



6. Future Directions

Environmental rule of law is still emerging and evolving. Twenty-five years ago, the focus of most countries was on developing their environmental laws, adopting implementing regulations, creating and empowering their institutions, and building capacity—in short, establishing the norms and institutions necessary for environmental rule of law. While law-making and capacity-building efforts continue,¹ these norms and institutions are now well-established. They are not, however, consistently applied, complied with, or enforced. Environmental rule of law seeks to address the implementation gap in both developed and developing nations.

This first global report on environmental rule of law has five objectives. First, it seeks to explore the meaning and importance of environmental rule of law. Second, it highlights trends in environmental rule of

law, often providing an empirical foundation on these trends for the first time anywhere. Third, it illustrates specific approaches that countries, domestic stakeholders, and international partners have been adopting to improve environmental rule of law in particular ways. Fourth, it provides a benchmark against which to assess future developments. Finally, it sets forth priority recommendations for measures that countries and others can pursue to continue progress on environmental rule of law.

This chapter highlights four key opportunities for improving environmental rule of law: capitalizing on linkages with the Sustainable Development Goals; engaging diverse actors; conducting a regular assessment of the environmental rule of law; and piloting approaches to improve environmental rule of law. The chapter ends with a brief consideration of the way forward.

¹ There are still some areas where existing environmental laws still frequently are lacking, for example with respect to noise, toxic chemicals, and drivers of climate change.

6.1 Environmental Rule of Law and the Sustainable Development Goals

Adopted in 2015, the UN Sustainable Development Goals include 17 goals and 169 targets developed by UN Member States, in a broadly participatory process that included extensive input from Major Groups and other civil society stakeholders.² They guide the 2030 Sustainable Development Agenda.³ In practice, the Sustainable Development Goals are critically important to development initiatives, focusing political attention and financial resources on meeting the specific targets and timetables articulated in the Sustainable Development Goals.



Environmental rule of law and the Sustainable Development Goals are mutually reinforcing. The Sustainable Development Goals promote norms and a framework that are essential to environmental rule of law; meanwhile,

many of the Goals are only achievable under conditions of effective environmental rule of law. Indeed, environmental rule of law is essential to almost all of the goals and many of the targets. Finally, progress toward several of these Sustainable Development Goals also provides opportunities to strengthen environmental rule of law. Figure 6.1 briefly shows many of these linkages, including with 16 of the 17 Goals and 76 of the 169 targets.

The Sustainable Development Goal with the strongest linkages to environmental rule of law is Goal 16 (Peace, Justice, and Strong Institutions). The Millennium Development Goals—the predecessor to the Sustainable Development Goals—did not directly address governance. Instead, it focused on eight purely sector-specific goals, including poverty, education, child mortality, and environmental sustainability, among others.⁴ Fifteen years of pursuing the Millennium Development Goals highlighted, though, that development is not just a technical issue; it is at its heart a governance issue. Laws, institutions, capacity, and practice have a critical effect on whether and to what extent countries are successful in meeting their goals. As a result, the Sustainable Development Goals added governance as a cross-cutting goal with a strong emphasis on implementation.⁵

Goal 16 is a cross-cutting goal that is essential to meeting other Sustainable Development Goals.⁶ This Goal sets a priority on “provid[ing] access to justice for all and build[ing] effective, accountable and inclusive institutions at all levels.” Specific targets include, among others, increasing rule of law and access to justice, reducing corruption and bribery, ensuring transparency and participation, and protecting rights.⁷ These are both general goals, and means to achieving other specific goals.

² UNGA 2015.

³ Ibid.

⁴ UNGA 2000.

⁵ Sachs 2012; Fukuda-Parr 2016.

⁶ Stafford-Smith et al. 2017.

⁷ Khan, Boisson de Chazournes, and Davis 2016.

Figure 6.1: Environmental Rule of Law and the Sustainable Development Goals



Notes: An arrow pointing toward the goal indicates that environmental rule of law supports its achievement, and an arrow pointing from a goal indicates that it supports environmental rule of law. Many are mutually reinforcing. Numbers denote the number of each goal's targets that are considered to support or be supported by environmental rule of law. Because some targets both support environmental rule of law and are in turn supported by it, the numbers for some goals may total more than the number of targets enumerated for that goal.

Environmental rule of law is important, if not crucial, for achieving almost all of the Sustainable Development Goals and many of the targets. For example, in order to “substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination” (Target 3.9), it is necessary to adhere to permitting and environmental impact assessment processes and enforce environmental quality standards, as well as promote technology transfer and build capacity. To ensure that “women [have] equal rights to economic resources” (Target 5.a), it is necessary to adopt and enforce nondiscriminatory rights to land, forests, and other resources. And protecting and restoring water-related ecosystems (Target 6.5) requires enacting, implementing, and enforcing appropriate legal frameworks.

