Article

Regime Congruence: Rethinking the Scope of State Responsibility for Transboundary Environmental Harm

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INTRODUCTION

In a globalized world, the consequences of environmental degradation rarely stop at the border. When a sewage interceptor collapsed in the City of Tijuana, Mexico, in February 2017, over 140 million gallons of raw sewage spilled into the ocean. The incident fouled twenty miles of the Pacific coastline, raising concerns in California about impacts on local health, environment, and the economy. A group of U.S. municipalities and the State of California resolved to sue the U.S. federal government for its failure to work out a plan with its southern neighbor to prevent pollution. The United States' northern neighbor also often sits at the end of the tailpipe. Over fifty percent of air pollution in the Province of Ontario—more than ninety percent in some municipalities—originates in the United States. Alarm bells thus went off north of the border when the U.S. Environmental Protection Agency announced a plan in 2006 to ease

^{1.} Alex Dobuzinskis, Cause of Mexican Sewage Spill Fouling U.S. Beaches Under Investigation, REUTERS (Mar. 4, 2017), https://in.reuters.com/article/us-usa-mexico-sewage/cause-of-mexican-sewage-spill-fouling-u-s-beaches-under-investigation-idINKBN16B02R.

^{2.} *Id*.

^{3.} Joshua Emerson Smith, California Sues Federal Government over Tijuana Sewage Spilling into San Diego, SAN DIEGO UNION-TRIB. (Sept. 4, 2018), https://www.sandiegouniontribune.com/news/sd-me-sewage-lawsuit-20180905-story.html; Joshua Emerson Smith, San Diego Joins South Bay Cities in Legal Fight Against Feds on Tijuana Sewage Spills, SAN DIEGO UNION-TRIB. (Oct. 4, 2017), https://www.sandiegouniontribune.com/news/environment/sd-me-san-diego-sewage-ibwc-20171004-story.html.

^{4.} News Release, Ont. Ministry Env't & Climate Change, Ontario Challenges U.S. to Protect Air Quality (Feb. 17, 2006), https://news.ontario.ca/archive/en/2006/02/17/Ontario-Challenges-US-To-Protect-Air-Quality.html.

emission controls for coal-burning power plants.⁵ In a rare move, Ontario and the City of Toronto filed comments in the U.S. regulatory process.⁶

As these examples suggest, we often look to governments to protect their residents from neighborhood pollution, and they have a variety of tools—political, economic, and legal—at their disposal to do so. If diplomacy fails, States also have a longstanding right under international law to seek protection, and reparations, for transboundary environmental harm from other States—a right first articulated in a U.S. proceeding against Canada over air pollution in the 1930s. But whether governments choose to exert pressure on their neighbors in a given case, whether that pressure is successful, and whether they ultimately decide to exercise their legal rights through inter-State dispute proceedings depends on a number of factors. Picking a fight with a foreign government is costly, and localized injuries to human health and the environment will often be dwarfed by the perceived need for bilateral cooperation on other issues, such as trade, defense, or border control. Tellingly, in the above examples, national governments, which are responsible for foreign relations, have lagged behind their subnational counterparts in taking action on behalf of their citizens.

But, in many cases, local governments will not act either. This shifts the onus on individual citizens to seek redress for the injury they suffered, which can be problematic, as individuals do not have a cognizable claim against the foreign State under general international law.⁸ But does this mean that individual victims would have no remedy?

Not necessarily. Affected individuals and communities in theory have two main avenues to seek redress for transboundary environmental harm. First, they could try holding their *home* State liable in the domestic legal system for failing to protect them from external sources of harm. This was the course of ac-

^{5.} *Id.* In 2005, air pollution cost Ontario nearly \$10 billion in damages, including \$6.6 billion in health costs. *Id.*

^{6.} *Id*.

^{7.} Trail Smelter (U.S. v. Can.), Award, 3 R.I.A.A. 1905 (1941). See infra Part IV.A.

^{8.} See generally Int'l Law Comm'n, Draft Articles on Diplomatic Protection with Commentaries, in Rep. on the Work of Its Fifty-Eighth Session, art. 1, at 24, cmt. \P 4, at 25, U.N. Doc. A/61/10 (2006) [hereinafter Draft Articles on Diplomatic Protection].

tion chosen by several U.S. municipalities, California, and an environmental organization following the Tijuana sewage spill.⁹ By forcing the home State (here, the U.S. federal government) to take responsibility for the domestic consequences of cross-border pollution, the ultimate aim of domestic litigation of this kind is to encourage more proactive management and coordination of transboundary issues at the international level.¹⁰

Second, affected individuals and communities could seek remedies under the domestic law of the *foreign* State in which the harm originates. Transboundary litigation by victims of pollution in national courts of the foreign State is an attractive workaround for the difficulties posed by inter-State litigation. ¹¹ In many cases, the harm can be traced back to the activities of private actors, and the domestic judicial system of the foreign State may offer redress. For this option to be viable, however, domestic and foreign victims would need to have equal access to seek relief on a nondiscriminatory basis. Since the 1970s, the so-called right of equal access has found growing support in international instruments. ¹² However, practical challenges abound.

^{9.} See supra note 3; see also Press Release, Cal. Dep't Justice, Attorney General Becerra and San Diego Water Board: We're Ready to File Suit over Public Health Threats Posed by Tijuana River Sewage (May 14, 2018), https://oag.ca.gov/news/press-releases/attorney-general-becerra-and-san-diego-water-board-we're-ready-file-suit-over.

^{10.} This Article does not analyze this option since the primary vehicle for redress is domestic litigation and any action by the home State on the international plane remains discretionary.

There are also other possible legal permutations, such as attempts to hold the foreign entity responsible for transboundary pollution to account in the courts of the State in which the harm is felt. However, this could raise concerns about the permissible scope of extraterritorial application of domestic law. In some circumstances, domestic courts can reach foreign defendants via the effects doctrine (where, even though the pollution originates abroad, the harm is experienced domestically). See, e.g., Pakootas v. Teck Cominco Metals, Ltd., 452 F.3d 1066, 1074, 1082 (9th Cir. 2006) (holding that the suit did not involve an extraterritorial application of a U.S. federal statute because pollution from a Canadian smelter had "come to be located" in the United States); cf. Pakootas v. Teck Cominco Metals, Ltd., 905 F.3d 565, 573 (9th Cir. 2018).

^{11.} See generally Alan Boyle, Human Rights and the Environment: Where Next?, 23 EUR. J. INT'L L. 613, 635 (2012).

^{12.} See, e.g., Organisation for Economic Co-operation and Development [OECD], Recommendation of the Council for the Implementation of a Regime of Equal Right of Access and Non-Discrimination in Relation to Transfrontier Pollution, OECD/LEGAL/0152 (May 17, 1977), https://legalinstruments.oecd.org/public/doc/17/17.en.pdf (setting forth principles concerning transfrontier pollution); Organisation for Economic Co-operation and Development [OECD], Rec-

Equal access is still illusory in many legal systems given the difficulties and expense of litigating claims in foreign courts. Even where equal access is recognized, causes of action and remedies available under the domestic law of the foreign State may be limited. Most crucially, if access to justice in the national courts of the State in which the harm originated is denied, would transnational claimants have any direct recourse or remedy against the State under *international law*?

This Article explores that question. In particular, it examines whether the State in which the harm originates has responsibilities under international human rights law (IHRL) toward residents of other States who are harmed by transboundary pollution—an issue that requires us to consider the *regime nexus*, or intersection, between two congruent international regimes: the human rights regime and the environmental regime. The regime nexus, as developed in this Article, denotes the area of factual or legal overlap between two legal regimes. We can encounter a *de jure* regime nexus where two bodies of law seek to regulate the same subject matter. We can also encounter regime nexus *de facto*—where one regime facilitates or impedes the objectives of another regime. This corresponds, respectively, to situations of regime congruence and regime conflict, as discussed further below.¹⁴

The fact that two regimes intersect, or even share a high degree of interdependence, does not mean that the underlying

ommendation of the Council on Equal Right of Access in Relation to Transfrontier Pollution, OECD/LEGAL/0140 (Nov. 5, 1976), https://legalinstruments.oecd.org/public/doc/13/13.en.pdf (recommending equal right of access to member States' legal systems); see also infra Part V.B.3.

^{13.} For example, foreign law may not provide for mass-tort claims, or it might limit recovery. This partly accounts for the rise of another type of transnational environmental litigation, where victims of *domestic* pollution seek remedies in the courts of the foreign State in which the private entity allegedly responsible for pollution is incorporated. *See*, *e.g.*, Lungowe v. Vedanta Res. Plc [2017] EWCA (Civ) 1528, [34]–[38] (appeal taken from EWHC (TCC)) (Eng.) (upholding jurisdiction over proceedings by Zambian claimants against U.K.-incorporated parent and its Zambian subsidiary in the U.K. courts arising out of alleged pollution and environmental damage caused by a copper mine in Zambia); Dooh v. Royal Dutch Shell Plc, 200.126.843-01, Judgment, ¶¶ 3.1–3.9, (Gerechtshof Den Haag [Hague Court of Appeal]) (Neth.) (Dec. 18, 2015), http://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:GHDHA:2015:3586 (permitting Nigerian claimants to sue a Dutch-headquartered defendant in Dutch courts for environmental damage caused by oil pipelines in Nigeria).

^{14.} See infra Part I.A.

rights and obligations are automatically transferable or coextensive, but it could affect the scope of State obligations under those regimes. In particular, this Article seeks to identify the potential extent of State responsibility for human rights violations in the light of international environmental law. Specifically, it considers whether, and to what extent, the obligations that international environmental law imposes on States vis-à-vis *each other* should shape the content of duties that States owe under human rights treaties to *individual rights-holders* beyond their jurisdiction.

There have been no contentious proceedings on this issue, 15 which also remains curiously under-analyzed in the literature. Human rights tribunals have recognized in the *domestic* setting that a healthy environment is a prerequisite for the protection of human rights, but have yet to do so in a transboundary context. Meanwhile, disputes involving transboundary environmental harm (even when it entails human rights violations) have been left to inter-State proceedings, which, as alluded to above, are "most remarkable by their paucity." 16 States have full discretion to espouse (or not) claims on behalf of their citizens, as in the now-abandoned proceedings by Ecuador against Colombia in the Aerial Herbicide Spraying case. 17 This means that, in some cases, international human rights law might offer the best, if not the only, protection to injured persons whose home State cannot, or chooses not to, espouse their claims. In the Americas, this proposition was tested in a recent advisory proceeding before the Inter-American Court of Human Rights (Inter-American Court or IACtHR)¹⁸—and found considerable support in the Court, as discussed further below. 19

^{15.} See, e.g., COUNCIL OF EUR., MANUAL ON HUMAN RIGHTS AND THE ENVIRONMENT 25 (2d ed. 2013) [hereinafter COE MANUAL] ("The Court has not decided on cases relating to environmental protection which raise extra-territorial and transboundary issues.").

^{16.} A.E. Boyle, Globalising Environmental Liability: The Interplay of National and International Law, 17 J. ENVIL. L. 3, 26 (2005).

^{17.} See Aerial Herbicide Spraying (Ecuador v. Colom.), INT'L CT. JUST., https://www.icj-cij.org/en/case/138 (last visited Mar. 27, 2019).

^{18.} See Request for Advisory Opinion by Colombia, Inter-Am. Ct. H.R. (Mar. 14, 2016), http://www.corteidh.or.cr/solicitudoc/solicitud_14_03_16_ing.pdf.

^{19.} Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity – Interpretation and Scope of Articles 4(1) and 5(1) of the American Convention on Human Rights), Advisory Opinion OC-

The urgency of crafting individual remedies for transboundary harm—and clarifying the scope of resulting State obligations—will only grow with the pace of technological and economic change and humanity's capacity to reshape their environment in the Anthropocene, 20 with irreversible impacts. Polluting media like air and water do not respect political boundaries. Aerial herbicide spraying, offshore drilling, damming of rivers, forest burning, freshwater exploitation, industrial activity, and geoengineering experiments can all teleport risks and impacts across national borders and impair the rights of people far beyond the area where the damaging activity originates. 21

By clarifying the nature of State obligations under human rights treaties when activities within a State's territory or control result in transboundary harm, this Article also makes several contributions to the literature. First, it helps delineate the scope of extraterritorial obligations in international law.²² The question of extraterritoriality under human rights law in the

23/17, Inter-Am. Ct. H.R. (ser. A) No. 23 (Nov. 15, 2017) [hereinafter Environment and Human Rights Advisory Opinion], http://www.corteidh.or.cr/docs/opiniones/seriea_23_esp.pdf (in Spanish). For a discussion, see Maria L. Banda, Inter-American Court of Human Rights' Advisory Opinion on the Environment and Human Rights, AM. Soc'y INT'L L.: INSIGHTS (May 10, 2018), https://www.asil.org/insights/volume/22/issue/6/inter-american-court-human-rights -advisory-opinion-environment-and-human. The Author acted as counsel in the proceedings; the views expressed here are entirely my own.

- 20. This term is used to describe the new era characterized by humanity's unprecedented power to reshape the natural world. *See generally* Richard Monastersky, *Anthropocene: The Human Age*, 519 NATURE 144 (2015).
- 21. Cf. Maria L. Banda, Climate Adaptation Law: Optimizing Legal Design for Multi-Level Public Goods, 51 VAND. J. TRANSNAT'L L. 1027 (2018) (arguing that climate adaptation requires a multi-level legal framework to address its local, transboundary, and global dimensions).
- 22. On extraterritorial obligations, see generally Extraterritorial Application of Human Rights Treaties (Fons Coomans & Menno T. Kamminga eds., 2004); Michal Gondek, The Reach of Human Rights in a Globalising World: Extraterritorial Application of Human Rights Treaties (2009); Universal Human Rights and Extraterritorial Obligations (Mark Gibney & Sigrun Skogly eds., 2010); Marko Milanovic, Extraterritorial Application of Human Rights Treaties: Law, Principles, and Policy (2011); Marten den Heljer, Europe and Extraterritorial Asylum (2012); Karen da Costa, The Extraterritorial Application of Selected Human Rights Treaties (2013); Global Justice, State Duties: The Extraterritorial Scope of Economic, Social, and Cultural Rights in International Law (Malcolm Langford et al. eds., 2013) [hereinafter Global Justice].

context of transboundary environmental harm is still largely unexamined,²³ and the circumstances that may give rise to extraterritorial obligations remain a subject of controversy.²⁴ Environmental dimensions are also rarely discussed in general academic treatments of human rights, 25 and there is an urgent need for further analysis and clarification by international institutions.²⁶ Second, this Article pushes the boundaries of how we think about the enforcement of international environmental law by showing that the human rights regime offers a viable procedural avenue for victims of environmental harm. Third, by developing the concept of a regime nexus and analyzing the scope of State obligations between two congruent legal regimes, this Article also contributes to the literature on the fragmentation of international law.²⁷ The whole complex of inter-regime relations is presently a "legal black hole." ²⁸ In particular, this Article shows that clarifying the points of regime intersection, or nexus, allows for a more coherent and unified conception of State re-

^{23.} See Boyle, supra note 11, at 637 (asking whether the (domestic) obligation to protect human rights from environmental nuisances also applies extraterritorially and noting a "failure of much of the literature to deal with this question in any depth (or even to ask it)"). But see John H. Knox, Diagonal Environmental Rights, in UNIVERSAL HUMAN RIGHTS AND EXTRATERRITORIAL OBLIGATIONS, supra note 22, at 82 (analyzing environmental rights held by individuals against States other than their own).

^{24.} DEN HEIJER, supra note 22, at 18.

^{25.} Boyle, supra note 11, at 614.

^{26.} In 2011, the U.N. Office of the High Commissioner for Human Rights (OHCHR) determined there is an open "question" of "the extent to which international environmental law principles can inform the application of human rights instruments." U.N. High Comm'r for Human Rights, Analytical Study on the Relationship Between Human Rights and the Environment, ¶ 70, U.N. Doc. A/HRC/19/34 (Dec. 16, 2011) [hereinafter OHCHR Report]. The report noted that "[t]he extraterritorial dimensions of the human rights and environment interface provide fertile ground for further inquiry, particularly in relation to transboundary and global environmental issues," as "[t]he linkage between human rights and the environment raises the question whether human rights law recognizes States' extraterritorial obligations." Id. ¶ 64. It invited the Human Rights Council to provide "further guidance . . . to inform options for further development of the law," especially "relating to the extraterritorial obligations of States" in the area of environmental protection. Id. ¶¶ 73, 80.

^{27.} See generally Int'l Law Comm'n, Report of the Study Group on the Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, 58th Sess., U.N. Doc. A/CN.4/L.682 (Apr. 13, 2006) [hereinafter ILC Fragmentation Report] (finalized by Martti Koskenniemi).

^{28.} Id. at 253.

sponsibility and advances systemic interpretation in international law.

As employed in this Article, the term *transboundary environmental harm* refers to the harm caused in the territory—or in other places under the jurisdiction or control—of a State other than the State of origin, whether or not the States concerned share a common border.²⁹ This definition also includes damage to the global commons or damage resulting from activities on the high seas under the jurisdiction or control of a State.³⁰

Transboundary environmental harm varies widely in scale and complexity. First, transboundary harm can be *localized* and affect two neighboring States in a limited border-area. The Tijuana sewage spill discussed above is an example of a localized transboundary problem where industrial activities in one State have adverse environmental, economic, or health impacts on its neighbor. Second, transboundary harm can be regional and affect a wider area involving two or more States. Dam construction along an international watershed like the Columbia River or the Mekong, diversion of waters from a shared body of water such as the Great Lakes or the Aral Sea, or radioactive fallout from the Chernobyl nuclear disaster are all regional harms. Finally, today a failure to control domestic activities can also generate *global* environmental harm due to intensifying economic activity, population pressures, and technological change. The depletion of the ozone layer, emission of greenhouse gases, and ocean pollution are all examples of global harms, affecting areas far beyond the national jurisdiction. As discussed below, the human rights regime—and general international law—are least able to deal with the third type of harm.

As the second point of clarification, this Article is not concerned with extraterritorial application of domestic law. The term *transboundary obligation*, as used here, refers to duties imposed on the State under customary or conventional international law for acts or omissions originating within its own territory, whether they are caused by State agents or private parties. It does not refer to any additional obligations a State might incur as a result of the conduct of its transnational companies or busi-

^{29.} *Cf.* Int'l Law Comm'n, Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, *in* Rep. on the Work of Its Fifty-Third Session, art. 2(c), U.N. Doc. A/56/10 (2001) [hereinafter Draft Articles on Prevention]. 30. *Cf. id.*

ness entities incorporated under its laws or present in its territory, when the latter are acting in the territory of *another State*.³¹ The State's duty to regulate the conduct of enterprises abroad (when they operate in the legal space of another sovereign) is distinct from its duty to regulate domestic conduct that may have extraterritorial effects and is beyond the scope of this analysis.

Finally, this Article looks most closely at the practice of the Inter-American human rights system, which takes on an outsized importance for the United States. The United States is not a party to a number of multilateral environmental treaty regimes (including soon the Paris Agreement), which, in any event, generally do not contemplate a mechanism for establishing liability. The United States has also not signed the First Optional Protocol to the International Covenant on Civil and Political Rights (ICCPR), which would permit individual Americans to submit claims to the U.N. Human Rights Committee (UNHRC) in Geneva,³² and it is not a party to the American Convention on Human Rights (American Convention).³³ The United States is, however, an original signatory to the American Declaration of the Rights and Duties of Man (American Declaration),³⁴ and the Inter-American Commission on Human Rights (IACHR) treats the rights set out in the American Declaration as legally binding on those States that have not ratified the American Convention.³⁵

^{31.} See OHCHR Report, supra note 26, ¶ 67; see also Hearing on the Impact of Canadian Mining Activities on Human Rights in Latin America During the 153rd Session, INTER-AM. COMMISSION ON HUM. RTS. (Oct. 28, 2014), http://www.oas.org/es/cidh/audiencias/TopicsList.aspx?Lang=en&Topic=17 (follow "Impact of Canadian Mining Activities on Human Rights in Latin America" hyperlink) (discussing Canada's polices affecting human rights abroad).

^{32.} For status, see UNITED NATIONS TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-5&chater=4&clang=_en (last visited Mar. 27, 2019); see also infra note 74.

^{33.} Organization of American States, American Convention on Human Rights, Nov. 22, 1969, 1144 U.N.T.S. 123 (entered into force July 18, 1978) [hereinafter American Convention]. The United States has also not accepted protocols permitting individual claims under other human rights treaties. See infra note 74.

^{34.} Ninth International Conference of American States, *American Declaration of the Rights and Duties of Man*, O.A.S. Res. XXX, OEA/Ser.L./V.II.23, doc. 21, rev. 6 (May 2, 1948) [hereinafter *American Declaration*], *reprinted in Basic Documents Pertaining to Human Rights in the Inter-American System*, OEA/Ser.L.V/II.82 doc.6 rev.1, at 17 (1992).

^{35.} This may be surprising since the American Declaration is not a treaty

This has two significant implications. First, applying the argument developed in this Article, the United States could potentially incur international responsibility under the American Declaration for a range of acts or omissions within its jurisdiction that have transboundary consequences. This might follow, for example, a failure to control cross-border pollution from offshore drilling platforms approved by U.S. agencies, damage from U.S. unregulated agricultural runoff in the Gulf of Mexico, or climate-caused harms that can be traced back to the United States. Second, American residents harmed by foreign pollution would equally be entitled to direct recourse against any neighboring countries that are parties to the American Declaration or the Convention and whose failure to control domestic pollution has violated their rights. The argument developed in this Article thus cuts both ways and could increase accountability through-

and arguably not a source of binding legal obligations. Instead, the Commission's powers in relation to this group of States (which in addition to the United States includes Canada, Venezuela, and eight Caribbean countries) are set out in Article 20 of the Statute of the Inter-American Commission on Human Rights. Organization of American States, Statute of the Inter-American Court of Human Rights, art. 20, Oct. 1979, https://www.oas.org/en/iachr/mandate/basics/statute-inter-american-court-human-rights.pdf.

The Commission first applied the Declaration to the U.S. in 1981 by virtue of the U.S. ratification in 1952 of the Charter of the Organization of American States (OAS), Apr. 30, 1948, 2 U.S.T. 2394, 119 U.N.T.S. 3, which recognizes the Commission's competence over human rights. See White v. United States, Case 2141, Inter-Am. Comm'n H.R., Resolution No. 23/81, OEA.Ser.L/V/II.54, doc. 9 rev. 1 ¶¶ 15–17 (1981). The Commission has maintained this interpretation in subsequent cases. See, e.g., Roach v. United States, Case 9647, Inter-Am. Comm'n H.R., Resolution No. 3/87, OEA/Ser.L/V/II.71, doc. 9 rev. 1 ¶¶ 46-49 (1987); see also Thomas Buergenthal, The Revised OAS Charter and the Protection of Human Rights, 69 AM. J. INT'L L. 828, 833-35 (1975). The United States has long disputed this view. See Response of the Government of the United States of America to Inter-American Commission on Human Rights Report 85/00 of October 23, 2000 Concerning Mariel Cubans (Case No. 9903), U.S. DEP'T ST., ¶ 2 (Nov. 2001), https://www.state.gov/documents/organization/16532.pdf; Inter-American Commission on Human Rights, 2015 DIGEST OF UNITED STATES PRACTICE IN INTERNATIONAL LAW, ch. 7, §E(1) at 294.

In contrast, the Inter-American Court is competent to hear claims only against States Parties to the American Convention—but in that case it can also examine claims arising under the Declaration. See Interpretation of the American Declaration of the Rights and Duties of Man Within the Framework of Article 64 of the American Convention on Human Rights, Advisory Opinion OC-10/89, Inter-Am. Ct. H.R. (ser. A) No. 10, ¶¶ 35–36, 42–47 (July 14, 1989).

out the Hemisphere. It could also increase access to environmental justice in other countries and regions that grant their citizens access to human rights courts.³⁶

The analysis proceeds in five steps. Part I describes the parallel and separate evolution of the international human rights and environmental regimes, their logic, and their structural design. Focusing on international human rights courts, Part II examines the increasing recognition of the regime nexus. The nexus in the domestic context is clear and well-established; the question is whether human rights treaties give courts a basis to address transboundary (i.e., extraterritorial) issues. Part III thus examines existing jurisprudence on the extraterritorial scope of State obligations under human rights treaties to distill a doctrinal basis for their application to transboundary environmental harm. Part IV analyzes the content of the general duty to prevent transboundary harm under customary and international environmental law. Building on the foregoing, Part V argues that the nature of the obligation under human rights treaties in cases involving transboundary environmental harm must be read in the light of international environmental law. It also considers several implementation challenges arising from the argument presented in this Article.

