2008

Beyond the Liability Wall: Strengthening Tort Remedies in International Environmental Law

Noah M. Sachs
University of Richmond, nsachs@richmond.edu

BEYOND THE LIABILITY WALL: STRENGTHENING TORT REMEDIES IN INTERNATIONAL ENVIRONMENTAL LAW

Noah Sachs

Despite decades of effort, the international community has stumbled in attempts to craft tort remedies for victims of transboundary environmental damage. More than a dozen civil liability treaties have been negotiated that create causes of action and prescribe liability rules, but few have entered into force, and most remain unadopted orphans in international environmental law. In this Article, I explain the problematic record of tort liability regimes by developing a theoretical model of liability negotiations grounded in regime theory from political science. Based on this model, I conclude that negotiated liability regimes have foundered because of three main roadblocks: (1) interest conflicts between developed and developing states; (2) high transaction costs and low expected payoffs; and (3) incorporation of treaty provisions that are too onerous for states to accept. I conclude that strengthening tort remedies will require changing the substantive content of liability treaties and the process of negotiating them. I also show how liability principles can be strengthened outside the treaty-making process through diffusion of norms against transboundary environmental damage.

---

* Assistant Professor, University of Richmond School of Law, and Faculty Director, Robert R. Merhige, Jr. Center for Environmental Studies.

Many thanks to the participants at the Yale/Stanford Junior Faculty Forum, where this paper was presented in May 2007. Harold Hongju Koh, Dean of the Yale Law School, and Alan Sykes, Professor at Stanford Law School, provided invaluable commentary on a draft of this Article at the conference. I also want to thank faculty at the University of Richmond for suggestions at a faculty colloquium, and I extend special thanks to Carl Tobias, Corinna Lain, Jim Gibson, and Melissa Labonte for reviewing drafts. Lawrence Susskind of the Harvard Program on Negotiation and former colleagues at the Harvard Law School Climenko Fellows program provided comments on an early draft of this Article. Michael J. Clements provided invaluable research assistance. The editors at *UCLA Law Review* were enormously helpful in revisions to this Article.

INTRODUCTION

Over the past four decades, states have discussed, deliberated, and debated how to strengthen tort liability principles within international environmental law. In declarations, conference reports, and treaties, states have committed to make liability work for the environment, both as a means of deterring harmful activities and as a means of compensating parties injured by transboundary pollution.

Despite these ambitious pronouncements, states' actual accomplishments in the liability field have been quite meager. States have been unwilling to accept treaty language that would impose liability for transboundary pollution on states directly (so-called state liability).[1] In the realm of private international law, which is the focus of this Article, states have also rejected most civil liability treaties establishing the tort liability of private actors for transboundary pollution.[2] Effective

1. *See* RENÉ LEFEBER, TRANSBOUNDARY ENVIRONMENTAL INTERFERENCE AND THE ORIGIN OF STATE LIABILITY 299 nn.242–43 (1996); *see also* Thomas Gehring & Markus Jachtenfuchs, *Liability for Transboundary Environmental Damage: Towards a General Liability Regime?*, 4 EUR. J. INT'L L. 92, 106 (1993) ("There is no indication . . . that [states] are now ready to accept a convention imposing on them a general international liability for transnational environmental damage."). For a discussion of the drawbacks of state liability as a vehicle for strengthening tort principles in international environmental law, see Jutta Brunnée, *Of Sense and Sensibility: Reflections on International Liability Regimes as Tools for Environmental Protection*, 53 INT'L & COMP. L.Q. 351 (2004).

2. I use "transboundary" pollution as a broad term that encompasses two distinct types of pollution. First, it refers to the flow of pollution (through watercourses, oceans, or the air and atmosphere) from a source state to an affected state. Second, it refers to pollution caused by international trade in hazardous materials. In the second sense of the term, the activities that can cause environmental damage, such as transport, management, and disposal of

tort liability rules, it seems, are the Yeti of international environmental law—pursued for years, sometimes spotted in rough outlines, but remarkably elusive in practice.

Of the fourteen major civil liability treaties that have been adopted in the environmental field since 1960, only six have ever entered into force, and actual claims for compensation under these treaties are scarce.[3] Civil liability treaties are designed to harmonize private tort law across jurisdictions for specified types of transboundary environmental damage. They usually contain rules regarding which actors can be held financially responsible, the underlying type of liability (strict or fault-based), procedures for bringing claims, caps on damages, and insurance requirements. However, with so many stillborn treaties, the practical impact of civil liability treaties on enhancing tort remedies has been negligible. Notably, not a single major civil liability treaty outside the contexts of oil spills and nuclear accidents has entered into force, each having fallen far short of the number of necessary ratifications. They remain dead letters, or as the United Nations Environment Programme more delicately put it, they have fallen into a "spell of dormancy."[4]

The lack of widely ratified liability rules has serious consequences for deterrence, accountability, compensation of victims, and the global environment. Without specific treaties setting the ground rules for tort suits, individuals harmed by transboundary pollution have few viable avenues for redress because of what I call "liability walls"—procedural hurdles to bringing transnational tort suits. Firms causing transboundary pollution (whether by air, water, or disposal of hazardous wastes) are protected by these liability walls and can continue to externalize environmental damage to other countries.

The absence of effective remedies is highlighted by the illegal dumping in August 2006 of 528 tons of caustic hazardous waste in villages in the

---

the materials, usually occur in the affected state or on the high seas, and the source state is a source only because the materials originated there and were loaded onto some mode of transport (rail, truck, or ship) there. *See* KATHARINA KUMMER, INTERNATIONAL MANAGEMENT OF HAZARDOUS WASTES: THE BASEL CONVENTION AND RELATED LEGAL RULES 15 (1995).

3. *See infra* Part I.C. Even after Chernobyl, the most serious transboundary pollution incident in recent decades, there were no successful claims against the plant operator or the Soviet Union. *See* Günther Handl, *Transboundary Nuclear Accidents: The Post-Chernobyl Multilateral Legislative Agenda*, 15 ECOLOGY L.Q. 203, 223 (1988).

4. U.N. Env't Programme [UNEP], *Liability and Compensation Regimes Related to Environmental Damage* 63 (2002) [hereinafter UNEP], http://www.unep.org/DEPI/programmes/Liability-compen-papers.pdf.

Ivory Coast.[5] The waste was off-loaded by a Greek-owned tanker flying a Panamanian flag and leased by the London branch of a Swiss trading corporation, Trafigura, whose physical headquarters are in the Netherlands.[6] The toxic sludge caused at least eight deaths and dozens of hospitalizations.[7] With the existing barriers to international tort litigation, it is unlikely that injured villagers will receive any monetary compensation from culpable parties.[8]

Surprisingly, international law scholars have largely overlooked the lack of ratifications of civil liability treaties and have instead engaged in micro-level analysis of individual treaties, examining design issues such as the choice between strict liability and fault-based liability, the types of environmental harm that should trigger liability, channeling of liability to certain operators, and the implications of governmental permits for private liability.[9] But expertly designed treaties have little relevance if they do not attract adherents, and only a handful of scholars have mentioned the lack of entry into force as a significant problem in this field of law.[10] The record of treaty failure should raise more fundamental

5. *See* Lydia Polgreen & Marlise Simons, *Global Sludge Ends in Tragedy for Ivory Coast*, N.Y. TIMES, Oct. 2, 2006, at A1.

6. *Id.*

7. *Id.*

8. In February 2007, Trafigura agreed to pay the government of the Ivory Coast $197 million to obtain the release of Trafigura executives who were seized inside the country after the dumping incident. Trafigura did not acknowledge any liability under international law or the domestic law of the Ivory Coast, and it is not clear whether any of this money will reach the injured villagers. *See* Lydia Polgreen & Marlise Simons, *Oil Company to Pay $200 Million in Toxic Dumping in Ivory Coast*, N.Y. TIMES, Feb. 15, 2007, at A6.

9. *See* UNEP, *supra* note 4, at 44–61 (cataloging major soft-law and treaty instruments relating to environmental liability and synthesizing their main features); Hague Conference on Private International Law, Apr. 2000, *Civil Liability Resulting From Transfrontier Environmental Damage: A Case for the Hague Conference?* 5–16, Preliminary Doc. 8 (*prepared by* Christophe Bernasconi), *available at* http://www.hcch.net/upload/wop/gen_pd8e.pdf [hereinafter Hague Conference] (cataloging treaties and outlining provisions); Betsy Baker Röben, *Civil Liability as a Control Mechanism for Environmental Protection at the International Level*, *in* INTERNATIONAL, REGIONAL, AND NATIONAL ENVIRONMENTAL LAW 821, 825–43 (Fred L. Morrison & Rüdiger Wolfrum eds., 2000); Alfonso Ascencio, *The Transboundary Movement of Living Modified Organisms: Issues Relating to Liability and Compensation*, 6 REV. EUR. COMMUNITY & INT'L ENVTL. L. 293 (1997); Sam Blay & Julia Green, *The Development of a Liability Annex to the Madrid Protocol*, 25 ENVTL. POL'Y & L. 1, 24 (1995); Michael Fauré & Wang Hui, *The International Regimes for the Compensation of Oil-Pollution Damage: Are They Effective?*, 12 REV. EUR. COMMUNITY & INT'L ENVTL. L. 3 (2003).

10. *See* Robin Churchill, *Facilitating (Transnational) Civil Liability Litigation for Environmental Damage by Means of Treaties: Progress, Problems, and Prospects*, 12 Y.B. INT'L ENVTL. L. 3, 41 (2001) (noting that the most "obvious" weakness of civil liability treaties is that "most [of the treaties] are not in force" or widely ratified); Anne Daniel, *Civil Liability Regimes as a Complement to Multilateral Environmental Agreements: Sound International*

questions: What accounts for the problematic history of civil liability in the environmental field? Why are stronger tort remedies so often resisted by diverse groups of states? How can we establish more widely shared norms governing responsibility for international environmental harms?

Departing from the narrower inquiries of prior legal literature, I address these questions through developing a macro-level model of how states negotiate over private law liability rules for environmental damage. The model presented here adopts rationalist assumptions of state behavior and draws heavily on regime theory from political science.[11] The model illustrates the underlying interests of states in protecting their domestic constituents, the expected payoffs for states to cooperate on harmonized tort rules, and the reasons why this area of law has been characterized by frequent conflict.

This Article is the first to model the dynamics of regime formation for environmental *liability* rules, as opposed to regime formation for controlling ongoing pollution, which has been an occasional subject of prior regime theory literature and international law scholarship.[12] This Article also explains why this field of law has been characterized by nonregimes rather than by successful instances of cooperation.[13] I present the overall ratification record of civil liability treaties, the breakdown of parties among developed and developing states, and new self-reporting by states regarding their reasons for nonratification.

Based on my model, I conclude that there are three main reasons for the problematic record of tort liability in international environmental law. First, intense interest conflicts between developed states and developing

---

Policy or False Comfort?, 12 REV. EUR. COMMUNITY & INT'L ENVTL. L. 225, 236 (2003) (noting that lack of entry into force "is the empirical reality that international policy makers must take into account").

11. Regime theory is the study of the conditions under which nations will cooperate to form regimes and the role of regimes once established, in shaping state behavior. *See* I. William Zartman, *Negotiating the Rapids: The Dynamics of Regime Formation*, *in* GETTING IT DONE: POSTAGREEMENT NEGOTIATION AND INTERNATIONAL REGIMES 13, 19 (Bertman I. Spector & I. William Zartman eds., 2003) [hereinafter GETTING IT DONE] (questioning whether "regimes shape state behavior, or [] states simply do what they can and want"); Stephan Haggard & Beth A. Simmons, *Theories of International Regimes*, 41 INT'L ORG. 491, 492 (1987) (addressing whether regimes "matter" as an "independent influence on state behavior").

12. *See, e.g.*, Detlef Sprinz & Tapani Vaahtoranta, *The Interest-Based Explanation of International Environmental Policy*, 48 INT'L ORG. 77 (1994).

13. Radoslav Dimitrov defines "nonregime" as a "public policy arena characterized by the absence of an interstate policy agreement where states have either tried and failed to create one, or when governments have not even initiated negotiations." RADOSLAV S. DIMITROV, SCIENCE AND INTERNATIONAL ENVIRONMENTAL POLICY: REGIMES AND NONREGIMES IN GLOBAL GOVERNANCE 9 (2006) (emphasis omitted).

states with respect to liability rules have generated acrimony and distrust. Developed states, seeking to protect domestic firms and maintain liability walls, have been the primary opponents of new civil liability rules for transboundary environmental damage and have largely kept liability off the international environmental agenda. Second, multilateral discussions on new liability rules involve high transaction costs associated with coordinating the interests and legal systems of dozens of states, yet transboundary environmental injuries, when they occur, usually involve two or perhaps only a handful of states. This asymmetry provides a powerful disincentive to harmonizing liability rules on an ex ante basis. Finally, adoption of civil liability rules has been frustrated by treaty provisions that are too onerous for states to accept. States have reported that high liability limits, difficulties in obtaining required insurance, and conflicts with domestic law have been severe obstacles to cooperation on negotiated tort remedies.

How should we remedy the lack of remedies? The key question for proponents of strengthening the role of tort liability in international environmental law is whether to continue to rely on treaty-based mechanisms for harmonizing domestic tort law or whether to strengthen liability principles outside the treaty process. I argue that a mix of treaty and nontreaty strategies is needed. Treaty making should not be abandoned, but it should be reformed through layering of individual liability with compensation funds, and it should be conducted on a regional basis to facilitate regime formation. Outside the treaty context, we need to establish a clear norm that firms causing environmental damage across a border should not be able to use that border as a legal shield. Such a norm might emerge as a result of high-profile suits under existing domestic law, decisions of international tribunals, governmental pronouncements, or nonbinding declarations. The spread of human rights norms through a transnational legal process involving domestic and international actors can serve as a model for how rules for environmental liability might be established.[14]

14. This Article does not address a class of torts in which environmental harm occurs abroad, entirely within the borders of one country, and foreign plaintiffs sue a corporation in the United States on theories of veil piercing or operational control over a subsidiary. *See generally* XUE HANQIN, TRANSBOUNDARY DAMAGE IN INTERNATIONAL LAW 9 (2003). Suits under the Alien Tort Claims Act, 28 U.S.C. § 1350 (2000), related to environmental damage often fall under this category. *See, e.g.*, Doe v. Unocal Corp., 395 F.3d 932 (9th Cir. 2002); Beanal v. Freeport-McMoran, Inc., 197 F.3d 161 (5th Cir. 1999). Such suits have a transnational character, but there is no transboundary movement of pollution across borders, and these suits are not governed by the major treaties in the civil liability field. For an article that discusses global developments in this

This Article proceeds in three Parts. In Part I, I discuss the gap between states' rhetorical commitment to enhancing the role of tort in international environmental law and what states have actually accomplished. Normatively, I argue that private law tort remedies should play a stronger role in international environmental governance, even as the primary response to international environmental problems must remain prevention efforts grounded in public law. In Part II, I outline a theoretical model for how states negotiate over liability rules for transboundary environmental damage and then present, in more detail, the three principal reasons for prior failures to establish private tort remedies through civil liability treaties. In Part III, I shift to a discussion of reform proposals, showing the various treaty and nontreaty tools that should be deployed to enhance the role of tort in international environmental law in the future.

I. TORT REMEDIES IN INTERNATIONAL ENVIRONMENTAL LAW: EXPECTATIONS AND REALITY

In an era when international environmental law has become bureaucratized through U.N. agencies, multilateral treaties, and massive diplomatic conferences, it is easy to overlook the centrality of liability and litigation in the origins of the field. In this Part, I trace the consistent international interest in tort remedies and explain why the international community has negotiated specific treaties to enhance tort remedies, rather than just relying on existing domestic legal procedures. I also outline the negotiation and ratification history of civil liability treaties, illustrating the persistent problems of regime formation that have plagued this area of law.

A. International Interest in Tort Remedies for Transboundary Environmental Damage

Issues of compensation and redress were paramount in early international environmental negotiations. Liability for environmental harm was a central concern of the 1972 Stockholm Declaration on the Human Environment, the founding text of international environmental law, which called on states to "co-operate to develop further the international law regarding liability and compensation for the victims of pollution and

---

type of litigation, *see* Halina Ward, *Governing Multinationals: The Role of Foreign Direct Liability* (Feb. 2001) (Royal Institute of International Affairs Briefing Paper No. 18).

other environmental damage . . . ."[15] Echoing the Stockholm Declaration, the 1992 Rio Declaration (adopted by consensus by more than 175 countries, including the United States) reiterated the need for states to cooperate "in an expeditious and more determined manner" to develop "international law regarding liability and compensation."[16] Neither of these declarations specified whether stronger rules about financial liability for environmental damage should be implemented through public law (holding states responsible) or private law (holding culpable private actors responsible through tort law). In practice, however, states have overwhelmingly turned to strengthening private international law remedies. The impetus for private international law remedies often came from serious accidents, such as the Torrey Canyon oil spill in the North Sea in 1967,[17] and innumerable negotiations and discussions have occurred since the late 1960s to craft such remedies through treaty text.[18] Multilateral negotiations over private liability rules have occurred against an ecological backdrop of pervasive transnational environmental externalities in areas such as air pollution, ocean contamination, hazardous waste shipments, climate change, and the spread of invasive species and toxic chemicals.[19] Globalization has not only tied national economies together, it has also resulted in a web of exports and imports of environmental risks.

As a result of consistent interest (particularly among developing states) in establishing stronger tort remedies for environmental harms, private law liability rules have become a key battleground of environmental diplomacy. Indeed, few international environmental agreements "can be negotiated today without running across the liability issue in one way or another."[20]

---

15. U.N. Conference on the Human Environment, Stockholm, Swed., June 5–16, 1972, *Declaration of the United Nations Conference on the Human Environment*, princ. 22, U.N. Doc. A/CONF.48/14/REV.1 (June 16, 1972).

16. U.N. Conference on Environment and Development, Rio de Janeiro, Braz., June 3–14, 1992, *Rio Declaration on Environment and Development*, princ. 13, U.N. Doc. A/CONF.151/26 (Vol. 1) (Aug. 12, 1992) [hereinafter *Rio Declaration*].

17. The Torrey Canyon accident was followed by the adoption, in 1969, of the International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, 973 U.N.T.S. 3.