Goal 14 (Life below Water) has many direct and indirect links to environmental rule of law. Calling for science-based fishery management plans (Target 14.4) highlights one of the defining elements of environmental rule of law: binding rules that take into account ecological and biological factors, such as the maximum sustainable yield of a species of fish. Additionally, regulating overfishing and eliminating illegal fishing (Target 14.4) requires strong environmental rule of law, which provides a framework for regulations and enforcement. The consistent application of penalties commensurate with the infraction and eliminating certain subsidies (Target 14.6)) can dissuade violations, and eliminating safe havens and financial loopholes can diminish incentives for the proliferation of illegal activity beyond illegal fishing.⁸

Many core components of environmental rule of law correspond with targets defined in the Sustainable Development Goals. For example, Targets 9.c, 12.8, and 16.10 seek to ensure

that people have access to information. Target 16.10 also “protect[s] fundamental freedoms, in accordance with national legislation and international agreements.” Target 16.a seeks to strengthen national institutions and their capacity. Other targets focus on ensuring access to land and other natural resources (2.3), combatting poaching and illegal wildlife trade (15.7 and 15.c), rule of law and equal access to justice (16.3), combatting organized crime (16.4), substantially reducing corruption and bribery (16.5), developing effective, accountable, and transparent institutions (16.6), and ensuring responsive, inclusive, participatory, and representative decision making at all levels (16.7). A number of targets address inequality and non-discrimination, including 1.4, 10.2, 10.3, 10.4, and 16.b, particularly with respect to gender (5.1, 5.5, 5.a, and 5.b).

One of the primary challenges of the Sustainable Development Goals—especially as they relate to the environmental rule of law—is a focus on measureable outcomes, rather than on inputs or actions. Discrete, measureable targets make it easier to know where there is progress and where there are shortcomings. But it can be difficult to objectively measure many aspects of environmental rule of law, including the quality of laws, the effectiveness of institutions, compliance rates, levels of corruption, or the respect for rights. Another challenge is the fact that treating effective governance as an explicit objective of sustainable development is relatively recent,⁹ so there is less experience developing and utilizing indicators of governance (including those related to environmental rule of law). However, there is broad consensus around its importance for sustainable development, and, as discussed

8 UNEP and INTERPOL 2016, 13.

9 While governance is explicitly addressed in Goal 16 of the 2015 Sustainable Development Goals, it was not a focus of the 2000 Millennium Development Goals.

in Section 6.3, there has been substantial progress made in developing indicators for many of the elements. These tend to utilize a combination of objective metrics and broad-based surveys of perception.

Environmental rule of law provides an important entry point for considering how to govern development so that it is sustainable. It is clear that many of the Sustainable Development Goals, even those that do not mention the environment explicitly, will only be met if there is substantial progress on environmental rule of law, and that there is substantial congruity between Sustainable Development Goals and targets and the ingredients of environmental rule of law. This means that as countries and partners pursue the 2030 Agenda for Sustainable Development, they need to mainstream consideration of environmental rule of law into their programming.

6.2 Engaging Diverse Actors

Environmental rule of law is a broad topic with components that spread across a wide arena of sectors, jurisdictions, disciplines, and individuals. This breadth and complexity constitutes one of the challenges of strengthening the environmental rule of law, even where environmental rule of law is recognized as important. Experience has shown, though, that it is not only possible to bring these diverse actors together, it is both essential and determinative of success in achieving environmental and social objectives.