36. There is a substantial flow of norms and interpretive principles between human rights tribunals, such as the European Court of Human Rights (ECtHR), and U.N. treaty-bodies (such as the U.N. Human Rights Committee). See Caesar v. Trinidad & Tobago, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 123, ¶¶ 6–12 (Mar. 11, 2005) (Cançado Trindade, J., separate opinion) (discussing "converging case-law"); Rosalyn Higgins, A Babel of Judicial Voices? Ruminations from the Bench, 55 INT'L & COMP. L.Q. 791, 798 (2006) (noting that human rights courts "work consciously to coordinate their approaches"); cf. Eduardo Ferrer Mac-Gregor, What Do We Mean When We Talk About Judicial Dialogue: Reflections of a Judge of the Inter-American Court of Human Rights, 30 HARV. HUM. RTS. J. 89 (2017).

Where relevant, the jurisprudence of those institutions is also considered in this Article. This jurisprudence necessarily focuses on civil and political rights, though economic, social, and cultural rights are obviously implicated by environmental degradation. See, e.g., Comm. on Econ., Soc., & Cultural Rights, Gen. Comment No. 14: The Right to the Highest Attainable Standard of Health, ¶ 34, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000) ("States should also refrain from unlawfully polluting air, water and soil, e.g. through industrial waste from State-owned facilities, from using or testing nuclear, biological or chemical weapons if such testing results in the release of substances harmful to human health").

I. PARALLEL REGIME EMERGENCE: THE LOGIC AND STRUCTURE OF INTERNATIONAL ENVIRONMENTAL AND HUMAN RIGHTS LAW

International environmental law and international human rights law have each made great strides since 1945, developing into thick normative regimes with binding legal rules, rulemaking processes, and enforcement procedures. For much of their history, this evolution proceeded along two separate tracks. Despite the recognition of their potential congruence beginning in the early 1970s,³⁷ these two bodies of law largely remained distinct and isolated from one another: international environmental law spoke to transboundary obligations sovereign States owed each other; international human rights law spoke to obligations sovereign States owed their own subjects. The former was grounded in reciprocity; the latter in unidirectional notions of sovereign responsibility or social contract. The former emerged through a mixture of customary norms and multilateral treaty making; the latter largely developed as a creature of treaty law. This Part reviews the phenomenon of fragmentation of international law (Part I.A), the parallel emergence of these two congruent regimes (Parts I.B-I.C), and their different logics and structure (Part I.D) before turning to their points of intersection in Part III.

A. REGIME INTERACTION IN INTERNATIONAL LAW

The phenomenon of fragmentation of international law into "specialized and (relatively) autonomous rules or rule-complexes, legal institutions and spheres of legal practice" that have no clear relationship to each other—such as trade law, environmental law, space law, or investment law—is well-established. 38 A 1971 Report identified seventeen such "topics" or "branches" of international law. 39 Since then, the web of international law and inter-branch relationships has only thickened. I refer to

^{37.} See infra Part II.A.

^{38.} *ILC Fragmentation Report, supra* note 27, \P 8; *cf.* C. Wilfred Jenks, *The Conflict of Law-Making Treaties*, 1953 BRIT. Y.B. INT'L L. 401, 403–05 (attributing conflict to development of treaties "in a number of historical, functional and regional groups which are separate from each other," as an "inevitable incident of growth" of international law).

^{39.} See Int'l Law Comm'n, Review of the Commission's Long-Term Programme of Work: Survey of International Law, U.N. Doc. A/CN.4/245 (Working Paper, Apr. 23, 1971) [hereinafter ILC 1971 Survey].

these specialized legal systems, which comprise their own sets of rules, principles, institutions, treaties, procedures, decision-making bodies, and standards, simply as *regimes*.⁴⁰

International law may be fragmented, but different regimes do not exist in hermetic isolation. They operate against a background of general international law, custom, and secondary principles (such as those on State responsibility).⁴¹ They also frequently interact or overlap.⁴² When they do so, their interaction can be characterized by *conflict* or *congruence*.

Much of international law literature in this area is concerned with *conflict*. The risk of conflict (or incoherence) among different emerging legal regimes was a key reason why the International Law Commission (ILC) embarked on a study of fragmentation. ⁴³ Conflict is endemic at the intersection between international trade and environmental law, for example. ⁴⁴ Compliance with environmental norms can act as a restraint on trade, while compliance with trade rules can make it difficult for a government to promulgate environmental legislation. ⁴⁵ Similarly, the regimes on the use of force and the environment can

^{40.} See generally Stephen D. Krasner, Structural Causes and Regime Consequences: Regimes as Intervening Variables, 36 INT'L ORG. 185 (1982) (defining international regimes as "principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area").

^{41.} ARNOLD D. MCNAIR, THE LAW OF TREATIES 466 (1961) ("Treaties must be applied and interpreted against the background of the general principles of international law.").

^{42.} See, e.g., Southern Bluefin Tuna (Austl. & N.Z. v. Japan), Award on Jurisdiction & Admissibility, 23 R.I.A.A. 1, ¶ 52 (UNCLOS Arb. Trib. 2000) ("[I]t is a commonplace of international law and State practice for more than one treaty to bear upon a particular dispute."); see also G.G. Fitzmaurice (Special Rapporteur of the Int'l Law Comm'n), Third Rep. on Law of Treaties, ¶ 89(b), U.N. Doc. A/CN.4/115 (Mar. 18, 1958) [hereinafter Fitzmaurice Report] (describing treaty "chains" addressing the same problem).

^{43.} *ILC Fragmentation Report*, *supra* note 27, ¶ 15 (noting that "the emergence of new and special types of law, 'self-contained regimes' and geographically or functionally limited treaty-systems" creates "problems of coherence in international law").

^{45.} See, e.g., Appellate Body Report, EC Measures Concerning Meat and Meat Products (Hormones), ¶¶ 123–125, WTO Docs. WT/DS26/AB/R, WT/DS48/AB/R (adopted Jan. 16, 1998) (Beef Hormones Case) (noting that whatever the status of the precautionary principle may be under "international environmental law," and even if it may have "crystallized into a general principle of customary international environmental law," it is not binding for the WTO).

also collide, as compliance with environmental norms can limit the right to self-defense, for example, by constraining the use of nuclear weapons.⁴⁶

In such cases, the key question is how to reconcile, balance, or give priority to competing or seemingly incompatible legal principles.⁴⁷ The horizontal nature of international law, in which rules and principles belonging to different regimes are not hierarchically arranged, makes this determination difficult. As the ILC Study Group concluded, "normative conflict is endemic to international law," as different regimes are "institutionally programmed" to prioritize particular concerns over others.⁴⁸ The answer will often depend on the point of view or the home regime of the interpreter making the determination.⁴⁹

This Article, however, is more interested in the interaction of *congruent* regimes. As defined in this Article, regimes are congruent (read: mutually supportive or interdependent) when compliance with one regime generally supports the other in practice. Here, the question is not so much how to superimpose a hierarchy on regimes of equal legal status, or how to derive a principle of reconciliation; rather, it is how far we can import principles from one congruent regime to interpret and clarify the scope of State obligations in another. This contrast between conflicting and congruent regimes can be seen in Figure 1 below:

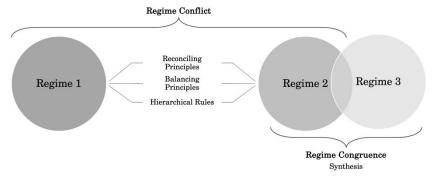
^{46.} Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226, ¶¶ 30–33 (July 8). For a study of the interaction between the IEL regime and international humanitarian law (and how the two could be reconciled), see Dinah Shelton & Isabelle Cutting, If You Break It, Do You Own It? Legal Consequences of Environmental Harm from Military Activities, 6 J. INT'L HUMANITARIAN LEGAL STUD. 201 (2015) (examining whether IEL obligations apply to military activities and whether States have a duty to prevent or mitigate environmental harm caused by their military activities and compensate for any such damage).

^{47.} See, e.g., Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgment, 1997 I.C.J. Rep. 7, 90 (Sept. 25) (separate opinion by Vice-President Weeramantry) (discussing a "principle of reconciliation" that can avert "normative anarchy" and prevent "collision" among inconsistent legal rules).

^{48.} *ILC Fragmentation Report*, supra note 27, $\P\P$ 486, 488.

^{49.} Cf. id. ¶ 52.

Figure 1. Regime Conflict and Regime Congruence



The relationship between environmental and human rights regimes is largely one of congruence: compliance with one regime *de facto* strengthens the rights protected by the other.⁵⁰ This is not to say that human rights and environmental protection never come in conflict. Controversies over private property rights, as well as whaling, seal trade, or climate mitigation projects—which often implicate indigenous or traditional cultural rights—demonstrate that the two regimes can be in tension. In general, however, the relationship between the two regimes is one of mutual support.

In some cases, treaty drafters anticipate factual overlap and include specific instructions on how principles from different regimes are to be integrated. For example, the 1988 Narcotics Convention provides that measures to eradicate plants containing narcotic substances "shall respect fundamental human rights and shall take due account of traditional licit uses, where there is historic evidence of such use, as well as the protection of the environment." Similarly, the 1992 International Sugar Agreement commits its members to "give due consideration to environmental aspects in all stages of sugar production" and "ensure that fair labour standards are maintained." In both of these

^{50.} For instance, in *Aerial Herbicide Spraying*, Ecuador argued that Colombia's use of toxic herbicides along its border violated Colombia's obligations "in three distinct but interrelated areas of international law: the protection of the environment[,] . . . the protection of fundamental human rights, and the protection of indigenous peoples." Memorial of Ecuador, Aerial Herbicide Spraying (Ecuador v. Colom.), 2009 I.C.J. Pleadings 322, ¶ 9.1 (Apr. 28).

^{51.} United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances art. 14(2), Dec. 20, 1988, 1582 U.N.T.S. 95.

^{52.} International Sugar Agreement arts. 29-30, Mar. 20, 1992, 1703

examples, one regime (the narcotics regime or the sugar regime) directly imports and gives priority to norms from two other regimes (i.e., human rights and environmental law).

However, in numerous other cases, including the one at issue here, the *factual relationship* (or interdependence) between the regimes is not expressly recognized in the treaty, and courts will need to resort to other interpretive principles. How they go about doing that is discussed further below.⁵³

B. THE INTERNATIONAL ENVIRONMENTAL LAW REGIME

The international environmental law (IEL) regime emerged out of the *functional imperative* to address transboundary problems relating to the environment and natural resource use. Air and water pollution, depletion of shared rivers, and conservation of migratory species do not respect political boundaries and do not lend themselves to domestic solutions. Some of the earliest bilateral and multilateral treaties relating to the environment, such as the 1866 Treaties of Bayonne between France and Spain,⁵⁴ the 1882 North Sea Fisheries Convention, or the 1909 International Boundary Waters Treaty between Canada and the United States,⁵⁵ sought to regulate these types of concerns and prevent resource waste or conflict. Indeed, "[m]uch of international environmental law has been formulated by reference to the impact that activities in one territory may have on the territory of another." ⁵⁶

The law did not originally focus on protecting the environment as such. The operating logic behind these instruments was to prevent negative externalities, overcome coordination problems, and discourage free-riding—a self-interested attempt to maintain an orderly neighborhood. In 1949, for example, when the ILC began its work on codifying international law, it proposed addressing the issue of transboundary pollution and resource use as part of "obligations of territorial jurisdiction." ⁵⁷

U.N.T.S. 203.

^{53.} See infra Part V.A.

^{54.} Traité de délimitation de la frontière entre l'Espagne et la France depuis le val d'Andorre jusqu'à la Méditerranée [Treaty on Boundaries Between Spain and France from the Valley of Andorra to the Mediterranean], Fr.-Spain, May 26, 1866, 1982 U.N.T.S. 305.

^{55.} Boundary Waters Treaty, Gr. Brit.-U.S., Jan. 11, 1909, 36 Stat. 2448.

^{56.} Iron Rhine ("Ijzeren Rijn") Ry. (Belg. v. Neth.), 27 R.I.A.A. 35, ¶ 222 (Perm. Ct. Arb. 2005).

^{57.} Int'l Law Comm'n, Survey of International Law, at 34-35, 61, U.N. Doc.

These early arrangements thus reflected the underlying understanding—which still animates the entire IEL regime—that States' domestic activities can have negative transboundary consequences that cannot be managed without inter-State coordination. They also reflected the understanding that the right to territorial sovereignty comes with the responsibility to prevent transboundary environmental harm.⁵⁸

Starting in the 1960s, the growing recognition that human activity, population growth, and technological change could have significant and potentially irreversible impacts on the environment—from deforestation and fisheries collapse to risks involving chemical waste and the loss of biodiversity—spurred the development of modern environmental law. In 1971, a survey of the law relating to the environment could still fit on just over one page, but it was apparent that this area was destined for growth.⁵⁹ As predicted, multilateral environmental agreements (MEAs) proliferated after the signing of the watershed 1972 Stockholm Declaration.⁶⁰ Today, over 1,300 MEAs and over 2,200 bilateral environmental agreements cover specific sectors (e.g., wetlands), resources (e.g., fisheries), regions (e.g., Antarctica), and pollutants (e.g., ozone-depleting substances).⁶¹

The dense network of environmental treaties, sometimes described as "treaty congestion," ⁶² grew in the shadow of customary law, such as the duty to prevent transboundary harm, discussed in more detail below, ⁶³ and, increasingly, of concepts like the

A/CN.4/1/Rev.1 (1949) [hereinafter ILC 1949 Survey]. The ILC proposed dealing with exploitation of marine "products" under the "regime of the High Seas." $See\ id.$ at 40.

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^{58.} See infra Part IV.C.

^{59.} See ILC 1971 Survey, supra note 39, ¶¶ 335–336 (projecting growth of this body of law over "the next ten to twenty years" owing to "the growth in industrial production, the rising volume of potential harmful agents transported (for instance oil), the accompanying rise in consumption and the steadily increasing figure of world population," such that "greater attention will have to be paid in future to the problems of preserving, or conserving, the environment, so as to enable it to continue to support large numbers of people").

^{60.} U.N. Conference on the Human Environment, *Declaration of the United Nations Conference on the Human Environment*, U.N. Doc. A/CONF.48/14/Rev.1 (June 16, 1972) [hereinafter *Stockholm Declaration*].

^{61.} See IEA Database Home, INT'L ENVIL. AGREEMENTS (IEA) DATABASE PROJECT, https://iea.uoregon.edu (last visited Mar. 27, 2019).

^{62.} Edith Brown Weiss, International Environmental Law: Contemporary Issues and the Emergence of a New World Order, 81 GEO. L.J. 675, 697–702 (1993).

^{63.} See infra Part IV.A.

common heritage of mankind, the precautionary principle, and duties owed to future generations. Over time, the logic of environmental law thus shifted from managing orderly neighborly relations and resource use (which furthered State interests without necessarily being accompanied by environmental consciousness) to environmental stewardship grounded in the duty of prevention and environmental risk-management.⁶⁴

By comparison, the basic structure of the *legal obligation* changed little from the earliest treaties to the modern MEAs. Even though environmental treaties ultimately benefit the domestic and the global public and the international community as a whole, they generally set out a web of *reciprocal duties* that States primarily owe and hold against each other. ⁶⁵ Compliance, enforcement, and monitoring mechanisms are predominantly *horizontal*. As with general international law, only States can bring complaints for noncompliance, as MEAs do not generally confer this right on private parties. ⁶⁶

Moreover, individual MEAs by and large do not have a dedicated adjudicative body to interpret and clarify the content of State obligations. They rely on *ad hoc* adjudication or arbitration, often by institutions which are set up under adjacent regimes (such as the International Tribunal for the Law of the Sea (ITLOS)) or distant regimes (such as the World Trade Organization bodies). The preferred means of compliance under MEAs, however, has been through a "managerial"⁶⁷ treaty-based peerreview and monitoring process (non-compliance mechanisms),

 $^{64.\ \} See\ generally\ Patricia Birnie et al., International Law and the Environment 39, 212 (3d ed. 2009).$

^{65.} In the literature, MEAs are often described as giving rise to "non-reciprocal," "absolute," "integral" or "interdependent" obligations. See, e.g., Int'l Law Comm'n, Draft Articles on Responsibility of States for Internationally Wrongful Acts, in Rep. on the Work of Its Fifty-Third Session, at 95, ¶ 2, U.N. Doc. A/56/10 (2001) [hereinafter Draft Articles on State Responsibility]; see also id. at 117–18. (breach of an "integral" obligation necessarily affects all parties).

As understood in this Article, "reciprocity" underlies environmental treaties to the extent that States parties are the sole rights-holders, duty-bearers, and treaty enforcers, and obligations are ultimately due to other States (even though the treaty's purpose and operation may further community interests). This does not turn MEAs into bilateral pairs.

^{66.} There are a handful of exceptions, but they are not always effective. See, e.g., Knox, supra note 23 (discussing individuals' access to compliance bodies under NAFTA, Aarhus, and Espoo Conventions).

^{67.} ABRAM CHAYES & ANTONIA HANDLER CHAYES, THE NEW SOVEREIGNTY: COMPLIANCE WITH INTERNATIONAL REGULATORY AGREEMENTS 230 (1995).

which is less interested in establishing State responsibility (and liability) for treaty violations and more focused on finding ways to make the treaty regime more effective. ⁶⁸ Sidestepping the difficult issues of State responsibility and liability helped the environmental regime grow. ⁶⁹ The downside is that the regime today offers few viable options to deal with non-compliant States or to obtain individual remedies.

C. THE INTERNATIONAL HUMAN RIGHTS REGIME

If international environmental law emerged largely as a corrective to the problem of cross-border externalities and coordination, international human rights law emerged as a corrective to the problem of the State's abuses at home—a moral, rather than a functional, imperative. Human rights treaties after World War II did not evolve primarily to manage free riders or prevent a tragedy of the commons. They evolved to ensure that States would treat their own people with the "minimum standard of civilization." This goal, one of the pillars of the U.N. Charter, 2 led to the creation of the Commission on Human Rights in 1946.

^{68.} See generally DANIEL BODANSKY, THE ART AND CRAFT OF INTERNATIONAL ENVIRONMENTAL LAW 269 (2010) (contrasting international environmental regimes' "own sui generis arrangements" with the traditional model of invoking State responsibility).

^{69.} See Jutta Brunnée, Of Sense and Sensibility: Reflections on International Liability Regimes as Tools for Environmental Protection, 53 INT'L & COMP. L.Q. 351, 359 (2004) (explaining that the emphasis shifted away from articulating rules on State conduct/responsibility to developing treaty-based approaches for the management of individual environmental concerns (e.g., ozone) and civil liability regimes for specific issues (e.g., oil pollution)); see also Boyle, supra note 16, at 4.

^{70.} However, they were seen as exerting a stabilizing influence on international relations. See U.N. Charter pmbl., art. 55, \P 1; G.A. Res. 217 (III) A, Universal Declaration of Human Rights, at 71 (Dec. 10, 1948) [hereinafter UDHR] ("[D]isregard and contempt for human rights have resulted in barbarous acts.").

^{71.} ILC 1949 Survey, supra note 57, at 47, \P 82.

^{72.} U.N. Charter pmbl. (expressing determination "to reaffirm faith in fundamental human rights"); id. art. 1, ¶ 3 (listing "international cooperation in . . . promoting and encouraging respect for human rights and for fundamental freedoms for all" among its purposes).

^{73.} The U.N. Secretary-General prepared two studies on U.N. activities in this sphere for the 1968 International Conference on Human Rights. See Measures Taken Within the United Nations in the Field of Human Rights, U.N. Doc. A/CONF.32/5 (June 20, 1967); Methods Used by the United Nations in the Field of Human Rights, U.N. Doc. A/CONF.32/6 (June 20, 1967); see also Human Rights: A Compilation of International Instruments of the United Nations, U.N. Doc. A/CONF.32/4 (1967).

and the adoption of the Universal Declaration in 1948, followed by the Covenants in 1966.⁷⁴ It also spurred the adoption of various other international and regional human rights instruments. For a regime that scarcely existed in 1949, human rights quickly became a distinct and rapidly growing branch of international law.

Human rights treaties, like environmental treaties, are multilateral instruments negotiated among sovereign States. They are, however, distinct from multilateral treaties that give rise to a network of *reciprocal* duties among the contracting States. The legal commitments States undertake under human rights treaties are essentially *unilateral*. In other words, they should not depend on the observance of the rights and duties by other States. As the Inter-American Court explained,

modern human rights treaties in general, and the American Convention in particular, are not multilateral treaties of the traditional type concluded to accomplish the reciprocal exchange of rights for the mutual benefit of the contracting States. Their object and purpose is the protection of the basic rights of individual human beings irrespective of their nationality, both against the State of their nationality and all other contracting States. In concluding these human rights treaties, the States can be deemed to submit themselves to a legal order within which they, for the common good, assume various obligations, not in relation to other States, but towards all individuals within their jurisdiction. To

74. See International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171 (entered into force Mar. 23, 1976) [hereinafter ICCPR]; International Covenant on Economic, Social and Cultural Rights, Dec. 16, 1966, 993 U.N.T.S. 3 (entered into force Jan. 3, 1976) [hereinafter ICESCR]. The United States signed both Covenants in 1977 and ratified the ICCPR in 1992; it has not yet ratified the ICESCR. See Curtis A. Bradley, Unratified Treaties, Domestic Politics, and the U.S. Constitution, 48 HARV. INT'L L.J. 307, 309–310 (2007); see also International Covenant on Civil and Political Rights, UNITED NATIONS TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?chapter=4&clang=_en&mtdsg_no=IV-4&src=IND (last visited Mar. 27, 2019).

75. The Effect of Reservations on the Entry into Force of the American Convention on Human Rights (Arts. 74 and 75), Advisory Opinion OC-2/82, Inter-Am. Ct. H.R. (ser. A) No. 2, ¶ 29 (Sept. 24, 1982) [hereinafter Reservations Advisory Opinion]; see also id. ¶ 27 ("[T]he object and purpose of the [American] Convention is not the exchange of reciprocal rights between a limited number of States, but the protection of the human rights of all individual human beings within the Americas, irrespective of their nationality.").

This is consistent with the interpretation adopted by other bodies. See Reservations to the Convention on the Prevention and Punishment of the Crime of Genocide, Advisory Opinion, 1951 I.C.J. 15, 23 (May 28); Austria v. Italy, App. No. 788/60 (Eur. Comm'n H.R. Jan. 11, 1961), http://hudoc.echr.coe.int/eng?i=001-115598; Ireland v. United Kingdom, App. No. 5310/71, ¶ 239 (Eur. Ct. H.R.

The Court noted that "the Convention must be seen for what in reality it is; a multilateral legal instrument or framework enabling States to make binding unilateral commitments not to violate the human rights of individuals within their jurisdiction." The notion of "jurisdiction" is critical here in that it limits the scope of State responsibility and the treaty's spatial application—a concept I explore in more detail below. The Inter-American Court thus concluded that States Parties can "readily implement" their commitments to individuals "without the intervention of any other State." Indeed, in human rights law, it is widely assumed that "noncompliance by other nations has little effect on a nation's ability to comply."

However, as this Article shows, that assumption does not hold up in practice. A State's *unilateral* commitments will likely fail to protect individuals in its jurisdiction from transboundary pollution. Such cases, by definition, require the cooperation and commitment of other States—this is the *raison d'être* of international environmental law but is still underappreciated in human rights law. Still, the basic point holds: in contrast to the vast majority of other multilateral instruments, human rights treaties

Jan. 18, 1978), http://hudoc.echr.coe.int/eng?i=001-57506; U.N. Human Rights Comm., General Comment No. 24: Issues Relating to Reservations Made upon Ratification or Accession to the Covenant or the Optional Protocols Thereto, or in Relation to Declarations Under Article 41 of the Covenant, ¶ 17, U.N. Doc. CCPR/C/21/Rev.1/Add.6 (Nov. 11, 1994) ("[Human rights] treaties . . . are not a web of inter-State exchanges of mutual obligations. They concern the endowment of individuals with rights[,] . . . [such that] [t]he principle of inter-State reciprocity has no place").

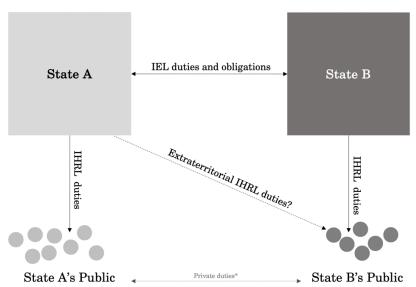
- 76. Reservations Advisory Opinion, *supra* note 75, ¶ 33 (emphasis added).
- 77. See infra Part III.
- 78. Reservations Advisory Opinion, *supra* note 75, ¶ 32 (emphasis added).

