INTERNATIONAL LAW AND THE CHERNOBYL ACCIDENT: REFLECTIONS ON AN IMPORTANT BUT IMPERFECT SYSTEM*

Richard E. Levy**

On April 26, 1986, an accident occurred at the Chernobyl nuclear power plant in the Soviet Union.¹ The full scope of the damage caused by radiation from the accident, which spread to various parts of Europe, remains unclear even today—over a year after the accident. The sheer magnitude of the accident has placed severe strains on the international legal system, revealing many of the system’s limitations, but at the same time illustrating the potential of international cooperation in dealing with the ever increasing array of problems of international dimension. I propose in this article to analyze the international legal implications of the Chernobyl accident. My purpose in so doing is not merely to examine some of the more difficult legal issues that have arisen from the accident, but also to use the accident to illuminate some key features of the international legal system. It is hoped that the reader unfamiliar with the international system will thereby gain a more balanced understanding of that system. In particular, the Chernobyl accident raises two critical issues. First, should the Soviet Union be held liable for damage caused in other states by the accident, and if so how? Second, what steps should the international community take to prevent such accidents and minimize their harm if they occur?

The liability issue was raised directly by several governments which

---

¹ This paper expands upon the author’s comments presented during the Sixth Annual Conference on International Affairs, Assessing Chernobyl: Implications for the Future, presented by the University of Kansas in collaboration with Senator Nancy Landon Kassebaum on October 30-November 1, 1986. The author is indebted to the many helpful insights of Professor Robert Tomasek, Judith Hancock, and Professor Daniel Barstow Magraw, members of the panel discussing the international law implications of the Chernobyl accident; and to Professors Robert L. Glicksman, Philip C. Kissam, John F. Murphy, and Sidney A. Shapiro for helpful comments on an earlier draft. In addition, the author thanks Dwaine R. Hemphill, class of 1988, and Frederick R. Snyder, Reference Librarian, for valuable research assistance.

** Associate Professor of Law, University of Kansas. B.A. University of Kansas (1978); M.A. University of Kansas (1980); J.D. University of Chicago (1984).

indicated that they would seek compensation for damages caused by the accident. Moreover, the sharp criticism of Soviet delay in informing the rest of the world of the accident suggested liability because it implied a Soviet obligation to warn. Nonetheless, experts in international law consider it unlikely that the Soviet Union will compensate other nations for injuries to their nationals caused by the accident. This assessment reveals an inescapable truth about the international legal system: because it lacks a central authority to legislate, adjudicate, and enforce legal rules, the system often cannot control the behavior of states. We are all aware of instances in which nations have conspicuously disregarded international law and the international community was unable or unwilling to enforce international legal rules.

Part I of the article considers this inherent limitation of the international legal system, both in general terms and in the specific context of Soviet liability for the Chernobyl accident. Initially, I will discuss how the absence of an international legislative authority limits the development of international legal rules, and analyze the resulting uncertainty surrounding international rules of liability for transboundary environmental damage. I then will examine how the absence of adjudicative and enforcement power limits the mechanisms available for resolution of international legal disputes, and specifically consider the prospects for resolution of disputed claims arising from the Chernobyl accident. These limitations suggest that the international legal system in its current state cannot successfully resolve liability issues arising from the Chernobyl accident.

This conclusion may only reinforce the belief of many of those unfamiliar with international law that international law is unnecessary or irrelevant. However, international law has an increasingly important role to play in the ordering of world affairs. Particularly with respect to environmental matters, the need for international cooperation has become increasingly apparent. Thus, despite the criticism

2. See, e.g., EEC Internal Market Memorandum # 1221, May 14, 1986, at 15 (discussing statements of West German Chancellor Kohl that he would seek reparations from the Soviet Union).

3. See, e.g., Deadly Meltdown, supra note 1, at 46. Although the accident occurred on April 26, 1986, the Soviet Union did not announce it until two days later, after radiation from the accident had been detected in other countries.

4. For example, Professor Louis Sohn concluded shortly after the accident that "[i]f the Soviet Union doesn't want to pay, then they won't pay." Wall St. J., May 12, 1986, at 4, col. 2. Indeed, Soviet representatives have contended that the Soviet Union has no legal obligation to compensate anyone outside its borders for injuries caused by the accident. Pincus, Chernobyl is Focus of IAEA Session; Political Maneuvering May Threaten Environmental Moves, Wash. Post, Sept. 30, 1986, at A22. Such statements do not necessarily mean that a voluntary settlement of some claims cannot be reached. See infra note 88 and accompanying text.
directed at the Soviet Union, the international reaction to the Chernobyl accident also revealed a willingness to cooperate. Governments and private groups offered assistance to Soviet efforts to control the accident and treat victims. Moreover, in August of 1986, after the immediate danger from the accident had passed, representatives from many states, including the Soviet Union, met in Vienna.\(^5\) At the Vienna Conference, the Soviet Union reported on the causes of the accident, and the delegates considered steps to deal with such problems in the future.

Part II of the article examines international cooperation in the wake of the Chernobyl accident. In particular, I will discuss the potential contributions of ongoing efforts to clarify the international law of liability and the role of the International Atomic Energy Agency in coordinating the international response to future accidents. This discussion leads to the conclusion that, despite its limitations, the international legal system has an essential role to play in dealing with problems of international dimension. Nonetheless, this role must be fashioned with reference to the limits of that system. It is better for the international community to devote its efforts towards realistic goals than to strive for results that are unattainable in a world of sovereign states.

I. INTERNATIONAL LEGAL RULES AND THE LIABILITY ISSUE

The very notion of liability necessarily implies the existence of a binding legal obligation to compensate for injuries caused by one's actions. But what is the source of international law's binding authority? Early international jurists believed that international law was part of natural law, which derived its authority from God or from universal reason.\(^6\) Beginning in the seventeenth and eighteenth centuries, positivism replaced natural law theory as the dominant influence in international jurisprudence.\(^7\) Positivists believed that international law was a product of the will of states, as evidenced by their actual practice in relating to one another.\(^8\) This theoretical shift was consistent with the rise of nation-states during this period.\(^9\)

In the climate of positivist thinking, it was possible to challenge the legitimacy of international law—if states are sovereigns that can be bound only by their consent, how can it be said they are in fact

\(^5\) For further discussion of the conference, see infra note 252 and accompanying text.
\(^7\) See L. Henkin, supra note 6, at xxxviii-xxxix.
\(^8\) Id.
\(^9\) Id.
bound by law? This challenge was stated most forcefully by the English jurist, John Austin, who considered that "[l]aws properly so called are a species of commands."10 Austin concluded that "it inevitably follows, that the law obtaining between nations is not positive law: for every positive law is set by a given sovereign to a person or persons in a state of subjection to its author."11 Many international jurists have attempted (with varying degrees of success) to respond to Austin's challenge.12 For example, H.L.A. Hart has argued that "if rules are in fact accepted as standards of conduct, and supported with appropriate forms of social pressure distinctive of obligatory rules, nothing more is required to show that they are binding rules."13 Whatever the answers to theoretical questions about the status of international law, the absence of a single authoritative source of international legal obligations has a significant practical impact on the international legal system.14 There is no international legislature to make law, there is no judiciary with compulsory jurisdiction to develop and apply the law, and there is no international executive to implement and enforce the law, with force if necessary. As a consequence, the international legal system functions differently, and almost certainly less effectively, than national legal systems.15 The following

10. J. Austin, The Province of Jurisprudence Determined 133 (1954) (emphasis in original). Austin was by no means the first to challenge the legitimacy of international law. Others include Hobbes, Pufendorf, and Bentham. See J. Starke, supra note 6, at 17.

11. J. Austin, supra note 10, at 201; see also I. Austin, Lectures on Jurisprudence 187-88, 222 (1875); see generally J. Brown, The Austinian Theory of Law 20 (1906); W. Morison, John Austin 73-76 (1982).


13. H. Hart, supra note 12, at 229. Hart acknowledged that international law lacks a "rule of recognition" from which these rules derive their binding force. However, he considered such a rule a "luxury," found in more advanced social systems, not a necessary condition for the creation of binding rules. Id.

14. Despite the objections of Austin and his followers, for convenience I will refer to the system of rules and their enforcement on the international plane as the "international legal system" or "international law" throughout this paper.

15. See, e.g., J. Starke, supra note 6, at 20 (refutation of Austin's position "should not blind us to the fact that necessarily international law is weak law") (emphasis in original). Not all observers agree with this assessment. Indeed, many international law scholars argue that international law is as effective, at least in terms of compliance, as domestic law. A useful collection of materials discussing this issue can be found in B. Weston, R. Falk & A. D'Amato, International Law and World Order 116-46 (1980).
sections consider the limitations inherent in the creation of international legal rules and resolution of disputes arising under them, first in a general sense and then as applied to the Chernobyl accident.

A. The Creation of International Legal Rules

Within national legal systems law flows from governmental authority, either in the form of legislative acts or (in common law nations) through authoritative judicial declaration. The existence or not of a legal rule can be ascertained through examination of definite sources, which create a relatively complete and unambiguous legal framework.\(^\text{16}\) Moreover, as national legal systems are confronted with new problems, these problems can be addressed with relative speed by legislative action or judicial innovation.

The creation of international legal rules is more complex. Because of the sovereign independence of states, international rules are created only with the consent of the states bound by those rules. This consent can be express, as in the case of international agreements, or implied from the practice of states. The requirement of consent means international rules are slow to develop and are fragmentary. Frequently, the very existence of a binding rule may be the subject of considerable dispute within the international community. In particular, the existence and application of international legal rules to impose liability on the Soviet Union for transboundary harm resulting from the Chernobyl accident remains unclear.

1. Sources of International Legal Rules

International legal rules are created by custom, international agreements, and general principles of law.\(^\text{17}\) These sources are "primary" sources in the sense that rules created by these sources are considered binding. In addition to these primary sources, secondary or subsidiary sources, such as judicial or arbitral decisions and writings of qualified jurists,\(^\text{18}\) and in some cases resolutions and declarations of international organizations, such as the United Nations General Assembly,\(^\text{19}\) may evidence the existence of international

---

16. Of course, national legal systems suffer from gaps and ambiguities in legal rules, but the international legal system suffers from these problems to a greater degree.


18. See *ICJ Statute*, supra note 17, art. 38, § 1(d). Even the decisions of the court are not binding on any states except the parties to the litigation (i.e., they do not create rules binding on the court in future litigation). Id. art. 59.

19. See, e.g., Western Sahara, 1975 I.C.J. 12, 30-31 (Advisory opinion of Oct. 16); Texaco
legal rules. Although a large number of legal rules have been created by these sources, each source presents a variety of difficulties not presented by the sources of legal rules in national legal systems.

a. Custom

Traditionally, most rules of international law were created by custom.\(^\text{20}\) Article 38(1)(b) of the Statute of the International Court of Justice ("ICJ") directs the court to apply "international custom, as evidence of a general practice accepted as law."\(^\text{21}\) Thus, customary international law consists of two elements: (1) a general practice, and (2) acceptance of that practice as law (opinio juris). Either or both of these requirements may be difficult to establish. Many questions surround the concept of "general practice." What constitutes evidence of practice?\(^\text{22}\) How consistent and widespread must that practice be, and over what period of time must the practice be exercised?\(^\text{23}\) In addition, it can be very difficult to prove that a practice has been accepted as law.\(^\text{24}\) Aside from the uncertainties surrounding the

---


21. ICJ Statute, supra note 17, art. 38(1)(b).

22. For example, should silence in the face of a practice be treated as acquiescence or an objection? Compare Right of Passage over Indian Territory (Port. v. India), 1960 I.C.J. 6, 39 (Apr. 12) (treating silence as acquiescence) with Asylum Case (Colom. v. Peru), 1950 I.C.J. 266, 277 (Nov. 20) (treating silence as an objection); see generally M. Vlliger, Customary International Law and Treaties 18-22 (1985). A similar problem is presented by treaties; they are examples of state practice which may form the basis of customary law binding on nonparties, see The Paquete Habana, 175 U.S. 677, 704, 706-07 (1900), or should the refusal of states to become parties to a treaty be evidence that no such rule exists? See North Sea Continental Shelf Cases (W. Ger. v. Den.) (W. Ger. v. Neth.), 1969 I.C.J. 3, 26-27 (Feb. 20); Asylum Case, 1950 I.C.J. at 277.

23. See, e.g., North Sea Continental Shelf Cases, 1969 I.C.J. at 43-44 (over ten year period, 15 instances of adherence to practice of delimiting continental shelf according to equidistance principle not general practice).

elements of customary rules of international law, such rules are generally vague and slow to develop.\textsuperscript{25}

Moreover, customary rules of international law have become increasingly controversial. Because many traditional customary rules were created by "developed" countries, socialist and "third world" states\textsuperscript{26} often object to them.\textsuperscript{27} For example, the traditional rule of customary law requiring compensation for nationalization of property owned by foreign nationals has been strongly challenged.\textsuperscript{28} For this reason, Soviet writers maintain that customary norms must be recognized by states representing each of the major social systems,

---

The difficulty in proving \textit{opinio juris} has led to considerable debate over whether independent proof of this element is always necessary to establish the existence of a customary rule of law. Compare \textit{North Sea Continental Shelf Cases}, 1969 I.C.J. at 44-45 (proof of \textit{opinio juris} is required); A. D'AMATO, \textit{supra} note 20, at 73-87 (same) and Akehurst, \textit{supra} note 20, at 36-37 (same) \textit{with North Sea Continental Shelf Cases}, 1969 I.C.J. at 231 (Lachs, J., dissenting) ("the general practice of States should be recognized as prima facie evidence that it is accepted as law") and J. STARKE, \textit{supra} note 6, at 37 (\textit{opinio juris} is not an essential element of custom).


26. This article distinguishes between these three groups, composed of states that generally share common political and economic characteristics and common views of international law. "Developed" countries include states such as the United States, Canada, Japan, and Western European nations, which have advanced, industrial economies. "Socialist" states, such as the Soviet Union, the Eastern European bloc, and mainland China, are those states whose economy and political system are based on some form of Marxist ideology. Finally, the phrase "third world" states refers to countries with undeveloped or developing industrial economies. These broad groupings are made for purposes of convenience only; there are important differences within each group and similarities between countries in different groups.