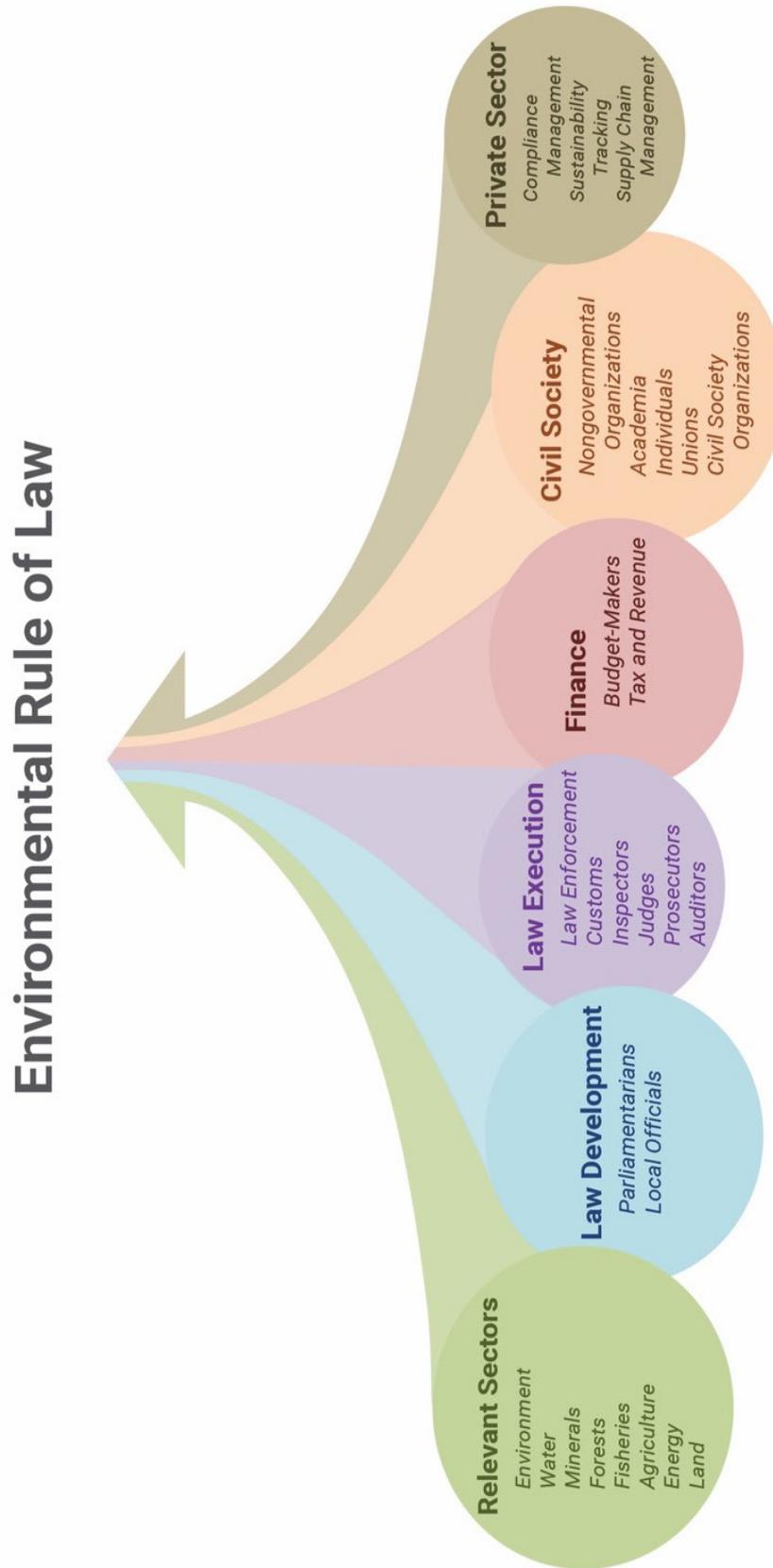
Case studies and analyses throughout this Report emphasize the need for coordinated efforts from a diverse set of actors that perform different roles. These actors include both leaders and technicians in law- and policy-making, budgeting, permitting and licensing, inspection, enforcement, auditing, prosecution and advocacy, and adjudication.

The actors include those governing and managing a specific environmental component or natural resource, for example those in ministries of environment, water, forests, minerals, fisheries, land, and agriculture, among others.¹⁰ Moreover, other ministries and offices that may have limited environmental expertise are often crucial, including those governing customs, law enforcement, prosecution, and revenues. These are only a sampling of the most relevant national governmental authorities. In addition, there are authorities at the subnational level (provinces/states, districts/counties, and localities/municipalities), as well as indigenous peoples (sometimes referred to as tribes or First Nations). Civil society is also important, comprising nongovernmental organizations, local civil society organizations, academia, unions, international partners, and individuals. The private sector is also crucial, not just as it is an important component of the regulated community, but due to the recent developments in private environmental governance that reinforce environmental rule of law.¹¹ And intergovernmental bodies—including the United Nations and its various agencies, human rights institutions, and trade organizations, among others—often play a critical role in building capacity, providing technical assistance, and facilitating normative development. Indeed, where environmental rule of law is weak, private environmental governance can provide a complementary means to make progress on environmental and social standards, even as improving environmental rule of law remains essential. Figure 6.2 illustrates how the diverse actors and primary sectors come together to catalyze and support the environmental rule of law.

10 There is a substantial body of experience and literature on governing the intersections between sectors, such as the so-called “Water-Energy-Food Nexus”. See, e.g., Biggs et al. 2015; Bizikova et al. 2013; Ringler, Bhaduri, and Lawford 2013.

11 Cashore 2002; Vandenbergh 2013.

Figure 6.2: Diverse Actors and Primary Sectors Necessary for the Environmental Rule of Law



The range of actors who have a stake in the intended outcomes of strong environmental rule of law and who can influence the process of attaining those goals reaches beyond those who are directly involved in environment and natural resource sectors. In this context, five key areas—in addition to those highlighted in Figure 6.2—warrant particular consideration: green growth, peace and security, displacement, gender, and governance.