18. *See* Churchill, *supra* note 10, at 29–31 (listing treaties that call for the development of further liability regimes).

19. *See* MARLA CONE, SILENT SNOW: THE SLOW POISONING OF THE ARCTIC (2005) (discussing the spread of toxic chemicals from North America and Europe to the native peoples of the Arctic); SPECIES INVASIONS: INSIGHTS INTO ECOLOGY, EVOLUTION AND BIOGEOGRAPHY (Dov F. Sax et al. eds., 2005) (detailing the effects of the transcontinental spread of invasive species); Warren Cornwall, *An Import From Asia: Bad Air*, SEATTLE TIMES, Apr. 21, 2006, at A1 (reporting on effects of Chinese air pollution on the northwestern United States).

20. Brunnée, *supra* note 1, at 351.

What accounts for this consistent interest in developing stronger tort remedies? Tort has three major benefits for environmental governance. First, tort damages can provide pollution victims with compensation after major transboundary environmental accidents or pollution flows, such as oil spills on the high seas, chemical contamination of rivers or lakes, or industrial accidents that release toxins into the air. While governments may, in some cases, take criminal or regulatory action against culpable parties, tort provides a monetary remedy that can directly assist the victims of the pollution, and particularly victims who reside outside the jurisdiction where the harm originated. Moreover, tort could be a plaintiff's only resort against a polluting firm where state regulation of the firm's activities is weak or has been corrupted because of bribery or political influence.[21]

Second, more robust cross-border tort remedies could have a deterrent effect by forcing firms to internalize both the cost of any transboundary environmental damage and the cost of preventive measures.[22] Tort remedies are an accountability mechanism to ensure a check on corporate conduct, to provide incentives to take precautionary measures, and to avoid "unjust enrichment" by companies that benefit from global economic activity while externalizing environmental consequences beyond national borders.[23] It is not surprising that interest in enhancing private tort remedies for environmental damage developed in tandem with the growing international acceptance of the polluter pays principle in the 1970s and 1980s.[24] Indeed, an effective tort remedy for pollution damages is the most concrete manifestation of the polluter pays principle.

Third, tort law can act as a regulatory device by filling in gaps in the major public law environmental treaties. Existing treaties that govern shipments of hazardous waste, safety of nuclear reactors and industrial

21. *See* PATRICIA BIRNIE & ALAN BOYLE, INTERNATIONAL LAW AND THE ENVIRONMENT 268 (2002).

22. *See* Michael Anderson, *Transnational Corporations and Environmental Damage: Is Tort Law the Answer?*, 41 WASHBURN L.J. 399, 408–09 (2002) (summarizing benefits of tort litigation to address environmental damage, and noting that, in addition to compensation of the victim and specific deterrence of the culpable party, tort awards will have a more general deterrent effect by sending price signals to other actors in the industry). *But see* Sanford E. Gaines, *International Principles for Transnational Environmental Liability: Can Developments in Municipal Law Help Break the Impasse?*, 30 HARV. INT'L L.J. 311, 324–29 (1989) (arguing that the goals of compensation and deterrence are often in conflict and questioning the value of liability in deterring and changing industry-wide practices).

23. *See* Ascencio, *supra* note 9, at 295.

24. *See* BIRNIE & BOYLE, *supra* note 21, at 92–93, 268; *see also* U.N. Conference on Environment and Development, *supra* note 16, at princ. 16.

facilities, use of watercourses or regional seas, and other areas of environmental cooperation might fail to prevent environmental damage for numerous reasons. The damage may have been of a type unforeseen by the treaty negotiators, the treaty might contain weak initial commitments, there might be widespread noncompliance, or states may lack regulatory power, or fail to use their power, to control transboundary pollution originating in their borders. Treaties as a whole may be underenforced in an anarchic international system that lacks an authoritative judicial organ.[25] Tort liability, in theory, could remedy these weaknesses by providing private law avenues for compensation and redress. "In this way, private litigators contribute to [a] larger regulatory system, thereby producing a public good while pursuing their private aims."[26]

Reflecting this complementary function of tort law, most negotiations over civil liability rules for environmental damage have been conducted as a follow-up to negotiations on initial treaties that I will refer to in this Article as "primary" treaties. Primary treaties usually impose prospective obligations on governments to prevent environmental harm or manage shared resources, and they do not contain any private right of action to enforce their provisions or to seek damages. Primary treaties, in short, are regulatory treaties. Conventions setting baseline standards for nuclear safety or governmental informed-consent procedures for hazardous waste shipments are typical examples. Liability rules governing whom can be sued, the types of damage that will trigger liability, and caps on damages are then negotiated as adjuncts to the primary treaty. These harmonized domestic tort rules thus establish private rights of action if environmental harm does occur.[27]

Liability rules should play a secondary, backup role to the primary treaties. Complex ecological problems cannot be addressed through tort alone, and solutions will require sustained cooperation among governments, additional funding, and new regulatory commitments. Prevention of harm should be the primary focus of international environmental law, and many environmental problems, such as long-range transport of air pollution, are not easily addressed through litigation.[28]

---

25. *See generally* Jon Hovi & Ivar Areklett, *Enforcing the Climate Regime: Game Theory and the Marrakesh Accords*, 4 INT'L ENVTL. AGREEMENTS: POL., L. & ECON. 1, 3 (2004).

26. Anderson, *supra* note 22, at 409.

27. The relationship between liability rules and primary environmental treaties is discussed in more detail in Part III.

28. *See* Phoebe Okowa, *The Legacy of* Trail Smelter *in the Field of Transboundary Air Pollution*, *in* TRANSBOUNDARY HARM IN INTERNATIONAL LAW: LESSONS FROM THE *TRAIL SMELTER* ARBITRATION 198 (Rebecca M. Bratspies & Russell A. Millers eds., 2006) (noting the difficulty of establishing a causal nexus to specific sources where air pollution is regional).

Conceding the secondary role of liability in environmental governance does not eviscerate tort's continued importance, however. Harmonizing tort law across jurisdictions for specific types of environmental damage has one very significant advantage in comparison to primary treaties: Judgments in civil suits for transboundary environmental damage can be enforced by national courts, giving them real bite. National courts have a panoply of mechanisms at their disposal to enforce judgments and attach assets.[29] A civil liability treaty empowering national courts to address transboundary environmental damage therefore relies on existing sovereign authority for enforcement and implementation. Government-to-government dispute resolution in primary treaties, in contrast, is notoriously cumbersome and lacks compulsory enforcement mechanisms. While many environmental treaties contain dispute resolution procedures, they have rarely been used in practice, and governments are unlikely to expend diplomatic capital on transboundary pollution cases ex post, except in extraordinary circumstances of major environmental damage.[30] Tort remedies, on the other hand, do not require extensive governmental expenditures, other than creating the remedies in the first place and operating a court system to hear cases. As Peter Sand of the University of Munich put it: "Instead of internationalizing a local issue (via an enormous detour to the respective national capitals)," civil liability has the advantage of "adapt[ing] local decision-making processes so that they can handle transfrontier problems like ordinary local ones of comparable size."[31]

29. There is an extensive literature on the positive role that national courts can play in enforcing international law. *See, e.g.*, ENFORCING INTERNATIONAL HUMAN RIGHTS IN DOMESTIC COURTS (Benedetto Conforty & Francesco Francioni eds., 1997); INTERNATIONAL LAW DECISIONS IN NATIONAL COURTS (Thomas M. Franck & Gregory H. Fox eds., 1996); Karen Knop, *Here and There: International Law in Domestic Courts*, 32 N.Y.U. J. INT'L L. & POL. 501 (2000); Harold Hongju Koh, *How is International Human Rights Law Enforced?*, 74 IND. L.J. 1397 (1999); Mary Ellen O'Connell, *Enforcement and the Success of International Environmental Law*, 3 IND. J. GLOBAL LEGAL STUD. 47, 57–64 (1995).

30. *See* Charles Phillips, *Nordic Co-Operation for the Protection of the Environment Against Air Pollution and the Possibility of Transboundary Private Litigation*, *in* TRANSBOUNDARY AIR POLLUTION 153, 164 (C. Flinterman et al. eds., 1986) (arguing that addressing transboundary pollution through public law mechanisms, "elevates the issue to the level of state responsibility where the question of whether a state's sovereignty has been invaded overshadows the interests of the individual in receiving adequate compensation.").

31. Peter Sand, *The Role of Domestic Procedures in Transnational Disputes*, *in* LEGAL ASPECTS OF TRANSFRONTIER POLLUTION 146 (H. van Edig ed., 1977), *reprinted in* TRANSNATIONAL ENVIRONMENTAL LAW: LESSONS IN GLOBAL CHANGE 87, 97 (53 Int'l Law & Policy Series, 1997). Even with resort to existing courts, we should not underestimate the transaction costs of bringing mass tort litigation. It is an expensive and lengthy process even in the best of circumstances. Günther Handl, *International Accountability for Transboundary Harm Revisited: What Role for State Liability?*, 37 ENVT'L POL. & L. 116, 119 (2007).

B. Liability Walls and the Pursuit of Negotiated Liability Regimes

Why have states turned to specialized multilateral treaties to establish tort remedies for transboundary environmental damage? After all, if domestic tort remedies are available for cases of domestic property damage or personal injury, then plaintiffs injured by transboundary pollution might simply rely on existing law and procedures in national courts (whether in their home state or in the source state) to vindicate their interests.

Suits under domestic law for transboundary environmental damage have been exceedingly difficult to prosecute, however, due to robust and persistent procedural hurdles to transboundary tort litigation. The hurdles include obtaining personal jurisdiction over foreign firms, extraterritorial service of process, the local action rule (which provides that actions in tort for damages to real property must be brought where the property is located),[32] resolving choice of law questions,[33] overcoming motions to dismiss on the grounds of forum non conveniens, deciding whether a defendant's governmental permit is relevant to its tort liability,[34] and enforcing judgments.[35] For pollution that flows across borders, the locus delicti, or place of the tort, is often hotly disputed. Added to these legal barriers is the practical problem of the expense of bringing suit against a foreign entity and proving its negligence.[36] For the 2.8 billion individuals living in developing countries on incomes of less than $2 per day,[37] access to transnational tort remedies may, as a practical matter, be unattainable.

Together, these legal hurdles form what I call a liability wall—a set of legal barriers that serves to insulate domestic firms from foreign suits over

---

32. *See* Hague Conference, *supra* note 9, at 50–53.

33. For a survey of different approaches to choice of law rules in transnational litigation, see Said Mahmoudi, *Some Private International Law Aspects of Transboundary Environmental Disputes*, 59 NORDIC J. INT'L L. 128, 132–34 (1990). Courts have applied a variety of doctrines, including applying the law of the place where the wrongful act was committed, the place where the damage was suffered, or the so-called "center of gravity" or "most significant relationship" tests. Sand, *supra* note 31, at 120. Some European courts have adopted the principle of *Gunstigkeits-Prinzip*, or applying the state's law that is most favorable to the plaintiff. *See id.*

34. *See* Hague Conference, *supra* note 9, at 40–44.

35. If a plaintiff sues in his or her home court, where the environmental damage occurred, the state hosting the polluting industry may refuse to enforce the foreign judgment. XUE HANQIN, *supra* note 14, at 104–05.

36. *See* Org. of Am. States, *Annual Report of the Inter-American Juridical Committee to the General Assembly*, 126–38, OEA Doc. OEA/Ser. Q/VI.34 CJI/doc.145/03 (Aug. 29, 2003), *available at* http://www.oas.org/cji/eng/INFOANUAL.CJI.2003.ING.pdf. *See also* Hague Conference, *supra* note 9, at 40–44.

37. *See* Barbara Crossette, *U.N. Report Says New Democracies Falter*, N.Y. TIMES, July 24, 2002, at A8.

environmental damage. The impact of liability walls is severe: "Potential claimants are likely to be reluctant to sue in the unfamiliar and perhaps unfriendly courts of the actors causing the harm, and defendants will resist appearing in the courts of the victims."[38] It is beyond the scope of this paper to detail all of these procedural barriers to transnational tort litigation, and other scholars have addressed these barriers at great length.[39] But prior scholarship has not connected the presence of liability walls to a state's incentive to ratify or not ratify a civil liability treaty, and I discuss these incentives in Part II. Moreover, scholars need to do more than identify the hurdles to transnational litigation: We need solutions for getting beyond liability walls.

For present purposes, the important point is that the decentralized alternative of resting on domestic procedures has not proven to be satisfactory for strengthening tort remedies internationally.[40] Consequently, states have repeatedly pursued the option of negotiating specific treaties that surmount liability walls through lowering barriers to tort suits. The resulting civil liability treaties are an unusual legal hybrid. They are negotiated among governments and are interpreted as public law treaties, but they are designed to establish and set the terms of liability for private actors.[41] The ultimate implementation of the treaties is left to domestic courts. Civil liability for environmental damage therefore cannot be identified solely as an issue of international law or of domestic law—it is truly *transnational.*[42]

Broadly speaking, the civil liability treaties that have been adopted have three main functions. First, they ensure nondiscriminatory treatment of foreign plaintiffs and provide equal access to national procedures and

38. John H. Knox, *The Flawed* Trail Smelter *Procedure: The Wrong Tribunal, the Wrong Parties, and the Wrong Law*, *in* TRANSBOUNDARY HARM IN INTERNATIONAL LAW: LESSONS FROM THE *TRAIL SMELTER* ARBITRATION, *supra* note 28, at 66, 68.

39. *See, e.g.*, Hague Conference, *supra* note 9, at 26–69; Anderson, *supra* note 22; Shi-Ling Hsu & Austen L. Parrish, *Litigating Canada-U.S. Transboundary Harm: International Environmental Lawmaking and the Threat of Extraterritorial Reciprocity*, 48 VA. J. INT'L L. 32–57 (2007); Sand, *supra* note 31.

40. *See* THOMAS GEHRING, DYNAMIC INTERNATIONAL REGIMES: INSTITUTIONS FOR INTERNATIONAL ENVIRONMENTAL GOVERNANCE 15 (Martin Führ & Gerhard Roller eds., 1994) ("[E]stablishment of international regimes is not a goal in itself. As long as decentralized and uncoordinated decision-making yields satisfactory outcomes, regimes will be of limited service.").

41. *See* Günther Handl & Robert E. Lutz, *An International Policy Perspective on the Trade of Hazardous Materials and Technologies*, 30 HARV. INT'L L.J. 351, 358 (1989).

42. *See* Harold Hongju Koh, *Why Transnational Law Matters*, 24 PENN ST. INT'L L. REV. 745, 745 (2006). Koh quotes the definition of transnational law provided by Phillip Jessup: "[A]ll law which regulates actions or events that transcend national frontiers . . . [including] [b]oth public and private international law . . . [plus] other rules which do not wholly fit into such standard categories." *Id.*

remedies for resolving tort disputes.[43] Second, they address problems of jurisdiction, choice of law, and enforcement of judgments by setting internationally agreed standards for where suits can be brought, which state's law will apply, and how judgments can be enforced through attachment of assets or mutual recognition of judicial decrees.[44] Third, the treaties harmonize the substance of liability law for suits arising out of activity covered by the treaty. All of the treaties have substantive provisions regarding the standard of liability, limitations on damages, insurance requirements, defenses, and channeling of liability (the important issue of who can be sued). To establish the strict liability of industrial operators to set a monetary limit on claims, for example, a civil liability treaty may require parties to change their domestic liability law to reflect the harmonized rules of the treaty.[45] Harmonizing the substantive tort law helps to avoid conflicts of law problems for damages covered by the treaty.

Imposing strict liability for transboundary environmental harm has become a default principle in civil liability negotiations. It is a starting assumption of negotiators and has been incorporated into all of the civil liability treaties adopted since 1989.[46] An internationally agreed standard of strict liability for covered activities is probably the principal means through which a civil liability treaty could facilitate transnational litigation and improve a plaintiff's prospects for redress.

---

43. *See, e.g.*, Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, Dec. 10, 1999, U.N. Doc. UNEP/CHW.5/29 [hereinafter Basel Liability Protocol].

44. *See* Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), art. 20, Oct. 10, 1989, U.N. Doc. ECE/TRANS/79, *available at* http://www.unece.org/trans/danger/publi/crtd/doc/crtd_e.doc [hereinafter CRTD Convention]; Convention on Third Party Liability in the Field of Nuclear Energy, art. 13d, July 29, 1960, 956 U.N.T.S. 263; International Convention on Civil Liability for Oil Pollution Damage, *supra* note 17, at art. X (providing that validly entered judgments enforceable under the law of the state of origin that are no longer subject to ordinary review are to be recognized by other parties if the first court had proper jurisdiction); International Convention on Liability and Compensation for Damage in Connection With the Carriage of Hazardous and Noxious Substances by Sea, art. 40, May 3, 1996, IMD Doc. Leg./CONF. 10/8/2, 35 I.L.M. 1406 (May 9, 1996) [hereinafter HNS Convention]. Most of the civil liability treaties have some provision for mutual recognition of judgments, subject to narrow exceptions such as judgments obtained by fraud or where enforcement would contravene clearly established public policy. For examples of these provisions, *see* LEFEBER, *supra* note 1, at 267 n.136.

45. *See* BIRNIE & BOYLE, *supra* note 21, at 268–69 . A treaty imposing strict liability would supersede (or require changes to) any domestic legislation that requires a plaintiff to prove fault. In addition to the widespread application of strict liability, many of the treaties also harmonize domestic liability law by imposing joint and several liability in situations where more than one party is culpable. *Id.*

46. Churchill, *supra* note 10, at 34.

Fourteen major civil liability treaties have been adopted in the environmental field since 1960, and the particular kind of damage covered by each treaty varies widely.[47] "Environmental damage" usually includes traditional injuries to health or property caused by long-term flows of pollution or by sudden accidents. It also includes, in some of the newer civil liability treaties, categories such as economic loss due to contamination (for example, fishermen's loss of catch after an oil spill), the cost of protective measures to prevent further damage to resources after a pollution incident occurs, and the cost of restoring damaged resources.[48]

The treaties that have been completed to date are highly sectoral, targeting specific industrial or transport activities such as transport of certain regulated hazardous substances by road or rail, transport of hazardous wastes by ship, or industrial accidents on transboundary watercourses. This narrow targeting can leave wide gaps in coverage for many types of environmental damage. Injuries from transport of hazardous waste in international commerce are addressed by the Basel Liability Protocol,[49] for example, whereas an accident from improper management of hazardous waste near a border may not be covered by any treaty. Human error causing a landslide or flood that crosses a border would likely not be covered by any of the civil liability treaties. While the sectoral nature of the treaties has clear drawbacks, states have simply been unwilling to agree on more generalized principles of liability for transboundary environmental damage.[50]

47. *See* treaties listed *infra tbl.1*.