28. \textit{See Texaco Overseas Petroleum Co. v. Libyan Arab Republic}, 53 I.L.R. 389 (1979) (Dupuy, sole arbitrator 1977); de Arechaga, \textit{State Responsibility for the Nationalization of Foreign-owned Property}, 11 N.Y. U. INT'L. L. \\& POL. 179 (1978); \textit{see also} Banco Nacional de Cuba v. Sabbatino, 376 U.S. 398, 428 (1964) ("There are few if any issues in international law today on which opinion seems to be so divided as the limitations on a state's power to expropriate the property of aliens.") (footnote omitted).
and that newly emergent states have the right to refuse to recognize a particular customary norm.\textsuperscript{29}

Thus, it is often difficult to prove conclusively the existence of a binding customary norm. As a result, a state accused of violating customary law may claim that no customary rule exists or that it has never accepted the rule.\textsuperscript{30} Indeed, the Soviet Union has asserted international law does not require it to compensate for injuries caused by the Chernobyl accident.\textsuperscript{31}

b. International agreements

When resolving disputes between states, international tribunals first will apply relevant provisions of a treaty\textsuperscript{33} (if any) between the parties.\textsuperscript{33} Because of their many advantages over customary law, international agreements or treaties have become an increasingly important source of international law.\textsuperscript{34} While bilateral treaties are convenient

\begin{itemize}
\item \textsuperscript{29} See, \textit{e.g.}, G. Tunkin, \textit{Theory of International Law} 127-31 (W. Butler trans. 1974).
\item \textsuperscript{30} This problem is exacerbated by the absence of a widely accepted judicial authority to resolve international legal disputes. \textit{See infra} notes 59-60, 72-75 and accompanying text. Conversely, the uncertainty of customary law may contribute to the difficulty of resolving international legal disputes. \textit{See infra} notes 123-58 and accompanying text.
\item \textsuperscript{31} \textit{See supra} note 4. For a discussion of customary law concerning transboundary harm, \textit{see infra} notes 84-116 and accompanying text.
\item \textsuperscript{32} In international law, there is no significance attached to the characterization of an agreement as a treaty (or as a convention, compact, or other designation). However, the United States Constitution refers to treaties in allocating the treaty power. \textit{See U.S. Const.} art. I, § 10; \textit{id.} art. II, § 2; \textit{id.} art. VI, § 2. These references give the term “treaty” a special significance in United States law. \textit{See generally} L. Henkin, \textit{Foreign Affairs and the Constitution} 129-88 (1972). Throughout this article, the term “treaty” will be used in its general international sense unless otherwise indicated.
\item \textsuperscript{34} \textit{See, e.g.}, M. Akehurst, \textit{supra} note 12, at 25, 33; L. Henkin, \textit{supra} note 6, at 70; J. Starke, \textit{supra} note 6, at 40. Because agreements are express, they avoid the problems of proof which plague customary norms, and the rules they create can be less vague. Moreover, international law can adapt more quickly through express agreement than through custom, which by definition requires practice to continue over time. Treaties are frequently classified into two broad categories, “contractual” agreements and “lawmaking” agreements. Traditional bilateral treaties are considered contractual, while multilateral conventions, which purport to lay down rules of universal application, are considered lawmaking agreements. This distinction corresponds to the language of article 38(1)(a), of the \textit{ICJ Statute}, \textit{supra} note 17, which directs the court to apply “international conventions, whether general or particular.”
\end{itemize}

Not all treaties are regarded by all observers as sources of law. Some authors have suggested that contractual treaties do not themselves create law, just as private contracts do not create law, although this position has been disputed. \textit{See, e.g.}, I. Brownlie, \textit{supra} note 17, at 12-13; J. Starke, \textit{supra} note 6, at 40-45. Others have taken the position that no treaties can be sources of law, and argue that they can merely be sources of obligation. Compare Fitzmaurice, \textit{Some Problems Regarding the Formal Sources of International Law}, [1958] \textit{Symbolae Verzul} 153, 157-59 (treaties not a source of law) \textit{and} J. Starke, \textit{supra} note 6, at 43 (contractual treaties not a source of law) \textit{with} M. Akehurst, \textit{supra} note 12, at 24-25 (no dif-
mechanisms for regulating relations between states, they cannot substitute for a legislature any more than contractual arrangements between individuals can substitute for legislative authority within a state. Multilateral conventions, though frequently referred to as "international legislation," have "obvious disadvantages if we compare . . . [them] to the work of an ordinary legislative body." They are negotiated by special conferences rather than by a continuous body; they are frequently not ratified even by states that originally accepted them; they are frequently given low priority by politicians; and they may require the unpopular sacrifice of an apparent national interest. Nonetheless, a variety of multilateral conventions have achieved widespread acceptance.

The most serious limitation of international agreements as a source of international law is that they bind only the states that are parties to them. Thus, states that are not parties to multilateral conventions are, in a sense, outside the law. Given the wide diversity of ideologies and interests among the states of the world (and in par-

ference in legal effect between contractual and lawmaking treaties) and Tunkin, Co-Existence and International Law, [1958-III] 95 RECUEIL DES COURS 1, 21-23 (treaties are source of law). In addition, some agreements between states are not intended to create binding obligations. See generally Schachter, The Twilight Existence of Nonbinding International Agreements, 71 AM. J. INT’L L. 296 (1977).

36. Id. at 97-98.

38. See, e.g., Vienna Convention on the Law of Treaties, supra note 37, art. 34 ("A treaty does not create either obligations or rights for a third state without its consent."); Reservations to the Convention on the Prevention and Punishment of the Crime of Genocide, 1951 I.C.J. 15, 21 (Advisory opinion of May 28) ("It is well established that in its treaty relations a State cannot be bound without its consent . . .").

It has been suggested that in some instances treaties can create "objective regimes" binding on nonparties. See Reparations for Injuries Suffered in the Service of the United Nations, 1949 I.C.J. 174, 185 (Advisory opinion of Apr. 11) ("[T]he Court’s opinion is that fifty States, representing the vast majority of the members of the international community, had the power . . . to bring into being an entity [the U.N.] possessing objective international personality . . ."); Summary Records of the 877th Meeting, [1966] Y.B. INT’L L. COMMISSION 227, 231, U.N. Doc. A/CN.4/SER.A/1966; Simma, The Antarctic Treaty as a Treaty Providing for an "Objective Regime", 19 CORNELL INT’L L. J. 189 passim (1986). However, such instances (if any) are rare, and the general rule that third states are not bound by treaties controls the vast majority of cases.
ticular the growing disagreement between western states on the one hand and socialist and third world states on the other), unanimity is often impossible, or is achieved only by restricting the binding obligations contained in a treaty. This limitation is softened somewhat because international agreements may codify customary law or contribute to its development. A widely accepted multilateral convention may be strong evidence of customary law, and its provisions treated as authoritative statements of the law, binding even on non-parties. Such cases, however, are relatively rare and the conditions for binding non-parties are difficult to establish.

Thus, although there are numerous agreements about the environment, the international regime for environmental protection suffers from gaps and uncertainties because of the inherent limits of treaties as a source of law. In particular, the Soviet Union is not a party to any international agreement requiring compensation for injuries from the Chernobyl accident.

c. General principles

Because customary norms and international agreements frequently leave gaps in the legal rules available for resolving international disputes, the Statute of the ICJ allows for recourse to "general principles of law recognized by civilized nations." The ICJ has relied on general principles of law in a variety of its decisions.

39. For example, the United States refused to sign the 1982 United Nations Convention on the Law of the Sea, (although the Convention has been signed by over 120 states), because it objected to provisions creating an international authority governing sea-bed mining. Restatement (Revised) of Foreign Relations Law of the United States 164 (Tent. Draft No. 6, Apr. 12, 1985). Moreover, even when states become parties to multinational agreements they frequently do so subject to "reservations" that may limit the universality of the agreement. See Reservations to the Convention on Genocide 1951 I.C.J. at 29.

40. See supra note 22.

41. For example, the Vienna Convention on the Law of Treaties, supra note 37, is widely regarded as an authoritative statement of the customary law of treaties. See L. Henkin, supra note 6, at 387; see generally I. Sinclair, The Vienna Convention on the Law of Treaties (2d ed. 1984). Multilateral conventions may codify existing customary law, may "crystallize" the law, or provide a basis for the development of customary rules. See North Sea Continental Shelf Cases (W. Ger. v. Den.) (W. Ger. v. Neth.), 1969 I.C.J. 3, 41. Bilateral treaties also may be evidence of customary law (though less authoritative) because they are examples of state practice. See The Paquete Habana, 175 U.S. 677, 704 (1900).

42. International agreements respecting the environment are discussed infra notes 85-96 and accompanying text.

43. See infra notes 76-83 and accompanying text.

44. Art. 38(1)(c). See M. AKEhurst, supra note 12, at 34; H. LAUTerpacht, supra note 33, 68-69.

general principles has been most commonly made in the areas of procedure and jurisdiction and in the area of liability and reparation for breach of international obligations.\(^{46}\) However, while general principles may provide residual rules in some areas, they cannot substitute for the legislative process because they are neither clear nor detailed.

Moreover, reliance on general principles remains controversial for a variety of reasons.\(^{47}\) For example, it has been argued that "general principles," are less a material "source" of international law than a particular instance of judicial reason and logic which the most authoritative international tribunal of the day is specially enjoined to employ.\(^{48}\) In addition, some disagreement exists whether such principles are to be taken from municipal law,\(^{49}\) or international law.\(^{50}\)

Finally, resort to general principles of equity has been controversial because it appears to conflict with article 38(2) of the ICJ Statute, which requires the specific consent of the parties for the court to decide a case *ex aequo et bono* (according to justice and fairness).\(^{51}\) Nonetheless, general principles are probably the strongest basis for imposing liability on the Soviet Union in the case of the Chernobyl accident.\(^{52}\)

d. Secondary sources

The ICJ Statute provides that the court shall apply "judicial deci-
sions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law." In addition, the resolutions and declarations of international organizations, particularly the United Nations General Assembly, may also be evidence of international legal rules. Given the limitations and difficulties associated with the primary sources of international law, these secondary sources are frequently the principal means for establishing the existence of an international legal rule (although they do not themselves create the rule). Secondary sources, however, are subject to their own limitations.

Judicial decisions cannot form the basis for binding rules in international law. Decisions of the ICJ have "no binding force except between the parties and in respect of . . . [the] particular case." Nonetheless, the decisions of the court are strong evidence of legal rules. The court frequently relies on its prior decisions, many of which have had substantial influence on international law. Despite the importance of decisions of the ICJ, restrictions on its jurisdiction limit its effectiveness in developing international law. In addition to decisions of the ICJ, decisions of national courts, arbitral decisions, and decisions of other international tribunals may aid in the development of international law, although such decisions do not of themselves create law.

Although "[t]he place of the writer in international law has always been more important than in municipal legal systems," juristic works

53. ICJ Statute, supra note 17, art. 38(1)(d).
54. For example, the ICJ relied heavily on General Assembly resolutions in Western Sahara 1975 I.C.J. 12, 30-37 (Advisory opinion of Oct. 16).
55. ICJ Statute, supra note 17, art. 59. Article 38(1)(d) of the ICJ Statute, which authorizes the court to apply judicial decisions as a subsidiary means of determining legal rules, specifically provides that the court may do so only "subject to the provisions of Article 59." Id. art. 38(1)(d). The absence of stare decisis effect for decisions of the ICJ stems from a variety of factors, including the influence of the civil law tradition (which does not recognize a rule of stare decisis) and the unwillingness of states to subject themselves to the formation of rules by an international body whose membership may reflect differing ideologies and interests. See L. Henkin, supra note 6, at 107.
56. See, e.g., W. Bishop, International Law 39 (3d ed. 1971); I. Brownlie, supra note 17, at 22-23; McDougal & Reisman, supra note 24, at 259-60, 264.
57. See M. Akehurst, supra note 12, at 36; I. Brownlie, supra note 17, at 21. Whether such decisions themselves "create" new law, or are subject to subsequent acceptance by states is a matter of some dispute. See M. Akehurst, supra note 12, at 36; see also H. Lauterpacht, The Development of International Law by the International Court 21 (rev. ed. 1958) (describing controversy over whether judges create law or reveal it as "animated, but highly unreal").
58. See infra notes 138-48 and accompanying text.
60. See, e.g., M. Akehurst, supra note 12, at 26, 36; J. Starke, supra note 6, at 46-48.
61. L. Henkin, supra note 6, at 111.
do not create rules of international law.\textsuperscript{62} Thus, writers have had substantial influence in the formation and systematization of legal rules,\textsuperscript{63} but the use of their works must be approached with caution. It is not always clear that pronouncements of writers actually reflect the law as it is rather than as they wish it to be.\textsuperscript{64} Moreover, writings frequently reflect the author’s underlying political or ideological bias.\textsuperscript{65} Thus, the ICJ has been reluctant to rely on writings except where there is virtual unanimity.\textsuperscript{66}

\textsuperscript{62} An often quoted statement of the role of writers as evidence of international law is that of Justice Gray in \textit{The Paquete Habana}, 175 U.S. 677 (1900):

[W]here there is no treaty, and no controlling executive or legislative act or judicial decision, resort must be had to the custom and usage of civilized nations; and, as evidence of these, to the works of jurists and commentators, who by years of labor, research, and experience, have made themselves peculiarly well acquainted with the subjects they treat. Such works are resorted to by judicial tribunals, \textit{not for the speculations of their authors concerning what the law ought to be, but for trustworthy evidence of what the law really is.}

175 U.S. at 700 (citation omitted) (emphasis added).

\textsuperscript{63} See I. Brownlie, supra note 17, at 25; L. Henkin, supra note 6, at 111; J. Starke, supra note 6, at 48-50; see generally Lachs, \textit{Teachings and Teaching of International Law}, 1976-III 151 RECEUIL DES COURS 160 (1978).

\textsuperscript{64} See West Rand Cent. Gold Mining Co. v. The King, [1905] 2 K.B. 391. The \textit{West Rand} court stated:

The views expressed by learned writers on international law have done in the past, and will do in the future, valuable service in helping to create the opinion by which the range of the consensus of civilized nations is enlarged. But in many instances their pronouncements must be regarded rather as the embodiments of their views as to what ought to be, from an ethical standpoint, the conduct of nations intersect, than the enunciation of a rule or practice so universally approved or assented to as to be fairly termed, even in the qualified sense in which that word can be understood in reference to the relations between independent political communities, “law.”

\textit{Id.} at 402.


\textsuperscript{65} See, \textit{e.g.,} I. Brownlie, supra note 17, at 25; H. Lauterpacht, supra note 57, at 24; Schachter, \textit{International Law in Theory and Practice,} [1982-V] 178 RECEUIL DES COURS 9, 64 (1985).

\textsuperscript{66} \textit{See D. Grieg, International Law 49 (2d ed. 1976); H. Lauterpacht, supra note 57, at 24.} When it does rely on writings, the court has “studiously refrained from making
Among the most significant and controversial recent developments in international law is the growing use of resolutions and declarations of international organizations, particularly the United Nations General Assembly, as sources of law. Reliance on resolutions and declarations is controversial because it appears to grant international organizations a legislative competence that their constituent states consciously refuse to confer upon them. Moreover, unless decisions of international bodies are unanimous, giving them lawmaking effect would be inconsistent with the principle that states cannot be bound without their consent. This problem is compounded because a state's voting record at the U.N. does not always comport with its practice. Nonetheless, when certain conditions are met, resolutions and declarations of the General Assembly are powerful evidence of the existence of rules of international law.

mention of specific writings, contenting itself with occasional references to 'all or nearly all writers' or 'the writings of publicists.' D.グリゴ, supra at 49. Individual justices are more likely to refer specifically to individual writers, id., and parties before the court frequently rely on writers as well. See I. BROWNLE, supra note 17, at 26.


68. See U.N. CHARTER arts. 10-14; W. BISHOP, supra note 56, at 49. Three main theories have been used to justify treatment of resolutions and declarations of the General Assembly as law:

1. that resolutions interpreting the Charter constitute authentic interpretations by the parties to a treaty evidencing their agreement as to its meaning.

2. that resolutions that express rules of customary (or general) international law are persuasive evidence of customary rules, especially when they are adopted without dissent.

3. that resolutions stating rules of law express agreements of states on what is accepted law even if not based on much state practice or on none at all.

L. HENKIN, supra note 6, at 115. The third justification has led to a particularly lively controversy over whether declarations can be legally binding without past practice. See Schachter, The Nature and Process of Legal Development in International Society, in THE STRUCTURE AND PROCESS OF INTERNATIONAL LAW 745, 790 (R. MacDonald & D. Johnston eds. 1983); see also L. HENKIN, supra note 6, at 134 (identifying controversy as it relates to the international law of human rights).

69. Thus, states casting dissenting votes usually do not recognize resolutions as binding. See A. D'AMATO, supra note 20, at 3-4. Nonetheless, it has been suggested by Soviet authors that resolutions and declarations be treated as authoritative if they are "generally accepted" (i.e., if they have been accepted by a majority of states from each of the major groupings of states). See G. TUNKIN, supra note 29, at 165, 170, 172.