While **green growth** tends to focus on incentive-based and market-based approaches,¹² environmental rule of law is essential to green growth as it ensures that the rules are clear, fair, and evenly applied, discourages rule violations, and removes incentives for practices that may result in negative environmental and social impacts.¹³ As such, environmental rule of law promotes a more fair and stable investment climate that can foster economic development that is both sustainable and equitable.¹⁴ This favorable investment climate is also essential for innovation necessary to research, develop, and deploy new technologies and solutions.¹⁵

Linking environmental rule of law to green growth, then, entails engaging new actors whose mandates and objectives focus on economic development and finance, rather than environment or rule of law per se. These actors include different governmental ministries and offices, nongovernmental organizations and international organizations involved in economic development at various scales, and the private sector (including banks and other financial institutions).¹⁶ Already, for example, the Green Growth Knowledge Platform has developed a working paper

assessing data available to track progress on environmental rule of law.¹⁷

A second important set of actors for environmental rule of law are those working on **peace and security**. Environmental



rule of law is linked to peace and security in many ways: environmental rule of law supports peace and security, and vice versa. Before, during, and after conflict, conditions of weak environmental rule of law enable illicit, and often harmful, exploitation of natural resources. This can allow organized crime to flourish and undermine stability, while also having negative environmental consequences.¹⁸ Strengthening environmental rule of law—including a sound legal framework, institutional capacity, and functional mechanisms for peacefully resolving disputes—is an important means to prevent or mitigate the effects of the resource curse and address grievances that could

12 OECD 2012.

13 Damania, Fredriksson, and Mani 2003.

14 Castiglione, Infante, and Smirnova 2015.

15 The Global Commission on the Economy and Climate 2014.

16 Hauffler 2009.

17 Green Growth and the Law Working Group 2018.

18 UNEP and INTERPOL 2016.

escalate to violence, and thus a priority for conflict prevention.¹⁹ During armed conflict, illegal extraction of minerals, timber, and other natural resources often proliferates, often benefitting rebels and criminal groups.²⁰ And after conflict, top priorities for post-conflict recovery are establishing peace and security (for example, through peacekeeping; disarmament, demobilization, and reintegration;²¹ and security sector reform); reestablishing livelihoods; and transforming a society defined by rule of gun to one defined by rule of law. These are frequently linked, for example, when trying to ensure that excombatants and security forces do not plunder (or continue to plunder) natural resources.²²

Engaging actors working on peace and security—including military, police, peacekeepers, and other domestic and international actors—benefits both environmental rule of law and in turn peace and security actors. Already there have been some initial efforts along these lines, for example, between UN Environment and the UN Department of Political Affairs (responsible for helping to resolve armed conflict),²³ between UN Environment and the UN Department of Peacekeeping Operations and Department of Field Support,²⁴ between UN Environment and the UN Peacebuilding Commission and UN Peacebuilding Support Office,²⁵ and between UN Environment and Interpol.²⁶ These partnerships reflect and draw upon numerous on-the-ground partnerships. While these partnerships have not focused on environmental rule



of law as such, they often emphasize key elements of environmental rule of law, such as strengthening environmental policies, institutions, capacities, and will to implement; and the existing relationships between the peace and security sector and the environmental sector provide an established platform for engagement on environmental rule of law.

Another important set of actors are those who work on **displacement**. Common causes of displacement include disasters, instability and conflict, environmental degradation, and property seizure. Weak rule of law can drive and sustain displacement: conditions of weak environmental rule of law can result in displacement (e.g., via land grabbing or land degradation); they can also impede return. At the same time, displacement can complicate efforts to maintain environmental rule of law, as displaced persons often are not aware of local laws and adopt survival strategies that generally do not consider environmental law (such as rapid felling of trees for shelter and fuelwood, or a demand on water resources exceeding carrying capacity). In addition to the shared dynamics, both environmental rule of law and displacement emphasize the importance of rights-based approaches.

19 See discussion in Sections 1.1.3 and 3.2.4; see also Le Billon 2005; Hauffler 2009.

20 Radics and Bruch 2017; UNEP and INTERPOL 2016.

21 UNDP 2010, 20.

22 Ravier et al. 2016; Waleij 2016.

23 UNDP and UNEP 2015.

24 UNEP 2012.

25 See Lehtonen 2016.

26 UNEP and INTERPOL 2016.

The primary actors working on displacement are humanitarian organizations, including intergovernmental bodies, bilateral organizations, and nongovernmental organizations. These organizations are likely to be most interested in strengthening the environmental rule of law when they perceive it as a means to prevent displacement, to facilitate return, or to support migration with dignity.²⁷

It is important to engage actors working on **gender**, both because they are working on many issues related to environmental rule of law and because they often have additional perspectives and insights that can help advance environmental rule of law both with respect to women and girls as well as more broadly. Women are less likely to have rights to land and resources than men.²⁸ They are often more affected by pollution.²⁹ And they are less likely to have a voice in decisions or to have their rights (to the extent they exist on paper) enforced.³⁰ Moreover, women disproportionately suffer sexual violence when seeking water, fuelwood, and other resources.³¹ Women are also important engines of economic development.³² As such, it is essential to consider environmental rule of law through a gender lens.

Important actors working on gender include UN Women, UN Development Programme, UN Environment, and the UN Peacebuilding Support Office (which have a joint program on women, natural resources, and peace). Many nongovernmental organizations work on gender. Some governments are international leaders on the topic (for example, Sweden has a self-declared feminist foreign policy).