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^{79.} Bradley, supra note 74, at 332 (emphasis added). The State's ability to comply as a factual matter when other States are not in compliance with a human rights treaty is distinct from its legal right to retaliate or impose countermeasures under international law. See, e.g., Vienna Convention on the Law of Treaties art. 60(5), May 23, 1969, 1155 U.N.T.S. 331 (entered into force Jan. 27, 1980) [hereinafter VCLT] (exempting "treaties of a humanitarian character" from the provisions governing termination or suspension of treaty as a result of a material breach by the other party). Cf. Draft Articles on State Responsibility, supra note 65, at 129, \P 5 (explaining that reciprocal countermeasures for obligations concerning human rights are "inconceivable" as "[t]he obligations in question have a non-reciprocal character and are not only due to other States but to the individuals themselves"); $Fitzmaurice\ Report,\ supra\ note\ 42, \P$ 91.

set out essentially non-reciprocal, vertical duties of States to individuals subject to their "jurisdiction." The nature of contrasting legal obligations in international environmental law and international human rights law and their potential intersection is presented schematically in Figure 2 below:

Figure 2. The Nature of State Obligations Under IEL and IHRL



*Private persons can also have obligations to other private persons across the border, as shown with the dotted line. Those kinds of obligations can become the subject of transnational civil litigation, discussed in the Introduction. *See* text accompanying notes 11–13.

Since individuals are the rights-holders under human rights treaties, in some cases State duties will be enforceable through a complaints mechanism that confers the right to file claims directly on *individuals*, and not merely on other States (as is customary under most multilateral instruments). For example, the American Convention, signed in 1969 under the aegis of the OAS, created a right of individual petition to the Inter-American

^{80.} See also Knox, supra note 23, at 83 (describing rights that are held by individuals against a State other than their own as "diagonal").

Commission without requiring a special declaration of acceptance by States Parties—which was unprecedented at the time.⁸¹

A number of human rights treaties also provide for an inter-State complaints process when the rights of one State's nationals are injured by another State. This procedure was not strictly needed since an injury to a State's nationals would already support a complaint based on customary international law of diplomatic protection (independent of any human rights treaty framework). The fact that this provision was expressly included—essentially as a form of peer-to-peer policing—speaks to the importance that States attached to universal compliance with human rights within their region. This right, however, is infrequently exercised. At the end of the day, States prefer not to embarrass their sovereign peers, or create precedents that could be held against them in the future. This heightens the importance of the individual petition process for the enforcement of international human rights law.

D. SUMMARY

The essential structural features and the logic of the international human rights and environmental regimes discussed above are summarized schematically in Table 1 below:

^{81.} ILC 1971 Survey, *supra* note 39, ¶ 394.

^{82.} See Dinah Shelton, Remedies and Reparation, in GLOBAL JUSTICE, supra note 22. at 374.

^{83.} For exceptions, see, e.g., Nicaragua v. Costa Rica, Interstate Case 01/8, Inter-Am. Ct. H.R. (ser. C) No. 11/97 (Mar. 8, 2007); see also Democratic Republic of the Congo v. Burundi, Communication No. 227/99, African Commission on Human and People's Rights [Afr. Comm'n H.P.R.], 33rd Sess. (May 29, 2003); Georgia v. Russia (II), App. No. 38263/08 (Eur. Ct. H.R. Dec. 13, 2011), http://hudoc.echr.coe.int/eng?i=001-108097.

ECtHR decisions are available on its official website. See HUDOC, https://hudoc.echr.coe.int (last visited Mar. 27, 2019). Other human rights decisions can be found at Human Rights Library, U. MINN., http://hrlibrary.umn.edu (last visited Mar. 27, 2019).

Table 1. Structural Features and Logic of IHRL and IEL: A Comparison

A Comparison						
	Traditional IHRL	Traditional IEL				
Duty-Bearer	State	State				
Rights-Holder	Individual (or group)	Other State(s)				
Beneficiary	Individual (or group)	Other States; international community as a whole				
Relationship Between Duty-Bearer and Rights-Holder	Vertical	Horizontal				
Nature of the Commitment	Primarily unilateral	Primarily reciprocal				
Spatial Application	Essentially territorial	Transnational				
Logic	Morality	Functionalism (self-interest); environ- mental consciousness				
Compliance Paradigm	Supervisory; adjudicative	Managerial				
Underlying Concerns	State repression	Environmental externalities; global public goods				

Given these significant structural differences and the distinct logics through which these two regimes have developed, one could argue that international environmental and human rights law exist on two different planes. However, these regimes have increasingly come into contact over the past few decades thanks to the growing awareness of the impacts of environmental degradation. The seemingly different planes on which these regimes exist have merged in the Anthropocene. These growing points of intersection and convergence—the regime nexus—are the subject of the next section.

II. THE REGIME NEXUS

Despite their parallel evolution along two separate tracks, the human rights and the environmental regimes intersect in a number of important ways. Decades of environmental degradation have imperiled the lives and livelihoods of numerous people and communities, such that a healthy environment is increasingly seen as a prerequisite for the fulfilment of human rights. This Part provides an overview of the growing recognition of the nexus in international law (Part II.A), focusing on the jurisprudence of international human rights tribunals (Part II.B).

A. REGIME NEXUS IN INTERNATIONAL INSTRUMENTS

The importance of environmental protection to human rights is now increasingly acknowledged in national constitutions and in international instruments, including resolutions of the U.N. General Assembly⁸⁴ and the Human Rights Council (HRC),⁸⁵ the 2015 Paris Agreement on Climate Change,⁸⁶ as well as in a growing number of decisions of international human

^{84.} See, e.g., Stockholm Declaration, supra note 60, princ. 1; G.A. Res. 37/7, World Charter for Nature (Oct. 28, 1982) [hereinafter World Charter for Nature]; G.A. Res. 45/94, Need to Ensure a Healthy Environment for the Wellbeing of Individuals (Dec. 14, 1990); U.N. Conference on Environment and Development, Rio Declaration on Environment and Development, princ. 1, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. 1) (Aug. 12, 1992) [hereinafter Rio Declaration].

^{85.} Both the HRC and its predecessor, the U.N. Commission on Human Rights (CHR), have considered this issue. As early as 1994, a U.N. report concluded that environmental rights already formed part of human rights law and recommended adoption of principles on human rights and the environment. See Fatma Zohra Ksentini (Special Rapporteur on Human Rights and the Environment), Human Rights and the Environment, U.N. Doc. E/CN.4/Sub.2/1994/9 (July 6, 1994). No action was taken on the principles, but the CHR remained engaged on the issue.

Since its creation in 2006, the HRC has also enacted a number of nexus-related resolutions, including on climate change. *See, e.g.*, Human Rights Council Res. 16/11, pmbl., U.N. Doc. A/HRC/RES/16/11 (Apr. 12, 2011) ("[M]any forms of environmental damage are transnational in character and . . . effective international cooperation to address such damage is important in order to support national efforts for the realization of human rights."). The HRC appointed an independent expert in 2012. Human Rights Council Res. 19/10, U.N. Doc. A/HRC/19/L.8/Rev.1, at 2 (Mar. 20, 2012).

^{86.} U.N. Framework Convention on Climate Change Conference of the Parties, Twenty-First Session, *Adoption of the Paris Agreement*, pmbl., U.N. Doc. FCCC/CP/2015/10/Add.1 (Jan. 29, 2016).

rights tribunals.⁸⁷ However, as noted above, the legal implications of this nexus have yet to be theorized in the literature and explored in international practice.

While this Article focuses on the uptake of environmental norms by the human rights regime, the normative flow between the two regimes is not unidirectional. Human rights norms have also been seeping into the design and structure of international environmental agreements. Many environmental instruments, for example, expressly list the protection of public health⁸⁸ and responsibilities owed to future generations⁸⁹ among their objectives. Moreover, international environmental law increasingly relies on procedural duties relating to access to information, public participation, and remedies—duties that are central to the human rights regime—for enforcement and compliance.⁹⁰

^{87.} See generally OHCHR Report, supra note 26; see also Office of the High Comm'r for Human Rights, The Relationship Between Climate Change and Human Rights, ¶ 18, U.N. Doc. A/HRC/10/61 (Jan. 15, 2009) ("While the universal human rights treaties do not refer to a specific right to a safe and healthy environment, the [U.N.] human rights treaty bodies all recognize the intrinsic link between the environment and the realization of a range of human rights, such as the right to life, to health, to food, to water, and to housing."). For scholarly treatments of the nexus, see, e.g., DONALD K. ANTON & DINAH L. SHELTON, ENVIRONMENTAL PROTECTION AND HUMAN RIGHTS (2011); HUMAN RIGHTS APPROACHES TO ENVIRONMENTAL PROTECTION (Alan E. Boyle & Michael R. Anderson eds., 1996); Alan Boyle, Human Rights or Environmental Rights? A Reassessment, 18 FORDHAM ENVIL. L. REV. 471 (2007); Dinah Shelton, Human Rights, Environmental Rights and the Right to Environment, 28 STANF. J. INT'L. L. 103 (1991).

^{88.} See, e.g., Minamata Convention on Mercury, pmbl., art. 1, Oct. 10, 2013, 55 I.L.M 586; 1999 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone pmbl., art. 2, Nov. 30, 1999, 2319 U.N.T.S. 81.

^{89.} See U.N. Secretary-General, Intergenerational Solidarity and the Needs of Future Generations, $\P\P$ 33–36, U.N. Doc. A/68/322 (Aug. 15, 2013) (listing examples).

^{90.} Two recent conventions extend these procedural rights to affected persons in other States. See 1991 Convention on Environmental Impact Assessment in a Transboundary Context art. 2(6), Feb. 25, 1991, 1989 U.N.T.S. 309 (entered into force on Sept. 10, 1997) [hereinafter Espoo Convention]; Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, opened for signature June 25, 1998, 2161 U.N.T.S. 450 (entered into force Oct. 30, 2001) [hereinafter Aarhus Convention]; see also Rio Declaration, supra note 84, princ. 10; Boyle, supra note 11, at 623–26 (explaining that the Aarhus Convention's design and structure is closer to human rights treaty-monitoring bodies than noncompliance procedures in other MEAs).

B. THE NEXUS JURISPRUDENCE OF HUMAN RIGHTS BODIES

The first generation of human rights instruments, adopted in the 1940s and 60s, preceded the dawn of modern international environmental law. Unsurprisingly, it did not acknowledge the link between a healthy environment and fulfilment of human rights. A number of instruments adopted after the 1972 Stockholm Declaration, on the other hand, recognize this nexus, 91 as do many post-1972 national constitutions. Today, for example, a majority of the world's national constitutions include environmental protections. 92

International tribunals, however, have recognized the existence of the nexus even when interpreting the first-generation human rights treaties, on the theory that they are "living instruments" capable of evolution.⁹³ As the Inter-American Commission observed,

[a]lthough the American Declaration of the Rights and Duties of Man and the American Convention on Human Rights make no express reference to protection of the environment[,] . . . a healthy environment is a necessary precondition for exercise of a number of fundamental rights, which are profoundly affected by the degradation of natural resources. The Commission's interpretation is that both the Declaration and the American Convention reflect a priority concern with the preservation of individual health and welfare, legal interests which are protected by the interrelation between the rights to life, security of person, physical, psychological and moral integrity, and health, and

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^{91.} See African Charter on Human and Peoples' Rights art. 24, June 27, 1981, 1520 U.N.T.S. 217 (entered into force Oct. 21, 1986) [hereinafter African Charter] ("All peoples shall have the right to a general satisfactory environment favourable to their development."); Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights art. 11, Nov. 17, 1988, O.A.S.T.S. No. 69 (entered into force Nov. 16, 1999) [hereinafter Protocol of San Salvador] ("Right to a Healthy Environment. 1. Everyone shall have the right to live in a healthy environment and to have access to basic public services. 2. The States Parties shall promote the protection, preservation, and improvement of the environment."); Convention on the Rights of the Child art. 24(2)(c), Nov. 20, 1989, 1577 U.N.T.S. 3 (entered into force Sep. 2, 1990) [hereinafter CRC] (directing States Parties to "take appropriate measures" to "combat disease and malnutrition, . . . taking into consideration the dangers and risks of environmental pollution").

^{92.} See DAVID R. BOYD, THE ENVIRONMENTAL RIGHTS REVOLUTION: A GLOBAL STUDY OF CONSTITUTIONS, HUMAN RIGHTS, AND THE ENVIRONMENT 92 (2012). This is a rapid increase since 1994, when less than seventy countries had constitutional protections for the environment. OHCHR Report, supra note 26, \P 30. Whether the increasing constitutionalization of environmental rights, as evidence of State practice, points to the customary law status of the right to a healthy environment is beyond the scope of this Article.

^{93.} See infra notes 291-92 and accompanying text.

thereby refer to the right to a healthy environment.94

This statement encapsulates the essence of regime congruence: one regime requires compliance with another to thrive.

In the Americas, there is a growing corpus of nexus jurisprudence, in which Inter-American human rights institutions have had to grapple with the problem of environmental degradation. The Inter-American Court, for example, has emphasized the "undeniable link between the protection of the environment and the enjoyment of other human rights,"95 particularly in the context of indigenous rights.96 Across petitions, requests for precautionary measures, contentious cases, and thematic hearings over the last decade, the Inter-American Court and the Inter-American Commission have been asked to address a wide range of environmental issues. This has included large-scale infrastructure projects, such as the construction of hydroelectric dams,97 the Nicaragua Canal,98 and the Dakota Access Pipeline,99 as well as natural resource exploitation, including logging,

^{94.} Inter-Am. Comm'n H.R., Second Report on the Situation of Human Rights Defenders in the Americas, \P 309, OEA/Ser.L/V/II Doc. 66 (Dec. 31, 2011) (emphasis added).

^{95.} Kawas-Fernández v. Honduras, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 196, \P 148 (Apr. 3, 2009).

^{96.} See, e.g., Mayagna (Sumo) Awas Tingni Cmty. v. Nicaragua, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 79, ¶ 149 (Aug. 31, 2001); Yakye Axa Indigenous Cmty. v. Paraguay, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 125, ¶¶ 163–167 (June 17, 2005); Sawhoyamaxa Indigenous Cmty. v. Paraguay, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 146, ¶¶ 118–121 (Mar. 29, 2006); Saramaka People v. Suriname, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 172, ¶¶ 121–123, 126–129, 146 (Nov. 28, 2007); Kichwa Indigenous People of Sarayaku v. Ecuador, Merits and Reparations, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶ 174 (June 27, 2012); Kuna Indigenous People of Madungandí v. Panama, Case 12.354, Inter-Am. Comm'n H.R., Report No. 125/12 (2012); see also Yanomami v. Brazil, Case 7615, Inter-Am. Comm'n H.R., OEA/Ser.L/V/II.66, doc. 10, rev. 1 (1985).

^{97.} See, e.g., Indigenous Communities of Xingu River Basin, Pará, Brazil, Inter-Am. Comm'n H.R., Precautionary Measure No. 382/10 (Apr. 1, 2011), http://www.oas.org/en/iachr/indigenous/protection/precautionary.asp#382/10. An appeal was also submitted in 2012 on behalf of communities harmed by dam construction in the Chixoy River Basin.

^{98.} INTER-AM. COMM'N ON HUMAN RIGHTS, REPORT ON THE 154TH SESSION (2015), http://www.oas.org/es/cidh/prensa/docs/Report-154.pdf.

^{99.} Request for Precautionary Measures Pursuant to Article 25 of the IACHR Rules of Procedure Concerning Serious and Urgent Risks of Irreparable Harm Arising Out of Construction of the Dakota Access Pipeline, Inter-Am. Comm'n H.R. (Dec. 2, 2016), https://www.eenews.net/assets/2016/12/09/

mining, and oil concessions,¹⁰⁰ toxic spills,¹⁰¹ lead poisoning,¹⁰² gas explosion risk,¹⁰³ deforestation,¹⁰⁴ and climate change.¹⁰⁵ In particular, both institutions have focused on the rights to life (Article 1), health/personal security (Article 5), access to information (Article 13), (indigenous) property (Article 21), and effective remedies (Article 25) under the Convention and similar rights in the Declaration.

The Inter-American system is not alone in this regard. On the regional level, the European Court of Human Rights (European Court or ECtHR) has the most extensive environmental record. Over the past two decades, the European Court has been asked to address a wide range of scenarios, including hazardous

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100. See, e.g., Kuna Indigenous People, Inter-Am. Comm'n H.R., Report No. 125/12, $\P\P$ 236–240; Kichwa People, Inter-Am. Ct. H.R. (ser. C) No. 245, \P 174; Saramaka People, Inter-Am. Ct. H.R. (ser. C) No. 172, $\P\P$ 130, 154; see also Communities of Maya People, Guatemala, Inter-Am. Comm'n H.R., Precautionary Measure No. 260-07 (May 20, 2010). See generally Inter-Am. Comm'n H.R., Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources: Norms and Jurisprudence of the Inter-American Human Rights System, $\P\P$ 190–191, OEA/Ser.L/V/II. Doc. 56/09 (Dec. 30, 2009) [hereinafter Indigenous Rights].

101. Cmty. of San Mateo de Huanchor v. Peru, Petition 504/03, Inter-Am. Comm'n. H.R., Report No. 69/04, \P 66 (2004).

102. 300 Inhabitants of Puerto Nuevo, Peru, Inter-Am. Comm'n H.R., Precautionary Measure No. 199/09 (Dec. 27, 2010), http://www.oas.org/en/iachr/decisions/precautionary.asp.

103. Inhabitants of Cmty. of Omoa, Honduras, Inter-Am. Comm'n H.R., Precautionary Measure No. 17/1 (Nov. 8, 2011), http://www.oas.org/en/iachr/decisions/precautionary.asp.

104. Claude-Reyes et al. v. Chile, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 151 (Sept. 19, 2006); Maya Indigenous Cmty. of Toledo Dist. v. Belize, Case 12.053, Inter-Am. Comm'n H.R., Report No. 40/04, $\P 145-147$ (Oct. 12, 2004).

105. The Commission has received two climate petitions to date. It summarily denied in 2006 the petition from the Inuit Circumpolar Conference against the United States on the grounds that the information provided did not enable a determination of "whether the alleged facts would tend to characterize a violation of rights protected by the American Declaration." Letter from Assistant Exec. Sec'y Ariel E. Dulitzky, Inter-Am. Comm'n on Human Rights, to Petitioners (Nov. 16, 2006), http://graphics8.nytimes.com/packages/pdf/science/

16commissionletter.pdf. The second petition is pending. See PETITION FROM ARCTIC ATHABASKAN COUNCIL, SEEKING RELIEF FROM RAPID ARCTIC WARMING AND MELTING CAUSED BY EMISSIONS OF BLACK CARBON BY CANADA (2013), https://earthjustice.org/sites/default/files/AAC_PETITION_13-04-23a.pdf.

industrial activities, 106 nuclear radiation, 107 exposure to mustard and nerve gas, 108 asbestos exposure, 109 arsenic poisoning, 110

 $^{106.\ \} See, e.g.,$ Öneryildiz v. Turkey [GC], 2004-XII Eur. Ct. H.R. 79 (methane explosion at waste site).

^{107.} See, e.g., L.C.B. v. United Kingdom, App. No. 23413/94 (Eur. Ct. H.R. June 9, 1998), http://hudoc.echr.coe.int/eng?i=001-58176 (radiation due to nuclear tests in 1950s); McGinley v. United Kingdom, App. Nos. 218725/93, 23414/94 (Eur. Ct. H.R. June 9, 1998), http://hudoc.echr.coe.int/eng?i=001-58175 (potential exposure to radiation during atmospheric nuclear tests in 1950–60s); Athanassoglou v. Switzerland [GC], 2000-VI Eur. Ct. H.R. 173 (operation of nuclear power-plant); Balmer-Schafroth v. Switzerland, App. No. 50495/99 (Eur. Ct. H.R. Sep. 13, 2001), http://hudoc.echr.coe.int/eng?i=001-21943 (same).

^{108.} Roche v. United Kingdom, 2005-X Eur. Ct. H.R. 87.

^{109.} Brincat v. Malta, App. Nos. 60908/11, 52110/11, 62129/11, 62312/11, 62338/11 (Eur. Ct. H.R. July 24, 2014); Moor v. Switzerland, App. Nos. 52067/10, 41072/11 (Eur. Ct. H.R. Mar. 11, 2014) (in French).

^{110.} Guerra v. Italy, App. No. 14967/89 (Eur. Ct. H.R. Feb. 19, 1998), http://hudoc.echr.coe.int/eng?i=001-58135 (toxic emissions and arsenic poisoning from industrial fertilizer plant).

industrial pollution,¹¹¹ electromagnetic radiation,¹¹² natural disasters,¹¹³ oil spills,¹¹⁴ dam construction,¹¹⁵ land-use permitting,¹¹⁶ waste disposal,¹¹⁷ water pollution,¹¹⁸ vehicle emissions,¹¹⁹ and noise pollution.¹²⁰ In those cases where the

111. López Ostra v. Spain, App. No. 16798/90 (Eur. Ct. H.R Dec. 9, 1994), http://hudoc.echr.coe.int/eng?i=001-57905 (pollution from waste-treatment plant); Taşkın v. Turkey, 2004-X Eur. Ct. H.R. 179 (pollution from gold mine); Fadeyeva v. Russia, 2005-IV Eur. Ct. H.R. 255 (toxic emissions from steel plant); Okyay v. Turkey, 2005-VII Eur. Ct. H.R 125 (air pollution from thermal power plants); Öçkan v. Turkey, App. No. 46771/99 (Eur. Ct. H.R Mar. 28, 2006), http://hudoc.echr.coe.int/eng?i=001-72910; Ledyayeva v. Russia, App. No. 53157/99 (Eur. Ct. H.R Oct. 26, 2006), http://hudoc.echr.coe.int/eng?i=001 -77688 (steel plant); Giacomelli v. Italy, 2006-XII Eur. Ct. H.R. 345 (pollution and risks from treatment of toxic industrial waste); Lemke v. Turkey, App. No. 17381/02 (Eur. Ct. H.R June, 5 2007), http://hudoc.echr.coe.int/eng?i=001 -80859 (gold mine); Tătar v. Romania, App. No. 67021/01 (Eur. Ct. H.R. Jan. 27, 2009), http://hudoc.echr.coe.int/eng?i=001-90909 (emissions of toxic fumes from gold mine and discharge of cyanide-contaminated tailings water); Băcilă v. Romania, App. No. 19234/04 (Eur. Ct. H.R. Mar. 30, 2010), http://hudoc.echr.coe .int/eng?i=001-98001 (pollution from chemical factory); Dubetska v. Ukraine, App. No. 30499/03 (Eur. Ct. H.R. Feb. 10, 2011), http://hudoc.echr.coe.int/ eng?i=001-103273 (environmental effects from coal mine and factory); Apanasewicz v. Poland, App. No. 6854/07 (Eur. Ct. H.R. May 3, 2011), http://hudoc .echr.coe.int/eng?i=001-104672 (environmental and health effects from concrete plant); Koceniak v. Poland, App. No. 1733/06 (Eur. Ct. H.R. June, 17, 2014), http://hudoc.echr.coe.int/eng?i=001-145668 (impact from slaughterhouse and meat-processing plant); Smaltini v. Italy, App. No. 43961/09 (Eur. Ct. H.R. Aug. 7, 2015), http://hudoc.echr.coe.int/eng?i=001-127699 (health impacts of exposure to steel plant emissions); Cordella v. Italy, App. No. 54414/13 (Eur. Ct. H.R. Jan. 24, 2016), http://hudoc.echr.coe.int/eng?i=001-189421 (emissions from steel plant).

