

A second approach to understanding rights of nature in the environmental rule of law context is based on ethics. This view starts from the idea that some non-human entities have moral status independent from their benefits to humanity. As such, some argue that they inherently possess fundamental legal rights, and are owed corresponding duties (Boyd 2017; Nash 1989). Proponents of this view believe that respecting, protecting, and fulfilling rights of nature is a requirement for the environmental rule of law, just as it is a requirement to protect human and communal rights-holders (Earth Law Center n.d.; GARN n.d.). Others distinguish between moral personhood and legal personhood, arguing that the moral status of nature—as well as its incorporation in indigenous cultural and legal systems—can justify the legal recognition of rights of nature by judges and courts, but they are not inherent (Gellers 2020).

Rights of nature may reinforce human rights. Granting rights to a river or ecosystem can benefit human communities that depend on that ecosystem and may be affected by its degradation. Recognizing environmental personhood can be a mechanism for protecting rights of current and future generations and maintaining economically valuable ecosystem services (Kahui, Armstrong and Aanesen 2021). In this way, rights of nature may lead to better protection of the right to a healthy environment. In a number of cases, there appears to be a large gap between the rights of nature granted through court decisions or legislation, and the on-the-ground implementation of those rights. Rights of nature is a quickly evolving area, and there is a lack of empirical data on the impact of such recognition on the health and wellbeing of ecosystems and associated human communities. As such, further research is warranted on both the desired and unintended effects of the rights of nature.

4.4 Conclusions

Rights continue to be a focus for environmental rule of law. It might be expected that with the widespread growth of environmental statutes, regulations and decrees around the world, rights might become less important as there is greater legal infrastructure to manage diverse environmental challenges. However, notwithstanding the substantial statutory and regulatory development to date, there has been a resurgent interest in rights and rights-based approaches. This interest in, and growth of, substantive and procedural rights to protect the environment is often linked to perceptions that the usual statutes, regulations and decrees are either insufficient or inadequately implemented and enforced. Rights elevate the importance of environmental concerns and create additional opportunities for holding governments, entities and private individuals accountable.

Interest in the role of rights to protect the environment has been elevated and invigorated by UN General Assembly Resolution 76/300. A similar endorsement of the human right to water by the UN General Assembly (UNGA 2010 A/RES/64/292) and by the Human Rights Council (UNHRC 2010c A/HRC/RES/15/9; UNHRC 2011 A/HRC/RES/16/2) spurred the articulation of the right to water in regional agreements and national legislation, as well as efforts to enforce the right in courts, and increased efforts to fulfil the right through actions such as infrastructure investments and social tariffs (Sultana and Loftus 2019; Wilder *et al.* 2020; Côrtes and Côrtes 2021; Wahi 2022). It is reasonable to expect that the resolutions by the General Assembly and the HRC on the human right to a clean, healthy and

sustainable environment will generate further constitutional and legislative development, as well as improved implementation and enforcement at the national and regional levels.

Rights-based approaches protecting the environment can be recognized through national and subnational constitutions, statutes, international agreements and judicial decisions. In practice, the impact of recognition of these rights is mixed primarily due to uneven implementation. There are many innovative legal provisions and inspiring judicial decisions, but many countries that have recognized rights to a healthy environment and procedural rights in constitutions or judicial decisions continue to struggle with environmental degradation and inequitable access to natural resources. To ensure that both substantive and procedural rights have an effect and do not just exist on paper, they must be implemented through legislative frameworks, institutions and judicial decisions.

In recent years there have been trends toward both integration and diversification of rights related to the environmental rule of law. The right to a healthy environment has gained popularity as an umbrella concept including positive substantive rights to air, water, food and a liveable planet, negative rights to be free from pollution, toxic substances and environmental degradation, and procedural rights to information, participation and access to justice (among others). New rights and rights-holders are gaining recognition. Rights of future generations, discussed for decades, have gained legal weight through judicial decisions, particularly related to climate change. Emphasis on the connection to the rights of children mitigates one of the most difficult aspects of rights of future generations: the problem of granting rights to individuals not yet born. The initiatives toward recognition of rights of nature is gaining strength as both a counter and complement to anthropocentric human rights.

Further research is needed to understand the impacts (both desired and unintended) of these provisions in practice. There is already a growing body of experiences and good practices—particularly captured in the various reports by the UN Special Rapporteur on Human Rights and the Environment—but these are largely qualitative. Further research could help to understand the impacts of the presence (and implementation) of rights on environmental outcomes, livelihoods, public health and other objectives. This research could also help to identify if certain rights are preconditions for the effective realization of other rights, or where there might be particularly strong synergetic interactions. With the recognition of the right to a clean, healthy and sustainable environment by the HRC and by UNGA, this knowledge would be essential in helping countries to effectively realize the right to a healthy environment.

Environment-related rights are closely tied to issues of social justice. Women, indigenous peoples and ethnic minorities consistently lead the development of environment-related rights and environmental justice forms a core social justice issue. Women's rights, indigenous peoples' rights and rights of racial and ethnic minorities are essential to realization of the right to a healthy environment, the right to water, access rights and the rights of nature—and vice versa.

Rights are both a tool and a prerequisite for environmental rule of law. National and international recognition of rights can empower rights-holders, provide access to different mechanisms for redress of environmental harms as well as accountability for decision-makers. They indicate national priorities and draw attention to environmental issues, while empowering civil society groups advocating environmental action. The protection and realization of rights is fundamental to environmental rule of law.

5. Justice

Four global trends have affected courts and access to courts in environmental matters in recent years:

1. The COVID-19 pandemic made in-person proceedings problematic
2. Courts have increasingly been accessed to drive action on climate change when executive and legislative bodies have failed to do so
3. Courts have increasingly diversified the remedies that they use as a way of tailoring the remedy to the problem at hand
4. Courts have been exploring extraterritorial application of domestic laws



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5.1 Introduction

A justice system that provides for effective enforcement of environmental laws and the peaceful resolution of disputes in a transparent, prompt and equitable manner is essential for robust environmental rule of law (UNEP 2019). At the same time, environmental rule of law is necessary for a justice system to be legitimate and fair. This chapter reviews the importance of judicial administration and access to justice for environmental rule of law. It then summarizes the status of key indicators and examines four trends affecting justice.

5.1.1 Justice in the environmental context

The justice system encompasses processes and institutions for resolving disputes, addressing grievances, holding violators accountable and providing reparations, remediation, restoration and compensation for damage. In addition, the justice system ensures equity and protects the rights of affected communities, including populations that have been marginalized.

Within the broader context of justice, the term 'environmental justice' has diverse meanings depending on the country and context. In one sense, it may refer to the need to remedy distribution of environmental harms in a way that it no longer disproportionately affects certain communities, typically defined based on race, origin, gender, sex, age or income (Sheriff and Maguire 2020; Atapattu, Gonzalez, and Seck 2021). It can also be used to address justice broadly in the environmental context, particularly with reference to the environmental justice movement that arose in the United States of America in the late 1960s to address unequal distribution of environmental pollution and has since expanded throughout the world (Atapattu, Gonzalez and Seck 2021). This movement and the associated concept of environmental justice are discussed in more detail in chapter 3. The focus of this chapter is the justice system and the role of courts.

A primary function of the justice system is the peaceful resolution of disputes and the adjudication of claims involving violation of the law. Environmental cases can involve disputes over the exploration, exploitation, use and sharing of benefits from natural resources. Other environmental disputes relate to ecological damage caused by human activities and their effects on biodiversity, the climate system, public health and human rights. Increasingly, courts are being called upon to decide environmental disputes seeking the recognition and protection of the rights of nature and non-human persons (see chapter 4) as well as the adoption of ambitious measures to protect the environment (see section 5.3.2 and chapter 2).

The Bangalore Principles of Judicial Conduct, endorsed by the UN Economic and Social Council (ECOSOC), emphasizes six key values: independence, impartiality, integrity, propriety, equality and competence and diligence (ECOSOC 2006/23). Judicial independence helps to ensure that the law is upheld even when there is a change of administrations and political priorities. With independence, it is also essential that judges act with integrity, upholding the law even when they may not agree with it. Overreach by courts can risk being viewed as substituting their policy judgments for those of other branches of government, which can undermine courts' credibility.

The right of access to justice underpins environmental rule of law and an effective judicial system (Panovics 2020). Access to justice ensures that people have access to courts, tribunals and other bodies to protect their environmental rights and interests; it can also help to strengthen enforcement where the government lacks the resources or political will to enforce. Additionally, public access to court decisions ensures the transparency of enforcement processes. There are some often recognized barriers to access to justice in environmental matters, including complicated, inconsistent and slow procedures, financial requirements for initiating court procedures and remoteness of courts from the site of the violation (see box 5.1). Increasing the availability of alternative dispute resolution

mechanisms in environmental cases could speed up the resolution of a matter in an accessible and cost-effective manner.

5.1.2 Justice and environmental rule of law

An effective justice system that provides for the fair and transparent resolution of disputes is important for environmental rule of law for six key reasons:

- The justice system is one of the primary mechanisms for enforcement of environmental laws. A well-functioning justice system that appropriately penalizes environmental harm in a timely manner can deter future violators and improve compliance, while a justice system that fails to address environmental damage can foster a culture of impunity (Bingham 2011);
- Effective environmental adjudication can address negative impacts on the environment and people and provide a source of compensation for environmental damage. This compensation can start to address environmental injustice suffered by affected populations and support restoration of affected ecosystems (Cole *et al.* 2021);
- An effective justice system creates a measure of accountability for other branches of government. By creating a process to review government decisions, the justice system can improve implementation and enforcement of environmental law and help protect environmental rights. Some countries, such as Sweden and Brazil, allow courts to conduct a substantive review of governmental decisions in the environmental arena under their constitutional provisions, while others (such as the United Kingdom of Great Britain and Northern Ireland) only provide for procedural review;
- Courts provide a mechanism for civil society organizations, private sector actors and the general public to air grievances and have their voices heard in a peaceful manner. For this, courts should be accessible to aggrieved parties and provide fair remedies (Anozie and Wingate 2020);
- Ensuring equal access to courts supports the underlying principle of rule of law: equality before the law. The systemic underrepresentation and mistreatment of certain communities affected by environmental problems undermines rule of law even outside the environmental sphere (Panovics 2020). Equal access to courts and fair remedies for all affected persons can address this failing. This can require broadening legal standing, addressing financial barriers to access to justice, and implementing measures to bring judicial resources to remote locations (see section 5.2.2);
- Courts can act when other branches fail. The judicial branch is designed to be independent from political pressures or the influence of powerful groups. Political branches of government (namely the legislative and executive branches) are populated by individuals who respond directly to a political party and who typically have a short-term tenure. In contrast, in most countries, judges and magistrates are not elected, insulating them to a degree from popular will. While the judicial branch is not designed to make policy, it can provide checks on the branches that do (see section 5.3.2).

Effective resolution of environmental cases is fundamental not only for the parties involved in the disputes but also for wider social goals of fairness and equality. Just as justice is important for environmental law, environmental rule of law is important for an effective system of justice. Degradation and deterioration of the environment have impacts not only on human health and wellbeing, but also on the general quality of life. Often those who have contributed least to environmental harm are most vulnerable to its impacts including women, children, ethnic and sexual and gender minorities (OHCHR 2016; UNEP 2021e). Implementing environmental rule of law by ensuring fair, transparent and accountable treatment of these cases in the courts can contribute to a more just and legitimate legal system.

The unjust prosecution and convictions of environmental defenders undermines public trust in the judicial system. As discussed in chapter 3, violence against environmental defenders has continued to increase in recent years. In some countries, the judicial system has been used by state actors to criminalize activities of environmental defenders as a means of intimidation, in addition to extrajudicial killings and human rights violations (Delina 2020). Among the growing forms of intimidation against environmental defenders is the use of strategic lawsuits against public participation (SLAPP suits). SLAPP suits are designed not to redress legally actionable behaviour but to silence activists and advocates (Reporters' Committee for Freedom of the Press n.d.). These lawsuits, brought by well-funded industrial interests, often fail in court but they succeed in their aims to silence opponents by the sheer burden and cost of defending such a suit. In addition to enacting national anti-SLAPP legislation, judicial understanding and enforcement of these laws is crucial to effectively protect environmental defenders (UNEP 2022). States have a duty to protect environmental defenders from human rights violations stemming from state and non-state actors (UNGA 2016a A/71/281). Similarly, courts have a duty to ensure that the judicial system is not used to promote violence against environmental defenders. Making sure that environmental defenders are not unjustly prosecuted and convicted improves public perception of legitimacy and fairness in the judicial system.

This chapter addresses the new developments related to justice and access to justice in environmental cases. The next section provides an overview of the status of justice in the environmental context in countries around the world, including the existence of specialized environmental courts and tribunals, legal guarantees of open standing, application of the loser-pays principle, and use of judicial training institutes. The chapter then examines five recent trends that affect the courts and access to justice, namely: the impacts of COVID-19 on the judicial system, the spread of judicial action to address climate change, the diversification of remedies used by courts, the use of transnational and extraterritorial adjudication, and trends in judicial legitimacy and perceived independence. The final section provides short conclusions.

