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INTERNATIONAL LAW AND THE ENVIRONMENT

Daniel Barstow Magraw*

INTRODUCTION

Increased levels of industrialization, population, expectations about standards of living, and use of toxic substances are placing ever-growing demands on the earth's environment.¹ In many instances, serious environmental difficulties are likely to arise in the future.

The effort to deal with those problems through the medium of international law has occurred primarily over the past twenty years, although some international agreements regarding the environment have existed for over a century. Much of the recent impetus towards an international environmental legal regime derives from the 1972 conference on the Human Environment, held in Stockholm, Sweden. The 1972 Conference adopted the Stockholm Declaration on the Human Environment and led to establishing the United Nations Environment Program ("UNEP"). UNEP has been active since its formation in furthering international solutions to environmental problems. A variety of other international organizations, including nongovernmental organizations, have also been active regarding international environmental issues.

The international environmental legal regime is wide-ranging: it covers many types of activities and harm and many geographic areas. It is also subject to much uncertainty. That uncertainty derives in part from the relative youthfulness of international environmental law and in part from the limitations inherent in the international legal system, which are explained below.

This paper introduces the basic direction, concepts, and structure of international environmental law.

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SCOPE OF INTERNATIONAL ENVIRONMENTAL ISSUES

International environmental law relates to environmental effects that involve a transboundary element. For example, an activity within one state (i.e., country) might have an effect upon the environment in another state or in territory that belongs to no state (e.g., the high seas). Similarly, an activity in territory that belongs to no state, such as the high seas, might have an effect upon the environment in a state.

Perhaps the most commonly recognized form of international environmental effect is air or water pollution² that crosses a national boundary. Examples include the phenomenon of acid rain and pollution in one state of a river that runs into another state. Pollution could also affect groundwater or marine areas such as the high seas. Other environmental effects include changing the course of an international river, modifying weather, and transferring hazardous technology, products, or waste from one state to another, when such transfer results in an adverse effect on the environment. Affecting the "global commons" (i.e., assets or territory that belong to all of mankind or to no state) might also involve environmental effects, such as activities that adversely affect species diversity or the vulnerability of microorganisms to antibiotics.

NEED FOR AN INTERNATIONAL APPROACH

By their nature, international environmental effects involve "externalities." An externality exists when a cost of an activity is borne by persons or entities other than the person engaged in the activity, with the result that that cost is not taken into account by that person in determining whether to engage in the activity. Phrased differently, the state in which a threatening activity occurs does not experience the transboundary damage caused by the activity and thus is unlikely of its own accord to regulate adequately that activity. Moreover, of course the state in which the environmental effect is felt cannot unilaterally regulate the activity because the activity does not occur within that state. Solutions thus must be international. An international approach is also required where the environmental damage occurs to territory that is not within any state, such as the high seas.

The need for an international approach does not eliminate the need for, or importance of, appropriate municipal (i.e., national or local) laws or of contractual provisions under some circumstances. But those laws and provisions will not be sufficient in the absence of an adequate international regime.

NATURE AND LIMITATIONS OF THE INTERNATIONAL LEGAL SYSTEM

The concept of sovereignty (i.e., the set of rights and attributes of a state in its own territory, to the exclusion of other states, and in its relations with other states) is at the heart of modern international law theory. Although subject to significant differences in emphasis, a positivist philosophy of international law now prevails to the effect that states have sovereign rights that cannot be curtailed unless the state agrees to such a restriction. That philosophy leads to a wide range of freedom for states in choosing what behavior to engage in. On the other hand, a somewhat contradictory aspect of sovereignty is that a state has the right to be free from outside interference, presumably including interference due to the otherwise legal activities of other states. I refer to this latter right as the "suppressed side of sovereignty." That side of sovereignty has received increasing recognition in international law regarding the use of force and consequently also regarding other issues since the end of World War II. That emergence has been reinforced by the world's ever-increasing economic, ecological, political, and even cultural interdependence.

COMPARISON WITH MUNICIPAL (NATIONAL) LEGAL SYSTEMS

The international legal system differs significantly from typical municipal legal systems in at least three ways. First, there is no centralized law-making authority. Partly as a result of the absence of such an authority, the sources of international law differ from the sources of domestic law, and it is often difficult to determine whether an international law norm exists regarding a given topic. Second, the international legal system does not have any centralized adjudicative body authorized to determine whether international law has been violated. Third, the international legal system does not contain an effective centralized enforcement mechanism such as a national army or police force. Thus, even if an international environmental law norm is found to exist and it can be established that that norm was violated, there may be no way of compelling the violating state to remedy its behavior.