70. See Schachter, supra note 68, at 791.

71. See Texaco Overseas Petroleum Co. v. Libyan Arab Republic, 53 I.L.R. 389, 487-95 (1979) (Dupuy, sole arbitrator, 1977). Other international organizations may also possess explicit or implicit lawmaking authority, though this authority is normally limited. For a discussion of lawmaking by international organizations in general (including the U.N. General Assembly), see I. BROWNLE, supra note 17, at 695-98.
Another international body whose work has been important for the development of international law is the International Law Commission ("ILC").\textsuperscript{72} Although the ILC clearly lacks lawmaking authority,\textsuperscript{73} its work has been influential in two ways. First, the ILC's efforts have led to the adoption of important multinational conventions, which by their adoption have become binding on the parties.\textsuperscript{74} Second, because its recommendations are adopted by a consensus of its members (who are highly regarded authorities on international law), its work has been treated as important evidence of customary international law.\textsuperscript{75}

This brief survey of the sources of international law reveals that the lack of an authoritative legislative body produces uncertainty. Because of the inherent difficulties associated with reaching broad-ranging international agreements, treaty law often provides no legal rules. And where there is no applicable treaty, the existence and application of customary law and general principles is often unclear, and almost always subject to dispute. Finally, although secondary sources may help clarify some of these disputes, they are often themselves unclear and cannot make law where none exists.

2. Soviet Liability for Transboundary Harm

As the foregoing discussion suggests, identifying the international legal rules governing the question of Soviet liability for transboundary harm caused by the Chernobyl accident is not an easy task. It requires examination of a wide array of potentially relevant sources. Moreover, unless an international agreement to which the Soviet Union is a party expressly addresses the liability question, it is unlikely that these sources will provide a definitive answer. Indeed, while a strong argument can be made that international law does create liability for transboundary harm in cases such as the Chernobyl accident, the Soviet Union can argue effectively that it is not bound by such a rule.

\textsuperscript{72} See supra note 25.

\textsuperscript{73} The ILC promotes "codification and progressive development" of international law. Insofar as the ILC is engaged in codification, its work may contribute directly to the development of international law; but when the ILC is engaged in progressive development, its work requires the acceptance of state to become law. See The Work of the International Law Commission, supra note 25, at 4; Schachter, supra note 68, at 773-75. Although article 15 of the Statute of the International Law Commission distinguishes "for convenience" between the two, in practice this distinction has been blurred. See I. Brownlie, supra note 17, at 31-32.

\textsuperscript{74} See I. Brownlie, supra note 17, at 31-32; Onuf, supra note 25, at 264; Schachter, supra note 68, at 775-76.

\textsuperscript{75} See M. Akehurst, supra note 12, at 33; Schachter, supra note 68, at 776. The importance of the work of the ILC as evidence of international law has continued despite doubts about the ability of members to be truly independent of their governments, and hence about the ability of the codification process to remain apolitical. See Onuf, supra note 25, at 274-75.
No applicable treaty to which the Soviet Union is a party expressly provides for liability for transboundary environmental damage.\textsuperscript{76} Although numerous bilateral and multilateral conventions deal with the environment,\textsuperscript{77} many of these agreements do not address the problem of transboundary air pollution.\textsuperscript{78} Of the few international agreements regarding transnational air pollution,\textsuperscript{79} two are of particular significance. The Vienna Convention on Civil Liability for Nuclear Damage creates absolute liability for operators of nuclear plants that cause transboundary harm,\textsuperscript{80} but the Soviet Union is not a party to that convention.\textsuperscript{81} The Soviet Union is a party to the Con-


\textsuperscript{80} Vienna Convention on Civil Liability for Nuclear Damage, art. IV, § 1, \textit{opened for signature} May 21, 1963, INT’L ATOM. ENERGY AGENCY Doc. CN-12/46, \textit{reprinted in} 2 I.L.M. 727 (1963) [hereinafter Vienna Convention on Civil Liability]. For discussion of relevant provisions of this convention, see \textit{infra} notes 190-93 and accompanying text.

\textsuperscript{81} Representatives of the Soviet Union attended the conference at which the Vienna Convention on Civil Liability was adopted without a negative vote. See P. Szasz, \textit{The Law and Practices of the International Atomic Energy Agency} 707 (1970). Soviet Representatives also signed the Final Act of the Conference, in which the adoption of the Vienna Convention on Civil Liability was acknowledged. See INT’L ATOM. ENERGY AGENCY LEGAL SERIES No. 2, \textit{Civil Liability for Nuclear Damage} 497-500 (1964) (text of the Final Act). However,
vention on Long-Range Transboundary Air Pollution, but that agreement does not obligate states to compensate for injuries resulting from transboundary pollution.

In the absence of an explicitly applicable treaty, one must examine customary international law and general principles of international law. On balance, a strong argument can be made that customary rules or general principles of international law impose liability for transboundary harm. Indeed, many scholars have concluded that international law imposes liability for transboundary pollution. Evidence supporting this rule includes various incidents in which compensation was made, some treaty regimes and international declarations, arbitral and judicial recognition of general principles of responsibility for transboundary harm, and statements of many international publicists. This evidence is not necessarily conclusive, however, and the Soviet Union can argue that any such rule does not apply to the Chernobyl accident, because socialist states have not accepted the rule.

Although there are many instances of international settlement of environmental disputes, two incidents are particularly relevant. The first of these instances, the United States compensation for injuries

the Soviet government has not taken the necessary steps to make the Soviet Union a party to the treaty. At the time of the Convention’s entry into force, only eight states (Argentina, Bolivia, Cuba, Egypt, the Philippines, Trinidad and Tobago, Cameroon, and Yugoslavia) had become parties. See 17 I.L.M. 259 (1978). At that time, three additional states (Colombia, Spain, and the United Kingdom) had signed but not ratified the Convention. Id. A search of the index to International Legal Materials has revealed no additional parties to the Convention.

The Paris Convention on Third Party Liability in the Field of Nuclear Energy, July 29, 1960, 596 U.N.T.S. 10, reprinted in XII B. RUESTER & B. SIMMERMANN supra note 77, at 5972 [hereinafter Paris Convention], is similar to the Vienna Convention on Civil Liability. The Soviet Union is not a party to the Paris Convention, which was signed by West Germany, Austria, Belgium, Denmark, Spain, France, Greece, Italy, Luxembourg, Norway, the Netherlands, Portugal, the United Kingdom, Sweden, Switzerland, and Turkey. Id.


83. See Note, Compensating Private Parties for Transnational Pollution Injury, 58 St. John’s L. Rev. 528, 541-42 (1984). For a discussion of limitations of various multilateral environmental agreements, see id. at 540-51.


caused to Japanese citizens as the result of nuclear tests in the Marshall Islands in 1954,66 provides precedent for compensation to victims of radiation injuries. The second example, which is significant because it involved Soviet compensation to Canada, is the crash of the Cosmos 954.67 These and other incidents reveal that diplomatic efforts sometimes lead to compensation. However, they are inconclusive evidence of customary international law requiring compensation, because in both cases payments were made pursuant to settlement agreements that did not concede liability under customary international law.68

Similarly, it is difficult to discern an international consensus for liability for transboundary harm from international agreements or declarations. Most international agreements respecting the environment do not deal with transboundary air pollution, and therefore are weak evidence of state practice or opinio juris for a customary law obligation to compensate for transboundary air pollution injury.69


88. The United States provision for compensation to Japan was made without reference to the question of legal liability. Agreement on Personal and Property Damage Claims, supra note 86. See Billingsley, supra note 84, at 348. Similarly, the Soviet agreement with the Canadian government was silent as to the question of legal liability, and is at best a tacit admission of responsibility. See Note, supra note 87, at 279-80. Such refusals to concede liability are typical of diplomatic settlements of environmental problems. See Note, International Liability and Primary Rules of Obligation: An Application to Acid Rain in the United States and Canada, 13 Ga. J. Int'l & Comp. L. 111, 114 (1983) (quoting Mr. Robert Quentin-Baxter, Special Rapporteur of the ILC).

89. Most agreements regarding pollution of international waters, see supra note 78, differ from agreements respecting transboundary pollution in an important respect. When a state pollutes international waters, the pollution-causing activity does not necessarily take place within the territory of the polluting state. Thus, liability for transboundary harm must be balanced against a factor not present in pollution of international waters—a state's sovereign right to use its territory as it sees fit.

Moreover, it is not entirely clear that practice respecting transboundary water pollution, see supra note 78, can give rise to customary rules respecting air pollution, but some authors
Moreover, the limited acceptance of the Vienna Convention on Civil Liability\(^9\) and the absence of an explicit provision for compensation from the Convention on Long-Range Transboundary Air Pollution\(^9\) argue against the acceptance of such a rule.

Perhaps the strongest evidence of acceptance of a rule requiring compensation is the United Nations General Assembly’s adoption of the Stockholm Declaration of the United Nations Conference on the Human Environment,\(^9\) but that document does not purport to impose liability for transboundary environmental harm. Principle 21 of the Declaration confirms that states have the responsibility to prevent transboundary pollution.\(^9\) This responsibility does not necessarily imply liability, however, because Principle 22 provides only that “States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.”\(^9\) The history of these provisions confirms that the states involved were not willing to accept “automatic activation of a state’s international liability upon the simple occurrence of transnational damage.”\(^9\)

Despite the relatively uncertain evidence of state practice and opinio juris required for proving a customary rule of international law, there is considerable authority for Soviet liability under general principles of international law. Of particular relevance is the principle sic utere

have concluded that such principles can be applied by analogy. See Hassett, Air Pollution: Possible International Legal and Organizational Responses, 5 N.Y.U. INT'L L. & POL'Y 1, 4, 5 (1972); Jordan, Recent Developments in International Environmental Pollution Control, 15 McGill L.J. 279, 289 (1969). Bramsen, supra note 84, at 262-73, surveys various categories of pollution to support his conclusion that international law prohibits all kinds of harmful transnational pollution.

90. See supra note 80.
91. See supra note 82 and accompanying text.
92. REPORT OF THE U.N. CONFERENCE ON THE HUMAN ENVIRONMENT, U.N. Doc. A/CONF.48/14 (1972), reprinted in 11 I.L.M. 1416 (1972) [hereinafter Stockholm Declaration]. This declaration is not itself binding. But cf. Sohn, The Stockholm Declaration on the Human Environment, 14 HARV. INT’L L.J. 423, 515 (1973) (“[D]espite the statements by some of the conservative participants in the drafting of the Stockholm Conference that this document is not a binding legal instrument, it is quite likely in the not too distant future a more enlightened view... of the Stockholm Declaration will be accepted.”). However, the Declaration’s wide acceptance is evidence that the principles it espouses are binding law. See supra notes 67-71 and accompanying text.
94. Id. at Principle 22. In fact, the language of Principle 22 could support the conclusion that customary international law does not impose liability. The promise to “cooperate to develop further” principles of compensation might imply that such principles do not yet exist.
tuo ut alienum non laedas, that "[a] state may not legitimately permit its territory to be used in ways directly injurious to another state." This principle, which derives from the Roman law and common law maxim, has been adopted in various resolutions and declarations. Moreover, this principle has been embraced in several important decisions of international tribunals.

The most significant of these decisions was the *Trail Smelter Arbitration (U.S. v. Can.)*, in which an international joint commission was asked to determine damages to interests in the United States caused by a privately owned Canadian smelter. The tribunal stated that:

[N]o State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or person therein, when the case is of serious consequences and the injury is established by clear and convincing evidence.

Because the *Trail Smelter* arbitration is a rare case in which an international tribunal assessed damages against a state for injuries caused by transboundary pollution, it is of particular significance for the developing international law of pollution. Although many scholars have criticized the *Trail Smelter* decision on various grounds, others have argued that the principle it announced is an "integral part of international environmental law and can be said to have widespread acceptance by states."

96. Caldwell, *Concepts in Development of International Environmental Policies*, in *International Environmental Law* 12, 22 (L. Teclaff & A. Uton eds. 1974). Although the principle itself does not refer to the question of reparations or liability for failure to fulfill this obligation, the ICJ has concluded that breach of this obligation creates a duty to compensate an injured state. See *Corfu Channel (U.K. v. Alb.),* 1949 I.C.J. 4, 23 (Apr. 9); cf. *Factory at Chorzow (Ger. v. Pol.),* 1928 P.C.I.J. (ser. A) No. 8, at 21 (Indemnity order of July 26) (breach of agreement requires compensation despite absence of express liability provisions in agreement).

97. *E.g., Resolution on Pollution of Rivers and Lakes,* art. II, 58 *Annaire Francais de Droit International* 196 (1979); *Stockholm Declaration,* supra note 92, at Principle 22; see Bramsen, supra note 84, at 260-61.

98. 3 R. Int'1 Arb. Awards 1905 (1949).

99. *Id. at 1907; see generally Read, The Trail Smelter Dispute 1963 Can. Y.B. Int'l L.* 213. The tribunal was established pursuant to the Boundary Waters Treaty, Jan. 11, 1909, United States-Canada, 36 Stat. 2448, T.S. No. 548 (effective May 13, 1910).

100. 3 R. Int'l Arb. Awards at 1965.


Corfu Channel (U.K. v. Alb.) is additional support for states’ liability for damages caused by transboundary pollution originating in their territory. In Corfu Channel, the ICJ held Albania liable for damage to British warships (and resultant loss of life) caused by mines placed in Albanian waters. The court based this liability "on certain general and well recognized principles, namely ... every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States." Although the case did not involve transboundary pollution, many scholars consider it applicable in the pollution context.

Despite the evidence favoring an international rule of liability for transnational damage, the Soviet Union could reasonably argue against any such rule applying to the Chernobyl accident. Certainly with respect to customary law, the evidence does not compel the conclusion that state practice and opinio juris support the existence of a rule imposing liability. The burden of establishing customary law generally is placed on the party seeking to limit a state's sovereignty (i.e., the party seeking to impose liability). The evidence discussed above may be insufficient to carry this burden, particularly since the ICJ has often been reluctant to conclude that particular customary rules exist.

In addition, the Soviet Union can (and probably would) argue that even if a rule of liability does exist, the rule cannot be applied to the Soviet Union. As noted previously, Soviet writers maintain that customary rules cannot be applied to states that have objected to them, and there is support for this proposition in the decisions

---

France's proposed diversion of waters from a shared river. Although the tribunal concluded that France was not liable because there would be full restitution to Spain of diverted waters, the tribunal went on to state that if the waters were polluted, "Spain could then have claimed that her rights had been impaired." Id. at 303. The Gut Dam Arbitration (U.S. v. Can.), reprinted in 8 I.L.M. 118 (1969), which involved a Canadian concession of liability for the rising water level of Lake Ontario if that damage was caused by a Canadian dam, is also considered by some scholars to be relevant to the question of liability for transboundary pollution. See, e.g., J. Schneider, supra note 84, at 50 (Gut Dam is of better than marginal relevance to transboundary pollution issue).