5.2 Status

Justice—including both the judicial exercise of power and access to justice—is closely related to the investigation and enforcement of environmental legislation, procedural environmental rights and substantive environmental rights, addressed in chapters 2, 3 and 4, respectively. This section focuses on the global status of the key legal and institutional elements to enhance the administration of and access to justice in relation to the environment. It covers the existence and operation of specialized environmental courts, recognition of legal standing to bring a claim, allocation of the costs of litigation, and judicial capacity building initiatives. The data in this section is based on a set of indicators developed and measured between 2020–2021 (for methodology, see chapter 1).

5.2.1 Specialized environmental courts and tribunals

To develop a cadre of judges, lawyers and experts with expertise in environmental law, strengthen access to courts in environmental cases and facilitate the effective adjudication of environmental cases, many countries have created specialized environmental courts and tribunals (ECTs) or environmental 'benches' within existing courts. While these institutions are not the only way of improving the accessibility and expertise of courts in environmental cases, they can provide a mechanism for improving adjudication of environmental cases that complement the usual courts and tribunals. ECTs often have more independence, alternative dispute resolution mechanisms, judges trained in environmental expertise and flexibility compared to courts of general jurisdiction. Following an initial rapid increase in the number of ECTs, they have grown at a steady pace in recent years, reaching over 2,116 ECTs in 67 countries by 2021 (UNEP 2022). They can take various forms based on the specific



Photo: Yercaud-elango

needs and context of each country. Recent trends among ECTs include the growth of green benches with judges trained in environmental law; amalgamation of several institutions into one; and a more incremental progressive approach to establishing environmental protections as opposed to drastic, immediate broad changes.

ECTs can offer several benefits for environmental rule of law and sustainable development. They can operate more quickly and reach better decisions in environmental cases than general courts because they can give more priority to environmental cases, have judges with environmental training and have more experience with the often complex technical issues involved (Pring and Pring 2016; Okongwu and Ea Okposin 2021). There are several approaches to specialization, including the establishment of specialized courts, the establishment of specialized units/benches in general courts and the assignment of environmental cases to specialized judges (Casado Perez 2019).

A growing number of countries are making efforts to establish specialized courts or benches to hear environment-related disputes, and some countries are appointing specialized judges. For instance, in February 2020 the former Ethiopian Environment, Forest and Climate Change Commission, since restructured into the Environmental Protection Authority (Ethiopia, Proclamation No. 1263/2021),

drafted a new proclamation to establish a specialized federal administrative environmental tribunal that would be responsible for reviewing cases that involve compensation, rehabilitation and bans among other issues (Samuel 2020); as of July 2023, the proclamation had not passed and the environmental tribunal had not yet been established. In France, following the adoption of the Bill *Parquet européen, justice environnementale et justice pénale spécialisée* in December 2020, a specialized criminal court was established within the jurisdiction of each court of appeal for the investigation, prosecution, and adjudication of environmental disputes (France, Loi No. 2020-1672). In 2015, the province of Jujuy in Argentina created two environmental courts specialized in environmental matters and created positions for two environmental judges and two environmental prosecutors to handle the incoming cases before those new environmental courts (Argentina State of Jujuy, Ley No. 5899). From 2020 to 2022 Colombia considered multiple bills to create an environmental jurisdiction, but had not adopted one as of July 2023.

In 2018, Peru created a specialized environmental court in the city of Puerto Maldonado (IUCN 2018). This court was launched to bolster the country's efforts in upholding environmental rule of law, particularly to respond to illegal mining, deforestation, environmental degradation and illicit trade in wildlife, mining equipment and hazardous waste. As such it has jurisdiction over criminal, administrative and constitutional claims concerning the environment.

Environmental courts in different jurisdictions vary in terms of the limits of their jurisdiction/competence and their power to grant remedies related to environmental damage. For example, in Bangladesh, environmental courts have jurisdiction to grant remedies only under the Environment Court Act (Bangladesh 2010) and 'other laws' published in the official gazette (Hasanat 2021). The legal issues covered by these laws include the emission of pollutants from vehicles, the production and commercialization of environmentally harmful products and damage to ecosystems, among others. However, Bangladesh's environmental courts lack jurisdiction to adjudicate offenses concerning forest, biodiversity, water and other natural resources or to review administrative orders and decisions. Similarly, India's National Green Tribunal Act has jurisdiction over older environmental legislation, but lacks jurisdiction over more recently adopted legislation, such as the Wildlife Act, and does not have criminal jurisdiction to decide on environmental crimes. A similar situation exists in Trinidad and Tobago, where the Environmental Commission has jurisdiction over breaches of the Environmental Management Act, as well as its subsidiary legislation on environmentally sensitive species and areas, pollution and waste and permitting requirements. However, it does not have jurisdiction to hear matters relating to breaches of other legislation governing the conservation of wildlife, fisheries, forestry and mining (Trinidad and Tobago, Environmental Management Act 2000).

Experience with ECTs highlights some challenges, particularly arising from a lack of government and stakeholder support, competing needs, limited information technology and the lack of enforcement of environmental legislation (UNEP 2022). These challenges can lead to flawed appointment processes or a failure to appoint or replace the necessary judges, so the courts lack quorum. Where there is a lack of enforcement, an ECT may have few cases. Before deciding to create an ECT, it is advisable to consider whether the necessary enabling conditions exist for an ECT to function effectively.

Specialized environmental prosecutors and law enforcement with an explicit mandate to address environmental crime can also contribute to improving environmental rule of law. These are discussed in chapter 2.

5.2.2 Open standing

Legal standing is a jurisdictional requirement that governs whether a party can file a case in court (Ciuffoletti 2020). Standing is often limited to individuals and legal entities that can demonstrate they have suffered particular harm. This can create obstacles to environmental lawsuits, as it may be hard to show direct harm to individuals related to environmental damage, or such harm may be widespread and not particular.

A growing number of countries have specifically provided for open standing in environmental cases, which allows any legal person to bring an action to protect the environment, whether or not that person has been directly affected (Drenovak-Ivanović 2020; Harris Moya 2020). Open standing can make it easier for environmental non-profits and civil society groups, who are often best placed to identify violations of environmental standards, to seek protection of the environment and natural resources, or remedies for environmental damages once they have occurred (Anozie and Wingate 2020).

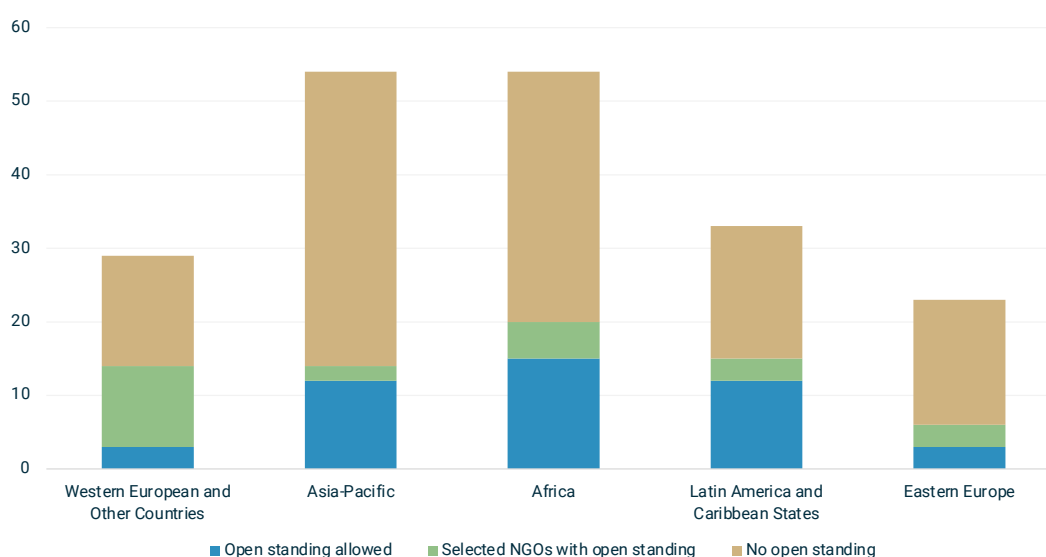


Figure 5.1: Countries with ‘open standing’ for environmental matters in national or subnational legal frameworks (Source: UNEP dataset 2021)

As of 2021, at least 45 states have adopted laws or procedures that provide for open standing in environmental cases (figure 5.1).⁷ In many instances, such provisions are part of framework environmental statutes. In others, open standing is provided for in constitutions or established through judicial precedent or court rules.

On 22 April 2021, the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) entered into force. Under this agreement, Parties⁸ obligate themselves to having “broad active legal standing in defense of the environment, in accordance with domestic legislation” (article 3(c)). This legal standing should empower citizens to file an administrative or judicial claim with respect to any act or decision that could adversely affect the environment or violate laws and regulations related to the environment, as well as any act or decision related to access to information or public participation in decision-making regarding environmental matters.

⁷ For the full methodology regarding the UNEP dataset, see discussion in chapter 1 .

⁸ As of July 2023, 15 countries had ratified the Agreement: Antigua and Barbuda, Argentina, Belize, Bolivia (Plurinational State of), Chile, Ecuador, Grenada, Guyana, México, Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia Saint Vincent and the Grenadines, and Uruguay. An additional 10 countries have signed the Agreement. In October 2022, Colombia’s Congress voted to ratify the Agreement; as of July 2023, though, Colombia had not completed the ratification process.

Some Caribbean jurisdictions have been loosening the traditionally strict requirements for legal standing in environmental cases through legislation and rules of procedure that grant the right to initiate lawsuits on environmental issues to individuals, associations and NGOs promoting environmental protection. For example, the Judicial Review Act of Trinidad and Tobago grants standing to file judicial review claims on three grounds: (1) being a natural person directly affected by a decision; (2) being a natural or juridical person (or a group of persons) with a justifiable public interest in the circumstances of the case; and (3) being a person or group of persons filing an application on behalf of a person or group unable to file the application due to poverty, disability, or social and economically disadvantaged position (Trinidad and Tobago Judicial Review Act, 60 of 2000). Courts have also granted legal standing when they are convinced that the claimants have a sufficient interest in environmental protection. For example, in Jamaica, the non-profit NGOs Jamaica Environment Trust and People United Respecting the Environment were granted legal standing to bring judicial reviews of a highway extension and a hotel development (ECLAC and CCJ Academy of Law 2018).

In addition to the 45 states that have adopted open standing, many states have liberalized standing laws to allow a wider range of actors to bring claims. At least 24 states have enacted laws or received judicial decisions that give NGOs special rights of standing in environmental cases. Such laws may expand the definition of who is an 'interested party' in a case, set criteria for cases that are in the 'public interest' or provide that certain actions can be brought under 'citizen suit' procedures. One approach is to specifically allow NGOs to bring environmental claims. These laws typically allow for certain NGOs, such as those who are registered as environmental NGOs or who have specifically listed environmental objectives in their corporate documents, to bring cases.

The Members of the European Parliament and the Council reached an informal agreement that deals with access to justice in environmental matters in 2021. In addition to recognized NGOs, groups of individuals representing a minimum of 4,000 people from at least five different Member States will have the right to request the review of an administrative decision's conformity with environmental law (European Parliament 2021).

In some jurisdictions, there is a question of whether organizations, as well as individuals, should be able to access legal aid to bring cases to protect the environment. In 2018, the NGO Friends of the Irish Environment (FIE) requested legal aid from the Legal Aid Board to bring a case against the adoption of the National Planning Framework and the National Development Plan because, in its view, those plans violated EU environmental law. The Legal Aid Board refused to provide free legal aid, arguing that FIE did not qualify for such help given that it was a legal person rather than a natural person. FIE filed a case before an Irish High Court challenging this decision, arguing that such refusal was contrary to the right to an effective remedy and to article 9(4) of the Aarhus Convention on the right of access to justice. On 15 September 2020, the Court held that the Irish Civil Legal Aid Act only applied to natural persons, not to legal persons, and that in view of the special costs' regime applicable in Ireland to all persons litigating certain environmental matters, such costs were not prohibitively expensive for FIE to access judicial review processes, and therefore, did not violate its right to access to justice and to an effective legal remedy (*Friends of the Irish Environment CLG v. the Irish Legal Aid Board*).

In a few cases, countries allow courts themselves to initiate proceedings *sua sponte* or *suo moto*, meaning on its own motion. For example, in 2021 the Indian Supreme Court found that the National Green Tribunal has *suo moto* powers to bring a suit pursuant to its mandate under the National Green Tribunal Act and article 21 of the Indian Constitution which safeguards the right to life (*Municipal Corporation of Greater Mumbai v. Ankita* 2021).

Box 5.1: Access to justice and accessibility of courts

Courts can best support environmental rule of law if all aggrieved parties have access to them. In addition to legal standing, accessibility is shaped by financial requirements and geographic accessibility (UNEP 2019).

Financial accessibility

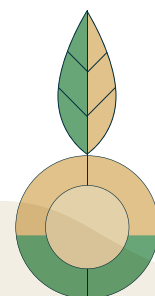
Financial requirements—including the need to hire legal representation, pay for specialized experts or cover high court fees—can determine whether claimants can afford to pursue justice in the court system. Typically those seeking to defend the environment through legal action rely on *pro bono* assistance or the support of law students supervised by experienced lawyers in law clinics (UNEP 2019; Herman 2021).