In spite of the characteristics just described, international law usually is followed. Behavior conforming to international law is particularly likely to occur in relations between nations with a common border, because of the long-term implications of that geographical proximity. Nevertheless, there are numerous instances where international law has not

been adhered to and where the existence of international law has not protected the interests that the law was intended to protect. Generally speaking, the incidence of international unlawfulness increases as the core national interests—and especially national-security interests—of the lawbreaker are approached more closely. The primary point for present purposes is that, although the existence of an international norm does not guarantee compliance with that norm, agreed-upon and clearly defined norms relating to the environment would most likely be adhered to, especially among bordering states.

SOURCES OF INTERNATIONAL LAW

There are three generally recognized sources of international law: international agreements (variously referred to by terms such as "treaties," "conventions," etc.), customary international law, and general principles of law recognized by civilized nations. International agreements are agreements between two or more states, and, as such, are typically easily identifiable. The major difficulty concerns interpreting such agreements, which is often complicated by the existence of official versions in two or more languages and imprecise drafting. Determining whether a rule of customary international law exists is a more difficult task. The traditionally accepted test is whether there has been general and consistent state practice, done in the belief that the practice is required or permitted by international law, that is, state practice accompanied by *opinio juris*. The application of that test has not been without disagreement, and it has varied in its degree of positivism. The source "general principles of law recognized by civilized nations" is controversial and has rarely been used, but it might be significant for present purposes. (The term "civilized nations" is understood to refer to states that have developed legal systems.)

There also is a special type of international law called "*jus cogens*" or a "peremptory rule of international law." A *jus cogens* takes precedence over any contrary rule in an international agreement. Extreme destruction of the environment might arguably violate a *jus cogens*, although that is uncertain.

As indicated in article 38 of the Statute of the International Court of Justice, judicial decisions and the teachings of the most highly qualified publicists of various nation states are "subsidiary means" for determining rules of law, although they are not, strictly speaking, sources of law themselves. The most influential body of "publicists" is the International Law Commission of the United Nations. The Commission, which is composed of 35 individuals elected by the United Nations General Assembly, prepares draft international agreements and,

in the process, often expresses its opinion on existing international law. The existence of the United Nations General Assembly and the practice of the General Assembly to pass resolutions and declarations have raised a significant controversy with respect to the effect of such resolutions. It seems clear that a unanimous General Assembly resolution that states that it embodies international law will be given great weight, and probably conclusive weight, in establishing that an international-law norm exists. Resolutions that do not contain such a statement or that are not unanimous raise more difficult questions, with respect to which opinion differs widely. The 1986 decision of the International Court of Justice, in the case brought by Nicaragua against the United States, gives heavy weight to General Assembly resolutions in determining the existence and content of customary international law norms. Actions or declarations by other parts or agencies of the United Nations or by other international organizations are, generally speaking, less persuasive as sources of international law than are General Assembly resolutions.

REMEDIES FOR VIOLATING INTERNATIONAL LAW

If a state violates a rule of international law, that state's "state responsibility" is engaged. In that event, the state is required by international law to cease the wrongful action (at least in the absence of consent from the injured state) and to make reparations to the injured state. In addition, the injured state may suspend performance of its obligations to the injuring state that are directly related to the obligation breached and to suspend, by way of reprisal, performance of its other obligations toward the injuring state, subject to various limitations (e.g., rules of proportionality and diplomatic and consular immunities). The reparations referred to above may take, generally speaking, three forms, depending upon the situation. Those three forms are: (1) restitution, i.e., returning the situation to the status quo; (2) indemnity, i.e., paying monetary compensation corresponding to the value which a reestablishment of the situation, as it existed before the breach, would bear; and (3) satisfaction, e.g., apologizing, punishing the offending minor officials, or formally acknowledging the lawfulness of the act.