48. There is still considerable controversy over whether civil liability treaties should apply to damage to the global commons (such as the high seas) or to ecological damage unrelated to property values (such as destruction of wetlands on private property where the loss of wetlands has no impact on the market value of the property). For a fuller discussion, see LEFEBER, *supra* note 1, at 9; Anderson, *supra* note 22, at 410 (Tort litigation is "downright clumsy and inflexible in making awards for environmental goods and processes outside the market."); Brian Jones, *Deterring, Compensating, and Remedying Environmental Damage: The Contribution of Tort Liability*, *in* HARM TO THE ENVIRONMENT: THE RIGHT TO COMPENSATION AND THE ASSESSMENT OF DAMAGES 11, 17–19 (Peter Wetterstein ed., 1997).

49. *See Basel Liability Protocol*, *supra* note 43.

50. The treaty that comes closest to doing so, the 1993 Lugano Convention on Civil Liability for Damage Resulting From Activities Dangerous to the Environment, June 21, 1993, 32 I.L.M. 1228, a regional treaty adopted by the Council of Europe, has not attracted any ratifications in fifteen years. *See* A.E. Boyle, *Globalising Environmental Liability: The Interplay of National and International Law*, 17 J. ENVTL. L. 3, 16 (2005) (discussing reasons for the lack of success of the Lugano Convention).

C. The Problematic Track Record of Civil Liability Treaties

Despite decades of efforts, civil liability treaties have rarely entered into force and have therefore foundered as vehicles to establish viable remedies for transboundary environmental damage. Given the consistent rhetorical commitment to enhance liability rules and the numerous efforts to negotiate liability treaties, the lack of actual accomplishments in this area of law is striking and deserves further investigation. As positive law, the treaties have been largely impotent, with a negligible impact on resolving actual disputes.

Table 1 brings together years of data on negotiations, ratifications, and entry into force of civil liability treaties. The first column in Table 1 provides the name of the treaty. The second column in Table 1 provides the year of adoption—when the treaty text was agreed to by negotiators, usually by consensus, and opened for signature.[51] The third column in Table 1 indicates the number of signatures on the treaty since adoption. Signature on a treaty authenticates the treaty text as the final text that was adopted and indicates the support of the signer, such as a foreign minister or head of state, but signature alone usually does not signify a state's consent to be bound by the terms of the treaty.[52] The fourth column in Table 1 shows the number of ratifications of the treaty. Through ratification, a state formally declares its intention to be bound by the terms of the treaty upon entry into force of that treaty.[53] In many states, ratification cannot proceed until domestic procedures for approving treaties have been satisfied, such as the "advice and consent" of two-thirds of the Senate in the United States. Frequently, a signatory state may choose not to become a ratifying party to the treaty.[54]

Finally, the last two columns in Table 1 indicate the relationship between ratification and entry into force, which is the point at which the treaty imposes binding obligations on all parties who have ratified. The civil

51. The process of adopting, signing, and ratifying treaties is governed by the Vienna Convention on the Law of Treaties, arts. 9–18, May 23, 1969, 1155 U.N.T.S. 331 (1969) [hereinafter Vienna Convention]. Entry into force is governed by Article 24. *See id.* at art. 24. For a narrative overview of these steps, see HUNTER, SALZMAN & ZAELKE, INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 305–09 (2007).

52. *See* HUNTER, SALZMAN & ZAELKE, *supra* note 51, at 306. Under the Vienna Convention, signature on a treaty obligates the state to refrain from acts "which would defeat the object and purpose of the treaty, until it shall have made its intention clear not to become a party to the treaty." Vienna Convention, *supra* note 51, art. 18.

53. A ratifying state usually deposits a document stating that intention with the United Nations or the treaty secretariat, thereby becoming a formal party to the treaty.

54. *See infra* Part II.B.

liability treaties in Table 1 all provide that entry into force occurs upon some minimum number of ratifications.

As Table 1 illustrates, most of the treaties have not received sufficient ratifications to enter into force. Of the fourteen major civil liability treaties listed in Table 1, only six have entered into force, and these six were all in the fields of liability for oil spills and nuclear accidents. The repeated attempts to negotiate liability treaties in other fields have been a clear failure, leaving a yawning gap in coverage.[55]

55. *See* Hague Conference, *supra* note 9, at 15.

TABLE 1: STATUS OF CIVIL LIABILITY TREATIES ADOPTED SINCE 1960[56]

Treaty	Year of Adoption	Number of Signatures	Number of Ratifications	Ratifications Necessary for Entry Into Force	Entry Into Force
Paris Convention on Third Party Liability in the Field of Nuclear Energy	1960	18	15	5	1968
• Amending protocol	1964	16	14	5	1968
• Amending protocol	1982	14	11	5	1991
• Amending protocol	2004	16	0	5	Not in Force
Supplementary Convention	1963	16	12	6	1974
• Amending protocol	1964	13	12	6	1974
• Amending protocol	1982	14	11	6	1988
• Amending protocol	2004	13	0	6	Not in Force
Convention on the Liability of Operators of Nuclear Ships	1962	16	6	2	Not in Force
IAEA Vienna Convention on Civil Liability for Nuclear Damage	1963	14	33	5	2003
• Amending protocol	1997	15	5	5	2003

56. Convention on Biological Diversity, Montreal, Can., May 25–27, 2005, *Status of Third-Party Liability Treaties and Analysis of Difficulties Facing Their Entry Into Force*, U.N. Doc. UNEP/CBD//BS/WG-L&R/1/INF/3 (Apr. 15, 2005), *available at* https://www.biodiv.org/doc/meetings/bs/bswglr-01/information/bswglr-01-inf-03-en.pdf [hereinafter Convention on Biological Diversity]. Ratifications for oil pollution damage treaties compiled from "The International Regime for Compensation for Oil Pollution Damage" (January 2008), *available at* http://www.iopcfund.org/npdf/genE.pdf. Information on the number of ratifications necessary for entry into force was compiled from the treaty texts.

Treaty	Year of Adoption	Number of Signatures	Number of Ratifications	Ratifications Necessary for Entry Into Force	Entry Into Force
IAEA Convention on Supplementary Compensation for Nuclear Damage	1997	13	3	5 states with a minimum of 400,000 units of installed nuclear capacity	Not in Force
Convention on Civil Liability for Oil Pollution Damage Resulting From the Exploration for and Exploitation of Seabed Mineral Resources	1977	6	0	4	Not in Force
UNECE Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels	1989	2	1	5	Not in Force
IMO International Convention on Civil Liability for Oil Pollution Damage (replaced 1969 Convention)	1992	10	122	10 states, including 4 states with more than one million units of gross tonnage	1996

Treaty	Year of Adoption	Number of Signatures	Number of Ratifications	Ratifications Necessary for Entry Into Force	Entry Into Force
International Convention on the Establishment of an International Fund for Oil Pollution Damage (replaced 1971 Convention)	1992	10	104	8	1996
• Protocol	2003	3	21	8	2005
Council of Europe Lugano Convention on Civil Liability for Damage Resulting From Activities Dangerous to the Environment	1993	9	0	3 states, including at least 2 Council of Europe states	**Not in Force**
IMO Convention on Liability & Compensation in Connection with Carriage of Hazardous and Noxious Substances by Sea	1996	8	8	12 states, including 4 states that have at least two million units of gross tonnage	**Not in Force**
Basel Protocol on Liability and Compensation for Damage Resulting From Transboundary Movements of Hazardous Wastes	1999	13	8	20	**Not in Force**

Treaty	Year of Adoption	Number of Signatures	Number of Ratifications	Ratifications Necessary for Entry Into Force	Entry Into Force
IMO International Convention on Civil Liability for Bunker Oil Pollution Damage	2001	3	18	18 states, including 5 states with gross tonnage not less than one million units	2008
UNECE Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters	2003	24	1	16	**Not in Force**

As is clear from Table 1, the enormous diplomatic energy expended in various international fora over close to four decades has resulted in only a handful of operational agreements. "Getting to yes" (completing negotiations on a treaty text), has only rarely led to "getting it done" (bringing the treaty to life through entry into force and implementation through domestic legislation).[57] As Alan Boyle of the University of Edinburgh put it, understatedly, "[l]ack of participation is a problem with most of the liability schemes; at best it casts some doubt on their acceptability or relevance."[58]

Table 1 illustrates just a portion of the overall problem with civil liability treaties. It does not capture the instances where a civil liability treaty is in force, but the most important states—the ones hosting the targeted activities—have not ratified it. For example, major nuclear states such as the United States, Canada, South Korea, and Japan have all refused

57. Bertram I. Spector, *Deconstructing the Negotiations of Regime Dynamics*, *in* GETTING IT DONE, *supra* note 11, at 51, 55. *See generally* ROGER FISHER ET AL., GETTING TO YES: NEGOTIATING AGREEMENT WITHOUT GIVING IN (1991).

58. Boyle, *supra* note 50, at 16.

to ratify the nuclear liability conventions.[59] No industrialized states have ratified the major civil liability treaties governing shipments of hazardous waste and cargo—the Basel Liability Protocol and the Hazardous and Noxious Substances (HNS) Convention.

Table 1 also does not capture situations where negotiations on tort liability rules began but never came to fruition, or where liability negotiations never even commenced even though such negotiations were explicitly called for in another international convention. There are over a dozen examples of treaties that call for future liability negotiations that were never followed by achievement of a liability agreement.[60]

In the existing literature on civil liability in international environmental law, scholars have rarely mentioned the poor ratification record of civil liability treaties and have not paid sufficient attention to the implications of this poor record for future attempts at treaty negotiation.[61] Indeed,

59. *See* Int'l Atomic Energy Agency [IAEA], *Vienna Convention on Civil Liability for Nuclear Damage*, (Apr. 20, 2007), *available at* www.iaea.org/Publications/Documents/Conventions/liability_status.pdf.

60. *See, e.g.*, Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, art. XIV, Mar. 24, 1983, 1506 U.N.T.S. 157, *available at* http://www.cep.unep.org/pubs/legislation/cartxt.html ("The Contracting Parties shall co-operate with a view to adopting appropriate rules and procedures . . . in the field of liability and compensation for damage resulting from pollution of the Convention area."); Convention for the Protection of the Natural Resources of the South Pacific Region, art. 20, Nov. 25, 1986, 26 I.L.M. 38 (stating that parties to the convention shall cooperate in the adoption of rules and procedures concerning liability and compensation for damage resulting from pollution); Convention on the Protection of the Marine Environment of the Baltic Sea Area, art. 17, Mar. 22, 1974, 1507 U.N.T.S. 167 ("The Contracting Parties undertake, as soon as possible, jointly to develop and accept rules concerning responsibility for damage resulting from acts or omissions in contravention of the present Convention, including, *inter alia*, limits of responsibility, criteria and procedures for the determination of liability and available remedies."); United Nations Convention on the Law of the Sea, art. 235(3), Dec. 10, 1982, U.N. Doc. A/CONF.62/122 (Oct. 7, 1982) ("States shall cooperate in the implementation of existing international law and the further development of international law relating to responsibility and liability [and] criteria and procedures for payment of adequate compensation . . . ."). *See also* LEFEBER, *supra* note 1, at 4 n.8 (gathering treaties and declarations that call for further discussions on liability and redress).

61. *See, e.g.*, Robert Cleton, *The CRTD Convention on Civil Liability and Compensation*, *in* TRANSNATIONAL ENVIRONMENTAL LIABILITY AND INSURANCE 205, 218 (Ralph P. Kroner ed., 1993) (describing the provisions of the treaty in detail and noting that "it is not very likely that the Convention will enter into force within the foreseeable future"); KUMMER, *supra* note 2, at 239 (summarizing the main features of civil liability treaties, outlining their strengths and weaknesses, and explaining that few of the treaties have ever entered into force); Blay & Green, *supra* note 9, at 25, 36 (outlining liability issues related to environmental damage in Antarctica, noting in passing that a "speedy conclusion of a liability regime [is] rather unlikely"); Michael Tsimplis, *Liability and Compensation in the International Transport of Hazardous Wastes by Sea: The 1999 Protocol to the Basel Convention*, 16 INT'L J. MARINE & COASTAL L. 295, 334 (2001) (calling the lack of entry into force of the Basel Liability Protocol "sobering," after a forty page discussion of its contents and requirements).

the Basel Liability Protocol has often been described as a model for the future, even though it has not entered into force nine years after its initial adoption.[62]

Given the record to date, it is time to shift gears and move away from the detailed discussions about how to structure civil liability treaties, and instead examine what has precluded mutual cooperation on civil liability treaties in the past and what the alternatives are for the future. Continuation of the prior patterns of negotiations will not be fruitful, and may very well be counterproductive. As Anne Daniel, a Canadian environmental negotiator, has written, "a continuing series of sectoral liability treaties could simply result in implementation overload that could challenge even the most robust national legal systems."[63]

II. TORT'S TUMULT: ANALYZING THE CAUSES OF FAILURE

Dissecting the reasons for past failures in the civil liability field requires delving into the dynamics of how and why nations cooperate (or refuse to cooperate) in international affairs. In this Part, I develop a model at the intersection of international law and international relations theory that illustrates how states negotiate over liability rules for transboundary environmental damage. The model helps to explain past conflicts, especially those between developed states and developing states, and shows how liability negotiations differ from other types of environmental negotiations. This Part presents the model and three conclusions about the underlying causes of the problematic history of civil liability in international environmental law.

My model is grounded in regime theory—the study of the formation, dissolution, and consequences of international regimes. Numerous definitions of a regime have been provided in the literature. The most commonly cited definition is Stephen Krasner's: A regime is a set of "implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area

62. At the time of negotiations, the Basel Liability Protocol was widely seen as "breaking new ground" on the international law of compensation and liability. Paola Bettelli et al., *Summary of the Fifth Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal: 6–10 December 1999*, EARTH NEGOTIATIONS BULL., Dec. 13, 1999, at 1, 13, *available at* http://www.iisd.ca/download/pdf/enb2006e.pdf. *See also* Brunnée, *supra* note 1, at 361 ("[T]he protocol has begun to serve as a model for other agreements.").

63. Daniel, *supra* note 10, at 236.

of international relations."[64] Krasner's definition could capture informal arrangements and understandings as regimes, such as the cooperation among allies over time. However, in the highly legalistic civil liability field, it makes sense to view the point at which a treaty enters into force, thereby imposing binding legal obligations, as the objective measure of when a regime has formed.[65] To reflect that civil liability is based on the complex coordination of legal institutions through treaties, I adopt the definition of the international relations scholar Radoslav Dimitrov: A regime is a "formal intergovernmental policy agreement that involves specific commitments to policy targets . . . and has entered into force according to the terms of the legal text."[66]

Regime theory was developed in the late 1970s and 1980s by political scientists such as Krasner, Robert Keohane, Robert Axelrod, Duncan Snidal, Kenneth Oye, and Oran Young. That period saw the proliferation of international institutions in the fields of security, trade, environment, and development. Regime theorists sought to explain the basis and function of that multilateral cooperation, even as the dominant political dynamic remained the bipolar conflict of the Cold War.[67] With this intellectual orientation, most regime theory literature has focused on successful examples of institution building. Here, I use the tools of regime theory to explain nonregimes, or situations where states have consistently tried, but failed, to build cooperative institutions.[68] Nonregimes, which are as much a result of collective political decisions as successful regimes, are important to study in order to understand the conditions under which countries will cooperate to achieve environmental goals.[69]

Most regime theorists are rationalists—they assume that states are self-interested unitary actors seeking to secure their interests in an anarchic

64. Haggard & Simmons, *supra* note 11, at 493; *see also id.* at 493–96 (reviewing definitions of "regime").

65. *See* Bertram I. Spector & Anna R. Korula, *Problems of Ratifying International Environmental Agreements: Overcoming Initial Obstacles in the Post-Agreement Negotiation Process*, 3 GLOBAL ENVTL. CHANGE 369, 372 (1993) (explaining that while countries sometimes comply with treaty language without formal ratification, ratification is the more usual practice and provides a verifiable measure of states' support for a treaty).

66. *See* DIMITROV, *supra* note 13, at 5.

67. *See* Harold Hongju Koh, *Why Do Nations Obey International Law?*, 106 YALE L.J. 2599, 2624–26 (1997) (book review).

68. *See* DIMITROV, *supra* note 13, at 9; *see also* Radoslav S. Dimitrov et al., *International Nonregimes: A Research Agenda*, 9 INT'L STUDIES REV. 230 (2007).

69. *Cf.* Dimitrov et al., *supra* note 68, at 232.

international system.[70] Regime theory is rooted in neoliberalism, and its adherents believe that states act to maximize their absolute gains, rather than their relative gains in relation to other states. Regime theorists argue that cooperation is possible and common in the international system and that international institutions (formal or informal) can shape and modify state behavior over extended periods of time, even when powerful states object to the institution.[71]

A basic tenet of regime theory is that "interests determine regimes."[72] In other words, states seek to form regimes where cooperative arrangements will serve their overlapping interests in a way that states could not achieve acting alone. Think of the role of NATO, for example, in serving the combined interests of the United States, Canada, and Western European nations in countering the Soviet threat. Even where interests converge, however, regime formation is not inevitable because cooperation can be derailed through strategic behavior, miscommunication, or incentives to defect or free-ride.[73]

A. Two Models of Environmental Liability Negotiations

With this focus on underlying interests in mind, I develop a model of how negotiations occur over new liability rules in two subparts. I first sketch a "Basic Model" of how two states negotiate over ongoing cross-border pollution emissions. This kind of bilateral model has dominated both political science scholarship and legal scholarship on the dynamics of transboundary pollution to date. I then make important modifications to the Basic Model to develop an "Extended Model" that captures the peculiarities and nuances of pollution liability negotiations, which carry

70. *See* GEHRING, *supra* note 40, at 23–24; Robert O. Keohane, *The Demand for International Regimes*, 36 INT'L ORG. 325, 335 (1982) (assuming that states are rational utility maximizers "in that they display consistent tendencies to adjust to external changes in ways that are calculated to increase the expected value of outcomes to them").