Legal aid programs and rules governing legal aid can help communities access civil and/or criminal justice systems for environmental causes (Rass-Masson and Rouas 2017). For example, Caribbean countries, such as Jamaica and Saint Lucia, are alleviating the costs of accessing justice in environmental matters by putting in place mechanisms for legal aid and technical assistance through Legal Aid Acts (ECLAC and CCJ Academy of Law 2018).

Geographic accessibility

People living in remote locations face significant hurdles to access to justice due to the time and costs required to reach courts located in capital cities or regional capitals (UNEP 2019). To solve this challenge some countries are implementing ‘mobile courts’, which travel to remote areas to hear and decide environmental cases. A mobile court has different structural modalities. For example, in Nigeria, a mobile court is a bus equipped to function as a courtroom, with a judge or magistrate, law clerks, support staff and recording systems. Established in 2018, Nigeria’s mobile courts provide inexpensive justice to citizens affected by environmental sanitation offenses (Ewulum 2019; Nwazi and Christopher 2021). Nigerian mobile courts can have a higher impact on access to justice when they have broad jurisdiction on environmental matters, power to grant remedies for environmental damage and specialized knowledge and training on environmental laws (Nwazi and Christopher, 2021). Other countries such as Brazil, Uganda, Philippines and Guatemala also have experiences with mobile courts (UNEP 2019).

In 2021, the Constitutional Court of Ecuador travelled for the first time to Indigenous territory for a court hearing. Over 300 Indigenous leaders travelled from across Ecuador to attend the hearing, which addressed Ecuador’s process on free, prior and informed consent related to mining on Indigenous lands (Correa 2021).



5.2.3 Loser-pays principle

Litigation can be an effective means of holding both private actors and governmental bodies accountable to environmental requirements, procedures and standards. As such, litigation can be an essential tool in ensuring that all actors comply with environmental law. However, litigation can be both complex and costly (see box 5.1). While states and large corporate actors may be able to bear the costs of litigation, non-profit organizations, small businesses, community groups and individuals may not be able to do so.

The 'loser-pays principle' provides that the unsuccessful party has the obligation to pay for the costs of the successful party, in addition to their own costs. In complex environmental cases, this can be a prohibitively large amount of money, especially when the opposing party is a government agency or large corporation that hires multiple attorneys, experts and support staff to work on the case. In the context of public interest environmental litigation (including public interest enforcement of environmental law), this principle can hinder and discourage filing a case seeking to protect the environment and uphold environmental rule of law.

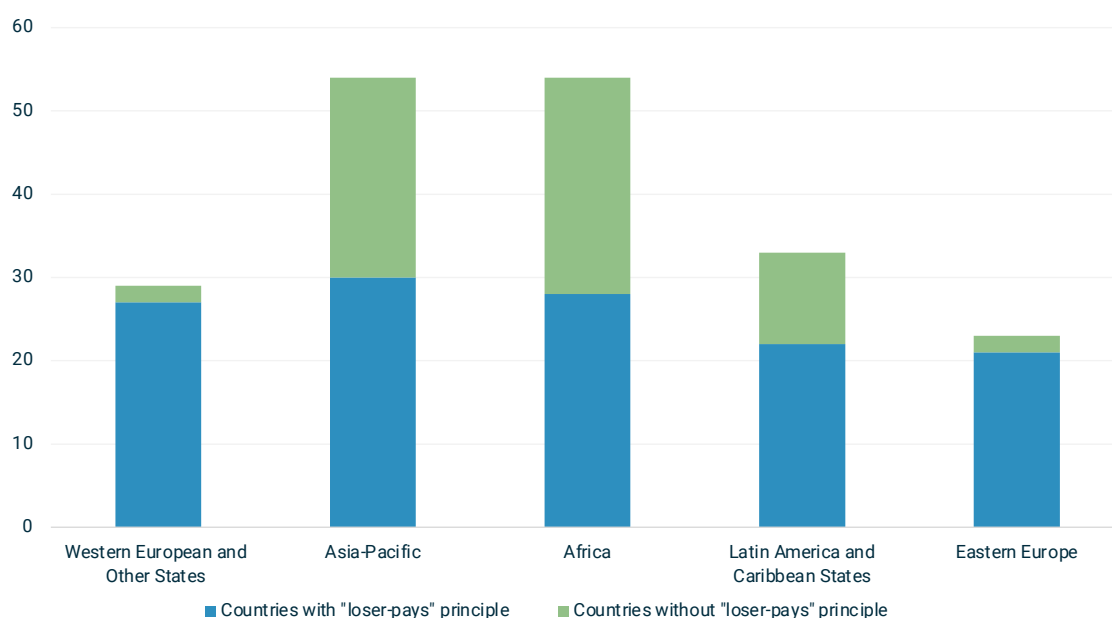


Figure 5.2: Countries that apply the 'loser-pays principle' in environmental matters (i.e. the losing party covers the litigation costs of the opponent) (Source: UNEP dataset 2021)

As of 2021, 128 countries apply the loser-pays principle as the default rule in environmental cases, which in environmental cases undermines environmental rule of law (figure 5.2). The fear of facing large costs (which could bankrupt an organization or individual) if the lawsuit is unsuccessful can be an impediment to any case that is not certain to win. This principle disproportionately affects less affluent groups, who in many cases are those most likely to be the victims of environmental harm. It also makes it harder for non-profit civil society groups to use litigation as a tool to hold powerful actors to account.

Many jurisdictions allow for the loser-pays principle to be overridden in particular cases, especially those brought in the public interest when the court determines that the case is brought in the public interest or where the claim is made in good faith. In some Caribbean states, if the claimant has acted in an ostensibly reasonable manner or has been significantly successful against the defendant, the court may decide not to order the loser to pay for the costs of litigation in administrative or constitutional review procedures. For instance, Rule 56.15(5) of the Civil Procedure Rules of Jamaica establishes that "The

general rule is that no order for costs may be made against an applicant for an administrative order unless the court considers that the applicant has acted unreasonably in making the application or in the conduct of the application” (Jamaica, Civil Procedure Rules 2006). In Brazil, attorneys’ fees and costs are not required in actions brought under the Public Civil Action Act unless the case has been brought in bad faith (Brazil 1985, article 18).

The loser-pays principle is further ameliorated in many countries by being limited to procedural costs only and not lawyers’ fees, not extending to the costs of government lawyers, being limited by a ‘reasonableness’ standard (or similar) or applying only to civil cases, but not cases before administrative courts and tribunals. One example of such a limited loser-pays principle applies in Belgium, where the losing party has to pay the costs of the proceedings but the costs of a lawyer are reimbursed as a flat-rate indemnity (indemnité de procédure/rechtsplegingsvergoeding).

Courts may exercise discretion to depart from the loser-pays principle, as has happened in some environmental cases. In *Belize Tourism Industry Association v. National Environmental Appraisal Committee, Department of Environment*, the Supreme Court of Belize found considerable flaws in the EIA process of an infrastructure project in Harvest Caye, but those did not render the EIA null and void. Instead of ordering the claimant to pay the costs of litigation (because they did not win outright), the Court ordered the defendants to pay the claimant’s costs because the claimant was litigating in the benefit of the public interest and had been largely and significantly successful.

5.2.4 Judicial training institutes

Environmental cases are often complex due to the need to evaluate scientific evidence to decide on the facts of the case, the economic valuation of damages and the rapid, ongoing evolution of environmental law. In many cases, judges are facing a case of first impression for their country. In this context, building and maintaining the capacity of judges is a constant need.



Photo: Pexels

Box 5.2: Judicial training through UNEP

The work of UNEP to support judiciaries began in 1996 with the convening of a series of regional judges' symposiums on environmental law, sustainable development and the role of the judiciary in several regions of the world. The goal of these efforts was for UNEP, in cooperation with its many partner agencies and on a cohesive, structured and sustained basis, to carry out activities for strengthening the role of the judiciary in securing environmental governance, adherence to the rule of law and the effective implementation of national environmental policies, laws and regulations including the national level implementation of multilateral environmental agreements (UNEP 2005).

Since then, several colloquia have been convened at all levels with several notable results. For instance, in Africa, UNEP has partnered with judicial training schools to create a sustainable training programme, following the adoption of the Johannesburg Action Plan on Environmental Law. The training program is embedded in the curricula of these schools and institutes with the aim of creating long-term impacts. In 2018, following a Regional Symposium on Greening the Judiciaries in Africa, the African Judicial Network on Environmental Law Education (AJENEL) was created, along with a regional training curriculum and manual (UNEP 2018b). Over 25 countries in Africa have now integrated environmental law issues in their judicial training, thus creating sustainable mechanisms for ongoing capacity building of judges and magistrates on environmental law.

At the global level, since 2016, UNEP has rolled out a judicial capacity-building program on the topic of environmental constitutionalism for judges at all levels (University of Pretoria 2016; UNEP 2018c). The program has also been supported by the production of handbooks and a case compendium on environmental constitutionalism. Through the programme, over the last five years, more than 300 judges and legal stakeholders across most UNEP regions—Africa, Asia Pacific, Europe, Latin America and the Caribbean, and North America—have benefited from a strengthened understanding of the operationalization of constitutional environmental rights. In 2022, building on the success of this global program, UNEP convened a further judicial forum to focus specifically on the topic of environmental human rights defenders. The forum emphasized the critical role that environmental human rights defenders play in protecting environmental rights and the critical need to ensure their security and the effective continuity of their work.

As of 2020, at least 39 countries have a judicial training institute at the national or subnational level that included environmental law in its judicial training activities. For instance, in October 2020, in Argentina the Association of Magistrates and Officials of the National Justice's School of Judicial Training offered a month-long course entitled Environmental Law Facing the Third Decade of the 21st Century (Escuela de Capacitación Judicial AMFJN n.d.). Bulgaria's National Institute of Justice has introduced a training program on environmental crimes (Council of the European Union 2019). In Colombia, judges can undertake training to obtain a Certificate for Judicial Practice in Administrative Disputes, which includes a module on environmental and agrarian law.

International organizations such as UNEP, judicial academies, specialized NGOs and judges are cooperating to build capacities of judiciaries to decide cases related to the environment. In Colombia, the Judicial School is partnering with international development partners to train judges in the Colombian Amazon to hear and decide cases related to illegal deforestation (RLB Judicial School 2022). In the United States of America, the Environmental Law Institute is undertaking a multi-year project to provide neutral, objective information on climate change to state and federal judges to familiarize themselves with climate science, methods and concepts (Environmental Law Institute [ELI] n.d.).

In addition to judicial training at the national and subnational levels, there has been progress in sharing experiences, ideas and learning globally (Robinson 2018). UNEP has supported judiciaries across Asia and the Pacific through a series of conferences and summits. In 2018, the Asia Pacific Judicial Colloquium on Climate Change: Using Constitutions to Advance Environmental Rights and Achieve Climate Justice brought together 250 judges, lawyers and experts in environmental law from the region and globally to discuss the role of judiciaries in advancing environmental rights and enhancing climate justice (Raine and Pluchon 2019).

In 2016, the Global Judicial Institute on the Environment (GJIE) was founded in Rio de Janeiro, Brazil, and subsequently incorporated under Swiss law, as an organization of judges for judges to enhance global capacity to ensure effective implementation and enforcement of environmental law. GJIE's key activities include judicial capacity-building and education programs to improve the administration and resolution of environmental cases, technical assistance and sharing best judicial practices, collaboration and information exchange, and research and analyses on environmental adjudication and dispute resolution (Global Judicial Institute on the Environment [GJIE] 2021). Recognizing the fact that many jurisdictions are facing current or imminent water crises, GJIE adopted the Brasilia Declaration of Judges on Water Justice in which judges agreed to observe 10 principles—including the polluter pays principle and *in dubio pro aqua*—when hearing water-related cases (Brasilia Declaration 2018). In partnership with UNEP and the IUCN World Commission on Environmental Law, GJIE launched a Judicial Portal (<https://judicialportal.informea.org/>) to facilitate the exchange of environmental jurisprudence and other information among judges.

5.3 Trends

Four global trends have affected courts and access to courts in environmental matters in recent years. First, the COVID-19 pandemic made in-person proceedings problematic. Second, courts have increasingly been accessed to drive action on climate change when executive and legislative bodies have failed to do so. Third, courts have increasingly diversified the remedies that they use as a way of tailoring the remedy to the problem at hand. Fourth, courts have been exploring extraterritorial application of domestic laws. These are discussed in turn below.

5.3.1 COVID-19 and the justice system

The COVID-19 pandemic has affected every aspect of society, and the administration of justice is no exception. At first, some courts postponed all hearings and suspended all legal deadlines except for particularly urgent cases. For example, on 17 March 2020 the Managing Director of the Dubai Courts issued Decision No. 30 of 2020 declaring a temporary postponement of all ongoing proceedings and court hearings until 16 April 2020 (Norton Rose Fulbright 2020). The United States of America Supreme Court recommended postponement of all oral arguments scheduled for March and April 2020. In France, courts closed from 16 March 2020 with the exception of essential litigation to guarantee human rights—mostly in criminal cases, with correctional hearings for pre-trial detention.

Many courts were not prepared to adapt to the COVID-19 pandemic in a way that would allow them to continue performing their functions under lockdown conditions. Procedural rules in some jurisdictions prohibited the use of information and communication technologies to hold online hearings, while others had insufficient technology for virtual sessions. Germany had rules for online hearings in civil jurisdictions, but the courts were not well equipped to implement video conferencing because it was unusual to have these procedures (Bielik *et al.* 2020; Golubeva, But and Prakhov 2020; Norton Rose Fulbright 2020).