POSSIBLE ROLES AND CONTEXTS OF INTERNATIONAL LAW IN PROTECTING THE ENVIRONMENT

ROLES

International law can perform three types of functions with respect to the environment. First, international law can provide the substantive standards with respect to specific activities (e.g., depositing effluents in an international river or testing nuclear weapons) or with respect to specific areas (e.g., activities along a border or in Antarctica or outer space). Second, international law can specify the availability of remedies for the breach of an international environmental norm. For example, international law could provide that an injured state or private party could bring suit against an injuring state in a particular international or municipal forum or that a non-injured state would have standing to bring such an action under certain circumstances. Third, international law can provide mechanisms for settling disputes (including conducting factual investigations) or setting rules in the future. For example, the 1909 Boundary Waters Treaty between the United States and Canada (described below) establishes obligations with respect to boundary waters and also provides a mechanism for helping resolve boundary-water disputes.

CONTEXTS

Many international environmental issues can only effectively be dealt with on a global basis. But some environmental issues are susceptible to a regional or even bilateral resolution. It has often proved very useful to have bilateral agreements between countries that share a boundary, especially agreements that establish mechanisms for dispute settlement or rule making before a problem arises.

DESIRABILITY OF FOCUSING ON PREVENTION AND INFORMATION EXCHANGE

As indicated above, if a state violates international environmental law, that state will be required to make reparations in one of three forms: restitution, satisfaction, or indemnification. None of those three forms is particularly helpful with respect to many types of environmental damage. For example, it is frequently impossible to quantify in monetary terms aesthetic damage. Similarly, a mere apology will not suffice. Finally, restitution is typically not possible with respect to damage to an ecological system. The emphasis thus

must be on preventing harm before it occurs, not in trying to undo or compensate for harm. Correspondingly, international environmental norms should focus on prevention, although rules regarding reparations are unfortunately also required. It should also be noted that calculating monetary reparations in the case of environmental damage raises a set of interesting and difficult issues even apart from the question of whether money can compensate for the type of injury suffered.

An important aspect of prevention is that of information exchange. If information is exchanged prior to environmental damage occurring, it is possible that damage can be lessened or possibly even prevented altogether. Even after environmental damage begins occurring, information exchange sometimes would reduce the damage. An important part of international environmental law thus concerns exchanging information.

RULES OF INTERNATIONAL ENVIRONMENTAL LAW, ACCORDING TO SOURCE

As indicated above, there exist three sources of international law: (1) customary international law; (2) international agreements; and (3) general principles of law recognized by civilized nations. This part of this paper briefly summarizes some of the most important developments in international environmental law according to those sources of law. Following that is a summary of recent work in the United Nations International Law Commission relating to environmental law.

CUSTOMARY INTERNATIONAL LAW

It is often said that international environmental law has its foundations in customary international law.³ Major cases in the area are the *Corfu Channel* case, the *Lake Lanoux* arbitration, the *United States Diplomatic and Consular Staff in Iran* case, and the *Trail Smelter* arbitration, which are briefly described below.

The *Corfu Channel* case concerned damage to British warships caused by mines placed in Albanian waters. In holding Albania responsible, the International Court of Justice stated, as a "general and well-recognized principle," "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States."⁴ That principle is closely related to international environmental concerns because it recognizes the legal implications of the interdependence of states.

The *Lake Lanoux* arbitration involved a threatened French diversion of water for hydroelectric purposes from the River Carol, an outlet of Lake Lanoux. The tribunal held that a

treaty safeguarding Spain's right to the natural flow of the River Carol was not violated because France would provide the previous quantity of water. In a discussion of general international law relevant to the case, the tribunal stated:⁵

That is why international practice prefers to resort to less extreme solutions by confining negotiations, terms for an agreement, without subordinating the exercise of their competences to the conclusion of such an agreement. Thus, one speaks, although often inaccurately, of the 'obligation of negotiating an agreement.' In reality the engagements thus undertaken by states take very diverse forms and have a scope which varies according to the procedures intended for their execution; but the reality of the obligations thus undertaken is incontestable and sanctions can be applied in the event, for example, of an unjustified breaking off of the discussions, abnormal delays, disregard of the agreed procedures, systematic refusals to take into consideration adverse proposals or interests, and, more generally, in cases of violation of good faith.

A need for states to take the interests of other states into account, which is fundamental to international environmental law, is evident in that quotation.