104. Id. at 22.
106. See S.S. "Lotus" (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 9, at 18 (Sept. 7) ("Restrictions upon the independence of States cannot ... be presumed."). This aspect of the court's opinion has been criticized. See H. Lauterpacht, The Function of Law in the International Community 96 (1933).
107. Two examples of this reluctance are North Sea Continental Shelf Cases (W. Ger. v. Den.) (W. Ger. v. Neth.), 1969 I.C.J. 3 (Feb. 20), and S.S. "Lotus".
108. See supra note 29 and accompanying text.
of the ICJ.\textsuperscript{109} Although the Soviet Union has not expressly rejected such a rule, it has never accepted liability either.\textsuperscript{110} Moreover, the failure of the Soviet Union to ratify the Vienna Convention on Civil Liability might be interpreted as a rejection of the liability rules it contains.\textsuperscript{111} The Soviet Union would rely on similar arguments to support the conclusion that general principles of international law do not create liability. Such arguments would also reflect the more restrictive Soviet view of the applicability of general principles.\textsuperscript{112}

Despite these arguments, there is a good chance that a court or arbitral panel, if confronted with the question of Soviet liability, would apply the \textit{sic utere} principle.\textsuperscript{113} Cases such as \textit{Trail Smelter Arbitration}\textsuperscript{114} and \textit{Corfu Channel},\textsuperscript{115} while not binding on the Soviet Union, suggest that international jurists are likely to apply the principle to future transboundary pollution disputes. Nonetheless, the principle, because of its generality and ambiguity, leaves an important question unresolved: what standard of care is to be used to impose liability? Whether liability should be absolute or based solely on fault is a question that has given rise to a heated debate among scholars, even those who otherwise agree that states are liable for transboundary pollution.\textsuperscript{116}

\begin{itemize}
\item[110.] Neither the 1979 Convention on Long-Range Transboundary Air Pollution nor the \textit{Stockholm Declaration} provide for liability. \textit{See supra} notes 82, 92-94 and accompanying text. Nor did the Soviet agreement to compensate Canada for damage arising from the Cosmos 954 incident constitute acceptance of a customary rule of liability. As discussed supra note 87, the agreement was silent as to whether compensation was the result of a legal obligation. Moreover, Canada based its claim in part upon the Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, T.I.A.S. No. 7762, \textit{reprinted in} 10 I.L.M. 965. \textit{See Gallaway, supra} note 87, at 413. Thus, even if compensation was legally compelled, it may have been compelled by treaty obligation instead of customary international law.
\item[111.] In the \textit{Asylum} case, the ICJ stated that Colombia could not hold Peru to a claimed customary obligation because Peru had repudiated the custom by refraining from ratifying conventions containing the obligation. 1950 I.C.J. at 277. Such a conclusion is questionable because a state may refuse to ratify for reasons other than rejection of a particular rule contained in a convention. Of course, as noted by the ICJ in \textit{North Sea Continental Shelf Cases}, \textquotedblleft [[t]]hat non-ratification may sometimes be due to factors other than active disapproval of the convention concerned can hardly constitute a basis on which positive acceptance of its principles can be implied.\textquotedblright \ 1969 I.C.J. at 38.
\item[112.] See \textit{supra} note 30.
\item[113.] On the probability that no international tribunal would obtain jurisdiction to resolve the liability issue, see \textit{infra} notes 184-88 and accompanying text.
\item[115.] 1949 I.C.J. 4. \textit{See supra} notes 103-05 and accompanying text.
\item[116.] \textit{See A. Springer, The International Law of Pollution} 130-34 (1983) (discussing evolution of strict liability in international law); Handl, \textit{supra} note 95, at 229-33 (arguing against}
\end{itemize}
Thus, the nature of the international legal system leaves many unresolved questions regarding potential Soviet liability for transboundary harm resulting from the Chernobyl accident. In the absence of explicit treaty provisions governing the issue, reliance must be placed on customary rules and general principles of international law. These sources of law leave the very existence of liability unclear, and render the scope of any liability necessarily vague. While uncertainty and vagueness are not unique to international law, the Chernobyl accident illustrates that it is particularly difficult to identify international legal rules which govern the obligations of states. The uncertainty of international legal obligations compounds the difficulties created by the absence of meaningful mechanisms for binding adjudication and enforcement of these obligations.

B. Resolution of International Disputes and Liability for Environmental Harm

Absent a central authority, the international legal system depends primarily on the reciprocal nature of interstate relations to foster compliance with international legal rules. This reciprocity is apparent when the obligation of one state depends on the reciprocal obligation of another state, but exists more generally as a shared interest of states in the maintenance of the international order as a basis for their relations.117 Moreover, because states must consent to the creation of

the position of "a majority of writers" that cases do not establish a rule of strict liability). The preliminary conclusion of the ILC to impose liability only after a state has failed to prevent, inform, and negotiate, and then to base liability on a balancing of interests, has drawn some criticism. See infra notes 224-25 and accompanying text. Lurking in the background of this debate is a broader geopolitical controversy between developed and developing nations. Many developing nations argue that, to facilitate economic development, they should be held to a lower standard of care regarding the environment than developed countries. See Doud, International Environmental Developments: Perceptions of Developing and Developed Countries, 12 NAT. RESOURCES J. 520, 528-29 (1972); Magraw, The International Law Commission's Study of International Liability for Nonprohibited Acts as it Relates to Developing States, 61 WASH. L. REV. 1041, 1047-59 (1986).

Even if the more restrictive fault-based approach to liability were employed, however, a strong case could be made for Soviet liability. The duty to prevent may have been violated, insofar as the operators of the Chernobyl plant were clearly negligent, and the use of some design features in the reactor might also be considered negligent. See, e.g., Asselstine, supra note 1, at 240-41. Similarly, the duty to inform may have been violated by Soviet delay in informing the world of the accident. See supra note 3 and accompanying text. Nor has the Soviet Union shown a willingness to negotiate respecting harm from Chernobyl—either regarding a conventional regime to deal with the problem or regarding reparations for injuries.

117. See, e.g., L. Henkin, supra note 6, at 19 note 2 ("Reciprocity of obligations may function on a bilateral or multilateral level to encourage compliance."); O. Lissitzyn, The International Court of Justice 6 (1951) ("Rational appreciation of the advantages of a relationship acts as a restraint upon the temptations to disregard the standards governing the relationship."); Fisher, Bringing Law to Bear on Governments, 74 HARV. L. REV. 1130, 1135 (1961) ("Before a government decides to break a rule of international law, it must consider
international legal rules, the rules themselves usually reflect their interests. Thus, reciprocity is usually a sufficient incentive for compliance. Professor Henkin has concluded that "[i]t is probably the case that almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time." However, international legal disputes do arise when there is disagreement regarding an international obligation, or when a state considers its national interest in a particular case to outweigh the costs of non-compliance with a legal rule. Thus, one primary function of the international legal order is to provide the means for peaceful resolutions of these disputes. Ideally, disputes are resolved peacefully and in accordance with international legal rules. The sovereignty of states, however, places important limits on the ability of the international legal system to ensure compliance with international law. The consequence of these limits for resolution of liability issues surrounding the Chernobyl accident is apparent. Even if international law requires compensation, the Soviet Union may choose to disregard this obligation. If the Soviet Union so chooses, the international legal system can do little to compel compensation.


118. See supra text following note 16.
119. See M. Akherst, supra note 12, at 8-9 ("In international law the absence of a legislature means that states very largely create law for themselves, and it is unlikely that they will create law which is not in their interests or which they will be tempted to break."); McDougall, The Impact of International Law Upon National Law: A Policy-Oriented Perspective, 4 S.D.L. Rev. 25, 79 (1959) (many legal rules reflect the "common interest" of states).
120. L. Henkin, supra note 12, at 47 (emphasis in original).
121. See H. Morgenthau, In Defense of the National Interest 144 (1951) ("that legal obligations must yield to the national interest" is the "iron law of international politics"); Acheson, Remarks Before the Proceedings of the American Society of International Law, 57 Proc. Am. Soc'y Int'l L. 14 (1963) (arguing that international law was irrelevant to United States action during the Cuban missile crisis). This attitude has been criticized by those who argue that a strengthening of international law is essential for world survival. See, e.g., Friedmann, The Role of International Law in the Conduct of International Affairs, 20 Int'l L. J. 158 (1965). For a general discussion of the relationship between international law and the national interest, see Moore, Law and National Security, 51 Foreign Aff. 408 (1973).
122. For example, the United Nations Charter provides in article 33(1) that parties to an international dispute likely to endanger international peace and security "shall . . . seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice." U.N. Charter art. 33(1). Of course, international disputes are not always resolved through peaceful means; they may be resolved by coercion, see, e.g., R. Bilder, International Dispute Settlement and the Role of Adjudication 31-32 (1986), or remain unresolved.
1. Dispute Resolution Mechanisms of the International Legal System

International legal obligations are enforced on two levels. On the international level, various institutions and procedures are available to resolve disputes and implement legal rules. These institutions and procedures, however, depend primarily on the willingness of the states involved to submit their dispute for resolution at the international level. On another level, individuals or states may seek to resolve international disputes through domestic legal institutions. While domestic legal institutions are sometimes successfully invoked to resolve international disputes, a variety of barriers limit the availability of national courts and may prevent execution of their judgments.

a. Dispute resolution at the international level

International disputes are resolved most frequently through diplomatic (nonjudicial) means, which seek a compromise solution. Diplomatic settlement may be brought about through negotiation, where the parties to a dispute communicate directly, or through various mechanisms in which a third party facilitates compromise. International organizations, in particular the United Nations, play an important role in diplomatic resolution of disputes. Regional organizations may also play a role in the peaceful settlement of international disputes.


124. Third party assistance may simply involve the provision of "good offices" (i.e., providing a channel of communication when states refuse to negotiate directly). See G. VON GLAHN, supra note 123, at 458-59. Or, as in mediation, conciliation, or use of commissions of inquiry, the third party may actively attempt to narrow the grounds of disagreement between the states involved in the dispute. In mediation, the mediator (an international organization, a state, or an individual) actively proposes compromise solutions. J. MERRILLS, supra note 123, at 15-16. In conciliation, the parties submit the entire dispute for impartial examination and the formulation of a possible settlement acceptable to both parties. See generally J.P. COT, INTERNATIONAL CONCILIATION (1972). Commissions of inquiry, on the other hand, are limited in function to the resolution of particular disputed issues. By resolving such issues neutrally, commissions of inquiry may narrow the gulf between parties to a dispute, and facilitate successful negotiations. See G. VON GLAHN, supra note 123, at 460-63; J. MERRILLS, supra note 123, at 33-51. The states involved in a dispute must agree to the use of third parties, as well as the terms of any settlement of their dispute.

125. The General Assembly and Security Council may recommend measures for the peaceful resolution of disputes. See generally M. AKEHURST, supra note 12, at 202-04; G. VON GLAHN, supra note 123, at 482-86; J. MERRILLS, supra note 123, at 141-62; K. RAMAN, DISPUTE SETTLEMENT THROUGH THE UNITED NATIONS passim (1977); J. STARKE, supra note 6, at 492-94; Diaconu, Peaceful Settlement of Disputes Between States: History and Prospects, in THE STRUCTURE AND PROCESS OF INTERNATIONAL LAW 1095, 1104-09 (R. MacDonald & D. Johnston eds. 1983). In addition, the Secretary General may use his good offices in an effort to facilitate dispute settlement. J. MERRILLS, supra note 123, at 149.
disputes.\(^{126}\) Although international organizations have made significant contributions to dispute resolution through diplomatic means, many disputes are never referred to the United Nations for resolution and others cannot be effectively resolved.\(^{127}\)

When diplomatic means are unsuccessful (or as part of a diplomatic settlement), the states involved may agree to submit their dispute for arbitral or judicial resolution. Unlike diplomatic dispute resolution, arbitral and judicial dispute resolution normally involve a binding determination of the rights and obligations of the parties by a neutral decisionmaker.\(^{128}\)

The oldest form of binding third party dispute resolution is international arbitration.\(^{129}\) Arbitration requires the consent of the states involved to submit their dispute to an arbitration panel for resolution.\(^{130}\) Normally, this consent is expressed in a compromis, or agreement to arbitrate, which also sets forth the subject matter of the dispute, the method of selecting the arbitration panel, the procedure to be followed during the arbitration, and the law to be applied.\(^{131}\)

\(^{126}\) See generally G. von Glahn, supra note 123, at 485-92.


\(^{128}\) See J. Merrills, supra note 123, at 70.

\(^{129}\) For a general discussion of international arbitration, see J. Simpson & H. Fox, International Arbitration (1959); J. Wettter, The International Arbitration Process Public and Private (1979); Sohn, The Function of International Arbitration Today, [1963-1] 108 Recueil des Cours 1 (1964). The earliest examples of international arbitration are found in ancient Greece, but the process fell into disuse in the middle ages, and was finally revived in the nineteenth century by a series of arbitrations between the United States and the United Kingdom. See L. Henkin, supra note 6, at 588. This revival was capped by the Hague Conventions for the Pacific Settlement of Disputes of 1899, 32 Stat. 1779 (1899), and 1907, 36 Stat. 2199 (1907), which represented major efforts to regularize the procedures of international arbitration. The 1899 Convention set up the Permanent Court of Arbitration, which consists of a panel of arbitrators from which parties to a particular arbitration select a tribunal as the need arises. See J. Starke, supra note 6, at 466. The two Conventions also contain a code of arbitral procedure which applies if the parties do not agree on special rules of procedure. See I. Brownlie, supra note 17, at 708. Although the Permanent Court of Arbitration was reasonably active between 1900 and 1932 (it heard twenty cases), it has been almost completely inactive since then. Id.

\(^{130}\) See J. Starke, supra note 6, at 467. Under the auspices of the League of Nations, there were some efforts to make arbitration of disputes compulsory. Although these efforts did produce various regional and bipartite agreements for the peaceful resolution of disputes, no general, binding obligation to submit disputes for arbitration was created. Under the United Nations, the ILC's efforts to gain acceptance of an arbitral convention were resisted, in part, because such a convention might create a form of compulsory jurisdiction. See generally, G. von Glahn, supra note 123, at 467-69.

While arbitration is frequently a useful means of resolving disputes, there are limits to its effectiveness. First, because states are reluctant to consent to arbitration, it is most frequently used to resolve disputes between states otherwise on friendly terms. Second, although states normally comply with arbitration awards as a matter of course, a state dissatisfied with an award may claim that it is invalid on a variety of grounds. Disputes over the validity of an award, then, simply replace the underlying dispute that occasioned resort to arbitration in the first instance, and little can be done to enforce the challenged award.

In contrast to arbitral tribunals, which are normally created by the parties to resolve particular disputes, international judicial tribunals or courts are permanently constituted. The most important inter-

132. See J. Merrills, supra note 123, at 88; see also Bindschedler, To Which Extent and for Which Questions is it Advisable to Provide for the Settlement of International Legal Disputes by Other Organs than Permanent Courts?: Report, in MAX PLANCK INSTITUTE FOR COMPARATIVE PUBLIC LAW AND INTERNATIONAL LAW, INTERNATIONAL SYMPOSIUM ON JUDICIAL SETTLEMENT OF INTERNATIONAL DISPUTES 133, 140 (1974) [hereinafter MAX PLANCK INSTITUTE SYMPOSIUM] (suggesting that arbitral tribunals are more dependent upon the consent of the parties than are courts, and that submission of disputes for arbitration cannot be made compulsory). There are notable exceptions, however, such as the Iran-United States Claims Tribunal, established under the Declaration of Algeria, reprinted in 20 I.L.M. 223 (1981).

A study of the use of arbitration concluded that in the twentieth century relatively few states had participated in arbitration on a relatively limited number of subject matters. See von Mangoldt, Arbitration and Conciliation, in MAX PLANCK INSTITUTE SYMPOSIUM, supra, at 417, 465-71. The same author concluded that use of arbitration has been steadily declining since the First World War. Id. at 471. Nonetheless, arbitration continues to be regarded as an important aspect of international dispute resolution. For example, resort to arbitration as a means of dispute resolution was favored in the United Nations Convention on the Law of the Sea, supra note 39. See L. Henkin, supra note 6, at 589. In particular, use of compulsory arbitration has been proposed as a means of resolving environmental disputes such as the Chernobyl accident. See infra note 187 and accompanying text.


134. See Model Rules on Arbitral Procedure, supra note 131, art. 35; W. Reisman, Nullity and Revision 423-41 (1971).

135. See Discussion of Arbitration and Conciliation, in MAX PLANCK INSTITUTE SYMPOSIUM, supra note 132, at 150 (remarks of Stephen Schwebel). A famous example is the Chamizal Boundary Dispute, in which a boundary dispute between the United States and Mexico was the subject of an arbitral award in 1911. Chamizal Boundary Dispute (U.S. v. Mex.), (1911). The United States challenged the validity of the award (which favored Mexico), see K. Carlston, The Process of International Arbitration 153 (1946), and the dispute was not finally resolved until 1963, when the United States and Mexico negotiated a settlement. See 49 Dep't St. Bull. 199 (1963). Additional examples of awards whose validity remains in doubt are outlined in J. Merrills, supra note 123, at 88-89.

