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The International Jurisprudence and Politics of Hazardous Substances: Managing a Global Dilemma

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The need for an international agenda in protecting the world's population from hazardous materials is obvious with accidents occurring around the world on a regular basis. For some governments the perceived need to conceal hazardous material accidents becomes a standard policy. Extensively covered in the media, the incident at Chernobyl served as a dramatic example of the devastation that a nuclear disaster can have. At Chernobyl, 25 people were killed with over 100,000 persons evacuated. Soon after the accident a cloud of radioactivity spread through the atmosphere over Europe.¹ A principal outcome from Chernobyl was the recognition that hazardous material accidents that may occur in one nation-state can have significant effects on bordering nation-states (as well as those states located at great distances

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¹ TONY BRENTON, *THE GREENING OF MACHIAVELLI: THE EVOLUTION OF INTERNATIONAL ENVIRONMENTAL POLITICS* 130 (1994).

away). As indicated by Brenton, sheep in Scotland, over 1,000 miles away from Chernobyl, were measured with a high degree of radioactivity thus affecting their marketability within the agricultural market of the region.² Years after Chernobyl, the region is still laden with radioactivity.³ Toxic wastes, as hazardous materials, are a more common threat to global health and safety. Brenton also refers to the incident at Koko, Nigeria, where 8,000 drums of toxic wastes were found.⁴

Section I Fundamentals of Public International Law

In order to comprehend the vast complexities of international environmental law and its relationship to the problem of trans-boundary hazardous materials management, a brief introduction to the basic elements of public international law is in order. Theodore Woolsey, the esteemed late president of Yale College, made the following remarks about international law in 1874:

Nations or organized communities of men differ from the individual men of a state, in that they are self-governed, that no law is imposed on them by any external power, but they retain the moral accountable nature, which must govern the members of a single society. They cannot have intercourse with one another without feeling that each party has rights and obligations. They have, as states, a common nature and destination, whence an equality of rights arises. And hence proceeds the possibility of a law between nations which is just, as expressing

² *Id.* at 130.

³ IAN BELLANY, *THE ENVIRONMENT IN WORLD POLITICS: EXPLORING THE LIMITS* 89 (1997).

⁴ BRENTON, *supra* note 1, at 131.

reciprocal rights and obligations, or just as expressing a free waiver of the rights which are by all acknowledged, and which may also embody by mutual agreement rules defining their more obvious claims and duties, or aiming to secure their common convenience and welfare. This law of intercourse between nations has been united with political law, or the doctrine concerning the constitution of the state and the relations of the government to the people, under the head of public law, as opposed to private, or to the system of laws within the state, by which the relations of its individual members are defined and protected. And yet there is a branch of this law, which has both a private and a public character, private as relating to persons, and public as agreed upon between nations. This law is now extensively called international law.³¹⁶

Woolsey further argued that international law in a broader sense reflects the “jural and moral” relations of states to one another. From a limited perspective, Woolsey contended that international law can be conceptualized as an amalgamation of positive jurisprudential rules that nations employ in the regulation of intercourse between nation-states. Dean Woolsey concluded with the observation that a law of nations can emerge only by the consent of the parties to it, thus, manifesting itself more as a byproduct of human freedom more so than the domestic, or municipal law, of a particular nation-state.³¹⁷

³¹⁶ THEODORE D. WOOLSEY, INTRODUCTION TO THE STUDY OF INTERNATIONAL LAW 18 (1874).

³¹⁷ *Id.* at 21.

The American Law Institute, in the *Third Restatement of the Foreign Relations Law of the United States* defines international law as follows:

International Law, as used in this Restatement, consists of rules and principles of general application dealing with the conduct of states and of international organizations and with their relations *inter se*, as well as with some of their relations with persons, whether natural or juridical.³¹⁸

The sources of international law are defined by the American Law Institute in Section-102, Volume One, of the *Third Restatement of the Foreign Relations Law of the United States*:

(1) A rule of international law is one that has been accepted as such by the international community of states

(a) in the form of customary law;

(b) by international agreement; or

(c) by derivation from general principles common to the major legal systems of the world.

(2) Customary international law results from a general and consistent practice of states followed by them from a sense of legal obligation.

(3) International agreements create law for the states parties thereto and may lead to the

³¹⁸ RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW, § 101 (1986).

creation of customary international law when such agreements are intended for adherence by states generally and are in fact widely accepted.