In the *United States Diplomatic and Consular Staff in Iran* case, the International Court of Justice held Iran liable for not "taking appropriate steps to ensure the protection: of the United States Embassy and staff, in the face of attacks by private persons which, at the time they occurred, were not attributable to Iran."⁶ A state's obligation to regulate adequately, which is inherent in that finding, is relevant to state accountability for the acts of private persons causing transboundary environmental damage.

The only one of these cases that deals specifically with transboundary environmental damage is the *Trail Smelter* arbitration, which settled a Canada-United States dispute regarding pollution from an iron ore smelter in Trail, British Columbia. That pollution damaged private property in Washington State, and the United States protested. Ultimately, the tribunal ordered Canada to pay reparations for past injuries and prescribed standards for Canada to adopt if the smelter was to continue operation. Most significantly for present purposes, the tribunal also held that Canada must compensate the United States if pollution damage occurred after the prescribed standards were complied with, i.e., Canada had to make reparations if damage occurred from an internationally lawful activity. In the course of its decisions, the tribunal stated:⁷

[U]nder the principles of international law ... no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another State or the properties or persons therein, when the

case is of serious consequence and the injury is established by clear and convincing evidence.

The fundamental principle embodied in the statement is essential to the concept of international accountability for transboundary environmental damage and has generally been acknowledged as sound.⁸ The quoted statement also reflects the requirement that injury must be "serious" or "significant" before international accountability in this context accrues.⁹

Principle 21 of the 1972 Stockholm Declaration on the Human Environment is notable both because of the clarity with which it combines the themes alluded to above and the fact that many commentators consider it to embody a customary rule of international law. Principle 21 provides:¹⁰

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

The 1986 Seoul Declaration of the International Law Association asserts an apparently identical obligation.¹¹

The preceding analysis demonstrates that some customary international law principles exist that are relevant to international environmental issues. One tribunal applied those principles in a case (*Trail Smelter*) involving transboundary environmental damage. Nevertheless, uncertainty remains about the scope, content, and application of those principles in the environmental context.

INTERNATIONAL AGREEMENTS

Many international agreements relating to the environment exist at a global level, including several concerned with the use of weapons and the means of conducting warfare. Some of the most important are mentioned below. The 1979 Convention of Long-Range Transboundary Air Pollution relates to some aspects of long-range air pollution.¹² The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, as well as other conventions regarding outer space, provide some rules about environmental protection in outer space.¹³ The 1982 Convention on the Law of the Sea,¹⁴ as well as other conventions regarding the high seas and maritime activities, contain environmental protection provisions. The Convention on Early Notification of a Nuclear Accident, drafted and opened for signature following the 1986 accident at the nuclear power plant in Chernobyl in the U.S.S.R., provides duties to notify and to provide a variety of specified available

information relevant to minimizing radiological consequences of certain accidents involving nuclear facilities that might result in transboundary radiological harm.¹⁵ The 1975 World Heritage Convention provides some protection for cultural and natural heritage.¹⁶ The Convention on International Trade and Endangered Species of Flora and Fauna of 1973 provides restrictions on the international trade in endangered species in order to promote species preservation.¹⁷ The recently concluded Convention for the Protection of the Ozone Layer addresses the depletion of the world's ozone layer by the use, *inter alia*, of chlorofluorocarbons.¹⁸

In spite of the wide range of multilateral environmental agreements, many important environmental issues are not subject to a treaty regime. Moreover, none of the international agreements identified in the immediately preceding paragraph is adhered to by a majority of states in the world (although the Law of the Sea Convention is likely to be). The protection offered by those agreements is thus piecemeal and inadequate.

On a regional level, there are several environment-related conventions. One example is the Convention on the Conservation of Antarctic Marine Living Resources, which entered into force in 1982.¹⁹ Here, too, the coverage is incomplete and unsatisfactory.