- 112. Luginbühl v. Switzerland, App. No. 42756/02 (Eur. Ct. H.R. Nov. 17, 2006), http://hudoc.echr.coe.int/eng?i=001-72459.
- 113. Murillo Saldias v. Spain, App. No. 76973/01 (Eur. Ct. H.R. Nov. 28, 2006), http://hudoc.echr.coe.int/eng?i=002-2963 (flooding at campsite); Budayeva v. Russia, 2008-II Eur. Ct. H.R. 267 (mudslide); Kolyadenko v. Russia, App. No. 17423/05 (Eur. Ct. H.R. Feb. 28, 2012), http://hudoc.echr.coe.int/eng?i=001-109283 (flash flooding); Viviani v. Italy, App. No. 9713/13 (Eur. Ct. H.R. Apr. 16, 2015), http://hudoc.echr.coe.int/eng?i=001-154058 (risk of volcano eruption); Özel v. Turkey, App. No. 14350/05 (Eur. Ct. H.R. Nov. 17, 2015), http://hudoc.echr.coe.int/eng?i=001-158803 (earthquake).
- 114. Vilnes v. Norway, App. No. 52806/09 (Eur. Ct. H.R. Dec. 5, 2013), http://hudoc.echr.coe.int/eng?i=001-138597 (impacts on deep sea divers during North Sea oil exploration); Mangouras v. Spain, 2010-V Eur. Ct. H.R. 317 (discharge of fuel oil in the Atlantic).
- 115. G. v. Norway, App. No. 9278/81, Eur. Comm'n H.R. (1983) (hydroelectric power-plant); Gorraiz Lizarraga v. Spain, 2004-III Eur. Ct. H.R. 255 (proposed flooding of nature reserves and villages for dam construction); Ahunbay v. Turkey (Communicated Case), App. No. 6080/06 (Eur. Ct. H.R. June 21, 2016), http://hudoc.echr.coe.int/eng?i=002-11251.
 - 116. Fredin v. Sweden, 192 Eur. Ct. H.R. (ser. A) (1991) (revocation of license

to operate gravel pit); Pine Valley Devs. Ltd. v. Ireland, App. No. 12742/87 (Eur. Ct. H.R. Nov. 29, 1991), http://hudoc.echr.coe.int/eng?i=001-57711 (withdrawal of construction permit); Kyrtatos v. Greece, 2003-VI Eur. Ct. H.R. 257 (property development in wetland); Papastavrou v. Greece, 2003-IV Eur. Ct. H.R. 257 (reforestation of disputed plot of land); Vides Aizsardzības Klubs v. Latvia, App. No. 57829/00 (Eur. Ct. H.R. Aug. 27, 2004), http://hudoc.echr.coe.int/eng-press? i=003-1013988-1048313 (construction on coastal dunes); Kapsalis v. Greece, App. No. 20937/03 (Eur. Ct. H.R. Sept. 23, 2004), http://hudoc.echr.coe.int/ eng?i=001-66878 (construction on protected land); N.A. v. Turkey, 2005-X Eur. Ct. H.R. 73 (annulment of property registration and order to demolish hotel located on seashore); Valico S.R.L. v. Italy, 2006-III Eur. Ct. H.R. 397 (fine for construction in breach of environmental rules); Hamer v. Belgium, 2007-V Eur. Ct. H.R. 73 (order to demolish home built without permit and restore land); Turgut v. Turkey, App. No. 1411/03 (Eur. Ct. H.R. July 8, 2008) http://hudoc .echr.coe.int/eng?i=001-87441 (order to register land as public forest); L'Erablière A.S.B.L. v. Belgium, 2009-II Eur. Ct. H.R. 377 (permit to expand wastecollection site); Depalle v. France, 2010-III Eur. Ct. H.R. 233 (order to demolish home to protect coastal areas); Brosset-Triboulet v. France, App. No. 34078/02 (Eur. Ct. H.R. Mar. 29, 2010), http://hudoc.echr.coe.int/eng?i=001-98036 (same); Andersson v. Sweden, App. No. 64712/01 (Eur. Ct. H.R. Sept. 28, 2014), http:// hudoc.echr.coe.int/eng?i=001-67018 (permit to construct railway); Malfatto v. France, App. No. 40886/06 (Eur. Ct. H.R. Oct. 6, 2016), http://hudoc.echr.coe.int/ eng?i=001-166949 (denial of construction permit on protected land).

117. Brânduşe v. Romania, App. No. 6586/03 (Eur. Ct. H.R. Apr. 7, 2009), http://hudoc.echr.coe.int/eng-press?i=003-2698080-2947397 (pollution and nuisance from waste site); Di Sarno v. Italy, App. No. 30765/08 (Eur. Ct. H.R. 2012), http://hudoc.echr.coe.int/eng?i=001-108480 (failure to collect and treat waste); Locascia v. Italy, App. No. 35648/10 (Communicated Case) (Eur. Ct. H.R. June 23, 2013), http://hudoc.echr.coe.int/eng?i=001-118326 (operation of private waste-disposal plant).

118. Zander v. Sweden, App. No. 14282/88, (Eur. Ct. H.R. Nov. 25, 1993) http://hudoc.echr.coe.int/eng?i=001-57862 (water pollution from industrial waste); Dzemyuk v. Ukraine, App. No. 42488/02 (Eur. Ct. H.R. Sept. 4, 2014), http://hudoc.echr.coe.int/eng?i=001-146357 (contamination of water supply from cemetery construction).

119. Greenpeace E.V. v. Germany, App. No. 18215/06 (Eur. Ct. H.R. May 12, 2009).

120. Powell v. United Kingdom, App. No. 9310/81 (Eur. Ct. H.R. Feb. 21, 1990), http://hudoc.echr.coe.int/eng?i=001-57622 (noise levels at Heathrow); Hatton v. United Kingdom, 2003-VIII Eur. Ct. H.R. 189 (disturbance from night flights at Heathrow); Deés v. Hungary, App. No. 2345/06 (Eur. Ct. H.R. Nov. 9, 2010), http://hudoc.echr.coe.int/eng?i=001-101647 (road-traffic noise); Grimkovskaya v. Ukraine, App. No. 38182/03 (Eur. Ct. H.R. July 21, 2011), http://hudoc.echr.coe.int/eng?i=001-105746 (same); Flamenbaum v. France, App. No. 3675/04 (Eur. Ct. H.R. Dec. 13, 2012), http://hudoc.echr.coe.int/eng?i=001-115143 (noise disturbance to nature reserve and private property from airport extension); Bor v. Hungary, App. No. 50474/08 (Eur. Ct. H.R. June 18, 2013), http://hudoc.echr.coe.int/eng?i=001-120959 (railway noise); Vecbaštika v. Latvia, App. No. 52499/11 (Communicated Case) (Eur. Ct. H.R. Jan. 7, 2013), http://hudoc.echr.coe.int/eng?i=001-147757 (noise from wind energy farms); Cuenca Zarzoso v. Spain, App. No. 23383/12 (Eur. Ct. H.R. Jan. 16, 2018), http://hudoc.echr.coe.int/eng?i=001-180296 (night-time noise).

claimants prevailed, the European Court has found violations of the rights to life (Article 2), respect for private and family life (Article 8), access to justice and remedies (Articles 6 and 13), information (Article 10), and peaceful enjoyment of one's possessions (Article 1 of Protocol No. 1).121 The Court's jurisprudence on environmental matters is so extensive, as Alan Boyle has written, that proposals for the adoption of an environmental protocol have not been pursued. 122

Within the African human rights system, the African Commission has addressed oil extraction, mining, and logging on indigenous land, articulating substantive and procedural standards relating to benefit-sharing and community rights. 123 Unlike other human rights treaties, the African Charter expressly protects the right to a healthy environment, 124 which gives the African institutions an express textual basis to consider the regime nexus. 125 Other international treaty bodies have also been called upon to consider the nexus cases. For example, the UNHRC has encountered a range of environment-related issues under the IC-CPR, including storage of radioactive waste near residential areas,126 nuclear weapons deployment,127 highway construction,128 as well as natural resource exploitation on indigenous land. 129

- See COE MANUAL, supra note 15. 121
- See Boyle, supra note 87, at 485.
- See Soc. & Econ. Rights Action Ctr. v. Nigeria (Ogoniland), Communication No. 155/96, African Commission on Human and People's Rights [Afr. Comm'n H.P.R.], ¶¶ 51–53, 67–68 (Oct. 2001), http://www.achpr.org/files/ sessions/30th/comunications/155.96/achpr30_155_96_eng.pdf; Ctr. for Minority Rights Dev. v. Kenya, Communication No. 276/03, African Commission on Human and People's Rights [Afr. Comm'n H.P.R.] (Nov. 2009), http://www.achpr .org/files/sessions/46th/communications/276.03/achpr46_276_03_eng.pdf.
 - 124. See supra note 91.
 - 125. See Ogoniland, Communication No. 155/96, ¶¶ 51–53.
- 126. Kennedy v. Trinidad & Tobago, Commc'n No. 845/1999, U.N. Human Rights Comm., ¶¶ 6-12, U.N. Doc. CCPR/C/67/D/845/1999 (1999); E.H.P. v. Canada, Comme'n No. 67/1980, U.N. Human Rights Comm., at 20, U.N. Doc. CCPR/C/OP/1 (1984).
- 127. E.W. v. Netherlands, Commc'n. No. 429/1990, U.N. Human Rights Comm., ¶ 3.1, U.N. Doc. CCPR/C/47/D/429/1990 (1993).
- 128. Dahanayake v. Sri Lanka, Commc'n. No. 1331/2004, U.N. Human Rights Comm., ¶ 6.4, U.N. Doc. CCPR/C/87/D/1331/2004 (2006).
- 129. E.P. v. Colombia, Commc'n No. 318/1988, U.N. Human Rights Comm., U.N. Doc. CCPR/C/39/D/318/1988 (1990) (impact of development on islands' ecosystem and traditional economy); Ominayak v. Canada, Commc'n No. 167/1984, U.N. Human Rights Comm., U.N. Doc. Supp. No. 40 (A/45/40) (1990) (impact of fossil-fuel extraction on applicants' traditional economy); Sara v. Finland, Comme'n No. 431/1990, U.N. Human Rights Comm., U.N. Doc.

These cases have rarely reached the merits. Where it found a violation, the UNHRC has focused on procedural rights, such as the right to effective consultation, and minority and indigenous rights (Article 27).¹³⁰

C. SUMMARY

On the whole, international human rights law has become considerably "greener" over time as tribunals have increasingly had to address the impacts of environmental degradation. The older human rights treaties did not contemplate the regime nexus, but changing facts on the ground have moved courts to adjust their interpretation. Today, the jurisprudence makes clear that State failure to prevent or manage environmental degradation can constitute a human rights violation. This includes both substantive rights (e.g., to life, health, private and family life, and property) and procedural rights (e.g., to information, participation, and access to justice).

Accepting that a healthy environment is a precondition for the fulfillment of a range of human rights, ¹³¹ courts have established that States do not merely have a *negative* duty to abstain from causing harm. They also have a *positive* duty to protect individuals from environmental risks through regulation, monitoring, and enforcement of environmental law. As this body of law suggests, States can incur international responsibility under human rights treaties where they fail to regulate or control the source of environmental harm; ¹³² where they fail to manage se-

CCPR/C/50/D/431/1990 (1994) (logging and construction on Sami lands); Länsman v. Finland, Commc'n No. 511/1992, U.N. Human Rights Comm., U.N. Doc. CCPR/C/52/D/511/1992 (1994) (stone quarry impact on reindeer-herding); Poma Poma v. Peru, Commc'n No. 1457/2006, U.N. Human Rights Comm., U.N. Doc. CCPR/C/95/D/1457/2006 (2009) (water diversion and land degradation in llamaraising community).

^{130.} See, e.g., Poma Poma, U.N. Doc. CCPR/C/94/D/1457/2006; Ominayak, U.N. Doc. Supp. No. 40 (A/45/40).

^{131.} See supra note 95.

^{132.} See, e.g., Öneryildiz v. Turkey, 2004-XII Eur. Ct. H.R. 79, 155, $\P\P$ 89–90 ("The positive obligation to take all appropriate steps to safeguard life . . . entails above all a primary duty on the State to put in place a legislative and administrative framework designed to provide effective deterrence against threats to the right to life," including safeguards, licensing, and preventive measures to manage risks, such as the public's right to information); Fadeyeva v. Russia, 2005-IV Eur. Ct. H.R. 255, 282 ¶ 89 ("[T]he State's responsibility in environmental cases may arise from a failure to regulate private industry.").

rious environmental risks, including by conducting a prior environmental impact assessment (EIA) and putting in place the necessary safeguards;¹³³ where they fail to consult or disclose to the public information regarding environmental risks;¹³⁴ where they fail to enforce environmental regulations;¹³⁵ and where they fail to give the affected public access to remedies.¹³⁶

There is an important caveat. Judicial recognition of the nexus between a healthy environment and respect for human rights has largely been limited to the *domestic* context—cases where both the cause of the environmental harm and its alleged human rights effects are located within the territory of a single State. To date, no international tribunal has addressed the extraterritorial application of human rights treaties in the environmental context in a contentious proceeding, and Ecuador's claim against Colombia in the *Aerial Herbicide Spraying* case before the International Court of Justice (ICJ)—which could have clarified this important area—has been abandoned.¹³⁷

133. See, e.g., Kichwa People of Sarayuko v. Ecuador, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶¶ 205–207 (June 27, 2012); Saramaka People v. Suriname (Interpretation), Judgment, Inter-Am. Ct. H.R. (ser. C) No. 185, ¶¶ 40–41 (Aug. 12, 2008); Saramaka People v. Suriname, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 146, ¶¶ 130–131 (Mar. 29, 2006) (defining procedural safeguards for natural resource projects on indigenous peoples' territories); Maya Indigenous Cmty. of Toledo Dist. v. Belize, Case 12.053, Inter-Am. Comm'n H.R., Report No. 40/04, ¶¶ 145–147 (Oct. 12, 2004); see also Grimkovskaya v. Ukraine, App. No. 38182/03, ¶¶ 67–69 (Eur. Ct. H.R. July 21, 2011).

134. See, e.g., Claude-Reyes v. Chile, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 151, \P 103 (Sept. 19, 2006) (finding a violation of the right to receive information about environmental impacts); cf. Inter-Am. Comm'n H.R., Rep. on the Situation of Human Rights in Ecuador, OEA/Ser.L/V/II.96, doc. 10 rev.1, ch. VIII (Apr. 24, 1997) [hereinafter Ecuador Report] (emphasizing the importance of procedural rights). See also La Oroya Cmty. v. Peru, Petition 1473-06, Inter-Am. Comm'n H.R., Report No. 76/09, \P 75 (2009); Kichwa People, Inter-Am. Ct. H.R. (ser. C) No. 245, \P ¶ 174–177; Guerra v. Italy, App. No. 14967/89, \P 60 (Eur. Ct. H.R. Feb. 19, 1998).

135. See, e.g., Kuna Indigenous People of Madungandi v. Panama, Case 12.354, Inter-Am. Comm'n H.R., Report No. 125/12, \P 278–282 (2012); see also Giacomelli v. Italy, 2006-XII Eur. Ct. H.R. 345, 366, \P 93–94.

136. See id.; see also Ecuador Report, supra note 134 ("[P]rotection of the right to life and physical integrity may best be advanced through measures to support and enhance the ability of individuals to safeguard and vindicate those rights."). These procedural obligations have been particularly influential in the European context. See generally Boyle, supra note 87, at 494–97. See also Taşkin v. Turkey, 2004-X Eur. Ct. H.R. 179, 208, ¶ 127, 210, ¶ 137.

137. Memorial of Ecuador, Aerial Herbicide Spraying (Ecuador v. Colom.), 2009 I.C.J. Pleadings 1, \P 9.9 (Apr. 28).

However, as of February 2018, there is an advisory opinion that addresses this issue head-on. In 2016, Colombia had asked the Inter-American Court to clarify whether States could incur responsibility for environmental harm under the American Convention, specifically in the Wider Caribbean Region. ¹³⁸ In its seminal ruling, the Court advised that they could. ¹³⁹ In other words, if pollution can travel across the border, so can legal responsibility. The Court explained that States must take steps to prevent significant environmental harm not only to individuals inside, but also *outside* their territory. ¹⁴⁰ Many central elements of the Advisory Opinion remain to be clarified in future litigation, ¹⁴¹ but the recognition of the regime nexus in the Americas is no longer in doubt.

In addition, even if direct precedents on this issue are lacking, judicial guidance is not. As I explain in the next Part, tribunals have drawn the outer boundaries of human rights treaties in a number of other circumstances (not involving the environment). That jurisprudence can help us determine whether, and to what extent, courts' approach to extraterritoriality could inform future cases arising at the nexus of the regimes on the environment and human rights.

III. REGIME LIMITS: THE EXTRATERRITORIAL REACH OF HUMAN RIGHTS TREATIES

As explained above, human rights treaties were not drafted with environmental or transboundary issues in mind. They were designed to regulate the relationship between the State and its own people. As such, they generally require States Parties to respect and ensure the protected rights and freedoms within their "territory" and/or subject to their "jurisdiction." The existence

^{138.} See supra note 18.

^{139.} Environment and Human Rights Advisory Opinion, supra note 19.

^{140.} While Colombia's request focused on the Wider Caribbean Region, the Court discussed general obligations applicable to all States subject to the American Convention. *Id.* \P 126.

^{141.} See Banda, supra note 19.

^{142.} See American Convention, supra note 33, art. 1(1) ("The States Parties to this Convention undertake to respect the rights and freedoms recognized herein and to ensure to all persons subject to their jurisdiction the free and full exercise of those rights and freedoms, without any discrimination for reasons of race, color, sex, language, religion, political or other opinion, national or social origin, economic status, birth, or any other social condition.") (emphasis added);

of this relationship is a threshold condition that claimants must meet before their application can be examined on the merits.

Not all human rights instruments expressly limit the scope of State obligations through a jurisdictional clause. ¹⁴³ For example, on their face, instruments on economic, social, and cultural rights are less territorially constraining than those on civil and political rights—and even obligate States to engage in international cooperation and assistance. ¹⁴⁴ However, even such ostensibly *boundless* treaties in practice tend to be territorially *bound*—either by virtue of the tribunals' interpretation, ¹⁴⁵ or by express treaty provisions setting up a complaints mechanism (which usually contains a jurisdictional clause). ¹⁴⁶

see also ICCPR, supra note 74, art. 2(1) ("Each State Party to the present Covenant undertakes to respect and to ensure to all individuals within its territory and subject to its jurisdiction the rights recognized in the present Covenant, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.") (emphasis added); European Convention on Human Rights art. 1, Nov. 4, 1950, 213 U.N.T.S. 221 [hereinafter ECHR] ("The High Contracting Parties shall secure to everyone within their jurisdiction the rights and freedoms defined in Section I of this Convention.") (emphasis added); International Convention on the Elimination of All Forms of Racial Discrimination art. 6, Dec. 21, 1965, 660 U.N.T.S. 195 [hereinafter ICERD] ("States Parties shall assure to everyone within their jurisdiction effective protection and remedies, through the competent national tribunals and other State institutions, against any acts of racial discrimination which violate his human rights and fundamental freedoms contrary to this Convention, as well as the right to seek from such tribunals just and adequate reparation or satisfaction for any damage suffered as a result of such discrimination.") (emphasis added); CRC, supra note 91, art. 2(1) ("States Parties shall respect and ensure the rights set forth in the present Convention to each child within their jurisdiction without discrimination") (emphasis

- 143. See, e.g., UDHR, supra note 70; ICESCR, supra note 74; American Declaration, supra note 34; Convention on the Elimination of All Forms of Discrimination Against Women, Dec. 18, 1979, 1249 U.N.T.S. 171 [hereinafter CEDAW]; African Charter, supra note 91. Specific articles, however, may contain limiting terms. See Protocol of San Salvador, supra note 91, art. 10 (expressly limiting the duty to extend health services).
 - 144. GLOBAL JUSTICE, supra note 22, at 8, 13.
- 145. The Inter-American Commission has read a jurisdictional limitation into the American Declaration. See Coard v. United States, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, OEA/Ser.L/V/II.106, doc. 6 rev. ¶ 37 (1999). The practice of other international bodies tasked with interpreting treaties that frame State obligations in universal terms is similar. See DEN HEIJER, supra note 22, at 51-52.
- 146. Optional Protocols (permitting individual complaints against the State) to CEDAW, ICESCR, CRC, and ICERD are all limited by a jurisdictional clause. See GLOBAL JUSTICE, supra note 22, at 59. As Milanovic emphasizes, such clauses in optional protocols do not affect the scope of State obligations under

The scope of State obligations under human rights treaties is territorially limited because a State's jurisdictional competence under general international law is also "primarily territorial." ¹⁴⁷ In general international law, the territorial nature of State jurisdiction reflects the fundamental principles of sovereign equality ¹⁴⁸ and nonintervention in matters that are "essentially within the domestic jurisdiction" of other States. ¹⁴⁹ In other words, every State has authority to regulate or proscribe conduct and enforce domestic laws within its own sovereign territory, but not beyond. ¹⁵⁰

In the context of human rights, this means that every State must implement its treaty obligations within its jurisdiction. The State is not asked to "ensure" or "secure" human rights outside its territory because doing so could impermissibly extend the reach of its authority or rules into its neighbors' jurisdiction. The United States, for example, cannot grant or enforce personal freedoms in other countries, though it can use diplomatic means to encourage their protection. After all, a human rights treaty "does not govern the actions of States not Parties to it, nor does it purport to be a means of requiring the Contracting States to

the *treaty*, but they do limit the treaty's reach in practice by creating a standalone condition for admissibility. MILANOVIC, *supra* note 22, at 11–13.

^{147.} Banković v. Belgium, 2001-XII Eur. Ct. H.R. 333, 351–52, ¶¶ 59–61.

^{148.} U.N. Charter art. 2, \P 1 ("The Organization is based on the principle of the sovereign equality of all its Members.").

^{149.} *Id.* art. 2, \P 7 ("Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII."); cf. Convention on Rights and Duties of States, Dec. 26, 1933, 165 L.N.T.S. 19 (entered into force Dec. 26, 1934) (Montevideo Convention).

^{150.} See, e.g., Corfu Channel (U.K. v. Alb.), Judgment, 1949 I.C.J. 4, 35 (Apr. 9) ("Between independent States, respect for territorial sovereignty is an essential foundation of international relations."); see also Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Merits, Judgment, 1986 I.C.J. 14, ¶ 263 (June 27) (recognizing "the fundamental principle of State sovereignty on which the whole of international law rests"); Island of Palmas (Neth. v. U.S.), 2 R.I.A.A. 829, 838 (Perm. Ct. Arb. 1928) ("Sovereignty in the relations between States signifies independence. Independence in relation to a portion of the globe is the right to exercise therein to the exclusion of any other state, the functions of the State."); S.S. Lotus (Fr. v. Tur.), 1927 P.C.I.J. (ser. A) No. 10, at 18 (Sept. 7) ("[T]he first and foremost restriction imposed by international law upon a State is that—failing the existence of a permissive rule to the contrary—it may not exercise its power in any form in the territory of another State."). This principle also underlies U.S. practice. See RESTATEMENT (THIRD) OF FOREIGN RELATIONS §§ 402−403 (AM. LAW INST. 1987).

impose [its] standards on other States."151

But this does not mean that a State's duty to protect human rights ends at its border. International courts have recognized a number of circumstances in which human rights treaties apply extraterritorially. *Extraterritorial* application in this context means that a State may incur duties even though the claimant, at the moment of the injury, was not in the territory of that State. Delineating the precise scope of that duty and the circumstances under which it applies has proven challenging. There is a rich literature on this general subject, which I do not propose to duplicate here. 152

What is most relevant for present purposes is that human rights case law has been ad hoc, fact-driven, and inconsistent in its treatment of extraterritorial harm. 153 This makes it harder to isolate a set of principles that might govern a case where crossborder pollution injures a local community's health or sources of livelihood. Part of the problem is that human rights courts have tended to import notions of jurisdiction from general international law to interpret the term "jurisdiction" in human rights conventions. 154 The concept of jurisdiction in human rights law serves to define the pool of persons whose rights a State must respect or secure. 155 By contrast, in general international law, the term "jurisdiction" serves to define the limits of State authority to regulate the conduct of persons through its domestic law. 156 In other words, in the former, it is used to impute sovereign responsibility, while in the latter it is used to restrain the exercise of sovereign power. 157 By conflating the two concepts, courts have in some cases absolved wrongdoing States of their responsibility.

^{151.} Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, 170, ¶ 141.

^{152.} See supra note 22.

^{153.} For a concise critique, see Al-Skeini, 2011-IV Eur. Ct. H.R. at 189–93, $\P\P$ 4–20 (Bonello, J., concurring). See infra Part III.A–D.

^{154.} The two concepts, though related, are not identical. See generally MILANOVIC, supra note 22, at 8 (explaining that the concept of jurisdiction in human rights treaties is about actual exercise of control and authority over a territory or persons, while title or sovereignty are about establishing a right in international law to exercise such authority within a specific territory), see also id. at 22–27, 30–33, 39–41, 62.

^{155.} Cf. DEN HEIJER, supra note 22, at 26.

^{156.} See MILANOVIC, supra note 22, at 23.

