

The Emergence of the Environmental Impact Assessment Duty as a Global Legal Norm and General Principle of Law

BY TSEMING YANG[†]

More than half a century ago, Rudolf Schlesinger announced a global survey of legal principles in the pages of the American Journal of International Law. The project's objective was the identification of a "common core" of legal norms among the family of nations and the ultimate goal the production of something akin to a global restatement of law. Such an endeavor was to yield global principles of law, ultimately giving substance to the General Principles of Law provision under Article 38 of the Statute of the International Court of Justice. In spite of the initial enthusiasm surrounding the project, its ultimate goal was never realized.

Five decades later, the prospect of engaging in such a project, focused on the environmental law field, promises more fruitful outcomes. In this Article, I argue that globalization and other trends have made the EIA duty—the duty to perform environmental impact assessments for projects that are likely to have a significant impact on the environment—a globally accepted norm. A survey of 197 jurisdictions finds that the duty has been nearly universally adopted. The Article suggests that the EIA duty may now be seen as a "general principle of law recognized by civilized nations," and in that sense has joined the body of public international law. Finally, the survey results also point to comparative law methodology as a promising opportunity for identifying new legal norms in the international environmental law field, independent of the cumbersome process of treaty negotiation or the time-consuming development of customary law.

[†] Professor of Law, Santa Clara University School of Law. I am grateful to my research fellows Devani Adams and Laura Davis for excellent research assistance, especially on the research and preparation of the EIA survey data, and the participants of works-in-progress colloquia and workshops at the U.C. Davis Conference of Asian Pacific American Law Faculty, Berkeley Law School and Santa Clara Law School for valuable comments and suggestions. Additional research was provided by Min Jeong Koh, Susan Shapiro, and Cynthia Yuan. The research was supported by funding from Santa Clara Law School and Santa Clara University's Sustainability Research Initiative.

TABLE OF CONTENTS

INTRODUCTION	526
I. THE EIA NORM AS A GOOD PRACTICE IN ENVIRONMENTAL PLANNING AND GOVERNANCE	529
A. WHAT IS IT?	529
B. EIA NORM AS GOOD PUBLIC POLICY AND PRACTICE.....	533
C. CRITICISMS OF THE EIA NORM.....	535
II. EIA DUTY AS A GLOBAL NORM OF ENVIRONMENTAL LAW	538
A. THE PERCEPTION OF GLOBAL ACCEPTANCE OF ENVIRONMENTAL IMPACT ASSESSMENT.....	538
B. CONTEMPORARY UNIVERSALITY—THE SURVEY AND RESULTS	542
1. <i>Scope</i>	542
2. <i>Survey Process and Methodology</i>	542
3. <i>Survey Results</i>	545
C. TRENDS ACROSS THE WORLD.....	545
III. THE EIA DUTY AS AN ARTICLE 38 GENERAL PRINCIPLE	549
A. ARTICLE 38 OF THE ICJ—“GENERAL PRINCIPLES OF LAW RECOGNIZED BY CIVILIZED NATIONS”	550
B. WHY CONSIDER THE PROMISE OF GENERAL PRINCIPLES OF LAW FOR THE GLOBAL ENVIRONMENT?.....	555
C. DOES THE EIA NORM QUALIFY AS A GENERAL PRINCIPLE OF LAW UNDER ARTICLE 38?.....	558
1. <i>“General Principle of Law”</i> : <i>Specific Rules vs. Concepts</i>	559
2. <i>Recognition as Law</i>	560
3. <i>Whose Recognition of the Principle Counts?</i>	562
IV. THE PRACTICAL IMPLICATIONS.....	563
A. APPLYING THE EIA NORM AS A GENERAL PRINCIPLE	563
B. OTHER GENERAL PRINCIPLES BEYOND THE EIA DUTY	566
C. SOME FINAL OBSERVATIONS	567
CONCLUSION.....	568
APPENDIX 1.....	570
APPENDIX 2.....	571

INTRODUCTION

Over the years, a perception has arisen that the earliest of the modern environmental law norms—the duty to conduct an environmental impact assessment (EIA) before engaging in projects that are likely to have a significant impact on the environment—has become globally accepted. Until recently, that perception was unsubstantiated or based on studies that indicated substantially

less than universal acceptance. The 197-jurisdiction survey¹ of worldwide EIA legislation described in this Article now provides empirical support for the proposition that the duty to conduct an EIA is no longer a hortatory admonition of good practice or authorization for discretionary application, but has in fact become a globally accepted legal norm. Specifically, at least 183 jurisdictions have now adopted the EIA duty as part of their environmental governance system, about ninety-three percent.²

The survey has three main implications. First, widespread consensus among jurisdictions about this norm empirically confirms that the EIA process is a broadly accepted tool for managing the environment. Second, the widespread consensus also confirms what Professor Robert Percival and I have previously suggested about the emergence of global environmental legal norms and that the EIA duty is one such global norm. Finally, the survey demonstrates that through its ubiquitous adoption, it has become a “general principle of law,” as it is a norm that satisfies the requirements of the General Principles provision of the three primary sources of public international law.³ In other words, the EIA duty has emerged as a binding legal norm that is part of public international law.

If the broader international law community is persuaded that the EIA norm is a general principle of international law, it will shed light on a largely overlooked approach to identifying international environmental law—comparative law analysis.⁴ While this research approach to identifying public international law norms enjoyed popularity in the 1950s and 60s, it lost visibility because of practical research challenges.

Norms embodied in general principles of international law are distinct and independent in their origin from those created by treaty and customary law. Yet, they also are an integral part of public international law. These legal principles are relied on in the operations of international organizations and play important gap-filling functions in the adjudicative work of the International Court of Justice, dispute settlement processes ranging from the World Trade Organization to UNCLOS, international human rights bodies, and other arbitral

1. The survey included the 193 member states of the United Nations, the European Union, the Holy See, Palestine, and Taiwan.

2. The number includes the European Union and counts it as a jurisdiction separate from its member states.

3. See, e.g., Statute of the International Court of Justice art. 38, ¶ 1, June 26, 1945, 59 Stat. 1031, 1055, 33 U.N.T.S. 993 [hereinafter ICJ Statute] (listing the three primary sources of public international law—international conventions, international customs, and general principles of law recognized by civilized nations); RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102(c) (AM. LAW. INST. 1987); see also Rome Statute of the International Criminal Court art. 21, ¶ 1(c), July 17, 1998, 2187 U.N.T.S. 90 (“The Court shall apply: . . . [as a supplement] general principles of law derived by the Court from national laws of legal systems of the world.”). For elaboration on this assertion, see *infra* Subpart III.C.

4. Comparative law approaches to studying environmental law generally have grown in recent times, especially evidenced by the creation of law journals such as the *Review of European Community and International Environmental Law*. See Elisa Morgera, *Global Environmental Law and Comparative Legal Methods*, 24 REV. EUR. COMMUNITY & INT’L ENVTL. L. 254 (2015) (discussing the relevance of comparative law methodology to studying the growth of environmental law across the world).

tribunals. They are also part of the body of public international law applied by U.S. domestic courts. Thus, the potential practical implications of the survey are significant.

Part I of this Article explains the value of the EIA norm and the prevailing consensus among environmental professionals that EIA requirements represent sound public policy and are foundational to effective environmental planning and governance. Part II shares the survey results indicating that the EIA duty has spread across the world and become a globally accepted legal norm. Part III explains General Principles of Law as a source of public international law and explores the promise they could hold for the development of international environmental law. Based on the survey's finding that the EIA norm is ubiquitous and globally adopted, I argue that it should be considered a general principle of international law. Part IV explores the practical implications of recognizing the EIA norm as a general principle of law.

There are two issues worth noting at the outset. The first is one of terminology. The term "NEPA Process" is used to refer to the specific requirements and environmental assessment process of the National Environmental Policy Act (NEPA), enacted by the U.S. Congress in 1969. NEPA is the original model for environmental impact assessment procedures across the world. In contrast, references in the Article to "EIA" or EIA process are intended to refer to impact assessment processes generally and are not specific to NEPA or the processes of any particular legal system.

The second is my decision to utilize the ICJ Statute's formulation of General Principles ("general principles of law recognized by civilized nations") as the primary frame of reference for this Article. The Restatement (Third) of the Foreign Relations Law of the United States provides an alternative formulation, as "general principles common to the major legal systems of the world." While the phrasing is different, the content of the ICJ formulation is substantively similar to (or at a minimum encompasses) that of the Restatement.⁵ I have chosen the ICJ formulation for the discussion here, in part because it appears to have been more widely used in the literature and judicial opinions.

Finally, I note that this Article does not attempt to define or delineate with specificity the scope of the principle or address its normative reach in international law. I leave that appraisal for a later time.

5. See RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102 reporter's note 7 (AM. LAW. INST. 1987) ("It has become clear that [the ICJ's formulation of General Principles] refers to general principles of law common to the major legal systems of the world."). The different phrasing is also addressed *infra* Subparts III.C.2, III.C.III, and note 177.

I. THE EIA NORM AS A GOOD PRACTICE IN ENVIRONMENTAL PLANNING AND GOVERNANCE

A. WHAT IS IT?

In its essence, EIA is an obligation to stop and consider environmental consequences before acting, a process that requires investigation and evaluation of the environmental impact of a proposed project or action before it goes forward. The International Association for Impact Assessment has defined it as “the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made.”⁶ Thus, government agencies are usually required to produce a “publicly reviewable physical document reflecting the required internal project analysis,” ensuring “that the agency has given ‘good faith consideration’ to the environmental consequences of its proposed action and its reasonable alternatives.”⁷ Almost always, the EIA process includes the public in the gathering of information as well as in the review of the document.

While conceptually simple, the EIA norm is thus an umbrella principle that embodies a number of more specific duties. These subsidiary norms include the requirement to generate particular types of impact information, actual consideration of such information by the decision-maker, governmental transparency and accountability, and engagement of the public. Jurisdictions vary in their choices of articulating these subsidiary norms in legislation or regulation.⁸

In concrete terms, the EIA norm is operationalized as follows: When a project proposal triggers the EIA duty, a government agency will engage in a “screening” step that identifies potentially significant impacts of the project. If it is determined that the project does not have any significant impacts, usually an abbreviated assessment document is generated (an “Environmental Assessment” under NEPA) and the process comes to an early end. Alternatively, if any impacts will or could be significant, a full-blown impact assessment is initiated. A “scoping” process then determines what impacts, including cumulative and indirect effects, as well as project alternatives are to be included in the impact analysis. Once the relevant information has been collected and

6. INT’L ASS’N FOR IMPACT ASSESSMENT, WHAT IS IMPACT ASSESSMENT? 1 (2009), http://www.iaia.org/uploads/pdf/What_is_IA_web.pdf (internal quotation marks omitted); see also JOHN GLASSON ET AL., INTRODUCTION TO ENVIRONMENTAL IMPACT ASSESSMENT 3–4 (4th ed. 2012); CHRISTOPHER WOOD, ENVIRONMENTAL IMPACT ASSESSMENT: A COMPARATIVE REVIEW 1 (2d ed. 2003).

7. ZYGMUNT J.B. PLATER ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 320 (4th ed. 2010).

8. For example, NEPA’s EIA language is relatively sparse and left most of the details of EIA implementation (including such subsidiary norms) to agency regulations. *Id.* at 319. In contrast, for example, Australia’s Environment Protection and Biodiversity Conservation Act of 1999 provides much more details with respect to the EIA mechanism. See *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ss 80–105 (Austl.).

analyzed, a written impact assessment document (“Environmental Impact Statement” under NEPA) is prepared for review by the agency decision-maker. The public is usually involved in the assessment process during the information collection stage and in review of the draft document. Based on the impact assessment document, the decision-maker then decides whether to go forward with the proposed project or to choose an alternative action.

EIA was first pioneered in the United States with the enactment of the National Environmental Policy Act of 1969 (NEPA).⁹ Even in its early days, NEPA was both celebrated and maligned. Some described it as fundamentally altering environmental planning and regulation, while others accused it of doing little to stem the tide of environmental destruction brought on by the modern world.¹⁰ In spite of its flaws,¹¹ environmentalists, planners, and regulators have universally come to accept it as a critical and fundamental component of modern environmental regulatory systems.¹² Equally important, EIA has also contributed to establishing the crucial role of the public and its legitimate concerns in environmental regulation.¹³

NEPA’s impact assessment requirement might be described as the product of legislative fortuity and as an “afterthought,” arising from senate hearing testimony of Professor Lynton Caldwell of Indiana University.¹⁴ As commentators have pointed out, “whether Congress understood what it legislated, and [whether it] expected that the environmental impact statement would become a major instrument of environmental review, is far from clear.”¹⁵ Prior versions of the pending House and Senate bill had focused primarily on the creation of the Council on Environmental Quality while Caldwell’s testimony called for an environmental “findings” requirement imposed on federal agencies.¹⁶ The eventual language became the “detailed statement” requirement, the environmental impact statement that all federal agencies are

9. National Environmental Policy Act of 1969 § 101, 42 U.S.C. § 4331 (2012).

10. See, e.g., Joseph L. Sax, *The (Unhappy) Truth About NEPA*, 26 OKLA. L. REV. 239 (1973).

11. See *infra* Subpart I.C.

12. See, e.g., INT’L UNION FOR CONSERVATION OF NATURE, WORLD COMM’N ON ENVTL. LAW, DRAFT PROJECT: GLOBAL PACT FOR THE ENVIRONMENT, art. 5, at 3 (2017) <https://www.iucn.org/sites/dev/files/content/documents/draft-project-of-the-global-pact-for-the-environment.pdf>; U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26 (Vol. 1), annex 1, princ. 17 (Aug. 12, 1992) [hereinafter *Rio Declaration on Environment and Development*].

13. In the United States, many states have incorporated EIA processes into their own environmental regulatory schemes, such as the California Environmental Quality Act (CEQA). Some executive branch actions that are not subject to NEPA have also been made subject to the requirements of EIA by virtue of President Carter’s Executive Order 12114, requiring EIA processes for some US activities abroad and in the global commons. Exec. Order No. 12,114, 44 Fed. Reg. 1957 (Jan. 4, 1979).

14. *National Environmental Policy Act of 1969: Hearings on S. 1075, S. 237 & S. 1752 Before the S. Comm. on Interior & Insular Affairs*, 91st Cong. 116 (1969); see also DANIEL R. MANDELKER ET AL., *NEPA LAW AND LITIGATION*, 2D, § 2.2 (2018).

15. MANDELKER ET AL., *supra* note 14, § 2.4.

16. *Id.* § 2.2.

subject to for proposals of major federal action.¹⁷ In the aftermath, this detailed statement language has become a source of significant case law as well as the CEQ regulations setting out the specific requirements for agency compliance with NEPA.

The passage of time has shown that NEPA, and EIA processes more generally, have affected government processes in two important aspects. First, it has forced government agencies to “stop and think before making decisions and taking actions that harm the environment.”¹⁸ Thus, Professor Houck noted that the redeeming virtue of NEPA is the process leading up to NEPA’s Environmental Impact Statement:

It is not what the statement says that is important. It is in what comes before, in what agencies have to investigate and learn and listen to, in what they have to fear from other agencies and from environmental groups, the press, and reviewing courts, and in the every day responses and accommodations that they have to make.¹⁹

Second, many scholars have pointed out that one of NEPA’s most important positive effects may thus be immeasurable and likely unknowable: the “anonymous thousands of destructive . . . projects that [were] withdrawn, or never proposed in the first place, in anticipation of” NEPA scrutiny.”²⁰

Thus, under NEPA, significant amounts of information have been generated and publicly disclosed either to be used by the government itself or by civil society and the media to exert pressure on agencies, initiate litigation, or otherwise effect political accountability. In the United States, the process has given environmental advocates special “strategic leverage: Citizens can sue in court to invalidate the EIS [if the agency has failed to adequately disclose the negative impacts of the proposed project or actions], halting agency actions pending full procedural compliance with NEPA.”²¹ In short, the EIA process’s public disclosure requirements have leveraged the maxim that “information is power.”²²

17. NEPA section 102(C) calls for the inclusion

in every . . . proposal[] for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on the environmental impact of the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, alternatives to the proposed action, the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

42 U.S.C. § 4332(C) (2012).

18. PLATER ET AL., *supra* note 7, at 319.

19. Oliver A. Houck, *Is That All? A Review of The National Environmental Policy Act, An Agenda for the Future*, by Lynton Keith Caldwell, 11 DUKE ENVTL. L. & POL’Y F. 173, 190–91 (2000) (book review).

20. PLATER ET AL., *supra* note 7, at 320. In the end, however, it must be remembered that EIA processes were never intended to be the sole tool for protecting the environment, but one part, albeit a significant one, of a larger environmental governance system.

21. *Id.*

22. *Id.* at 319.