On a binational level, there are a myriad of bilateral treaties dealing either primarily or in part with environmental concerns. Nevertheless, many bilateral environmental issues are not covered by treaty. Two bilateral treaties that deserve mention are the agreement between the U.S.S.R. and Finland regarding frontier watercourses²⁰ (which provides an obligation to notify if an activity by one state might alter the stream course or flow, harm fisheries, damage property or cause water pollution that might damage fish, endanger public health or substantially deteriorate scenic values in the other state) and the 1909 Boundary Waters Treaty between the United States and Canada.²¹ Article IV of the United States-Canada Boundary Waters Treaty provides: "It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other." In addition, that treaty provides a mechanism—the International Joint Commission (IJC)—for helping resolve boundary-water disputes. The IJC, which is composed of three members from each state, is a quasi-judicial body. It has mandatory jurisdiction and binding authority to approve or disapprove of the quantitative—but not the qualitative—aspects of projects such as boundary-water diversions or obstructions. In addition, Article IX of the Treaty provides that either or both nations may

refer matters to the IJC for its nonbinding recommendation. Such references tend to be handled in an *ad hoc* fashion, often involving a joint investigative board with the directive to conduct scientific studies. The recommendations have not always been followed strictly, but have generally been followed in spirit. Article X of the Treaty permits both parties to refer a dispute to the IJC for a binding decision, but that has never been done.

GENERAL PRINCIPLES OF LAW RECOGNIZED BY CIVILIZED NATIONS

The major "general principle" supporting international environmental law is the principle *sic utere tuo ut alienum non laedas*, i.e., "so use your own property as not to injure another's." That principle, which clearly is related to the holding in the *Corfu Channel* case described above, arguably is the basis of all international environmental law not found in an international agreement. Several commentators have concluded that that principle is a "general principle of law recognized by civilized nations" and thus is a norm of international law.²² Even assuming that to be the case, however, questions persist about applying the principle.

THE INTERNATIONAL LAW COMMISSION'S STUDIES OF INTERNATIONAL LIABILITY AND INTERNATIONAL WATER-COURSES

The International Law Commission of the United Nations is currently studying three topics that have profound implications for international environmental law. The first is the Commission's study of "international liability for injurious consequences arising out of acts not prohibited by international law."²³ The Commission's approach thus far has been to propose rules that encourage establishing conventional (i.e., treaty) regimes to deal with specific transboundary-injury situations and that assert, in the absence of such a regime, a "compound 'primary' obligation" that can perhaps best be described as a four-fold duty to prevent or minimize harm, to inform potentially affected states that harm may occur, to negotiate with affected states to establish a treaty regime to govern the situation, and to make reparations to the affected state if no treaty is agreed to and harm occurs. International liability as conceptualized so far by the Commission thus permits and indeed encourages an active and preventive approach to managing transnational risk creation. Because of its conceptual structure, however, the Commission's study of international liability has proven quite controversial.²⁴

The Commission's study of the "law of the non-navigational uses of international watercourses" is of interest because it deals, as its name implies, with activities affecting the quality and flow of international rivers. In many respects, the Commission has approached this topic in a manner similar to its approach to the topic of international liability.²⁵

The Commission's study of the rules of "state responsibility" will affect the consequences of violating international law, including an international environmental norm. The only specific reference in the Commission's draft rules to the environment provides that an international-law violation involving "massive pollution" of the atmosphere or the seas is an international "crime" and thus may be complained of by a state, regardless of whether the state is itself injured by the violation.²⁶

SPECIAL CONSIDERATION FOR DEVELOPING STATES

DOCTRINAL BASES

It is often argued that international environmental law norms should provide special consideration to developing states. Four possible conceptual bases for such special consideration are briefly mentioned below. First, principle 23 of the Stockholm Declaration of the United Nations Conference on the Human Environment provides:²⁷

Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries.

Second, it has been suggested that reducing damages because of the poverty of the tortfeasor (for our purposes, the poverty of the developing state whose activities lead to transboundary environmental damage) may be a "general principle of law recognized by civilized nations."²⁸ Such a principle would obviously support providing special consideration to developing states. Third, and more broadly, special consideration for developing states is consistent with, and derives support (at least in a policy sense) from, the movement for the New International Economic Order, which has affected many developments in international law over the past two decades.²⁹ Fourth, several statements of obligations regarding international environmental protection contain phrases such as "to the extent

practicable under the circumstances."³⁰ Such a condition might imply that the wealth and technological abilities of a state may influence the standard of environmental protection required of that state.