71. *See* Oran R. Young, *The Politics of International Regime Formation: Managing Natural Resources and the Environment*, 43 INT'L ORG. 349, 350 (1989); Zartman, *supra* note 11, at 20.

72. ARTHUR A. STEIN, WHY NATIONS COOPERATE: CIRCUMSTANCE AND CHOICE IN INTERNATIONAL RELATIONS 48 (1990); *see also* Zartman, *supra* note 11, at 31.

73. *See* Kenneth A. Oye, *Explaining Cooperation Under Anarchy: Hypotheses and Strategies*, *in* COOPERATION UNDER ANARCHY 1, 7–8 (Kenneth A. Oye ed., 1986) (laying out the incentives of the two prisoners in the classic prisoners' dilemma game and showing how the rational decisions of each can produce a sub-optimal outcome for both); *see also* ORAN B. YOUNG, INTERNATIONAL COOPERATION: BUILDING REGIMES FOR NATURAL RESOURCES AND THE ENVIRONMENT 226 (Cornell Stud. in Pol. Econ., 1989) ("Despite the existence of a distinct zone of agreement, the parties may well fail to reach agreement . . . as a result of strategic misrepresentations . . . .").

more uncertainties, involve more parties, and address risks that may not occur until years after the negotiations.

1. The Basic Model

In the Basic Model, State A is emitting damaging levels of pollution across its border into State B, and State B demands a formal intergovernmental meeting to negotiate an agreement on halting the pollution. State B can point to abundant law to mount its case. The Stockholm Declaration, the Rio Declaration, and numerous other soft-law instruments prescribe that no state may use its territory to cause environmental damage in the territory of another state.[74] The most famous of all international environmental law cases, the *Trail Smelter* arbitral decision of 1941,[75] would likely support State B's claims of legal injury.[76]

Despite all the legal instruments supporting State B, regime theory would model this negotiation as "deadlock," where one actor always prefers mutual defection (noncooperation) to mutual cooperation,[77] and the transboundary pollution would likely continue. No pollution control treaty is likely to be concluded in this setting because State A, the source state, gains from externalizing pollution to State B, the affected state. With directly opposed interests, State A will always face a negative payoff from forming a control regime. The Basic Model demonstrates that transboundary pollution often results in a kind of "victim pays" dynamic in which

74. *See* U.N. Conference on the Human Environment, *supra* note 15, princ. 21; U.N. Conference on Environment and Development, *supra* note 16, princ. 2.

75. (U.S. v. Can.), 3 R. Int'l Arb. Awards 1905 (1941).

76. The *Trail Smelter* decision was the first to clearly enunciate the principle that no state may use its territory in such a manner as to cause environmental injury in another state. *See id.* The tribunal found Canada in violation of international law because of damage in the United States caused by Canadian sulfur emissions. *See id.* Whether this principle today constitutes customary international law is a matter of considerable debate. *See, e.g.*, Karin Mickelson, *Rereading* Trail Smelter, *in* TRANSBOUNDARY HARM IN INTERNATIONAL LAW: LESSONS FROM THE *TRAIL SMELTER* ARBITRATION, *supra* note 28, at 79 (arguing that the unusual circumstances of the Trail Smelter arbitration limit its precedential value); Thomas W. Merrill, *Golden Rules for Transboundary Pollution*, 46 DUKE L.J. 931, 951–54 (1997) (discussing the relationship between *Trail Smelter* and subsequent development of the soft law of transboundary pollution); David A. Wirth, *Teaching and Research in International Environmental Law*, 23 HARV. ENVTL. L. REV. 423, 436 (1999) (noting the lack of state practice to refrain from transboundary pollution out of a sense of legal obligation).

77. As Kenneth Oye has noted, in a game of deadlock "conflictual outcomes follow . . . directly and simply from the payoff structure." Oye, *supra* note 73, at 7. No amount of policy coordination or trust-building activities can alter the basic underlying divergence of incentives. *Id.* at 6–7.

the source state has no incentive to cooperate on abating the pollution absent some compensation from the victim.[78]

International law scholars often couch their analysis of transboundary pollution problems in terms of the Basic Model. For example, Thomas Merrill of Columbia Law School modeled a bilateral, state-to-state conflict in one of the most significant American law review articles on the dynamics of transboundary pollution.[79] According to Merrill, transboundary pollution is a public-law, state-centered conflict, in which a plaintiff state and a defendant state are the relevant parties. He suggests principles to guide the states in presenting their contesting claims in negotiations or before a tribunal, "much like an appellate argument."[80]

The Basic Model is insufficient, however, to explain the nuances of civil liability negotiations. It assumes that a state, as an entity, is the party that is causing the pollution, and that another state is suffering the effects of the pollution. It thereby obscures the true nature of transboundary pollution dynamics, where industrial firms or transporters are usually the sources of pollution and private parties are the victims. National governments provide the political setting for such conflicts, but the long-standing interest in civil liability rules demonstrates that states are looking to private dispute resolution among directly affected parties as a solution to the conflict.

2. The Extended Model

The Basic Model needs to be extended to capture how states might negotiate over a treaty establishing private liability rules for transboundary pollution, as opposed to a treaty aimed at reducing emission levels. To show how the presence of liability walls, introduced in Part I, affects state incentives to ratify a civil liability treaty, I develop in this subpart an Extended Model that has two major components:

---

78. *See* Jonathan Baert Wiener, *Global Environmental Regulation: Instrument Choice in Legal Context*, 108 YALE L.J. 677, 751–52 (1999) (arguing that the polluter pays principle cannot be implemented in an international system of voluntary assent to treaties because "polluters will simply decline to participate in a regime that imposes net costs on them").

79. *See* Merrill, *supra* note 76.

80. *Id.* at 1008–09. Merrill recommends that transboundary pollution should be handled on a case-by-case basis, after environmental damage occurs, through application of two "golden rules" of reciprocity whose content will vary depending on the states involved. The golden rule is "do unto other states as you do to your own citizens," and the reverse golden rule is "do not ask of other states what you do not ask of your own citizens." *Id.* at 998. Before an international tribunal or in bilateral negotiations, a state could propose a decision rule (related to the standard of liability, limits on damages, or procedural protections) that is no more favorable than the way that state treats its own citizens or industries in a similar context. *Id.* at 1007–08.

First, the Extended Model identifies domestic constituents as the true party-in-interest in the negotiations and shows how states act to promote the interests of their domestic firms and/or citizens. For example, states with a large number of firms capable of causing transboundary environmental damage would be the most resistant to agree to civil liability treaties that could lower liability walls and expose those firms to suit.

Second, the Extended Model multilateralizes the Basic Model by introducing multiple parties and multidirectional pollution flows. The multilateral Extended Model suggests that there are heightened transaction costs to regime formation due to the large number of parties at the bargaining table, and it also suggests that states can be both source states and affected states, depending on the type of environmental damage being targeted by a liability treaty.

I will discuss each of these components of the Extended Model in turn. First, any model of liability negotiations must capture the role of domestic constituents because civil liability negotiations involve states negotiating over the interests of their domestic firms and/or citizens (for example, the interests of XYZ Corporation that owns the emitting factory in State A or the interests of the residents of Big City in State B that are affected by the pollution). Although tort itself is retrospective and compensatory, a negotiation over harmonizing tort rules for environmental damage can be viewed as a battle between states over which prospective legal rules, decision procedures, liability limits, and insurance obligations will most benefit their domestic constituents. The Basic Model misses this nuance by positing that states themselves are both the source of harm and the relevant injured party.

Regime theorists rarely delve into the black box of domestic politics,[81] but it is essential to do so in order to understand the causes of past failures of regime formation. A negotiation over a new liability treaty is a two-level game in which governments aim to "win" on both the international plane (vis-à-vis other states) and on the domestic plane (by negotiating arrangements that benefit powerful domestic interests).[82] Actions that are rational on the international plane (including, perhaps, agreeing with a close ally on civil liability rules) may be impossible for decisionmakers to take because of domestic constraints. A "win-set" is the set of treaty

81. *See* Haggard & Simmons, *supra* note 11, at 513.

82. *See* Robert D. Putnam, *Diplomacy and Domestic Politics: The Logic of Two-Level Games*, 42 INT'L ORG. 427, 434 (1988).

provisions or policies achievable on the international plane that are also acceptable and ratifiable at the domestic level.[83]

How do states serve their domestic constituents in a negotiation over liability rules? The primary interest of a rational source state is minimizing the risk that domestic firms will get sued for damages related to their externalized pollution. Liability walls are therefore crucial to understanding state incentives vis-à-vis civil liability treaties. States hosting polluting firms that externalize pollution across borders are likely to be opposed to new liability rules for environmental damage and are likely to be strongly wedded to the legal status quo, with its numerous procedural hurdles to transnational tort litigation for environmental damage. Long-standing rules of private international law governing jurisdiction, choice of law, and enforcement of judgments create a defensive bulwark that benefits risk-externalizing domestic firms in a source state. A rational affected state—that is, a state on the receiving end of transboundary pollution flows—has the opposite incentive: to support a civil liability treaty as a means to lower liability walls and to ensure that its citizens have improved avenues for redress and compensation in the event of substantial environmental damage. The Extended Model therefore predicts a high degree of conflict among states over liability treaties, depending on the interests of their domestic constituents in relation to liability walls.

The second component of the Extended Model recognizes that liability negotiations are usually multilateral and involve pollution flows or pollution risks that are multidirectional. The countries involved in these negotiations are rarely solely source states or solely affected states, as in the Basic Model, but rather can be identified as both, depending on the types of activities or pollution involved. Most countries contribute to transboundary environmental damage (even to a small extent or in a diffuse manner) and are affected by transboundary pollution from other states.

I use a two-by-two grid, shown in Table 2, to capture the multidimensional aspects of liability negotiations.[84] Here, a state's negotiating position on a civil liability treaty is a function of two factors: (1) the domestic economic prevalence of the activity targeted by the civil liability treaty (because of the state's interest in protecting firms from transnational tort suits), and (2) the state's ecological exposure to harm

83. *Id.* at 435–36.

84. This two-by-two grid is based on a model developed by Detlef Sprinz and Tapani Vaahtoranta, which they applied to European negotiations over transport of pollutants that cause acid rain, as well as to global negotiations over control of ozone-depleting substances. *See* Sprinz & Vaahtoranta, *supra* note 12.

from foreign firms engaging in the targeted activity (because of the state's interest in ensuring that its citizens can sue foreign firms causing transboundary environmental damage).

TABLE 2: STATE POSITIONS IN RELATION TO A HYPOTHETICAL CIVIL LIABILITY TREATY

		Domestic Economic Prevalence of the Targeted Activity	
		Low	*High*
Ecological Exposure to the Targeted Activity	*Low*	I–Bystanders	II–Strong Opponents
	High	III–Supporters	IV–Likely Opponents

Category I states are the bystanders—states that do not suffer any major harm from the type of transboundary pollution targeted by a civil liability treaty and that do not have major economic dependence on industries that pose transboundary environmental risks. With little to win or lose from a treaty, they are likely to abstain from negotiations on civil liability treaties or offer only lukewarm support. Category II states are likely to be strong opponents because, in lowering liability walls, a civil liability treaty may threaten important domestic industries. Category III states, in contrast, are likely to be supporters of a civil liability treaty. They are frequently exposed to ecological risks from cross-border pollution, yet they do not have a high degree of economic dependence on activities that create cross-border environmental damage. As in the Basic Model, the Extended Model still predicts intense conflict between category II states and category III states over the terms of any civil liability treaty.

What about category IV states? They have a high degree of economic involvement in activities that might be targeted by a civil liability treaty as well as a high degree of ecological exposure to cross-border environmental damage. Category IV states are labeled likely opponents because of the probable dynamics of public choice within their national capitals. Industry opponents of a civil liability treaty would argue vociferously against adoption of a treaty, and industry lobbies probably have a larger influence on state negotiating postures compared to the political influence of diffuse groups of individuals who may be exposed to transboundary pollution. Individuals usually do not know, ex ante, whether they will be victims of transboundary environmental damage, and therefore, in both developed and developing states, they have little incentive to lobby in support of a treaty.

Table 2 illuminates negotiating dynamics in a variety of civil liability contexts. Instead of assuming that states are either source states or affected states related merely through bilateral flows of pollution, Table 2 shows how state interests regarding a potential civil liability treaty are shaped as a function of competing factors of geography, ecological exposure, and the intensity of economic activity. It also highlights the prominence of domestic considerations in structuring negotiating postures.

B. Using the Extended Model to Identify the Causes of Regime Failure

The more nuanced perspective of the Extended Model helps to illuminate three persistent causes of regime failure in the civil liability field: (1) interest conflicts between developed states and developing states; (2) high transaction costs to adopt and implement treaties, combined with low expected payoffs; and (3) incorporation of treaty provisions that are too onerous for states to accept.

1. Interest Conflicts Between Developed States and Developing States

The Extended Model is similar to the Basic Model in one crucial respect: it still predicts underlying patterns of conflict in negotiations over new civil liability treaties (especially between the category II states and category III states in Table 2). Given these conflicting interests in relation to liability walls, the basic prediction of deadlock in the Basic Model also holds in the Extended Model. There will be no "demand for regimes"[85] unless some incentive can be provided to induce the participation of states that view themselves as net losers in a more harmonized system of tort liability rules for environmental damage.[86]

There are undoubtedly many developing nations that fall into category II for particular treaties. For example, they may be net exporters of pollution to other states, with a high degree of dependence on the industries causing the pollution. But the most prominent cleavage in past negotiations has been a split *between* developed states and developing states.

Since the 1972 Stockholm conference, developed countries have been the most consistent and vocal opponents of civil liability regimes. Because the goal in establishing a civil liability regime is to "remove obstacles to

85. *See* Keohane, *supra* note 70, at 337.

86. Oran Young has argued that regime formation is unlikely under these circumstances because of the absence of a clear "contractarian environment" in which all parties can see joint gains from devising new institutional arrangements. *See* Young, *supra* note 71, at 367.

transboundary litigation and in certain cases to ensure that liability standards are harmonized and an effective remedy guaranteed," it is not surprising that industrialized states have refused, in large numbers, to sign and ratify the treaties.[87] Developed states are likely to be concentrated in category II, with strong interests in maintaining liability walls due to their concentration of large firms capable of causing environmental damage across borders.

Developing states, in contrast, have been the primary advocates of negotiating new civil liability treaties.[88] Developing states have favored harmonized liability rules and the imposition of strict liability as means to lower liability walls and thereby enhance avenues for compensation and redress against foreign firms.[89] Developing states are likely to be concentrated in categories I and III in Table 2. Because tort law provides a means to shift the costs of harms back onto the culpable party, internationally agreed-upon liability rules, from the perspective of developing states, are an attractive means of correcting global power imbalances, redressing historical inequities, and assisting their citizens. Indeed, developing state negotiating positions on civil liability treaties have been closely intertwined with larger grievances, such as the lack of accountability of multinational corporations operating in poor countries and the wide disparities in wealth that undergird international shipments of hazardous wastes to the developing world.[90]

The conflicts between developed and developing states with respect to liability rules are therefore not just over *interests* (how domestic constituents in each set of states will fare under various liability regimes),

87. Sand, *supra* note 31, at 97.

88. *See* Brunnée, *supra* note 1, at 360 (discussing the Basel Liability Protocol and noting that because the underlying Basel Convention was designed to "ensure safe transfers of hazardous waste from developed countries to recipient countries in the South, it is not surprising that many of the negotiating issues pitted developed against developing countries.").

89. *See id.* at 362. According to Brunnée, in negotiations over liability rules for the Cartagena Biosafety Protocol, developed countries opposed an enabling clause that would lead to subsequent discussions on liability for environmental damage from living modified organisms (LMOs). *See id.* Developing countries, in contrast, "were concerned at their limited capacity for risk assessment and risk management. They saw a liability regime as essential to their protection against the risks of transboundary movements of living, genetically modified organisms." *Id.* (footnote omitted).

90. *See* Daniel, *supra* note 10, at 236 ("Developing countries have a strong interest in the development of liability regimes as a method of protection against the activities of multinational corporations. While some developed countries have been supportive of liability regimes . . . developing countries were the driving force . . . .") (emphasis omitted); *see also* Gino J. Naldi, *The Regulation of the Transnational Trade in Hazardous Wastes—The African Response*, 7 S. AFR. J. ENVTL. L. & POL'Y 213 (2000).

but also over *power* (who will exercise control over the international environmental agenda). The power disparities between developed and developing nations help to explain why liability rules have so frequently been pushed off negotiating agendas and relegated to subsequent protocols that have slim chance of adoption.

The negotiations in 1998 and 1999 over a treaty regulating international shipments of genetically altered seeds and plant tissues, known as living modified organisms (LMOs), are an example of how the conflicts within the Extended Model play out in practice. Significant conflict emerged between developed states that are major biotech exporters (including the United States, Canada, and Australia) and over 120 developing states present at the negotiation. Developing states, under the leadership of Worku Damena of Ethiopia, pushed to get tort liability rules included in the initial text of a treaty on LMOs because they were concerned about ecological damage in developing countries, where LMOs were being heavily marketed by biotech companies based in the developed world.[91] The United States and a handful of other biotechnology exporters opposed including any tort liability provisions in the treaty text. Faced with this opposition, and not wanting to derail the entire treaty, the developing nations were forced to postpone the liability discussions to a later date.[92] According to delegate Damena:

> The negotiations on liability and redress were particularly chilly, as there was a stunned silence from the delegates of the industrialized countries every time the issue was raised. It was perhaps the only issue in which the industrialized countries invariably showed their lack of interest and successfully stalled the talks, repeating that the issue is a complex one .... I found it difficult to understand why some of these states opposed rules on liability and redress when they already had tough laws at the domestic level. The developed countries' sincerity about providing an adequate safety regime for a new technology to

91. Ecological concerns related to LMOs include gene contamination of native crops, resistance of target pests, increased use of chemical pesticides, and toxicity of LMOs for animals. *See* Helmut Gaugitsch, *Scientific Aspects of the Biosafety Debate*, *in* THE CARTAGENA PROTOCOL ON BIOSAFETY: RECONCILING TRADE IN BIOTECHNOLOGY WITH ENVIRONMENT AND DEVELOPMENT 83 (Christoph Bail et al. eds., 2002).