Finally, organizations and individuals working on **governance** constitute an important group of actors to engage in environmental peacebuilding. While environmental rule of law has some characteristics that make it unique from rule of law and governance more broadly,³³ their objectives are substantially aligned. Moreover, governance dynamics and programming often play out in the environmental context. Efforts to fight corruption often address timber, mineral, and other natural resource concessions. Efforts to protect rights require protection of environmental defenders and land rights.³⁴ Efforts to advance transparent, participatory, and accountable government often have particular relevance in the environmental context.³⁵ And efforts to decentralize political power, even when not targeting natural resource sectors, can influence the institutions that are charged with governing natural resources and the environment.³⁶

Organizations working on governance include intergovernmental organizations (such as the World Bank and the UN Development Programme), regional bodies (such as the Organization of American States and the African Union, as well as regional development banks), bilateral entities, national organizations, and nongovernmental organizations. They address a wide range of issues, including elections and representation, budgeting, corruption, judicial independence, checks and balances, public administration, and political economy.

Coordination among these actors and sectors is challenging due to the varying priorities, procedures, and operating assumptions. Politics and “turf” can further complicate coordination. Moreover, international trade and demand for resources can provide

27 Cf. McNamara 2015.

28 Deere and León 2001; Meinzen-Dick et al. 1997; Agarwal 1994.

29 Duflo, Greenstone, and Hanna 2008.

30 Quisumbing and Pandolfelli 2010; UNEP et al. 2013.

31 UNEP et al. 2013.

32 Duflo 2012; Boserup, Tan, and Toulmin 2007.

33 See Section 1.1.3, above.

34 See Chapter 5.

35 See Chapter 3.

36 See Chapter 2.3.3.

markets that drive illegal trade in timber, wildlife, and minerals,³⁷ adding sovereignty to the challenges of coordinating to improve environmental rule of law.

There is a growing body of experience and approaches that highlights ways that coordination can improve decisions, implementation, enforcement, and effectiveness—in short, the environmental rule of law.³⁸ Experience has shown that ***political will is perhaps the most important consideration determining whether coordination will be successful***. The different organizations and individuals need to understand that in order to accomplish their particular goals (whether it is sustained and sustainable economic development, peace and security, good governance, or another goal), there needs to be effective environmental rule of law.

In practice, this recognition means that these diverse actors with diverse objectives recognize the importance of environmental rule of law. They may engage more with certain aspects than others, as is most relevant to them. Environmental rule of law should be considered early in program and project design, with considerations of whether to address environmental rule of law concerns through internal staffing and processes or through engagement with entities specializing in environmental rule of law.

6.3 Regular Assessment of the Environmental Rule of Law

As highlighted throughout this Report, there have been substantial developments in environmental rule of law over the

last 25 years. Countries have adopted environmental laws and created institutions. They have engaged the public, recognized environment-related rights, and sought to improve mechanisms for peacefully resolving environmental disputes. There have also been some negative developments that undermine environmental rule of law, most notably the recent trend to target environmental defenders and nongovernmental organizations more generally.

Environmental rule of law continues to be a dynamic space, with ongoing innovations, learning, and development.

A key opportunity to strengthen environmental rule of law is conducting a regular global assessment of the environmental rule of law. Such an assessment is critical for understanding trends (including where progress is slow or there has been backsliding), identifying innovations, and sharing learning about which approaches are most effective. It also helps to periodically focus public attention and maintain political will. And analysis of the trends can improve understanding of the dynamics and effectiveness of particular approaches: for example, how specific legal, institutional, and cultural conditions influence whether a particular approach will be successful, or how particular approaches affect environmental outcomes.

In order to be able to draw lessons about both positive and negative outcomes, it is ***necessary to utilize a set of consistent indicators that allow for comparison and track progress nationally and globally***. Box 6.1 presents a proposed indicator framework.

The structure of this indicator framework builds on the UN General Assembly's Declaration 67/1 on the Rule of Law³⁹ and seven principles of environmental rule of law

37 UNEP and Interpol 2016.

38 See Section 2.3.

39 UNGA 2012.

Box 6.1: Indicator Framework for Environmental Rule of Law

Contextual Factors

- Demography (distribution of wealth; population density, age structure, urban/rural; education/literacy; gender equity)
- Economy (contribution of natural resource/extractive sector to the state economy; per capita income; evenness of development)
- Politics (fragility; corruption perception; rule of law generally)
- Legal System (type; judicial independence; respect for contracts and property rights)

Laws & Institutions

- Coverage of laws (national environmental laws covering relevant environmental issues)
- Procedural mechanisms (transparency and access to information, public participation, independent review and oversight of implementation measures)
- Right to a healthy environment (explicitly recognized in the constitution, held by a court to be implicit in other constitutional rights, or guaranteed by legislation)
- Rights of free association and free speech (constitutional)
- Right of nondiscrimination (constitutional)
- Rights of marginalized populations (indigenous peoples; women; other)
- Legal pluralism (recognition of customary norms governing natural resources)
- Anti-corruption measures (covering the environmental context)