(4) General principles common to the major legal systems, even if not incorporated or reflected in customary law or international agreement, may be invoked as supplementary rules of international law where appropriate.³¹⁹

As indicated in Comment-C of Section-102 of the *Third Restatement*, for a state practice to become justly regarded as a manifestation of customary international law, there must be evidence of a state's sense to be bound by it. A sense of a legal obligation is necessary, *opinio juris sive necessitatis*. Of importance is that a practice that is initially followed by a state, as a matter of courtesy, may become customary law as other nation-states develop a sense of legal obligation to be bound by it (i.e. *lex non scripta*). In a similar conceptualization, the doctrine of *ius cogens* holds that nation-states shall not violate the customary law as manifested by the creation and evolution of international norms. As the authors of the *Third Restatement* contend, it may become difficult at times to determine when practice of state courtesy develops into a manifestation of *opinio juris* by other nation-states.³²⁰ As indicated by Tolba and Rummel-Bulska, one of the most important aspects of international environmental law, has been the challenge that it directs toward the Doctrine of Consent.³²¹ Under this doctrine of international law, agreements made between nation-states are obligatory only upon those nations that

³¹⁹ *Id.* § 102.

³²⁰ *Id.* § 102 cmt. c.

³²¹ MOSTAFA K. TOLBA & IWONA RUMMEL-BULSKA, *GLOBAL ENVIRONMENTAL DIPLOMACY: NEGOTIATING ENVIRONMENTAL AGREEMENTS FOR THE WORLD, 1973-1992*, 14 (1998).

ratify the agreement. However, due to the significant dangers posed by trans-boundary environmental risks (such as nuclear release), efforts are being made to offer incentives to other nations to sign on to major environmental treaties.

The International Court of Justice has also defined the components of international law under Article XXXVIII of the Statute of the International Court of Justice:

1. The Court, whose functions is to decide in accordance with international law such disputes as are submitted to it, shall apply:

(a) international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;

(b) international custom, as evidence of a general practice accepted as law;

(c) the general principles of law recognized by civilized nations;

subject to the provisions of Article-59, judicial decisions and teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.³²²

General principles of law as recognized by civilized nations are also known as *Jus Gentium*.

At the present time in international environmental jurisprudence, the treaty serves as the most frequently implemented method for the creation of global environmental

³²² Statute of the International Court of Justice, Y.B.U.N. 1052, 59 Stat. 1031, T.S. No. 993 (1976).

law.³²³ Under the 1969 Vienna Convention on the Law of Treaties, Article II(1)(a), a “treaty” is an international agreement made between at least two nation-states that is in written form and is governed by international law.³²⁴ An international treaty is a legal instrument that contains the mutual promises of the signatory states to abide by the terms, conditions, and reservations contained therein. As indicated by some commentators, the doctrine of Pact Sunt Servanda serves as a major foundation within the world of treaties, standing for the premise that nation-states are to be bound to the promises that they make.³²⁵

Treaties come in various forms, ranging from bilateral treaties between only two nation-states, to multilateral treaties between several countries. Ott describes three types of treaties that may have an effect in the environmental arena.³²⁶ “Contractual” treaties reflect the concept, suggested by jurists such as Sir Gerald Fitzmaurice, that a treaty is more a source of contractual obligation than one of law. Similar to a private contract some commentators contend that treaties, particularly of the bilateral form, are simply contracts between nation-states that enumerate the mutual obligations of the parties that are to be undertaken. Under this conceptual framework, the focus is not on the creation of a legal regime designed to set the basis for similar transactions among nation-states not bound by the contractual treaty.

Ott defines a “law-making” treaty as one concerned with the establishment of legal norms and regimes that parties to the treaty

³²³ ANITA M. HALVORSSSEN, EQUALITY AMONG UNEQUALS IN INTERNATIONAL ENVIRONMENTAL LAW: DIFFERENTIAL TREATMENT FOR DEVELOPING COUNTRIES.11 (1999). See also: Robert Y. Jennings, *Treaties, in* INTERNATIONAL LAW: ACHIEVEMENTS AND PROSPECTS 135 (Mohammed Bedjaoui ed., 1991).

³²⁴ VIENNA CONVENTION ON THE LAW OF TREATIES, 1155 U.N.T.S. (1969).

¹⁴ LAKSHMAN D. GURUSWAMY & GEOFFREY W.R. PALMER, et al., INTERNATIONAL ENVIRONMENTAL LAW AND WORLD ORDER: A PROBLEM-ORIENTED COURSEBOOK. 46 (1994).