This impacted not only the administration of justice, but also judicial training programs, including those relating to environmental law. Due to the COVID-19 pandemic, face-to-face judicial training activities were

suspended, but e-learning forums were rapidly implemented. For instance, the French National School for the Judiciary had to stop working for two months after the COVID-19 outbreak, then it adapted all the content that used to be taught in classrooms to an online format (UNODC 2020b). Similarly, Colombia's series of courses to train judges in the Colombian Amazon to hear deforestation-related cases was converted to an online format. In the Colombian context (but also more broadly), online training is proving to have its strengths and weaknesses. It can be conducted remotely during a pandemic, and judges do not need to travel to the training site. At the same time, however, it can take longer to train judges virtually: due to webinar fatigue, online trainings are often broken up into three or four-hour parcels over a few weeks, rather than done over two or three full days. Judges in more remote areas may not have the bandwidth to connect or participate effectively. Moreover, when judges (and others) participate from their computer at home, their attention is often diverted. Finally, online training means that many of the informal discussions that happen on the margins of training courses (for example, during breaks) no longer occur.

After the initial shock of the COVID-19 pandemic, most courts rapidly adopted measures to adapt their procedures and infrastructure to delivering justice using teleconferencing technologies. For example, Ukraine adopted several regulations to allow wider use of videoconferencing in civil and commercial court hearings and proceedings, as well electronic documents exchange (Bielik *et al.* 2020; Golubeva, But and Prakhorov 2020). It identified a single working system to provide video communication to parties, provided material and technical support to courts and worked to build capacity of court staff and litigants.

The COVID-19 pandemic highlighted the importance of having a well-developed online justice system to guarantee access to justice for all. Many countries used online conference platforms such as Zoom and Microsoft Teams to hold online hearings. However, these commercial platforms did not always meet the security standards required for legal proceedings (Muth 2020). Several countries quickly realized the need to develop their own platforms with increased security mechanisms. For example, Türkiye developed an 'e-hearing' system to allow lawyers and citizens to attend hearings in 1,400 civil courts across the country, which started operating on 9 November 2021 (BIA News Desk 2021). Other countries developed a full online justice system. At the beginning of the pandemic, Switzerland started Project Justitia 4.0, which aims to replace paper files with electronic files. The project created a central justice online platform that facilitates legal transactions across all stages of civil, criminal and administrative court proceedings. In parallel to the project, a bill for the introduction of a mandatory requirement for electronic communication and for electronic file management is being developed (Gysin 2021). Likewise, the Russian Federation has developed an online Justice State Automated System (Buhgalteria 2021; Momotov 2021).

While online mechanisms can enhance access to justice (including in environmental matters) for many, it can also exclude people who have limited access to technologies or stable internet access. In order to address this challenge, Jamaica is fitting two buses with technology to travel to remote areas with the objective of reaching witnesses and gathering testimonies in online judicial processes (Jamaica Gleaner 2021).

The COVID-19 pandemic accelerated transformation and digitalization of court systems around the world. Changes will be broad, deep and lasting. Courts will need to learn smart management practices, pass new regulations and guidelines, review procedural rules (including, for example, those relating to evidence) to adapt them to online justice and embrace principles and safeguards to guarantee access to justice for all in environmental matters. While COVID-19 accelerated the process, courts had already been exploring ways to use artificial intelligence and other technologies to improve the administration of justice. To assist countries as they transition their court systems, the Council of Europe has developed an Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, which include principles covering, among others, data security and transparency (Council of Europe 2019; Reiling 2020; Bannon and Keith 2021).

As COVID-19 transforms from a pandemic to an endemic disease, the COVID-19 pandemic has yielded many lessons for future emergency scenarios. One of the most important lessons is that courts should have in place an emergency plan to ensure continuity of justice administration. Courts that had this type of plan were able to adjust more quickly and nimbly to the emerging pandemic and continue administering justice without a significant interruption. For instance, the Court of Justice of the European Union had a continuity plan in case of an emergency, a modern operating system and laptops programmed to connect remotely to the court's network (Popotas 2020) (see box 5.3). Lithuania had introduced rules in the Code of Civil Procedure to legitimize the use of information and communication technologies during court hearings long before the COVID-19 outbreak (Vigita 2020). This allowed Lithuanian courts to respond in a fast and orderly manner to the pandemic and ensure the continuity of administration of justice. These courts reported a similar number of cases resolved between March and December 2020 relative to the same period in 2019 (Popotas 2020; Vigita 2020).

Box 5.3: Adoption of emergency plans to ensure continuity of administration of justice

Before the COVID-19 pandemic, the European Court of Justice (CJEU) created two committees to deal with emergencies: (1) the Crisis unit, which was charged with regrouping high-ranking officials to make strategic decisions; and (2) the Crisis Emergency Committee (CMC), where representatives of operational services and the registries coordinated all court's activities in a rapid and flexible manner. In 2019 the CMC had finalized its operational protocols, which allowed it to work and make decisions by video conference, and the court had equipped 80 per cent of the staff with laptops with remote access to the court's network. The remaining 20 per cent of the staff were equipped to telework within two months from the beginning of the lockdown.

Furthermore, extensive transformation from paper-based procedures to electronically managed circuits were conducted; the network bandwidth was enlarged to cope with increased requests and to support audio and video-conferencing. Initially, the court postponed all hearings and pleadings, except for 60 urgent cases that were handled. After 25 July 2020, though, the court resumed hearings *in situ* and adopted hygienic procedures to prevent the spread of the virus. Rules of procedure were put in place to conduct hearings through videoconferencing where attorneys could not attend the hearings. From 1 September 2020, many procedures returned to normal, with teleworking remaining the rule and only those tasks that require a physical presence being conducted at the court (Popotas 2020). The court gradually and incrementally transitioned back to a largely in-person operating environment (Kamber and Markić 2021; Popotas 2021).

Courts need to be ready to oversee emergency-related measures to ensure that constitutional rights are respected in times of crisis and environmental rule of law is maintained. Judicial systems around the world have recognized the need to continue functioning effectively in times of emergency in order to ensure access to justice and prevent the opportunistic dismantling of environmental protection or violation of environmental and human rights (UNECE 2020). Judicial protection of rights during the COVID-19 crisis is discussed in chapter 4.

5.3.2 Increasing judicial action on climate change

Judicial action on climate change has been growing globally at unprecedented pace. Since 1986 1,841 cases on climate change litigation have been filed around the world, out of these 1,006 have been filed since 2015 and 191 new cases were filed between May 2020 and May 2021 (Setzer and Higham 2021). These cases demonstrate a changing approach to climate accountability as well as a new role for the courts.

Courts are acting because other branches of government are falling short. In most countries, legislatures and executive agencies have failed to adopt the climate laws necessary to address climate change. This is for many reasons: concerns about competitiveness, influence of donors and lobbyists and the need to take actions that are economically painful in the short-term for long-term environmental and economic benefits. In this vacuum, people and organizations are bringing cases in courts based on constitutional rights, human rights (including the rights of future generations) and other legal bases.

In many climate cases, plaintiffs are asking courts to order the adoption of ambitious climate goals backed by legal frameworks. In the landmark *Urgenda Foundation v. Netherlands* case, the Hague District Court ordered the Dutch government to limit greenhouse gas (GHG) emissions to 25 per cent below 1990 levels by 2020, finding that the government's existing pledge to reduce emissions by 17 per cent was insufficient to meet the country's fair contribution toward the global goal of keeping global warming under 2°C of pre-industrial levels. The decision was confirmed by the Court of Appeal in 2018 and the Supreme Court in 2019. During this process, the Dutch government passed, on 2 July 2019, a new Climate Act which established a goal to reduce national greenhouse gas emissions by 25 per cent by the end of 2020, by 49 per cent by 2030 and by 95 per cent by 2050, compared to 1990 levels.

The *Urgenda* case has inspired other plaintiffs and courts. As of May 2021, at least 37 new cases challenged the sufficiency of government goals to halt global warming (i.e. that the targets are ambitious enough for that country to meet the global target of 1.5°C of global temperature increase), and another 31 cases challenged the adequacy of governmental action to address climate change (i.e. the appropriateness of the measures to meet climate goals) (Setzer and Higham 2021). For example, in *Commune de Grande-Synthe v. France*, the State Council (Conseil d'Etat) ruled in July 2021 that France committed itself to a 40 per cent reduction in greenhouse gas emissions by 2030, compared to 1990 levels. The court also held that the measures that the government was implementing were insufficient to meet the target, and ordered the state to take all necessary measures by the end of March 2022 to fulfil its commitments. In *Neubauer v. Germany*, decided 29 April 2021, Germany's Federal Constitutional Court ruled that the German Federal Climate Protection Act was inadequate to meet Germany's goals to reduce GHG emissions under the Paris Agreement.

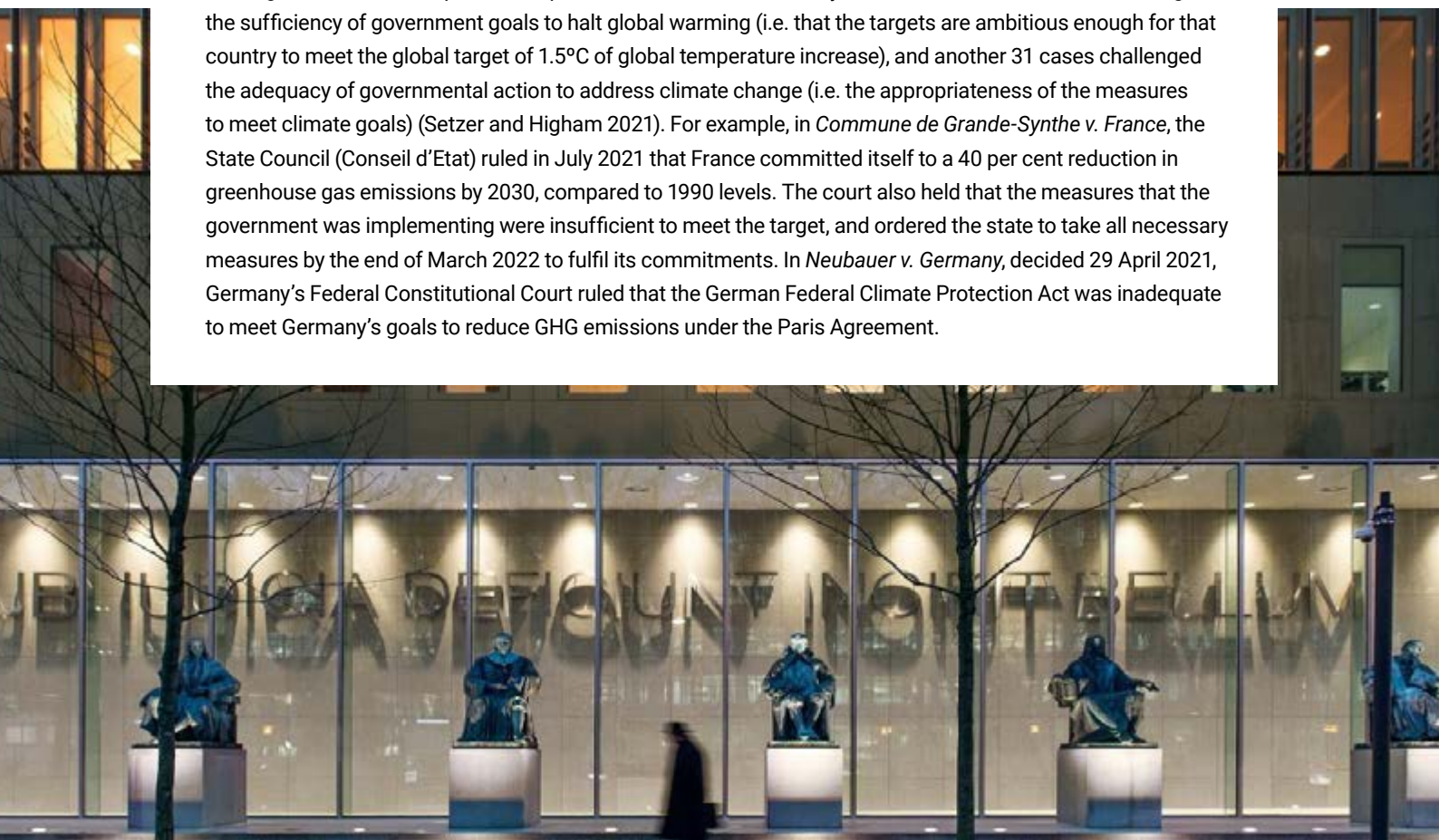


Photo: Bas Kijzers / Rijksvastgoedbedrijf

Courts are upholding environmental rule of law in cases challenging specific projects and programs whose climate impacts are deemed to violate the law. In *Greenpeace Mexico v. Ministry of Energy*, the claimant filed a lawsuit against the Ministry of Energy contesting the constitutionality of two policies in the electricity sector that, in their view, would jeopardize the expansion of renewable energies and slow down climate change mitigation. A Mexican federal court decided that the policies were unlawfully modifying the rules of the energy market and violated the constitutional right to a healthy environment of Mexican citizens, as well as Mexico's international legal commitments under the UN Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement. It ordered the Ministry of Energy to amend the policies.