136. See J. Merrills, supra note 123, at 70. For a discussion of the comparative advantages and disadvantages of adjudication and arbitration, see R. Bider, supra note 122, at 82-87.
national judicial body is the ICJ. 137 The court has jurisdiction to decide contentious cases when both states party to a dispute consent. 138 Consent may be expressed in specific agreements or compromissary clauses in conventions, 139 or through declarations accepting the court's jurisdiction as compulsory with respect to other states accepting the same obligation. 140 In addition, the General Assembly or other competent organs of the United Nations may request the court to render a nonbinding advisory opinion on legal matters. 141 Despite high hopes for the court at its inception, 142 there is a widespread perception today that the court has failed. 143 This perception rests upon two basic problems confronting the court.

137. Under article 92 of the U.N. Charter, the ICJ is "the principal judicial organ of the United Nations." U.N. CHARTER art. 92. Articles 92 and 93 of the Charter incorporate the ICJ Statute, supra note 17, which provides for the organization, competence, and procedure before the court. Together with its predecessor, the Permanent Court of International Justice, the ICJ is commonly referred to as the World Court.

138. ICJ Statute, supra note 17, art. 36. Individuals have no standing to bring cases before the court. Id. art. 34, § 1. Thus, they are dependent upon the willingness of their governments to pursue their rights before the court. See Mavromatis Palestine Concessions (Greece v. U.K.), 1924 P.C.I.J. (ser. A) No. 2, at 11-12 (Jurisdiction order of Aug. 30). This restriction may be a significant obstacle for individuals because their state may decline to pursue a case on the international level to maintain friendly relations with the state against which the individuals seek redress.


140. See ICJ Statute, supra note 17, art. 36(2).

141. Id. art. 65.

142. The founders of the United Nations in 1945 stated that "[i]n establishing the International Court of Justice, the United Nations hold[s] before a war-stricken world the beacons of Justice and Law and offer the possibility of substituting orderly judicial processes for the vices of war and the reign of brutal force." U.N. Doc. 913, IV/174(1), U.N.C.I.O. Docs. 393 (June 12, 1945).

First, states have been reluctant to submit disputes to the court.\textsuperscript{144} From 1945 to 1986, seventy-two cases were submitted to the ICJ, which rendered forty-five judgments in contentious cases and issued seventeen advisory opinions.\textsuperscript{145} Few states have declared their acceptance of the compulsory jurisdiction of the court,\textsuperscript{146} and many of these declarations contain substantial limitations or reservations.\textsuperscript{147} Although a large number of international agreements contain compromissary clauses, these clauses are seldom used to invoke the jurisdiction of the court.\textsuperscript{148} In addition, nonparticipation or nonappearance before the court by respondent states that have accepted its compulsory jurisdiction is an increasingly common problem.\textsuperscript{149}

The reluctance of states to rely on the court is attributable to a variety of factors, including the perceived politicization of the court,

generally R. Falk, Reviving the World Court (1986); The Future of the International Court of Justice (L. Gross ed. 1976).

\textsuperscript{144} Of course, lack of utilization of the court is not always a sign of its ineffectiveness. The existence of the court may serve to prevent disputes in the first instance or encourage diplomatic settlement. See, e.g., H. Lauterpacht, The Development of International Law by the International Court 3-4 (1958); Jennings, supra note 143, at 35; see also Mosler, supra note 143, at 553-54 (nonjudicial dispute resolution may be preferable in international system). But cf. R. Bilder, supra note 122, at 51-52 (absence of compulsory jurisdiction in international courts renders them less effective inducement to nonjudicial settlement of disputes than domestic courts).

\textsuperscript{145} L. Henkin, supra note 6, at 601. Other estimates put the number of cases somewhat lower. See J. Merrills, supra note 123, at 80 ("In the 40 years or so in which it has been in existence the International Court has decided an average of about one contentious case a year."); Gross, Underutilization of the International Court of Justice, 27 Harv. Int'l L.J. 571, 576 (1986) (fifty-one cases from 1946-1984).

\textsuperscript{146} There appears to be a trend away from accepting the compulsory jurisdiction of the court. See Gross, supra note 145, at 578. Although 36 states have declared their acceptance of the court's compulsory jurisdiction at one time or another, 11 of these had expired or been terminated by January 2, 1986. L. Henkin, supra note 6, at 605. In addition, President Reagan terminated United States acceptance of the court's jurisdiction on October 7, 1985, effective six months from that date. Id. at 609.

\textsuperscript{147} For a discussion of common reservations to declarations, see id. at 605-06.

\textsuperscript{148} See Mosler, supra note 143, at 553; Sohn, Settlement of Disputes Relating to the Interpretation and Application of Treaties, [1976-II] 150 Recueil des Cours 259, 270 (1977). Nonetheless, compromissary clauses in treaties have been the jurisdictional basis in the majority of contentious cases submitted to the court. See Sohn, The Future of Dispute Settlement, in The Structure and Process of International Law, supra note 125, at 1121, 1127.

\textsuperscript{149} See T. Elias, The International Court of Justice and Some Contemporary Problems 35 (1983) ("In the last two decades or so, there have been far more cases of the nonappearing respondent than there have been in the preceding period of the Court's existence."); Gross, supra note 145, at 578-79 (nonappearance or nonparticipation occurred in all eight of the contentious cases coming before the Court since 1972); Note, supra note 143, at 178 (nonappearance by respondent states in "force" cases is "settled practice"). For further discussion of nonappearance, see generally J. Elkind, Non-Appearance Before the International Court of Justice (1984); H. Thirlway, Non-Appearance Before the International Court of Justice (1985).
the fragmentary nature of international law, the refusal of states to allow third party resolution of disputes involving important national interests, the costly and time consuming nature of litigation, and a general preference for diplomatic or political solutions to problems. 150

In particular, socialist and third world states have been reluctant to accede to the jurisdiction of the court because they consider international law to be slanted in favor of western states. 151

A second major problem confronting the ICJ is the lack of any effective means of enforcing its judgments. A state seeking to enforce a favorable judgment of the ICJ has recourse to the United Nations Security Council, “which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.” 152 However, this provision has not been invoked effectively, 153 and its precise meaning is subject to some uncertainty. 154 Thus, states have ignored unfavorable decisions with impunity. 155 Recent examples include United States Diplomatic and Consular Staff in Tehran (U.S. v. Iran), 156 and Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.). 157

As the foregoing discussion suggests, the resolution of disputes at the international level depends on the willingness of the states involved to agree—either on a compromise solution to their differences or on binding resolution by an arbitral or judicial tribunal. Such agreement may not be possible in the case of the Chernobyl accident. 158 The Soviet Union may resist diplomatic settlement and refuse to sub-

150. See, e.g., R. Bilder, supra note 122, at 66-81; I. Brownlie, supra note 17, at 731; G. von Glahn, supra note 123, at 477-78; L. Henkin, supra note 6, at 601; Gross, supra note 145, at 571-72; Steinberger, supra note 143, at 225-31.


152. U.N. Charter art. 94(2). Under article 10 of the Charter, members can bring cases of noncompliance before the General Assembly. However, the General Assembly has power only to make recommendations.

153. See G. von Glahn, supra note 123, at 480.

154. See id. at 480; J. Sweeney, supra note 133, at 75; Reisman, SANCTIONS AND ENFORCEMENT, REPRINTED IN INTERNATIONAL LAW ESSAYS 381, 414 (M. MacDougall & W. Reisman eds. 1981).


156. 1980 I.C.J. 3 (Judgment of May 24, 1980). Iran ignored the judgment in favor of the United States, and the dispute was ultimately settled through diplomatic means. See supra note 132.

157. 1986 I.C.J. ___ (Judgment of _______).

158. See infra notes 189-217 and accompanying text.
mit to international arbitration or adjudication as long as it is willing to accept the resulting damage to international relations.

b. Use of municipal courts to resolve international disputes

Municipal courts are available in some cases to supplement dispute resolution mechanisms at the international level. Unlike international tribunals, municipal courts are not exclusively dependent on the consent of parties for jurisdiction and are backed by the force of the state in which they sit.\(^{159}\) These advantages may make municipal institutions a more effective means of enforcing international legal obligations in some instances, but various factors may prevent successful recourse to them—particularly against the government of a state. First, jurisdictional doctrines restrict municipal courts’ capacity to decide matters of international concern. Second, international legal obligations are not always enforced by municipal courts. Finally, only limited enforcement mechanisms are available at the municipal level.

The power of municipal courts does not depend on the consent of the parties, but there must be a jurisdictional basis for asserting that power.\(^{160}\) The primary basis of jurisdiction is territorial (\textit{i.e.}, a court has jurisdiction over property, persons, and acts within the

\(^{159}\) Municipal courts frequently resolve disputes of international character between private parties. In such cases, these courts normally apply municipal law according to international conflict of laws principles. International conflict of laws is "private international law," as distinct but not completely separate from "public international law" which governs the relationships between states. See generally A. Lowenfeld, Conflicts of Laws 853-55 (1986) (describing the complex interrelationship between public and private international law). Private international law is of obvious relevance for private disputes respecting transboundary pollution. However, because this article addresses the liability of the Soviet government for harm caused by the Chernobyl accident, its focus is on public international law. Principles of private international law will be considered only where relevant to the adjudication of public law disputes in municipal courts.

\(^{160}\) Under international law, the power of states to exert their authority is commonly divided into jurisdiction to prescribe, adjudicate, and enforce. See Restatement (Revised) of Foreign Relations Law of the United States § 401 (Tent. Draft No. 6, Apr. 12, 1985) [hereinafter Revised Restatement]. The limits of these types of jurisdiction are not always coextensive, but it is frequently stated that jurisdiction to adjudicate depends on the existence of jurisdiction to prescribe. See, \textit{e.g.}, Bowett, Jurisdiction: Changing Patterns of Authority over Activities and Resources, in \textit{The Structure and Process of International Law}, supra note 125, at 555, 556. A municipal court generally determines its jurisdiction according to municipal law. Municipal law may provide some jurisdictional limitations, \textit{e.g.}, amount in controversy, not directly relevant to analysis of resolution of international disputes in municipal courts. Other jurisdictional restrictions may be closely related to those of international law. See Revised Restatement, supra, § 421 reporter’s note 2, at 271-72 (similarity of United States and international law of personal jurisdiction). When municipal courts construe and apply these principles, they normally endeavor to construe municipal law to be consistent with international law, see id. § 401 comment b (United States law normally construed to be consistent with international law).
territory of the state whose judicial authority it exercises). Thus, courts always have jurisdiction under international law to adjudicate claims against the government of the state in which they sit—provided, of course, the state’s municipal law allows it. Nonetheless, for various reasons parties may be reluctant to litigate a claim against a state in that state’s courts.

A party, therefore, may prefer the municipal courts of its own state for litigation of claims against foreign governments, but the territorial jurisdiction of those courts generally will not extend to acts which occur within the territory of another state. This generalization is not absolute, however, and in some cases the territorial jurisdiction of the forum state may extend to cover suits based on acts in another state. Jurisdiction is available under the “effects principle” (or the “principle of objective jurisdiction”), if acts in another state have effects within the forum state. Under the rationale of this principle, the effects in the forum provide the territorial basis for the exercise of jurisdiction.

Even if a basis exists for the exercise of jurisdiction over the acts of a foreign government, the government may claim sovereign immunity. Under international law, the sovereignty of states implies that the courts of one state will not subject other states to their jurisdic-

161. See, e.g., J. Starke, supra note 6, at 193. Courts may also assert jurisdiction over individuals on the basis of their nationality, and, in some instances, on the basis of certain universal interests or to protect important national interests. See id. at 224-27. These bases of jurisdiction are not relevant for the purposes of this article. For a general discussion of the bases of jurisdiction under international law, see Revised Restatement, supra note 160, at 179-316.

162. See supra note 160. Moreover, the state may decline to open its courts to foreign litigants, or certain classes of foreign litigants. For example, under United States law, unrecognized foreign governments lack the capacity to sue. See Guaranty Trust Co. v. United States, 304 U.S. 126 (1938). Other countries’ municipal courts also deny access to unrecognized governments. See L. Henkin, supra note 6, at 262-63.

163. For example, the party may doubt the neutrality of a foreign state’s courts, may be unfamiliar with its law and procedure, or simply wish to avoid the expense of litigating abroad.

164. However, jurisdiction is available on the basis of acts of agents of a foreign government which occur within a state’s territory. See, e.g., Revised Restatement, supra note 160, § 402(1). These agents are often entitled to diplomatic immunity, however. See Vienna Convention on Diplomatic Relations, done on Apr. 18, 1961, 23 U.S.T. 3227, T.I.A.S. No. 7502, 500 U.N.T.S. 95 (entered into force on Apr. 24, 1964).

Jurisdiction might also be asserted if the acts injure nationals of the state asserting jurisdiction (even though the victims were not located within that state at the time). However, this basis of jurisdiction has not been clearly established under international law. See Revised Restatement, supra note 160, § 402 comment g.

165. See, e.g., S.S. “Lotus” (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 9 (Sept. 7); Revised Restatement, supra note 160, § 402(1)a. Assertion of jurisdiction based on acts committed abroad which have economic effects in the state asserting jurisdiction have been particularly controversial in recent years. See, e.g., id. § 402 reporter’s note 2.
tion. Although the doctrine of sovereign immunity under international law was originally absolute (i.e., subject to no exceptions), the expansion of international commercial activity by governments in the twentieth century has led to the erosion of the doctrine of absolute sovereign immunity. Most western states now apply a doctrine of limited sovereign immunity in which only acts of a truly governmental character are granted immunity. Thus, governments are denied immunity in matters such as commercial activities, ownership and possession of real property, interests in property acquired by succession, and injury from tortious acts or omissions of the foreign state. The Soviet Union and other socialist countries have rejected restrictive sovereign immunity, and insist absolute immunity is still the rule under international law. Despite this insistence, the Soviet Union has waived immunity in a variety of agreements.

Even if a jurisdictional basis exists and sovereign immunity does not bar suit, domestic courts may, for various reasons, decline to apply international legal rules to judge the legality of acts of a foreign state. First, while many states incorporate international law into their

166. The classic statement of this principle under United States law was made by Chief Justice Marshall in The Schooner Exchange v. M'Faddon, 11 U.S. (7 Cranch) 116 (1812):

One sovereign being in no respect amenable to another, and being bound by obligations of the highest character not to degrade the dignity of his nation, by placing himself or its sovereign rights within the jurisdiction of another, can be supposed to enter a foreign territory only under an express license, or in the confidence that the immunities belonging to his independent sovereign station, though not expressly stipulated, are reserved by implication, and will be extended to him. Id. at 137-38; see generally Dickinson, The Equality of States in International Law, in 3 Harvard Studies in Jurisprudence (1920).


168. Riesenfeld, supra note 167, at 15.

169. See L. Henkin, supra note 6, at 898-901; see generally Boguslavsky, Foreign State Immunity: Soviet Doctrine and Practice, 10 Neth. Y.B. Int'l L. 167 (1979); Osakwe, A Soviet Perspective on Sovereign Immunity: Law and Practice, 23 Va. J. Int'l L. 13 (1982). This view is consistent with the socialist conception of the role of the state, which engages in many activities that would be considered "private" in the United States. Id. at 21-22. For a discussion of the application of absolute sovereign immunity principles to Soviet state trading practices, see K. Graybowski, Soviet Private International Law, in 10 Law in Eastern Europe 159-63 (1965).