92. *See* Worku Damena, *Liability and Redress*, *in* THE CARTAGENA PROTOCOL ON BIOSAFETY: RECONCILING TRADE IN BIOTECHNOLOGY WITH ENVIRONMENT AND DEVELOPMENT, *supra* note 91, at 369 ("[By the end of 1998], I had come to accept that it would be difficult to forestall the inclusion in the protocol of an enabling clause in preference to a substantive one because of the industrialized countries' overwhelming opposition to my position.").

> which they are subjecting the developing world was suggested by their bleak position on liability and redress.[93]

Similar negotiating dynamics were noted by Kate Cook, a delegate to the negotiations who was then legal advisor to the U.K.'s Department of Environment, Transport, and the Regions. According to Cook, developing countries consistently expounded "the message that if this subject [liability for LMO releases] were to be left out, the prospects for successfully finalizing a protocol would be minimal."[94] In contrast, she observed, developed country opposition to liability rules stemmed from their concern that "significant resources would be diverted into a complex and time-consuming exercise for which there was not, as yet, any demonstrable need[.]"[95] According to Cook, the source of the split between developed and developing nations was differing "perception[s] of how well their own countries would be able to cope with the consequences of any incident that might occur in the future. Thus developing countries generally supported the inclusion of liability, while most developed countries were opposed . . . ."[96]

Developed states have not uniformly opposed all civil liability treaties, however. Developed states have for the most part adhered to and implemented the regimes governing oil spill liability and nuclear liability. One factor that led to the relative success of the oil spill liability regime was that oil shipments have long been conducted under rules set by international conventions. The International Maritime Organization oversees a series of treaties governing accident prevention, design of tankers, and emergency response procedures. Addressing liability for environmental damage from oil spills through an international convention therefore was not viewed as a radical departure from existing precedent. Moreover, the formation of an oil pollution liability regime was greatly facilitated by the prior existence of well-developed insurance markets for oil shipments and a relative predictability in the amount and frequency of damages, due to decades of experience with oil shipping. Prior to the adoption of the 1969 oil spill liability convention, the oil shipping industry had already agreed, through contract, to similar liability provisions.[97] In the case of the nuclear

93. *Id.* at 368.

94. Kate Cook, *Liability: 'No Liability, No Protocol'*, *in* THE CARTAGENA PROTOCOL ON BIOSAFETY, RECONCILING TRADE IN BIOTECHNOLOGY WITH ENVIRONMENT AND DEVELOPMENT, *supra* note 92, at 371, 372.

95. *Id.* at 373.

96. *Id.*

97. *See* Tank Owners Voluntary Agreement Concerning Liability for Oil Pollution (TOVALOP), Jan. 7, 1969, 8 I.L.M. 498 (1969).

liability regime, governments in developed nations were eager to adopt a treaty that assigned liability solely to nuclear plant operators so as to preclude suits against governments themselves, which were the primary suppliers of nuclear raw materials.[98]

Developed states also likely supported the oil spill and nuclear accident liability regimes to promote the underlying activities of oil shipments and nuclear power generation. Civil liability treaties that lower barriers to transboundary tort suits can, in addition to helping potential victims, serve to encourage and facilitate the targeted activity. This can occur by providing financial certainty to private operators through damage caps (limiting the liability exposure of tanker owners and nuclear plant operators), and it can also occur by overcoming political opposition to new technologies by creating legal remedies in the case of accidents.

This encouragement function provides some incentive for host states—those with economic reliance on the underlying activity—to ratify a civil liability treaty. As Alan Boyle has said, international harmonization of liability law establishes "a more equitable balance between the interests of plaintiffs and defendants," helping to create "shared expectations on a regional or global basis which may make the risks posed by hazardous activities more socially acceptable to those likely to be affected."[99]

The nature of the risks in the oil spill and nuclear liability contexts also likely contributed to support from developed states. In both cases, the damages from accidents can affect several countries, and there is no easy calculus to be made in advance of a treaty regarding who will be a source state and who will be an affected state. Shipments of oil are widespread across oceans and within river systems, and many countries are exposed to some risk of damage from spills. In the nuclear context, radiation plumes can travel thousands of miles, as evidenced by the Chernobyl accident, so even host states of nuclear reactors face a strong possibility of major ecological damage from foreign nuclear reactors. As Oran Young has noted, if a state "cannot know in advance whether [it] will occupy the role of site of an accident, victim state, or unharmed bystander with respect to specific

98. *See* Günther Doeker & Thomas Gehring, *Private or International Liability for Transnational Environmental Damage—The Precedent of Conventional Liability Regimes*, 2 J. ENVTL. L. 1, 10 (1990) (arguing that the primary goal of the Vienna Convention was not compensation of victims, but rather was "regulat[ing] the international law of liability for transnational nuclear damage according to the need for unhampered technological development").

99. Boyle, *supra* note 50, at 12.

accidents," then there is a strong incentive to "consider the common good in devising institutional arrangements."[100]

Outside these two contexts, however, the ratification record of civil liability treaties shows a sharp divergence between developed and developing states, as predicted by the Extended Model and Table 2. The pattern that has emerged is that small numbers of developing countries have signed and ratified civil liability treaties, but in insufficient numbers to bring the treaties into force. In many cases, developing states that have little domestic dependence on the economic activity being regulated (category I or III states) are the only states willing to ratify the treaties and become formal parties. In contrast, developed states, defined here as the members of the Organization for Economic Cooperation and Development (OECD),[101] have on occasion signed civil liability treaties, but they generally have not become formal parties through ratification or accession. Table 3 shows this recurring pattern in some of the civil liability treaties adopted since 1989.

TABLE 3: SIGNATORIES AND PARTIES TO SELECTED CIVIL LIABILITY TREATIES ADOPTED SINCE 1989

Treaty Name	Signatory States	Ratifying or Acceding States
UNECE Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (1989)[102]	**OECD:** Germany **Non-OECD:** Morocco	**OECD:** None **Non-OECD:** Liberia

100. Young, *supra* note 71, at 367.

101. The Members of the OECD are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. Org. for Econ. Co-Operation & Dev., Ratification of the Convention on the OECD, http://www.oecd.org/document/1/0,3343,en_2649_201185_1889402_1_1_1_1,00.html (last visited Feb. 19, 2008).

102. *Supra* note 44; *see* CRTD Convention, Participants, http://www.unece.org/trans/danger/publi/crtd/status.html (last visited Nov. 10, 2007).

Treaty Name	Signatory States	Ratifying or Acceding States
Convention on Liability and Compensation in Connection with Carriage of Hazardous and Noxious Substances by Sea (1996)[103]	**OECD:** Canada, Denmark, Finland, Germany, Netherlands, Norway, Sweden, United Kingdom	**OECD:** None
	Non-OECD: None	**Non-OECD:** Angola, Cyprus, Morocco, Russian Federation, Saint Kitts and Nevis, Samoa, Slovenia, Tonga
Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes (1999)[104]	**OECD:** Denmark, Finland, France, Hungary, Luxembourg, Sweden, Switzerland, United Kingdom	**OECD:** None
	Non-OECD: Chile, Columbia, Costa Rica, Macedonia, Monaco	**Non-OECD:** Botswana, Democratic Republic of the Congo, Ethiopia, Ghana, Liberia, Republic of Congo, Syria, Togo

103. *Supra* note 44; *see* Status of the HNS Convention, http://www.hnsconvention.org/en/status.html (last visited Feb. 19, 2008).

104. *Supra* note 43; *see* Basel Convention, Parties to the Basel Liability Protocol, http://www.basel.int/ratif/protocol.htm (last visited Nov. 10, 2007).

Treaty Name	Signatory States	Ratifying or Acceding States
International Convention on Civil Liability for Bunker Oil Pollution Damage (2001)[105]	**OECD:** Canada, Australia, Denmark, Finland, Germany, Italy, Norway, Spain, Sweden, United Kingdom	**OECD:** Germany, Greece, Spain, Luxembourg, Poland, United Kingdom
	Non-OECD: Brazil	**Non-OECD:** Bulgaria, Croatia, Cyprus, Estonia, Jamaica, Latvia, Lithuania, Samoa, Singapore, Sierra Leone, Slovenia, Tonga
Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (2003)	**OECD:** Austria, Belgium, Denmark, Finland, Greece, Luxembourg, Norway, Poland, Portugal, Sweden, United Kingdom	**OECD:** Hungary
	Non-OECD: Armenia, Bosnia, Bulgaria, Cyprus, Estonia, Georgia, Latvia, Lithuania, Monaco, Moldova, Romania, Ukraine	**Non-OECD:** None

The Extended Model suggests that developed states would normally oppose such treaties to protect domestic firms. Why, then, would many developed states sign but not ratify these agreements, rather than just oppose them outright?

The pattern of OECD states signing, but not ratifying, these conventions is quite striking. It has not been previously noted in literature on civil liability treaties. There are two possible explanations for the behavior of developed states. Either there was a post-signature breakdown in support for civil liability treaties, or there was little support to begin with

105. *See* TRANSPORT CAN., MARITIME LAW REFORM DISCUSSION PAPER 15 n.12 (May 2005), http://www.tc.gc.ca/pol/en/report/tp14370/tp14370e.pdf (listing signatories and parties). *See also* Int'l Mar. Org., *Status of Multilateral Conventions and Instruments in Respect of Which the International Maritime Organization or Its Secretary-General Performs Depository or Other Functions*, Dec. 31, 2005, http://www.imo.org/includes/blastDataOnly.asp/data_id%3D14744/9193.pdf.

and developed states signed these civil liability treaties for symbolic reasons, with no intent to ratify and become formal parties.

Literature on "post-agreement negotiation" suggests that both explanations are plausible. Post-agreement negotiation is the "dynamic and cooperative processes, systems, procedures, and structures that are institutionalized to sustain dialogue on issues that cannot, by their very nature, be resolved by a single agreement."[106] The post-agreement negotiation literature views an initial treaty text as just a starting point for a decades-long process of subsequent negotiations, in both the domestic and international spheres, concerning treaty ratification, interpretation, implementation, and revision.[107] Gaining domestic support for ratification of the treaty is just one step in this process,[108] and conflicts can arise at any stage of the post-agreement negotiation that can lead to overt or covert defections from prior cooperative relationships.

There are four principal reasons why a state may decline to ratify a treaty after initially signing it: (1) treaty-specific factors, such as emerging domestic opposition to the content of the treaty; (2) extraneous factors, such as other issues that gain a higher legislative priority; (3) process elements, such as public pressure or the degree of personal involvement by national leaders in pushing for ratification; and (4) status elements, such as the nature of the domestic political process, the level of economic development, and public spending in the issue area.[109]

It is beyond the scope of this Article to detail the mechanisms of the post-signature breakdown in support for various liability treaties. But it seems plausible that national leaders in developed states may have signed civil liability treaties for purely symbolic value (for example, to pay off domestic constituencies or to claim credit for action on an environmental issue), with no intention of ever becoming a formal party to the treaty.

In other cases, a head of state or foreign minister in an OECD country may have genuinely supported a civil liability treaty, but opposition may have emerged over time in that state due to the complicated nature of multilevel bargaining games identified by Robert Putnam and other regime theorists. For example, after treaty signing, the approaching need to pass

106. Spector, *supra* note 57, at 55 (emphasis omitted).

107. *See* Zartman, *supra* note 11, at 25–26 ("The process of regime formation does not stop with adoption of a founding agreement . . . . [t]he idea of an ultimate instrument governed thereafter by *pacta servanda sunt* is a notion of a bygone era."); *see also* Oona A. Hathaway, *The Cost of Commitment*, 55 STAN. L. REV. 1821, 1829 (2003).

108. *See* Spector & Korula, *supra* note 65, at 372.

109. *Id.*

implementing legislation may have ignited the opposition of domestic legislators or industry lobby groups who were not involved in the initial treaty negotiating process.[110] It is also possible that elections and changes in political control may have led to reversals in a state's initial support for a civil liability treaty. In the United States, for example, the Bush Administration repudiated both the Kyoto Protocol[111] and the Rome Statute creating the International Criminal Court after the Clinton Administration had signed both conventions.[112] That some developed states may have initially signed a civil liability treaty does not undermine the Extended Model's predictions. The significant point is that in the end, large numbers of developed states have concluded that it is not in their interests to ratify the treaties and become formal parties.

2. High Transaction Costs and Low Expected Payoffs

Extending the bilateral Basic Model through introduction of the more realistic setting of multilateral negotiations in the Extended Model helps to illuminate a second major obstacle to regime formation in the civil liability field. This obstacle is the high transaction costs of negotiating and implementing agreements, coupled with the relatively low expected benefits.

On the cost side, the Basic Model fails to capture the significant transaction costs of negotiating multilateral liability treaties. In the bilateral

110. Spector and Korula have argued that new players involved in the domestic ratification process can outmaneuver government officials who initially supported and signed a treaty:

> Negotiators representing their countries before an international forum may be sufficiently flexible to reach an agreement. But stakeholders back home (such as ministry bureaucrats, political parties, business, unions, citizen lobbies, etc.) may be much more hard-nosed and tough as internal domestic negotiators, responsible for approving and implementing the product of international negotiation.

Id. at 372–73 (emphasis omitted).

111. Vice President Al Gore signed the Kyoto Protocol on behalf of the United States in November 1998, even though it was clear at the time that there was not a two-thirds Senate majority in favor of the treaty. *See* SCOTT BARRETT, ENVIRONMENT AND STATECRAFT: THE STRATEGY OF ENVIRONMENTAL TREATY-MAKING 370 (2003). The outcome in the Senate was fairly certain because of the passage of the Byrd-Hagel resolution, which passed by a 95-0 vote. *See* S. Res. 98, 105th Cong. (1997) (stating the sense of the Senate that the United States should not be a signatory to any climate treaty that did not include binding targets and timetables for developing as well as industrialized nations or that "would result in serious harm to the economy of the United States").

112. The Clinton Administration signed the treaty establishing the International Criminal Court in December 2000. *See* Curtis A. Bradley, *U.S. Announces Intent Not to Ratify International Criminal Court Treaty*, AM. SOC'Y INT'L L., May 2002, http://www.asil.org/insights/insigh87.htm (last visited Nov. 17, 2007). *Id.* President Clinton explained that the treaty had "significant flaws," but that "[w]ith signature . . . we will be in a position to influence the evolution of the court." *Id.* The Bush Administration quickly signaled its opposition to the treaty, citing a number of objections. *See id.*

setting of the Basic Model, we have seen that the source state has little incentive to curtail pollution that is damaging the affected state, absent some form of compensation. This is certainly a roadblock to regime formation, but it is theoretically surmountable. The bilateral setting of the Basic Model raises the possibility of Coasian bargaining[113] in which the affected state could offer some form of payment to the source state to install pollution controls on its emitting facilities.

In contrast, consider the Extended Model, where there are dozens of states attempting to negotiate a civil liability treaty, with complicated pollution flows among numerous states and states acting as both source states and affected states, depending on the type of pollution involved or the time period in which the treaty is negotiated. The prospects for Coasian bargains in this setting are dramatically diminished.

As Kenneth Oye and other regime theorists have noted, increasing the numbers of parties involved in negotiations tends to raise the cost of regime formation by making it difficult to find a satisfactory zone of agreement among states and by raising the chance that parties will defect from an agreement once formed.[114] "[A]nalytic constructs closely tied to a two-party view of the world . . . cannot carry us far in coming to terms with the politics of international regime formation."[115]

With respect to civil liability treaties, dozens of parties are usually at the table to negotiate the terms and conditions of liability rules. Some of the liability treaties negotiated to date have been designed to be global,[116] while others are regional treaties that nevertheless encompass twenty or more potential parties.[117] This creates a "large numbers" problem with respect to the transaction costs of negotiating the treaties.[118]

---

113. *See* Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960). Coase argued that private parties involved in a pollution or nuisance dispute will bargain over abatement, and that in the absence of transaction costs, they will reach the economically efficient result. *Id.* Similar bargaining could occur among states if the transactions costs are low.

114. *See* Oye, *supra* note 73, at 19.

115. Young, *supra* note 71, at 360.

116. Examples of global treaties include the Basel Liability Protocol, *supra* note 43, negotiated as a follow up to the global Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, and the HNS Convention, *supra* note 44, which was negotiated under the auspices of the International Maritime Organization.

117. The CRTD Convention, *supra* note 44, for example, was negotiated under the auspices of the U.N. Economic Commission for Europe, which has fifty-six member countries located in Europe and Central Asia. *See* U.N. Econ. Comm'n for Eur., Member Countries, http://www.unece.org/oes/member_countries/member_countries.htm (last visited Nov. 17, 2007).

118. *See* Merrill, *supra* note 76, at 984–85.

On the benefit side, multilateral liability treaties have a "small numbers" problem that also serves as a barrier to regime formation.[119] Any one party considering joining a liability regime has only a small risk of having its citizens victimized by the specific forms of transboundary pollution covered by that treaty. That party may reject the prospect of a lengthy negotiation for a multilateral treaty if it perceives only marginal benefits for its own citizens from joining a regime. As Thomas Merrill has noted:

> [M]ost transboundary pollution problems are perceived as being relatively isolated and localized disputes. People tend to focus on *this* particular transboundary air pollution problem or *that* particular transboundary water pollution problem; the ones they focus on, of course, are the ones that have an immediate impact on them .... Only if people and nation-states come to view each individual transboundary dispute as just an example of a more generic phenomenon that affects nearly everyone (including themselves) are we likely [to] see significant support for a generalized regime of regulation of transboundary pollution ....[120]

It is not only the number of parties in the Extended Model that hinders regime formation, but also the uncertainties inherent in the rules being negotiated. Liability negotiations involve more uncertainty compared to regimes controlling transboundary emissions of pollutants, as in the Basic Model, because there are no easily verifiable technological fixes that can be mandated in a liability treaty and because liability treaties concern new tort rules that will apply to future polluting activity or accidents. In most cases (such as nuclear accidents or ecological damage from release of LMOs), the probability of the event that triggers liability, the magnitude of the resulting damage, and the prospect of a monetary recovery for injured victims pursuant to a treaty are all highly uncertain.