In addition to enhancing government accountability, courts are increasingly holding the private sector accountable for its emissions. In the early 2000s, there were several efforts to make private corporations accountable for their contributions to climate change, with little success. Problems of standing, political question and the difficulty in proving causation largely blocked early lawsuits to hold private emitters liable for climate change impacts (Belleville and Kennedy 2013). However, in recent years a new wave of litigation has had more success. Improved scientific evidence has made it easier to demonstrate current and future impacts on individual plaintiffs for the purpose of standing and to prove causation by quantifying the climate change contributions of identified corporations (Ganguly, Setzer and Heyvaert 2018). For example, as of July 2023, more than 40 states and municipalities in the United States of America have filed lawsuits against corporations seeking compensation for loss and damage related to climate change (Center for Climate Integrity 2023). Civil society plaintiffs are also suing corporations for releasing large amounts of carbon dioxide into the atmosphere, thereby breaching their duties of causing 'no harm' (UNEP 2020b; Setzer and Higham 2021).

Courts are also considering corporate due diligence in relation to human rights and climate change. In the Netherlands, the Hague District Court issued a landmark court decision in *Milieudefensie v. Royal Dutch Shell*, rendered May 2021, in which the court imposed a specific mitigation obligation over and above reduction targets set by existing cap-and-trade regulations and other governmental mitigation policies, based on an unwritten duty of care based in tort law. According to the court, a private enterprise has two kinds of obligations in relation to climate change: (1) an obligation of result to reduce its own emissions; and (2) an obligation of means (adoption of best-efforts) to reduce emissions along its entire value chain. This case sets an important precedent on the legal responsibility of corporations to reduce their emissions and contribute to the global goal of keeping global warming at 1.5°C. In interpreting the duty of care as applicable to Royal Dutch Shell, the court made frequent references to the UN Guiding Principles on Business and Human Rights (the so-called Ruggie Principles). Some commentators argue that there may be a new trend in which courts make corporate due diligence a legally binding norm (Hösli 2021; Macchi and van Zeven 2021). In 2022 the European Commission published a proposal for a directive on corporate sustainability due diligence that would formalize and clarify this duty (European Commission 2022).

Climate litigation is increasingly grounded in human rights, including the right to a clean, healthy and sustainable environment, the right to life and the right to a private life. Studies show that the discussion on the recognition of a right to a clean, healthy and sustainable environment is influencing the arguments used in climate litigation around the world (Peel and Osofsky 2018; UNEP 2020b). Up to May 2021, 112 climate cases around the world were found to use human rights arguments, including 29 filed in 2020 (Setzer and Higham 2021). A 2023 UNEP Report highlighted the assertion of 'climate rights' in climate litigation at both the international and national levels (UNEP 2023). At the domestic level, there has been an increase in climate lawsuits that refer to constitutional, fundamental, or human rights (UNEP 2020b). For example, in *Future Generations v. Ministry of the Environment and Others* (decided April 2018) the Colombian Supreme Court recognized that the environment is linked to human rights such as the right to health, life and human dignity and held that the government must implement a plan to stop deforestation (see chapter 4).

In 2022, Brazil's Supreme Court recognized the Paris Agreement as a human rights treaty in a case concerning the government's failure to distribute financial resources from a national climate fund. The

Court held that treaties and agreements on environmental rights such as the Paris Agreement constitute a particular type of human rights treaty and therefore hold a supranational status that creates binding obligations on the federal government (Supremo Tribunal Federal, Brazil 2022).

This trend is happening in international and national jurisdictions alike. In 2017, the Inter-American Court of Human Rights recognized in an Advisory Opinion that the right to a healthy environment as a fundamental human right and part of the American Convention on Human Rights (Advisory Opinion OC-23/17, Inter-American Court of Human Rights 2017). Three years later, the Court found that Argentina had violated this right to a healthy environment by failing to grant indigenous communities effective title to their ancestral territory and allowing oil and gas exploration, illegal deforestation and other unsustainable and environmentally harmful activities in their territories. The Court ordered Argentina to grant title to the indigenous communities and take measures to remove illegal settlers, fencing and livestock and improve access to food and drinking water and recovery of forest resources (*Indigenous Communities of The Lhaka Honhat (Our Land) Association v. Argentina* 2020).

In September 2020 a group of youth activists filed a case before the European Court of Human Rights against the 27 EU member States, as well as Norway, Russian Federation, Switzerland, Türkiye, Ukraine and the United Kingdom of Great Britain and Northern Ireland. In *Duarte Agostinho and Others v. Portugal and 32 other States*, the plaintiffs alleged that the states had violated their rights to life, to respect for private and family life and to not experience discrimination (articles 2, 8 and 14 of the European Convention on Human Rights) by failing to commit to emissions reductions that will hold global warming at 1.5°C. The case is still ongoing as of June 2023.

In addition to rights-based cases, many climate cases use the public trust doctrine to argue for stronger government action on climate change. According to this doctrine, the state is a trustee of trust property for people and has a duty to act on behalf of those who are the beneficiaries of that duty. Originating in Roman and English common law, the doctrine was developed as a tool for environmental protection in the United States of America in the 20th and 21st centuries (Blackmore 2018; Ryan, Curry and Rule 2021). In 2015, youth plaintiffs in the United States of America used the public trust doctrine to argue that the government had a duty to protect the natural resources of the country against destruction caused by climate change, in the case *Juliana v. United States* (District Court Oregon 2016). Although the case was ultimately dismissed on appeal for lack of redressability, the public trust argument was successful in the lower court and inspired a movement that adapted the doctrine in climate litigation in other civil and common law jurisdictions around the world (Wood and Woodward IV 2016; Blumm and Wood 2017). For example, the public trust doctrine features in *La Rose v. Her Majesty the Queen* in Canada (dismissed on standing grounds; currently on appeal) and in *Youth v. the Government of Mexico* in Mexico (ongoing) (Sindico and Mbenge 2021).

Just as there is a trend in climate litigation to accelerate actions for climate change, there is also a trend of litigation opposing the adoption of measures to mitigate climate change that affect the economic balance of investments in the fossil fuels sector. This seems to be a counter-strategy aimed at neutralizing the economic impacts of climate action on big corporations. The clearest example is in the Netherlands. As a result of the *Urgenda* case, in 2019 the Dutch government adopted the *Law Prohibiting the Use of Coal with the Production of Electricity*, which stipulates that all coal plants will be shut down by 2030. In 2021, two German enterprises commenced investor-state arbitration under the ICSID Convention arguing that the law will severely affect their investments in coal plants in the country, which were made following all the permits and under the assumption that they would be able to operate for a long period of time to make a profit; they also pursued litigation in Dutch courts (*RWE AG and RWE Eemshaven Holding II BV v. Kingdom of the Netherlands; Uniper SE, Uniper Benelux Holding B.V. and Uniper Benelux N.V. v. Kingdom of the Netherlands*). The enterprises argued that these measures were tantamount to expropriation without appropriate compensation and would breach their right to a fair and equitable treatment under the Energy Charter Treaty. RWE requested compensation of Euro (€) 3.2 billion in compensation for shutting down its



Photo: CEphoto, Uwe Aranas

two plants; and Uniper requested €1 billion in compensation. In November 2022, the District Court of The Hague ruled against the two enterprises, applying a ‘fair balance’ test to hold that while the law did affect their right to property the infringement was not unlawful (*RWE and Uniper v. the Netherlands (Ministry of Climate and Energy)*). A recent study found that payment for damages in investor-state arbitration can have far-reaching implications in states’ ability to address climate change, because investment treaties can require states to compensate foreign investors according to higher standards than those set under national legislation and constitutions, rendering climate action prohibitively expensive and transferring the costs of climate action from highly polluting businesses to governments (Tienhaara and Cotula 2020).

Climate-related court decisions have directly affected legislative and regulatory development. For example, the *Urgenda* case in Netherlands triggered the adoption of higher climate mitigation targets in the Climate Act as well as the adoption of other laws, such as the Law Banning Coal in Electricity Production.

Climate-related court decisions can also inspire subsequent cases seeking climate action. For example, following the landmark decision in *Neubauer v. Germany* in April 2021, a wave of new climate cases was brought to courts by youth activists across Germany. At least six climate cases were filed by youth plaintiffs—and one non-youth plaintiff—against seven German states, arguing that the absence or the inadequacy of climate laws in these states threatens their lives and civil liberties (*Lemme v. Bayern; Kiehm v. Brandenburg; Salis v. Sachsen-Anhalt; Runge v. Sachsen; Frank v. Saarland; Hochstadt v. Hesse; Krüssman v. Nordrhein-Westfalen*). These claims were filed after the Federal Constitutional Court decided that the German Federal Climate Protection Act was incompatible with fundamental rights protected by the constitution because it failed to ensure emissions cuts beyond 2030 and ordered the legislature to set clear provisions for reduction targets from 2031 onward by the end of 2022. These cases were dismissed on 18 January 2022.

In addition to courts, a growing number of alternative dispute resolution bodies have started to address grievances related to climate change. This includes, for example, bodies to support efforts to reduce emissions from deforestation and land degradation (REDD+) (see box 5.4).

Box 5.4: Alternative dispute resolution and judicial legitimacy in Liberia

Mechanisms to address climate change can themselves be a source of disputes. This can be particularly problematic in areas where judicial capacity and resources are strained. Alternative dispute resolution can be an effective way to respond to these grievances.

A survey of Liberian lawyers conducted in 2019 reported that 73 per cent were dissatisfied with the performance of the Liberia judiciary, in large part due to slow delivery of justice especially in densely populated areas (Bright 2020). Alternative dispute resolution (ADR) has been proposed as a mechanism to help reduce trial courts' dockets by granting plaintiffs alternative mechanisms to seek redress. ADR often utilizes local mechanisms that can be more accessible, familiar and perceived as fair by a wide range of disputants.

Liberia's newly created Feedback Grievance Redress Mechanism (FGRM) is an example of an ADR mechanism that engages local institutions and enjoys local legitimacy. The FGRM was set up to handle grievances from forest communities impacted by REDD+, as one of the steps required for REDD+ readiness in Liberia (FCPF and UN REDD+ Programme 2015; FCPF 2020). REDD+ is a framework established under the auspices of the UNFCCC to support developing countries' efforts to reduce emissions from deforestation and forest degradation and incentivize and finance sustainable forest management.

The Liberia FGRM is designed to be an accessible and transparent process. Its purpose is to receive complaints and redress grievances in a credible and timely manner (Liberia Forestry Development Authority 2015). It addresses issues related to boundary demarcation for conservation and community forest services, injuries to farms and crops caused by protected wildlife around protected areas in forest landscapes, and injuries to community forests in forest communities, forced removal of people from protected areas and implementation of livelihood activities with no benefit sharing information (Liberia Forestry Development Authority n.d.). It utilizes local traditional dispute resolution mechanisms as an entry point, with the possibility of appeals to statutory courts.

5.3.3 Diversification of remedies

Providing adequate remedies for environmental harms and risks of harm can be complex. Some countries use a combination of criminal and administrative sanctions and private civil liability in cases involving environmental harm (see box 5.5). In recent years, courts have been providing an increasingly broad range of remedies in environmental cases. These include orders to restore or fund restoration of environmental damage, compensation for harm to ecosystems themselves (as opposed to harm to individuals) and symbolic compensation and declaratory judgments intended to send a message to governments, the private sector and the public.

Remedies can also take the form of projects to restore and improve environmental resources through measures such as habitat restoration, species rehabilitation and resource enhancement designed to offset the impacts of environmental damage (Cole *et al.* 2021). They can include providing funds for programs to educate the public, for example through supplemental environmental projects (SEPs). These are environmentally beneficial projects that a defendant voluntarily agrees to undertake as part of a judicial or administrative settlement. For example, the United States Environmental Protection Agency has used SEPs since the 1990s to achieve environmental and public health benefits that may not otherwise result from an enforcement action (Peris 2022). In many instances, violators are willing to spend substantially more on SEPs than on penalties.

Box 5.5: Civil and administrative public interest litigation in China

In the early 2010s, China embarked on an effort to strengthen the ability of its legal framework to address environmental violations. At the time, the penalties imposed on violators were not sufficient to cover government clean-up costs and deter future violations (Guo 2020). To address this, in 2012 and again in 2017, China amended its Civil Procedure Law to introduce a civil public interest litigation clause and an administrative public interest litigation clause (Wu 2020). The main purpose of both clauses is to allow the government to claim compensation on behalf of the Chinese population from actors who damage the environment (Guo 2020). The plaintiffs can claim monetary compensation, repair/replacement of the damaged resources, an injunction, restoration to original condition or an apology.

The civil public interest litigation clause authorizes legally prescribed departments, qualified social organizations, and the People's Procuratorate (public prosecutors) to institute litigation in the courts where there is alleged conduct that violates environmental requirements (Wu 2020). The administrative public interest litigation clause grants the Procuratorates standing to initiate litigation to correct the authorities' improper environmental administration. In addition to the traditional remedies, Procuratorates can now pursue litigation against companies or individuals who harm the environment to compel them to remedy the harm they caused.