³²⁶ DAVID H. OTT, PUBLIC INTERNATIONAL LAW IN THE MODERN WORLD 23–24 (1987).

agree to confine themselves to. The 1957 Treaty of Rome, according to Ott, is an example of a law-making treaty:

The Treaty of Rome which established the European Economic Community in 1957 is in this sense a law-making treaty insofar as it operates as a kind of constitutional document from which is derived law which binds the Community's members *vis-a-vis* the Community as a whole rather than simply in terms of reciprocal obligations between the member states.³²⁷

“Legislative” treaties, according to Ott, are those treaties that tend to conflict with customary international law and the doctrine of State Sovereignty. This is so due to the construct of Ott's interpretation. According to Professor Ott, legislative treaties are those that are legislatively mandated to have effect not only on the sovereign so mandating the treaty, but also on other nation-states not a party to the legislative process (e.g. other nation-states):

Customary international law and Article-34 of the Vienna Convention adopt the position that in general a treaty does not create obligations or rights for a third state without its consent.³²⁸

In a similar sense, treaties are considered to be self-perpetuating unless expressly vacated by the parties. As enumerated by Lord McNair:

Thus, the normal basis of approach adopted ... toward a treaty is that it is intended to be of perpetual duration and incapable of

³²⁷ *Id.* at 23.

³²⁸ *Id.* at 24.

unilateral termination, unless, expressly or by implication, it contains a right of unilateral termination or some other provision for its coming to an end.³²⁹

Professor Hans Kelsen provides a concise interpretation of Pact Sunt Servanda in *Principles of International Law*.³³⁰ According to Kelsen, the customary rule of Pact Sunt Servanda is initiated whenever parties to a treaty agree. Essentially the rule of Pact Sunt Servanda stands for the premise that treaties must be observed as they are written in order for such treaties to have an effect. As indicated by Kelsen, legal obligations and rights always stem from legal norms as manifested by government actions.

As indicated by some commentators, all treaties (including environmental treaties) possess similar characteristics:

The main features they share are: (1) an emphasis on national implementing measures being taken by the states parties; (2) the creation of international supervisory mechanisms to review compliance by states parties; (3) simplified procedures to enable rapid modification of the treaties; (4) the use of action plans for further measures; (5) the creation of new institutions or the utilization of already existing ones to promote continuous cooperation; (6) the use of framework agreements; and (7) interrelated or cross-referenced provisions from other environmental instruments.³³¹

³²⁹ LORD ARNOLD DUNCAN MCNAIR, *THE LAW OF TREATIES* 493–94 (Oxford University Press, 1961) (1938).

³³⁰ HANS KELSEN, *PRINCIPLES OF INTERNATIONAL LAW* 456 (2d ed. 1966).

³³¹ ALEXANDRE KISS & DINAH SHELTON, *INTERNATIONAL ENVIRONMENTAL LAW* 33 (2000).

An interesting aspect of treaties is the significant impact that they have on the environment and environmental decision-making. As to be expected, such treaties deal with environmental risks that can have major impacts on nation-states and societies. Professors John Tennert and Dennis Soden address the concept of risk in Dennis Soden and Brent Steel's work, the *Handbook of Global Environmental Policy and Administration*:

At its most basic level, risk involves a calculation of potential costs and benefits. The extent or likelihood that one will incur costs in pursuit of some basic benefit is a risk.³³²

The range of risk depends, in large part, upon the degree of exposure to a population as well as the potency of the medium that creates the risk.³³³ The influence of environmentalism and the political measures taken by some environmental groups, such as Green Peace, has brought the importance of environmental safety protection to the forefront in global life. This new awareness to environmental issues has motivated some scholars to adopt the view that international environmental treaties and law-making must focus on global management that undoubtedly brings with it the assessment and sanction of the environmental activities of various nation-states.³³⁴ Nongovernmental organizations (NGOs) and the media bring daily attention to global issues with NGOs providing information, and other important activities to the field of international environmental policy-making.³³⁵ As the involvement

³³² HANDBOOK OF GLOBAL ENVIRONMENTAL POLICY AND ADMINISTRATION 197 (Dennis L. Soden & Brent S. Steel, eds., 1999).

³³³ MIGUEL A. SANTOS, LIMITS AND SCOPE OF ENVIRONMENTAL LAW 7 (1995).

³³⁴ KAY MILTON, ENVIRONMENTALISM AND CULTURAL THEORY: EXPLORING THE ROLE OF ANTHROPOLOGY IN ENVIRONMENTAL DISCOURSE 186 (1996).