Over the years, NEPA case law has resolved questions such as whether the failure to prepare an EIA can be used to stop a project (yes), in what circumstances an EIA is required and what kind (an environmental assessment or environmental impact statement), the issues and impacts that must be included in an EIA, and whether the most environmentally sound alternative must be chosen at the end (it does not).²³

Over the four and a half decades since NEPA's enactment, the EIA requirement has spread across the world, becoming embedded both in public international law²⁴ as well as in the national laws of almost all countries. It appears as principle 17 in the 1992 Rio Declaration on Environment and Development, as Article 206 in the United Nations Convention on the Law of the Sea, and as Article 14 of the Convention on Biological Diversity.²⁵ Its requirements have been incorporated into the Operational Policies and Procedures of the World Bank and other multilateral development banks,²⁶ which apply to all of the projects that these institutions support financially throughout the world. It has also spread throughout the world's national environmental law systems, enacted in the laws of France in 1977,²⁷ in China in 1979,²⁸ in Brazil in 1981,²⁹ made applicable by directive to the countries of the European Union in 1985,³⁰ in India in 1986,³¹ in Mexico in 1988,³² and in the Russian Federation in 1995.³³ In 1991, EIA became the focus of the Espoo Convention on Environmental Impact Assessment in a Transboundary

23. See MANDELKER ET AL., *supra* note 14, §§ 4:54–4:62, 10:43, 12:22.

24. See generally NEIL CRAIK, *THE INTERNATIONAL LAW OF ENVIRONMENTAL IMPACT ASSESSMENT: PROCESS, SUBSTANCE AND INTEGRATION* (2008) (discussing the international spread and adoption of EIA in international treaties and organizations); Alexander Gillespie, *Environmental Impact Assessments in International Law*, 17 REV. EUR. COMMUNITY & INT'L ENVTL. L. 221, 222 (2008).

25. For a listing of international instruments containing EIA commitments, see CRAIK, *supra* note 24, at 283 app. 1.

26. WORLD BANK, *OPERATIONAL MANUAL: OP 4.01—ENVIRONMENTAL ASSESSMENT* (2013), <https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f7384.pdf> [hereinafter OP 4.01]; WORLD BANK, *OPERATIONAL MANUAL: BP 4.01—ENVIRONMENTAL ASSESSMENT*, <https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822fe860.pdf> [hereinafter BP 4.01].

27. Décret 77-1141 du 12 octobre 1977 pris pour l'application de l'article 2 de la loi 76-629 du 10 juillet 1976 relative à la protection de la nature [General Implementation Decree No. 77-1141, 1977], *JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE* [J.O.] [OFFICIAL GAZETTE OF FRANCE], Oct. 13, 1977, p. 4948 (Fr.).

28. Zhonghua Renmin Gongheguo Huanjing Baohu Fa (Shixing) (中华人民共和国环境保护法[试行]) [Environmental Protection Law of the People's Republic of China (Trial)] (promulgated by the Standing Comm. Nat'l People's Cong., Sept. 13, 1979), art. 13 (China).

29. Lei No. 6.938, de 31 de Agosto de 1981, *DIÁRIO OFICIAL DA UNIÃO* [D.O.U.] (Braz.); Resolução Conama No. 1, de 23 de Janeiro de 1986, *DIÁRIO OFICIAL DA UNIÃO* [D.O.U.] de 11.02.1986 (Braz.).

30. Directive 85/337/EEC, of the European Parliament and Council of 27 June 1985 on the Assessment of the Effects of Certain Public and Private Projects on the Environment, 1985 O.J. (L175) 40.

31. The Environment (Protection) Act, No. 29 of 1986, *INDIA CODE* (1986).

32. Ley General del Equilibrio Ecológico y la Protección al Ambiente [General Law of Ecological Equilibrium and Environmental Protection], *Diario Oficial de la Federación* [DOF] 28-1-1988, última reforma DOF 5-6-2018 (Mex.).

33. Federal'nyi Zakon Rossiyskoy Federatsii ob Ekologicheskoy Ekspertize [Federal Law of the Russian Federation on Ecological Expertise], *ROSSIISKAIA GAZETA* [ROS. GAZ.] Nov. 23, 1995 (amended Apr. 15, 1998).

Context.³⁴ In 2010, the International Court of Justice declared in the *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* case that EIA in the transboundary context had become a binding norm of international law.³⁵

Along with its adoption in international treaties, in the operational processes of international organizations, and in national and sub-national laws across the world, EIA has become the primary focus of entire professional associations, such as the International Association of Impact Assessment, the National Association of Environmental Professionals, and the California Association of Environmental Professionals. Each of these professional associations has a membership numbering in the thousands.³⁶

B. EIA NORM AS GOOD PUBLIC POLICY AND PRACTICE

The EIA process has enjoyed great popularity among environmental regulators and professionals, in part because it was the first of the modern environmental regulatory tools. Specifically, it has enhanced environmental decision-making processes in four aspects: (1) rationality, (2) sensitivity to environmental concerns, (3) transparency, and (4) accountability of environmental decision-making processes.

EIA processes ensure the availability of key environmental information by requiring that such information be collected and brought to the attention of the decision-maker. In doing so, EIAs explicitly insert environmental values and concerns into the decision process and flag them as important EIA processes, thereby enhancing transparency since the gathered information must be disclosed to the public. In turn, the public can be more engaged and participate more effectively in the decision process. Finally, transparency promotes accountability for decisions affecting the public welfare generally and with respect to the environment specifically.

34. U.N. Convention on Environmental Impact Assessment in a Transboundary Context, Feb. 25, 1991, 30 I.L.M. 800 (1991).

35. *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, Judgment, 2010 I.C.J. Rep. 14, ¶ 204 (Apr. 20); see also Alan Boyle, *Developments in the International Law of Environmental Impact Assessments and Their Relation to the Espoo Convention*, 20 REV. EUR. COMMUNITY & INT'L ENVTL. L. 227, 227 (2011) ("This finding treats transboundary EIA as a distinct and freestanding obligation in international law . . ."). The International Law Association's 2004 Berlin Rules on Water Resources also took the position in article 29 that the EIA must be performed when there may be a "significant effect on the aquatic environment or the sustainable development of waters." INT'L LAW ASS'N WATER RES. COMM., BERLIN CONFERENCE ON WATER RESOURCES LAW, FOURTH REPORT 31 (2004), https://www.unece.org/fileadmin/DAM/env/water/meetings/legal_board/2010/annexes_groundwater_paper/Annex_IV_Berlin_Rules_on_Water_Resources_ILA.pdf.

However, in its commentary it also acknowledged that while the EIA duty "has crystallized into a rule of customary international law, at least insofar as transboundary effects are concerned, . . . relatively little direct support for [a broader obligation] in international legal authorities." *Id.* at 31–32.

36. The IAIA has over 1700 members from 120 nations. *About IAIA*, INT'L ASS'N IMPACT ASSESSMENT, <http://www.iaia.org/about.php> (last visited Jan. 19, 2019). The NAEP has about 1000 members. *About: NAEP Affiliation*, CAL. ASS'N ENVTL. PROF'LS, <http://califaep.org/about-aep/naep> (last visited Jan. 19, 2019). The CalAEP has over 1700 members. *About*, CAL. ASS'N ENVTL. PROF'LS, <http://califaep.org/about-aep> (last visited Jan. 19, 2019).

In countries where environmental law and regulatory systems are only of recent vintage and are still in the process of embedding themselves in the government and civil society, the EIA norm has usually been among the first environmental laws to be enacted and become generally accepted as a “good practice.”³⁷ Regular application of EIA processes has helped regulators and other public officials internalize concern for environmental quality and support the growth of civil society. The result has not only been to promote environmental objectives, such as environmental sustainability, but also to strengthen the rule of law, democratic governance, and ultimately human rights, especially as related to the environment.³⁸

Even in countries where the rule of law is not robust and civil society is still weak, EIA processes can make a difference. EIA processes tend to increase the transparency of environmental governance to the international community, enabling international organizations, development agencies, and international environmental NGOs to use their influence and resources more effectively to improve environmental outcomes. Their leverage can include delayed disbursement or cancellation of aid money, diplomatic pressure by influential governments, and swaying the sympathy and market power of foreign consumers.³⁹ In other words, even when transparency has not made national governments more accountable to their *own* people, there is no question that it can enhance accountability to the international community. Finally, transparency and the process of public engagement envisioned by the EIA process can ultimately serve as a civil society organizing mechanism, with environmental concern serving as a nucleus around which communities and the public can engage more deeply with governance and policy.

37. See, e.g., ORG. FOR ECON. COOPERATION & DEV., OECD ENVIRONMENTAL PERFORMANCE REVIEWS: CHILE 2016, at 107 (2016) (“Environmental impact assessment (EIA), [was] introduced by the 1994 Environmental Basic Law, [and] is the oldest, most important and most developed instrument of environmental regulation in Chile.”); ORG. FOR ECON. COOPERATION & DEV., OECD ENVIRONMENTAL PERFORMANCE REVIEWS: BRAZIL 2015, at 116 (2015) (“For a long time, EIA was the only environmental management tool applied in the country on a large scale.”); see also WORLD BANK, SUSTAINABLE DEV. DEP’T, LATIN AM. & THE CARIBBEAN REGION, REPUBLIC OF ECUADOR COUNTRY ENVIRONMENTAL ANALYSIS: ENVIRONMENTAL QUALITY AND NATURAL RESOURCE MANAGEMENT FOR SUSTAINED ECONOMIC GROWTH AND POVERTY ALLOCATION 17–18 (2007) (“Licensing, through environmental impact assessments, has become the main (and sometimes only) management tool to minimize or mitigate environmental impacts to third parties, due to the absence of regulations for pollution control, zoning, and water resources management.”).

38. See, e.g., JOSEPH FOTI ET AL., WORLD RES. INST., VOICE AND CHOICE: OPENING THE DOOR TO ENVIRONMENTAL DEMOCRACY 10–13 (Greg Mock & Bob Livemash eds., 2008), http://pdf.wri.org/voice_and_choice.pdf. In fact, to the extent that good environmental governance, democracy, and the rule of law are mutually interdependent, strengthening one will also support the others.

39. While the use of such leverage does not seem to occur systematically, there have been some high-profile instances of such international responses. For example, as international opposition by environmentalists and human rights activists to the construction of the Three Gorges Dam in China grew due to the environmental and human rights impacts, the US Export-Import Bank, the World Bank, and other international financial institutions withdrew their support of the project. See, e.g., Kate Kearins & Greg O’Malley, *International Financial Institutions and the Three Gorges Hydroelectric Power Scheme*, GREENER MGMT. INT’L, Autumn 1999, at 85, 85.

C. CRITICISMS OF THE EIA NORM

Describing the EIA process as “good practice” implicitly acknowledges that it is not perfect. In fact, those who see the EIA norm as not doing enough to protect the environment have not spared their serious misgivings. For example, Professor Joseph Sax, who eventually became a supporter of NEPA, wrote in the early days that for improving the administrative process through disclosure requirements, EIA could not be “a more dubious example of wishful thinking,” with little prospect of “significant self-reform by agencies.”⁴⁰ Instead, he said, NEPA would “produce little except fodder for law review writers and contracts for that newest of growth industries, environmental consulting.”⁴¹ He was certainly correct with respect to the emergence of an entire environmental consulting industry associated with the EIA duty.

Even as EIA has spread across the globe, criticism has not gone away. Developers usually argue that environmentalists use the EIA process as a delaying tactic and to increase project costs. Internationally, EIA requirements have been maligned as “anti-development, expensive,” and, in the development assistance context, potentially infringing on an aid “recipient’s sovereignty or complicat[ing] the administration of aid.”⁴² Nevertheless, multilateral development banks such as the World Bank have imposed their own EIA requirements for bank-financed projects as a condition of financial support, independent of the borrower country’s own EIA requirements.⁴³ Environmental critiques have usually focused on effectiveness issues, especially the argument that the EIA process by itself is not enough to protect the environment.

There are at least five broad categories into which the criticisms fall: (1) its procedural focus, (2) ease of subversion of the EIA’s purpose, (3) implementation issues associated with the technical aspects of EIA, (4) accessibility to the public, and (5) dependence on the rule of law for effectiveness.⁴⁴

40. Sax, *supra* note 10, at 239, 245.

41. *Id.* Justice Marshall said, in a dissent, “this vaguely worded statute seems designed to serve as no more than a catalyst for development of a ‘common law’ of NEPA.” *Kleppe v. Sierra Club*, 427 U.S. 390, 421 (1976) (Marshall, J., concurring in part and dissenting in part).

42. Nicholas A. Robinson, *International Trends in Environmental Impact Assessment*, 19 BELLAGIO CONF. ENVTL. AFF. L. REV. 591, 595 (1992). Of course anything that slows down or imposes additional impediments, however necessary to the broader public good, could be criticized on those same grounds.

43. *See, e.g.*, INT’L BANK FOR RECONSTRUCTION & DEV., WORLD BANK, ENVIRONMENTAL AND SOCIAL FRAMEWORK 16, 17 (2017), <http://documents.worldbank.org/curated/en/383011492423734099/pdf/114278-WP-REVISED-PUBLIC-Environmental-and-Social-Framework.pdf> (“ESS1 [Environment and Social Standard 1] applies to all projects supported by the Bank through Investment Project Financing. . . . The Borrower will assess, manage and monitor the environmental and social risks and impacts of the project throughout the project life cycle so as to meet the requirements of the ESSs in a manner and within a timeframe acceptable to the Bank.” (footnotes omitted)).

44. In an alternative formulation, Barry Sadler has described the weaknesses of existing EIA processes in terms of five major problem areas related to the (1) attitudes of project proponents and government agencies, (2) structural integration of EIA with decision-making processes, (3) institutional issues, (4) procedural inadequacies in the implementation of EIA, and (5) technical issues. Barry Sadler, *Ex-Post Evaluation of the*

First, critics of NEPA often point out that “NEPA’s lack of substantive requirements makes the act little more than a procedural hoop through which federal agencies must jump.”⁴⁵ In fact, “many scholars have criticized domestic EIA [in many nations] for lacking a connection to a general prohibition on environmental law,” that is, the EIA process often does not stop projects that are environmentally destructive.⁴⁶ They argue that EIA is pointless without it.⁴⁷ In fact, even in the U.S. system, “[n]othing in [NEPA] itself prohibits actions with adverse environmental impacts as long as they have been identified and considered when making the decision.”⁴⁸

NEPA’s lack of a substantive requirement also forms the basis of the second set of criticisms: insufficient integration with the substantive decision-making process allows the EIA’s process objective to be too readily subverted.⁴⁹ In such accounts, government agencies tend to engage in “defensive” preparation of environmental impact statements to avoid litigation because of their perception that NEPA requirements are used as a harassment tool. Rather than engaging in a “real” look at the environmental impacts, government agencies narrowly focus on meeting the technical legal requirements and just go through the motions in their preparation of EIS documents.⁵⁰ The result is to divert agencies from utilizing a broad perspective on their environmental responsibilities to their decision-making processes.⁵¹ Oliver Houck went as far as to describe existing NEPA processes as “an elaborate catechism requiring years of delay and paperwork—often irrelevant, always self-promoting, and at times outright deceitful in its consideration of environmental effects—before getting on with the job.”⁵²

The third area of concern has focused on the practical implementation of the technical aspects of EIAs. Oftentimes, “the scope of [impact assessments] is too narrowly defined or applied, such that social, health factors, and cumulative effects are inadequately covered.”⁵³ Barry Sadler has also noted the requirements are too technical such that the “quality of EISs, the accuracy of

Effectiveness of Environmental Assessment, in ENVIRONMENTAL METHODS REVIEW: RETOOLING IMPACT ASSESSMENT FOR THE NEW CENTURY 30, 31 (Alan L. Porter & John J. Fittipaldi eds., 1998).

45. Mark W. Anderson, *National Environmental Policy Act*, in BERKSHIRE ENCYCLOPEDIA OF SUSTAINABILITY: THE LAW AND POLITICS OF SUSTAINABILITY 393, 393 (2010).

46. John H. Knox, *The Myth and Reality of Transboundary Environmental Impact Assessment*, 96 AM. J. INT’L L. 291, 316–17 (2002).

47. *Id.* at 317.

48. Anderson, *supra* note 45, at 394.

49. Sadler, *supra* note 44, at 31.

50. See Eugene Bardach & Lucian Pugliaresi, *The Environmental-Impact Statement vs. the Real World*, 49 PUB. INT. 22, 24 (1977) (“Agencies cannot be penetrating or creative when their analyses are directed and mobilized for primary defensive purposes.”).

51. MANDELKER ET AL., *supra* note 14, § 11.2.

52. Houck, *supra* note 19, at 176. Moreover, “a sad lesson of the NEPA experience is that, given the resistance of federal development agencies and the limited supervisory power of CEQ, what citizen groups cannot enforce will die on the vine.” Oliver A. Houck, *Worst Case and the Deepwater Horizon Blowout: There Ought to Be a Law*, 40 ENVTL. L. REP. 11033, 11038 (2010).