In *Procuratorate of Deqing County v. Minghe Thermal Insulation Material Co.*, a court in Zhejiang Province in South-Eastern China ruled in the first-ever civil public interest litigation on climate change initiated by prosecutors and the first climate change litigation to reach a conclusion. The suit targeted a local company that was illegally using ozone-depleting substances. The court ordered the company to pay over 460,000 Yuan (approximately US\$ 72,000) to compensate for the damage to the environment and an additional 150,000 Yuan to cover the costs of the investigation.

In 2020, the Chinese courts concluded 103 public interest lawsuits on the environment brought by social organizations and 3,454 brought by prosecutors, according to statistics released by the Supreme People's Court, China's top court. Most of these lawsuits were related to environmental and ecological damage (Supreme People's Court of the People's Republic of China 2021).

Environmental liability

Environmental liability cases can complement traditional enforcement actions by providing remedies that 'make whole' injured parties (Jones *et al.* 2015; Phelps *et al.* 2021a). Such cases serve two purposes: they can provide financial compensation to restore or replace damaged resources and/or provide compensation for lost value; and they can serve as a deterrent to others undertaking environmentally harmful activities. Increasingly, plaintiffs are bringing cases against private companies arguing liability for harm to the natural environment and seeking compensation (Phelps *et al.* 2021a).

Calculating appropriate compensation in environmental liability cases can be challenging. Benefits of natural resources are often diverse, complex and difficult to measure (Cole *et al.* 2021). Direct economic valuation of the lost or damaged natural resource or ecosystem services might not provide a meaningful remedy in cases involving cultural or spiritual values placed on environmental features, such as sacred forests (ENPE 2020).

A growing number of countries have been seeking remedies that focus on compensation for the harm done instead of solely punishing the violator. Even though valuation of appropriate compensation in environmental liability cases can be challenging, it often provides a fuller remedy than traditional fines or imprisonment. While traditional fines and imprisonment may be relatively straightforward to assess, it is often rough justice that does not actually seek to restore the environmental harm or make whole the



Photo: UNEP

injured parties. Moreover, penalties in enforcement actions usually are paid into the national treasury; in contrast, liability judgments do much more to remedy the harm done to wildlife, ecosystem services and impacted communities. Compensatory measures can be particularly beneficial in cases where there has been damage to habitats of importance for biodiversity and ecosystem services (Cole *et al.* 2021).

Liability can compensate for a diverse range of environmental harms (Phelps *et al.* 2021a). For example, in a 2019 ruling, a French court found a group of defendants liable for environmental harm caused by the illegal harvesting, selling and buying of protected species of fish in the Calanque National Park (Phelps *et al.* 2021b). This was the first time France demanded civil compensation for the damages caused by illegal poaching. The court awarded €450,000 for moral harm calculated to reflect the costs of managing and monitoring coastal protected areas per square meter. The court also ordered €50,000 for the harm impacting the park's environmental protection mission and €50,000 to remedy the harm to the park's image and reputation. It ordered five restaurants that illegally bought wildlife to compensate the park by paying €3,000 each for harm to the park's environmental protection mission and brand image and reputation (Phelps *et al.* 2021b).

Liability lawsuits can also seek restorative justice by requesting the violator to make amends, for example by providing restitution and issuing an apology which can serve to capture intangible damages to human wellbeing (Phelps *et al.* 2021a). Remedies can also involve a symbolic financial compensation. For example, in *Notre Affaire à Tous v. France*, the Administrative Court of Paris awarded plaintiffs, among other remedies, the symbolic sum of one Euro for moral harm suffered due to the ecological damage caused by climate change. The court also ordered the government to report back to the court within two months regarding the measures the government would adopt to meet its climate goals, and it retained the option of issuing an injunction at a later date to compel the government to take stronger measures to address climate change.

Injunctions and orders compelling action

The use of injunctions can be preventative or after the fact. Historically, many countries have limited its use in environmental proceedings. They were mainly used in common law jurisdictions. In recent years, however, courts have increasingly used injunctions in both common and civil law countries to address immediate threats of environmental harm and to compel action (Setzer, Borges and Leal 2020; Wu 2020).

Injunctive relief is an important aspect of environmental litigation. It allows courts to stop existing actions that harm the environment or to prevent harm before it actually occurs. Injunctions permit courts to exercise discretionary powers under equity jurisdiction (Murari 2021).

Injunctions are being granted by courts to stop activities that pose a threat of irreparable environmental damage and to prevent public and private parties from violating environmental and constitutional rights. For example, in *Ministério Público Federal v. de Rezende*, the Federal Environmental and Agrarian Court of Brazil issued an injunction against a Brazilian farmer, ordering the removal of a cattle herd in the Amazon that was causing significant deforestation. The injunction was granted as a preliminary measure in an environmental liability suit filed by the Federal Public Ministry for violation of the right to a healthy environment guaranteed by the Brazilian Constitution.

Injunctions against the government are uncommon in many countries, and in some countries may not be envisioned by the legal system. Nevertheless, environmental crises and governmental inaction are in certain circumstances driving courts to find ways to use injunctions to order governments to undertake certain activities or to stop prohibited activities (see box 5.6). For example, in *Moses Lukwanda et al. v. Zambia Airforce Projects Ltd.* (2020), the Zambian Court of Appeals granted an injunction against a state-owned company to stop a construction project that interfered with the plaintiff's access to drinking water. The court determined that there was a serious threat of irreparable injury to the environment and that this damage presented a potential and ongoing harm for present and future generations. Zambian law, particularly the States Proceedings Act, provides that a court cannot grant an injunction or make an order for specific action against the state. The court determined that the company enjoyed a separate legal personality from its stakeholders and granted the injunction.

Box 5.6: Writ of Kalikasan in Philippines

The Writ of Kalikasan or the 'writ of nature' was implemented in 2010 by the Supreme Court of the Philippines in its Rules of Procedure for Environmental Cases (rule 7). The writ allows parties to sue on behalf of persons whose constitutional rights to a healthy environment are violated or threatened to be violated by an unlawful act or omission from a government official or employee. The environmental damage has to be of such magnitude that can prejudice the life, health or property of inhabitants in two or more cities or provinces. This mechanism includes injunctive relief to protect, preserve, and restore the environment (Jones *et al.* 2015).

In its 2019 decision in *Abogado v. DENR*, the Philippine Supreme Court issued a Writ of Kalikasan ordering the government to protect and preserve, rehabilitate, and restore the marine environment in the Scarborough Shoal (Panatag Shoal), Ayungin Shoal and Panganiban Reef (Mischief Reef) in the West Philippine Sea. The petitioners, who were from fishermen's communities in Palawan and Zambales, alleged that the government failed to stop Chinese vessels from harvesting coral, giant clams, and sea turtles in violation of national and international norms.

Courts are increasingly granting petitions to compel governments to enact comprehensive laws and policies to protect their citizens from existing and future environmental harm. In addition to issuing orders compelling governments to accelerate efforts to implement emission reduction targets, implement GHG emission goals, or modify existing goals to be more ambitious, discussed above, courts are also ordering governments to enact legislation or strengthen existing policies to eliminate or reduce pollution sources that are causing public harm. For example, in a 2021 landmark ruling in *Melanie Subono v. President of the Republic of Indonesia*, the Central Jakarta District Court held the

Indonesian government liable for the air pollution caused by millions of motor vehicles and by coal-fired power plants in the neighbouring provinces of Banten and West Java. The court determined that the government had violated the law by failing to safeguard its citizens' rights to a healthy air. Furthermore, it ordered the national government to update the national air quality standard and identify the sources of transboundary pollution in Jakarta, and it ordered the local Jakarta government to come up with a strategy to improve the air quality in the city.

In some countries, including India, Pakistan and Philippines, the judiciary has developed innovative tools to monitor the implementation of judicial orders. For example, the introduction of a continuing mandamus enables courts to closely monitor the progress of implementation (Jones *et al.* 2015; Iyengar, Dolšak and Prakash 2019; Sinha *et al.* 2021). A continuing mandamus is a mechanism whereby parties provide a report or reports to the court on compliance with its orders (Sahu 2008; Poddar and Nahar 2017; Sinha *et al.* 2021).

In recent years, courts have granted more diverse remedies for environmental harms. This expansion of remedies can enable better compensation, remediation and private and public sector action. Establishing adequate remedies provides incentives for compliance with environmental laws and increases the perception of fairness and legitimacy of courts.

5.3.4 Extraterritorial jurisdiction

It is increasingly clear that a wide range of actions can have transboundary environmental harms. Certain environmental problems like climate change and ozone depletion are inherently international in scope. Others involve globalized supply chains or multinational corporate actors. Due to legal and political concerns, courts have historically been cautious about applying domestic legislation extraterritorially.

In recent years, victims of significant environmental harm have sought—and in some cases achieved—environmental justice through transnational lawsuits. Such cases often arise when local forums are unavailable or unable to grant adequate remedies due to legal or practical constraints. Where plaintiffs lack meaningful access to courts in their home countries, they are increasingly able to bring their claims abroad. In *Sacchi v. Argentina*, sixteen children filed a petition to claim that climate change has violated their rights under the Convention on the Rights of Children (CRC). Though the CRC rejected the petitions for failure to exhaust remedies, it held that states have extraterritorial responsibility over harms caused by carbon pollution (*Harvard Law Review* 2022).

Courts are more willing to assert jurisdiction to hear transnational claims in cases involving the infringement of international norms. In the past, courts generally held that the best forum to attend a legal matter was the venue where the environmental harm occurred. This is still the general rule, but some cases are carving out exceptions for violations of human rights and other international law. For example, in 2020, in *Nevsun Resources v. Araya*, the Canadian Supreme Court asserted jurisdiction over a case brought in British Columbia by three workers of an Eritrean mine owned by Nevsun, a Canadian corporation based in British Columbia. The plaintiffs alleged that they were forced to work in the mine and had experienced cruel, degrading, violent and inhuman treatment. The case dealt with the question whether a breach of customary international law, namely the prohibition of slavery, forced labour, crimes against humanity and inhuman, degrading or cruel treatment, can constitute a basis for a claim for damages under Canadian law. The Canadian Supreme Court found that “[a] compelling argument can therefore be made that since customary international law is part of Canadian common law, a breach by a Canadian company can theoretically be directly remedied.” It added that “[s]ince the workers’ claims are based on norms that already form part of our common law it is not plain and obvious that our domestic common law cannot recognize a direct remedy for their breach.”



Photo: Milieudéfensie

In some cases, judicial systems grant remedies to foreign plaintiffs that have suffered environmental harms in their home states allegedly caused by transnational entities domiciled within their jurisdiction. When deciding whether to allow a case to proceed, courts usually consider whether the plaintiffs have effective access to justice in their home states. In addition, courts may find new causes of action based on domestic law, primarily focused on the duty of care of parent companies, to hold them responsible for harms occurring in other countries.

Courts are increasingly imposing liability on parent companies for harm caused by their subsidiaries in other countries. For example, in *Four Nigerian Farmers and Milieudéfensie v. Royal Dutch Shell* (decided January 2021), the Hague Court of Appeal found that Shell Nigeria was responsible for pipeline leaks that caused environmental damage and interfered with the livelihoods of local villagers and declared that the parent company Royal Dutch Shell had violated its duty of care. The case was brought by four Nigerian farmers who alleged they were unable to access justice in Nigeria. One of the core issues in the case was whether the court had competence over a foreign damage, foreign claimants, and foreign defendants. This was the first time a company and its foreign subsidiary had been tried—and held liable—in Netherlands for allegedly breaching duty of care abroad (Bertram 2021; Brown 2021).

In *Okpabi v. Royal Dutch Shell* (decided February 2021), a case that was legally and factually related to the case of *Four Nigerian Farmers* but was brought by different claimants, residents of the Bille community and the Ogale community, which are both located in Rivers State alleged that numerous oil spills from oil pipelines and associated infrastructure operated by Shell Nigeria caused widespread environmental damage including water and groundwater contamination in their communities. The Supreme Court of the United Kingdom of Great Britain and Northern Ireland held that a case could proceed against Royal

Dutch Shell (a British domiciled parent company of Shell Nigeria) under English law for the environmental damage and human rights abuses caused to the plaintiffs. It reversed the judgment of the Court of Appeal. In doing so, the Supreme Court voided the Court of Appeals assertion that there was a 'general principle' of English law that a parent company could never incur a duty of care in respect to activities of a subsidiary.

The increased litigation related to climate change has also included transnational cases. Plaintiffs threatened by climate change are bringing suits against foreign companies in their home countries. For example, in 2017, the Higher Regional Court of Hamm (Germany) asserted that it had jurisdiction to hear a claim brought by a Peruvian farmer against RWE, a German energy company (*Luciano Lliuya v. RWE AG*). The claim alleges that emissions contributed by RWE are causing the plaintiff's home in the Andean city of Huaraz and the homes of 50,000 Peruvian citizens to be acutely threatened by flooding. The case is ongoing.

5.4 Conclusions

In the last few years, countries around the world have enhanced the right to access courts in environmental matters, broadened legal standing requirements, started to address financial barriers imposed by court procedures, and innovated ways to bring judicial procedures to remote locations. Moreover, to ensure sufficient capacity of the judiciary to address highly specialized issues, many countries have established specialized courts, benches or judges to hear environmental matters. In addition to these various institutional and procedural measures, courts have also issued an impressive range of important judicial decisions on environmental matters.