Implementation

- Information collection, management, and use
- Permits, licenses, and concessions
- Criteria for implementation of environmental law
- Enforcement (number of violations – trafficking, illegal pollution; number of inspections per capita or per regulated entity; number of administrative/civil/criminal cases brought; number of convictions/violations corrected; total fines and prison terms)
- Environmental auditing and institutional review mechanisms
- Corruption (in the control of natural resources/concessions; in management of natural resource revenues; in the enforcement process)

Civic Engagement

- Access to information (on laws/regulations/judicial decisions; on the state of the environment; on emission data/reports/audits; on natural resource concessions and revenues; media)
- Public participation (in developing laws and regulations; in permitting/licensing/awarding concessions; in environmental impact assessment; community-based natural resource management; in monitoring and enforcement)
- Environmental defenders (number of land or environmental defenders attacked/killed; number of attacks/murders prosecuted and convicted)

Dispute Resolution and Access to Justice

- Effective dispute resolution bodies (courts and tribunals, administrative environmental tribunals, alternative dispute resolution, customary courts)
- Access to justice (standing; costs; geographic accessibility; timeliness; availability of counsel and advocacy nongovernmental organizations)
- Remedies

Environmental Outcomes and Current Status

- Environmental health
- Environmental compliance by sector
- Natural resource stewardship

articulated in the Issue Brief on Environmental Rule of Law prepared by UN Environment and its Advisory Council for Environmental Justice.⁴⁰ A number of the proposed indicators are aligned with the Sustainable Development Goals and associated targets. The indicator framework is further informed by lessons highlighted in this Report.

The indicator framework starts with some contextual factors such as demographic, economic, political, and general legal dimensions of the country. These contextual factors can be important when countries set goals, when making comparisons across countries, and when evaluating the appropriateness and effectiveness of particular approaches. The indicator framework then focuses on laws and institutions that countries have established (including recognition of various rights);⁴¹ implementation measures; civic engagement; and dispute resolution and access to justice. These four categories essentially reflect and reformulate the considerations reflected in this Report and in the Issue Brief. The final proposed category—environmental outcomes and current status—is important in evaluating the effectiveness of environmental laws and of environmental rule of law efforts. If there is good compliance but public health still suffers, then it may be necessary to adjust the underlying standards. Conversely, if the underlying standards are solid, but compliance is weak or uneven, greater investment is needed in compliance assurance and enforcement. In many circumstances, efforts will be needed on both fronts.

Already, numerous initiatives exist for collecting much of the data that is necessary for the indicator framework proposed

in Box 6.1.⁴² These initiatives have their relative strengths and limitations. Some existing initiatives such as the Environmental Democracy Index (led by the World Resources Institute) and the Enforcing Contracts component of the World Bank's Ease of Doing Business Index focus on objective elements of the pillars of environmental rule of law.⁴³ However, not all elements of the environmental rule of law are easily amenable to objective study. Thus, other indices evaluate perception-based indicators. These include, for example, the Corruption Perception Index (by Transparency International),⁴⁴ which ranks countries and territories by perceptions of corruption in the public sector, and the Rule of Law Index (World Justice Project),⁴⁵ which includes certain indicators measured through a general population poll. Finally, some indices or indicators provide valuable, comparable insights into the context of a particular country, which is critical to understand due to the relevance of various demographic, economic, political and legal factors in influencing the state of environmental rule of law. One example is the Human Development Index (of the UN Development Programme),⁴⁶ which consolidates indices representing key dimensions of standard of living, knowledge, and longevity and health.

Box 6.2 maps the existing data sets and indices against proposed indicator categories, illustrating where there is already good (in quality and breadth) data being collected, where there is some data being collected,

40 UNEP 2015; see also Fulton and Benjamin 2011.

41 For a review of legal indicators, including those related to the environment, see Prieur 2018.

42 A table highlighting the various initiatives is in Annex III.

43 See <http://www.environmentaldemocracyindex.org/> and <http://www.doingbusiness.org/data/exploretopics/enforcing-contracts/what-measured>.

44 See <https://www.transparency.org/research/cpi/overview>.

45 See <https://worldjusticeproject.org/our-work/wjp-rule-law-index>.

46 See <http://hdr.undp.org/en/content/human-development-index-hdi>.

and where there are significant data gaps. In some cases, a particular data set or index has data relevant to multiple indicators; in these instances, the dataset or index is denoted each place where it has relevant data.