³³⁵ LAW, VALUES, AND THE ENVIRONMENT: A READER AND SELECTIVE BIBLIOGRAPHY 3 (Robert N. Wells, ed., 1996).

of NGOs continues to develop, the effect that such organizations will have remains to be seen.³³⁶

Environmental treaty-making, especially with regard to sensitive issues such as hazardous materials management, can be a tedious process at best; a process not without complications and policy-dilemmas:

A major flaw of most treaty making is its ad hoc nature, or institutional 'adhocracy'. Multinational conventions are adopted by an ad hoc conference of plenipotentiaries. True, environmental conferences of this kind normally are preceded and organized by expert sessions for drafting and negotiation, and such sessions often develop into regular channels of interaction among the relevant 'technical elites' or 'epistemic communities', including government, industry, and environmentalist representatives. By and large, however, one or two weeks of expert meetings at yearly or half-yearly intervals is hardly sufficient to establish the permanent working relationships, technical expertise, and mutual confidence that are essential ingredients in lawmaking.³³⁷

Although treaty making can be arduous and a time-consuming process, it is the only way which may produce a tangible legal document which can delineate the expectations and obligations of the treaty participants. Indeed, the "internationalization of environmental efforts" provides nation-states with the opportunity

³³⁶ ENGAGING COUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS 130 (Edith Brown Weiss & Harold K. Jacobson, eds., 1998).

³³⁷ PETER H. SAND, TRANSNATIONAL ENVIRONMENTAL LAW: LESSONS IN GLOBAL CHANGE 256 (1999).

to come to the global environmental negotiating table.³³⁸ Yet, as some commentators contend, the creation of central global environmental institutions responsible for enforcing treaties may be considered as utopian.³³⁹

Customary law is another mechanism through which international hazardous materials management can be realized and implemented on a global scale. In sum, customary law is developed when nation-states follow a common practice under the belief that the international law requires such adherence.³⁴⁰ An example of such a customary law could be immediate notification of a nuclear accident by one nation-state to another. If no treaty is provided under international law to address such a problem, common practices of notification when such accidents occur could provide the foundation for the creation of a law derived from custom. Stated another way, customary law requires two elements: the custom in question must be evidenced by state practice, and secondly, the state practice must be supported by *opinio juris*.³⁴¹

Under Article XXVIII(1)(c) of the *Statute of the International Court of Justice* a third form international law is recognized, known as “general principles of international law”. “General principles” are those legal principles that are recognized by civilized nations as law.³⁴² Examples include ancient legal maxims, rules of procedure, evidence, and jurisdiction. Also, subsidiary sources are considered by some international jurists as persuasive authority in many international environmental law cases. Such subsidiary sources could include the writings of legal scholars and learned international jurists (e.g. Lord Woolsey, Grotius, etc). It is

³³⁸ THE INTERNATIONALIZATION OF ENVIRONMENTAL PROTECTION 14 (Miranda A. Schreurs & Elizabeth Economy, eds., 1997).

³³⁹ Daniel Bodansky, *The Legitimacy Of International Governance: A Coming Challenge For International Environmental Law?* 93 AM. J. INT’L. L. 596, 624 (1999).

³⁴⁰ INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY 14, 15 (Anthony D’Amato & Kirsten Engel, eds., 1996).

³⁴¹ HALVORSSSEN, *supra* note 12, at 13.

³⁴² Gordon A. Christianson, *Jus Cogens: Guarding Interests Fundamental to International Security*, 28 VA. J. INT’L. L. 585, 648 (1988).

interesting to note that the International Court of Justice considers judicial decisions to be of subsidiary authority, and not primary in nature. In actuality, the Court does not always follow its own prior decisions in determining cases.³⁴³ According to the International Court of Justice, judicial decision-making should not be outcome determinative in nature, thus resting on the conception of *stare decisis*. The Court does allow prior judicial decisions to be considered in the judicial decision-making process along with other forms of law. Since there is no present international environmental court, it is the International Court of Justice that tends to hear the international environmental cases that are of significance.

The doctrine of State Sovereignty in international law is of fundamental importance when addressing environmental issues such as global hazardous materials management. The concept of sovereignty is as old as the creation of nation-states under modern governmental systems.³⁴⁴ In its simplest form, sovereignty stands for the notion that all nation-states enjoy the right to determine what social and economic matters develop within their borders, and should not be interfered with by other nation-states or their activities. Self-determination is a core foundation for the maintenance of sovereignty.³⁴⁵ Under such an interpretation, a nation-state is free to determine what government to develop and what matters are to affect the conduct of inhabitants within its borders. The concept of state sovereignty was addressed by the American Law Institute in the *Third Restatement of the Foreign Relations Law of the United States*, Section-206:

³⁴³ KISS & SHELTON, *supra* note 20, at 45.