PRACTICAL DIFFICULTIES

Support for providing special consideration to developing states with respect to international environmental norms is also provided by the fact that developing states typically face unusual difficulties with respect to protecting the environment. Difficulties that have been identified include: (1) a developing state may not have sufficient information to predict the potential transboundary harm created by activities within its territory; (2) a developing state may not have sufficient technical, regulatory, legal, and administrative skills necessary to evaluate and effectuate pollution-control laws; (3) a developing state may be forced, or at least prompted, to engage in activities with a high risk of transboundary harm because of the moral or political imperative to increase standards of living rapidly in the short run; and (4) a developing state that suffers transboundary environmental harm may experience increased damage due to lesser technical or financial abilities to detect, monitor, or counteract the damage.³¹

POSSIBLE TYPES OF SPECIAL CONSIDERATION

There are several types of special consideration that might be provided developing states with respect to environmental norms. First, developing states might be subject to less demanding standards of behavior with respect to activities in those states that might cause transboundary environmental damage. Second, if an activity in a developing state causes transboundary environmental harm, the standard of compensation owed by that injuring developing state may be less to reflect the developing state's poverty. Third, the same standards of behavior and compensation might apply, but developing states would be entitled to aid from developed states or international organizations in meeting those standards. Fourth, if a developing state suffers transboundary environmental harm due to activities in another state, the standards of compensation might be increased to take account of the injured developing state's lesser ability to cope with the harm. Fifth, an international fund might be established, perhaps along the lines of the fund that has been established regarding marine oil pollution,³² to compensate for transboundary environmental harm.³³

CONCLUSION

Many environmental problems exist that require international solutions. Some are amenable to bilateral solutions, especially by countries with common borders. Others require regional or even global solutions. International environmental law is a rapidly growing area, but protection remains inadequate and much uncertainty exists. International law of the environment offers great hope for humanity and correspondingly requires serious attention.

NOTES

1. The term "environment" is subject to a variety of definitions. For purposes of this paper, "environment" includes not only the complex of physical, chemical, and biotic factors (such as climate, soil, and living things) that act upon an organism or ecological community, but also the aggregate of social, aesthetic, historic, cultural, and economic conditions that influence the life of an individual or a community.
2. There is no accepted international-law definition of the term "pollution." One definition is "any introduction by man, directly or indirectly, of substance or energy into the environment resulting in deleterious effects of such a nature as to endanger human health, harm living resources and eco-systems, impair amenities or interfere with other legitimate uses of the environment." See Organization for Economic Cooperation and Development (OECD), Recommendation of the Council for the Implementation of a Regime of Equal Right of Access and Non-Discrimination in Relation to Transfrontier Pollution, May 17, 1977, OECD-Doc.C(77) 28 (Final), Annex, Intro., subpara. (a) (1977), reprinted in 16 INT'L LEG. MAT. 977 (1977).
3. See, e.g., RESTATEMENT (REVISED) OF FOREIGN RELATIONS LAW OF THE UNITED STATES, Intro. Note to Part VI: The Law of the Environment (Tent. Final Draft July 15, 1985) [hereinafter RESTATEMENT (REVISED)].
4. Corfu Channel (U.K. v. Alb.), Merits, 1949 I.C.J. Rep. 4, 22 (Judgment of April 9).
5. Lake Lanoux (Fr. v. Spain) [1957] I.L.R. 101.
6. United States Diplomatic and Consular Staff in Tehran (U.S. v. Iran), 1979 I.C.J. 7; see Riphagen, *State Responsibility: Two Theories of Obligation in State Practice* 587-88, in THE STRUCTURE AND PROCESS OF INTERNATIONAL LAW (R. MacDonald & D. Johnston eds. 1983).
7. Trail Smelter (U.S. v. Can.), 3 R. Int'l Arb. Awards 1905, 1965 (1938 & 1941).
8. The "clear and convincing" standard of proof has been questioned by some commentators. See, e.g., Kirgis, *Technological Challenge to the Shared Environment: United States Practice*, 66 AM. J. INT'L L. 290 (Apr. 1972).
9. For a discussion of this qualification, see Handl, *National Uses of Transboundary Air Resources: The International Entitlement Issue Reconsidered*, 26 NAT. RES. J. 405, 411-12 (1986).
10. Reports of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, pt. 1, ch. I,

reprinted in 11 INT'L LEG. MAT. 1416 (1972) [hereinafter Stockholm Declaration].

11. *International Law Association, Declaration of the Progressive Development of Principles of Public International Law Relating to a New International Economic Order*, 29 Aug. 1986, art. 7.5. Art. 7.5 provides:

The protection, preservation and enhancement of the natural environment for the present and future generations is the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. All States should co-operate in evolving international norms and regulations in this field.