Globally, many courts have increased the use of diverse and innovative remedies in environmental cases. In addition, the dramatic rise in climate litigation around the world has prompted courts to issue landmark decisions addressing gaps in climate change legislation and projects when other branches have failed. Remedies have included imposing liability for environmental harms, ordering violators to compensate and remedy the harm done, providing injunctive relief to stop the violation of environmental and constitutional rights, and orders for action particularly to compel governments to regulate or impose more comprehensive provisions for GHG reduction. Furthermore, many courts are opening their doors to foreign plaintiffs who are suffering violations to their human and environmental rights in their home states by transnational entities domiciled within the courts' jurisdictions. This openness allows more victims of environmental harms to obtain meaningful access to courts and effective remedies.

The COVID-19 pandemic created novel challenges to court systems around the world. The pandemic has demonstrated that it is crucial for court systems to have the ability to adapt quickly to unforeseen changes and adopt contingency plans for future emergencies. It has also driven the use of technology to allow virtual court hearings. Transforming the court system to encompass digitalization from filing a claim to the issuing of a court decision, is important to consistently grant access to courts even in uncertain times.

For courts to be considered legitimate they must be perceived as fair, independent, transparent, and possessing integrity. In some countries, there is still a notable lack of public trust in courts. This lack of trust negatively impacts environmental rule of law. It interferes with the ability of courts to create meaningful change by weakening compliance with its decisions. One issue that particularly undermines public trust in courts is the unjust conviction of environmental defenders. It is important to ensure that the judicial system is not used to unjustly impair the advocacy of environmental defenders and subject them to violence, harassment and social stigma.

6. Conclusions and Recommendations

The analyses presented in this Second Global Report generate four overarching recommendations, with an eye toward ongoing analyses and efforts to continue strengthening environmental rule of law:

1. Standardize and track environmental rule of law indicators
2. Develop guidance on environmental rule of law in emergencies and disasters
3. Integrate social justice in environmental institutions
4. Establish a technology-policy interface



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Environmental rule of law is necessarily an ongoing process because challenges arise and advancements occur. The First Global Report (published in 2019) framed environmental rule of law, its origins, its importance and the initial state globally. This Second Global Report presents a dramatically expanded set of indicators; it also highlights recent developments and trends. This chapter highlights six cross-cutting findings and sets out four overarching recommendations and priorities for future research.

6.1 Key findings

6.1.1 The COVID-19 pandemic has had significant impacts on environmental rule of law, both positive and negative.

The pandemic has highlighted connections between environmental rights and human health, as the pandemic disproportionately impacted communities already exposed to contaminated water and soil, air pollution and a lack of nutritious food, particularly indigenous communities (chapter 4). Restrictions on public gatherings and economic setbacks dampened civic engagement, while also accelerating a shift to online participation (chapter 3). Courts and agencies had to adapt quickly by instituting procedures for remote functioning, such as through e-filing and online hearings (chapter 5).

Some states have weakened environmental laws and policies or their enforcement in response to COVID-19, as a means to support businesses or as part of measures to stop the spread, for example by pausing in-person inspections (chapter 2). Reductions in environmental enforcement have particularly affected indigenous peoples, who face loss of protections against those engaged in illegal and unsustainable activities (chapter 4). Other countries strengthened environmental protections and implementation in response to COVID-19 as part of efforts to 'build back better' (chapter 2).

6.1.2 The recognition and integration of environmental rights has accelerated

The right to a clean, healthy and sustainable environment is now internationally recognized, and 159 countries recognize the right at a national or subnational level (chapter 4). More than 70 per cent of UN member states have legal provisions that guarantee the right of access to information, public participation in decision-making and/or access to justice in matters concerning the environment (chapter 3). Human rights mechanisms—from National Human Rights Institutions to the UN Human Rights Council's Universal Periodic Review to human rights treaty bodies—have strengthened connections between environmental rights and human rights (chapter 4). Rights of nature have grown and are now recognized in 17 countries through constitutions, national or subnational laws and judicial decisions (chapter 4). A global environmental justice movement has connected environmental rights with rights of racial, social and ethnic minorities (chapter 3).

This has important implications for both environmental rule of law and improved environmental outcomes. For example, recognition of rights of indigenous peoples and local communities in different areas of the world has been shown to result in lower rates of deforestation and improved management of marine areas (chapter 2). Courts are using these rights as the basis for decisions ordering the government to act, particularly in the context of climate change (chapter 5). Environmental defenders fight to protect environmental rights, but face legal obstacles and the threat of violence. Forty-eight countries explicitly legally protect the rights of environmental defenders, but these protections are not yet consistently enforced (chapter 3).

6.1.3 There is growing attention to specialized environmental enforcement, particularly in the development and capacity building of institutions

Most countries now have a specialized agency or department for the investigation and prosecution of environmental offenses or an explicit legal mandate giving a general enforcement agency the power to prosecute environmental crimes (chapter 2). Sixty-seven countries have established specialized environmental courts or judges with jurisdiction over, and expertise in, environmental matters (chapter 5). At least 39 countries have a national or subnational judicial training institute that includes environmental law in their curriculum (chapter 5). Nine countries have made environmental law a mandatory component of legal training (chapter 2). International networks and initiatives, like the UNEP judicial capacity-building program and the Global Judicial Institute on the Environment, train legal actors on environmental rule of law (chapter 5).

6.1.4 Women are champions of environmental rule of law

Women's organizations are on the front line of conservation and environmental protection. Increasing numbers of women in politically powerful positions and corporate leadership roles have been linked to better environmental outcomes (chapter 2). Women are effective environmental advocates and have led successful campaigns to strengthen enforcement of environmental regulations around the world, often in the face of violent backlash, exclusion and harassment (chapter 3). Women are leaders in the environmental rights movement, including through lawsuits to protect environmental rights, including indigenous rights, in connection with COVID-19 (chapter 4).

6.1.5 Environmental rule of law is undergoing a technological revolution

Earth observation, unmanned drones and machine learning are enabling more accurate, consistent and comprehensive detection of illegal activities and subsequent enforcement actions, from deforestation and illegal dumping of waste to wildlife poaching (chapter 2). Driven in part by the COVID-19 pandemic, virtual civic engagement has become ubiquitous, from activist social media influencers to official government platforms for sharing information and facilitating participation in environmental decision-making (chapter 3). Measures instituted to allow courts to function during the pandemic, such as online judicial proceedings and digitized court systems, will likely persist as means to facilitate access to justice (chapter 5). However, this technological development has also highlighted the digital divide between those who have access to modern technology and stable internet, and those who do not (chapters 3 and 5).

6.1.6 Climate change continues to be both a dominant context for environmental rule of law efforts and a driver of actions to advance environmental rule of law

Climate change is a long-standing concern, but it has become the primary objective of new laws (chapter 2). It is also the predominant focus of civic engagement (chapter 3), rights-based lawsuits (chapter 4), and judicial decisions (chapter 5). The process of developing this report also highlights the importance of environmental rule of law in addressing the other two planetary emergencies: biodiversity loss and pollution.

6.2 Recommendations

The analyses presented in this Second Global Report generate four overarching recommendations, with an eye toward ongoing analyses and efforts to continue strengthening environmental rule of law.

6.2.1 Standardize and track environmental rule of law indicators

This report and the 2019 First Global Report demonstrate the usefulness of indicators for understanding the status of and trends in environmental rule of law. Compiling and analysing indicators can prove time-intensive and difficult, particularly in the context of implementation and enforcement of environmental law where existing datasets are often lacking. Developing and regularly updating a standardized set of environmental rule of law indicators would allow governments, international organizations and civil society to track progress, identify challenges and set priorities.

Tracking factors relevant to environmental rule of law draws upon a number of indices and datasets. Most of the existing datasets focus on contextual factors, existence of laws and institutions and environmental outcomes. For example, the Environmental Conventions Index estimates the extent to which countries have implemented their obligations under multilateral environmental agreements based on analysis of national reports (Escobar-Pemberthy and Ivanova 2020). The Environmental Performance Index measures environmental protection measures and outcomes across factors such as air and water quality, protected area coverage and representativeness, tree cover loss and greenhouse gas emissions per capita (Wolf *et al.* 2022). The desk-based assessment used to inform the present report focused almost entirely on provisions in legal instruments and existence of institutions.

Where existing indices do attempt to capture elements of implementation and enforcement, they tend to rely on perception-based surveys. Many of these are not specific to environmental law, such as the Corruption Perception Index and the Country Policy and Institutional Assessment. However, there have been some attempts to gather environmental rule of law data in specific regions. For example, the Environmental Governance Indicators for Latin America and the Caribbean produced by the World Justice Project and the Inter-American Development Bank in 2020 is based on a survey of over 500 lawyers, academics, consultants and NGO staff members across ten countries. It includes indicators on inspections, monitoring and evaluation, institutional capacity and transparency and participation in decision-making, among other factors (IDB and World Justice Project 2020).

Objectively measuring implementation and enforcement of environmental law is difficult. The choice of indicators is often not straightforward: it is not sufficient to count the number of cases brought, investigations conducted or sentences imposed. A well-functioning system with high compliance may have relatively few enforcement actions, while a corrupt system rife with impunity may have a high number of cases brought, albeit not consistently or fairly. Where it is possible to identify an appropriate, objective indicator, such as the response rate to requests for environmental information held by the government, meaningful data on implementation and enforcement can be difficult to obtain. Acknowledging these challenges, a combination of desk assessments and perception surveys for a representative and manageable set of indicators could contribute significantly to efforts to track and strengthen environmental rule of law.

Photo: Pexels

6.2.2 Develop guidance on environmental rule of law in emergencies and disasters

The COVID-19 pandemic sharply brings into focus the problem of implementing and enforcing environmental law during times of emergency. The ongoing conflict in Ukraine, the war in Yemen and civil war in the Central African Republic provide another set of challenges for environmental governance. In short, most environmental laws are designed for ‘normal’ times—not characterized by wide-scale crises or wars.

Pandemics and conflicts (particularly in Ukraine) have led to supply chain disruptions that threaten global food and energy security and destabilize international markets. As climate change brings an increased risk of natural disasters, and environmental degradation and illegal wildlife trade contributes to outbreaks of zoonotic disease, it will be important to consider how to understand and prioritize environmental rule of law in times of emergency and how to maintain effective environmental protections while meeting immediate human health and safety needs.

In the context of COVID-19, one of the biggest shifts was a digitalization of legal processes, so that administrative, judicial and enforcement systems could continue to function. Where countries were prepared for the shift, adaptation to online platforms was faster and smoother (chapter 5). Elsewhere, new standards and infrastructure had to be set up and in some cases legal requirements had to be changed. Around the world, the digital divide created problems for access to justice and public participation (chapter 3). In most countries, adaptation to the new reality of the pandemic had to happen as the emergency unfolded.

Planning for continuation of environmental rule of law in times of emergency can make such transitions more consistent and fairer. Countries should consider adopting environmental rule of law emergency plans at the national level, while global and regional organizations should consider developing international guidance. Environmental rule of law emergency plans can include, *inter alia*, clear directions for continued funding and functioning of institutions, consideration of environmental issues in emergency response and integration of environmental rule of law in recovery measures. Moreover, recovery after a conflict or significant disaster may require adaptation or adjustment of environmental laws and procedures, such as those which might otherwise require an environmental impact assessment for hundreds of reconstruction efforts at once.

6.2.3 Integrate social justice in environmental institutions

Environmental law often fails to adequately consider racial and social justice. Race and gender-neutral development and enforcement of environmental law can result in disproportionate impacts on certain populations, adding to cumulative impacts related to structural racism and sexism. This can, in turn, undermine the implementation of environmental protections. With the increasing social and political attention to issues of social justice, environmental institutions will need to undergo reform.

Environmental institutions and civil society organizations should adopt proactive strategies to integrate social justice into environmental governance through inclusive hiring and work conditions, training and capacity building. Explicit and inclusive procedures are needed to ensure social justice is considered in development, implementation and enforcement of environmental measures. Governments can also adopt regulations to require private companies and NGOs to consider environmental justice in their work.

6.2.4 Establish a technology-policy interface

Technology is changing at a rapid pace, creating opportunities for environmental monitoring and enforcement while raising questions about fairness, justice and privacy. Collaboration between the technology sector and environmental policymakers and enforcement agencies is largely ad hoc, and focuses on specific projects and initiatives. More systematic engagement could help optimize utilization of current technology to improve environmental rule of law, considering the needs and priorities of environmental agencies and the rights and interests of stakeholders.

This engagement could follow the example of successful science-policy interfaces set up at international and national levels to address climate change, desertification, biodiversity loss and other global challenges (Kohler 2022). An environmental rule of law technology-policy interface could provide a forum and platform for information exchange and cooperation between technology developers, environmental policymakers and stakeholders. Such an interface could enable environmental agencies and organizations involved in implementation of environmental law to better understand and take advantage of technology that already exists and to inform the future direction of technological development.

6.3 Future research on emerging challenges for environmental rule of law

During the development of this report, five issues were identified that warrant further research and investigation. Many of these issues will require collaboration between academic researchers and practitioners that are innovating and pilot testing approaches. This horizon scanning exercise also highlights future directions for exchange, learning and programming.