In theory, if states operate under a Rawlsian "veil of ignorance,"[121] with uncertainty about who will ultimately pay tort judgments and about the frequency of suits and amounts of damages, the prospects for contractualist regime formation could increase. States may soften negotiating positions, for example, if they are not sure how their own firms will fare under a new civil liability regime. According to Oran Young, such a veil lengthens the "shadow of the future" and "has the effect of increasing interest in the formation of arrangements that can be justified on the grounds that they

119. *See id.*
120. *Id.*
121. JOHN RAWLS, A THEORY OF JUSTICE 118–23 (1971).

are fair in procedural terms."[122] Indeed, Young argues that states are often uncertain about what their own preferences are, especially, in the beginning stages of treaty negotiation. This makes achievement of rough equity, rather than Pareto optimality or maximization of individual self-interest, the paramount concern of negotiators.[123]

It is more likely, however, that the uncertainty inherent in negotiating over prospective liability rules has the opposite effect of hardening negotiating positions and complicating calculations of the benefits of joining a treaty. For an affected state concerned about its exposure to a transboundary harm, the benefit of joining a civil liability treaty may not be realized until transboundary damage occurs and a claim for compensation for injured citizens is adjudicated. Treaty-based tort rules are written broadly, and the details of their implementation are left to national legal systems.[124] Civil liability treaties are therefore subject to delayed defections, in which evidence that a party is noncooperative might not emerge until future events trigger liability and actual suits are brought. The inability to monitor cooperation in the near term is likely a serious disincentive to forming a regime in the first place. Under emissions control treaties, in contrast, it is usually easier to verify in the near term whether a state is actually implementing required control measures through installation of new technology or changes in industry practices. So even if we assume that a group of states has underlying common interests in a more harmonized tort regime for transboundary environmental damage, states within the group might still find cooperation to be risky because "[t]he actor following a cooperative strategy is vulnerable to losses inflicted by defecting partners."[125]

3. Treaty Content as a Cause of Regime Failure

The third major reason for the persistent failure to establish viable tort remedies in international environmental law is that the content of civil liability treaties themselves has often been too onerous and objectionable for large groups of states to adopt. The Extended Model highlights the primacy of protecting domestic constituents, and it appears that many states,

122. ORAN YOUNG, INTERNATIONAL GOVERNANCE: PROTECTING THE ENVIRONMENT IN A STATELESS SOCIETY 43 (1994).

123. *See id.*

124. *See, e.g.*, Basel Liability Protocol, *supra* note 43, at art. 19.

125. Christer Jönsson, *Cognitive Factors in Regime Dynamics*, *in* REGIME THEORY AND INTERNATIONAL RELATIONS 202, 205 (Volker Rittberger ed., 1993).

concerned about the domestic impact of the treaties, have decided in their game-theoretical calculus that it is better not to play the game at all.

Below, I argue that the deep obligations of civil liability treaties, such as requirements to change domestic liability law and the threat of enforceable monetary judgments, have been a barrier to forming tort liability regimes, and I compare the depth of obligations of civil liability treaties to other major treaties in international environmental law. Here, I leave the theoretical predictions of the Extended Model to examine self-reporting by states on their reasons for nonratification. Drawing on these self-reports, I conclude that high liability limits, lack of available insurance, and conflicts with domestic legal systems have been frequent barriers to regime formation in the civil liability field.

a. The Depth of Civil Liability Treaties

Conflicts between developed and developing states permeate most areas of international environmental law,[126] so scholars of the role of tort in international environmental law are confronted with a puzzling question: Why has the international community been able to bridge these conflicts in negotiating primary treaties, but not in negotiating associated liability rules? As noted briefly in Part I, liability rules for environmental damage have traditionally been negotiated as adjuncts to a broader primary treaty that establishes nonliability obligations in the same field of law. The primary treaties establish governmental obligations to prevent environmental damage, and the associated liability treaties establish the rights and remedies of private actors if environmental damage nonetheless occurs. The primary treaties have generally been far more successful in terms of attracting support. Table 4 shows this relationship for several recent civil liability treaties.

126. *See, e.g.*, Mark A. Drumbl, *Poverty, Wealth, and Obligation in International Environmental Law*, 76 TUL. L. REV. 843 (2002); Adil Najam, *The View From the South: Developing Countries in Global Environmental Politics*, *in* THE GLOBAL ENVIRONMENT: INSTITUTIONS, LAW AND POLICY 225 (Regina S. Axelrod et al. eds., 2d ed. 2005).

TABLE 4: PRIMARY ENVIRONMENTAL TREATIES AND ASSOCIATED LIABILITY RULES

Primary Treaty	Purpose	Parties	Associated Liability Treaty	Parties
U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses (1997)[127]	Requires parties to protect, preserve, and manage the quality of international watercourses under the principle of "equitable and reasonable utilization."	14	Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (2003)	1
and				
Convention on the Transboundary Effects of Industrial Accidents (1992)[128]	Encourages parties to provide assistance in the event of an industrial accident with transboundary effects, to cooperate on research and development, and to share information and technology.	36		
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989)[129]	Establishes informed consent procedures for shipments of wastes, provides that wastes must be managed in an environmentally sound manner, and provides for penalties in the event of illegal shipments.	168	Basel Protocol on Liability and Compensation (1999)	8

127. U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses, May 21, 1997, 36 I.L.M. 700.

128. Convention on the Transboundary Effects of Industrial Accidents, Mar. 17, 1992, UN/E/ECE/1268, 31 I.L.M. 1330 (1992).

129. Basel Liability Protocol, *supra* note 43.

Primary Treaty	Purpose	Parties	Associated Liability Treaty	Parties
Cartagena Protocol on Biosafety (2000)[130]	Establishes informed consent procedures among governments for transboundary shipments of Living Modified Organisms.	139	Potential liability protocol or amendment (under discussion since 2000)	N/A

As shown in Table 4, many states have bifurcated their support by ratifying a primary convention but declining to ratify the convention's associated liability rules. The Basel Convention is the most notable example. It has been ratified by 168 states (including all the OECD member states except South Korea and the United States) and entered into force in 1992, while its associated liability protocol has been ratified by only eight states and has not entered into force. By postponing discussion of tort liability rules to a subsequent agreement or protocol, parties to the underlying primary treaty undoubtedly have an easier time reaching consensus on the initial issues of governmental coordination, but the postponement is usually fatal for the liability rules.[131] Removing the teeth from the initial negotiation only serves to sharpen the bite of the liability discussions.

The most likely reason for this difference in support between primary treaties and liability rules is the difference in the depth of the obligations imposed. Primary treaties often contain shallow commitments with which states can easily comply.[132] Commitments might include record keeping, monitoring, reporting, consultation, and adherence to broad principles, such as the principle of "equitable and reasonable utilization" of shared waterways in the U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses.[133] Primary treaties usually contain rudimentary dispute resolution procedures and weak or nonexistent enforcement mechanisms. In many cases, they impose requirements with which states have

130. Cartagena Protocol on Biosafety, Jan. 29, 2000, 39 I.L.M. 1027 (2000).

131. *See* Brunnée, *supra* note 1, at 359 (noting that primary treaties have often "deliberately side-step[ped] responsibility or liability issues, emphasizing instead various strategies to promote compliance").

132. *See* David G. Victor, *Enforcing International Law: Implications for an Effective Global Warming Regime*, 10 DUKE ENVTL. L. & POL'Y F. 147, 152 (1999).

133. *Supra* note 127, arts. 5–6.

already complied individually.[134] From the perspective of regime formation, then, the negotiation process for primary treaties is often "a joint effort to discover an agreement marked by harmony or simple coordination. Unsurprisingly, many agreements result, participation in those agreements is high, the lowest common denominator reigns, and compliance is nearly perfect."[135]

George Downs and colleagues have defined a treaty's depth as "the extent to which [the treaty] requires states to depart from what they would have done in its absence."[136] The substantive obligations of the liability treaties tend to be deep because the treaties raise the prospect of higher insurance premiums, enforceable tort judgments, and multimillion dollar damage awards against domestic firms. The operation of domestic court systems, after all, is one of the core aspects of national sovereignty. Deep treaties, involving substantial infringements on sovereignty and national freedom of action, are rare in international environmental law. Sovereignty is jealously guarded, and once an ecological problem is identified, states are in most cases inclined to adopt modest programs with high symbolic value:

> Especially in liberal democracies, where public opinion is both fickle and essential to political survival, governments are constantly on the prowl for actions that have low short-term costs and high symbolic value. When under pressure to deal with an international environmental problem that could have high short-term costs and distant international benefits, politicians are politically wise to sidestep by signing a treaty that is superficially significant but actually requires little action.[137]

The substantive obligations in civil liability treaties clearly go beyond mere symbolism. As new liability treaties have been proposed and negotiated over the past few decades, a kind of default model for a civil liability treaty has emerged that is quite stringent. The model is designed to implement the

---

134. *See* Victor, *supra* note 132, at 153 (noting that the United States was a major supporter of the London Dumping Convention of 1972, which banned ocean dumping of radioactive wastes, because the United States had already passed national legislation to that effect).

135. *Id.* at 155–56; *see also* Merrill, *supra* note 76, at 974 (noting that many international negotiations are "aligned interest" situations, where "if some mechanism can be devised for inducing mutual cooperation, the situation is potentially a positive-sum game for all").

136. *See* George W. Downs et al., *Is the Good News About Compliance Good News About Cooperation?*, 50 INT'L ORG. 379, 383 (1996). For a treaty that required reductions in pollution levels or in tariffs, for example, the treaty's depth would refer "to the reduction it required relative to the counterfactual estimate of the tariff or pollution level that would exist in the absence of a treaty." *Id.*

137. Victor, *supra* note 132, at 154.

polluter pays principle by establishing a high limit of financial liability, mandating insurance coverage up to the limit of liability, and providing for strict liability of operators for environmental damage.[138] All of the recent civil liability treaties have incorporated these provisions.[139] But the attractions of implementing broader tort remedies for transboundary environmental damage are precisely the features that make regime formation so difficult, as these deep features of civil liability treaties would be expected to generate intense opposition from some states. Indeed, since 2000, new data has become available that suggest that the default model of recent civil liability treaties is not acceptable to large groups of states in both the developed and the developing worlds.

b. Self-Reporting by States on Reasons for Nonratification

The new data on reasons for nonratification are contained in answers submitted by numerous states to questionnaires distributed between 2000 and 2006 by treaty secretariats for the Basel Liability Protocol, the Lugano Convention, and the CRTD Convention. The secretariats, concerned about the slow pace of ratification and the lack of support for the civil liability treaties they are charged with overseeing, posed specific questions about the reasons for nonratification and about domestic liability law and insurance mechanisms.[140] Questionnaires were distributed to signatories of each convention and to nonsignatories that were members of a relevant governing body, such as the Inland Transport Committee of the U.N. Economic Commission for Europe in the case of the CRTD Convention.[141]

In a public document, of course, states may not reveal their true motivations for nonratification. Because of this possibility, and the brevity

138. *See* Churchill, *supra* note 10, at 32–40 (outlining the components of the default model).

139. *See, e.g.*, Basel Liability Protocol, *supra* note 43, at arts. 4, 14, Annex B; CRTD Convention, *supra* note 44, at arts. 5, 9.

140. For a list of questions asked, see Working Party on the Transport of Dangerous Goods, Geneva, Switz., May 7–11, 2001, *Follow up of the Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD)*, U.N. Doc. TRANS/WP.15/2001/17 (Feb. 23, 2001), *available at* http://www.unece.org/trans/danger/publi/crtd/doc/wp152001-17e.pdf; Basel Liability Protocol, Workshops, Questionnaire 1, http://www.basel.int/legalmatters/regworkshops (last visited Nov. 10, 2007).

141. The secretariat for the Basel Liability Protocol convened a series of workshops in Argentina, Egypt, El Salvador, Ethiopia, Indonesia, and Poland to bring states together to discuss their reasons for nonratification of that civil liability treaty. Basel Liability Protocol, Regional Workshops Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation, [hereinafter Regional Workshops], http://www.basel.int/legalmatters/regworkshops (last visited Nov. 3, 2007).

and diversity of responses, I have not attempted a statistical analysis of all the responses. But the responses do illustrate what states (or certain bureaucracies) choose to reveal about their motivations.

The responses reveal that the two most common objections to the treaties were: (1) the limits of liability in the treaties are too high, and (2) there are no insurance products available domestically that could cover the high limits of liability. These two objections are closely linked because most of the recent civil liability treaties mandate that operators of the targeted activity obtain insurance coverage up to the relevant liability limit.[142] Table 5 gives some examples of liability limits in recent treaties. SDR refers to Special Drawing Rights of the International Monetary Fund.[143]

142. The Basel Liability Protocol, for example, requires that strict liability for damage must be covered by "insurance, bonds or other financial guarantees" for amounts at least equal to liability caps in the treaty. Basel Liability Protocol, *supra* note 43, at art. 14; *see also* Michael Tsimplis, *Liability and Compensation in the International Transport of Hazardous Wastes by Sea: The 1999 Protocol to the Basel Convention*, 16 INT'L J. MARINE & COASTAL L., 295, 321 (June 2001).

143. The conversion from SDR to U.S. dollars is provided on the IMF's web site: International Monetary Fund, http://www.imf.org/external/np/exr/facts/sdr.htm (last visited Feb. 19, 2008).

TABLE 5: LIABILITY LIMITS IN RECENT CIVIL LIABILITY TREATIES

Treaty	Liability Limit
CRTD Convention (1989)	Accidents caused by road or rail carriers: SDR 18 million ($27.18 million) Accidents caused by inland navigation vessels: SDR 8 million ($12.01 million)[144]
Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (1993)	No liability limit specified
HNS Convention (1996)	Small ships: SDR 10 million ($15.1 million) Large ships: SDR 100 million ($151 million)[145]
Basel Liability Protocol (1999)	Upper liability limit: none (left to domestic law) Minimum liability limit: between SDR 1 million ($1.5 million) and SDR 30 million ($46 million) depending on the size of the waste shipment[146]
Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (2003)	Between SDR 10 million ($15.1 million) and SDR 40 million ($60.4 million) depending on the toxicity and amount of hazardous substances released[147]

Many states, including developed countries, reported to the treaty secretariats that the liability limits are simply too high. The Netherlands, for example, reported in its response to the questionnaire from the CRTD secretariat that one reason it had not ratified that treaty was that the requisite insurance coverage "cannot be obtained on the present insurance market . . . . The current limits of liability [in the treaty] are considered to

144. CRTD Convention, *supra* note 44, at art. 9.

145. HNS Convention, *supra* note 44, at art. 9.

146. Basel Liability Protocol, *supra* note 43, at Annex B.

147. United Nations Economic Commission for Europe, *Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters*, Annex II, May 21, 2003, UNECE Doc. MT/WAT/2003/1-CP.TEIA/2003/3, *available at* http://www.unece.org/env/civil-liability/documents/protocol_e.pdf.

be too high as long as they are combined with compulsory insurance."[148] Finland expressed that "retaining the requirement of compulsory insurance up to liability limits would in all probability result in small carriers not being able to obtain insurance cover, at least not with reasonably priced premiums."[149] For the Basel Liability Protocol, Poland stated that the minimum limits of liability "could be considered too high for entrepreneurs in Poland."[150] Other nations that stated they had problems with the liability limits under the Basel Liability Protocol included Bulgaria, Croatia, Czech Republic, Macedonia, Malaysia, Mozambique, Serbia, Slovakia, and Turkey.

The objection from developed states that insurance policies cannot be obtained is difficult to take at face value. In the developed world, billion dollar risks and assets are routinely insured, so it should not be impossible to obtain cover for a narrow class of risks running in the tens of millions of dollars. Developed states may be more concerned about the added cost of insurance premiums, rather than the uninsurability of the damages per se. Lack of insurance products might be a larger problem in developing countries, which were especially likely to state that they had not ratified one or more of the civil liability treaties because insurance products that could

148. Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), Geneva, Switz., May 7–11, 2001, *Replies by the Czech Republic and the Netherlands*, 2–3, U.N. Doc. TRANS/WP.15/2001/17/Add.2 (Feb. 23, 2001), *available at* http://www.unece.org/trans/danger/publi/crtd/doc/wp152001-17a2e.pdf; *see also* Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), Geneva, Switz., *Reply by Turkey*, 2, U.N.Doc. TRANS/WP.15/2001/17/Add.5 (Aug. 16, 2001), *available at* http://www.unece.org/trans/danger/publi/crtd/doc/wp152001-17a5e.pdf ("[T]he amount of the premium to be paid for the possible damages [that] dangerous goods and liquid fuels might cause would reach very high amounts . . . . In fact, it is understood that other organizations and administrations do not have this kind of insurance either.").

149. Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), Geneva, Switz., Nov. 5–9, 2001, *Replies by Finland and Lithuania*, 2, U.N. Doc. TRANS/WP.15/2001/17/Add. 4 (July 20, 2001), *available at* http://www.unece.org/trans/danger/publi/crtd/doc/wp152001-17a4e.pdf [hereinafter *Replies by Finland and Lithuania*]; *see also* Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), Geneva, Switz., Nov. 5–9, 2001, *Reply by Belgium* 3–4, U.N. Doc. TRANS/WP.15/2001/17/Add.8 (Sept. 13, 2001), *available at* http://www.unece.org/trans/danger/publi/crtd/doc/wp152001-17a8f.pdf ("The limitation on liability appears too high for transporters . . . . There are special concerns about obtaining insurance coverage, for a reasonable premium in a very limited insurance market. From the point of view of the insurers, the limits of liability on transporters remain high and do not provide the insurer sufficient protection. These amounts are economically unbearable for small and medium-sized enterprises.") (translated from the French original).