^{157.} See GLOBAL JUSTICE, supra note 22, at 24.

Where does this leave us in terms of State obligations at the regime nexus? This Part reviews the case law to identify the dominant extraterritoriality approaches, or tests, and determine whether any existing test would recognize regime congruence in cases involving transboundary harm. As I explain in Parts III.A—III.C below, we can distill three different tests that courts have used to decide issues of extraterritoriality: effective control (over a territory); physical control (over a person); and direct effects. ¹⁵⁸ As I show, courts have not yet expressly acknowledged or embraced the existence of the third approach. Yet it is precisely this emerging, minority approach that would allow a court to hear claims arising out of transboundary environmental harm (Part III.D). However, this approach also risks being limitless and therefore requires further guidance (Part III.E).

A. THE EFFECTIVE CONTROL TEST

The effective control test has developed out of situations involving occupation by one State of the national territory of another State as a consequence of lawful or unlawful military action. The historical record of violations of State sovereignty is sizeable, and so is the jurisprudence applying the effective con-

^{158.} For a typology, see Al-Skeini, 2011-IV Eur. Ct. H.R. at 166–70, ¶¶ 130–140. The literature is not unanimous in its understanding of the tests. See, e.g., DEN HEIJER, supra note 22, at 29, 48 (discussing two models (control over foreign territory and control over persons) and noting a third category "may develop . . . in which the State, also in the absence of an assertion of control or authority over a person in a foreign territory, may . . . incur positive duties visà-vis that individual"); GLOBAL JUSTICE, supra note 22, at 25–26 (describing a spectrum of approaches from control-based to facticity-based tests); MILANOVIC, supra note 22, at 46–51 (discussing two models (spatial and personal) and proposing a third model that would distinguish between positive obligations (if there is effective control over territory) and negative obligations (which would be territorially unbound)).

^{159.} A subset of cases has also involved the exercise of control or "decisive influence" by one State over another State's armed forces, public authorities, or local administration. See Al-Skeini, 2011-IV Eur. Ct. H.R. at 167–68, ¶¶ 133–137.

trol test. Courts have examined, *inter alia*, South Africa's occupation of Namibia, ¹⁶⁰ Turkey's invasion of Northern Cyprus, ¹⁶¹ Iraq's invasion of Kuwait, ¹⁶² Uganda's activities in the Congo, ¹⁶³ Russia's influence in Moldova and Georgia, ¹⁶⁴ Israel's occupation of Palestine, ¹⁶⁵ NATO's bombing of Yugoslavia, ¹⁶⁶ and U.S. operations in Central America ¹⁶⁷ and in the war on terror. ¹⁶⁸

- 160. See Legal Consequences for States of Continued Presence of South-Africa in Namibia (South West Africa) Notwithstanding Security Council Resolution 276 (1970), Advisory Opinion, 1971 I.C.J. 16, ¶ 118 (June 21) ("[The occupying power] remains accountable for any violations of its international obligations, or of the rights of the people of Namibia . . . because [p]hysical control of a territory, and not sovereignty or legitimacy of title, is the basis of State liability for acts affecting other States."); see also id. ¶ 122 ("[C]ertain general conventions such as those of a humanitarian character, the non-performance of which may adversely affect the people of Namibia," continue to apply).
- 161. See, e.g., Manitaras v. Turkey, App. No. 54591/00, ¶¶ 26–28 (Eur. Ct. H.R. June 3, 2008), http://hudoc.echr.coe.int/eng?i=001-87232; Loizidou v. Turkey, App. No. 15318/89, ¶¶ 62–63 (Eur. Ct. H.R. Dec. 18, 1996), http://hudoc.echr.coe.int/eng?i=001-58007.
- 162. See U.N. Human Rights Comm., Rep. of the Human Rights Comm. on Its Forty-Sixth Session, ¶ 652, U.N. Doc. A/46/40 (1991) (Iraq chapter).
- 163. See Armed Activities on Territory of Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168, ¶ 179 (Dec. 19) ("[The occupying power bears] responsibility . . . both for any acts of its military that violated its international obligations and for any lack of vigilance in preventing violations of human rights and international humanitarian law by other actors present in the occupied territory, including rebel groups acting on their own account."); see also id. ¶¶ 178, 248.
- 164. See Application of International Convention on Elimination of All Forms of Racial Discrimination (Geor. v. Russ.), Order on Provisional Measures, 2008 I.C.J. 353, ¶ 149 (Oct. 15); see also Georgia v. Russia (No. 2), App. No. 38263/08, ¶¶ 65–67 (Eur. Ct. H.R. Dec. 13, 2011), http://hudoc.echr.coe.int/eng?i=001-108097; Ilaşcu v. Moldova, 2004-VII Eur. Ct. H.R. 179, 282, ¶¶ 392–394.
- 165. See Legal Consequences of Construction of Wall in Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136, ¶ 109 (July 9) (finding that Israel's exercise of territorial control over Palestine engaged its responsibilities under human rights treaties); see also U.N. Human Rights Comm., Concluding Observations on Israel, Consideration of Reports Submitted by States Parties Under Article 40 of the Covenant, ¶ 11, U.N. Doc. CCPR/CO/78/ISR (Aug. 21, 2003).
 - 166. See Banković v. Belgium, 2001-XII Eur. Ct. H.R. 333.
- 167. See, e.g., Salas v. United States, Case 10.573, Inter-Am. Comm'n H.R., Report No. 31/93, OEA/Ser.L/V/II.85, doc. 9 rev. ¶ 1 (1993) (U.S. military intervention in Panama).
- 168. For U.K. decisions, see, e.g., Al-Jedda v. United Kingdom, 2011-IV Eur. Ct. H.R. 305, 308–10; Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, 102–04; Al-Saadoon v. United Kingdom, 2010-II Eur. Ct. H.R. 61, 101–02, $\P85-89$. For U.S. decisions, see, e.g., Regarding the Situation of the Detainees at Guantanamo Bay, United States MC 259-02, Resolution 2/11, Inter-Am.

In such circumstances, the test is clear and its application straightforward: the *fact* of effective control over a territory (regardless of its legality) engages the occupying State's responsibilities under human rights treaties to which it is a Party. ¹⁶⁹ Where the occupying State exercises effective control over a territory, it is generally required to ensure the entire range of the inhabitants' substantive rights and is liable for any violations of those rights. ¹⁷⁰

A common rationale for extending human rights protections to persons in the occupied territory is to avoid the emergence of a protection "vacuum" if the inhabitants were deprived of the safeguards they enjoyed prior to occupation. ¹⁷¹ Effectively, the occupying State steps in the shoes of the occupied State. However, the occupying State has been held to its human rights obligations even where the occupied State was *not* party to the same treaties and where no such "vacuum" could logically arise. ¹⁷² In such cases, human rights obligations have followed the occupier's flag.

The most frequently cited interpretation of the effective control test is the European Court's *Banković* decision—which also happens to be the most stringent application of the test. ¹⁷³ There, a unanimous Grand Chamber infamously held that the

Comm'n H.R. (July 22, 2011) (urging the United States to determine the legal status of detainees); see also Jaloud v. Netherlands, 2014-VI Eur. Ct. H.R. 229, 299–302, ¶¶ 140–153 (finding Dutch effective control over a checkpoint in Iraq).

^{169.} See Al-Skeini, 2011-IV Eur. Ct. H.R. at 169, ¶ 138.

^{170.} Id.

^{171.} *Id.* at 170, ¶ 142.

The ECtHR has applied the European Convention outside Europe's espace juridique (legal space) in, inter alia, Iraq (Jaloud, 2014-VI Eur. Ct. H.R. 229; Al-Jedda, 2011-IV Eur. Ct. H.R. 305; Al-Skeini, 2011-IV Eur. Ct. H.R. 99; Al-Saadoon, 2010-II Eur. Ct. H.R. 61; Issa v. Turkey, App. No. 31821/96 (Eur. Ct. H.R. Mar. 30, 2004), http://hudoc.echr.coe.int/eng?i=001-67460); Kenya (Öcalan v. Turkey, 2005-IV Eur. Ct. H.R. 131); Sudan (Ramirez Sánchez v. France, App. No. 28780/95, 86 Eur. Comm'n H.R. Dec. & Rep. 155 (1996)); Iran (Pad v. Turkey, App. No. 60167/00 (Eur. Ct. H.R. June 28, 2007), http:// hudoc.echr.coe.int/eng?i=001-81672); a U.N. neutral buffer-zone (Isaak v. Turkey, App. No. 44587/98 (Eur. Ct. H.R. Sept. 28, 2006), http://hudoc.echr .coe.int/eng?i=001-77533); and international waters (Medvedyev v. France, 2010-III Eur. Ct. H.R. 61). See Al-Skeini, 2011-IV Eur. Ct. H.R. at 170, ¶ 142. But see Banković v. Belgium, 2001-XII Eur. Ct. H.R. 333, 359, ¶ 80 ("[T]he desirability of avoiding a gap or vacuum in human rights' protection has so far been relied on by the Court in favour of establishing jurisdiction only when the territory in question was one that, but for the specific circumstances, would normally be covered by the Convention.") (emphasis added).

^{173.} Banković, 2001-XII Eur. Ct. H.R. 333.

European Convention did not apply to NATO's aerial bombing of television and radio facilities in Belgrade, which killed a number of civilians. The Court found no "jurisdictional link" between the victims of the air-strikes and the NATO States, To noting that "the real connection" was the bombing itself—i.e., "the impugned act which, wherever decided, was performed, or had effects, outside of the territory of those States ('the extra-territorial act')." The Court concluded that this extraterritorial act, without more, could not bring the applicants and their deceased relatives within the jurisdiction of the respondent States.

The *Banković* decision has been much criticized, ¹⁷⁸ including by ECtHR judges, ¹⁷⁹ and the Court has departed from it in its more recent decisions. ¹⁸⁰ But, even if not good law, *Banković* is still law. ¹⁸¹ Most relevant for present purposes is the Court's view that a single extraterritorial act (here, the bombing) cannot trigger the respondent States' positive obligation under Article 1 to secure the Convention rights in the affected territory. ¹⁸² The Court described the applicants' "cause-and-effect' notion of jurisdiction" as

tantamount to arguing that anyone adversely affected by an act imputable to a Contracting State, wherever in the world that act may have been committed or its consequences felt, is thereby brought within the jurisdiction of that State for the purpose of Article 1 of the Convention. 183

^{174.} Id. at 359.

^{175.} Id.; cf. Ben El Mahi v. Denmark, 2006-XV Eur. Ct. H.R. 365; Marković v. Italy, 2006-XIV Eur. Ct. H.R. 235, 260, ¶ 50.

^{176.} $Bankovi\acute{c}$, 2001-XII Eur. Ct. H.R. at 350, ¶ 54.

^{177.} *Id.* at 350, ¶ 54, 359, ¶ 82.

^{178.} See Alexander Orakhelashvili, Restrictive Interpretation of Human Rights Treaties in the Recent Jurisprudence of the European Court of Human Rights, 14 Eur. J. Int'l L. 529, 538–51 (2003); Erik Roxstrom et al., The NATO Bombing Case (Banković et al. v. Belgium et al.) and the Limits of Western Human Rights Protection, 23 B.U. Int'l L.J. 55 (2005); see also Maria L. Banda, On the Water's Edge? A Comparative Study of the Influence of International Law and the Extraterritorial Reach of Domestic Laws in the War on Terror Jurisprudence, 41 GEO. J. Int'l L. 525, 546 (2010).

^{179.} See, e.g., Ilaşcu v. Moldova, 2004-VII Eur. Ct. H.R. 179, 329 (Loucadies, J., dissenting in part).

^{180.} See infra Part III.C.

^{181.} See infra note 231.

^{182.} Banković, 2001-XII Eur. Ct. H.R. at 356–57, ¶¶ 74–75.

^{183.} *Id.* at 356–57, ¶ 75.

The Court rejected this theory on the grounds that the positive obligation to secure the rights and freedoms under the Convention cannot "be divided and tailored" based on the particular circumstances of the extraterritorial act in question, as that would render the Convention's jurisdictional clause superfluous.¹⁸⁴

How suitable is the effective control test for dealing with transboundary environmental harm? The doctrine is restrictive. Given that it owes its existence to a particular scenario (military occupation), it is difficult to apply in other cases. It is particularly unworkable in situations involving transboundary environmental harm. As former Special Rapporteur on Human Rights and the Environment John Knox noted, "[i]f dropping bombs on a city does not amount to effective control of its occupants, allowing pollution to move across an international border almost certainly would not." While this is certainly true under *Banković*, other approaches could open the door to transboundary environmental claims. ¹⁸⁶

B. THE PHYSICAL CONTROL TEST

The second approach—the physical control test—has emerged from cases in which State agents mistreated persons on foreign soil without seizing control of the other State's territory or public authorities, for example, through arrest, kidnapping, detention, or rendition, ¹⁸⁷ actions of their diplomatic or consular

For European cases, see, e.g., Cyprus v. Turkey, App. Nos. 6780/74,

^{184.} Id.

^{185.} Knox, supra note 23, at 87.

^{186.} See infra Part III.C; see also Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, 168, ¶ 137 ("[W]henever the State, through its agents, exercises control and authority over an individual, and thus jurisdiction, the State is under an obligation under Article 1 to secure to that individual the rights and freedoms . . . that are relevant to the situation of that individual. In this sense, therefore, the Convention rights can be 'divided and tailored' (compare $Bankovi\acute{e}\ldots$ § 75).").

^{187.} For Inter-American cases, see, e.g., Coard v. United States, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, OEA/Ser.L/V/II.106, doc. 6 rev. ¶ 37 (1999) (applying the physical control test where U.S. armed forces in Granada detained and subjected applicants to an unfair trial); Aisalla Molina (Ecuador v. Colombia), Inter-State Petition IP-02, Inter-Am. Comm'n H.R., Report No. 112/10, OEA/Ser.L/V/II.140, doc. 10 ¶ 91 (2010) (applying the test to the extrajudicial execution of an Ecuadorian citizen by agents of Colombia's military forces during an eleven-hour operation on Ecuadorian soil). See also Persons Detained by the United States in Guantanamo Bay, Cuba, Inter-Am. Comm'n H.R., Precautionary Measure No. 259/02 (Mar. 12, 2002), http://www.oas.org/en/iachr/pdl/decisions/GuatanamoMC.asp#MC25902.

staff, 188 and interception on the high seas. 189

As the European Court noted in relation to these cases, jurisdiction does not arise "solely from the control exercised by the Contracting State over the buildings, aircraft or ship in which the individuals were held. What is decisive in such cases is the exercise of physical power and control over the person in question."190 The physical control test is thus a variant of the first

6950/75, 2 Eur. Comm'n H.R. Dec. & Rep. 1, 21, ¶¶ 8, 10 (1976) ("[I]nsofar as [Turkish] armed forces, by their acts or omissions, affect [Cypriot] persons' rights or freedoms under the Convention, the responsibility of Turkey is engaged."); Freda v. Italy, App. No. 8916/80, 21 Eur. Comm'n H.R. Dec. & Rep. 250, 255, ¶ 3 (1980) (arrest by Costa Rican police, on behalf of Italian police, and forced transport to Italy); Reinette v. France, App. No. 14009/88, 63 Eur. Comm'n H.R. Dec. & Rep. 189, 193 (1989) (arrest and detention on board a military aircraft by French authorities); Ramirez Sánchez v. France, App. No. 28780/95, 86 Eur. Comm'n H.R. Dec. & Rep. 155, 161–62, ¶ 2 (1996) (arrest in Sudan and forced transport by French police to France); Issa v. Turkey, App. No. 31821/96, ¶¶ 71-76 (Eur. Ct. H.R. Mar. 30, 2004) (arrest and execution by Turkish soldiers in Northern Iraq); Öcalan v. Turkey, 2005-IV Eur. Ct. H.R. 131, 164–65, ¶ 91 (arrest by Turkish security forces in Nairobi Airport's international area).

It is not always clear which test the ECtHR meant to apply. In some cases, it may have been applying the first test. See, e.g., Al-Saadoon v. United Kingdom, 2010-II Eur. Ct. H.R. 61, 101–02, $\P\P$ 86–89 (Iraqi nationals detained in British-controlled military prisons in Iraq fell within UK's jurisdiction since it exercised total and exclusive control over the prisons and the individuals detained in them). In other cases, the Court may have been motivated by the third test. See, e.g., Xhayara v. Italy, App. No. 39473/98 (Eur. Ct. H.R. Jan. 1, 2001), http://hudoc.echr.coe.int/eng?i=002-5809 (ramming of an Albanian ship carrying illegal migrants by an Italian military vessel brought claimants within Italy's jurisdiction); X. v. Switzerland, App. Nos. 7289/75, 7349/76, 9 Eur. Comm'n H.R. Dec. & Rep. 64-65 (1977) (prohibition imposed by Swiss police on a German citizen's entry into Liechtenstein pursuant to Swiss-Liechtenstein treaty).

For UNHRC cases, see López Burgos v. Uruguay, Commc'n No. R.12/52 (June 6, 1979), at 176, U.N. Doc. Supp. No. 40 (A/36/40) (1981); Celiberti de Casariego v. Uruguay, Commc'n No. 56/1979 (July 29, 1981), at 92, U.N. Doc. CCPR/C/OP/1 (1985). See also Munaf v. Romania, Commc'n No. 1539/2006 (July 30, 2009), at 2, U.N. Doc. CCPR/C/96/D/1539/2006 (2009) (transfer of Iraqi-American from Romanian embassy in Baghdad to multinational forces in Iraq).

188. See, e.g., Montero v. Uruguay, Commc'n No. 106/1981 (Mar. 31, 1983), at 136, U.N. Doc. CCPR/C/OP/2 (1990) (refusal by Uruguayan consulate in Germany to renew passport of a Uruguayan national). Note that the consular cases, which have generally dealt with denial of passports or visas to nationals residing abroad, do not involve true exercise of extraterritorial jurisdiction since authority rests with the State of nationality.

189. See, e.g., Medvedyev v. France, 2010-III Eur. Ct. H.R. 61, 87, ¶ 67 (interception of Cambodian-registered ship and detention of crew); Haitian Ctr. for Human Rights v. United States, Case 10.675, Inter-Am. Comm'n H.R., Report No. 51/96, OEA/Ser.L/V/II.95, doc. 7 rev. ¶ 171 (1997) (interception of refugees).

190. Al-Skeini, 2011-IV Eur. Ct. H.R. at 168, ¶ 136 (emphasis added).

test. However, it lowers the threshold relative to the effective control test by requiring evidence of the State's exercise of control or authority over a particular individual or group, and *not* the geographic area where the alleged violation took place.¹⁹¹

The test was most famously formulated in the UNHRC's early case of *López Burgos v. Uruguay*, in which Uruguayan security and intelligence forces had kidnapped and detained a Uruguayan political refugee in Argentina before clandestinely transporting him back to Uruguay, where he was tortured. 192 The UNHRC explained that the obligation to respect and ensure rights "to all individuals within its territory and subject to its jurisdiction" under Article 2(1) of the ICCPR "does not imply that the State party concerned cannot be held accountable for violations of rights under the Covenant which its agents commit upon the territory of another State "193 Similarly, it found that the reference to "individuals subject to its jurisdiction" in the Optional Protocol refers "not to the place where the violation occurred, but rather to the relationship between the individual and the State in relation to a violation of any of the rights set forth in the Covenant, wherever they occurred."194 Since that relationship arose as a result of the State's violation of the claimant's rights, it effectively amounts to the cause-and-effect theory of jurisdiction that *Banković* rejected.

The rationale for extending human rights protections to individuals in these circumstances is fundamental justice:

[I]t would be unconscionable to so interpret the responsibility under...the Covenant as to permit a State party to perpetrate violations of the Covenant on the territory of another State, which violations it could not perpetrate on its own territory. 195

^{191.} See, e.g., Coard, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, ¶ 37 ("[T]he inquiry turns not on the presumed victim's nationality or presence within a particular geographic area, but on whether, under the specific circumstances, the State observed the rights of a person subject to its authority and control."). Note that the European Commission and the IACHR have historically applied the physical control test even where the effective control test might have been met. See, e.g., id.; Cyprus, 2 Eur. Comm'n H.R. Dec. & Rep. at 8, $\P\P$ 8, 10. More recently, however, the IACHR may have edged closer to the effective control test. See, e.g., Ameziane v. United States, Petition P-900-08, Inter-Am. Comm'n. H.R., Report No. 17/12, OEA/Ser.L/V/II.144, doc. 21 $\P\P$ 30–32 (2012) (detention of an Algerian national by U.S. agents in Afghanistan).

^{192.} *López Burgos*, Commc'n No. R.12/52, at 176–77.

^{193.} *Id.* at 182, ¶ 12.3.

^{194.} *Id.* at 182, ¶ 12.2 (emphasis added).

^{195.} Id. at 183 (emphasis added); cf. Celiberti de Casariego v. Uruguay,

A number of other judgments have since echoed this logic. ¹⁹⁶ The Inter-American institutions, in particular, have emphasized the principles of equality and nondiscrimination in determining whether a State could be held accountable extraterritorially. ¹⁹⁷

The content of the State's duties under the physical control test, however, is generally narrower than under the effective control test. In cases involving limited activities of State agents abroad, courts have not asked the State to protect the full range of substantive rights. Rather, the obligation is limited to respect for the rights of persons whose lives are being interfered with, for the period of interference. 198

At the same time, the physical control test extends the geographic scope of State obligations relative to the effective control test. However, like the effective control test, this test is of little avail to victims of transboundary environmental harm—except in the unlikely scenario where State agents physically transport harmful pollutants across the border. But it would not reach the typical case where pollution travels across the border via polluting media like air or water. ¹⁹⁹

Commc'n No. 56/1979 (July 29, 1981), at 94, U.N. Doc. CCPR/C/OP/1 (1985).

196. See, e.g., Ben El Mahi v. Denmark, 2006-XV Eur. Ct. H.R. 367, 376 ("Accountability in such situations stems from the fact that Article 1 cannot be interpreted so as to allow a State Party to perpetrate violations of the Convention on the territory of another State which it would not be permitted to perpetrate on its own territory."); Issa v. Turkey, App. No. 31821/96, at 24, ¶ 71 (Eur. Ct. H.R. Nov. 16, 2004), http://hudoc.echr.coe.int/eng?i=001-67460; cf. Isaak v. Turkey, App. No. 44587/98 (Eur. Ct. H.R. June 24, 2006), http://hudoc.echr.coe.int/eng?i=001-87146 (noting that Article 2 requires States to protect the lives of those in their jurisdiction).

197. See, e.g., Coard v. United States, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, OEA/Ser.L/V/II.106, doc. 6 rev. \P 37 (1999).

198. See Aisalla Molina (Ecuador v. Colombia), Inter-State Petition IP-02, Inter-Am. Comm'n H.R., Report No. 112/10, OEA/Ser.L/V/II.140, doc. 10 ¶ 100 (2010) (rather than "guarantee[ing] the catalogue of substantive rights established in the American Convention . . . the obligation . . . arise[s] in the period of time that agents of a State interfere in the lives of persons who are on the territory of the other State, for those agents to respect their rights, in particular, their right to life and humane treatment."); cf. Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, 168, ¶ 137 ("[T]he State is under an obligation . . . to secure to that individual the rights and freedoms . . . that are relevant to the situation of that individual.") (emphasis added).

199. Drawing an analogy to this line of cases, Boyle has argued that the ECHR could apply extraterritorially where a State fails to prevent environmental harm in neighboring countries. Boyle, supra note 87, at 500 ("If states are responsible for their failure to control soldiers and judges abroad, a fortiori they should likewise be held responsible for a failure to control trans-boundary pollution and environmental harm emanating from industrial activities inside

C. THE DIRECT EFFECTS TEST

Most relevant for present purposes is what I call the *direct* effects test. This approach has been applied in a small number of cases involving incidental cross-border harm or extraterritorial impacts of domestic measures, often under a different label. This line of cases is distinct from the physical control test discussed above: here, the act of violation brought the individual within a State's "jurisdiction" not because the State's agents were acting on foreign soil but because the *effects* of their actions were felt there.²⁰⁰

The notion that acts or omissions that produce adverse effects on human rights outside a State's territory may give rise to international responsibility has long been acknowledged in Inter-American²⁰¹ and European²⁰² jurisprudence. However, the case law started reflecting this principle only recently—and often without expressly admitting the doctrinal shift.²⁰³ In several

their own territory. These activities are within their jurisdiction in the obvious sense of being subject to their own law and administrative controls. Only the effects are extraterritorial."). The difficulty with this analysis is that most human rights conventions require that the claimants (not the activities) be within the State's "jurisdiction." More importantly, as explained above, the physical control test (based on actions of State agents abroad) does not support extraterritorial application in environmental cases. However, the direct effects test, which I discuss in Part III.C below, does.