There are a few considerations that will need to be addressed in order for the regular assessment to be completed. It will be necessary to validate and finalize the indicator framework and the specific indicators. Part of the consideration of which indicators should be included in the final framework will depend on the data. It is necessary to determine which sources of data are deemed suitable and acceptable and how to address the existing data gaps (whether to reconstruct or fill in the data, whether to acknowledge the gaps, whether to allow different methodologies for different countries, or whether to dispense with the indicator). Where perception surveying is used, there may be value in adding as an important target community private sector entities doing business in multiple jurisdictions. Multinational companies often have an on-the-ground perspective on what is working in practice, heightened by a competitive interest in a level regulatory playing field that encourages common internalization of environmental protection costs across the regulated community. They are, in a sense, interested and informed recipients of the distributed fairness that flows from environmental rule of law, and therefore a promising source of useful data. It is also necessary to determine the scope of the global assessment. This Report has taken a broad view of “environment” including ecosystems, natural resources, and pollution.

In truth, though, these are details (and can be resolved through consultation and deliberation), and should not affect the decision about whether to conduct the assessment. The best route forward is likely to focus on a few core sectors and indicators,

work with partners to improve the breadth and quality of the data, and strategically fill in geographic or substantive gaps in the data.

Box 6.2 highlights *that there has been significant progress* and that *there are significant data gaps* in understanding which countries are taking what measures on environmental rule of law, and what the effects of those measures are. Historically, this is a data-poor environment, but that is changing. Remote sensing and emerging low-cost sensor technology, combined with machine learning and blockchain technology, promise to dramatically improve assessment of some of these parameters.⁴⁷ To effectively track progress, it will be necessary to engage diverse actors in establishing a common platform (indicators, methodology, etc.) for the assessment.

6.4 Pilot Testing of Approaches

In many instances, there are difficulties in implementing new laws that are common to bureaucracies. Government staff and management are often cautious about being the first to approve a new type of environmental permit, to sign off on community registration of lands, or other measures that may be provided (or even required) by the law.

One way to overcome this institutional inertia is to *share experiences from other jurisdictions*. Familiarity with various approaches and experiences can make it easier for people to take the measures they want to.⁴⁸ Indeed, sharing of judicial opinions and thinking from around the world has

47 Paddock and Wentz 2014; Cracknell 2017; Glicksman, Markell, and Monteleoni 2017; Chapron 2017; Düdler and Ross 2017.

48 UNEP 2006.

Box 6.2: Coverage of Environmental Rule of Law Indicator Framework Based on Existing Data

Indicator category	Indices/data sets (countries covered)	Notes on coverage
Contextual factors (Demography; economy; politics; legal system)	Freedom in the World Index (195 countries + 14 territories)	+ Configuration of political & legal systems well covered
	Governance Indicators (Over 200 countries + territories)	- Demographics & economies not well covered
	Democracy Index (167 countries)	- Indicators listed largely qualitative/comparative, not quantitative
	Rule of Law Index (113 countries)	
	Social Institutions and Gender Index (160 countries)	
	Human Freedom Index (159 countries)	
Corruption Perception Index (180 countries)		
Laws & institutions (Coverage of laws; rights; legal pluralism)	Human Freedom Index (159 countries)	+ Rights of free speech, association, non-discrimination well covered
	Freedom of Speech (38 countries)	- Only Environmental Democracy Index addresses environmental laws, and relatively fewer countries
	Freedom in the World Index (195 countries + 14 territories)	
	Rule of Law Index (113 countries)	- No statistics on right to healthy environment
	Environmental Democracy Index (70 countries)	
Implementation (Information; licenses and concessions; criteria; enforcement; auditing; corruption)	Corruption Perception Index (180 countries)	- Resource Governance Index deals only with oil, gas and mining, in select countries
	Resource Governance Index (81 countries)	- None of these datasets provide statistics on environmental compliance and enforcement or deal with environmental auditing
	Rule of Law Index (113 countries)	
	Environmental Democracy Index (70 countries)	
	World Justice Project Environmental Rule of Law Index (5 countries)	- Limited data for permits/licensing, and on corruption in natural resource sectors
Civic engagement (Access to information; public participation; environmental defenders)	Environmental Democracy Index (70 countries)	+ Environmental Democracy Index most comprehensive in assessing status of environmental information, participation, and access to justice, but lower number of countries covered
	Freedom of the Press (199 countries and territories)	- No statistics on persecution of or violence against environmental defenders
	World Justice Project Environmental Rule of Law Index (5 countries)	

Indicator category	Indices/data sets (countries covered)	Notes on coverage
Dispute resolution and access to justice (Effective dispute resolution bodies; access to justice; remedies)	Justice Index (1, the United States)	+ <i>Environmental Democracy Index most comprehensive, limited by number of countries</i>
	Enforcing Contracts (190 countries)	
	Environmental Democracy Index (70 countries)	
	World Justice Project Environmental Rule of Law Index (5 countries)	
Environmental outcomes & current status (Environmental health; environmental compliance by sector)	Environmental Performance Index (180 countries)	- <i>No data on compliance by sector</i>
	Environmental Policy Stringency (34 countries – OECD members)	
	Environmental Democracy Index (70 countries)	

Coverage key:

Strong data	Some data	Insufficient data
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been a hallmark of judicial capacity building.⁴⁹ And networks such as the International Network for Environmental Compliance and Enforcement and the European Union Network for the Implementation and Enforcement of Environmental Law are important in sharing experiences. Similarly, handbooks and guidance rooted in other countries' experiences can be useful.⁵⁰