53. Sadler, *supra* note 44, at 31.

impact predictions, and the suitability of mitigation measures are often highly variable, even in relatively mature, advanced EA systems.”⁵⁴

The technical complexities of the reports produced is directly related to the fourth area of criticism, EIA reports that are inaccessible to the public even though public participation and public comment are an integral part of the process. In that regard, Professor Sax noted, “[w]e have accepted the principle of public participation, but we have no established mechanisms to assure that members of the public have the professional resources to operate as knowledgeable and informed participants.”⁵⁵

A final concern, dependence on a strong rule of law for its effectiveness, has been less explored. In order for the EIA process to fulfill its role in promoting transparency and accountability, mechanisms must be in place to correct failure of the process. In other words, a strong legal and regulatory system is a prerequisite for EIA effectiveness; access to justice, including mechanisms ensuring effective legal processes and courts, must be available to pressure government officials. Yet, such tools and institutions are often weak or non-existent in nations that do not have a robust rule of law and legal institutions, especially in many developing countries.

Undoubtedly, much of the criticism has serious merit, and EIA processes are far from perfect. By themselves, EIA mechanisms are insufficient to constitute a comprehensive environmental protection system.⁵⁶ Yet, the overall conclusion—that EIA processes are weak, inadequate, and should be made stronger—does not negate the reality that they do provide decision-makers with valuable information, insert environmental values into governance, and have had substantively improved environmental outcomes. Moreover, even if the technical complexity of EIAs has meant significant variability in their quality and made them difficult to understand by ordinary citizens, it is also undisputable that EIA documents have been useful to officials and that environmental advocates, especially in the United States, have made effective use of them to challenge government actions. And with respect to most developing countries, such criticisms fail to acknowledge that the alternative to existing EIA processes is not a better process or more effective regulatory mechanism, but no EIA requirement at all. In many such systems, regulatory systems and the rule of law are weak. If in such systems the alternative is to have no EIA requirements nor other effective regulatory framework, the value of EIAs, even imperfect ones, is great.

54. *Id.*

55. Sax, *supra* note 10, at 246.

56. WORLD BANK, SUSTAINABLE DEV. DEP'T, *supra* note 37, at 17–18.

II. EIA DUTY AS A GLOBAL NORM OF ENVIRONMENTAL LAW

A. THE PERCEPTION OF GLOBAL ACCEPTANCE OF ENVIRONMENTAL IMPACT ASSESSMENT

The appeal of NEPA and the EIA norm to environmental rationality, by requiring investigation and careful consideration of adverse environmental impacts before government action, led to its widespread international acceptance as a prudent measure of environmental management and planning. The norm became embedded so quickly in contemporary views of good environmental governance that many readily assumed EIA requirements to have been universally adopted across the world.

My own personal recollections of this perception came about through experiences in various informal discussions, as early as the mid-1990s, not much more than twenty-five years after NEPA's enactment. At that time, EIA processes had been adopted in highly visible international instruments and legislation. The European Economic Community issued Directive 85/335 in 1985, requiring all member states to impose EIA duties within their environmental regulatory systems.⁵⁷ Principle 17 of the 1992 Rio Declaration on Environment and Development called on nations to utilize EIA "as a national instrument . . . for proposed activities that are likely to have a significant adverse impact on the environment."⁵⁸ EIA processes had already been incorporated into the operations of multilateral development banks.⁵⁹ The EIA duty was even raised in international arbitral fora, including in the International Court of Justice.⁶⁰ These developments made the belief of global acceptance plausible.

57. Directive 85/337/EEC, *supra* note 30, art. 2, at 41.

58. *Rio Declaration on Environment and Development*, *supra* note 12, princ. 17. EIA processes are also called for within regional environmental agreements, such as the North American Agreement on Environmental Cooperation arts. 2(1)(e), 10(7), Sept. 14, 1993, 107 Stat. 2164, 32 I.L.M. 1480, and global multilateral environmental treaties such as the U.N. Convention on Biological Diversity art. 14, *opened for signature* June 4, 1993, 1760 U.N.T.S. 79, though generally not legally required. It did become the focus of one European regional agreement, making EIA mandatory for transboundary impacts, the U.N. ECE's Espoo Convention. U.N. Convention on Environmental Impact Assessment in a Transboundary Context, *supra* note 34. After the Espoo Convention entered into force in 1997, the parties amended the Convention to allow for membership by any U.N. member state. U.N. Convention on Environmental Impact Assessment in a Transboundary Context, annex XIV, Decision II/14, Amendment to the Espoo Convention (Feb. 27, 2001).

59. Within the World Bank, the EIA duty has become an integral part of its operations, including its lending practices, and is included with just a handful of other requirements that can give rise to a claim with the Bank's Inspection Panel process. OP 4.01, *supra* note 26.

60. For example, New Zealand insisted that preparation of an EIA was a corollary requirement of the precautionary principle and a precondition for the nuclear test activities by France in the *Nuclear Tests* case. *Nuclear Tests (N.Z. v. Fr.)*, Judgment, 1995 I.C.J. Rep. 288, 290 (Sept. 22). In 2010, the International Court of Justice announced in the *Pulp Mills on the River Uruguay* case that the duty to conduct an EIA in a transboundary context was now a "requirement under general international law . . . where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource." *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, Judgment, 2010 I.C.J. Rep. 14, ¶ 83 (Apr. 20). Because of the reference in the opinion to "a practice, [that] in recent years has gained so much acceptance among States," the statement has generally been interpreted as finding a norm of customary international law. *Id.*

However, as early as 1992, a mere two decades after NEPA's enactment, Professor Nicholas Robinson surveyed environmental impact assessment legislation across the world and found only thirty-nine nations with EIA requirements, in addition to a number of treaties and organizations with EIA provisions.⁶¹ Subsequent surveys found a growing number of nations adopting an EIA duty, including a report by UNEP in the 1990s,⁶² a 1996 study by the International Association for Impact Assessment,⁶³ and a 1998 study by the International Institute for Environment and Development of then-existing EIA regulations and guidelines.⁶⁴ Until now, the 1998 EIA Directory was the most up-to-date published study available and counted 108 nations with legislation imposing an EIA duty.⁶⁵

In many respects, the rapid spread of EIA duties should not be surprising given globalization and other trends. Professor Robert Percival and I have previously argued that such trends signify the emergence of what we referred to as "global environmental law"—environmental law norms that are universally recognized and accepted across jurisdictions.⁶⁶ They appear not only in national and local environmental law and governance systems but also in regional and global systems, including multilateral environmental agreements and international organizations. That is not to say that the manifestation and implementation of such norms does not vary in accordance with legal context and history. However, the substantive applicability of such norms and their recognition as legally obligatory does not depend on the particular legal tradition or cultural context.

The trends that we have identified as contributing to the emergence of global environmental law include transplantation, convergence, and integration/harmonization efforts. As we previously described, EIA norms have been a prime subject of environmental law "transplantation," that is, the effort of "deliberate copying and adaptation of significant portions of statutes or

61. Robinson, *supra* note 42, apps. 1–2 (listing environmental impact assessment statutes and international environmental impact provisions by country respectively).

62. Marceil Yeater & Lal Kurukulasuriya, *Environmental Impact Assessment Legislation in Developing Countries*, in UNEP'S NEW WAY FORWARD: ENVIRONMENTAL LAW AND SUSTAINABLE DEVELOPMENT 257, 260–61 (Sun Lin & Lal Kurukulasuriya eds., 1995); *see also* Peigi Wilson, Bondi Ogolla, Raúl Brañes & Lal Kurukulasuriya, *Emerging Trends in National Environmental Legislation in Developing Countries*, in UNEP'S NEW WAY FORWARD: ENVIRONMENTAL LAW AND SUSTAINABLE DEVELOPMENT 185, 216 (Sun Lin & Lal Kurukulasuriya eds., 1995) (identifying more than seventy developing countries and economies in transition with EIA laws and regulations).

63. BARRY SADLER, INT'L ASS'N FOR IMPACT ASSESSMENT, ENVIRONMENTAL ASSESSMENT OF A CHANGING WORLD: EVALUATING PRACTICE TO IMPROVE PERFORMANCE (1996), https://www.ceaa.gc.ca/Content/2/B/7/2B7834CA-7D9A-410B-A4ED-FF78AB625BDB/iaia8_e.pdf.

64. ANNIE DONNELLY ET AL., INT'L INST. FOR ENV'T & DEV., A DIRECTORY OF IMPACT ASSESSMENT GUIDELINES (2d ed. 1998).

65. Email from Devani Adams, Attorney Research Fellow, Santa Clara University School of Law, to Tseming Yang, Professor of Law, Santa Clara Law School (Sept. 11, 2015, 11:26 AM PST) (on file with author) (documenting EIA legislation in the 1998 Donneli study).

66. *See generally* Tseming Yang & Robert V. Percival, *The Emergence of Global Environmental Law*, 36 *ECOLOGICAL L.Q.* 615 (2009).

particular doctrines of law by one country from another.”⁶⁷ Such efforts have occurred through official and informal channels. Among the most prominent in this field have been the environmental governance capacity-building and law reform programs promoted and supported by the development aid arms of governments and intergovernmental organizations as well as the work of NGOs and academics.⁶⁸ In such initiatives, the environmental governance and regulatory mechanism that is promoted with overwhelming frequency is EIA.⁶⁹ I myself have participated in such endeavors in the past, both in my role leading an environmental rule of law capacity-building program as well as in government service supervising technical assistance and cooperation efforts focused on environmental law.⁷⁰

Legal transplantation is rarely driven only by outside efforts. Its support in recipient nations usually arises out of a desire of those “with less developed legal systems [to use it as a tool] to ‘catch-up’ with more sophisticated systems already in place elsewhere.”⁷¹ In fact, without internal receptivity to such efforts, transplantation would not be durable. Most importantly, however, since “the goals of environmental regulation are largely the same across the world—protecting human health and environmental public goods,”⁷² adoption of regulatory solutions that have been successful elsewhere is oftentimes efficient and sensible.

In contrast, convergence of legal norms has been the consequence of less deliberate, purposive efforts. It is the result of legal systems adopting the same or analogous “response[s] to similar external pressures, especially environmental pressures.”⁷³ Finally, integration and harmonization “refer to multi-country efforts of legal cooperation and standardization that result in similar legal approaches.”⁷⁴ More purposive than convergence, governments may utilize formal international organizations and treaties to engage in joint efforts to promote uniformity or consistency with respect to common legal or

67. *Id.* at 626.

68. For a discussion of this type of capacity-building, training, and law reform assistance by the United Nation’s Food and Agriculture Organization, see Morgera, *supra* note 4, at 260–61; and Tseming Yang, *The Emerging Practice of Global Environmental Law*, 1 *TRANSNAT’L ENVTL. L.* 53, 60 (2012) (discussing the capacity-building activities of EPA).

69. Another interesting example of copying relevant environmental legislation appears to be the British Town and Country Planning Act, which has been adopted across the Commonwealth world. See WINSTON ANDERSON, *PRINCIPLES OF CARIBBEAN ENVIRONMENTAL LAW* 174 (2012).

70. That has included my past position as the Director of the U.S.-China Partnership for Environmental Law (a USAID and State Department-funded capacity-building program at Vermont Law School) and as Deputy General Counsel for International Environmental Law at the U.S. EPA. Such enterprises usually consist of training workshops, technical drafting and commenting assistance on legislative, regulatory, or policy documents, and memoranda that describe law, regulation and policy in other jurisdictions. They can be specifically designed to assist agency officials, judges, the practicing bar, and legal academics.

71. Yang & Percival, *supra* note 66, at 626.

72. *Id.* at 652.

73. *Id.* at 627.

74. *Id.*

regulatory issues.⁷⁵ Climate change is a particularly relevant example, where the international regime addressing climate change has induced comparable actions at the national and sub-national level to advance common international objectives.

The unintended consequence of globalization and the desired objectives of development aid, law reform, and promotion of the rule of law affect not only environmental issues but other fields of law as well. Yet, they have been particularly influential on environmental and natural resources law for reasons unique to this field. For example, global environmental challenges, such as climate change, have touched industrialized and developing nations alike. Contemporary environmental treaties represent the international community's recognition of the importance of these issues and their translation into new international law. In turn, pressure to implement and comply with these treaty commitments has driven efforts of integration and harmonization of legal norms at the national and sub-national level.⁷⁶

Considering this background, the belief that the EIA duty has been a global norm of environmental law should not be surprising. The EIA norm has been widely adopted through transplantation efforts sponsored by the World Bank, UNEP, and the development agencies of various nations.⁷⁷ Yet, previously, inquiry into how widely the norm had actually been adopted and the implications of such adoption had, with a few exceptions, not been systematic. Even though EIA processes are a favorite topic of academic writings by legal and policy scholars, lack of attention to systematic inquiry and empirical documentation of the EIA norm's worldwide adoption has left its significance largely unappreciated among those unfamiliar with environmental law and policy tools. It has been referenced in only a few ICJ cases addressing transboundary environmental issues and has not been included in environmental treaties as a binding requirement on a regular basis. Based on that record, Professor John Knox went as far as to suggest in a 2002 article that the specific legal norm in the transboundary context, a transboundary EIA duty, was a myth.⁷⁸

While the requirements for the formation of customary international law norms in state practice and opinion juris may not be readily satisfied by contemporary state behavior and international norms, the pervasiveness of the EIA norm does beg the question of whether it carries some broader relevance to

75. *Id.*

76. These considerations also respond to a possible question about such global environmental norms—do such norms have the same substantive content or do they merely share the same name? To the extent that the drafters and those applying the norms share the same environmental purposes across jurisdictions, it seems that this would be a non-issue. In fact, frequent international conferences, international instruments, and application by international organizations have had a harmonizing effect on principles such as the EIA duty.

77. Anecdotal evidence includes my own personal experiences, though formal documentation of how widespread EIA transplantation efforts have become difficult to assess, especially since training materials are not usually published.

78. Knox, *supra* note 47, at 291.

international law. Before addressing that question in Part III, I will set out the results of the survey in the next Part.

B. CONTEMPORARY UNIVERSALITY—THE SURVEY AND RESULTS

The last comprehensive global study to survey EIA norms across the world was published almost two decades ago and found over 120 systems with some kind of EIA mechanism, even if not all imposed a legal duty. It showed that even at that time, EIA norms had already been widely adopted and regulators, activists, and judges have been applying them regularly.⁷⁹ The purpose in conducting the present study was to determine whether, since that time, EIA adoption has spread significantly further among national legal systems.

The study specifically focused on legislation or regulations that *mandated* the performance of EIA. Systems that merely authorized or suggested, but did not require, EIAs were not included in the count. Equally important, the survey generally did not concern itself with the effective enforcement of EIA norms.⁸⁰ As a general matter, the survey classified jurisdictions as having an EIA duty (“yes”), not imposing such a duty (“no”), or “unclear.” Below follows a description of the survey process and classification methodology as well as the results, with a chart summary of the results set out in Appendix 1.

1. *Scope*

The scope of the survey covered all countries with membership in the United Nations, as well as several nations and jurisdictions that have long been recognized as having independent regulatory authority over their territory. Because of their significance to infrastructure financing and their broad geographical scope of operation, the survey also examined the EIA policies of the major multilateral development banks and several national development aid agencies.

The substantive focus of the study was the general umbrella norm—the duty to conduct an EIA for projects or activities that were likely to have a significant impact on the environment. For time and resource reasons, the survey did not attempt to classify subsidiary requirements such as scoping, the content of the EIA, or public participation.

2. *Survey Process and Methodology*

To classify jurisdictions, the survey relied on both secondary sources as well as primary source materials identified by myself and two research fellows. Information on national EIA legislation and regulations was pulled from online databases such as Ecolex, FAOLex, E-Law, the regional Legal Information Institutes, and national government websites. Secondary sources consulted

79. See generally DONNELLY ET AL., *supra* note 64. The Donnelly study was a comprehensive review of EIA practices across the world at the time.

80. See *infra* Subpart III.C.2.

included official government statements, reports by international organizations, impact assessment reports, judicial opinions, and the commentary and assessments of scholars and experts.

The survey looked primarily to official English language sources as well as official translations, though we also utilized unofficial translations when we deemed them reliable based on the institutional source. My research fellows had good reading knowledge of French and Spanish and utilized those language skills in our survey. Thus, when legislative or regulatory materials were only available in Spanish or French, my research fellows would review such original legislative or regulatory text. More importantly, in order to minimize the possibility of legal misunderstanding, especially when legislative or regulatory text or meaning appeared to be ambiguous and when primary sources were only available in non-English languages, we *always* sought confirmation of our classification decisions in secondary sources. For jurisdictions where the primary materials were *not* available in English, French or Spanish, the survey had to rely exclusively on secondary sources (treatises, scholarly commentary, or institutional assessments) to determine whether there was an EIA duty in the relevant jurisdiction.