200. This test should not be confused with the effects test in the domestic context, which is used to extend U.S. prescriptive jurisdiction over foreign activities whose effects are felt domestically. *See* RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 402 cmt.d (AM. LAW INST. 1986).

201. See, e.g., Saldaño v. Argentina, Inter-Am. Comm'n H.R., Report No. 38/99, OEA/Ser.L/V/II.95, doc. 7 rev. ¶ 17 (1999) (explaining that the term "jurisdiction" under Article 1(1) "is not limited to or merely coextensive with national territory. . . . [A] state party to the American Convention may be responsible under certain circumstances for the acts and omissions of its agents which produce effects or are undertaken outside that state's own territory") (emphasis added).

202. See, e.g., Loizidou v. Turkey, App. No. 15318/89, ¶ 62 (Eur. Ct. H.R. Mar. 23, 1995), http://hudoc.echr.coe.int/eng?=001-57920 ("[T]he responsibility of Contracting Parties can be involved because of acts of their authorities, whether performed within or outside national boundaries, which produce effects outside their own territory.") (emphasis added); cf. Drozd v. France, App. No. 12747/87, ¶ 91 (Eur. Ct. H.R. June 26, 1992), http://hudoc.echr.coe.int/eng?=001-57774 ("[State] responsibility can be involved because of acts of their authorities producing effects outside their own territory.").

203. See Coard v. United States, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, OEA/Ser.L/V/II.106, \P 37 (1999); infra note 205.

cases that turn on the extraterritorial effects of the State's actions, tribunals have actually employed the language of the physical control test.

First, human rights obligations have been held to apply where State agents caused harm to persons outside of the State's territory. For example, in *Alejandre v. Cuba*, the Inter-American Commission found that the shooting down of two civilian aircraft by a Cuban jet fighter in international airspace brought the victims within Cuba's authority and triggered Cuba's duties under the American Declaration.²⁰⁴ No further jurisdictional link or special connection between Cuba and the aircraft passengers was required. While the Commission used the language of the physical control test,²⁰⁵ in reality it was applying the direct effects test.²⁰⁶

Similarly, in *Bastidas Meneses v. Ecuador*, the Commission found that the American Convention applied where four Colombian nationals were killed by gunshots fired across the border by Ecuador's armed forces.²⁰⁷ The Commission stated that it would consider "evidence regarding the participation of the agents of the Ecuadorian State in the incidents, *regardless of whether the incidents took place outside its territory*," because the petition claimed violations of the American Convention by State agents.²⁰⁸ The Commission also emphasized that the Convention can apply to "the conduct with an extraterritorial locus, where the person is not present in a State's territory," so long as "there is a *causal connection* between the extraterritorial conduct of a State and the alleged violation of the rights and liberties of a person."²⁰⁹ This is essentially the cause-and-effect theory of extraterritorial jurisdiction rejected by *Banković*.

The European Court itself has followed a similar approach after *Banković*. In *Andreou v. Turkey*, a Cypriot national was

^{204.} Alejandre v. Cuba, Case 11.589, Inter-Am. Comm'n H.R., Report No. 86/99, OEA/Ser.L/V/II.106, doc. 3 rev. \P 23–25 (1999).

^{205.} *Id.* ¶ 25 ("[A]gents of the Cuban State, although outside their territory, placed the civilian pilots of the 'Brothers to the Rescue' organization under their authority.").

^{206.} *Id.* ("[T]he victims died as a consequence of direct actions taken by agents of the Cuban State in international airspace.").

^{207.} See Bastidas Meneses v. Ecuador, Petition 189-03, Inter-Am. Comm'n H.R., Report No. 153/11, ¶ 18 (2011).

^{208.} Id. ¶ 23 (emphasis added).

^{209.} Id. ¶ 22 (emphasis added).

shot by Turkish forces on territory beyond Turkey's control. ²¹⁰ The Court found that the shooting was "the direct and immediate cause" of injury. ²¹¹ This was sufficient to bring the victims within Turkey's jurisdiction. As the Court explained, "acts... which produce effects outside [a State's] territory and over which they exercise no control or authority may amount to the exercise by them of jurisdiction" under the Convention. ²¹² The Court applied the same reasoning in *Pad v. Turkey*, where a group of Iranian nationals was shot from Turkish helicopters near the Turkey-Iran border. ²¹³ The Court did not establish on which side of the border the murder took place: what was decisive was that the cause of the injury was the discharge of weapons by Turkey's troops, regardless of where they, or the victims, happened to be.

Second, human rights obligations have followed the State's extraterritorial exercise of legislative authority. For example, in *Kovačić v. Slovenia*, the European Court found that Slovenia's legislation, which had deprived Croatian residents of their savings in a Slovenian bank in Croatia, was "produc[ing] effects, albeit outside Slovenian territory," such that it engaged Slovenia's responsibility under the Convention. ²¹⁴ Similarly, in *Gueye v. France*, the UNHRC established that the Covenant applied to discrimination claims by retired Senegalese soldiers of the French Army residing in Senegal. ²¹⁵ The UNHRC observed that the claimants were "not generally subject to French 'jurisdiction,' except that they rely on French legislation in relation to the amount of their pension rights," and concluded that they could bring a claim against France on that basis. ²¹⁶

Third, human rights obligations have attached to the State's exercise of adjudicative or enforcement measures affecting persons outside of its territory. For example, in *Stephens v. Malta*, a British national was arrested and detained in Spain at Malta's

^{210.} Andreou v. Turkey, App. No. 45653/99 (Eur. Ct. H.R. June 3, 2008), http://hudoc.echr.coe.int/eng?i=001-88068 (admissibility decision).

^{211.} *Id.* at 11.

^{212.} Id. at 10-11.

^{213.} Pad v. Turkey, App. No. 60167/00 ¶¶ 54–55 (Eur. Ct. H.R. June 28, 2007).

^{214.} Kovačić v. Slovenia, App. Nos. 44574/98, 45133/98, 48316/99 § 5(c) (Eur. Ct. H.R. Apr. 1, 2004) (admissibility decision).

^{215.} Gueye v. Grance, Commc'n No. 196/1985, U.N. Human Rights Comm., U.N. Doc. CCPR/C/35/D/196/1985 (1989).

^{216.} *Id.* at 193–94, ¶ 9.4.

extradition request, issued pursuant to a Maltese arrest warrant alleging that he had conspired in Spain to transport drugs to Malta. The applicant was under Spain's control and authority throughout the relevant period. However, focusing on the *cause* of the applicant's deprivation of liberty, the Court found "its sole origin" in Malta's measures. In effect, because Malta's actions "set in motion" and "instigated" the applicant's detention, the responsibility for any violation of the Convention lay with Malta even though the arrest and detention were executed entirely in Spain. 220

Finally, the scope of extraterritorial duties may depend on the State's *power to protect* rights in a given case. As the European Court observed,

even in the absence of effective control of a territory outside its borders, the State still has a positive obligation under Article 1 of the Convention to take the diplomatic, economic, judicial or other measures that it is in its power to take . . . to secure . . . the rights guaranteed by the Convention. 221

This is the broadest articulation of the direct effects test, which zeroes in on the State's power or capacity to protect rights in a given case (positive duties) rather than its actual measures (negative duties). In his Partial Dissent in *Ilaşcu*, Judge Loucaides reasoned that a State should "be accountable . . . for failure to discharge its positive obligations in respect of any person if it was in a position to exercise its authority directly or even indirectly over that person or over the territory where that person is." This notion of positive duties speaks to the concept of due diligence in environmental law, which I discuss below.

Building on the above case law, the Inter-American Court had an opportunity to refine and clarify the direct effects test in its Advisory Opinion. However, it took a different approach.

^{217.} Stephens v. Malta (No. 1), App. No. 11956/07 (Eur. Ct. H.R. Apr. 21, 2009), http://hudoc.echr.coe.int/eng?i=001-92351.

^{218.} Id. ¶ 51.

^{219.} Id.

^{220.} Id. ¶ 52.

^{221.} Manoilescu v. Romania, 2005-VI Eur. Ct. H.R. 357, 390, ¶ 101. The case involved the transfer of private property by Romania to Russia; Russia's obligation under Article 1 was not engaged because of its sovereign immunity. *Id.* at 392, ¶ 107; *see also* Treska v. Albania, 2006-XI Eur. Ct. H.R. 397, 410; Armed Activities on Territory of Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168, ¶ 178 (Dec. 19).

 $^{222.\ \} See$ Ilașcu v. Moldova, 2004-VII Eur. Ct. H.R. 179, 329 (Loucaides, J., dissenting in part).

First, consistent with the two traditional tests discussed above, the Court opined that the term "jurisdiction" in Article 1(1) of the American Convention encompasses any situation in which a State exercises "authority" over a person or subjects the person to its "effective control," whether within or outside its territory. 223 Second, seemingly in line with the direct effects test, the Court explained that the term "jurisdiction" can also embrace activities within a State that cause cross-border effects, as States have a duty to prevent transboundary environmental damage that could impair the rights of persons outside their territory.²²⁴ Therefore, it advised that, in cases of transboundary environmental harm, a person will be deemed to be subject to the "jurisdiction" of the State in which the harm originates if there is a "causal relationship" between the polluting activities in the State's territory and the cross-border impact on rights.²²⁵ However, the Court explained that the exercise of jurisdiction arises because the State has "effective control" over the activities that caused the damage and is in a position to prevent harm.²²⁶

In other words, rather than treating the direct effects as a separate basis of extraterritorial jurisdiction, the Court chose to subsume this approach under the effective control test. The Court thus essentially redefined the effective control test in the Advisory Opinion: in the Inter-American context, effective control now apparently also refers to the State's control over the domestic *activities* in question (as understood in international environmental law) and not merely its control over a person or territory (as usually understood in international human rights law).

D. SUMMARY

As the foregoing discussion shows, the dominant understanding of the extraterritorial scope of human rights treaties (as reflected in the first and second tests) will almost certainly fail to capture cases in which a State causes, or permits, cross-border pollution that harms another State's inhabitants. This is a major barrier to justice for victims whose own State chooses

^{223.} Environment and Human Rights Advisory Opinion, supra note 19, ¶ 81.

^{224.} $Id. \P\P 81, 95, 101.$

^{225.} *Id.* ¶ 101.

^{226.} Id. ¶ 102.

not to use inter-State dispute procedures in environmental matters.²²⁷ Given this jurisprudence, it is not surprising that scholars generally discount the potential contribution of the human rights regime to redressing cross-border pollution.²²⁸

Yet, as this Article shows, that is an overly pessimistic view, as it ignores the emergence and the human rights tribunals' silent application of a third test.²²⁹ The direct effects test, if adopted more widely, could ensure that the victims are not denied their right to a remedy if their home State chooses not to or cannot espouse their claims.²³⁰ As this Article has shown, international responsibility can and does attach to State actions that have caused direct harm to persons outside the State's own territory—even in the absence of effective control over a foreign territory or direct control over a person.²³¹ The decisive element is the presence of a direct causal link between the State's actions within its own jurisdiction and the injury suffered abroad.

There is no reason why the same approach should not apply to cross-border pollution—if the act originates in the State's territory but causes harm abroad. In this sense, the direct effects test could serve as the channel through which the environmental regime can inform and complement the human rights regime at their points of intersection.

^{227.} See supra Introduction.

^{228.} For example, Knox has argued that the IEL regime might hold comparably more promise for individual claims, as would the ICESCR (especially its duty to cooperate). See Knox, supra note 23, at 82, 86-88, 93 (noting that human rights law has "unclear" extraterritorial scope and provides "few precedents" applicable to transboundary environmental harm); see also John H. Knox, Climate Change and Human Rights Law, 50 VA. J. INT'L L. 163, 200-04 (2009) ("Arguing that the extraterritorial harm caused by climate change meets the 'effective control' test would be difficult, but . . . ICESCR . . . provides a clearer basis for extraterritorial duties ").

^{229.} See, e.g., Knox, supra note 23, at 87 (emphasizing the "effective control" test).

^{230.} See supra Introduction.

This reasoning stands in direct opposition to Banković's admonition against the "cause-and-effect" theory of extraterritorial jurisdiction. See supra text accompanying notes 183-84. Despite these recent decisions, the ECtHR continues reiterating support for this aspect of Banković. See Medvedyev v. France, 2010-III Eur. Ct. H.R. 61, 92, ¶ 64 (affirming that "an instantaneous extraterritorial act" falls outside the purview of the Convention, which does "not admit of a 'cause and effect' notion of 'jurisdiction'").

E. IS THE DIRECT EFFECTS TEST LIMITLESS?

But just how far should the direct effects test—and the scope of State responsibility under human rights treaties—extend? In today's globalized world, virtually every domestic decision—from tax policy to labor law—can send ripples through other States. As Henry Shue noted, in a dense web of economic relations, "a vote in Washington to change the wheat price supports for Nebraska can change the price of bread in Calcutta and the price of meat in Kiev." Adverse impacts on other States' citizens will vary in magnitude and frequency.

For example, if State A imposes high import-tariffs on wheat, it could contribute to unemployment and poverty in State B's wheat-exporting regions. But does State A have a duty under human rights law *not* to impose such measures? Or, if State C adopts a liberal immigration policy favoring doctors from developing countries such as State D, it could deprive State D of its medical talent. But would State C be liable under human rights law if a person in State D dies due to a lack of medical staff? Or, if State E bans the use of a carcinogenic pesticide produced in State F, it could reduce demand for State F's exports. But would State E incur responsibility if the resulting unemployment causes hardship to State F's workers?

Holding States liable under such circumstances risks stretching the direct effects test too far. Not every domestic act (or omission) that produces effects outside a State's territory should give rise to international responsibility under human rights law. Many cross-border impacts are better addressed in political forums, under MEAs, or in trade negotiations—not by human rights courts. As the European Court cautioned in $Bankovi\acute{c}$, a State cannot be liable to everyone adversely affected by an act imputable to the State, wherever in the world its consequences are felt.²³³

So where should we draw the line? For the direct effects test to be fair and workable, 234 I suggest that the chain of causation

^{232.} Henry Shue, Mediating Duties, 98 ETHICS 687, 694 (1988).

^{233.} *Banković*, 2001-XII Eur. Ct. H.R. at 356, ¶ 75.

^{234.} Milanovic, in contrast, argues that the physical control test (which he calls the "personal model") goes too far by imposing duties on States towards all individuals whose rights they are able to violate and that it cannot be usefully limited. MILANOVIC, *supra* note 22, at 119, 171–73, 186–87, 206–07. Milanovic, however, appears to treat all cases not applying the effective control test (which he calls the "spatial model") as falling within the personal model. *Id.* at 184–85,

must be sufficiently clear and attributable to the State by virtue of its (or its agents') acts or omissions. Human rights treaties do not always provide clear guidance in this respect. However, as I explain below, in situations involving human rights injuries resulting from transboundary environment harm, international environmental law can supply reasonable limits on State liability that could also be applied under the direct effects test in the human rights context.²³⁵ I turn to that next.

IV. THE LAW OF TRANSBOUNDARY ENVIRONMENTAL HARM

While the human rights regime has struggled to define its outer limits and often resorted to *ad hoc* approaches to establish the scope of States' extraterritorial obligations, the duty to prevent transboundary harm undergirds the entire international environmental regime. ²³⁶ This Part briefly reviews the nature of this fundamental norm to explain how it might inform the scope of transboundary duties under human rights conventions. It distinguishes between two related customary duties—the duty to prevent, reduce, and control transboundary environmental harm (Part IV.A), and the duty to cooperate with the potentially affected States in mitigating risks of transboundary environmental harm (Part IV.B)—which are firmly established in the jurisprudence and reflected in a large number of treaties. It also considers the common core of sovereignty-related obligations (Part IV.C).

A. THE DUTY TO PREVENT

It is a tenet of general international law that States may not conduct or allow activities in their territory, or in common spaces, in disregard of the rights of other States, such as allowing hostile expeditions into their neighbors' territory.²³⁷ This is

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^{202, 204.} As this Article has shown, there is a substantial difference between the physical control test, which involves activities of State agents on foreign soil, and the direct effects test, which involves extraterritorial consequences of domestic activities. The former does not risk collapsing onto itself; it is rather the latter that is in need of limiting principles, which, as explained in Part IV below, can be derived from IEL in the nexus cases.

^{235.} See infra Part V.B.1.

^{236.} See supra Part I.B.

^{237.} See Corfu Channel (U.K. v. Alb.), Judgment, 1949 I.C.J. 4, 22 (Apr. 9) (emphasizing "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States" among "certain general and

the maxim of *sic utere tuo ut alienum non laedas*: use what is yours so as not to injure others.²³⁸ States are responsible for activities, occurring in their territory, which have injurious extraterritorial effects.²³⁹

This principle was extended to the environmental realm in the seminal *Trail Smelter* arbitration between the United States and Canada—the first inter-State dispute over air pollution.²⁴⁰ Throughout the 1920s, a large smelter in Trail, British Columbia, was releasing great quantities of sulfur dioxide (SO₂) into the air.²⁴¹ By 1930, it was emitting 300–350 tons of SO₂ fumes daily. The fumes travelled from Canada down the Columbia River Valley into the State of Washington, where they were harming local farms and forests. In 1934, the damage was so considerable that President Franklin D. Roosevelt raised the issue directly with the Canadian Prime Minister on behalf of U.S. nationals. The United States, where it was already established that one U.S. state may not cause cross-border harm to another,²⁴² eventually commenced arbitration against Canada.

In the final award, the Tribunal famously ruled that, under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.²⁴³

well-recognized principles" of international law); see also ILC 1949 Survey, supra note 57, at 34, ¶ 57.

^{238.} L. OPPENHEIM, INTERNATIONAL LAW: A TREATISE 346–47 (8th ed. 1955) ("[This maxim] is applicable to relations of States no less than to those of individuals.").

^{239.} The precise nature of the duty requires further elaboration. See generally Boyle, supra note 16.

^{240.} Trail Smelter (U.S. v. Can.), 3 R.I.A.A. 1905, 1938 (1941).

^{241.} Id. at 1945.

^{242.} See, e.g., Georgia v. Tenn. Copper Co., 206 U.S. 230, 238–39 (1907); Missouri v. Illinois, 200 U.S. 496, 521–22 (1906).

^{243.} Trail Smelter, 3 R.I.A.A. at 1965. The Tribunal relied, inter alia, on Alabama Claims (U.S. v. Gr. Brit.), 29 R.I.A.A. 125, 129–32 (1872) (establishing the due diligence principle in the context of neutrality) and CLYDE EAGLETON, THE RESPONSIBILITY OF STATES IN INTERNATIONAL LAW 80 (1928) ("A state owes at all times a duty to protect other states against injurious acts by individuals from within its jurisdiction."). It also cited U.S. and Swiss federal case law on internal disputes over pollution. Trail Smelter, 3 R.I.A.A. at 1963.

In other words, Canada's "presumptive freedom of action . . . within its territory" had to yield to "higher legal considerations." ²⁴⁴

The Tribunal held Canada responsible under international law for the smelter's conduct.²⁴⁵ Canada was not only liable for past injuries suffered by the United States, but also had to ensure that the smelter would "refrain from causing any damage through fumes" to its neighbor in the future.²⁴⁶ To control and reduce emissions to a point where they would not "cause injury to plant life" across the boundary, the Tribunal put in place "a regime" to collect scientific data.²⁴⁷

The *Trail Smelter* principle has been reaffirmed in numerous international decisions,²⁴⁸ General Assembly resolutions,²⁴⁹ work of the ILC,²⁵⁰ international standards and guidelines,²⁵¹

^{244.} See ILC 1949 Survey, supra note 57, ¶ 109.

^{245.} Trail Smelter, 3 R.I.A.A. at 1966 (Canada has "the duty . . . to see to it that this conduct should be in conformity with the obligation of the Dominion under international law").

^{246.} Id. at 1966.

^{247.} Id. at 1966, 1974.

^{248.} See, e.g., Iron Rhine ("Ijzeren Rijn") Ry. (Belg. v. Neth.), 27 R.I.A.A. 35, ¶ 59 (Perm. Ct. Arb. 2005) ("[W]here development may cause significant harm to the environment there is a duty to prevent, or at least mitigate, such harm This duty . . . has now become a principle of general international law. This principle applies not only in autonomous activities but also in activities undertaken in implementation of specific treaties between the Parties."); id. $\P\P$ 222–223; see also Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, \P 29 (July 8); Indus Waters Kishenganga Arbitration (Pak. v. India), Partial Award, \P 448 (Perm. Ct. Arb. 2013), https://pcacases.com/web/sendAttach/1681.

^{249.} See Stockholm Declaration, supra note 60, princ. 21; Rio Declaration, supra note 84, princ. 2; G.A. Res. 2995 (XXVII), Co-operation Between States in the Field of the Environment, ¶ 1 (Dec. 15, 1972); G.A. Res. 3129 (XXVIII), Co-operation in the Field of the Environment Concerning Natural Resources Shared by Two or More States (Dec. 13, 1973); G.A. Res. 3281 (XXIX), Charter of Economic Rights and Duties of States, arts. 3, 30 (Dec. 12, 1974); G.A. Res. 34/186, Co-operation in the Field of Environment Concerning Natural Resources Shared by Two or More States, art. 2 (Dec. 18, 1979); World Charter for Nature, supra note 84, ¶ 14; see also RESTATEMENT (THIRD) OF FOREIGN RELATIONS § 601 (AM. LAW INST. 1987).

^{250.} See Draft Articles on Prevention, supra note 29, at 148, \P 3; see also Int'l Law Comm'n, Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, in Rep. of the Int'l Law Comm'n, 58th Sess., U.N. Doc. A/61/10 (2006) [hereinafter Draft Principles on Liability].

^{251.} See, e.g., Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, U.N. Env't Progr. Governing

and has become firmly entrenched in the corpus of customary international law. 252

As the ICJ ruled in *Pulp Mills*, a dispute between Argentina and Uruguay over Uruguay's decision to build a pulp-processing plant on the River Uruguay,

the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory. It is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States." A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State. ²⁵³

Nowadays, the vast majority of transboundary environmental matters are governed by more specific (treaty-based) rules that have developed since 1972 to address particular issues, ²⁵⁴ such as marine pollution. However, customary law obligations have influenced the design of the modern MEAs: the principle of prevention of transboundary harm to the environment, persons, and property is now a cornerstone of numerous treaties, including on nuclear accidents, space objects, international watercourses, hazardous waste, and marine pollution. ²⁵⁵

Council Sixth Session, U.N. Doc. UNEP/GC.6.17, princ. 1–3 (May 19, 1978) [hereinafter UNEP Principles]; Organisation for Economic Co-operation and Development, Recommendations of the Council on Principles Concerning Transfrontier Pollution, OECD Doc. No. C(74)224 (Nov. 14, 1974).

252. See, e.g., Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 29 (July 8) ("[T]he environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn. The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment."); see also Gabčíkovo-Nagymaros Project (Hung./Slovk.), 1997 I.C.J. 7, ¶¶ 53, 140 (Sept. 25); Environment and Human Rights Advisory Opinion, supra note 19, ¶¶ 119, 120, 127–174; Canada: Statement of Claim Against the Union of Soviet Socialist Republics for Damage Caused by Cosmos 954, 18 I.L.M. 899 (1979) (seeking compensation following the disintegration of a Soviet nuclear-powered satellite over Canada).

253. Pulp Mills on River Uruguay (Arg. v. Uru.), 2010 I.C.J. 14, ¶ 101 (Apr. 20) (quoting Corfu Channel (U.K. v. Alb.), Judgment, 1949 I.C.J. 4, 22 (Apr. 9)); cf. Certain Activities Carried Out by Nicaragua in Border Area (Costa Rica v. Nicar.) and Construction of Road in Costa Rica Along San Juan River (Nicar. v. Costa Rica), 2015 I.C.J. 1, ¶ 104 (Dec. 16).

254. See supra Part I.B.

255. See Draft Articles on Prevention, supra note 29, at 149, \P 5; see, e.g., U.N. Convention on Biological Diversity (CBD) arts. 3–4, June 5, 1992, 1760 U.N.T.S. 79; U.N. Convention on the Law of the Sea art. 192, Dec. 10, 1982,

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Moreover, customary law remains relevant in other ways. In particular, it can aid courts' interpretation of treaty-based duties relating to environmental protection. For example, in the *South China Sea* arbitration, ITLOS held that the corpus of international environmental law informs the content of the general obligation in Article 192 of the U.N. Convention on the Law of the Sea (UNCLOS), which requires States to ensure that activities within their jurisdiction and control respect the environment of other States or areas beyond their national control. ²⁵⁶ Specifically, the Tribunal ruled that "States have a positive 'duty to prevent, or at least mitigate' significant harm to the environment when pursuing large-scale construction activities." Thus, even in the unlikely event that there are no applicable MEAs in a dispute, courts can rely on these antecedent customary norms.