150. *See* Regional Workshop Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation, Warsaw, Pol., Jan. 18–20, 2006, *Poland—Financial Limits and Insurance*, *available at* http://www.basel.int/legalmatters/regworkshops/poland/poland-q3.doc.

cover the liability limits were simply not available. Ghana's response to the Basel Liability Protocol questionnaire was typical: "Currently in Ghana, there are no conventional insurance policies available to cover the liabilities specified . . . ."[151] Tanzania was even more explicit: "[The] [p]rivate insurance sector in the country [is] not ready to take up [the] risk of hazardous wastes."[152] Other countries responding to the Basel secretariat that the lack of available insurance products was an obstacle to ratification included Cambodia, Costa Rica, Ecuador, Estonia, Indonesia, Lesotho, Malaysia, Mozambique, Peru, Romania, Serbia, and Slovakia.[153]

Another major reported reason for opposition to the treaties, especially from developed states, was the incompatibility of the treaties with domestic liability law. In questionnaire responses for the Lugano Convention, numerous countries, including the United Kingdom, Austria, Sweden, Greece, Turkey, and Switzerland, pointed to conflicts with domestic law as a major reason for refusing to sign or ratify the treaty.[154] The U.K., for example, listed five objections to the Lugano Convention, including that "[t]here are elements of joint and several liability, which has generally been rejected in the United Kingdom, where a proportionate approach is more usual."[155] Sweden noted that the Convention's definition of compensable damage "goes beyond what has been generally accepted in tort legislation since the Convention includes a right for compensation for impairment of the environment *per se*."[156]

In developing countries, a common reported roadblock to ratification of the Basel Liability Protocol and the CRTD Convention was a lack of general domestic legal capacity to implement complex liability schemes. The treaties

151. Regional Workshop Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation, Addis Ababa, Eth., Aug. 30–Sept. 2, 2004, *Ghana-Financial Limits and Insurance*, *available at* http://www.basel.int/legalmatters/regworkshops/ethiopia/financial-limits-ghana%20.doc.

152. Regional Workshop Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation, Addis Ababa, Eth., Aug. 30–Sept. 2, 2004, *Responses of Participant Countries to the Questionnaires*, 15, *available at* http://www.basel.int/legalmatters/regworkshops/ethiopia/answers-quest.doc [hereinafter *Responses of Participant Countries*].

153. *See* Regional Workshops, *supra* note 141.

154. *See* United Nations Economic Commission for Europe, *Responses to the Questionnaire on the Convention on Civil Liability for Damage Resulting From Activities Dangerous to the Environment (Lugano Convention)*, U.N. Doc. MP.WAT/2001/2CP.TEIA/2001/2 (May 1, 2001), *available at* http://www.unece.org/env/documents/2001/wat/mp.wat.2001.2.e.pdf.

155. *Id.* at 7.

156. *Id.* at 6. Summarizing the responses to the Lugano Convention questionnaire, the Technical Group of Experts on Liability and Redress for the Cartagena Biosafety Protocol noted that states felt that the scope of the Lugano Convention was "too wide and gives too little legal certainty, and that its definitions, especially in the field of environmental damage, are too vague." *See* Convention on Biological Diversity, *supra* note 56, at 9.

require changes to domestic liability law that may necessitate passage of conforming statutes, issuance of new insurance regulations, and training of judges and lawyers. For developing countries with overstretched or inadequate legal systems, such requirements appear to be beyond their capacity or may conflict with other national priorities. As Zambia forthrightly acknowledged, its law enforcement agents "are not alive to their legal duties under environmental law."[157] Bosnia's response to the Basel Liability Protocol secretariat stated that it could not ratify the treaty because it "has [no] environmental Legislation at the state level, [no] real Ministry of Environment and state environmental set-up, structures and human capacities for implementation."[158] Mauritius listed a litany of capacity problems, many of which were mentioned by other nations, such as lack of "staff, know-how/expertise, access to information . . . communication tools, detection methods, [and] availability of emergency response equipment . . . ."[159] Other nations that listed capacity to implement as an obstacle to ratification of the Basel Liability Protocol included Bosnia, Botswana, Ethiopia, Kenya, Lithuania, Macedonia, Malawi, Moldova, Poland, Romania, Serbia, Seychelles, Slovakia, and Uganda.[160]

What do these responses tell us about the utility of the Extended Model outlined above? It is not surprising that the national responses do not explicitly state that protection of domestic firms from transnational lawsuits was a reason for nonratification of the treaties. The responses do, however, illustrate the centrality of domestic concerns and the careful guarding of sovereign prerogatives to set national liability law. The responses also highlight that civil liability treaties can impose costs on firms even in the absence of any transnational lawsuit brought pursuant to the treaties. These near-term costs include obtaining insurance policies, payment of insurance premiums, and adapting to changes in domestic law and procedures. A state deciding whether to ratify a civil liability treaty therefore must weigh both the near-term and long-term costs against any benefits to be gained through ratification.

The questionnaire responses are most useful as guidance for building stronger tort remedies in the future. If lack of insurance products in

157. Regional Workshop Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation, Addis Ababa, Eth., Aug. 30–Sept. 2, 2004, *Zambia—Ratification*, *available at* http://www.basel.int/legalmatters/regworkshops/ethiopia/q2-Zambia.doc.

158. Regional Workshop Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation, Warsaw, Pol., Jan. 18–20, 2006, *Bosnia—Ratification*, *available at* http://www.basel.int/legalmatters/regworkshops/poland/bosnia-q2.doc.

159. *Responses of Participant Countries*, *supra* note 152, at 10.

160. *See* Regional Workshops, *supra* note 141.

developing states is a roadblock to treaty ratification or implementation, then this obstacle might be transformed into a business opportunity for insurance providers. If the relatively stringent models of civil liability treaties used in the past are deemed objectionable by most states, then we need to consider whether consensus could form around less stringent models, with terms that would appeal to a wider coalition of parties. And if implementation capacity in developing states is an obstacle, then we should consider capacity assistance, which has become common in other kinds of international environmental treaties.[161] Past failures should serve as a springboard for developing a new vision of the role of tort remedies in international environmental law.

III. THOUGHTS ON REFORM

Despite the litany of past problems in building successful civil liability regimes, there is still a pressing need to strengthen tort remedies for transboundary environmental damage. The lack of viable legal remedies for victims of transboundary pollution is a glaring and longstanding hole in international environmental law, and private law solutions, which can address transboundary problems without resort to dispute resolution among governments, are urgently needed.

Each environmental risk is different in terms of its character, magnitude, and the states affected, so no single policy, treaty, or declaration will suffice to strengthen tort remedies for transboundary environmental damage. Multiple approaches are needed, operating on numerous legal fronts. This Part discusses how we can learn from the past four decades of efforts and begin to reform the international approach to this area of law. The solutions proposed here fall into two broad categories: those that reform the process and substance of civil liability treaties, with the aim of resuscitating consent-based treaty regimes; and those that look outside the treaty system toward bottom-up approaches that will strengthen tort remedies through the spread of liability norms.

These two approaches are not mutually exclusive. Successful conclusion of future civil liability treaties can help to strengthen informal norms governing transboundary damage, and at the same time the emergence of norms through a variety of domestic and international interactions can provide an impetus for states to negotiate and implement treaties. Nevertheless, for clarity it makes sense to discuss these two approaches separately, as they involve different actors and strategies.

161. *See* HUNTER, SALZMAN, & ZAELKE, *supra* note 51, at 430–37.

A. Reform Within the Treaty System

Civil liability treaties should continue to be one focus of efforts to strengthen tort remedies for transboundary environmental damage because they carry the imprimatur of state consent. Consent not only lends legitimacy to a regime, but it also indicates that important domestic political actors within a state believe that the treaty is in the state's interest, which assists long-term implementation.[162] International environmental liability law is a field requiring close coordination among national governments and among domestic courts, justice ministries, and other legal actors. Obtaining consensus on the terms and conditions of tort liability through a treaty, and then implementing that treaty after a process of state ratification, will remain one of the primary means of achieving and sustaining that level of coordination.

How can widespread state consent to new civil liability treaties be secured? If developed and developing states have in the past concluded that their interests are best secured through remaining outside civil liability regimes, is there any hope for altering incentives in favor of regime formation?

Regime design is an area of increasing overlap between international law and international relations scholarship, as it focuses on what legal structures or rules will best promote international cooperation and, ultimately, effectiveness in solving joint problems.[163] One way to improve regime design in the civil liability field is to identify different structural arrangements that would lower the costs of joining civil liability regimes. State concerns about near-term or long-term risks to domestic firms could be alleviated through a variety of mechanisms. For example, liability limits in the treaties could be lowered to reduce the exposure of individual firms. This would likely reduce insurance premiums and increase the prospects for more widespread adherence. Treaty negotiators should look closely at how liability caps can be used as a flexible means of meeting demands that culpable firms be held accountable through tort while at the same time addressing competitiveness concerns that the liability will become crushing for individual firms. The U.N. Economic Commission for Europe (UNECE) is moving toward lowering liability limits in the CRTD Convention, which

162. *See* Kal Raustiala, *Compliance & Effectiveness in International Regulatory Cooperation*, 32 CASE W. RES. J. INT'L L. 387, 405–09 (2000) ("Some scholars have suggested that the legitimacy of the process of rule creation itself is a central factor in explaining compliance.").

163. *See* George W. Downs et al., *The Transformational Model of International Regime Design: Triumph of Hope or Experience?*, 38 COLUM. J. TRANSNAT'L L. 465, 470 (2000).

has not entered into force nearly twenty years after its adoption in 1989. In 2003, the UNECE began to consider a new draft of the treaty that lowered liability limits by as much as fifty percent.[164]

Another approach for enhancing regime formation in the civil liability field is to move toward layered legal structures that combine liability targeted on a single culpable party with compensation funds to which a variety of players in a risk-producing industry contribute. The oil spill and nuclear liability regimes both incorporate such funds,[165] as does the HNS Convention.[166] A plaintiff's access to the pooled funds could be triggered only if damages exceed a defendant's individual liability limit, so that some liability exposure would remain for a responsible party as a deterrent to harmful activities. Details of compensation funds would need to be worked out for various treaties, including the maximum payments from a fund, the methods of contribution, the organizational structure of the entity that manages the fund, and the procedures for making claims.[167] But the concept of a lower liability limit for individual firms, combined with establishment of a compensation fund that would spread risks, is an attractive means of securing more widespread acceptance and ratification of civil liability rules.

To be sure, compensation funds somewhat dilute the deterrent incentives of tort. Responsible actors as well as bad actors within an industry would all be required to contribute to the fund. With resort to the fund, culpable parties would not be held fully and individually responsible for any damage they cause. But similar issues exist for liability schemes that allow for the purchase of liability insurance. Coverage by liability insurance presents its own moral hazard problems, diluting individual incentives for precaution and spreading losses to actors that did not themselves contribute to the damage.[168] Yet we deem liability insurance essential to ensuring

164. *See* Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), Nov. 3–4, 2003, *Consolidated Text of a Draft New CRTD as Adopted by the Ad Hoc Meeting of Experts for Consideration by the Inland Transport Committee*, U.N. Doc. TRANS/AC.8/8/Add.1 (Nov. 24, 2003), *available at* http://www.unece.org/trans/doc/2003/ac8/TRANS-AC8-08a1e.pdf.

165. *See* International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Nov. 27, 1992, *reprinted in* LIABILITY AND COMPENSATION FOR OIL POLLUTION DAMAGE: TEXTS OF THE 1992 CONVENTIONS AND THE SUPPLEMENTARY FUND PROTOCOL 25 (2005), *available at* http://www.iopcfund.org/npdf/ Conventions%20English.pdf.

166. *Supra* note 44, at arts. 13–36.

167. *See* Sean D. Murphy, *Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes*, 85 AM. J. INT'L L. 24, 58 (1994); Daniel, *supra* note 10, at 240.

168. The literature on moral hazard in insurance and tort law is voluminous. For prominent examples, see Kenneth J. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 AM. ECON.

adequate compensation for injured parties and often mandate it by law. Moreover, even if lowered liability limits or the availability of a compensation fund did dilute deterrence incentives, the negative consequences would be offset by countervailing factors. There would be an increased chance of treaty ratification as well as increased prospects for compensation for individuals injured by transboundary harms, due to the presence of pooled funds.

Liability rules for transboundary environmental damage can, of course, be diluted too far. At the extreme, liability caps could be lowered to a few thousand dollars, strict liability could be abolished, and no funds would be available as a back-up source of compensation. Such a treaty might be viewed as ideal by states committed to protecting liability walls for their domestic firms. At best this kind of treaty would be mere symbolism, and more likely it would represent a giant step backward for strengthening the role of tort in international environmental law. The possibility of a parade of horribles involving underdeterrence should not preclude treaty negotiators from seeking terms and conditions that would be more palatable to states, however. There is a clear trade-off, which needs to be recognized, between the stringency of terms in a civil liability treaty and its prospects for political acceptance.

Apart from adjusting the substance of civil liability treaties, progress in strengthening tort remedies through treaties can also be accomplished through procedural reforms. Recall Table 2, depicting directly conflicting interests of states in the Extended Model and the resulting prediction of deadlock in a hypothetical negotiation over liability rules. If the only issues being negotiated involve liability—who can be sued and how much will be paid—the discussions can easily become a zero-sum game.[169]

To break the impasse, negotiators should look outside the narrow confines of the liability box to introduce a broader range of nonliability issues into the negotiating mix, providing some basis for integrative bargaining.[170] The basic reform here is what Lawrence Susskind of MIT and

---

REV. 941 (1963); Isaac Ehrlich & Gary S. Becker, *Market Insurance, Self-Insurance, and Self-Protection*, 80 J. POL. ECON. 623 (1972); Steven Shavell, *On Moral Hazard and Insurance*, 93 Q.J. ECON. 541 (1979). For a historical overview of the role of moral hazard in insurance, see Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237 (1996).

169. *See supra* Part II.B.1.

170. Integrative bargaining involves a shared search for options, focusing on the underlying interests of parties, whereas distributive bargaining, which has heretofore been the norm in liability discussions, focuses more on the positions and relative political strength of the parties. *See* Nancy D. Erbe, *Appreciating Mediation's Global Role in Promoting Good Governance*, 11 HARV. NEGOT. L. REV. 355, 388 (2006); Young, *supra* note 71, at 361.

the Harvard Program on Negotiation has called "issue linkage," a variation of the classic political strategy of logrolling: "You give me something that I want very much, and I will give you something important in exchange."[171]

What other nonliability issues should be introduced into the mix? Side deals could involve related environmental issues (such as treaty governance, technical assistance, or emissions control requirements) or unrelated issues, such as trade concessions, security arrangements, or political support in international fora. A developing state might agree, for example, to votes on certain U.N. Security Council resolutions in exchange for the cooperation of developed states on the terms and conditions of environmental liability rules. A state concerned about its exposure to a specific type of transboundary environmental risk might agree to a lower liability cap in exchange for more substantive obligations by industrialized states in the realms of prevention, safety equipment, or technical assistance. The effect of this kind of issue linkage is that states may reconceive their self-interest as they consider a broader package of issues, rather than liability rules in isolation.

Negotiating civil liability rules for environmental damage in smaller, regional fora may also help to facilitate a consensus that can stick through the ratification and implementation processes. Reducing the number of parties at the table not only reduces transaction costs involved in drafting an agreement, but may also increase the prospects for regime formation if the parties have similar economies and legal systems. Regional agreements may also help to overcome a reluctance to ratify civil liability rules that involve mutual recognition of judgments.

A regional approach to transnational environmental liability issues has been implemented successfully in Nordic countries, following adoption of a liability regime over thirty years ago.[172] More recently, the European Union adopted a Directive on environmental liability that applies to all twenty-seven Member States.[173] The primary goal of the Directive is to establish liability rules for hazardous waste spills, wetland destruction, and other

171. LAWRENCE E. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS 91 (1994).

172. *See* Convention on the Protection of the Environment Between Denmark, Finland, Norway, and Sweden, Feb. 19, 1974, 13 I.L.M. 591. For more information on the role of this convention in transboundary disputes, see Phillips, *supra* note 30.

173. Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Environmental Liability With Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (L 143) 56 [hereinafter Directive].

environmental harms within Member States.[174] Its language on transboundary environmental damage is vague,[175] and it will likely be several years before the Directive is applied to an incident where the damage is located in one Member State and the actor causing the damage is located in another. Nevertheless, it remains the most recent example of crafting and implementing supranational liability rules for environmental damage.

As much as politics and regime design matter for strengthening tort remedies in international environmental law, we should not forget the role of unpredictable, exogenous events as a spur to regime formation. Major accidents involving significant loss of life and economic disruption across borders can highlight the absence of legal remedies and the need for an agreement on the liability rules that will govern such disasters.[176] Indeed, past regimes were often formed or strengthened in the wake of massive accidents with transboundary consequences. The 1967 Torrey Canyon spill highlighted the inadequacies of then-existing legal liability instruments for oil spills and led to the rapid negotiation of the 1969 Civil Liability Convention.[177] The nuclear liability regime was strengthened in the 1990s following the 1986 Chernobyl accident,[178] and the release of cyanide wastes into the Danube from the Baia Mare mine in Romania in 2000 led directly to negotiations on a liability protocol governing transboundary industrial accidents in Europe.[179] These types of incidents can serve as focusing events

174. The Directive applies to damages to unique environmental resources such as protected species, habitats, and waters. *See id.* It does not apply to more traditional forms of damages such as property damage and health damage. For an analysis of the Directive's drafting history, see Chris Clarke, *The Proposed EC Liability Directive: Half-Way Through Co-Decision*, 12 REV. EUR. COMMUNITY & INT'L ENVTL. L. 254 (2003).

175. In exploring the need for a new directive, the European Commission initially pointed to transboundary environmental damage as a primary reason why environmental liability needed to be addressed at the Community level, rather than within individual Member States. *See White Paper on Environmental Liability*, at 25–26, COM (2000) 66 final (Feb. 9, 2000), *available at* http://ec.europa.eu/environment/liability/pdf/el_full.pdf. However, the Directive itself refers only to consultation among Member States and possible intervention by the Commission in the event of transboundary damage that affects several Member States. *See* Directive, *supra* note 173, at art. 15.

176. As Oran Young has noted, exogenous events help to overcome the "logjam" in which negotiations bog down in a "sparring match" of jockeying for positional advantage. Young, *supra* note 71, at 371–72.

177. Michael Fauré & Wang Hui, *Economic Analysis of Compensation for Oil Pollution Damage*, 37 J. MAR. L. & COM. 179, 179 (2006).

178. *See* Varda Lamm, *The Protocol Amending the 1963 Vienna Convention*, *in* International Nuclear Law in the Post-Chernobyl Period (OECD and IAEA 2006), *available at* www.nea.fr/html/law/chernobyl/LAMM.pdf.