12. T.I.A.S. No. 10541, *reprinted in 18 INT'L LEG. MAT. 1442 (1979)*.
13. Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 20
14. United Nations Convention of the Law of the Sea, A/CONF. 62/122 (1982).
15. Done Sept. 26, 1986, *reprinted in 25 INT'L LEG. MAT 1370 (1986)*.
16. Convention Concerning the Protection of the World Cultural and Natural Heritage, done Nov. 23, 1972, 27 U.S.T. 37, T.I.A.S. No. 8226 [hereinafter World Heritage Convention].
17. May 12, 1975, 27 U.S.T. 1089, T.I.A.S. No. 8249.
18. See, e.g., Benedick. *International Cooperation to Protect the Ozone Layer*, U.S. Dep't of State, Bur. of Pub. Aff., Current Policy No. 808 (1986).
19. May 20, 1980, T.I.A.S. No. 10240.
20. Agreement Between the Republic of Finland and the Union of Soviet Socialist Republics Concerning Frontier Watercourses, Apr. 24, 1964, 537 U.N.T.S. 231.
21. Boundary Water Treaty, Jan. 11, 1909, United States-Great Britain, 36 Stat. 2448, T.S. No. 548.
22. See, e.g., I.L. OPPENHEIM, INTERNATIONAL LAW 291, 346-47 (H. Lauterpacht 8th ed. 1955); RESTATEMENT (REVISED), *supra* note 3, Intro. Note to Part VI.
23. See Magraw, *Transboundary Harm: The International Law Commission's Study of "International Liability"*, 80 AM. J. INT'L L. 305 (1986).
24. See, e.g., I. BROWNLIE, SYSTEM OF THE LAW OF NATIONS: STATE RESPONSIBILITY (Part I) 50 (1983); Akehurst, *International Liability for Injurious Consequences*

Arising Out of Acts Not Prohibited by International Law, 16 NETH. Y.B. INT'L L. 3, 4-5 (1985).

25. See Magraw, *supra* note 23, at 322.

26. See *id.* at 319.

27. Stockholm Declaration, *supra* note 10, at 5.

28. Brownlie, *A Survey of Customary Rules of Environmental Protection*, 13 NAT. RES. J. 179, 188 (1973).

29. See, e.g., *Fourth Report on International Liability for Injurious Consequences Arising Out of Acts Not Prohibited by International Law*, U.N. Doc. A/CN.4/373/Corr.1, at 20 (1983); cf. *Charter of Economic Rights and Duties of States*, art. 30, Dec. 12, 1974, G.A. Res. 3281 (XXIX), 19 U.N. GAOR Supp. (NO. 31) at 50, U.N. Doc. A/9631 (1975), reprinted in 14 INT'L LEG. MAT. 251 (1975). Article 30 of the Charter provides:

The protection, preservation and enhancement of the environment for the present and future generations is the responsibility of all States. All States shall endeavor to establish their own environmental and developmental policies in conformity with such responsibility. The environmental policies of all States should enhance and not adversely affect the present and future development potential of developing countries. All States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. All States should cooperate in evolving international norms and regulations in the field of the environment.

30. See, e.g., RESTATEMENT (REVISED), *supra* note 3, at Section 601; World Heritage Convention, *supra* note 16, at art. 4 ("to the utmost of its own resources and, where appropriate, with any international assistance and cooperation"); *id.* at art. 5 ("shall endeavor, in so far as possible, and as appropriate for each country").

31. For a more elaborate description of these and other practical difficulties facing developing states, see Magraw, *The International Law Commission's Study of International Liability for Non-Prohibited Acts As It Relates to Developing States*, 61 WASH. L. REV. 1041 (1986).

32. International Convention on Civil Liability for Oil Pollution Damage, done Nov. 29, 1969, 973 U.N.T.S. 3.

33. For a discussion of the Fund approach, see Magraw, *International Legal Remedies*, in G. HANDL & R. LUTZ, TRANSFERRING HAZARDOUS TECHNOLOGIES AND

128/Magraw

SUBSTANCES: THE INTERNATIONAL LEGAL CHALLENGE (Martinus Nijhoff, forthcoming).