B. THE DUTY TO COOPERATE

The duty to prevent transboundary environmental harm also entails a concomitant duty to cooperate with the potentially affected States to avert or contain any such harm. The duty to cooperate too is a "fundamental principle" of general international law.²⁵⁸

In the *Lac Lanoux* arbitration, a dispute between Spain and France over French plans to divert waters from a lake in the Pyrenees, the tribunal affirmed that international law does not grant the objecting State the "right of assent" or "right of veto," which would, "at the discretion of one State paralyse[] the exercise of the territorial jurisdiction of another." Instead, it

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¹⁸³³ U.N.T.S. 397 (entered into force Nov. 16, 1994) ("States have the obligation to protect and preserve the marine environment."); *id.* art. 194 (embedding the duty to prevent harm).

^{256.} South China Sea (Phil. v. China), PCA Case No. 2013-19, Award, $\P\P$ 941, 944, 959 (Perm. Ct. Arb. 2016), https://pcacases.com/web/sendAttach/2086.

^{257.} Id. ¶ 941 (internal citations omitted).

^{258.} Mox Plant (Ir. v. U.K.), Case No. 10, Order of Dec. 3, 2001, ¶ 82 (ITLOS 2001), https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_10/published/C10-O-3_dec_01.pdf ("[T]he duty to cooperate is a fundamental principle in the prevention of pollution of the marine environment under Part XII of the [UNCLOS] and general international law."); see also Environment and Human Rights Advisory Opinion, supra note 19, ¶¶ 181–209.

^{259.} Lac Lanoux (Fr. v. Spain), 12 R.I.A.A. 281, \P 11 (Perm. Ct. Arb. 1957) (noting this would mean that "the State which is normally competent has lost

obliges States "to seek, by preliminary negotiations, terms for an agreement, without subordinating the exercise of their competences to the conclusion of such an agreement."²⁶⁰ By cooperating, as the World Court stated in *Pulp Mills*, "the States concerned can jointly manage the risks of damage to the environment that might be created by the plans initiated by one or [the] other of them, so as to prevent the damage in question."²⁶¹

Nowadays, a number of international and regional treaties specify detailed procedural obligations relating to notification, consultation, and the conduct of EIAs in case of transboundary environmental risk²⁶²—duties of *bon voisinage* that courts have also imposed as a matter of general international law.²⁶³ The obligation of States to cooperate (through notification, consultation, and negotiation) also permeates the Rio Declaration,²⁶⁴ the Draft Articles on Prevention of Transboundary Harm,²⁶⁵ and

its right to act alone as a result of the unconditional and arbitrary opposition of another State").

260. *Id.* However, sanctions can be applied in case "of an unjustified breaking off of the discussions, abnormal delay, disregard of the agreed procedures, systematic refusals to take into consideration adverse proposals or interests, and, more generally, in cases of violation of the rules of good faith." *Id.*

261. Pulp Mills on River Uruguay (Arg. v. Uru.), 2010 I.C.J. 14, \P 77 (Apr. 20).

262. See, e.g., Convention on the Law of the Non-Navigational Uses of International Watercourses arts. 8–9, 12, May 21, 1997, 36 I.L.M. 700 [hereinafter Watercourses Convention] (entered into force Aug. 17, 2014); Espoo Convention, supra note 90, arts. 2–5.

263. See, e.g., South China Sea (Phil. v. China), PCA Case No. 2013-19, Award, ¶ 985, n.1181 (Perm. Ct. Arb. 2016); Certain Activities Carried Out by Nicaragua in Border Area (Costa Rica v. Nicar.) and Construction of Road in Costa Rica Along San Juan River (Nicar. v. Costa Rica), 2015 I.C.J. 1, ¶ 104 (Dec. 16) (the State contemplating activities is required "to notify and consult in good faith with the potentially affected State," "in conformity with its due diligence obligation," where that is necessary to determine the appropriate measures to prevent or mitigate the risk of significant transboundary harm); see also Whaling in Antarctic (Austl. v. Japan; N.Z. intervening), Judgment, 2014 I.C.J. 226, ¶¶ 83, 240 (Mar. 31); Gabčíkovo-Nagymaros Project (Hung./Slovk.), 1997 I.C.J. 7, ¶¶ 140–147 (Sept. 25); Southern Bluefin Tuna (Austl. & N.Z. v. Japan), Case Nos. 3, 4, Order of Aug. 27, 1999, ¶ 78 (ITLOS 1999) (observing that the parties need to do more to cooperate); Land Reclamation by Singapore in and Around Straits of Johor (Malay. v. Sing.), Case No. 12, 2003 ITLOS Rep. 10, Order of Oct. 8, 2003, ¶ 92.

264. See Rio Declaration, supra note 84, princ. 7, 9, 12–14, 18, 19, 27; cf. Stockholm Declaration, supra note 60, princ. 24.

265. See Draft Articles on Prevention, supra note 29, arts. 4, 9, cmt. at 150 \P 6; see also infra Part V.B.1.

other guidelines on the conservation and management of shared natural resources.²⁶⁶ The duty to undertake a transboundary EIA to protect the shared environment has been particularly influential in recent disputes,²⁶⁷ and its importance will grow.

The concept of international cooperation and assistance is not limited to the environmental regime. It is also a feature of human rights treaties on economic, social, and cultural rights.²⁶⁸ However, in the latter context, this concept is both general and contested.²⁶⁹ International environmental law can thus provide more concrete guidance on the content of the duty to engage in international cooperation in cases involving transboundary environmental harm.

In considering these foundational obligations underpinning the IEL regime, it is worth recalling that these cases have had a human rights dimension all along. In *Pulp Mills*, for example, Argentina worried that the Uruguayan plant could have "serious consequences for water quality, aquatic life and human health, not least through the bioaccumulation of pollutants in the food chain or other forms of exposure to toxic chemical substances."270

^{266.} See, e.g., UNEP Principles, supra note 251, princ. 7.

^{267.} In Pulp Mills, the World Court interpreted the treaty obligation to protect and preserve the aquatic environment in accordance with a practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an [EIA] 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. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an [EIA] on the potential effects of such works.

Pulp Mills on River Uruguay (Arg. v. Uru.), 2010 I.C.J. 14. ¶ 204 (Apr. 20); see also Gabčíkovo-Nagymaros, 1997 I.C.J. ¶¶ 112, 140; Indus Waters Kishenganga Arbitration (Pak. v. India), Partial Award, PCA Case Repository, ¶ 450 (Perm. Ct. Arb. 2013); Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Seabed Activities), Case No. 17, Advisory Opinion, ¶¶ 145, 147–150 (ITLOS 2011); Land Reclamation by Singapore in and Around Straits of Johor (Malay. v. Sing.), Case No. 12, 2003 IT-LOS Rep. 10, Order of Oct. 8, 2003, ¶¶ 95, 101(1)(b); Mox Plant (Ir. v. U.K.), Case No. 10, Order of Dec. 3, 2001, ¶¶ 84, 89 (ITLOS 2001).

^{268.} See supra Part III.

^{269.} See GLOBAL JUSTICE, supra note 22, at 62-65; see generally PATRICK MACKLEM, THE SOVEREIGNTY OF HUMAN RIGHTS 20–21 (2015).

^{270.} Memorial of Argentina, ¶¶ 0.18, 7.4, Pulp Mills on River Uruguay (Arg. v. Uru.), 2010 I.C.J. Pleadings 14 (Apr. 20), https://www.icj-cij.org/files/case -related/135/15425.pdf.

And in *Trail Smelter* itself, Washington State residents complained of health impacts. A strong regime nexus thus exists in fact even when not expressly addressed in the law.

C. REGIME NEXUS: A COMMON CORE

Ultimately, the duty to prevent transboundary environmental (and economic) harm articulated in the *Trail Smelter* award—as well as the general duty of States not to allow their territory to be used for acts contrary to the rights of other States—is grounded in the exclusive jurisdiction of States over their territory.²⁷¹ States are the beneficiaries of the norm of territorial sovereignty, which entitles them to freedom of action and non-intervention in their domestic affairs, as described above.²⁷² But the flipside of sovereignty has always been *obligation*.²⁷³

When the ILC first proposed codifying the duty to prevent after 1945, it saw it as one of the "obligations of territorial jurisdiction," which it related to the law of nuisance.²⁷⁴ This category also included "the duties of States with regard to the use of the flow of international and non-national rivers in such matters as the pollution of and interference with the flow of rivers," and cooperation against the spread of epidemics.²⁷⁵

It is striking that the ILC proposed dealing with transboundary issues relating to the environment and actions of State agents on the territory of other States—a matter now frequently addressed by human rights tribunals—within the same branch of codified law. ²⁷⁶ In this sense, the seemingly divergent principles of international law that nowadays govern the scope of State obligations under two different regimes (IEL and human rights) in reality share a common foundation: the duties arising from

^{271.} See ILC 1949 Survey, supra note 57, at 34–35, \P 58.

^{272.} See supra text accompanying notes 147-51.

^{273.} Sovereignty-related rights give rise to concomitant duties on States not to allow their territory to be used to harm other States. As Max Huber, the sole arbitrator in *Island of Palmas*, observed, territorial sovereignty "involves the exclusive right to display the activities of a State," but this "right has as corollary a duty: the obligation to protect within the territory the rights of other States" Island of Palmas (Neth. v. U.S.), 2 R.I.A.A. 829, 838–39 (Perm. Ct. Arb. 1928); *cf.* S.S. Wimbledon (Gr. Brit. v. Ger.), Judgment, 1923 P.C.I.J. (ser. A) No. 1, at 25 (Aug. 17).

^{274.} ILC 1949 Survey, *supra* note 57, at 34–35, ¶ 58.

^{275.} Id. There was no mention yet of the environment as such; the emphasis was still on "considerable economic importance and urgency" of regulating this subject. $See\ id$.

^{276.} See id. $\P\P$ 59–60.

the right to State sovereignty. Seen in this light, the requirement in human rights law that an individual must be within a State's "jurisdiction" (before the duty to secure his or her human rights can attach) has to be read in the light of the State's antecedent "obligations of territorial jurisdiction" not to cause harm to other States—and their inhabitants.

V. THE NATURE OF STATE RESPONSIBILITY AT THE REGIME NEXUS

To ensure that communities have meaningful access to environmental justice, this Part argues that the nature of the (vertical) obligation under human rights treaties in cases of transboundary environmental harm should be read in the light of (horizontal) obligations States have under international environmental law. As noted above, the extent to which principles of international environmental law can inform the application of human rights instruments is still an open question. This Article seeks to move that analysis forward. This Part shows how principles from one congruent regime (IEL) could be imported into another (human rights law) to clarify the scope of State responsibility at their nexus and expand access to justice for affected individuals and communities. After reviewing existing jurisprudence (Part V.A), it addresses several questions for implementation (Part V.B).

A. REGIME INTERACTION IN HUMAN RIGHTS LAW

International legal regimes are rarely "self-contained." 278 Disputes arising under one regime frequently require us to consider its interaction with other regimes. Article 31(3)(c) of the 1969 Vienna Convention on the Law of Treaties (Vienna Convention or VCLT) acknowledges this reality by requiring courts to take into account "[a]ny relevant rules of international law applicable in the relations between the parties" to a given dispute. 279

^{277.} See supra note 26.

^{278.} See supra Part I.A.

^{279.} VCLT, *supra* note 79, art. 31(3)(c). A number of tribunals have relied on this provision. *See*, *e.g.*, Kichwa Indigenous People of Sarayaku v. Ecuador, Merits, Reparations, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶ 161 (June 27, 2012) ("[W]hen interpreting a treaty, it is necessary to take into account not only the agreements and instruments formally related to it (Article 31(2) of the

First, human rights courts do engage in systemic interpretation envisaged under the Vienna Convention and frequently refer to external norms and standards²⁸⁰—albeit not always consistently.²⁸¹ As the Inter-American Commission observed in a case involving the extraterritorial application of the American Declaration, the Declaration "was not designed to apply in absolute terms or in a vacuum."²⁸² The Declaration may be the primary source of international obligation and applicable law in the Inter-American system, but other sources of law can be relevant in effectuating the Commission's mandate in specific circumstances.²⁸³

Obviously, there is a risk that overzealous borrowing of principles from one regime could eclipse or supplant principles from the other regime. As Philippe Sands and Jeffery Commission

[VCLT]), but also the system of which it forms part (Article 31(3) of this instrument)."); Banković v. Belgium, 2001-XII Eur. Ct. H.R. 333, 350–51, ¶ 55 ("[T]he Convention must be interpreted in the light of the rules set out in the 1969 Vienna Convention, [including art. 31(3)(c)]."); Iron Rhine ("Ijzeren Rijn") Ry. (Belg. v. Neth.), 27 R.I.A.A. 35, 66, ¶ 58 (Perm. Ct. Arb. 2005).

280. For example, the IACtHR has interpreted the Convention's indigenous rights protections in light of other human rights treaties and International Labour Organization standards. See, e.g., Kichwa Indigenous People, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶¶ 160, 204; Kuna Indigenous People of Madungandi v. Panama, Case 12.354, Inter-Am. Comm'n H.R., Report No. 125/12, ¶ 114 (2014); Sawhoyamaxa Indigenous Cmty. v. Paraguay, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 146, ¶ 117 (Mar. 29, 2006); see also "Other Treaties" Subject to the Consultative Jurisdiction of the Court (Art. 64 American Convention on Human Rights), Advisory Opinion OC-1/82, Inter-Am. Ct. H.R. (ser. A) No. 1 (Sept. 24, 1982) (interpreting the 1963 Vienna Convention on Consular Relations); Claude-Reyes v. Chile, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 151, ¶¶ 78–82 (Sept. 19, 2006) (interpreting the right to information).

281. See, e.g., Hatton v. United Kingdom, 2003-VIII Eur. Ct. H.R. 189, 234–41 (joint dissent) (describing majority holding as a "deviat[ion]" from prior caselaw, "a step backwards," and "turning against the current"); see also Balmer-Schafroth v. Switzerland, App. No. 50495/99 (Eur. Ct. H.R. Aug. 26, 1997) (joint dissent) (critiquing the majority for ignoring IEL as, "[w]here the protection of persons in the context of the environment and installations posing a threat to human safety is concerned, all States must adhere to those principles").

282. Coard v. United States, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, OEA/Ser.L/V/II.106, doc. 6 rev. ¶ 41 (1999) (citing Interpretation of Agreement of 25 March 1951 Between WHO and Egypt, Advisory Opinion, 1980 I.C.J. Rep. 73, 76 (Dec. 20)) ("[A] rule of international law, whether customary or conventional, does not operate in a vacuum; it operates in relation to facts and in the context of a wider framework of legal rules of which it forms only a part."); cf. Banković, 2001-XII Eur. Ct. H.R. at 351, ¶ 57 ("[T]he principles underlying the Convention cannot be interpreted and applied in a vacuum.").

283. Coard, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, ¶ 41.

ask, "at what point does the interpretation of a treaty by reference to other rules of international law become the application of those other rules of international law?"²⁸⁴ While the risk is real for distant or unconnected regimes,²⁸⁵ it is less of a concern in the case of congruent regimes where compliance with one regime furthers the goals of the other.

Second, human rights treaties are notable in this respect since courts, in interpreting human rights treaties, place emphasis on their special object and purpose: the protection of human beings. This is reflected in the *pro homine* principle, which has been particularly influential in the Inter-American context. As the Inter-American Commission has indicated, in considering and applying external sources of law—i.e., other regimes—the decisive factor is to "give effect to the normative standard which best safeguards the rights of the individual."²⁸⁶

In cases arising at the nexus of human rights and the environment in the domestic context, for example, human rights tribunals have already found that safeguarding the rights of the individual requires reading human rights conventions in the light of the State's *international environmental obligations*. For example, in *Saramaka People*, the Inter-American Court referred to IEL to define procedural safeguards for natural resource projects on indigenous land.²⁸⁷ The Court has expanded on this approach in its Advisory Opinion. In it, it signaled that, in the context of transboundary environmental harm as in the purely domestic context, States' duties under the Convention

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^{284.} Philippe Sands & Jeffery Commission, *Treaty, Custom and Time: Inter-pretation/Application?*, in Treaty Interpretation and the Vienna Convention on the Law of Treaties: 30 Years On 41 (Malgosia Fitzmaurice et al. eds., 2010).

^{285.} See Oil Platforms (Iran v. U.S.), Judgment, 2003 I.C.J. 161, 225 (Nov. 6) (separate opinion by Higgins, J.).

^{286.} Coard, Case 10.951, Inter-Am. Comm'n H.R., Report No. 109/99, ¶ 42. 287. See, e.g., Saramaka People v. Suriname, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 172, ¶¶ 130–131 (Nov. 28, 2007); see also Kichwa Indigenous People of Sarayaku v. Ecuador, Merits, Reparations, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶ 214 (June 27, 2012) (citing Rio Declaration, supra note 84); see also Indigenous Rights, supra note 100, ¶¶ 159, 192 (referring to numerous international treaties and instruments, including Amazon Cooperation Treaty, World Charter for Nature, Convention for the Protection of Flora, Fauna and Natural Scenic Beauties of America, Rio Declaration, CBD, and Protocol of San Salvador); Ecuador Report, supra note 134 (referencing 1994 Declaration of Principles of the First Summit of the Americas and World Charter for Nature).

must be interpreted in the light of international environmental law. 288

Why would courts look beyond the confines of the human rights regime in these cases? Because the normative standard offered by IEL is often more specific and concrete than that contained in human rights law and therefore more effective at safeguarding the rights of the individual. While this case law, as explained above, has invariably involved environmental harm to domestic parties, the reasoning applies with equal force in the extraterritorial context.

For example, application of well-established international environmental principles, such as the precautionary principle, ²⁸⁹ would arguably "best safeguard[]" the rights of the potentially affected individuals by placing the onus on the State to take certain positive measures *ex ante* to identify risks—and to prevent—potentially adverse environmental impacts that could harm human rights.²⁹⁰

Third, beyond systemic and purposive interpretation, there is a further basis for courts to consider relevant principles from other regimes: congruous interpretation of human rights treaties with other legal regimes can be instrumental in ensuring their longevity and relevance. As noted above, courts treat human rights treaties as "living instruments, the interpretation of which must evolve over time and reflect current living conditions." ²⁹¹ As such, evolutive interpretation has been particularly

^{288.} Environment and Human Rights Advisory Opinion, *supra* note 19, ¶¶ 115–116 (noting, *inter alia*, the duty to prevent environmental harm and the duty to cooperate with potentially affected States).

^{289.} The status of the precautionary principle is contested. See supra note 45. The United States, for example, does not consider it to be a principle let alone a rule of international law. See Panel Reports, European Communities—Measures Affecting the Approval and Marketing of Biotech Products (GMOs Case), ¶¶ 4.541–4.542, WTO Docs. WT/DS291/R, WT/DS292/R, WT/DS293/R (Sept. 29, 2006).

^{290.} Precautionary measures also exist in human rights procedure; however, in cases involving *environmental* risks to human rights, it is the application of the precautionary principle that might trigger the issuance of precautionary measures. *See also* Environment and Human Rights Advisory Opinion, *supra* note 19, ¶¶ 175–180.

^{291.} Kichwa Indigenous People of Sarayaku, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶ 161; see also Mayagna (Sumo) Awas Tingni Cmty. v. Nicaragua, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 79, ¶¶ 146–148 (Aug. 31, 2001) ("[H]uman rights treaties are live instruments whose interpretation must adapt to the evolution of the times and, specifically, to current

prominent in human rights law. For instance, the Inter-American Commission has taken into account environmental laws that "are directly relevant for the interpretation of the Inter-American human rights instruments, by virtue of *the evolutionary and systematic interpretive approach.*" ²⁹²

To be sure, the evolutionary approach is not unique to human rights law. As the World Court noted in interpreting a treaty that predated certain recent environmental laws in the $Gab\check{c}ikovo\text{-}Nagymaros$ case, "the Treaty is not static, and is open to adapt to emerging norms of international law." Similarly, the Permanent Court of Arbitration applied evolutive interpretation in the $Iron\ Rhine$ arbitration to "ensure an application of the treaty that would be effective in terms of its object and purpose." 294

In sum, interpreting a State's duties under human rights law congruently with its obligations under international environmental law can further the goals of both regimes at their points of intersection. There is no risk of trampling on State sovereignty or saddling States with duties they did not sign up for. First, the basic obligation to prevent transboundary harm is customary law. Second, reading the State's duties under human rights law together with its obligations under international environmental law would help protect persons who are the intended beneficiaries under *both* regimes. Third, in permitting

living conditions."); Right to Information on Consular Assistance in the Framework of the Guarantees of the Due Process of Law, Advisory Opinion OC-16/99, Inter-Am. Ct. H.R. (ser. A) No. 16, $\P\P$ 114–115 (Oct. 1, 1999) (identifying as part of the "corpus juris of . . . human rights law" the principle that "human rights treaties are living instruments whose [interpreters] must consider changes over time and present-day conditions"); Interpretation of the American Declaration of the Rights and Duties of Man within the Framework of Article 64 of the American Convention on Human Rights, Advisory Opinion OC-10/89, Inter-Am. Ct. H.R. (ser. A) No. 10, $\P\P$ 37–38, 43 (July 14, 1989); cf. Loizidou v. Turkey, App. No. 15318/89, \P 71 (Eur. Ct. H.R. Mar. 23, 1995), http://hudoc.echr.coe.int/eng? i=001-57920 ("That the Convention is a living instrument which must be interpreted in the light of present-day conditions is firmly rooted in the Court's case-law.").

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^{292.} Indigenous Rights, supra note 100, ¶ 193 (emphasis added); see also Kichwa Indigenous People of Sarayaku, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶ 161 (applying "evolutionary interpretation").

^{293.} Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgment, 1997 I.C.J. 7, ¶ 112 (Sept. 25); see also VCLT, supra note 79, art. 31(1).

^{294.} Iron Rhine ("Ijzeren Rijn") Ry. (Belg. v. Neth.), 27 R.I.A.A. 35, 73, \P 80 (Perm. Ct. Arb. 2005).

pollution to cross its boundaries, the State is effectively projecting its power outward; it is only reasonable that legal consequences should attach. Recognizing the regime nexus and holding States accountable for transboundary environmental harm under human rights treaties would therefore be consistent with both State sovereignty and basic fairness.

B. IMPLEMENTATION CHALLENGES

If international environmental norms should inform the interpretation of State duties under human rights law at the regime nexus, as this Article argues, this raises several further questions. First, how far must a State go in respecting or ensuring the rights of persons in other countries? Put differently, when should a State incur international responsibility for transboundary environmental harm to human rights? Second, to what extent, and under what circumstances, could a State invoke the responsibility of another State on behalf of non-State victims? Finally, can an injured party bring a claim directly against the polluting State under international human rights law? The following discussion offers some preliminary thoughts on these issues that we are likely to encounter in the near future.

1. The Scope of State Obligations

If a State has (a) a duty under general international law and, as the case may be, under MEAs, not to cause transboundary environmental harm and (b) a duty under human rights law not to injure the rights of persons who are subject to its "jurisdiction," how far must a State go in respecting or ensuring the rights of persons in other countries? As noted above, the direct effects test—the only test that could accommodate the regime nexus—risks being overly broad without limiting principles.²⁹⁵

Limiting principles are critical in the context of transboundary environmental harm, where risks and impacts can increasingly be teleported far beyond their source. Misuse of new technologies (such as geoengineering), water depletion, herbicide spraying, or burning of forests in one State can all have farreaching impacts in other States. Climate change is the quintessential global environmental problem, as continuing emissions anywhere can cause disastrous consequences everywhere else. In each of these examples, State activities (or failure to regulate private activities) are the factual cause of the injury. However, it does not necessarily follow that legal responsibility should attach, as the injury could be too remote, insignificant, or indirect.²⁹⁶ So, where should we draw the line?