170. L. Henkin, supra note 6, at 900; Osakwe, supra note 169, at 34-39. Soviet legal scholars argue that such waivers do not alter the basic legal rule entitling a state to claim absolute immunity. See L. Henkin, supra note 6, at 900; Osakwe, supra note 169, at 34.
municipal law, others require specific legislative adoption of legal rules before they are incorporated.\footnote{171} Second, municipal courts may give force to municipal law over contrary international law.\footnote{172} Finally, even if a state's municipal courts normally apply international law, under the "act of state doctrine" they may refuse to apply international law to hold invalid the acts of a foreign state within its own territory.\footnote{173} The doctrine may also be applied to preclude holding

\footnote{171 In Europe, many states automatically incorporate international law into their municipal law. See J. Starke, \textit{supra} note 6, at 83; Sasse, \textit{The Common Market: Between International Law and Municipal Law}, 75 Yale L.J. 695, 712-13 (1966). However, such incorporation is not universal. For example, in the United Kingdom, a legislative enactment is necessary for incorporation of treaty provisions into municipal law. See J. Starke, \textit{supra} note 6, at 78-80. However, customary international law is applied by British courts as part of the common law. See \textit{id.} at 74-78. Soviet law requires legislative adoption of international rules, whether custom or treaty law, before these rules can be invoked by municipal courts. See \textit{Encyclopedia of Soviet Law}, in \textit{28 Law in Eastern Europe} 389-90 (F. Feldbrugge, G. van den Berg & W. Simons eds. 2d ed. 1985).

If a state's municipal courts do not apply international legal rules, they must determine which state's municipal law applies. See \textit{supra} note 159. Normally, the law of the state in which the conduct took place or where the injury occurred would apply. See E. Scobie & P. Hay, \textit{Conflict of Laws} 552 n.3, 553 n.6 (1982 & Supp. 1986) (describing rules in France, West Germany, Switzerland, and England). A state's municipal law may or may not allow recovery against it or foreign states.

\footnote{172 See, e.g., \textit{Revised Restatement}, \textit{supra} note 160, § 135 (United States).

\footnote{173 The act of state doctrine is similar to, but distinct from sovereign immunity. Sovereign immunity deprives a court of jurisdiction over a state, while the act of state doctrine operates in situations where a court has jurisdiction, but provides a kind of "immunity" to the actions of a foreign government. The court will decide the dispute in question, but will conclusively presume the acts of the foreign government to be valid. The act of state doctrine has been particularly significant in United States foreign relations law. See, e.g., Alfred Dunhill of London, Inc. v. Republic of Cuba, 425 U.S. 682 (1976); First Nat'l City Bank v. Banco Nacional de Cuba, 406 U.S. 795 (1972); Banco Nacional de Cuba v. Sabbatino, 376 U.S. 398 (1964). Although the doctrine initially was considered to be a requirement of the sovereignty of states, see, e.g., Underhill v. Hernandez, 168 U.S. 250, 252 (1897), in \textit{Sabbatino} the Supreme Court articulated a separation of powers rationale for the doctrine. See 376 U.S. at 432. Indeed, the Court expressly repudiated any basis of the doctrine in international law, stating "[w]e do not believe that this doctrine is compelled either by the inherent nature of sovereign authority . . . or by some principle of international law." \textit{Id.} at 421. The Court cited 1 \textit{Oppenheim's International Law} § 115aa (H. Lauterpacht 8th ed. 1955) for the proposition that international law does not prescribe recognition of sovereign acts of foreign governments. \textit{Id.} at 422. The extensive use of the act of state doctrine in the United States to refuse inquiry into the validity of acts of foreign states has been heavily criticized. See Bazyler, \textit{Abolishing the Act of State Doctrine}, 134 U. Pa. L. Rev. 325 (1986); Halberstam, \textit{Sabbatino Resurrected: The Act of State Doctrine in the Revised Restatement of U.S. Foreign Relations Law}, 79 Am. J. Int'l L. 68 (1985). \textit{But see} Henkin & Lowenfeld, \textit{Act of State and the Restatement}, 79 Am. J. Int'l L. 717 (1985) (reply to Halberstam).

Although perhaps not as rigidly applied as in the United States, the act of state doctrine or a similar principle of restraint exists in many European countries. See \textit{Revised Restatement}, \textit{supra} note 160, § 469 reporter's note 12; Reeves, \textit{The Sabbatino Case: A Rebuttal and Memorandum of Law}, 33 Fordham L. Rev. 599, 621-69 (1965) (surveying cases applying the
governments liable under international law for injuries caused by their actions. 174

Assuming that municipal courts exercise jurisdiction and a favorable judgment is obtained, as a practical matter the judgment may be unenforceable. A judgment may be enforced either by the rendering state or by other states which recognize and execute judgments of the rendering state. Enforcement is not generally difficult if the defendant has assets located within the jurisdiction of the judgment-rendering state, and these assets may be attached to satisfy the judgment. However, the doctrine of sovereign immunity applies to attachment of governmental assets as well as immunity from suit, and is generally given a broader scope in the attachment context. 175 Thus, even where the restrictive theory of sovereign immunity allows suit against a state, attachment of assets may not be available to enforce a judgment.

If sovereign immunity prevents attachment or if no assets are available within the jurisdiction of the state rendering the judgment (as is commonly the case when jurisdiction is asserted on the basis of extraterritorial acts with effects within a jurisdiction), a plaintiff must rely upon the willingness of other states' courts to enforce the judgment. While states often will enforce foreign country judgments

---

doctrine in Austria, Belgium, France, Germany, Great Britain, Greece, Italy, Japan, and the Netherlands); see also II D. O'Connell, INTERNATIONAL LAW 798-809 (2d ed. 1970) (United States, United Kingdom, and Civil Law relating to expropriations by foreign states). For extensive analysis of the British practice, see Singer, The Act of State Doctrine of the United Kingdom: An Analysis with Comparison to United States Practice, 75 Am. J. Int'l L. 283 (1981). Thus, while states may have no obligation under international law to apply the act of state doctrine, see, e.g., 1 Oppenheim's INTERNATIONAL LAW, supra, § 115ab; Zander, The Act of State Doctrine, 53 Am. J. Int'l L. 826, 839-44 (1959), they may nonetheless choose to do so.

174. E.g., Underhill v. Hernandez, 168 U.S. 250 (1897). The primary application of the act of state doctrine is in cases where a private party defendant acquired its rights from a state, and the plaintiff alleges the initial acquisition of these rights to be a violation of international law. If the foreign government itself is the defendant, the act of state doctrine will not generally be applied if sovereign immunity has been denied. See, e.g., Singer, supra note 173, at 320. But see McCormick, The Commercial Activity Exception to Foreign Sovereign Immunity and the Act of State Doctrine, 16 L. & Pol'y Int'l Bus. 477, 519-21 (1984) (advocating rejection of commercial activities exception to act of state doctrine). If the foreign government is given immunity, then the act of state doctrine need not be invoked.

Of course, even if the doctrine is applied, the question remains whether particular acts may be attributed to a foreign state. In Alfred Dunhill of London, for example, the Supreme Court concluded that the repudiation of commercial obligations was a "public act of those with authority to exercise sovereign powers." 425 U.S. at 694.

as a matter of comity, one may suspect that courts would be reluctant to recognize foreign judgments against their own governments. Even when recognition is required by treaty, a judgment may be challenged on the basis that the rendering court lacked jurisdiction. Thus, where the exercise of jurisdiction over a state is questionable, either because the effects principle has been applied broadly or because a state has been denied sovereign immunity, the courts of that state (or other states in which assets are located) may decline to enforce the judgment.

2. Resolution of Liability Disputes Arising from the Chernobyl Accident

As the foregoing discussion suggests, even if international law requires compensation for transboundary environmental harm, it is unlikely that such a rule can be enforced against the Soviet Union. Neither international dispute resolution mechanisms nor municipal courts can ensure full compensation for injuries caused by the Chernobyl accident. At the international level, diplomatic efforts might produce a settlement, but a settlement would probably fall far short

176. See, e.g., Hilton v. Guyot, 159 U.S. 113 (1895); see generally R. Casad, CIVIL JUDGMENT RECOGNITION AND THE INTEGRATION OF MULTIPLE-STATE ASSOCIATIONS (1981). For a survey of the municipal laws of and applicable treaties in Western Europe, see COUNCIL OF EUROPE, THE PRACTICAL GUIDE TO RECOGNITION AND ENFORCEMENT OF FOREIGN JUDICIAL DECISIONS IN CIVIL & COMMERCIAL LAW (1975). For municipal law in North and South America, see INTERNATIONAL COOPERATION IN CIVIL AND COMMERCIAL PROCEDURE (L. Kos-Rabczewska-Zubkowski ed. 1975). In the Soviet Union, a treaty provision is generally required before courts will enforce foreign country judgments. See infra note 215 and accompanying text.

177. See, e.g., COUNCIL OF EUROPE, supra note 176, at 4 (most states require that the foreign court be "internationally competent"); E. Scoles & P. Hay, supra note 171, at 975-77 (United States Law); H. Steiner & D. Vagts, supra note 24, at 52-60, 72-73, 75. This principle has been altered somewhat in Europe by the Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, entered into force Feb. 1, 1973, reprinted as amended in 18 I.L.M. 21 (1979). The Convention sets forth principles governing jurisdiction of courts, requires the judgment rendering state to consider jurisdiction objections, and requires the court in which enforcement of the judgment is sought to respect the resolution of jurisdictional issues by the rendering court. See R. Casad, supra note 176, at 40. For analysis of various issues which have arisen under the Convention’s jurisdictional provisions, see Kohler, Practical Experience of the Brussels Jurisdiction and Judgments Convention in the Six Original Contracting States, 34 INT’L & COMP. L.Q. 563, 569-74, 578-81 (1985). Kohler acknowledges that the Convention has not been entirely successful in foreclosing consideration of the rendering court’s jurisdiction by the requested court. Id. at 578.

178. Of course, full compensation for injuries from a nuclear accident would not necessarily be available within a municipal legal system. There are a variety of problems, such as proving causation for some types of injuries, which would make recovery difficult under any system. See A. Levin, PROTECTING THE HUMAN ENVIRONMENT 43-45 (1977). The discussion in this article, however, is limited to problems uniquely presented by the international character of the Chernobyl accident.
of full compensation. In the absence of a diplomatic solution, it is
doubtful that the Soviet Union would consent to arbitrate or adjudicate
claims at the international level. At the municipal level, a favorable
judgment is unlikely in Soviet courts; and while a judgment might
be obtained in the courts of affected states, execution of any judg-
ment would be very difficult.

a. International resolution

Of the various approaches to international dispute resolution describ-
ed above, diplomatic efforts seem most likely to bring about a
settlement of disputes regarding compensation for injuries caused by
the accident. The Soviet Union has an interest in maintaining the
international system, and in maintaining favorable relations with other
nations.179 The settlement of the Cosmos 954 incident demonstrates
that this interest may be sufficient to cause the Soviet Union to com-
penstate for injuries it causes in some cases.180 In the Cosmos inci-
dent, the Soviet Union had clearly obligated itself by becoming a
party to an agreement which created liability.181 In the case of the
Chernobyl accident, liability is less clear, and a Soviet refusal to com-
penstate is less plainly a breach of international law. Such a refusal,
therefore, would be less damaging to Soviet international relations.
Moreover, any diplomatic settlement is likely to be far less than the
full amount of damage caused by the accident. The amount of the
Cosmos 954 settlement was only a fraction of the damages incur-
red.182 If full compensation was not available in the Cosmos inci-
dent, it cannot be expected in the Chernobyl accident, because by
comparison the damages arising from the Chernobyl accident are enor-
mos.183

If the Soviet interest in international relations does not bring about
a diplomatic settlement of claims arising from the Chernobyl acci-
dent, resolution of these claims through international adjudication

179. See W. Zimmerman, Soviet Perspectives on International Relations 1956-1967,
180. See supra notes 87-88 and accompanying text.
181. See supra note 110.
182. Total costs incurred by Canada in the incident were approximately $14 million, the
government claim against the Soviet Union was approximately $6 million, and the amount
of the final settlement was $3 million. See Note, supra note 87, at 273, 279.
183. For a description of the damage caused by the accident, see Asselstine, supra note 1,
at 242-44. One estimate places the costs for Western Europe of the Chernobyl accident
27, 1986, at A20, col. 2. The Soviet Union has estimated the costs of the accident within the
Soviet Union at $3 billion, but western analysts believe the costs will be double that figure. Id.
or arbitration cannot be expected.\textsuperscript{184} Soviet refusal to consent to the jurisdiction of the ICJ is "notorious,"\textsuperscript{185} and has been evident in the particular context of nuclear health and safety.\textsuperscript{186} While the Soviet Union has exhibited less hostility to international arbitration than to adjudication,\textsuperscript{187} Soviet agreement to arbitrate claims arising from the accident is unlikely. The same factors which militate against diplomatic resolution would inhibit Soviet agreement to arbitrate disputes arising from the Chernobyl accident. In fact, diplomatic resolution appears more likely, because the Soviet Union would be certain of the amount of compensation, while the amount of any arbitral award would be unpredictable. Moreover, while arbitration might result in a third party determination of Soviet responsibility under international law, compensation through diplomatic channels would not involve any acknowledgement of liability.\textsuperscript{188}

\textsuperscript{184} Of course, arbitration may be included as part of a diplomatic settlement of claims resulting from the Chernobyl accident. See A. Levin, supra note 178, at 14-21.

\textsuperscript{185} Bocek, The Soviet Union and the Antarctic Regime, 78 Am. J. Int'l L. 834, 856 (1984). The Soviet Union has not accepted the compulsory jurisdiction of the court, and has consistently made reservations to clauses in multilateral conventions which would grant the court jurisdiction to adjudicate claims arising out of the convention. See, e.g., Reservation by the Union of Soviet Socialist Republics to the Convention on Privileges and Immunities of the United Nations, 173 U.N.T.S. 369 (deposited Sept. 22, 1953). In the entire history of the ICJ, the Soviet Union has never been a party to a dispute brought before the court. See J. Sweeney, supra note 133, at 67 n.4 (listing cases through 1979). Although in several of these cases the United States attempted to bring an incident involving the Soviet Union before the court, they were removed from the list of cases by the court at its own initiative. Id.

\textsuperscript{186} In the negotiations regarding the drafting of the Statute of the International Atomic Energy Agency, a preliminary draft provided that states party to the Statute "accept the jurisdiction of the International Court of Justice with respect to any dispute concerning the interpretation or application of the Statute. Any such dispute may be referred by any Party concerned to the International Court of Justice for decision unless the Parties concerned agree on some other mode of settlement." P. Szasz, supra note 81, at 927. The Soviet Union proposed a requirement of "mutual consent" for reference of a dispute to the ICJ to clarify that the provision does not provide for compulsory jurisdiction of the ICJ. Id. at 928. As finally adopted, the Statute provides that disputes not settled by negotiation "shall be referred to the International Court of Justice in conformity with the Statute of the Court." Id. This phrasing, while somewhat ambiguous, is susceptible of interpretation in accordance with the Soviet view. See Dolleman, The International Atomic Energy Agency and the Compulsory Jurisdiction of the International Court of Justice, [1958] SYMBOLAE VERZUL 124. But see P. Szasz, supra note 81, at 930 (provision provides for compulsory jurisdiction absent express reservation upon ratification). In any event, the Convention has not been used to invoke the jurisdiction of the ICJ. Id. The Soviet resistance to international adjudication also surfaced in the conference at which the Vienna Convention on Civil Liability, supra note 80, was adopted. See Int'l. ATOM. ENERGY AGENCY LEGAL SERIES No. 2, supra note 81, at 150-51.

\textsuperscript{187} See Osakwe, supra note 169, at 40-49. For this reason, proposals for compulsory arbitration of transnational radiation pollution claims may someday be successful. See Billingsley, supra note 79, at 354-58 (proposing compulsory arbitration through the IAEA).