In instances where we found disagreement among secondary sources or when no secondary sources were available to confirm classification as a jurisdiction that mandated EIA, the jurisdiction was included in the “unclear or unknown” category. I reviewed all classifications.⁸¹

In examining confirming sources, whenever possible, we sought out official government communications, such as national reports to the Convention on Biological Diversity and the Espoo Convention on Environmental Impact Assessment in a Transboundary Context, and descriptions of the country’s EIA system on a government agency’s website. We also relied heavily on institutional assessments, such as country environmental evaluations by the OECD, the UNECE, various multilateral development banks (World Bank, Asian Development Bank, African Development Bank, Inter-American Development Bank), and the Netherlands Commission for Environmental Assessment. We considered these official statements and secondary sources to be the most reliable because they represented official governmental and institutional perspectives and were prepared by or in collaboration with national experts and oftentimes subject to review by the respective governments.⁸²

In addition, we also utilized scholarly publications as well environmental assessments prepared by multilateral development banks, such as the World Bank, on specific projects. Environmental assessments by multilateral

81. As part of our survey process, we assembled a detailed database. See *Global Environment Impact Assessment Norm Survey Part 1—Survey*, CITIZEN YANG (Oct. 4, 2018), <https://citizenyang.com/2018/10/04/global-environmental-impact-assessment-norm-survey-part-1-survey/>. For a summary chart of the database, see Appendix 1.

82. For a list of the twenty-two sources, both organizations, articles, and websites that were used most heavily, see Appendix 2.

development banks often contained a section discussing the environmental regulatory system of the country seeking project financing and sometimes would explicitly discuss whether the jurisdiction had laws requiring EIAs.

In almost all of our classification decisions, our survey sought at least two or more confirming secondary sources, though there were a few instances where we were only able to identify one confirming secondary source. As an exception, we did not seek more than one confirming source when the relevant jurisdiction was within the European Union, since there is no legal doubt that the EU EIA directive independently imposes the EIA duty on member states.

In order to determine whether the EIA duty was legally mandated, we identified specific legislation or regulations that imposes that duty. In doing so, we also identified the year in which the regulation was promulgated or legislation enacted. Because our survey focused on the question whether each jurisdiction *presently* had an EIA mandate in place, it was not a priority for our survey to identify the legislation or regulation that *first* imposed the EIA duty with accuracy. Nevertheless, our research oftentimes did allow us to identify such information. Thus, if we became aware of earlier versions of the legislation or regulation that had first made EIA mandatory in that jurisdiction, we indicated that date in our database.⁸³ It is worth pointing out that in some jurisdictions, the enactment of *enabling* legislation—that authorized EIA processes—was not coincident with the operationalization of EIA requirements by an implementing government agency. In many of those countries, implementing regulations that mandated EIA for projects did not come until quite a number of years later.⁸⁴

Conversely, there were a few occasions where the research suggested that the EIA legislation or regulation might have been amended subsequently. However, there was never an indication in our research that a government had taken the extraordinary step of repealing the EIA duty in its jurisdiction.

It is also worth noting that Singapore is a jurisdiction that has no general EIA requirement, and was classified as such. However, the state does appear to engage in impact assessment in specific contexts.⁸⁵

83. See *supra* note 81. Likewise, we did not actively attempt to establish the earliest date on which EIA became mandatory in that jurisdiction. Moreover, it was also my sense of the survey that establishing the precise year of establishment of the EIA duty would have been difficult for a number of jurisdictions, because many countries used trial or sectoral legislation as early attempts for establishing an EIA system.

84. For example, Malaysia first enacted EIA-authorizing legislation in 1974, but did not mandate it by regulation until 1987. See Environmental Quality Act 1974, Act 127, art. 34A (Malaysia), <http://extwprlegs1.fao.org/docs/pdf/mal13278.pdf>; Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987, <http://extwprlegs1.fao.org/docs/pdf/mal13290.pdf>; see also Peter King & Simon Hoiberg Olsen, *Quick Study of EIA Practices in Some Asia-Pacific Countries and Beyond: Lessons for the Philippines?*, INSTITUTE FOR GLOBAL ENVTL. STRATEGIES, at 6 (June 4, 2013), https://www.aecen.org/sites/default/files/eia_quick_study_olsen_king_0.pdf.

85. See U.S. AGENCY INT'L DEV., ASIAN ENVTL. COMPLIANCE & ENF'T NETWORK, BUILDING CAPACITY FOR EFFECTIVE IMPLEMENTATION OF ENVIRONMENTAL IMPACT ASSESSMENTS IN ASIA: RAPID ASSESSMENT FOR IDENTIFYING CAPACITY CHALLENGES AND PROGRAMMING OPPORTUNITIES 4 (2009), <https://www.aecen.org/sites/default/files/AECEN%20Rapid%20Assessment%20on%20Regional%20EIA%20Best%20Practices%20--%2012-09.pdf>.

3. Survey Results

The survey results indicate that the EIA norm, requiring an EIA when a project is likely to have a significant environmental impact, has been nearly universally adopted. The norm has now been adopted in at least 183 countries and jurisdictions.⁸⁶ That includes codification in emerging economies and developing countries such as China, India, and Brazil, in the least developed nations in Africa, and in the former communist nations, such as the Russian Federation.⁸⁷ Even politically isolated states such as North Korea⁸⁸ and Cuba⁸⁹ have enacted EIA laws. Within the European Union and its member countries, Directive 85/337⁹⁰ on EIA and Directive 2001/42 on strategic environmental assessments⁹¹ mandate it. Thus, since the 1998 Donnelly study,⁹² the number of jurisdictions with a mandatory EIA norm has increased by more than fifty.

Our survey also identified six states that did not possess an EIA requirement (South Sudan, Somalia, Eritrea, Suriname, Singapore, and Nauru), while we were unable to ascertain with sufficient confidence the status of eight other states (Central African Republic, Holy See, San Marino, Monaco, St. Vincent and Grenadines, St. Lucia, St. Kitts and Nevis, and Barbados).

C. TRENDS ACROSS THE WORLD

As it appears across the world, the EIA norm is a statutory and regulatory concept that is oftentimes articulated with great precision. It is widely seen as advancing sustainable development since “without these assessments the project is against [the] principle of sustainable development.”⁹³ EIA “is [part of] a very vital dynamic[] in planning for sustainable development”⁹⁴ which “ensure[s] that development options under consideration are environmentally sound and

86. That count includes member states of the United Nations as well as the European Union, Palestine, and Taiwan. See sources cited *supra* note 81.

87. Fedal'nyi Zakon RF o Grazhdanstve Rossiiskoi Federatsii [Federal Law of the Russian Federation on Environmental Protection], ROSSIISKAIA GAZETA [ROS. GAZ.] Jan. 10, 2002 (Russ.); Fedal'nyi Zakon RF o Grazhdanstve Rossiiskoi [Federal Law of the Russian Federation on Ecological Expertise], SOBRANIE ZAKONODATEL'STVA ROSSIISKOI FEDERATSII [SZ RF] [Russian Federation Collection of Legislation] 1995, No. 65, Item 3.

88. The Law on Environmental Impact Assessment (adopted by Decree No. 1367 of the Presidium of the Supreme People's Assembly on Nov. 9, 2005) (North Korea).

89. Law No. 81 of the Environment, June 11, 1997 (Cuba).

90. Directive 85/337/EEC, *supra* note 30. The directive was most recently amended in 2014. See Directive 2014/52/EU, of the European Parliament and of the Council of 16 Apr. 2014 Amending Directive 2011/92/EU on the Assessment of the Effects of Certain Public and Private Projects on the Environment, 2014 O.J. (L 124) 1, 18. For a general overview of the EU directive, see *Environmental Impact Assessment—EIA*, EUR. COMMISSION, <http://ec.europa.eu/environment/eia/eia-legalcontext.htm> (last visited Jan. 19, 2019).

91. Directive 2001/42/EC, of the European Parliament and of the Council of 27 June 2001 on the Assessment of the Effects of Certain Plans and Programmes on the Environment, 2001 O.J. (L 197) 30, 37.

92. See generally DONNELLY ET AL., *supra* note 64.

93. Rodgers Muema Nzioka v. Tiomin Kenya Ltd. (2001) 2001 K.L.R. 97 (H.C.K.) (Kenya).

94. Advocates Coalition for Dev. & Env't (ACODE) v. Attorney General, Case No. 0100 of 2004 (July 13, 2005, High Court of Uganda at Kampala) (Uganda).

sustainable.”⁹⁵ Even though a detailed and extensive analysis of the EIA statutes and regulations is beyond the scope of this Article, some anecdotal observation may be useful here to provide a sense of the patterns and trends encountered across the world.

The process of research and assembly of the survey left us with the impression that EIA processes across the world are largely consistent with the descriptive summary of the 1998 Donnelly study. In general, EIA processes appear to contain five distinct stages. First is the screening stage, which inquires whether an impact assessment will be necessary. Screening is usually designed as a winnowing step for the elimination of projects and activities that are inconsequential with respect to the environment. Screening avoids wasting time, resources, and personnel effort necessary for a full-blown EIA process and conversely helps identify projects and issues that are deserving of closer and more careful scrutiny.⁹⁶ The second stage consists of a preliminary assessment when the initial screening step fails to indicate definitively that a project will or will not have significant impacts.⁹⁷ In the third stage, scoping, the EIA study seeks to determine which impacts, issues, and alternative options should be investigated. Ordinarily, it is also the stage when affected communities may be involved to ensure their early input into the process.⁹⁸

The fourth stage of the EIA study includes substantive fact gathering and analysis and preparation of the EIA document. It is also in this stage that impacts are predicted based on the available information and evaluated based on a variety of considerations, including legal requirements, policy objectives, and public views.⁹⁹ In the final stage, after submission of the EIA document to the relevant decision-maker (and thus following the conclusion of the substantive fact-gathering and evaluation process), come post-submission actions such as post-project monitoring or post-project audits.¹⁰⁰ Even though such evaluations are retrospective in nature, the ultimate purpose is to gather information that can be used prospectively to improve future EIA processes and to ensure compliance with conditions imposed on a project.

Beyond the general steps described above, it is difficult to ascribe a uniform set of EIA process requirements to all jurisdictions. An important exception is the set of European Union member states, which must adhere to the EU directive on environmental impact assessments (and later amendments).

The overwhelming majority of nations have general EIA laws, legislation of general applicability that covered all or most activities or projects with a potential for significant environmental impacts. However, a few jurisdictions,

95. *Mundy v. Cent. Env'tl. Auth.*, SC Appeal 58/2003 (Jan. 20, 2004, The Supreme Court of the Democratic Socialist Republic of Sri Lanka) (Sri Lanka).

96. See DONNELLY ET AL., *supra* note 64, at 9–10 (“Screening helps to focus resources on those projects most likely to have significant impacts . . .”).

97. *Id.* at 10.

98. *Id.*

99. *Id.* at 10–13.

100. *Id.* at 14.

including Andorra and DR Congo, apply EIA processes only on a sectoral basis, such as the mining industry, land development, infrastructure projects, or other specific sectors of the economy.¹⁰¹

The most common approaches triggering the impact assessment duty fall into two general categories. Some jurisdictions apply a general legal standard that asks whether an activity or project, subject to its regulatory jurisdiction, poses a risk of significant adverse environmental impacts. For example, the United States falls into this group, requiring a showing that the action “significantly affect[] the quality of the human environment.”¹⁰² In practice, of course, EIA requirements under U.S. law are implemented in greater detail by agency-specific regulations where EIA processes are triggered both by specific lists of projects, activities, and actions as well as a residual catch-all requirement.

The second approach relies primarily on a specific list of activities or projects that are automatically subject to more impact assessment scrutiny.¹⁰³ The list approach is usually designed to direct the attention of regulators to projects and activities that often come with significant environmental impacts. For example, Article 20 of Uganda’s 1995 National Environmental Statute requires that any “project described in the Third Schedule to this Statute” submit information to the government agency that allows it to determine the project’s potential impacts and their environmental significance, and based on that to trigger an appropriate environmental review.¹⁰⁴ The schedule includes activities that are “out of character with [their] surroundings,” structures “of a scale not in keeping with [their] surroundings,” and “major changes in land use,” in addition to projects such as dams, transportation infrastructure, and mining activities.¹⁰⁵ Another jurisdiction that follows the list approach is the European Union.¹⁰⁶

The articulation of the sub-norms of the EIA duty, such as requirements regarding specific components of an EIA, involvement of the public, EIA document availability, and substantive role in the ultimate outcome vary among jurisdictions. However, judicial decisions on the adequacy of impact assessment studies in various jurisdictions also reveal many issues familiar to American environmental lawyers. For example, determinations of the significance of a

101. Email from Laura Davis, Attorney Research Fellow, Santa Clara University School of Law, to Anna Moles Mariné, Head of Landscape Unit, Biodiversity and Environmental Assessment, Andorra Department of Sustainability and Environment (May 19, 2017, 8:35 AM PST) (on file with author); DEV. BANK OF S. AFRICA, SADC ENVIRONMENTAL LEGISLATION HANDBOOK 2012, at 103–04 (4th ed.), <https://irp-cdn.multiscreensite.com/2eb50196/files/uploaded/SADC%20Handbook.pdf>.

102. 42 U.S.C. 4332(C) (2012).

103. National Environment Statute, 1995 (Statute No. 4 of 1995) art. 20(1) (Uganda).

104. *Id.*

105. *Id.*, at Schedules, sect. 20, art. 1.

106. Directive 2011/92/EU, of The European Parliament and of the Council of 13 Dec. 2011 on the Assessment of the Effects of Certain Public and Private Projects on the Environment, art. 2, 2012 O.J. (L 26) 1, 21 (“Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue, *inter alia*, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4.”).

project's impacts are context dependent and cannot be based "only [on] the size of projects, without also taking their nature and location into consideration" since

[e]ven a small-scale project can have significant effects on the environment if it is in a location where the environmental factors . . . , such as fauna and flora, soil, water, climate or cultural heritage, are sensitive to the slightest alteration.

Similarly, a project is likely to have significant effects where, by reason of its nature, there is a risk that it will cause a substantial or irreversible change in those environmental factors, irrespective of its size.¹⁰⁷

Other issues that appear to be frequently encountered are concerns about the adequate analysis of available and reasonable alternative options,¹⁰⁸ improper segmentation or scoping of projects so as to avoid triggering significant impacts,¹⁰⁹ and the requirement to include cumulative impacts in the analysis.¹¹⁰ A full-blown EIA analysis can be avoided through mitigation measures that abate significant environmental impacts,¹¹¹ referred to as a mitigated FONSI (finding of no significant impact) in the United States. Finally, many jurisdictions, such as Liberia and Kenya, explicitly condition project approval on the grant of an EIA license that may be issued only after preparation of an EIA.¹¹²

There are also court decisions suggesting significant deference and hesitancy to second-guess the judgment of government agencies when

107. *Commission v. Ireland* [1999], Case C-392/96, 1999 E.C.R. I-5901, ¶¶ 66–67 (Ir.).

108. *Save Historic Newmarket Ltd. v. Forest Heath District Council* [2011] EWHC 606 (Admin) [17] (Eng.) (“[T]he authority responsible for the adoption of the plan or programme as well as the authorities and public consulted must be presented with an accurate picture of what reasonable alternatives there are and why they are not considered to be the best option.”).

109. *Ecologistas en Acción-CODA v. Ayuntamiento de Madrid*, Case C-142/07, 2008 E.C.R. I-6097, ¶¶ 20, 44 (Spain) (finding that “the Madrid City Council[s] [decision to] split [a] larger ‘Madrid calle 30’ project into 15 independent sub-projects, treated separately,” could not avoid an impact assessment if “taken together, they are likely to have significant effects on the environment”).

110. *Minister for the Environment and Heritage v. Queensland Conservation Council Inc.* [2004] FCAFC 190 (Austl.) (concluding that, in the approval process for construction and operation of a dam, it was improper to ignore the impacts by persons using water from the dam, other than the project proponent).

111. *Tim Busienei, Dr. v. Dir. Gen.—Nat’l Env’t Mgmt. Auth. (NEMA)* (2007), National Environmental Tribunal Appeal No. 10 (Kenya) (concluding that effective soundproofing of a metal fabricating workshop mitigated noise pollution impacts and therefore indicated no adverse impact on the environment); *MiningWatch Can. v. Canada (Fisheries and Oceans)*, [2010] 1 S.C.R. 6 (Can.) (improper scoping of project); *T. Murugandam & Ors. v. Union of India & Ors.* 23, (2012) National Green Tribunal Appeal No. 50/2012 (India) (requiring analysis of cumulative impacts in considering a proposal for a coal-fired power plant). Some courts have also sought to require climate change effects in impact analysis, *Gray v The Minister for Planning and Ors.* [2006] NSWLEC 720 (Austl.), while in an instance raising environmental justice issues, the required impact analysis was narrowed, *Jamii Bora Charitable Tr. v. Dir. Gen. Nat’l Env’t Mgmt. Auth.* (2005) National Environmental Tribunal Appeal No. NET/02/03/2005 (Kenya).

112. An Act Adopting the Environment Protection and Management Law of the Republic of Liberia, §§ 6, 23 (2002), <http://extwprlegs1.fao.org/docs/pdf/lbr53038.pdf>; Environmental Management and Co-ordination Act (rev. ed. 2012) Cap. 387 §§ 58, 63 (Kenya), <http://extwprlegs1.fao.org/docs/pdf/ken41653.pdf>.

examining the adequacy of EIA documents,¹¹³ but also a willingness to order EIA process to be conducted or completed even after projects have been approved and construction has commenced.¹¹⁴ Some cases suggest that public participation in the EIA process enjoys significant support in the courts, even when government bureaucracies do not always facilitate it.¹¹⁵ Other judicial opinions show significant variability in approaches to standing (“locus standi”) to challenge EIA processes. Though some jurisdictions, such as Japan,¹¹⁶ appear to be quite restrictive on standing, many others have more liberal standing requirements.