6.3.1 Expanding conceptions of gender

In many societies, conceptions of gender are changing to recognize greater diversity and challenge stereotypes. While empowering women and girls will remain vital to environmental rule of law (particularly as there is growing evidence of the impacts of women's empowerment on implementation of environmental law), other issues related to gender also warrant exploration.

A number of indigenous cultures have long recognized additional genders beyond the binary of male/female (Jacobs, Thomas and Lang 1997; Cottet and Picq 2019; Fiani and Serpe 2020). Non-binary identities are becoming more visible and accepted in mainstream society in many countries. However, in environmental law discourse and policy the existence of non-binary people is as-yet largely ignored. Similarly, transgender individuals face unique environmental justice challenges and play important roles in environmental institutions and civil society organizations, but may find themselves subject to exclusion and discrimination that undermines their work (Calma 2018; Wilson-Fetrow 2021; Holzman and Yachnin 2022). Recognition and inclusion of diverse gender identities can support civic engagement and improve governance by ensuring all stakeholders' voices are considered.

At the same time, there is a need to explore how traditional gender roles may impact environmental rule of law. Identity politics grounded in toxic masculinity can impede efforts to address environmental harm. There is some evidence that men interpret environmentally friendly practices such as eating less meat and driving fuel efficient cars as more feminine, and may resist them particularly when their masculinity is threatened (Brough *et al.* 2016). Higher rates of toxic masculinity may contribute to lower national performance in climate change mitigation (Olson 2020). More attention to how to engage and support men in connection with environmental problems could contribute to more support for and compliance with environmental law.



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6.3.2 Environmental rule of law in areas beyond national jurisdiction: oceans, poles and space

The frontiers of human resource use, and human impacts on the natural environment, continue to expand. From the deep seabed to the frozen poles to outer space, human activity in areas beyond national jurisdiction raises unique questions for rule of law.

Deep sea mining may soon become a reality, in part to fuel the rapidly growing and mineral-hungry electric vehicle and renewable energy industries. Illegal, unreported and unauthorized (IUU) fishing remains rampant, while vessels flying flags of convenience largely enjoy impunity, despite increasing pressure on flag states, port states and beneficial owners' home countries to assert control. In 2023, countries adopted a new international agreement on marine biodiversity in areas beyond national jurisdiction with requirements for environmental impact assessments, a framework for establishment of marine protected areas, and provisions on benefit sharing in relation to marine genetic resources.

The increasing privatization of space exploration and exploitation has its own implications for environmental rule of law. Increasing deployment of satellites threatens visual pollution of the night sky, as well as creating potentially dangerous debris. While traditional conceptions of the natural environment are limited to Earth, there is a question about whether the natural resources and landscapes of the moon and other planets warrant protection in their own right.

6.3.3 Challenges of emerging technology

Technological advances can create unique challenges for environmental rule of law. Advances in gene editing, like CRISPR, make genetic engineering more accessible than ever. A growing global community of biologists use these tools to research and develop new genetic inventions outside the traditional laboratory—and away from the accompanying standards and safeguards. This could create challenges for monitoring and enforcing environmental regulations designed to manage the risk of introduction of living modified organisms into the wild, as well as rules for benefit sharing in relation to genetic resources (Redford *et al.* 2019).

Other advances in biotechnology and materials introduce new environmental threats faster than they can be regulated. For example, microplastics and nanoplastics may evade regulation due to lack of consistent definitions and understanding of risks (Allan *et al.* 2021; Abdolahpur Monikh *et al.* 2022). Commercial fusion energy is rapidly becoming a possibility, but the regulatory framework in many countries remains unclear (White *et al.* 2021).

6.3.4 Environmental rule of law in fragile and conflict-affected settings

Environmental rule of law is closely related to conflict and fragility. Weak environmental rule of law can foster conflict, and conflict weakens environmental rule of law; rebuilding environmental rule of law is a key component of post-conflict peacebuilding (Bruch *et al.* 2016; Bruch and Morley 2023). Environmental rule of law operates differently in fragile and conflict-affected states (Global Environment Facility Independent Evaluation Office [GEF IEO] 2020). For example, there is often a reluctance to enforce environmental and natural resource laws, even when there is a clear violation, as enforcement against particular individuals or groups may be perceived as destabilizing a fragile peace. Moreover, in many post-conflict countries, the national government has a weak presence outside urban centres. Efforts to rebuild environmental rule of law—and more generally the rule of law—often take an incremental and process-heavy approach.

As yet, the evidence base is thin regarding the effectiveness of specific approaches to building environmental rule of law in fragile and conflict-affected settings. Priority should be placed on better understanding how environmental rule of law can be built in fragile and conflict-affected settings. This is especially true considering the fact that most conflicts occur in biodiversity hotspots (Hanson *et al.* 2009) and, more generally, the vast majority of environmental programming is in fragile settings. For example, 88 per cent of conservation programming supported by the Global Environment Facility was in fragile settings (GEF IEO 2020).

6.3.5 Environmental rule of law and civil disobedience

In recent years there has been a resurgence of civil disobedience in the name of environmental causes, particularly climate change (Cripps 2022; Wolfe 2022). Proponents of climate disobedience argue that political processes are often not good enough or fast enough to avert the coming emergency and lawful protests have not been sufficient; the time has come to escalate (Hallam 2019; Malm 2021). They advocate attacking the machines and tools of climate change by sabotaging pipelines, deflating SUV tyres or chaining themselves to infrastructure or public buildings. They intentionally, knowingly and strategically break the law.

One of the pillars of environmental rule of law is the existence of laws that are fairly promulgated and equitable. Where such conditions do not exist, is there a place for intentional violation of law in efforts to achieve good environmental governance? As policies stagnate and environmental problems continue to worsen, this question will become ever more relevant.

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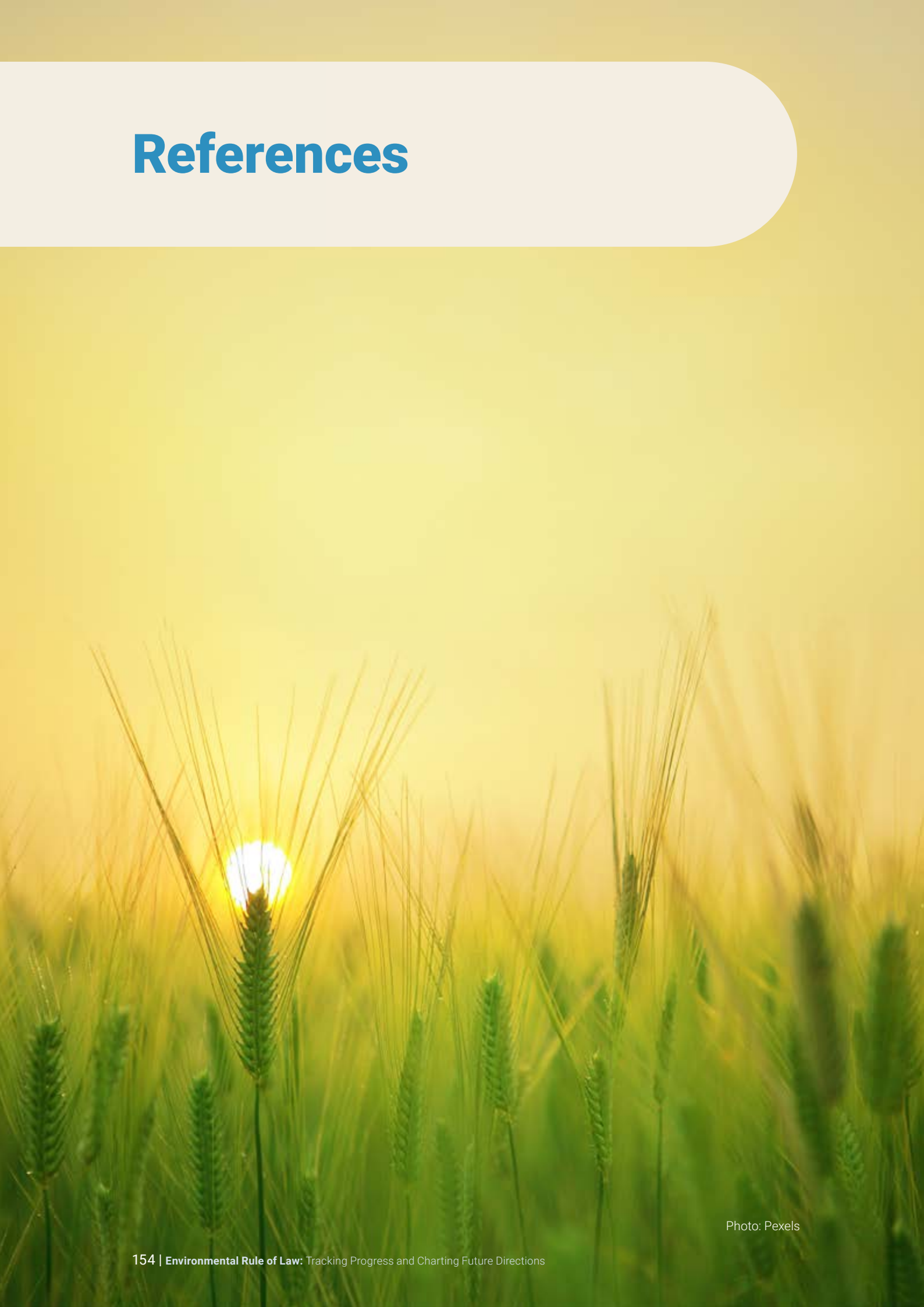


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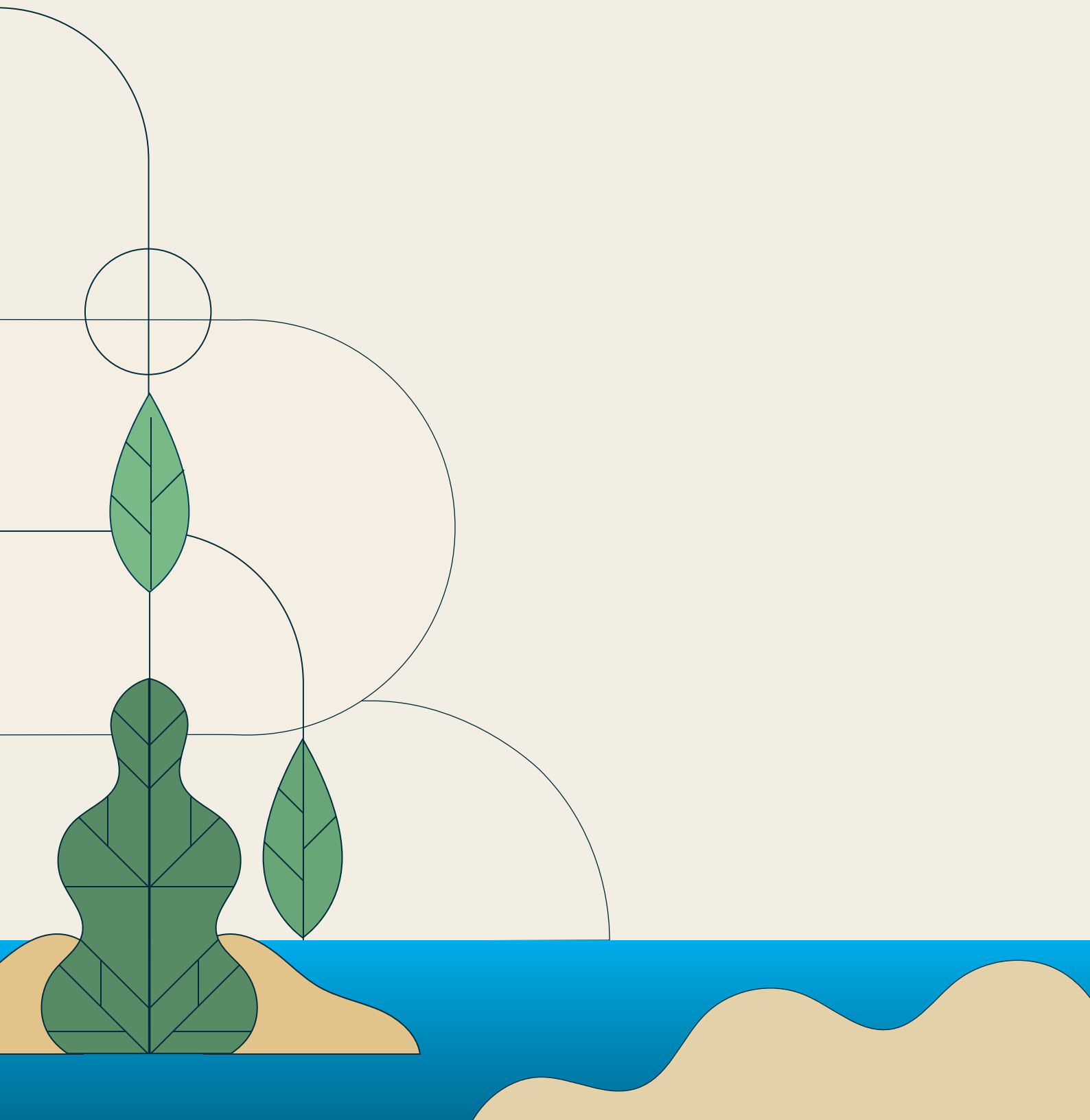
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