\textsuperscript{188} See supra note 88 and accompanying text.
Resolution through municipal courts

The international community has increasingly come to view municipal courts as a means to resolve transboundary environmental disputes.189 For example, the Vienna Convention on Civil Liability provides for adjudication of liability for injuries caused by nuclear accidents "only with the courts of the Contracting Party within whose territory the nuclear incident occurred."190 Various provisions of the Convention facilitate the use of municipal courts, including a provision for recognition judgments rendered in such cases,191 a provision requiring nondiscrimination in applying the convention or municipal law,192 and a waiver of jurisdictional immunities.193 While the Soviet Union is not a party to the Vienna Convention,194 Soviet law opens

189. See Mccaffrey, Private Remedies for Transfrontier Pollution Injures, in ENVIRONMENTAL LAW: INTERNATIONAL AND COMPARATIVE ASPECTS 12, 12-13 (J. Nowak ed. 1976); see also Billingsley, supra note 79, at 345 (regime of equal access to and nondiscrimination in municipal courts in place in North America and Europe); Handl, supra note 95, at 233 (describing "evolution towards a customary international right of equal access—for the purposes of compensation—to the polluting state’s administrative and judicial system’’). Particularly when efforts by states at the international level fail to bring about compensation, an injured party may seek recourse through municipal courts. Moreover, unlike international dispute resolution mechanisms, in which an individual must rely on his or her state to bring claims in his or her behalf, see supra note 138, the individual is free to pursue claims on his or her own behalf before municipal courts. This freedom is significant because a state may be reluctant to press an individual’s claim at the international level because of diplomatic considerations. See, e.g., Billingsley, supra note 79, at 346 n.31.

190. Vienna Convention on Civil Liability, supra note 80, art. XI; accord Paris Convention, supra note 81, art. 13; see also Nordic Environmental Protection Convention, supra note 79. The restriction of jurisdiction in cases of transboundary harm to courts of the state in which pollution causing activity occurs limits the possible recourse of injured parties, who otherwise might also be able to obtain jurisdiction in the courts of the state in which injury occurs. See supra note 165; infra notes 202-06 and accompanying text. Another provision of the Vienna Convention on Civil Liability allows states to limit liability to $5 million (in 1963 U.S. Dollars). Vienna Convention on Civil Liability, supra note 80, art. V; accord Paris Convention, supra note 81, art. 7(b) (setting maximum liability of 15 million European Monetary Agreement units of account, but allowing states to reduce the maximum to 5 million units). These restrictions on the rights of injured parties may be seen as quid pro quo for provisions which facilitate use of the courts of the state in which the incident occurred. See infra notes 191-93 and accompanying text. Nonetheless, the amount of the damage limitation has been criticized as plainly inadequate to compensate for injuries arising from an accident like the Chernobyl accident. See A. SPRINGER, supra note 116, at 139.

191. Vienna Convention on Civil Liability, supra note 80, art. XII; accord Paris Convention, supra note 81, art. 13(e).

192. Vienna Convention on Civil Liability, supra note 80, art. XIII; accord Paris Convention, supra note 81, art. 14. This nondiscrimination provision would require, for example, that any damage limitation would apply to citizens of the state in which an incident occurs as well as to aliens.

193. Vienna Convention on Civil Liability, supra note 80, art. XIV; accord Paris Convention, supra note 81, art. 13(f).

194. See supra note 81.
courts to suits by aliens and gives aliens equal capacity.195 Despite these provisions, however, parties might doubt the objectivity of Soviet courts.196

Moreover, Soviet adherence to the absolute doctrine of sovereign immunity197 might preclude suits by aliens in Soviet courts against the government or its installations. The theory has been incorporated in Soviet municipal law with respect to foreign sovereigns, who are given absolute immunity.198 However, Soviet municipal law waives immunity of governmental institutions by imposing responsibility on them for injury to "citizens" resulting from negligent or illegal acts by government officials.199 Whether the use of the term "citizens" operates to preclude responsibility for injury to aliens is unclear.200 If an action against governmental institutions is unavailable, injured parties might bring an action against the individuals responsible for the accident.201 Such a suit, however, offers little hope of substantial compensation.

195. See Principles of Civil Procedure of the Soviet Union and the Union Republics, § 59, reprinted in 7 LAW IN EASTERN EUROPE 299, 316 (1963) (equal access to courts); Principles of Civil Legislation of the Soviet Union and Union Republics, § 122, reprinted in 7 LAW IN EASTERN EUROPE 263, 297 (1963) (equal capacity under law); see generally K. Grzybowski, supra note 169, at 111-19.

196. See Billingsley, supra note 79, at 344. Even if there were no problem of bias, parties may be reluctant to absorb the costs of litigating abroad. See id. at 345.

197. See supra note 169. Because the Soviet Union is not a party to the Vienna Convention on Civil Liability, the Convention's provision waiving sovereign immunity, see supra note 192 and accompanying text, does not apply to the Soviet Union. Even had the Soviet Union ratified the Vienna Convention on Civil Liability, most probably it would not have accepted the waiver of sovereign immunity contained in the Convention. During negotiations for the Convention, the Soviet Union proposed deletion of the waiver of jurisdictional immunities. See Int'l ATOM. ENERGY AGENCY LEGAL SERIES No. 2, supra note 81, at 55. The Convention's restrictions on the rights of victims likewise do not apply. Thus, injured parties are not required to litigate claims in Soviet courts.

198. See Principles of Civil Procedure of the Soviet Union and the Union Republics, supra note 195, § 61. Immunity is granted provided that no governmental directive to the contrary has been issued as a result of the failure by a particular foreign state to accord the Soviet Union immunity. Id.


200. Such a construction might be foreclosed by the principle of equal capacity under law for aliens. See supra note 195 and accompanying text. However, the principle of equal capacity is subject to statutory exceptions, See Principles of Civil Legislation of the Soviet Union and Union Republics, supra note 195, § 122, and, therefore, would be susceptible to restriction by other provisions of the Principles of Civil Legislation. Thus, the issue would probably turn on whether the use of the term "citizens" was intended to restrict the scope of responsibility of governmental institutions. Given the strong Soviet emphasis on absolute sovereign immunity under international law, this intent might be inferred.

201. The fact that responsible individuals were prosecuted under Soviet law suggests that Soviet Courts might be receptive to suits against the individuals involved. See N.Y. Times, July 30, 1987, at 5, col. 1; Wash. Post, July 30, 1987 at A1.
Thus, litigants would probably prefer to press their claims against the Soviet government in the courts of their own state. Territorial jurisdiction to adjudicate these claims would probably be available pursuant to the effects principle of jurisdiction. For example, in *Bier v. Mines de Potasse d'Alsace S.A.*, the European Court of Justice upheld the assertion of jurisdiction by Dutch courts to adjudicate claims for damages arising in the Netherlands from a chemical spill on the Rhine which occurred in France. This conclusion was based upon applicable provisions of the Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, to which the Soviet Union is not a party. However, the court's ruling was consistent with the generally recognized principles of jurisdiction which would apply in the absence of a treaty, and illustrates that municipal courts may be willing to assert jurisdiction on the basis of environmental damage within the forum state from acts occurring outside that state's territory. Moreover, the Dutch court ultimately concluded on the merits that the environmental damage violated customary international law, further suggesting that European courts would be willing to impose liability under international law for environmental harm.

However, unlike the *Bier* case, in which the defendant was a private party, the Chernobyl accident involves acts attributable to the Soviet government. Thus, the question of sovereign immunity would arise. While European courts would probably reject any Soviet claim to absolute immunity, immunity might nonetheless be available under the restrictive theory. The restrictive theory preserves immunity for acts of a governmental character, but not those of a commercial or private nature. Operation of a power plant has been described as

---

202. *See supra* note 165 and accompanying text.


204. *Id.*


207. *See McCaffrey, supra* note 189, at 14. Because radiation injury is caused by direct physical effects, assertion of jurisdiction would be less controversial than assertion of jurisdiction based on economic effects. *See supra* note 165.

208. *See A. Lowenfeld, supra* note 159, at 624 n.2.

209. Whether activity by private individuals is attributable to the state for purposes of assessing liability may be a complex question in the context of environmental disputes. *See A. Springer, supra* note 116, at 128-29. Because the Soviet government itself was "engage[d] in the polluting activity," the activity is probably attributable to the state. *Id.* at 128. For purposes of this article, attribution to the Soviet Union is assumed.

210. *See supra* notes 166-69 and accompanying text. If immunity is denied, it is unlikely that the act of state doctrine would be applied. *See supra* note 174 and accompanying text.
"clearly of a 'private' nature," but can be characterized as the provision of an essential governmental service—at least under the Soviet system. In addition, the denial of immunity in personal injury actions under the restrictive theory is generally limited to cases in which the acts causing injury occurred in the territory of the forum state.

Assuming that a European court accepted jurisdiction, denied the sovereign immunity defense, and applied international law to hold the Soviet Union liable for damages arising from the accident, a litigant would still face the problem of executing the judgment. While the Soviet Union might voluntarily satisfy the judgment, voluntary compliance is unlikely if the Soviet Union has rejected responsibility at the international level. One means of executing the judgment would be to attach assets of the Soviet Union located within the state rendering the judgment. Many of these assets, however, would be immune from attachment. Under the restrictive theory of immunity as generally practiced in Europe, only property related to the activity which forms the basis for suit is subject to attachment. Since the Soviet Union probably has few assets related to nuclear power production located in Western Europe, a judgment could not be satisfied through this means.

Resort to Soviet courts for execution of the judgment is not likely to be effective. Soviet law limits recognition of foreign judgments to situations where there is an agreement between the rendering state and the Soviet Union, and the Soviet Union is not party to any applicable agreement. More importantly, even if an applicable agreement existed, enforcement of the judgment could be refused on the grounds that the courts of the rendering state lacked jurisdiction to adjudicate under the doctrine of sovereign immunity. Thus, while

211. A. Springer, supra note 116, at 166.
212. See supra note 174. Moreover, the Chernobyl reactor was a graphite reactor that could be used for production of plutonium for use in nuclear weapons. Considering the military applications of the Chernobyl plant, its operation might be characterized as governmental activity even under western concepts of the appropriate role of government.
213. See Riesenfeld, supra note 167, at 15.
214. See supra note 175.
217. See supra text following note 177. In addition, recognition of a judgment against the Soviet government might be denied under the "public order" exception to recognition. See generally K. Grzybowski, supra note 169, at 153-59. The Principles of Civil Legislation of the Soviet Union and the Union Republics, supra note 195, § 128, provides that "[n]o
II. INTERNATIONAL ENVIRONMENTAL LAW AFTER CHERNOBYL

The foregoing analysis of Soviet liability for injuries resulting from the Chernobyl accident illustrates the substantial limitations inherent in the decentralized nature of the international legal system. The nature of the legal rules, if any, governing liability remains unclear, and the prospect of Soviet compensation for injuries in other states is remote. In short, the international legal system as it presently stands is ill-equipped to resolve liability issues arising from events such as the Chernobyl accident. The system's limitations may suggest to some that it cannot make a meaningful contribution to environmental protection. Indeed, the limitations may lead to the conclusion that international law as a whole is unnecessary or irrelevant.

However, such a conclusion would be wrong. The limitations of the international system should not obscure the very real contributions that system can and must make to the protection of the environment, as well as other areas in which international cooperation is necessary to address problems of worldwide dimension. The wide array of international agreements concerning the environment indicates that states have recognized the need for cooperation with respect to environmental matters, and similar cooperation occurs in other areas. Nonetheless, in implementing that cooperative role, it is important to recognize the limitations of the international system. Efforts to expand the role of international law beyond its realistic capacity to affect the behavior of states are at best futile, and potentially counterproductive. Such efforts divert time and energy from the attainment of more modest objectives that can be implemented effectively. Moreover, by insisting upon rules that states are unwilling to accept, proponents of international law may prevent agreement on any rules. Finally, even if states do agree to some rules,

---

foreign law may be applied if such application would be repugnant to the fundamentals of the Soviet system.” This provision probably applies in the context of recognition of judgments pursuant to treaties. See K. Grzybowski, supra note 169, at 156-57. Denial of sovereign immunity might be considered repugnant to the fundamentals of the Soviet system. For example, analogous provisions of the law of the German Democratic Republic (a socialist state whose approach to international law often parallels that of the Soviet Union) explicitly deny enforcement when a judgment would damage the state’s sovereignty. See Bajons, Recent Developments in International Civil Procedure in Central-Eastern Europe, in Current Trends of Conflicts of Laws in Central-Eastern Europe 149, 155 n.32 (1984).

218. See supra notes 77-79 and accompanying text.

219. See generally L. Henkin, supra note 6, at 1387-1412.
if these rules often conflict with their vital interests, lack of compliance may not only undermine the particular rules in question, but contribute more generally to a lack of respect for international law.

The importance of recognizing the limits of international law is illustrated in the context of cooperative efforts for the protection of the environment. In particular, I propose to consider the work of the International Law Commission toward the development of the international law of transboundary harm, and the operation of the International Atomic Energy Agency. Both of these areas suggest that more modest efforts to protect the environment at the international level may be effective where ambitious efforts to regulate the international environment have failed.

A. Developing the Law of Transboundary Harm

Part I of this article discusses the uncertain state of the international legal rules governing transboundary pollution. This uncertainty is a result of the necessarily slow development of law in a decentralized system. Nonetheless, efforts to systematize and clarify the law persist, and will be given added impetus by events such as the Chernobyl accident which underscore states’ common interest in developing clear international standards to govern transboundary environmental harm. Among the most significant of these efforts is the work of the ILC. The ILC has engaged in the codification and progressive development of the law of transboundary harm for a number of years.220 Recently, these efforts appear to be culminating in a comprehensive regime of state responsibility for transboundary harm,221 and although “fundamental questions remain” regarding the ILC’s efforts,222 its progress is promising.

The ILC’s approach reflects a recognition of the limitations of the international system. Under the ILC regime, states would have the obligation to prevent transboundary harm, to inform other states of accidents which might cause transboundary harm, to negotiate respecting a conventional regime to deal with a transboundary pollution problem, and potentially to make reparations for harm.223 Thus, the ILC


221. See Magraw, supra note 220, at 308.

222. Id. at 330.

223. Id. at 311-13. Specifically, the obligation to make reparations is an obligation to negotiate in good faith with respect to reparations, which depends upon a state’s compliance with the first three obligations. Id. at 313. The ILC drafts provide further that “reparations shall be
deemphasizes the question of liability, and emphasizes prevention and cooperation to minimize harm. Liability arises only after a state has failed to fulfill its obligations to prevent, inform, and negotiate. Moreover, once the obligation to make reparations arises, liability is based upon a balancing of the interests of the states involved rather than strict or absolute liability. Because the ILC’s work reflects a recognition of the limitations of the international system, it can improve the international law of environmental protection in two ways.

First, the ILC has worked to achieve a compromise acceptable to all states, and its conclusions are likely to be adopted by consensus. Thus, the principles of responsibility for transboundary harm it establishes will be highly influential, and could lead to the adoption of a multilateral agreement. Events such as the Chernobyl accident may provide the necessary impetus for the widespread adoption of such a convention. Widespread acceptance of rules respecting the environment cannot completely alleviate problems of enforcement, but can improve the prospects of compensation for transboundary environmental injury because noncompliance with these rules is more costly for states in terms of damage to their international standing. In addition, greater specificity regarding liability makes it more difficult for states to contend that they have not violated international standards. Nonetheless, problems of enforcement will remain.

Thus, the second way in which the ILC approach can have substantial impact is through its emphasis on cooperation in dealing with the consequences of transboundary harm. Given the international system’s inherent limitations, “there is clearly a need to complement liability rules regarding transboundary environmental problems with . . . a system of procedural, dispute avoidance mechanisms that factor

made unless ‘it is established’ that making reparation does not accord with [the relevant states’] ‘shared expectations.’” Id. (quoting Third Report on International Liability for Injurious Consequences Arising Out of Acts Not Prohibited by International Law, U.N. Doc. A/CN.4/360 (1982)).

224. See Magraw, supra note 220, at 313.

225. See id. This aspect of the ILC’s current approach to transboundary harm has been criticized by proponents of strict liability. See Handl, International Liability of States for Marine Pollution, 21 CAN. Y.B. INT’L L. 85 (1983).