Another important way to overcome institutional inertia is to **pilot test the approach before scaling it up**. This entails a small-scale trial that allows observers to identify problems as well as positive outcomes and lessons from a novel approach to dealing with specified issues relating to environmental rule of law.⁵¹ This may be done purely domestically, or it may benefit from bilateral or multilateral assistance. Pilot testing helps to work through the details of how the approach should work, with the option of revising the approach before scaling it up. It also has the benefits of raising awareness of the regulated community, government, and civil society alike, and gauging their responses. Once an

approach has been tested (and revised as appropriate), it is often possible to scale up the approach with less resistance.

Pilot testing has been used in diverse settings. In the late 1990s, the U.S. Environmental Protection Agency worked with Ukraine's Ministry of Environmental Protection and Nuclear Safety to pilot test an approach of introducing a participatory approach for environmental impact assessment into Ukraine's existing *expertiza* law (which historically had not engaged the public in assessing impacts of proposed projects).⁵² The pilot test on a natural gas concession in Ivano-Frankivsk proved so successful that Ukrainian officials sought to expand the approach to other assessments.⁵³ And in Indonesia, a UK-funded project launched in 2018 aims to improve accountability in the area of illegal wildlife trade by implementing penalties beyond traditionally considered criminal sanctions.⁵⁴ The project will test the application of an approach to quantifying the costs of illegal wildlife trafficking to society through an innovative civil liability suit seeking

49 See Section 2.4.

50 UNEP 2006.

51 Zbrodoff 2012.

52 Skrylnikov and Tustanovska 1998.

53 Teel 2001.

54 Government of the United Kingdom 2018.

to hold perpetrators financially responsible for harm. In Cambodia, as the country sought to rebuild from a brutal series of wars, one of the challenges was to rebuild land rights: under the Khmer Rouge, private property was banned; Viet Nam later introduced measures for communal ownership; and by the 1990s, there was an urgent need to restore the rule of law in the land sector. Given the massive scale of the challenge and uncertainties regarding which approach would work best in rebuilding land title and the cadastre system, Cambodia and its international partners adopted a pilot approach, which was tested in one place, then scaled up.⁵⁵

Pilot testing can be done on a country by country basis, as in Ukraine, Indonesia, and Cambodia. It is also possible to **bundle a series of pilot projects into a more coherent program to develop and test a suite of tools to advance environmental rule of law**. For example, from 2004 to 2006, UNEP supported more than a dozen pilot projects in countries and regions around the world designed to test approaches for improving compliance with and enforcement of multilateral environmental agreements.⁵⁶ These included efforts to develop national laws that implemented a cluster of related environmental agreements; build capacity of environmental negotiators, civil society, the media, and customs officers through innovative training; harmonize national reporting; and develop toolkits and checklists.

Moving forward, it is likely that countries and their partners will need to consider both how to capitalize on specific opportunities in a country and to strategically develop, test, and deploy new tools that may help many countries improve the environmental rule of law. In both cases, it is often easier to convince decision makers and staff alike that

a particular approach can work if it is already tested and proven.

6.5 Way Forward

This Report provides a roadmap for tracking the effectiveness of efforts to improve the environmental rule of law globally. It frames why environmental rule of law is important, and it elaborates a conceptual framework for understanding, utilizing, and advocating for environmental rule of law. For key elements of environmental rule of law, it has highlighted trends both positive and negative. Some of these trends were already in view, but this is the first attempt to stitch them together as a coherent whole and to aggregate the relevant data.

In addition to trends, this Report has highlighted diverse examples of good practice, including many innovations from developing countries who often have all the challenges faced by developed countries but with fewer staff and other resources with which to address those challenges. The geographic range of these efforts and innovations reinforces two related key points of this Report: ***developing and advancing the environmental rule of law is a challenge for all countries; it is also a growing priority.***

The Report has also identified opportunities for countries and the international community to strengthen the environmental rule of law. Each chapter identifies priority actions and opportunities for that particular set of issues, and this chapter identifies four broad considerations and opportunities that cut across multiple components.

It is worth noting that while there is substantial agreement on the importance of environmental rule of law and the significant costs when it is weak, there is limited empirical data on which approaches

⁵⁵ Bruch et al. 2008.

⁵⁶ Bruch 2006.

are most effective and under what circumstances. The global environmental rule of law assessment, discussed in Section 6.3, will provide an empirical foundation for analysis of the effectiveness and significance of the different approaches.

Finally, it is important to note that environmental rule of law remains a dynamic and evolving topic. Even in the absence of clear empirical data, there are many no-regrets measures that countries can readily adopt, even as scientific understanding is improving. And if the goals of the hundreds of national laws, regulations, and policies governing the environment around the world are to be met—including public health and welfare, robust economies, and peaceful societies—an overriding priority must be placed on strengthening the environmental rule of law.