The newest aspect of EIA processes that is spreading across the world is strategic environmental assessment, such as embodied in EU Directive 2001/42/EC. While the terminology may be unfamiliar to American NEPA practice, it is essentially the application of EIA process not only to specific projects but also to broad government programs and plans, that is “programmatically” impact assessments. Since courts interpret NEPA’s “major federal actions” trigger to encompass both specific projects and government programs,¹¹⁷ such strategic EIAs are generally captured within NEPA’s existing requirements.

III. THE EIA DUTY AS AN ARTICLE 38 GENERAL PRINCIPLE

Apart from demonstrating worldwide acceptance of the EIA norm in national systems, the survey’s finding also has significance for public international law. Even though the EIA duty has not been regularly included in treaties,¹¹⁸ and scholars have expressed doubt that it is part of customary international law,¹¹⁹ the norm’s widespread acceptance means that it has been

113. *Belize All. of Conservation Non-Governmental Orgs. v. Dep’t of the Env’t & Belize Electric Co. Ltd.* [2004] UKPC 6 (Belize) (refusing to overturn a dam approval in spite of errors); *see also* DANIELLE ANDRADE ET AL., *CITIZEN ENFORCEMENT OF PROCEDURAL RIGHTS IN THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS IN BELIZE AND JAMAICA* 430 (2011); Supreme Court [S. Ct.], 2006Du330, Mar. 26, 2006 (S. Kor.); *Sutton v. Canterbury Reg’l Council*, [2015] NZHC 313 (N.Z.).

114. *Friends of the Oldman River Soc’y v. Canada* (Minister of Transport), [1992] 1 S.C.R. 3 (Can.); *Magaliesberg Prot. Ass’n v. MEC: Dep’t of Agriculture & Ors.* 2013 (563/2012) [2013] ZASCA 80 (May 30) (S. Afr.); *Sarstoon-Temash Inst. for Indigenous Mgmt. (SATIIM) v. Forest Dep’t, Ministry of Nat. Res. & Env’t*, Sept. 26, 2006, Claim No. 212 of 2006 (Belize).

115. *See, e.g., Adivasi Majdoor Kisan Ekta Sangthan & Ors. v. Ministry of Env’t & Forests*, (2011) National Green Tribunal Appeal No. 3/2011 (India). In *Adivasi*, a public hearing was not held at an easily accessible venue for the people affected, a summary of the draft EIA was not posted on a website and the public was not informed of the contents of EIA Report of the project. In fact, a public melee broke out, which led to police intervention and continuation of the meeting. *Id.* ¶¶ 10–11.

116. *Saikō-Saibansho* [Sup. Ct.] Dec. 7, 2005, GyoHi no. 114, 59 SAIKŌ SAIBANSHO MINJI HARNREISHU [MINSHŪ] (Japan) (allowing standing only for residents within the government’s designated “relevant areas,” even though the dissent pointed out that a linkage already acknowledged by the government).

117. *See, e.g.,* MANDELKER ET AL., *supra* note 14, §§ 9:01–9:09.

118. *But see* Gillespie, *supra* note 24 (describing a multitude of international institutions where EIA processes have been applied).

119. *See generally* Knox, *supra* note 47.

absorbed into public international law by attaining status as a General Principle of Law.

In international law, the concept of “General Principles of Law” inquires into whether certain legal principles are the subject of a transnational consensus such that they may be deemed legally binding everywhere, including in the international system. Such legal principles, as a result, are applicable not only within national and subnational legal systems but also between states as a matter of international law.

A. ARTICLE 38 OF THE ICJ—“GENERAL PRINCIPLES OF LAW RECOGNIZED BY CIVILIZED NATIONS”

As environmental law has spread across the world’s national legal systems, so too has it evolved within international law. All three primary sources of international law have been significant in that evolution. One of the most widely used articulations of these three sources is found in Article 38 of the Statute of the International Court of Justice, which describes them as:

- a. international conventions, whether general or particular, establishing rules expressly recognized by . . . states;
- b. international custom, as evidence of a general practice accepted as law;
- c. the general principles of law recognized by civilized nations.¹²⁰

Among these three, however, international treaties have undoubtedly been the most important in that process, especially as embodied in iconic global conventions such as the UN Framework Convention on Climate Change. Customary law has often been less visible, though as its role in creating the *Trail Smelter* rule¹²¹—prohibiting the use of one’s territory to cause transboundary environmental harm—demonstrates, it can be no less influential.¹²²

120. ICJ Statute, *supra* note 3, art. 38. Article 38 also indicates that “judicial decisions” and scholarly publications can be utilized “as subsidiary means for the determination of rules of law.” *Id.* The Restatement Third of Foreign Relations has provided the following articulation:

- (1) A rule of international law is one that has been accepted as such by the international community of states
 - (a) in the form of customary law;
 - (b) by international agreement; or
 - (c) by derivation from general principles common to the major legal systems of the world.
- (2) Customary international law results from a general and consistent practice of states followed by them from a sense of legal obligation.
- (3) International agreements create law for the states parties thereto and may lead to the creation of customary international law when such agreements are intended for adherence by states generally and are in fact widely accepted.
- (4) General principles common to the major legal systems, even if not incorporated or reflected in customary law or international agreement, may be invoked as supplementary rules of international law where appropriate.

RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102 (AM. LAW INST. 1987).

121. *Trail Smelter Case* (U.S. v. Can.), 3 R.I.A.A. 1905 (1938); *see also* *Trail Smelter Case* (U.S. v. Can.), 3 R.I.A.A. 1938 (1941) (further proceedings).

122. For elaboration on these issues, see discussion *infra* Subpart III.B.

In contrast, “General Principles of Law” has been the least-known form of international law and has generally received little attention in international environmental law.¹²³ Judge Trindade of the ICJ described general principles as “guiding principles of general content” that transcend the “rules of positive international law.”¹²⁴ They “comprise[] those principles *common* to national legal systems *and* to international law” and are “legal postulates followed ‘in national legal systems and in international law.’”¹²⁵ Mark Janis has put it most plainly, referring to a general principle as a “proposition of law so fundamental that it will be found in virtually every legal system.”¹²⁶

Among the fundamental legal norms deemed to be effectively universal are the duty to make reparations for breach of an engagement,¹²⁷ estoppel,¹²⁸ *res judicata*,¹²⁹ good faith in the exercise of rights,¹³⁰ responsibility based on fault,¹³¹ and judicial equality of parties.¹³² Thus, the general principle of having to make reparations for breach of an engagement, for example, may be thought of as the basis for specific contract law rules of compensation, restitution, or specific performance.

123. The notable exceptions have been the opinions of Judge Weeramantry in the *Gabcicovo-Nagymoros* case and Judge Trindade in the *Pulp Mills* case. The most prominent work surveying the host of general principles remains Bin Cheng’s 1987 work, *General Principles of Law as Applied by International Courts and Tribunals*. See generally BIN CHENG, *GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS* (1987).

124. *Pulp Mills on the River Uruguay* (Arg. v. Uru.), 2010 I.C.J. Rep. 14, 135, ¶ 39 (Apr. 20) (separate opinion by Trindade, J.).

125. *Id.* ¶ 40 (quoting G. I. Tunkin, “*General Principles of Law*” in *INTERNATIONALE FESTSCHRIFT FÜR ALFRED VERDROSS* 526, 531 (René Marcic et al eds., 1971) (Ger.)).

126. MARK W. JANIS, *AN INTRODUCTION TO INTERNATIONAL LAW* 56 (4th ed. 2003). For other scholarly definitions of “General Principles,” see M. Cherif Bassiouni, *A Functional Approach to “General Principles of International Law,”* 11 MICH. J. INT’L L. 768, 770–71 (1990).

127. CHENG, *supra* note 123, at 233; see also *Factory at Chorzow* (Ger. v. Pol.), Judgment, 1928 P.C.I.J. (ser. A) No. 17, ¶ 73 (Sept. 13) (“[I]t is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation. . . . reparation is the indispensable complement of a failure to apply a convention, and there is no necessity for this to be stated in the convention itself.”).

128. CHENG, *supra* note 123, at 141; see also *Case Concerning the Temple of Preah Vihear* (Cambodia v. Thai.), Judgment, 1962 I.C.J. Rep. 6, 31, 32, 39–51, 61–65 (June 15); *Case Concerning the Arbitral Award Made by the King of Spain* (Hond. v. Nicar.), Judgment, 1960 I.C.J. Rep. 192 (Nov. 18); *Case Concerning the Payment of Various Serbian Loans Issued in France* (Fr. v. Kingdom of the Serbs, Croats and Slovenes), Judgment, 1929 P.C.I.J., (ser. A), No. 20, at 38–39 (July 12).

129. CHENG, *supra* note 123, at 336; see also *Effect of Awards of Compensation Made by the United Nations Administrative Tribunal*, Advisory Opinion, 1954 I.C.J. Rep. 47 (July 13); *Haya De La Torre Case* (Colom. v. Peru) (1951), Judgment, 1951 I.C.J. Rep. 71, 77, 80, 82 (June 13); *Societe Commerciale De Belgique* (Belg. v. Greece), Judgment, 1939 P.C.I.J. (ser. A/B) No. 78, at 174 (June 15).

130. CHENG, *supra* note 123, at 121; see also *Nuclear Tests Case* (Austl. v. Fr.), Judgment, 1974 I.C.J. Rep. 253 (Dec. 20).

131. CHENG, *supra* note 123, at 218.

132. *Id.* at 290; see also *Legal Status of Eastern Greenland* (Den. v. Nor.), Judgment, 1933 P.C.I.J. (ser. A/B) No. 53, at 25–26 (Sept. 5); *Factory at Chorzow*, 1928 P.C.I.J., ¶ 8 (“The other Party must always have an opportunity of commenting on the amended submissions.”). Other principles invoked by the International Court of Justice include the principle of self-determination of peoples, the principle of good faith, and others. See *Pulp Mills on the River Uruguay* (Arg. v. Uru.), Judgment, 2010 I.C.J. 14, 135, ¶¶ 23–24 (Apr. 20) (separate opinion by Trindade, J.).

Traditionally, the General Principles provision has been used as a gap-filler, designed to spring into action when the ICJ cannot find any applicable treaty or customary norm in the matter before it.¹³³ Yet, it is formally a co-equal to custom and treaties.¹³⁴

The origins of the General Principles provision of Article 38 can be found “in the *compromis* [provisions] of arbitral tribunals of the nineteenth century.”¹³⁵ General Principles were first included in the governing statute of the Permanent Court of International Justice, the 1920 League of Nations precursor to the contemporary International Court of Justice.¹³⁶

The provision was the subject of debate within the Advisory Committee of Jurists, the body charged with drafting the 1920 statute. Committee President Edward Descamps of Belgium espoused natural law concepts in the gap-filler provision, while Elihu Root of the United States advocated a positivist provision, derived from notions of law and justice based on domestic law.¹³⁷ There appeared to be little doubt, however, that—as expressed by Lord Phillimore of the U.K.—General Principles included “those accepted by all nations *in foro domestico*,”¹³⁸ to the extent they apply to an international setting.¹³⁹ The eventual language came from a joint Phillimore-Root proposal, found in the language of Article 38(3) of the PCIJ and Article 38(1)(c) of the current ICJ (which adopted the PCIJ provision without change).¹⁴⁰

Both perspectives, natural law and positivist (as identified through a comparative law analysis), are not exclusive of each other and have continued to influence how general principles are understood.¹⁴¹ In practice, they are

133. JANIS, *supra* note 126, at 56 (“When treaties and customary international law fail to offer a needed international rule, a search may be launched in comparative law to discover if national legal systems use a common principle. If such a common principle is found, then it is presumed that a comparable principle should be attributed to fill the gap in international law.”); *see also* Case 155/79, *AM & S Europe Limited v. Commission of the European Communities*, 1982 E.C.R. 1575.

134. The Restatement (Third) on Foreign Relations of the United States has noted that General Principles are “a secondary source of international law, resorted to for developing international law interstitially in special circumstances.” RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102 (AM. LAW INST. 1987). To the extent that the Restatement seeks to emphasize that General Principles are interstitial in nature and, as such, are background norms that do not preempt custom or treaty, the Restatement provides no substantive disagreement.

135. JAMES CRAWFORD, *BROWNIE’S PRINCIPLES OF PUBLIC INTERNATIONAL LAW* 34 (8th ed. 2012); *see also* Rüdiger Wolfrum, *General International Law (Principles, Rules, and Standards)*, in MAX PLANCK ENCYCLOPEDIA OF PUB. INT’L L. ¶¶ 23–24 (2010), <http://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1408>.

136. CRAWFORD, *supra* note 135, at 34.

137. *Pulp Mills on the River Uruguay*, 2010 I.C.J. at 135, ¶ 11. *See generally* PCIJ/Advisory Committee of Jurists, Procès-verbaux of the Proceedings of the Committee (16 June–24 July 1920) with Annexes, The Hague, Van Langenhuyzen Frères, 1920, point No. 3, p. 306, Ann. No. 3.

138. *Pulp Mills on the River Uruguay*, 2010 I.C.J. at 135, ¶ 11.

139. *See* CRAWFORD, *supra* note 135, at 35.

140. Bin Cheng suggests that Descamps’ view incorporating natural law ideas won out. CHENG, *supra* note 123, at 233.

141. More simply put, the former might be described as focused on general principles of international law and the latter as general principles of municipal law. However, Professor Oscar Schachter has gone as far as

derived either from inquiries into the nature of international law or into the substantive doctrines of municipal/national legal systems. In academic literature and judicial opinions, identification of general principles has involved a mix of the two methods, oftentimes even involving “an exercise in comparative law”¹⁴² to determine a consensus of national legal systems on the principle. In practice, however, it is often unclear which of the two bases a scholar or a tribunal has relied on for the conclusion that a norm is a general principle of law.¹⁴³ Even in arbitral decisions, when general principles are oftentimes examined from a comparative vantage point, there has been little effort to engage in a careful examination of the principle’s broad adherence or pervasiveness “in the municipal law of nations in general.”¹⁴⁴

In the specific context of the environment, general principles have not played much of a role. When they have been examined more carefully, international law scholars and jurists have tended to focus their inquiries into the distillation of such principles from the nature of the international system and their conceptual importance or necessity, as opposed to engaging in a comparative law analysis.¹⁴⁵ Such discussions have generally not addressed the

parsing “general principles of law” into five distinct categories: (1) “principles of municipal law ‘recognized by civilized nations’”; (2) principles “derived from the specific nature of the international community”; (3) principles “intrinsic to the idea of law and basic to all legal systems”; (4) principles “valid through all kinds of societies in relationships of hierarchy and co-ordination”; and (5) principles “founded on ‘the very nature of man as a rational and social being.’” See LORI FISLER DAMROSCH ET AL., *INTERNATIONAL LAW: CASES AND MATERIALS* 118 (4th ed. 2001). Another typology divides general principles into three categories: “(1) principles of approach and interpretation to legal relationships of all kinds; (2) minimum standards of procedural fairness; (3) substantive principles of law sufficiently widely and firmly recognized in the leading legal systems of the world to be regarded as international legal principles.” Wolfgang Friedmann, *The Uses of “General Principles” in the Development of International Law*, 57 AM. J. INT’L L. 279, 287 (1963). Finally, Professor Wolfrum has provided the following categories:

[P]rinciples derived from municipal law; principles having their origin directly in international relations; principles recognized in all kinds of legal relations, regardless of the legal order to which they may belong; [] principles of legal logic, which determine the legal consequences resulting from the interrelation of two legal situations. . . . [and] principles developed or [] set out in one particular treaty regime and which are or may be transferred to others

Wolfrum, *supra* note 135, ¶ 29.

142. JANIS, *supra* note 126, at 56.

143. See, e.g., Rudolf B. Schlesinger, *Research on the General Principles of Law Recognized by Civilized Nations*, 51 AM. J. INT’L L. 734 (1957). Professor Wolfrum has gone further in noting past concerns about the difficulties of engaging in systematic comparative law analyses and “that the relevant material may not be available and the research task impossible to accomplish.” Wolfrum, *supra* note 135, ¶ 31. In general, the ICJ has tended to “assert the existence of general principles intuitively.” *Id.* Similarly, the late Jonathan Charney pointed out the Court has tended “to treat [such] rules as axiomatic without showing which domestic legal systems, if any, use them.” Jonathan I. Charney, *Universal International Law*, 87 AM. J. INT’L L. 529, 536 (1993).