The essential question, I would argue, is whether the State is in a position to prevent the specific harm in question. Prevention is a fundamental duty under both international environmental law²⁹⁷ and human rights law,²⁹⁸ and the Draft Articles on Prevention of Transboundary Harm are helpful in sketching out its content. The Draft Articles apply to activities that, while not in themselves prohibited by international law, nonetheless pose a risk of significant transboundary harm.²⁹⁹ This entitles the potentially affected State(s) to demand compliance with the duty to prevent even if the activity itself is not prohibited.³⁰⁰

The obligation to take preventive measures is one of *due diligence*. ³⁰¹ The general standard under international law is not strict liability: the harm must be *foreseeable* and the State must have known, or should have known (had it acted with due diligence), ³⁰² that a given activity poses a risk of *significant* harm. ³⁰³ In other words, did the State exercise due care by taking measures—through its legislative, regulatory, or enforcement powers—to reduce the likelihood of harm? ³⁰⁴ The required degree of care in any given case will be proportional to the risk of harm: the higher the potential degree of harm, the greater the duty of care required. ³⁰⁵

^{296.} See Trail Smelter (U.S. v. Can.), 3 R.I.A.A. 1905, 1931 (Perm. Ct. Arb. 1941) (noting that damage which is "too indirect, remote, and uncertain to be appraised" cannot support indemnity); cf. Draft Articles on State Responsibility, supra note 65, at 92–93, \P 10 ("[C] ausality in fact is a necessary but not a sufficient condition for reparation.").

^{297.} See supra Part IV.A.

^{298.} See supra text accompanying notes 131–36.

^{299.} See Draft Articles on Prevention, supra note 29, art. 1.

^{300.} *Id.* at 150, ¶ 6.

^{301.} *Id.* at 154, $\P\P$ 7–8.

^{302.} *Id.* at 153, ¶ 5.

^{303.} The "significance" criterion is necessarily ambiguous. See id. at 152, ¶ 4 ("The term 'significant' . . . involves more factual considerations than legal determination. It is . . . something more than 'detectable' but need not be at the level of 'serious' or 'substantial.' The harm must lead to a real detrimental effect on matters such as, for example, human health, industry, property, environment or agriculture in other States."); see also id. at 152, ¶ 6.

^{304.} *Id.* at 154, $\P\P$ 6, 10.

^{305.} *Id.* at 155, ¶ 18.

What due diligence requires in any given case will depend on the legal and factual context. Generally speaking, the exercise of due diligence in the transboundary setting has several basic elements. First, the State must conduct prior and ongoing assessment of risk of any activities that are likely to have a significant adverse impact on the environment. This would require, inter alia, the use of transboundary EIAs based on the best available science. Second, the State must notify and engage in good faith consultation with the potentially affected State(s). Third, the State must protect procedural environmental rights of the potentially affected persons—to information, participation, and remedy, as discussed further below.

In addition, if there is no scientific certainty over the impacts, the State would need to apply the precautionary principle in its activities so as to avoid or prevent serious or irreversible damage.³⁰⁹

Turning from due diligence to the issue of harm, we need to be able to trace the chain of causation from activities in the State to the injury in the other State so as to find "the physical link between the cause (activity) and the effect (harm)."310 In other words, the harm caused must be sufficiently direct and concrete. The ILC also proposed a further criterion: the transboundary harm must have been caused by the physical consequences of such activities. 311 This limiting principle is important because it goes to the concern identified above—that any ripple effects of domestic policies might attract international liability, which would be unreasonable. This limitation makes the issue more manageable by "exclud[ing] transboundary harm which may be caused by State policies in monetary, socio-economic or similar fields."312 As understood in this Article, "physical consequences" resulting in significant harm encompass adverse changes, whether visible or invisible, to air, water, ecosystem integrity, flora, fauna, or human health. 313 This standard also ensures that

^{306.} See id. at 158, ¶¶ 3–4, n.900; supra Part IV.B.

^{307.} Draft Articles on Prevention, supra note 29, at 159, $\P\P$ 2–4, 160, \P 2.

^{308.} See infra Part V.B.3.

^{309.} Draft Articles on Prevention, supra note 29, at 155, ¶ 14, 162, ¶¶ 5–6.

^{310.} *Id.* at 148, \P 2.

^{311.} *Id.* at 151, ¶ 16.

^{312.} *Id*.

^{313.} *Id.* at 148, $\P\P$ 1–2, 149, \P 1.

it will be more feasible to trace the chain of causation and establish liability.

It should be noted that, in an actual dispute, applicable MEAs will likely further define the due diligence standard. For example, regional seas conventions or international river-basin agreements and their protocols often set out detailed risk assessment, monitoring, verification, and risk management standards that the State must live up to.

To summarize, in a nexus case, the State could incur international responsibility under a human rights treaty where it failed to prevent transboundary environmental harm originating in its territory that was foreseeable, direct, significant, and that was within its power to prevent had it exercised due care. ³¹⁴ This is consistent with the polluter-pay principle. ³¹⁵ Each of these issues—foreseeability, causal link, concreteness, and significance—require further development through jurisprudence, but the essential framework that human rights tribunals can apply is already in place. ³¹⁶ The same analysis would apply even if the harm originated in private activities, such as industrial pollution in *Trail Smelter*, ³¹⁷ for which Canada ultimately bore responsibility. States are presumed to be aware of activities taking place in their territory ³¹⁸ and to have the power to regulate them.

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^{314.} Compare Environment and Human Rights Advisory Opinion, supra note 19, $\P\P$ 119–120 (reasoning that international responsibility would attach if the State (a) knew, or should have known, that there was a real and immediate risk to protected rights, and failed to take the necessary measures that would have been reasonably expected to prevent such risk, and (b) if there is a causal link between the significant harm to the environment and the human rights impacts).

^{315.} See, e.g., Rio Declaration, supra note 84, princ. 16.

^{316.} If a State has breached its primary obligations under human rights law, as informed by IEL, the next step is to determine the legal consequences of that violation. There, the secondary rules of State responsibility under general international law would apply. See Draft Articles on State Responsibility, supranote 65, at 84–85, $\P\P$ 1–3. Normal rules of attribution would follow. See id. at 34–35. Conduct attributable to the State can consist of actions or omissions, and it would cover actions of private actors. Id.

 $^{317. \ \} See\ supra\ {\it text}\ accompanying\ notes\ 240-42.$

^{318.} Corfu Channel (U.K. v. Alb.), Judgment, 1949 I.C.J. Rep. 4, 18-22 (Apr. 9) (holding Albania liable for failure to notify others of dangers within its territorial waters).

2. Advocacy on Behalf of Non-State Victims

The argument presented in this Article, that States have extraterritorial obligations under human rights law to prevent environmental harm, also raises the question of whether, and in what circumstances, a State could invoke the responsibility of another State on behalf of non-State victims.³¹⁹ The ILC Draft Articles on State Responsibility specifically contemplate that a State "other than the injured State acting in the collective interest" could invoke the responsibility of another State.³²⁰ The ILC envisaged two situations where this might be the case.

The first is the breach of collective obligations owed to a group of States and established in some "collective interest"³²¹ (obligations *erga omnes partes*), such as protection of the regional environment, a nuclear-free zone treaty, or a regional human rights system.³²² Within the Inter-American system, all States have a legal interest in ensuring the regime's integrity.³²³ For example, the United States could raise concerns about the plight of another State's residents as a result of a third State's pollution, or vice-versa.

The second situation is the breach of an obligation owed "to the international community as a whole"³²⁴ (obligations *erga omnes*). The list of such obligations will evolve over time, but would include, at a minimum, respect for fundamental human rights

^{319.} See generally Edith Brown Weiss, Invoking State Responsibility in the Twenty-First Century, 96 Am. J. INT'L L. 798, 801–02 (2002); Brunnée, supra note 69, at 353.

^{320.} Draft Articles on State Responsibility, supra note 65, art. 48.

^{321.} Id. art. 48(1)(a).

^{322.} Id.

^{323.} See American Convention, supra note 33, art. 45(1) ("Any State Party may... declare that it recognizes the competence of the Commission to receive and examine communications in which a State Party alleges that another State Party has committed a violation of a human right set forth in this Convention.") (emphasis added); see also Brown Weiss, supra note 319, at 806.

^{324.} Draft Articles on State Responsibility, supra note 65, art. 48(1)(b); see Barcelona Traction, Light & Power Co. (Belg. v. Spain), Judgment, 1970 I.C.J. 3, ¶¶ 33–34 (Feb. 5) ("By their very nature, [the obligations of a State towards the international community as a whole] are the concern of all States. In view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations $erga\ omnes$. [These] obligations derive . . . from the principles and rules concerning the basic rights of the human person.").

and the right of self-determination.³²⁵ The ILC also proposed including obligations aimed at protecting the marine environment in the collective interest.³²⁶ Climate change too represents a "common concern of humanity." ³²⁷ Indeed, many of the problems considered in this Article fall in that category.

Neither provision has been tested in State practice. However, both would logically apply at the regime nexus of human rights and environmental law—two areas that, by definition, transcend narrow State interests. Scholars have recognized the importance of allowing States to hold their peers accountable for human rights violations, a move away from bilateralism in international law.³²⁸ However, while available in theory, it is no more likely that a State would rely on these provisions on behalf of a third State's residents, than it would use inter-State proceedings to protect its own nationals, which, as we have seen, is rare. 329 For regions with a developed regional human rights system, such as the Americas, the human rights regime still represents a more promising venue for transboundary victims to seek international redress.

^{325.} Draft Articles on State Responsibility, supra note 65, at 127, ¶¶ 8–10; see also Gabčíkovo-Nagymaros Project (Hung./Slovk.), Judgment, 1997 I.C.J. Rep. 7, 117-19 (Sept. 25) (separate opinion by Vice President Weeramantry) (environmental obligations); Application of Convention on Prevention and Punishment of Crime of Genocide (Bosn. & Herz. v. Yugoslavia), Preliminary Objections, 1996 I.C.J. 616 (July 11) (genocide); East Timor (Port. v. Austl.), 1995 I.C.J Rep. 90, ¶ 29 (June 30) (the right of self-determination).

^{326.} Draft Articles on State Responsibility, supra note 65, at 127, ¶¶ 8–10. States' criminal liability, omitted from the final version, would have included environmental harm. See Int'l Law Comm'n, Draft Articles on State Responsibility, in Rep. on the Work of Its Twenty-Ninth Session, art. 19(3)(d), U.N. Doc. A/32/10 (1977) (proposing that "a serious breach of an international obligation of essential importance for the safeguarding and preservation of the human environment, such as those prohibiting massive pollution of the atmosphere or of the seas" be deemed an international crime).

^{327.} U.N. Framework Convention on Climate Change pmbl., May 2, 1992, S. Treaty Doc. 102-38, 1771 U.N.T.S. 107; G.A. Res. 43/55, Protection of Global Climate for Present and Future Generations of Mankind, ¶ 1 (Dec. 6, 1988); see also Jutta Brunnée, International Legal Accountability Through the Lens of the Law of State Responsibility, 36 NETH. Y.B. INT'L L. 3, 25 (2005) (discussing "common area," "common heritage," and "common concern" concepts).

^{328.} See, e.g., Brunnée, supra note 327, at 13–14.

^{329.} See supra text accompanying notes 82-83.

3. Individual Claims

This being the case, a related question then is whether, and to what extent, an individual claimant would be able to bring a claim directly against the polluting State under the American Convention (or a similar treaty). It would be pointless to recognize the States' human rights obligations for transboundary environmental degradation but deny victims access to remedies.³³⁰ There are several hurdles to consider.

First, in international human rights law, a claimant's ability to bring suit against the State is conditioned on prior *exhaustion* of domestic remedies (or evidence that doing so would have been impossible or futile).³³¹ The local remedies rule, an admissibility requirement, is intended to give the respondent State the opportunity to review and rectify the harm within its own domestic system before the issue is elevated to the international level.³³²

This poses particular difficulties for transboundary claimants—where the State responsible for the injury is a State other than their own and where exhaustion of "domestic" remedies really means *foreign* remedies.³³³ Consequently, it has been suggested that where an individual is injured by the act of a foreign State with which he or she has no connection (and did not voluntarily assume the risk)—such as environmental pollution or radioactive fallout—the local remedies rule should be relaxed.³³⁴

^{330.} *Cf. OHCHR Report, supra* note 26, ¶ 72 ("Those who are adversely affected by environmental degradation must be able to exercise their rights, irrespective of whether the cause of environmental harm originates in their own State or beyond its boundaries and whether [its] cause . . . lies in the activities of States or transnational corporations.").

^{331.} The rule is set out in Article 46(1)(a) of the American Convention, *supra* note 33. Article 46(2) lists the exceptions (e.g., lack of due process, denial of access to remedies, or unwarranted delay in rendering a final judgment). *See also* Exceptions to the Exhaustion of Domestic Remedies (Art. 46(1), 46(2)(a) and 46(2)(b)), Advisory Opinion OC-11/90, Inter-Am. Ct. H.R. (Aug. 10, 1990). The rule requiring the exhaustion of local remedies as a prerequisite for the exercise of diplomatic protection is "a well-established rule of customary international law." Interhandel (Switz. v. U.S.), Preliminary Objections, 1959 I.C.J. 6, 27 (Mar. 21); *cf.* Elettronica Sicula S.p.A. (ELSI) (U.S. v. Italy), 1989 I.C.J. 15, 31, ¶ 50 (July 20).

^{332.} Interhandel, 1959 I.C.J. at 27.

^{333.} See supra text accompanying notes 11-13.

^{334.} For a discussion, see Draft Articles on Diplomatic Protection, supra note 8, at 81–82, ¶¶ 8–9; Draft Articles on State Responsibility, supra note 65, art. 44(b).

However, the rule remains relevant in the transboundary context. Before petitioning an international tribunal, claims should still first be vetted in the courts of first instance in the respondent State, which have the power to order interim measures and enjoin the harm-causing activities. On the other hand, if the State in which the harm originates does not provide an adequate forum in which transboundary claimants can bring a suit, the exhaustion requirement should be deemed to have been met, and claimants should be able to proceed directly with their application at the international level. 335

Second, there is the question of *procedural environmental rights* and their implementation in the transboundary context. In case of potential harm, the State in which the harm originates must notify and consult the potentially affected States, ³³⁶ as well as its own public. ³³⁷ This is well-established. But what of the foreign public? Regime effectiveness and justice both suggest that the State should provide equal access to information, participation, and remedies to foreign persons who are at risk as to its own residents. The Inter-American case law has emphasized the principles of equality and non-discrimination in extending the reach of State obligations extraterritorially, ³³⁸ while the ILC has

^{335.} See also Aarhus Convention, supra note 90, arts. 3(9), 9; Draft Principles on Liability, supra note 250, princ. 6(1) ("States shall provide their domestic judicial and administrative bodies with the necessary jurisdiction and competence and ensure that these bodies have prompt, adequate and effective remedies available in the event of transboundary damage caused by hazardous activities located within their territory or otherwise under their jurisdiction or control.").

^{336.} See supra notes 262–67.

^{337.} See supra notes 133–34. A new treaty for Latin America and the Caribbean lends further support to this principle. See Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Convention), art. 1, Mar. 4, 2018, https://treaties.un.org/doc/Treaties/2018/03/20180312%2003-04%20PM/CTC -XXVII-18.pdf (not yet in force) (open for signature from 27 September 2018 to 26 September 2020).

^{338.} See supra note 197. The principle has jus cogens status in the Americas. See Juridical Condition and Rights of the Undocumented Migrants, Advisory Opinion OC-18/03, Inter-Am. Ct. H.R. (ser. A) No. 18, \P 83–101 (2003); see also Environment and Human Rights Advisory Opinion, supra note 19, \P 231, 238–240.

relied on the non-discrimination principle in its 2001 Draft Articles on Transboundary Harm,³³⁹ as have a number of treaties.³⁴⁰ These developments support the transboundary application of procedural environmental rights.³⁴¹

The cross-border context makes implementation more challenging, but the duty could be met in part by working with the potentially affected State(s) and relying on them to disseminate the relevant information to their own public(s) and facilitate their participation.³⁴² The responsible State, however, would ultimately need to give transboundary claimants access to its courts or administrative procedures where they are not able to protect their rights at home. Where such access is denied, it could constitute an additional basis of liability before the international human rights tribunal, which could in turn order the respondent State to modify its domestic legislation.

Third, a further challenge is the *particularity* requirement. In the domestic context, human rights courts have maintained that injury to the environment *per se*, or to the public at large, would not establish standing, let alone a treaty violation.³⁴³ Instead, to give rise to international responsibility, evidence of direct harm to a right protected by the treaty is needed, and the duty of protection must be owed to a specifically affected rightsholder. This is a problem for transboundary environmental harm, which often affects a large segment of the population. Holding that injury to all is injury to none would amount to a denial of justice. The particularity requirement should therefore

^{339.} Draft Articles on Prevention, *supra* note 29, art. 15; *see also* Draft Principles on Liability, *supra* note 250, princ. 6(2) ("Victims of transboundary damage should have access to remedies in the State of origin that are no less prompt, adequate and effective than those available to victims that suffer damage, from the same incident, within the territory of that State.").

^{340.} See, e.g., Watercourses Convention, supra note 262, art. 32; cf. Rio Declaration, supra note 84, princ. 10.

^{341.} On transboundary civil liability, see Boyle, *supra* note 16, at 8–9 (arguing that the principle of nondiscrimination provides for a right of access to remedies for victims of transboundary pollution in the source State, regardless of nationality or residence); *see also* Knox, *supra* note 23, at 96–99.

^{342.} Cf. Draft Articles on Prevention, supra note 29, art. 13, cmt. at 166, \P 7.

^{343.} See, e.g., Metropolitan Nature Reserve v. Panama, Case 11.533, Inter-Am. Comm'n H.R., Report No. 88/03, OEA/Ser.L/V/II.118, doc. 70 rev. \P 34 (2003); Kyrtatos v. Greece, 2003-VI Eur. Ct. H.R. 257 \P 52; Brun v. France, Commc'n No. 1453/2006, U.N. Hum. Rts. Comm., U.N. Doc. CCPR/C/88/D/1453/2006, \P 6.3 (2006); cf. Boyle, supra note 87, at 485, 505–06; Knox, supra note 23, at 85 ("Human rights are inherently anthropogenic . . . ").

not be used to preclude claims involving a large class³⁴⁴ or claimants acting in the public interest.

Finally, the *standards of proof* for environmental harm in the domestic legal system and at the international level may differ. In the former, the standard will often be strict liability, which would advantage the claimant if the source of harm is clear. At the international level, both human rights law and international environmental law, as discussed above, require evidence that the State has failed to exercise due diligence, for example, by failing to regulate, control, or enforce its laws. This means that the burden of proof for the claimant in international proceedings could be significantly higher (and the likelihood of success significantly lower) than in domestic proceedings.

There are thus implementation hurdles, but they are not insurmountable. The human rights regime's existing procedures are sufficient, even without modification, to allow individual claimants to bring claims against foreign States for transboundary pollution. The first step will generally consist of bringing claims in the courts of the respondent State through the vehicle of transnational litigation. International human rights law will provide the backstop and a venue of last resort where transnational litigation cannot produce an effective remedy.

CONCLUSION

The dawn of the Anthropocene has left many international lawyers pessimistic about the power of international law to avert environmental collapse. As Oscar Schachter noted nearly thirty years ago, "[t]o say that a state has no right to injure the environment of another seems quixotic in the face of the great variety of transborder environmental harms that occur every day."³⁴⁵ Perhaps we cannot always rely on States' rights under international environmental law, but, as this Article shows, this is not the end of the story. Environmental law does not exist in a vacuum: the human rights regime complements and reinforces

^{344.} Recent decisions on climate change—where everyone is affected yet the petitions were allowed to proceed—chart a possible way forward. *See, e.g.*, Juliana v. United States, 217 F.3d 1224, 1243–44 (D. Or. 2016) (explaining the generalized grievance rule); *cf.* Covington v. Jefferson Cnty., 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring) ("[T]he most recent Supreme Court precedent appears to have rejected the notion that injury to all is injury to none for standing purposes.").

^{345.} Oscar Schachter, The Emergence of International Environmental Law, 44 J. INT'L AFF. 457, 462–63 (1991).

these norms by giving victims of transboundary harm a direct remedy against the polluting State.

Recognizing regime congruence in theory and in practice is important for both redress for victims and unity of international law. Tribunals have already acknowledged this in one line of cases, where the harm originates and ends in the same State. The next line of cases will call on judges to give meaning to the regime nexus in cases involving extraterritorial harm. The conceptual challenge is smaller than it may appear. The law, as this Article has shown, is more than capable of evolution in its understanding of extraterritoriality and would support the application of human rights treaties to transboundary environmental harm (via the direct effects test). Just as States can no longer escape international responsibility when their agents open fire at persons across the boundary line, they should expect to be held accountable when activities occurring under their control cause harmful cross-border consequences.

Congruent regimes, as defined here, are mutually supportive. On the one hand, giving effect to international environmental law in the nexus cases, as this Article has argued, supports the protection of human beings, which is the object of human rights treaties. The duties of harm prevention, due diligence, and cooperation are all designed to avert environmental harm and, by extension, its negative effects on people.

On the other hand, the human rights regime can give teeth to the international environmental law regime. First, human rights law allows for individual petitions, which, as noted above, are more likely to bring meritorious claims to light than are inter-State disputes, which are rare. This could significantly expand the scope of the enforcement of international environmental law. Consideration of these types of claims by human rights tribunals would mean that victims would not be denied justice where their governments are not willing or able to protect them from neighborhood pollution. Many environmental regimes, moreover, do not provide for either inter-State or individual enforcement of State undertakings. The human rights regime, for example, could provide an important avenue of redress for victims of climate change, if there is direct evidence of climate-induced harms that can be traced back to another State.³⁴⁶ Second,

^{346.} In the case of climate change, individuals have resorted to litigation in national courts to support the Paris Agreement, with varying success. See generally Maria L. Banda & Scott Fulton, Litigating Climate Change in National

the principles of interpretation applied by international human rights courts—purposive (*pro homine*), evolutive, and systemic—are aimed at protection. In interpreting a "living treaty," human rights courts look for its object and purpose, and not to the interpretation that would provide the most limited understanding of State obligations.³⁴⁷

It could be countered that human rights judgements are not always complied with, and that it would be quixotic to expect a better outcome in the nexus cases. This might be true in a single case, but international law is a dynamic, iterative process. Congruent interpretation of environmental norms by human rights courts could indirectly reinforce compliance with the environmental regime in the long run by increasing the cost of violation for States, spreading ideas horizontally and vertically across courts, 348 and driving normative change. 349 As noted at the outset, over time, the argument developed in this Article could significantly expand access to justice for victims and increase accountability in the Western Hemisphere and beyond.

Congruous interpretation can thus mutually support the object of both regimes, but up to a point. A major limitation is that human rights law does not protect the environment as such.³⁵⁰ In cases where transboundary environmental harm has "merely" caused harm to the environment (without causing quantifiable injury to human beings), or the global commons, the human rights regime has historically been of little use. The one exception has been the enforcement of procedural environmental rights (to information, participation, and access to justice). But

Courts: Recent Trends and Developments in Global Climate Law, 47 ENVTL. L. REP. 10121 (2017). See also Daniel Bodansky, The Role of the International Court of Justice in Addressing Climate Change: Some Preliminary Reflections, 49 ARIZ. ST. L.J. 689, 692 (2017) (advocating for ICJ adjudication).

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^{347.} See ILC Fragmentation Report, supra note 27, \P 130 (discussing evolutive interpretation).

^{348.} See Ferrer Mac-Gregor, supra note 36, at 93–94.

^{349.} Cf. Ryan Goodman & Derek Jinks, Incomplete Internalization and Compliance with Human Rights Law, 19 Eur. J. Int'l L. 725 (2008) (arguing that even shallow commitments can trigger social processes that generate deeper reform); Philippe Sands, Climate Change and the Rule of Law: Adjudicating the Future in International Law, 28 J. Envil. L. 19, 26 (2016) ("[I]nternational courts and tribunals are one among many actors that occupy the large space in which global public consciousness is formed.").

^{350.} See supra note 343. Contra Draft Principles on Liability, supra note 250, princ. 2(a)(iii) (defining "damage" as "significant damage caused to persons, property or the environment") (emphasis added); see also id. cmt. \P 14–17.

where procedural rights have been observed, and environmental damage still occurs, the human rights regime has generally offered no remedy. More recently, there have been signs that this may be changing and that courts are beginning to conceive of the regime nexus, and their own adjudicative role, more broadly.³⁵¹ This suggests that, beyond seeking to enable congruous interpretation of these two regimes, as this Article has attempted to do, it will also be necessary to strengthen other procedures for the protection of the environment per se.

^{351.} See Banda, supra note 19 (discussing the Inter-American Court's recognition of an "autonomous" right to a healthy environment under the American Convention, whereby nature is entitled to juridical protection even absent evidence of harm to individuals).