226. See supra note 75 and accompanying text. This consensus would be particularly significant in the context of liability for transboundary harm, because developing nations have often insisted that they be held to lesser standards of responsibility to facilitate their economic development. See supra note 117 and accompanying text. Without a broad consensus, which includes developing countries, international efforts to deal with environmental problems cannot succeed.

227. The analysis of international dispute resolution mechanisms in Part I demonstrates that establishing a regime of liability will not necessarily lead to compensation. Nor does the existence of liability necessarily prevent environmental harm. See Teclaff & Teclaff, Transboundary Toxic Pollution and the Drainage Basin Concept, 25 NAT. RESOURCES J. 589, 637 (1985).
in the needs and values of all concerned parties." 228 Such a regime replaces the adversarial issue of who bears the costs of environmental harm with the cooperative issue of how best to deal with a shared environmental problem. 229 Cooperation under such a regime is more likely because it would be less costly than compensation, both in monetary terms and in terms of the "loss of face" associated with a third party finding or admission of liability.

B. International Cooperation in Nuclear Safety

The ILC’s emphasis on cooperation reflects a broader trend toward international cooperation to prevent environmental harm. States have recognized the need for international cooperation to prevent harm to the environment, and a wide variety of international organizations respecting the environment have been created, with varying regional and subject matter competences. 230 My discussion will focus on the International Atomic Energy Agency ("IAEA"), an international organization of particular relevance to questions of nuclear health and safety. 231 The history of the IAEA suggests that it has been most successful in promoting health and safety when it has recognized the limits of the international system under which it operates.

The IAEA was created in response to a 1953 speech by President Eisenhower to the United Nations General Assembly, in which he called for the creation of an agency to facilitate the peaceful use of atomic power. 232 After three years of negotiation, the Statute of the International Atomic Energy Agency was adopted at an international conference in 1956. 233 Currently, 112 nations are members of the agen-

228. McCaffrey, supra note 220, at 678.
229. Where one state engages in activity that pollutes solely in another state, the polluting state might not view the pollution as a mutual problem. More frequently, however, the polluting state is also harmed, as the Chernobyl accident itself illustrates.
230. Not all observers consider these efforts to be successful. See Smith, supra note 84, at 357-60 (cooperative efforts have failed).
231. In addition to the IAEA, various regional and multinational organizations, including the Nuclear Energy Agency of the Organization for Economic Cooperation and Development and the European Atomic Energy Community (Euratom), deal with nuclear health and safety problems. See Scherr, Radioactive Waste Disposal: The Quest for a Solution, in ENVIRONMENTAL PROTECTION: THE INTERNATIONAL DIMENSION 101, 109-14 (D. Kay & H. Jacobson eds. 1983). A host of organizations deal with other environmental issues. See, e.g., J. Schneider, supra note 84, at 76-79 (describing organizations that gather, process, and disseminate environmental information); A. Springer, supra note 116, at 105-09 (describing standard-setting by international organizations). Indeed, one principle problem confronting international cooperative efforts to protect the environment is the coordination of these organizations. For an extensive analysis of international efforts with respect to various specific environmental problems see, ENVIRONMENTAL PROTECTION: THE INTERNATIONAL DIMENSION, supra.
232. P. Szasz, supra note 81, at 11, 22-23. For a discussion of earlier, largely unsuccessful, attempts at international control of atomic energy, see id. at 11-19.
The IAEA has a variety of functions, including dissemination of information, providing technical assistance, research activities, establishing safeguards to prevent military use of nuclear items pledged to peaceful purposes, and establishing and applying health and safety standards. Nuclear safety and environmental protection are thus significant aspects of the IAEA’s mission, and claim a “major component” of its budget. The IAEA promotes nuclear safety and environmental protection primarily through promulgation of standards and development of multilateral conventions.

The IAEA has exercised its power to adopt health and safety standards in a variety of areas. These standards do not bind member states, but rather serve only as recommendations or guidelines. Nonetheless, many nations have adopted them internally through legislation. Moreover, the standards apply to IAEA operations or IAEA-assisted operations of states, and may be incorporated into law by the international community because of the IAEA’s reputa-

B. Simma, supra note 80, at 5854 [hereinafter IAEA Statute]. See generally B. Bechhoefer, Postwar Negotiations for Arms Control (1961) (describing formulation of Statute); P. Szasz, supra note 81, at 21-45 (same).

235. P. Szasz, supra note 81, at 351.
236. Scherr, supra note 231, at 108.
237. IAEA Statute, supra note 233, art. III.A.6 authorizes the IAEA “[t]o establish or adopt . . . standards of safety for protection of health and minimization of danger to life and property.” For a discussion of some standards set by the IAEA, see P. Szasz, supra note 81, at 674-77.
238. See P. Szasz, supra note 81, at 330.
239. See A. Springer, supra note 116, at 108; Spector & Shields, Nuclear Waste Disposal: An International Legal Perspective, 1 Nw. J. Int’l L. & Bus. 569, 608 n.204 (1979). The IAEA standards, and the IAEA in general, have sometimes been criticized as too lenient—reflecting what some consider to be the capture of the Agency by the nuclear power industry and other forces which favor the development of nuclear power. See Scherr, supra note 233, at 115; see also Lomio, International Law and the Disposal of Radioactive Wastes at Sea, 15 N. Eng. L. Rev. 253, 284 (IAEA fails to address certain radioactive waste disposal problems). Whatever the merits of this criticism, it is not relevant to the discussion of the international legal system in this article, because it does not reflect a weakness in the international system, but rather overall dissatisfaction with states’ decisions to use nuclear power, and the IAEA’s role in promoting it. See, e.g., 9 Int’l Env’t Rep. No. 4 (BNA) 352 (Oct. 8, 1986) (according to a spokesman for Greenpeace, “IAEA is merely a marketing organization for the nuclear industry.”); see also infra note 251 (discussing dissatisfaction with IAEA response to Chernobyl).
240. See P. Szasz, supra note 81, at 679-80. The IAEA may provide assistance in securing materials, services, equipment, and facilities for projects (usually research reactors) of its members. Id. at 411-13. In agreements respecting IAEA-assisted projects, it may provide for the application of safety standards to a project. IAEA Statute, supra note 233, art. III.A.6. For an example of such a provision, see Agreement Between the International Atomic Energy Agency and the Government of the Federal People’s Republic of Yugoslavia for Assistance by the Agency to Yugoslavia in Establishing a Research Reactor, Oct. 4, 1961, I.A.E.A.-Yugoslavia, art. V, § 8, annex B, 412 U.N.T.S. 226, reprinted in XII R. Ruester & B. Simma, supra note 80, at 6049 [hereinafter Research Reactor Agreement].
Thus, the IAEA has had some success in developing uniform international health and safety standards. However, because the standards are not binding on states, enforcement is dependent largely on the domestic policies of the states which adopt them. The IAEA has some measure of enforcement power through its capacity to inspect nuclear facilities, but inspections generally require the consent of the state in which the facility to be inspected is situated. While a right of inspection exists for IAEA-assisted projects, few inspections are conducted.

IAEA efforts to develop multilateral conventions regarding nuclear health and safety have not been very successful. This lack of success is typified by the Vienna Convention on Civil Liability. The Convention was intended to provide a comprehensive structure for resolution of claims for compensation resulting from nuclear incidents. Although representatives of about fifty IAEA member states

242. The IAEA views health and safety issues to be matters less directly of international concern than its function of safeguarding nuclear material for peaceful use. See P. Szasz, supra note 81, at 659-60. Indeed, there was some movement toward giving the IAEA authority to issue binding safeguards immediately following the Chernobyl accident, but those efforts died out. See Pincus, supra note 4, at A22.
243. The IAEA has right of inspection pursuant to the IAEA Statute, supra note 233, art. XII.A.6, but that right applies only "to any Agency project, or other arrangement where the Agency is requested by the parties concerned to apply safeguards." Id. art. XII.A. (emphasis added).
244. IAEA Statute, supra note 233, art. XII.A. The IAEA practice has been to specify arrangements for inspections in agreements respecting IAEA-assisted projects. P. Szasz, supra note 81, at 694. For an example of such arrangements, see Research Reactor Agreement, supra note 240, annex B, para. 5.
245. P. Szasz, supra note 81, at 696. Agency reluctance to exercise the right of inspection is based in part on the belief that "at least in relation to minimal hazard projects which at their worst could only harm their immediate environment, the Agency should not force its controls on unwilling Member States." Id. This conclusion reflects the IAEA's general view that health and safety issues are less directly matters of international concern. See supra note 242. In addition, financial limitations play a role in the low number of inspections. For example, in the wake of the Chernobyl accident the IAEA sought to increase its annual inspections from about four to twenty, but Director General Blix reported that while most member states would accept more voluntary inspections, their vote for a "massive increase" in the IAEA budget would be necessary. 9 Int'l Env't Rep. (BNA) 177 (June 11, 1986).
246. P. Szasz, supra note 81, at 723-24. This lack of success may be due, in part, to the failure of the IAEA Statute to provide any mechanism for the formulation of multilateral conventions. Id. at 723.
247. See Vienna Convention on Civil Liability, supra note 80.
248. Various specific provisions of the Convention are discussed supra notes 80, 191-94 and accompanying text. In general terms, the regime of the Convention may be summarized as follows: the Convention provided for absolute liability, but allowed states to limit the maximum amount of damages to not less than $5 million. It further provided for jurisdiction solely in the courts of the state where an incident occurred, but protected aliens by requiring equal
adopted the Convention with near unanimity at the Vienna Conference of 1963,249 few states have become parties to the Convention.250 Thus, despite the importance of the Convention, and an apparent consensus on its terms, the IAEA’s effort to establish a conventional regime, which would have governed the Chernobyl accident, was unsuccessful.

In the wake of the Chernobyl accident there are several encouraging signs for the IAEA. The international response to the accident under the auspices of the IAEA can be regarded as an example of successful international cooperation.251 The Soviet report on the accident, presented to an international symposium in Vienna on August 25-29, 1986, was generally praised as candid and informative,252 although there were some complaints that it was incomplete.253 In addition, the Chernobyl accident led to the adoption of the Convention on Early Notification of a Nuclear Accident254 and the Conven-

access to courts and nondiscrimination in application of the law of the forum state (and the Convention), providing for recognition of foreign judgments, and waiving sovereign immunity. In addition, an optional protocol to the Convention provided for jurisdiction in the ICJ to settle unresolved disputes at the international level.

249. See P. Szasz, supra note 81, at 707.

250. See id. at 707-08. Even fewer states have accepted the optional protocol. See id. at 708. The failure of the optional protocol reflects the overarching failure to achieve broad acceptance of the jurisdiction of the ICJ. See supra notes 144-48, 186 and accompanying text.

251. In an address to the United Nations on November 11, 1986, IAEA Director General Blix stated that “these past few months have seen international co-operation at the IAEA at its best.” 28 INT’L ATOM. ENERGY AGENCY BULL. No. 4, Winter 1986 at 47. Not everyone, however, was satisfied with international cooperative efforts. For example, anti-nuclear activists planned a counter-conference to protest what they considered to be the “meaningless” IAEA special meeting of September 24-26, 1986. See 9 INT’L ENV’T REP. (BNA) 288 (Aug. 13, 1986). The protests were not directed to the absence of cooperation, but rather were intended to counter a “‘clear attempt in many countries to suppress radiation data and to give the impression that there is no longer any risk to health.’” Id. (quoting Thijs de la Court, of the World Information Service on Energy). Whatever the merits of this criticism, it illustrates that even at its best, the policy choices of the international system depend ultimately on the policy choices of its members. Many criticisms of the international response to environmental problems thus actually reflect dissatisfaction with the commitment of individual states to environmental preservation—a criticism that does not reflect any of the special limitations of the international legal system. See supra note 239.

252. See 9 INT’L ENV’T REP. (BNA) 352 (Oct. 8, 1986); Wash. Post, Aug. 30, 1986, at A27; see also D. MARKLES, supra note 1, at 183 (Soviet report described as “relatively frank and open”).


tion on Assistance in the Case of a Nuclear Accident or Radiological Emergency.\textsuperscript{255} Representatives of over fifty nations signed both conventions,\textsuperscript{256} including the Soviet Union.\textsuperscript{257}

The history of the IAEA reveals that despite its importance in the field of nuclear health and safety, there are limits to what it can reasonably be expected to accomplish. Even after the Chernobyl accident, states are unwilling to give the IAEA authority to enact binding safety standards or a general power to inspect nuclear facilities.\textsuperscript{258} Similarly, IAEA efforts to establish a comprehensive liability regime through the Vienna Convention on Civil Liability failed because states were unwilling to accept such a regime. Nonetheless, when the IAEA has acted within the limits placed upon it by the international system, it has achieved concrete results, such as the rapid acceptance of the Convention on Early Notification and the Convention on Assistance. Advocates of strong measures for environmental protection may be discouraged by the apparently slow pace of these and other international efforts,\textsuperscript{259} but the inherent limits of the international system prevent stronger measures from being effective until all states are willing to accept them.


\textsuperscript{256} \textit{See 9 Int'l Env't Rep. (BNA) 352} (Oct. 8, 1986). In many cases, however, ratification of these signatures is required before the conventions are binding. \textit{Id.}

\textsuperscript{257} \textit{Id.} The chief Soviet delegate to the IAEA stated that the Soviet Union would comply with both conventions. \textit{Id.} Although these statements have no legal force, they are backed by Soviet actions. The IAEA was promptly notified of an accident which led to the sinking of a Soviet nuclear submarine in October of 1986. \textit{See 9 Int'l Env't Rep. (BNA) 419} (Nov. 12, 1986). Moreover, the Soviet Union has already ratified the Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency. \textit{See Int'l Atom. Energy Agency Info. Circular, INFCIRC/336/Add.1} (Mar. 10, 1987). This ratification is subject to a reservation. \textit{Id.} (presumably with respect to article 13, which provides for reference of disputes arising under the convention to the ICJ). \textit{See supra} note 174 and accompanying text.

\textsuperscript{258} \textit{See Pincus, supra} note 4 (despite initial support, key member nations have "begun to back away" from binding safety standards).

\textsuperscript{259} For example, when Richard T. Kennedy, Ambassador-at-Large and United States Representatives to the IAEA, testified before a Senate panel in July of 1986 regarding preparation of draft conventions on early notification and emergency response, "[s]ome members . . . said [that] they were puzzled because two conventions on nuclear accident response are being worked on by the IAEA, but none on international accident prevention." \textit{9 Int'l Env't Rep. (BNA) 271} (Aug. 13, 1986). Kennedy replied that prevention through the establishment and maintenance of safety standards is a "jealously guarded national prerogative in most states." \textit{Id.}
III. Conclusion

The Chernobyl accident brought home with startling reality the international dimensions of the world's environmental problems. Consideration of the international legal framework for dealing with the accident reveals the inherent limitations of the international system. Particularly with respect to liability for transboundary harm, the legal rules, if any, remain fragmentary and unclear. Moreover, the enforcement of any rules which do exist faces virtually insurmountable obstacles. Ultimately, any Soviet compensation for victims in other states will be obtained through diplomatic efforts. The success of these efforts depends on the degree of public outcry and the resultant costs to the Soviet Union in terms of its international standing. In any event, compensation is likely to fall short of the actual harm caused by the accident.

Despite the limitations of the international system, however, it plays an essential role in the protection of the environment. Because pollution does not respect manmade boundaries, national efforts to protect the environment cannot be completely successful without international cooperation. The international system is slow to react, but international cooperation for the protection of the environment is well underway on various fronts. Nonetheless, international efforts must be tailored to the limitations inherent in the international system. The work of the ILC and IAEA show how carefully structured efforts can be successful despite these limitations. Events such as the Chernobyl accident will give these efforts added impetus.