144. DAMROSCH ET AL., *supra* note 141, at 126.

145. Accord Pierre-Marie Dupuy, *Formation of Customary International Law and General Principles*, in *THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW* 449, 461–62 (Daniel Bodansky et al. eds., 2007); Wolfrum, *supra* note 135, ¶¶ 48–51; *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, Judgment, 2010 I.C.J. Rep. 14, 135, ¶ 11 (Apr. 20) (separate opinion by Trindade, J.).

extent that the relevant legal norm is found in *national* legal systems. In fact, it has been noted that:

[I]t is generally accepted that the distillation of a “general principle of law recognised [sic] by civilized nations” does not require the comprehensive survey of all legal systems of the world as this would involve a practical impossibility and has never been the practice of the International Court of Justice or other international tribunals which have had recourse to Article 38(1)(c) of the ICJ Statute.¹⁴⁶

The comparative law approach drew special scholarly attention in the 1950s and 60s.¹⁴⁷ The most prominent study of that time was initiated by Rudolf Schlesinger and announced in the pages of the *American Journal of International Law*.¹⁴⁸ Schlesinger envisioned his effort as something akin to a global restatement of law that could yield global principles of law. His global equivalent of the fifty-state survey was to enable the identification of a “common core” of legal norms among the family of nations,¹⁴⁹ what others also referred to as “world common law.”¹⁵⁰

Though Schlesinger’s project drew quite a bit of scholarly interest at the time,¹⁵¹ the project was not without its critics.¹⁵² And in hindsight, given the immensity and ambitiousness of the task, especially at a time when simply collecting and understanding the laws of the world’s nations must have been a serious challenge in itself, a comparative law approach to identifying general principles was bound to be a frustrating exercise. In fact, scholars have suggested

146. Prosecutor v. Drazen Erdemovic, Case No. IT-96-22-A, Judgment, Joint Separate Opinion of Judges McDonald and Vohrah, ¶ 57 (Int’l Crim. Trib. for the Former Yugoslavia Oct. 7, 1997). Before the Appeals Chamber of the International Criminal Tribunal for the Former Yugoslavia, Judges McDonald and Vohrah did engage in a survey of a variety of national jurisdictions to determine whether duress could be a defense to a war crimes charge but found no such principle. See generally MARK WESTON JANIS & JOHN E. NOYES, INTERNATIONAL LAW: CASES AND COMMENTS 159 (5th ed. 2014).

147. See John N. Hazard, *The General Principles of Law*, 52 AM. J. INT’L L. 91 (1958); see also Pulp Mills on the River Uruguay, 2010 I.C.J. ¶ 37 nn. 41–42.

148. Schlesinger, *supra* note 143, at 751. Related efforts have been referred to as efforts, such as by Professors Wilfred Jenks and Wolfgang Friedmann, to identify a “‘common law of mankind’ to meet problems raised by humanitarian concerns, environmental threats and economic relations.” DAMROSCH ET AL., *supra* note 141, at 119; C. WILFRED JENKS, THE COMMON LAW OF MANKIND (1958).

149. Rudolf B. Schlesinger, *The Common Core of Legal Systems an Emerging Subject of Comparative Study*, in XXTH CENTURY COMPARATIVE AND CONFLICTS LAW: LEGAL ESSAYS IN HONOR OF HESSEL E. YNTEMA 65, 65 (Kurt H. Nadelmann et al. eds., 1961).

150. See Hazard, *supra* note 147, at 91 (quoting William G. Rice, Book Review, 10 J. LEGAL EDUC. 122, 128 (1957) (reviewing PHILLIP C. JESSUP, TRANSNATIONAL LAW (1956)); see also DAMROSCH ET AL., *supra* note 141, at 119.

151. Percy E. Corbett, *The Search for General Principles of Law*, 47 VA. L. REV. 811, 823–26 (1961). Wolfgang Friedmann noted at the time that “the science of comparative law can render invaluable and indispensable service to the many developing new fields of international law” by helping to explain what principles of law from national legal systems might be useful internationally. Friedmann, *supra* note 141, at 290.

152. See, e.g., Frances T. Freeman Jalet, *The Quest for the General Principles of Law Recognized by Civilized Nations—a Study*, 10 UCLA L. REV. 1041, 1081–83, 1085 (1963) (noting the “danger in the comparative approach”); see also Jaye Ellis, *General Principles and Comparative Law*, 22 EUR. J. INT’L L. 949, 971 (2011) (“[The] quest for a universally shared body of legal rules or concepts is probably futile.”).

that, in other contexts, such comparative analytical exercises seems to have borne little fruit.¹⁵³

In the end, Schlesinger's ultimate goal remained unfulfilled.¹⁵⁴ In spite of the initial enthusiasm surrounding the project, the immensity of the task eventually led to a significant narrowing of the project—a comparative study on the formation of contracts across several jurisdictions. The eventual output, a book, took ten years to complete, though it constituted a product of considerable importance.¹⁵⁵

B. WHY CONSIDER THE PROMISE OF GENERAL PRINCIPLES OF LAW FOR THE GLOBAL ENVIRONMENT?

Some international jurists have explicitly recognized the significance of General Principles of Law for international environmental law. In a separate opinion in the *Case Concerning the Gabčíkovo-Nagymaros Project*, Vice President Weeramantry argued that sustainable development should be recognized as a general principle of law.¹⁵⁶ And in the *Pulp Mills on the River Uruguay* case, Judge Trindade penned a separate opinion that discussed in wide-ranging terms the relevance of General Principles of Law for the environment, suggesting such status for the principles of prevention, precaution and sustainable development.¹⁵⁷ However, broader mainstream appreciation of the role that General Principles could play in advancing the development of international environmental law has been elusive.

At the most basic level, General Principles of law supplement the norm-creation of treaty and custom through interstitial law-making, the gap-filling function.¹⁵⁸ Their promise for advancing the development of international

153. Christopher A. Ford, *Judicial Discretion in International Jurisprudence: Article 38(1)(C) and "General Principles of Law,"* 5 DUKE J. COMP. & INT'L L. 35, 67–71 (1994); Robert Y. Jennings, Book Review, 97 AM. J. INT'L L. 725, 727 (2003) (reviewing DAVID J. BEDERMAN, *THE SPIRIT OF INTERNATIONAL LAW* (2002)) (“[O]ne can readily agree with Bederman that the so-called general principles of law have not been important in practice, and now probably never will be.”).

154. V. D. DEGAN, *SOURCES OF INTERNATIONAL LAW* 102 (1997) (“Rudolf Schlesinger, professor of comparative law from Cornell Law School, in an article published in 1957 announced such a project, which as we know has never been accomplished.” (citing Schlesinger, *supra* note 143)).

155. See 1 FORMATIONS OF CONTRACTS: A STUDY OF THE COMMON CORE OF LEGAL SYSTEMS (Rudolf B. Schlesinger ed., 1968). Some scholars have described this work as Schlesinger's crowning achievement. William C. Whitford, Book Review, *Formation of Contracts: A Study of the Common Core of Legal Systems*, 1970 WIS. L. REV. 234, 317 (reviewing Whitford's book and pointing out some flaws in Schlesinger's project (for example, only one reporter from each country discussed each legal system, the project took many years, was it worth the cost?, and should it have included an empirical dimension on the impact of the rules in each country)); Bertram F. Willcox, *Rudolf B. Schlesinger—World Lawyer*, 60 CORNELL L. REV. 919, 922–23 (1975).

156. *Case Concerning the Gabčíkovo-Nagymaros Project* (Hung. v. Slov.), Judgment, 1997 I.C.J. Rep. 7, 88 (Sept. 25) (separate opinion of Weeramantry, V.P.).

157. *Pulp Mills on the River Uruguay* (Arg. v. Uru.), Judgment, 2010 I.C.J. Rep. 14, ¶ 204 (Apr. 20). Some of the leading international environmental law textbooks devote significant coverage to various principles, such as intergenerational equity, duty of prevention, precaution, and others. See, e.g., DAVID HUNTER ET AL., *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* 433–500 (5th ed. 2015).

158. *But see* Bassiouni, *supra* note 126, at 769 (suggesting that General Principles will become the “most important and influential source of international law” for pressing international issues such as the environment).

environmental law may be best appreciated through a brief examination of how international environmental law norms have traditionally been generated in customary law and treaties and the challenges encountered in these norm-creation processes.

As is well known, customary international law is made up of the set of legal rules constituting the “general practice [of nations] accepted as law.”¹⁵⁹ Thus, legal norms must meet two primary characteristics to qualify: (1) state practice and (2) *opinio juris*. These two criteria also pose significant limitations on the ability of Customary International Law (CIL) to generate new norms of international environmental law. For example, to demonstrate state practice, one must find wide-spread conformance. In turn, *opinio juris* requires that conformance be the result of a belief that the state practice is legally required. In other words, states must engage in the relevant behavior due to a sense of legal obligation—as opposed to a sense of *moral* commitment or convenience. Finding empirical evidence demonstrating both criteria has been a serious challenge.

A further issue arises out of the lengths of time over which customs ordinarily arise. While it has been pointed out that customary norms can emerge quickly nowadays,¹⁶⁰ most norms of customary law have evolved over the course of centuries in areas of international relations where states have had extensive and frequent interactions, such as diplomatic rights and immunities as well as the rules governing maritime navigation. Given that international environmental law has emerged only over the past five decades as an independent field of public international law, there have only been limited opportunities to observe relevant state actions and *opinio juris*.¹⁶¹ The longest-standing and best-known customary environmental norm is the duty not to cause

Perhaps, with contemporary technology, the promise of comparative law research will eventually yield “a far greater number of very detailed, generally recognized principles of law than anyone would have expected.” Werner Lorenz, *General Principles of Law: Their Elaboration in the Court of Justice of the European Communities*, 13 AM. J. COMP. L. 1, 7–8 (1964).

159. ICJ Statute, *supra* note 3, art. 38(b).

160. See, e.g., RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102 reporter’s note 2 (AM. LAW. INST. 1987) (“The practice necessary to create customary law may be of comparatively short duration.”).

161. In fact, even the transboundary environmental harm prohibition has been the subject of criticism in regard to how it satisfies the customary law criteria. For example, Professor Daniel Bodansky has noted that, in spite of the normative perception that international law prohibits transboundary pollution, this norm has had little grounding in the observed behavior of states vis-à-vis each other:

Would the proverbial Martian coming to Earth be able to induce these norms by observing what states do? The short answer seems to be ‘no.’ Consider, for example, the duty to prevent transboundary pollution, generally viewed as one of the most firmly established norms of customary international environmental law. Although I am unaware of any systematic empirical study of this issue, transboundary pollution seems much more the rule than the exception in interstate relations. Pollutants continuously travel across most international borders through the air and by rivers and ocean currents.

Daniel Bodansky, *Customary (and not so Customary) International Environmental Law*, 3 IND. J. GLOBAL LEGAL STUD. 105, 110–11 (1995) (footnotes omitted).

transboundary environmental harm, first articulated in the 1930s Trail Smelter Arbitration.¹⁶² While this norm has enjoyed widespread consensus about its legally binding nature in the international law community, there has been far less agreement about other environmental norms.

In contrast, the extended periods of time necessary for customary norms to emerge has not been an issue for treaty-making. Even though environmental agreements now require multi-year negotiation processes, the process is still far quicker. More importantly, treaties represent a targeted approach to environmental problem-solving based on an inter-governmental consensus that new international environmental legal norms are necessary and should be articulated through the written legal commitments accepted by state parties.¹⁶³

Undoubtedly, environmental treaties have advanced international environmental law by leaps and bounds, successfully creating institutional structures to support global environmental cooperation in many areas. Nevertheless, environmental treaty-making has encountered its own challenges.

For example, modern multilateral treaty-negotiations, adhering to UN-style processes, can easily involve hundreds of nations and tens of thousands of interested non-governmental and business participants, creating an exceedingly cumbersome, complex, and costly dynamic.

Success in creating new *binding* legal norms has also been limited. Ordinarily, not all commitments included in an agreement are legally binding—only those norms by which the parties have explicitly expressed a desire to be bound.¹⁶⁴ Such commitments are the subject of careful negotiation, usually narrowly drafted, and limited in number. And even then, they are oftentimes qualified with terms that water down their obligatory nature, for example by conferring significant implementation discretion or creating ambiguity as to when such an obligation is breached.¹⁶⁵

One well-known example is the 2015 Paris Climate Agreement,¹⁶⁶ which requires the submission of pledges to reduce national greenhouse gas emission as its primary legally binding commitment. To achieve the treaty's core objective of emission reduction, each country has a legal obligation to submit a document with the "nationally determined contributions that it intends to

162. Trail Smelter Case (U.S. v. Can.), 3 R.I.A.A. 1905 (1938); *see also* Trail Smelter Case (U.S. v. Can.), 3 R.I.A.A. 1938 (1941) (further proceedings). *See generally* John E. Read, *The Trail Smelter Dispute*, 1 CAN. Y.B. INT'L L. 213 (1963) (providing an overview of the Trail Smelter arbitration).

163. Environmental agreements have characteristics of both contract and legislation—contract, in that the binding nature of the commitments are solely based on the consent of the parties to the agreement, and legislation, because the commitments are made by sovereigns and become legal norms which constitute a part of international law.

164. In practical terms, that usually means that commitments designated as a "shall" are binding, while those described as "should," are hortatory rather than binding in nature.

165. One important reason is that states have been reluctant to create legally binding and enforceable norms, partially for fear of their own non-compliance.

166. U.N. Framework Convention on Climate Change, Report of the Conference of the Parties on Its Twenty-First Session, U.N. Doc. FCCC/CP/2015/10/Add.1 (Nov. 30–Dec. 15, 2015).

achieve,” that is, official promises of its emission reduction goals.¹⁶⁷ However, the substantive emission reduction goals embodied in these pledges are not in themselves legally binding—only the requirement to submit Intended Nationally Determined Contributions (NDC) is as well as associated reporting and transparency requirements.¹⁶⁸ In fact, very little of a substantive nature in the Paris Agreement is legally binding.

In the end, the issues with these two prevailing modes of legal norm creation in the environmental field are noteworthy because they stand in marked contrast to the explosive growth of environmental laws at the national and subnational level across the world. That has been especially visible in the rapid rise of environmental law in developing nations. One might even suggest that the development of binding international environmental legal norms in treaties and customary law has fallen far behind its national counterparts.

Of course, custom and treaty continue to be the two prevailing modes of creating new international law and are thus indispensable for the foreseeable future. However, their faults and weaknesses suggest that scholars, diplomats, and activists could benefit from looking to under-utilized supplementary sources of law, such as the General Principles, to advance the evolution of international environmental law. That option is now particularly promising in light of technological developments and globalization that facilitate the comparative law study of the rapidly evolving national environmental law systems.

C. DOES THE EIA NORM QUALIFY AS A GENERAL PRINCIPLE OF LAW UNDER ARTICLE 38?

Does the EIA duty qualify as a “general principle of law recognized by civilized nations?”¹⁶⁹ In light of the survey, my answer is yes.

The text of Article 38(1) sets out three requirements that a norm proponent would have to meet in order to make the case for a General Principle of Law: (1) identification of an appropriate legal principle, (2) that is recognized as law, and (3) accepted by “civilized nations.”¹⁷⁰ As alluded to above, there are two different approaches to determining whether the three criteria are met. First, one can examine the EIA norm through a natural law lens and ask whether the principle is foundational to international law. Judge Trindade took this approach in his concurrence to the *Pulp Mills on the River Uruguay* case. The second, alternative approach is evaluation of the norm through a comparative law perspective—the logical corollary of our study. I apply the latter approach here.

167. *Id.* art. 4(2).

168. *Id.* art. 4(8)–(13).

169. ICJ Statute, *supra* note 3, art. 38(1)(c).

170. ICJ Statute, *supra* note 3, art. 38(1).

I. “General Principle of Law”: Specific Rules vs. Concepts

The first criterion requires identification of a norm that can be articulated as a general legal principle. The implicit question of how general or how specific such a principle should be has led some scholars to suggest that Article 38’s textual articulation requires rejection of “specific rules.” They argue that the drafters meant to encompass only norms of a more general nature.¹⁷¹ Thus, “Lord Phillimore, who proposed the formula, explained that by General Principles of Law he meant ‘maxims of law.’”¹⁷² Professor Rüdiger Wolfrum has explained the distinction by saying that general principles are “obligations . . . described in abstract rather than concrete terms ready for direct application.”¹⁷³

Of course, defining a legal principle at an exceedingly high level of generality would make the principle unusable in practice. Though generality and abstraction would make it easy to document universality of acceptance, it might also make the principle incapable of providing substantial guidance in the resolution of specific legal issues. At the same time, defining a norm at an excessive level of specificity would arguably trigger a self-correcting dynamic. It could potentially leave the principle with few applications outside of an exceedingly narrow context and thus be useless as an articulation of a broadly applicable “legal maxim.”

As a practical matter, these concerns are not likely to present serious issues. If a legal principle is the subject of a “true” universal normative consensus, criticism that the identified principle is too specific should not be fatal to and would not deny an underlying normative consensus. All it would suggest is that the norm may be capable of articulation as a more generic and abstract norm.¹⁷⁴ In other words, there would be a natural tendency for self-correction through re-articulation of the norm in a more generic form.