179. *See* Stephen Stec et al., *Transboundary Environmental Governance and the Baia Mare Cyanide Spill*, 27 REV. CENT. & E. EUR. L. 639 (2001).

that raise pressure on political elites to negotiate a legal response, elevating environmental liability issues on the international environmental agenda.[180]

B. Reform Outside the Treaty System

While state consent lends legitimacy to treaty-based regimes once the regime is established, obtaining this consent has also emerged, as we have seen, as the primary obstacle to regime formation. The requirement of consent has derailed most of the treaties listed in Table 1, as they have not attracted sufficient ratifications to enter into force, even after years of labor to draft a treaty text. The reforms discussed above will improve the prospects for forming workable regimes, but given the track record of civil liability treaties, these reforms cannot be the complete solution.

A top-down approach of multilateral treaty making among governments, followed by implementation of the treaties through domestic law, is not the only method of generating international legal cooperation in this area of law. The other major avenue for strengthening tort remedies in international environmental law is a bottom-up approach that would rely on transnational networks of citizens, government officials, NGOs, and attorneys to push for changes in domestic and international law that would facilitate redress for transboundary environmental damage. Such a decentralized strategy could have two beneficial impacts. It could lead to the emergence of norms regarding liability for transboundary pollution that could take root entirely outside any treaty-making process, even in the face of continued recalcitrance by powerful states. It could also lead to modification of state preferences from within and, ultimately, prompt renewed governmental efforts to codify liability norms and principles in treaties.

A norm-based strategy would be grounded in intellectual traditions, such as constructivism and the legal process school, which contend that state preferences are often highly contingent and can be shaped through domestic politics, transnational interactions, norm internalization, and changing cultural identities.[181] In these traditions, a state's preferences are not viewed

180. *See* JOHN W. KINGDON, AGENDAS, ALTERNATIVES, AND PUBLIC POLICIES 94–95 (2d ed. 1995).

181. *See, e.g.*, Harold Hongju Koh, Address, *Bringing International Law Home*, 35 HOUS. L. REV. 623 (1992) (arguing that states comply with international law mainly because of norm internalization in the social, political, and legal spheres); John Gerard Ruggie, *What Makes the World Hang Together? Neo-Utilitarianism and the Social Constructivist Challenge*, 52 INT'L ORG. 855 (1998) (criticizing realists and institutionalists for their assumption that state identities are "given and fixed" and arguing that identities and interests are instead "socially constructed"); Alexander Wendt, *Anarchy Is What States Make of It: The Social Construction of Power Politics*, 46 INT'L ORG.

as antecedent to its interactions with other states in the international system; preferences are in fact shaped through that interaction,[182] as well as through a complex domestic dialogue of actors. If "what states want" is socially constructed, then opportunities arise to shape the political, legal, and social landscape that gives rise to these preferences.

Both constructivism and legal process schools highlight the importance of norms (as opposed to formal treaties or sanctions) in shaping how states behave. In extensive writing on norm-based theories of international law, Harold Hongju Koh has argued that international norms emerge through a "transnational legal process,"[183] a complex interplay of governmental and nongovernmental actors engaging in "vertical strategies of interaction, interpretation, and internalization."[184] According to Koh, norms can be "uploaded" from domestic to international law.[185] Norms can also be "downloaded" from international law into domestic law (such as the norm against disappearance), as social, political, and legal actors gradually accept the legitimacy of an international norm and promote its adoption into domestic policy and law.[186] Norms can also be "horizontally transplanted" from one national legal system to another.[187] International norms have a direct policy effect if they are codified into domestic law, but they can also have indirect policy effects as tools in the hands of advocates to criticize governments, mobilize public opinion, and prevent backsliding on international commitments.[188]

To strengthen private remedies for transboundary environmental damage outside of a process of treaty ratification, several norms would need to emerge. One norm would support procedural access to justice for foreign plaintiffs seeking remedies in the courts of the source state where the

391, 398 (1992) (arguing that state actors do not have a "portfolio" of interests that they carry around with them in inter-state interactions, and that they instead "define their interests in the process of defining situations").

182. *See, e.g.*, Ryan Goodman & Derek Jinks, *How to Influence States: Socialization and International Human Rights Law*, 54 DUKE L.J. 621, 626 (2004) (explaining the role of acculturation, "the general process by which actors adopt the beliefs and behavioral patterns of the surrounding culture," in the development of international human rights law).

183. Koh, *supra* note 67, at 2655–56.

184. *Id.*

185. *See* Koh, *supra* note 181, at 642–43; *see also* Koh, *supra* note 42, at 746.

186. Koh, *supra* note 42, at 746.

187. *Id.*

188. Harold Koh has identified three possible routes through which international norms become internalized into domestic systems: social, political, and legal internalization. Only legal internalization involves direct codification into law. The other two routes involve the population at large or political elites adhering to a norm because they believe it has legitimacy. Koh, *supra* note 67, at 2656–57.

harm originated; another would support domestic court jurisdiction over foreign entities causing internal damage.[189] More broadly, tort remedies will play a larger role in international environmental governance only if a "logic of appropriateness"[190] emerges in which states (and domestic courts) begin to confront transboundary tortfeasors with a realistic prospect of tort liability and payment of damages. These norms would not have the specificity of a formal civil liability treaty, and they may lack uniform content regarding minimum or maximum damages and the standard of liability, but they would have the advantages of flexibility and the ability to take root across diverse legal cultures—"transform[ing], mutat[ing], and percolat[ing] up and down, from the public to the private, from the domestic to the international level and back down again."[191]

How might these norms emerge? One mechanism could be through the coordinated activities of what Koh has called "transnational norm entrepreneurs" (TNEs), which he defines as nonstate actors who seek to mobilize public opinion and change government policy.[192] Acting as TNEs, NGOs in several different countries could push for reforms to domestic law to facilitate redress for transboundary environmental damage. NGOs might advocate, for example, for elimination of laws and procedures that discriminate against foreign plaintiffs suing in local courts. Or, they might advocate for the equivalent of national long arm statutes or judicially-created effects tests that would allow municipal courts to assume jurisdiction over foreign defendants who cause injury inside the territory. In alliance with governments, TNEs could support issuance of declarations in international fora regarding guiding principles for tort remedies for transboundary environmental damage.

Firms concerned about competitiveness may also act as TNEs, pressuring their own governments to establish more harmonized rules for tort liability. For example, a series of ad hoc domestic judgments in tort suits relating to environmental damage, resulting in contradictory decision rules

189. Norms on non-discriminatory access to justice are already emerging in international declarations and conventions. *See, e.g.*, *Rio Declaration*, *supra* note 16, at princ. 10; U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses, *supra* note 127, at art. 32.

190. *See* Anne-Marie Slaughter, *International Law and International Relations Theory: A Prospectus*, *in* THE IMPACT OF INTERNATIONAL LAW ON INTERNATIONAL COOPERATION: THEORETICAL PERSPECTIVES 16, 33 (Eyal Benvenisti & Moshe Hirsch eds., 2004) (defining the "logic of appropriateness" as an inquiry by an actor into the correctness of behavior "consistent with that actor's identity or sense of self").

191. Harold Hongju Koh, Lecture, *Transnational Legal Process*, 75 NEB. L. REV. 181, 184 (1996).

192. Koh, *supra* note 181, at 647–48; *see also* Young, *supra* note 71, at 364 ("[I]t would be a serious mistake to overlook the role of transnational alliances among influential interest groups in developing and maintaining regimes at the international level.").

and widely varying damages, may prompt firms to advocate for more uniform rules (likely including liability caps) that would be negotiated internationally by governments.

One successful example of nonstate TNEs working on transboundary pollution issues is the Uniform Transboundary Pollution Reciprocal Access Act (UTPRAA), which lowers liability walls between the United States and Canada by specifying choice of law rules in transboundary suits. The UTPRAA had its origins in a joint report by the Canadian and American Bar Associations and was approved by the National Conference of Commissioners on Uniform State Laws and the Uniform Conference of Canada in 1982 as a vehicle for the "the equalization of rights and remedies of citizens in Canada and the U.S.A. affected by pollution emanating from the other jurisdiction."[193] The UTPRAA was implemented not through a bilateral treaty, but rather through direct adoptions in U.S. state legislatures and Canadian provincial legislatures,[194] in effect bypassing national consent to create law at the subnational level. It can serve as a model for how like-minded attorneys and activists in different nations can cooperate horizontally and vertically to generate legal norms on transboundary pollution, without a formal treaty.

Activists seeking stronger remedies for transboundary environmental damage could also push states to adopt self-help remedies in the absence of formal intergovernmental cooperation. Two scholars recently argued that Ontario should revise domestic legislation to make it easier to sue U.S. firms in Ontario courts for transboundary air pollution damage.[195] Citizens concerned about hazards from the international transport of hazardous substances could push their own states to enact domestic legislation requiring payment of port fees or posting of bonds by hazardous cargo carriers, or states could enact environmental taxes to ensure that funds are available for environmental response in the event of a toxic release. Past scholarship has largely overlooked the potential for states to enact unilateral remedies as a response to transboundary risks. Such remedies are attractive because they are enacted pursuant to domestic law and require no intergovernmental negotiations, but their role is somewhat limited because they would need to

193. *See* Michael I. Jeffrey, *Transboundary Pollution and Cross-Border Remedies*, 18 CAN.-U.S. L.J. 173, 177 (1992) (quoting Uniform Transboundary Pollution Reciprocal Access Act, prefatory note at 5).

194. The Uniform Transboundary Pollution Reciprocal Access Act has been adopted by seven U.S. states (Colorado, Connecticut, Michigan, Montana, New Jersey, Oregon, and Wisconsin) and three Canadian provinces (Manitoba, Ontario, and Prince Edward Island). See list of adoptions at http://www.nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-utpraa.asp.

195. *See* Hsu & Parrish, *supra* note 39.

be based on a background condition of jurisdiction. They are appropriate only for classes of transboundary environmental risks, such as imports of hazardous materials, where the state affected by the risk has some legal jurisdiction over the entity producing the risk.

International norms governing transboundary environmental damage may also emerge through rulings of international tribunals and domestic courts. The International Court of Justice (ICJ), for example, is now hearing a complaint brought by Argentina challenging Uruguay's construction of two paper mills on the River Uruguay.[196] If the ICJ rules on the merits, this will become one of only a handful of cases where the ICJ has directly addressed rights and responsibilities surrounding transboundary environmental issues.[197]

Climate change has emerged as one of the most active areas of international environmental litigation, and norms regarding transboundary environmental damage and the transnational procedures for seeking a remedy could emerge through these cases. The past five years have seen an explosion of litigation in domestic and international fora, including:

- Suits in the United States, Germany, and Australia regarding the application of environmental impact review statutes to climate change impacts from new programs and projects;
- A suit brought by the Inuit Circumpolar Conference against the United States at the Inter-American Commission on Human Rights, alleging that U.S. greenhouse gas emissions violate Inuit human rights;
- Petitions to the World Heritage Committee of the United Nations Educational, Scientific and Cultural Organization requesting listing, as endangered, world heritage sites threatened by climate change;
- A suit pending in the Second Circuit brought by U.S. states and environmental groups against major electricity producers

196. Argentina's complaint alleged that the mills will irreparably damage the river ecosystem and will hinder Argentina's rights of equitable use. The complaint also alleged that Uruguay failed to comply with a 1975 bilateral treaty on management of the river. On January 23, 2007, the ICJ denied Argentina's request for provisional measures (equivalent to a preliminary injunction) and allowed construction of the mills to proceed, but Argentina is continuing to pursue its objections on the merits. *See* Docket of ICJ Pending Cases, http://www.icj-cij.org/docket/index.php.

197. The ICJ has addressed only a handful of other cases involving transboundary environmental issues. These include the Gabčíkovo-Nagymaros Project (Hung. v. Slovk.), 1997 I.C.J. 7 (Sept. 25, 1997), and the Nuclear Test Cases (N.Z. v. Fr.), 1974 I.C.J. 253, 267–72, 1974 I.C.J. 457, 472–78.

alleging that their greenhouse gas emissions constitute a nuisance; and

- A suit pending in the Ninth Circuit brought by California against major auto manufacturers alleging that mobile source emissions of greenhouse gases constitute a nuisance.[198]

The bodies hearing these suits may become "law-declaring fora" that strengthen international norms on transboundary pollution through "defining, elaborating, and testing the definition of particular norms and opining about their violation."[199] If U.S. courts begin to rule that greenhouse gas emissions can constitute a nuisance and provide a remedy in injunction or money damages, then a wave of domestic climate change suits will likely follow, as well as transnational suits in U.S. courts and elsewhere, brought by foreign entities against U.S. firms. As firms distinguish themselves as leaders or laggards on addressing their emissions of greenhouse gases, advocates can begin to select defendants and argue that laggards are deviating from a standard of ordinary care regarding the global impact of their emissions.[200]

The current wave of climate litigation is a classic bottom-up legal strategy that is occurring in tandem with the public law process of implementing the Kyoto Protocol (outside the United States) and negotiating a successor convention. Transnational climate litigation will test the current robustness of liability walls, as courts will undoubtedly confront novel questions of jurisdiction, remedies, enforcement of judgments, and forum non conveniens. Even if these suits are unsuccessful, they will nevertheless have a political impact that could be helpful in strengthening international legal norms related to transboundary pollution. The suits focus public attention on the fact that climate change has real victims who can be located thousands of miles away from the major emissions sources. Climate change may come to be viewed not just as an issue of governance of the global commons, but rather as a series of increasingly severe transboundary impacts, some of which will be suitable for private law remedies.

Can the gradual spread of international norms regarding liability for transboundary environmental damage really make a difference in the

198. For a discussion of these cases and an overview of current trends in climate litigation, see Hari Osofsky, *The Geography of Climate Change Litigation: Implications for Transnational Regulatory Governance*, 83 WASH. U. L.Q. 1789 (2005).

199. Koh, *supra* note 181, at 650.

200. *See* David A. Grossman, *Warming up to a Not-So-Radical Idea: Tort-Based Climate Litigation*, 28 COLUM J. ENVTL. L. 1, 28 (2003) (discussing potential defendants in climate-related tort suits).

outcome of actual disputes? International human rights law provides some cause for optimism. It is perhaps the paradigmatic example of international law that operates primarily through norm-internalization, rather than through overt, treaty-based sanctions against noncomplying states.[201] Treaties such as the Convention Against Torture and declarations such as the Universal Declaration of Human Rights have contributed to the development of international human rights law because they enunciate clear norms and expectations viewed as legitimate by most public and private actors, not because of formal compliance mechanisms.[202] Human rights norms, once established, then become interpreted in formal judicial settings, such as war crimes tribunals and domestic courts, and can also be used by NGOs, attorneys, and government officials as standards by which to judge and criticize national behavior. The spread of human rights norms cannot be explained by self-interest alone. As Oona Hathaway has noted, "human rights treaties impinge on core areas of national sovereignty without promising obvious material or strategic benefits."[203]

There are some crucial differences between the human rights context and transboundary environmental damage, however. Human rights norms against torture, slavery, and genocide have deeply rooted histories and definitions that are widely accepted (though the debate over treatment of suspects in terrorism cases highlights that the definitions are not universally agreed upon). The practice of these prohibited acts sparks revulsion and moral outrage. Transboundary pollution, in contrast, results in most cases from the normal functioning of economies and is unlikely to ever rise to the level of a jus cogens peremptory norm. It is not possible to outlaw all transboundary pollution, and there is little consensus on when transboundary environmental damage has risen to a sufficient level of seriousness to result in legal sanction.

Moreover, human rights norms have evolved over decades through sustained advocacy by governments and NGOs, promotion by powerful states and the United Nations, and a high degree of public concern. In contrast, there are currently few transnational norm entrepreneurs promoting the

201. *See* Koh, *supra* note 29, at 1407.

202. For example, the Convention Against Torture has weak compliance and enforcement mechanisms. The dispute resolution procedures in the Convention Against Torture are cumbersome and lengthy, involving a series of reports, investigations, and mediation by a "Committee Against Torture." The Convention provides no significant penalties for noncomplying states. *See* Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, arts. 20–22, Dec. 10, 1984, 1465 U.N.T.S. 85 (1984).

203. Oona A. Hathaway, *Do Human Rights Treaties Make a Difference?*, 111 YALE L.J. 1935, 1938 (2002).

strengthening of tort remedies in international environmental law. It remains a back burner issue in environment and foreign ministries. The number of NGOs focusing on any transboundary environmental issue other than climate change and wildlife protection remains quite small, and the narrower issue of civil liability for transboundary environmental harm has not been a significant agenda item for environmental activists.

For norms to emerge in this area of law, a higher degree of public awareness and activism about tort remedies needs to evolve in the future, perhaps by riding on the coattails of the climate change movement. The development of international environmental law has traditionally lagged innovations in international human rights law by one or two decades, and public awareness will likely build over time. Indeed, a time may come when support for viable legal remedies for transboundary pollution victims is seen as a necessary component of a government's political, moral, and environmental leadership.

CONCLUSION

Though in its four-decade history, international environmental liability law has been the subject of high hopes, rhetorical commitments, and extensive negotiation, it still remains in its infancy. This Article has shown that tort remedies can play an important role in international environmental law by complementing our primary regulatory treaties and providing an avenue for injured parties to seek redress. But given the track record, it is clear that enhancing tort's role in international environmental law is far more challenging than the use of tort litigation in domestic environmental suits. Whereas tort preexisted environmental regulation in domestic law, in the international sphere states are looking at adopting new liability rules prospectively, internationalizing domestic tort rules and potentially imposing new kinds of liability on domestic firms. States have, for the most part, approached civil liability negotiations with reluctance, recalcitrance, and, ultimately, rejection.

Regime theory sheds light on the reasons for the relative stasis in the civil liability field by focusing on states' underlying interests and the role of liability walls in protecting domestic firms. The hurdles to future cooperation on negotiated civil liability rules are significant, but they are not insurmountable. Skilled treaty negotiators should aim to find a zone of agreement by identifying treaty terms and legal structures that are more palatable to states. Negotiations among states with similar economies and legal systems may help to avoid the acrimony that has surrounded global discussions on liability.

At the same time, attorneys and activists should continue to push for stronger tort remedies through bottom-up strategies of litigation, advocacy, and norm promotion.

The issue of tort's role in international environmental law is not going away, nor should it. Liability issues continue to be debated because they cut to the core question of whether international environmental law should involve only governmental obligations to monitor and to prevent ecological damage, or whether it should broaden to provide a viable remedy to citizens when ecological damage does occur. Understanding the causes of conflict in this area of law and implementing the reforms proposed in this Article will help to strengthen tort remedies in the future.