Within our survey, the application of this criterion to the EIA norm does not present serious difficulty. Undoubtedly, national and international (primarily multi-development banks, or “MDBs”) regulatory mechanisms that implement the EIA duty usually incorporate a number of subsidiary norms and duties with

171. Bin Cheng has noted that “[p]rinciples are to be distinguished from rules” because “A rule . . . is essentially practical and, moreover, binding; there are rules of art as there are rules of government, while a principle expresses a general truth, which guides our action, serves as a theoretical basis for the various acts of our life, and the application of which to reality produces a given consequence.”

CHENG, *supra* note 123, at 24 (alteration in original) (quoting *Gentini Case (It. v. Venez.)* 10 R.I.A.A. 551 (Perm. Ct. Arb. 1903)).

172. *Id.* at 24.

173. Wolfrum, *supra* note 135, ¶ 6. The semantics of this issue has apparently caused some scholarly handwringing, though with little concrete articulation of the practical significance. *See, e.g.,* Jalet, *supra* note 152, at 1046.

174. This conclusion seems to have been implied by Michael Bogdan. Michael Bogdan, *General Principles of Law and the Problem of Lacunae in the Law of Nations*, 46 NORDISK TIDSSKRIFT INT’L RET 37, 48–49 (1977). At the same time, one could not expect the converse, a norm that has been formulated too generically, to necessarily have a more specific counterpart that is still universally accepted.

respect to the content of an EIA document, process requirements, and the role of the public. The level of generality of our survey does not allow for a more fine-grained analysis of how widespread such sub-norms are within jurisdictions across the world. However, the fact that the EIA norm manifests in a variety of forms and with different sub-duties in national regulatory systems and applications does not fundamentally undermine the assertion that there is a general principle that underlies the norm. In fact, it is precisely what one might expect of the implementation of a general principle within specific contexts. At its core, the EIA principle is an umbrella norm requiring the assessment of activities or projects that are likely to have a significant impact on the environment. If one desired to reduce the principle to even greater simplicity, one might describe its core as the duty to investigate and consider environmental effects before acting.¹⁷⁵

In the end, articulation of the EIA norm appears to be as similar in generality or specificity as other well-established General Principles of Law, such as the principle of *res judicata* establishing that final judgments are conclusive dispositions of legal disputes and the duty of reparation, which requires that “breach of an engagement involves an obligation to make reparation.”¹⁷⁶ The EIA norm is general, yet arguably sufficiently specific and constrained to provide guidance on specific issues.

2. *Recognition as Law*

The second criterion of the General Principles provision requires recognition of the relevant norm as law. The survey results show that at least 183 countries out of 197, or about ninety-three percent of countries, impose an EIA duty by legislation or regulation and another eight multilateral development banks and national development aid agencies require it as part of their operational processes, including lending practices. Only six jurisdictions clearly have not incorporated the EIA norm into their environmental governance systems, while we were unable to determine the status of eight other jurisdictions. Acceptance and incorporation of the EIA duty into the legislation

175. For additional discussion of the nature of general principles and the purposes that they serve, see ROBERT KOLB, *GOOD FAITH IN INTERNATIONAL LAW* 4–13 (2017). I leave a more detailed discussion of the specific contours and limits of the principles to another time.

176. CHENG, *supra* note 123, at 233 (internal quotation marks omitted) (quoting *Factory at Chorzow* (Ger. v. Pol.), Judgment, 1928 P.C.I.J. (ser. A) No. 17, ¶ 29 (Sept. 13)). For examples of the level of generality with which other general principles have been described, see 1 L. OPPENHEIM, *INTERNATIONAL LAW: A TREATISE* 346–47 (H. Lauterpacht ed., 8th ed. 1955) (stating that the “*maxim, sic utere tuo ut alienum non laedas*”—use your own property so as not to injure the property of another—is one of those general principles of law applicable under Article 38(1)(c) of the Statute of the International Court of Justice); *RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES* § 712 reporter’s note 2 (AM. LAW. INST. 1987) (describing the “standard of compensation” requirement); *Am. Int’l Grp. v. Islamic Republic of Iran*, 4 Iran-U.S. Cl. Trib. Rep. 96, 105, 109 (1987) (holding as “a general principle of public international law” that foreign nationals are entitled to “the value of the property taken,” and referred to the need to determine “the going concern or fair market value” of the property).

and/or regulation of the overwhelming number of states provides a clear indication that the duty is recognized as law within them.¹⁷⁷

The survey results, however, are unable to address a deeper question—how committed are each of the national legal systems to the EIA duty? In other words, is the norm not only mandatory by legislation but also enforced in practice?¹⁷⁸ The issue is a real one, especially in the developing world and in nations with a weak rule of law. While most jurisdictions provide administrative agencies with some latitude in implementation, and hence discretion in regards to application of the EIA norm, in some systems, the gap between the law as articulated in legislative enactments (“law on the books”) and the law as applied (“law in action”) can be considerable. A government practice of enacting legislation that is routinely flouted or not enforced raises the questions of whether such legislation is really law at all.¹⁷⁹

The survey has not attempted to identify systems that systematically fail to implement EIA requirements.¹⁸⁰ The situation is most likely to arise in the least

177. RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102 (AM. LAW. INST. 1987) (recognizing as law is implied in its phrase that the General Principle be “common to the major legal systems of the world”).

178. Within the law-recognition framework of H. L. A. Hart, this is a non-issue. Lack of enforcement does not in itself equate with non-recognition of a valid legal norm. H. L. A. HART, *THE CONCEPT OF LAW* 97–107 (3d ed. 2012). In fact, no legal system enforces its legal norms one hundred percent of the time, including for reasons as simple as lack of resources and time constraints. A different issue would be presented with respect to the non-enforcement of an un-repealed, but invalid legislative enactment, such as laws against inter-racial marriage or alien land laws which have remained on the books in some states far beyond the determination by the U.S. Supreme Court that they are unconstitutional.

179. In fact, Judge Tanaka in his dissent to the International Court of Justice’s decision in *Liberia v. S. Africa* suggested that diplomats and other government officials have a role to play in efforts to identify valid legal norms:

The manifestation of the recognition of [a] principle does not need to be limited to the act of legislation as indicated above; it may include the attitude of delegations of member States in cases of participation in resolutions, declarations, etc., . . . [with respect to a norm] adopted by the organs of the League of Nations, the United Nations and other organizations.

South West Africa Cases (*Liber. v. S. Afr.*), Judgment, 1966 I.C.J. Rep. 6, 250, 300 (July 18) (separate opinion of Tanaka, J., dissenting). Judge Tanaka’s view would imply that if the governmental branch charged with implementing a legal norm does not view it as sufficiently important or as legally obligatory for it to act on, then the norm might not really be “recognized” for purposes of Article 38(1)(c). A related issue arises with respect to judicial decisions, that is, judge-made law. While common law jurisdictions provide that judicial decisions can create new law, civil law systems disavow such power for the courts. Of course, the practical reality of judicial decision-making is rarely so simple, and the boundary between law making and law clarification is far easier to identify in theory than in practice. However, even if judicial opinions are limited in their substantive role to a law application function, they may nevertheless serve to clarify or confirm the governing legal norms. In that role, judicial decisions may assist, as evidence, in the identification of the applicable norms, even if they are themselves not authoritative.

180. Our survey did not come across any jurisdiction where the expert and scholarly commentary explicitly indicated that the EIA duty was entirely ignored. In our research, the closest was Sudan, where the UNEP indicated that the “basic EIA and approval process, [] is not applied effectively to the majority of projects, and not applied at all to upstream oil projects.” U.N. ENV’T PROGRAMME, *SUDAN POST-CONFLICT ENVIRONMENTAL ASSESSMENT* 155 (2007), https://postconflict.unep.ch/publications/UNEP_Sudan.pdf. However, anything short of the EIA duty being systematically ignored, as opposed to ineffectively implemented, would have required us

developed nations. Hence, if a reader of the survey applies a more stringent standard for “recognition as law,” the survey results cannot provide the information to meet that standard.¹⁸¹

3. *Whose Recognition of the Principle Counts?*

Under Article 38(1)(c), recognition of the principle as law must come from civilized nations.¹⁸² Scholars suggest that the 1920 Committee of Jurists did not intend colonialist connotations with this terminology and considered all nations to qualify as such.¹⁸³ Furthermore, international scholars as well as the Restatement (Third) of Foreign Relations Law of the United States appear to be in agreement that this criterion does not require one-hundred-percent adherence of all nations worldwide.¹⁸⁴ However, some have suggested that adherence by countries representative of all the six families of law, that is, the common law, civil law, socialist law, African law, Islamic law, and East Asian law traditions, is necessary.¹⁸⁵

The survey results show virtually universal legislative adoption of the EIA duty across nations. It is found in all six families of law, including widespread adoption among Arab states. Even in the legal systems of nations such as Iraq and Afghanistan, which have gone through tremendous internal upheaval and dislocation in recent times, and authoritarian countries, such as Cuba and North Korea, the EIA duty has been incorporated into the environmental governance system.

What about requirements and legal norms evolving in international institutions, especially Multilateral Development Banks (MDBs) and other intergovernmental organizations? For example, in 1989, the World Bank began

to make judgment-calls (guesses, really) for which we did not have any further research or other informational basis. Nevertheless, as indicated, this is an issue that could merit further exploration.

181. However, it should be noted that in many such nations, the World Bank is likely to be active, and hence its EIA requirements may apply to many significant projects. As noted above, World Bank EIA processes apply independently of any national requirements. *See* sources cited and text accompanying *supra* note 42.

182. ICJ Statute, *supra* note 3, art. 38(1)(c).

183. *See, e.g.*, CHENG, *supra* note 123, at 25; CRAWFORD, *supra* note 135, at 34 n.88; RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 102 reporter’s note 7 (AM. LAW INST. 1987). One way to explain “civilized nations” is a reference to “countries of the world which have achieved statehood and are admitted into the family of nations—those which have become a sovereign political unity and have passed beyond the stage of being a primitive people.” Jalet, *supra* note 152, at 1044 (footnote omitted). However, it seems fair to ask whether nations whose governmental systems are authoritarian, dictatorships, or otherwise possess only a very weak rule of law should qualify. With respect to the EIA norm, the issue is moot since even rogue states like North Korea have adopted the EIA norm.

184. *See, e.g.*, H.C. GUTTERIDGE, *COMPARATIVE LAW: AN INTRODUCTION TO THE COMPARATIVE METHOD OF LEGAL STUDY & RESEARCH* 65 (2d ed., Wiley & Sons Ltd. 1971) (1949); *see also* South West Africa Cases (Liber. v. S. Afr.), 1966 I.C.J. at 297; North Sea Continental Shelf Cases (Fed. Republic Ger. v. Den.; Fed. Republic Ger. v. Neth.), Judgment, 1969 I.C.J. Rep. 3, 219, 229 (Feb. 20) (separate opinion of Lachs, J., dissenting). *But see* Jalet, *supra* note 152, at 1044 n.20 (asserting that universal acceptance is required and citing Bin Cheng).

185. *See, e.g.*, Bassiouni, *supra* note 158, at 812 (identifying five major families); Bogdan, *supra* note 174, at 46.

applying EIA requirements to projects that it supported through its lending practices.¹⁸⁶ Violations of the EIA operational directive and policy can be the subject of the Bank's Inspection Panel investigations. These requirements apply to World Bank-financed projects even when such projects are located in countries that may not have their own EIA legislation. In other words, MDB EIA requirements extend the applicability of the EIA duty into states that do not have EIA requirements or may not enforce them properly. Our survey results indicate that at least five multilateral development banks and three national development aid agencies apply the EIA duty.

The role of the MDBs in helping to create a global consensus about the EIA norm is intriguing. Such entities are not sovereigns themselves, and hence do not possess inherent law-making powers. Like administrative agencies, however, they are the creations of sovereign nations and are usually endowed with authority to pursue particular objectives. To the extent that such organizations recognize or adhere to particular legal norms, they might be seen as contributing to an international consensus on a particular legal principle. As a practical matter, these organizations also help to impose EIA requirements in places that may not have their own national EIA systems.

The duty to conduct an environmental impact assessment before engaging in projects that are likely to have a significant impact on the environment has largely achieved near universality, even if its formal acknowledgment as a public international law norm in the academic literature and in the discourse of scholars, diplomats, and international organizations has yet to occur. Based on this survey, its widespread legislative adoption appears to satisfy the criteria of a "general principle of law recognized by civilized nations."

IV. THE PRACTICAL IMPLICATIONS

A. APPLYING THE EIA NORM AS A GENERAL PRINCIPLE

Assuming acceptance of the proposition that the EIA norm has become a "general principle of law recognized by civilized nations," what are the practical implications? Full exploration of the issues would go beyond the scope of this Article, but there are noteworthy consequences in at least three contexts: (1) international adjudications, such as in the ICJ, (2) operational practices within international organizations such as the World Bank, and 3) national law, including in the United States.

First, the effect of EIA as a general principle of law should become most apparent in international adjudicative processes—before the ICJ, in the World Trade Organization (WTO), and in other arbitral tribunals and human rights bodies. In the ICJ, Article 38 explicitly makes General Principles of Law part of the sources of law that the ICJ can rely on. Because the ICJ's *Pulp Mills on the River Uruguay* opinion already pronounced the EIA norm applied in the

186. See, e.g., CRAIK, *supra* note 24, at 109.

transboundary context to be part of customary international law, an EIA General Principle would extend the norm's applicability beyond transboundary disputes to other issues such as the global commons and any other situations where public international law applies. For example, fishing or whaling activities on the high seas and waste disposal activities at Antarctic research stations would likely have significant impacts on marine and fragile polar environments, and would thus trigger the EIA duty.¹⁸⁷

In the WTO dispute settlement process, the availability of general principles as a gap-filler is implied by DSU Article 3.2, which has been construed to recognize the applicability of public international law generally.¹⁸⁸ Again, that should include the EIA General Principle. While EIA issues do not appear to have been raised in past WTO disputes, one could imagine a challenge to a state's EIA processes based on the argument that EIA requirements impose cost and delay, thereby impeding trade and violating WTO obligations.¹⁸⁹ Though many environmental regulations can be justified under the WTO's exceptions provisions, sections 20(b) and 20(c) of Article 20 of the General Agreement on Tariffs and Trade,¹⁹⁰ the EIA General Principle would bolster the permissibility of EIA requirements.

In another important international tribunal, the International Tribunal for the Law of the Sea (ITLOS), the practical effect would likely be more limited. Under the U.N. Convention on the Law of the Seas (UNCLOS), the law

187. *Accord Env'tl. Def. Fund v. Massey*, 986 F.2d 528 (1993); *Whaling in the Antarctic (Austl. v. Japan)*, Judgment, 2014 I.C.J. Rep. 226 (Mar. 31).

188. Article 3.2 states that "existing provisions of [the WTO agreements can be clarified] in accordance with customary rules of interpretation of public international law." *Id.* According to the WTO Appellate Body, the Article's "direction reflects a measure of recognition that the General Agreement is not to be read in clinical isolation from public international law." Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, at 17, WTO Doc. WT/DS2/AB/R (adopted Apr. 29, 1996); see also Joost Pauwelyn, *The Role of Public International Law in the WTO: How Far Can We Go?*, 95 AM. J. INT'L L. 535, 543 (2001).

189. Professor Pauwelyn has even posed a hypothetical situation where a WTO panel might be called on to decide whether a non-WTO rule has been violated as part of a nullification claim in a WTO dispute. Pauwelyn, *supra* note 188, at 559.

190. When the WTO was concluded in 1994, it incorporated its precursor, the 1947 General Agreement on Tariffs and Trade (GATT) *in toto*. Hence, the 1947 GATT remains in effect through the WTO, which includes exceptions in GATT Article 20 that exempt certain types of environmental measures from WTO requirements. The relevant Article 20 provisions are:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: . . .

(b) necessary to protect human, animal or plant life or health;

. . .

g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

General Agreement on Tariffs and Trade art. XX(b)–(g), Oct. 30, 1947, 55 U.N.T.S. 194, 262.

applicable to adjudications by ITLOS includes General Principles of Law.¹⁹¹ However, UNCLOS itself, through Article 206, imposes an independent treaty-based EIA requirement.¹⁹² Nevertheless, even if the EIA General Principle is duplicative of Article 206, it could still provide gloss as to how Article 206 should be applied in practice.¹⁹³

In other contexts, for example in transboundary water disputes, the EIA General Principle would bolster the existing transboundary EIA duty.¹⁹⁴ If an investor were to challenge a country's EIA requirements by framing the EIA duty as an expropriation, the international equivalent of a government "taking," the EIA General Principle could help blunt such challenges by supporting the legitimacy of EIA requirements.¹⁹⁵

Second, the EIA General Principle could also affect the operational practices of international organizations. While there has been disagreement on whether international organizations are bound by treaties to which they are not party to, there has been little question that international organizations are bound by customary law and general principles.¹⁹⁶ For international organizations that do not already have an internal EIA requirement, the EIA General Principle

191. Applicable law consists of the Law of the Sea Convention "and other rules of international law not incompatible with this Convention." U.N. Convention on the Law of the Sea art. 293, *opened for signature* Dec. 10, 1982, 1833 U.N.T.S. 3, 397 (entered into force Nov. 16, 1994).

192. *Id.* art. 206 ("Assessment of potential effects of activities: When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution or or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in Article 205."); *see also In re S. China Sea Arbitration* (Phil. v. China), PCA Case No. 2013-19, Award, ¶¶ 987-91 (Perm. Ct. Arb. 2016); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Case No. 17, Advisory Opinion of Feb. 1, 2011, 2011 ITLOS Rep. 10, ¶¶ 141-50.

193. For example, concerns that Article 206 is vague by its terms could be addressed in part through the General Principles analysis here. *See, e.g.,* Maki Tanaka, *Lessons from the Protracted Mox Plant Dispute: A Proposed Protocol on Marine Environmental Impact Assessment to the United Nations Convention on the Law of the Sea*, 25 MICH. J. INT'L L. 337, 356 (2004).

194. *In re Indus Waters Kishenganga Arbitration* (Pak. v. India), 31 R.I.A.A. 1, 450 (Perm. Ct. Arb. 2013). Where international adjudicative processes do not explicitly reference General Principles as part of the applicable law, judges would ordinarily still rely on them as part of the set of relevant background principles. *See, e.g.,* Pauwelyn, *supra* note 188, at 541 & n.44 (citing A.D. MCNAIR, *THE LAW OF TREATIES* 466 (1961)).

195. In the past, expropriation claims have focused on substantive environmental requirements. However, it is not too difficult to imagine a challenge to EIA requirements as imposing a regulatory "taking" because of the delay and other procedural costs they may impose on foreign investors.

196. *See* Interpretation of the Agreement of 25 Mar. 1951 Between the WHO and Egypt, Advisory Opinion, 1980 I.C.J. Rep. 73, ¶¶ 37-38 (Dec. 20) ("International organizations are subjects of international law and, as such, are bound by any obligations incumbent upon them under general rules of international law, under their constitutions or under international agreements to which they are parties."). The term "general international law" is commonly used to refer to generally applicable rules of international law, both customary law and general principles, as contrasted to rules of specific applicability, usually embodied within international agreements. *See, e.g.,* RESTATEMENT (THIRD) FOREIGN RELATIONS LAW OF THE UNITED STATES § 101(d) cmt. d (AM. LAW INST. 1987) ("Unless otherwise indicated, 'international law' as used in this Restatement is law that applies to states and international (intergovernmental) organizations generally."); Pauwelyn, *supra* note 188, at 536; *see also* Kristina Daugirdas, *How and Why International Law Binds International Organizations*, 57 HARV. INT'L L.J. 325, 327, 331, 380 (2016).

would create a new set of operational duties. For the World Bank and other multilateral development banks that already require EIA processes in their lending practices, the EIA General Principle would provide a supplementary legal basis for such a requirement. By enhancing the legitimacy of EIA requirements, it could also help to discourage state borrowers that are unsympathetic to environmental concerns from resisting these requirements.

Finally, the EIA General Principle would affect national legal systems. In the handful of states that do not already impose an EIA duty, a new legal norm could become applicable in regards to their involvement in international matters.¹⁹⁷ In countries that have already adopted the EIA norm, such as the United States, the effect would likely be limited though could still be noticeable. For example, because NEPA has been construed judicially to apply only within U.S. territory,¹⁹⁸ assessment of the environmental effects of major federal actions abroad are performed as a matter of executive branch discretion under Executive Order 12114.¹⁹⁹ With an EIA General Principle, such impact assessments could become required as a matter of international law.²⁰⁰

B. OTHER GENERAL PRINCIPLES BEYOND THE EIA DUTY

There is a logical further question—are there other environmental norm candidates for General Principles? It is not readily apparent that other environmental norms are as long-standing and as widely accepted as the EIA duty.²⁰¹ In fact, one could argue that the primary purpose of the EIA as enhancement of the decision-making process rather than imposing substantive outcome requirements has made it easier to accept by government regulators, than norms with a substantive content. In this sense, the very criticism of EIA for not having stronger substantive content could be the reason for its universal appeal and widespread success.

Nevertheless, lack of universal acceptance should not itself be an insurmountable barrier to general principle status. After all, “recognition” requires only acceptance by the major legal systems of the world.²⁰² Norms that might be good candidates for General Principles status could be public

197. In that sense, the EIA norm has already accomplished what most international environmental legal norms articulated in custom and treaty aspire to, that is to positively alter the legal norms at the national and sub-national level, where most environmentally harmful action occurs and where legal norms usually must be operationalized in order to be effective.

198. *But see* *Envtl. Def. Fund v. Massey*, 986 F.2d 528 (1993) (describing a notable exception involving activity in the Antarctic).

199. Exec. Order No. 12114, 44 Fed. Reg. 1957 (Jan. 4, 1979). The agency obligations created by E.O. 12114 are judicially unenforceable by the terms of the Order, *see* section 3.1, and there appears to be no comprehensive documentation of how consistent agency implementation of the Order's requirements has been.

200. That could include EIAs for U.S. activities in the Antarctic, the high seas, *see* *Greenpeace USA v. Stone*, 748 F. Supp. 749 (D. Haw. 1990), and on military bases abroad, *see* *NEPA Coalition of Japan v. Aspin*, 837 F. Supp. 466 (D.D.C. 1993).

201. Thus, it is quite possible that past difficulties encountered by scholars and judges in utilizing a comparative law research may still be encountered. *See, e.g.,* Ford, *supra* note 153, at 67–71.

202. *See* discussion *supra* Subpart III.C.3.

participation and transparency norms, as embodied for example in the Aarhus Convention. Both are also primarily process norms. Another potential candidate, based on widespread support in national legal systems, might be the human right to a clean environment. Recent studies suggest that this norm has gained broad acceptance.²⁰³

C. SOME FINAL OBSERVATIONS

A few final thoughts with regards to the Article's survey implications for the ongoing development of international environmental law remain.

First, the survey findings provide an important reference point for evaluating the ubiquity of environmental legal norms across the world's legal systems. The breadth of the EIA norm's global adoption demonstrates how desirable states consider it as a tool for addressing environmental problems.²⁰⁴ It will be interesting to see whether other environmental norms can achieve similar universality.

Second, the survey's methodology presents a unique opportunity to link the rapid development of national environmental laws to the development of environmental legal norms in the international system. As environmental law norms in many national environmental governance systems are far ahead of the international system, such linkage could potentially help advance lagging international norms and the broad consensus about the importance of a clean environment to human health and the quality of life.

Third, utilizing the Article's methodological approach promises to partially up-end the traditional "top-down" lawmaking and implementation structure of international environmental governance. In international environmental law, supra-national processes have been overwhelmingly responsible for creating new environmental law norms. Only after such norms have become embodied in treaties or customary law are they then passed down to the national and subnational government level for adoption and implementation. In contrast, international law norms associated with General Principles of Law emerge first in national legal systems and then, through their widespread acceptance in the major legal systems of the world, rise to the supra-national level as General Principles. One consequence of inversion of the law-creation process is to narrow the gap between the creation and the implementation of international legal norms since both occur at the national level first.

203. See DAVID R. BOYD, *THE ENVIRONMENTAL RIGHTS REVOLUTION: A GLOBAL STUDY OF CONSTITUTIONS, HUMAN RIGHTS, AND THE ENVIRONMENT* (2012).

204. One might even go as far as to suggest that regulatory norms adopted by a state for itself and its citizens are less likely to be influenced by self-interest concerns, posturing, other negotiation tactics that arise when states bargain with each other in making treaties and that can adversely affect the treaty commitments and norms adopted as a result. National norms and how they are formulated might ultimately be more honest and genuine expressions of what states believe to be necessary for effective regulation and the extent such norms should be legally binding.

Fourth, comparative law exploration of environmental norms can provide a better understanding of the nature of one recurring puzzle in international environmental law: the sense that there are or should be more binding norms with respect to the environment than are currently recognized by the international community. That sense manifests itself in “soft” international environmental law, norms that are deemed to be “not yet or not only law.”²⁰⁵ Scholars such as Pierre-Marie Dupuy have explained “soft” law as a precursor or intermediate stage in the march toward “hard” law status, arising out of a long-term process of repetition of the non-binding norm in various international instruments.²⁰⁶ Professor Bodansky has explored and framed this process of law creation as a form of “declarative law.”²⁰⁷ The late Professor Jonathan Charney explained it as a form of “universal international law.”²⁰⁸

Our survey suggests a further gloss on the nature of “soft” law: as the manifestation of the long-term process by which legal norms at the national level rise into the international domain. It may be the initial indication of the sense of international lawyers, diplomats and scholars that the relevant environmental norm constitutes a principle of law applicable not only in national law but also in the international system.²⁰⁹ Soft law may thus be the bridge in the development of national and international environmental law. Just as “everything is connected to everything else” in the physical, natural world, so are the legal norms governing it.

Finally, technological developments, especially the Internet, have drastically changed the prospects of canvassing jurisdictions throughout the world in order to better understand the development of legal norms. Of course, the task remains time-consuming. However, with a more nuanced understanding of the origins and future of international environmental law as a reward and the chance to avoid “re-inventing the wheel” with governance solutions that may already exist in national systems, the effort should be worthwhile.

CONCLUSION

This Article’s survey demonstrates that the EIA norm has now become almost universally adopted by jurisdictions across the world. The findings support the widespread sense that EIA processes are a good practice in

205. HUNTER ET AL., *supra* note 157, at 350.

206. Pierre-Marie Dupuy, *Soft Law and the International Law of the Environment*, 12 MICH. J. INT’L L. 420 (1991).

207. Bodansky, *supra* note 161, at 116.

208. Charney, *supra* note 143.

209. In fact, Professor Wolfrum as much as implied this in saying that:

[General] principles are transported to the international level by finding acceptance in the jurisprudence of international courts or tribunals or by being referred to in resolutions of international organizations or policy statements of international conferences, such as world summits, for example. This equally establishes them as independent principles and as a source of international law.

Wolfrum, *supra* note 135, ¶ 55.

environmental planning and governance. The findings also mark the emergence of an environmental norm that is almost universally subscribed to by jurisdictions across the world. And finally, the survey findings suggest that the EIA norm has also become a general principle of law, a part of public international environmental law.

APPENDIX 1

**Summary Chart of Global Survey of Domestic Environmental Impact
Assessment Legislation**

U.N. Regional Groups	EIA Yes	EIA No	EIA Unclear	Total
Africa	50	3	1	54
Asia Pacific Group	54	2	—	56
Eastern European Group	23	—	—	23
Latin American & Caribbean Group	28	1	4	33
Western European Group & Others	28 ^a	—	3	31
<u>Total</u>	<u>183^a</u>	<u>6^b</u>	<u>8^c</u>	<u>197</u>
Multilateral Development Banks & Foreign Aid Agencies	8	—	—	8

a. Includes the European Union as a separate jurisdiction.

b. South Sudan, Somalia, Eritrea, Suriname, Singapore, and Nauru.

c. Central African Republic, Holy See, San Marino, Monaco, St. Vincent and Grenadines, St. Lucia, St. Kitts and Nevis, and Barbados.

APPENDIX 2

Sources (organizations, articles, and websites) Most Heavily Relied on for Secondary Confirmation of EIA Norm

1. ECOLEX, <https://www.ecolex.org/> (last visited Jan. 19, 2019); FAOLEX, <http://www.fao.org/faolex/en/> (last visited Jan. 19, 2019).
2. NETHERLANDS COMM'N FOR ENVTL. ASSESSMENT, <http://www.eia.nl/en/countries> (last visited Jan. 19, 2019).
3. United Nations Environment Programme, Environmental Assessment in the WIO Region: An Overview of the Policy, Legal, Regulatory and Institutional Frameworks Related to Environmental Impact Assessment in the WIO Region (2010) (unpublished report, on file with author).
4. DEV. BANK OF S. AFRICA, S. AFRICAN INST. FOR ENV'T ASSESSMENT, HANDBOOK ON ENVIRONMENTAL ASSESSMENT LEGISLATION IN THE SADC REGION (2007), http://www.commissionoceanindien.org/fileadmin/resources/RECOMAP%20Manuals/Handbook%20on%20Environmental%20Assessment%20Legislation_SADC%20Region_Nov%202007.pdf.
5. DEV. BANK OF S. AFRICA, SADC ENVIRONMENTAL LEGISLATION HANDBOOK 2012 (2012), <https://irp-cdn.multiscreensite.com/2eb50196/files/uploaded/SADC%20Handbook.pdf>.
6. CONVENTION ON BIOLOGICAL DIVERSITY, *National Reports and NBSAPs*, <https://www.cbd.int/reports/search/> (last visited Jan. 19, 2019).
7. Dieudonné Bitondo et al., *Evolution of Environmental Impact Assessment Systems in Central Africa: The role of National Professional Associations*, SECRETARIAT FOR THE ENVTL. ASSESSMENT IN CENT. AFRICA (2014), http://api.commissiomer.nl/docs/mer/diversen/os_evolution_eia_centralafri ca_2014.pdf.
8. E-LAW, *EIA Law Matrix*, <https://www.elaw.org/elm> (last visited Jan. 19, 2019).
9. Ernesto Sanchez-Triana & Santiago Enriquez, A Comparative Analysis of Environmental Impact Analysis Systems in Latin America (Apr. 6, 2007) (draft paper for the Annual Conference of the International Association for Impact Assessment), https://www.ifc.org/wps/wcm/connect/c688c7004c08ac00ae87be79803d5464/2_EIA+in+LAC+IAIA+Seoul.pdf?MOD=AJPERES.
10. AECEN, <https://www.aecen.org/eia> (last visited Jan. 19, 2019).
11. WORLD BANK GROUP, LEGAL FRAMEWORK OF ENVIRONMENTAL IMPACT ASSESSMENT IN LATIN AMERICA, http://www.ifc.org/wps/wcm/connect/1069ce004c08ad23ae9cbe79803d5464/3_eia+in+lac+poster.pdf?mod=ajperes (last visited Jan. 19, 2019).
12. Gunnar Baldwin, *Approaches to Environmental Licensing and Compliance in Caribbean Countries* (2016), <https://publications.iadb.org/bitstream/handle/11319/8083/Approaches-to->

- Environmental-Licensing-and-Compliance-in-Caribbean-Countries.pdf?sequence=1.
13. SECRETARIAT OF THE PAC. REG'L ENV'T PROGRAMME, *Pacific Environment Information Network of Secretariat of the Pacific Regional Environment Programme*, <https://www.sprep.org/pacific-environment-information-network-pein> (last visited Jan. 19, 2019).
 14. INSTITUTE FOR GLOB. ENVTL. STRATEGIES, STRENGTHENING EIA IN ASIA (2016), https://www.aecen.org/sites/default/files/strengthening_eia_in_asia.pdf.
 15. ENV'T & SOC. DEV. UNIT OF THE E. ASIA & PAC. REGION OF THE WORLD BANK, ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS AND STRATEGIC ENVIRONMENTAL ASSESSMENT REQUIREMENTS: PRACTICES AND LESSONS LEARNED IN EAST AND SOUTHEAST ASIA (2006), <http://documents.worldbank.org/curated/en/949001468167952773/pdf/408730PAPER0EIIonal1review01PUBLIC1.pdf>.
 16. U.N. ECON. COMM'N FOR EUROPE, *Environmental Policy: Reviewed Countries*, <https://www.unece.org/environmental-policy/environmental-performance-reviews/reviewed-countries.html> (last visited Jan. 19, 2019).
 17. ORGANISATION FOR ECON. CO-OPERATION & DEV., *Find an Environmental Country Review*, <http://www.oecd.org/environment/country-reviews/find-a-review.htm> (last visited Jan. 19, 2019).
 18. ENVTL. L. ALL. WORLDWIDE, *Caribbean Environmental Law*, <https://www.caribbeanenvirolaw.org/countrieslistings> (last visited Jan. 19, 2019).
 19. Marcelo Acerbi et al., *Environmental Impact Assessment Systems in Latin America and the Caribbean*, IMPACT ASSESSMENT FOR SOC. & ECON. DEV. (2014): <http://conferences.iaia.org/2014/IAIA14-final-papers/Acerbi,%20Marcelo.%20%20EIA%20systems%20in%20Latin%20America%20and%20the%20Caribbean.pdf>.
 20. EUROPEAN COMM'N: ENV'T, *Country Reports and Common Challenges*, http://ec.europa.eu/environment/eir/country-reports/index2_en.htm (last visited Jan. 14, 2019).
 21. U.N. ECON. COMM'N FOR EUROPE, *Review of Implementation (National Reporting)*, https://www.unece.org/env/eia/implementation/review_implementation.html (last visited Jan. 19, 2019).
 22. Ana Luisa Gomes Lima et al., *Environmental Impact Assessment in South Asia*, IMPACT ASSESSMENT FOR SOC. & ECON. DEV. (2015): <http://conferences.iaia.org/2015/Final-Papers/Sanchez-Triana,%20Ernesto%20-%20Environmental%20Impact%20Assessment%20Systems%20in%20South%20Asia.pdf>.