³⁴⁴ JONAS EBBESSON, COMPATIBILITY OF INTERNATIONAL AND NATIONAL ENVIRONMENTAL LAW 12 (1996).

³⁴⁵ VED P. NANDA, INTERNATIONAL ENVIRONMENTAL LAW & POLICY 1 (1995).

Under international law, a state has: (a) sovereignty over its territory and general authority over its nationals;³⁴⁶

Under Comment-B of Section-206 of the *Restatement*, the American Law Institute has interpreted state sovereignty to mean that nation-states should have lawful control over their territories, to the exclusion of all others, and also that nation-states shall be able to control those territories and apply the law in those geographic areas.³⁴⁷ Although state sovereignty is held in high regard by the global community, some commentators, hold that sovereignty is a major barrier to protecting the environment, with nation-states not taking actions that could so minimize the sovereignty that they enjoy under international law.³⁴⁸ In order for environmental treaties to have the force of law, it is necessary for nation-states to recognize the need to modify the right of sovereignty in order to provide effectiveness to those treaties. One method, which could assist in this area, is international inspection processes identified in the treaties signed by nation-states. International inspectors could be employed to verify compliance with hazardous materials treaties. Nation-states may be more willing to have professional experts from international agencies review their activities. It is clear from recent actions taken by environmental groups such as Green Peace, that international public awareness of environmental problems is on the rise. As indicated by Kamieniecki, international policy-makers are keenly aware of the global problems that can be presented by major detrimental impacts upon the globe that can emanate from industrialization and economic growth.³⁴⁹ The key to

³⁴⁶ RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW, § 206 (1986).

³⁴⁷ *Id.* § 206 cmt.b.

³⁴⁸ James N. Rosenau, *Global Environmental Governance*, in INTERNATIONAL GOVERNANCE ON ENVIRONMENTAL ISSUES 51 (Mats, Rolén et. al. eds., 1997).

³⁴⁹ SHELDON KAMIENIECKI, INTRODUCTION TO ENVIRONMENTAL POLITICS IN THE INTERNATIONAL ARENA: MOVEMENTS, PARTIES, ORGANIZATIONS, AND POLICY 3 (Sheldon Kamieniecki ed., 1993).

environmental improvement may well be found in the creation of incentives for treaty development and enhanced monitoring to be performed by recognized international organizations. A major concern by nation-states is the penalty that may be faced by damaging the environment. Some treaties provide civil penalties for those that abuse the environment through intentional damage, but levying such penalties can be difficult at best.³⁵⁰

Section II

International Law and Hazardous Wastes

How nation-states deal with the issues posed by international hazardous materials (i.e. in manufacture, transportation, use and disposal) is in large part, determined by the jurisprudential perspectives of key legal and political institutions in the affected nation-states. Indeed, the hermeneutics of international environmental law tends to affect all sub-topical areas in this emerging field. Under common law and civil law systems, differences in legal philosophy develop the foundations of judicial decision-making and legal interpretation. Further, the content of judicial and political policies invariably reflect the process through which such policies are made.³⁵¹ As some commentators have argued, policy responses are simply attempts to solve collective action problems.³⁵² As competing interests converge on major policy issue in the environmental arena, difficulty in reaching consensus is ever-present.³⁵³ Swanson and Johnston identify the problem:

³⁵⁰ J. MCLOUGHLIN & E.G. BELLINGER, ENVIRONMENTAL POLLUTION CONTROL: AN INTRODUCTION TO PRINCIPLES AND PRACTICE OF ADMINISTRATION 105 (1993).

³⁵¹ LAMONT C. HEMPEL, ENVIRONMENTAL GOVERNANCE: THE GLOBAL CHALLENGE 120 (1996).

³⁵² JAMES CONNELLY & GRAHAM SMITH, POLITICS AND THE ENVIRONMENT: FROM THEORY TO PRACTICE 158 (2d ed. 2003).

³⁵³ RONNIE D. LIPSCHULTZ & JUDITH MAYER, GLOBAL CIVIL SOCIETY AND GLOBAL ENVIRONMENTAL GOVERNANCE: THE POLITICS OF NATURE FROM PLACE TO PLANET 29 (1996).

One of the largest hurdles to the development of effective international environmental law is the range of perspectives on a given problem. Although the resource to be regulated are 'common' to all of the states concerned, each state views the resources uniquely. Then each comes to the negotiating table with its own well-defined perspective on the management of the resource (based in this individual viewpoint), and finds that every other state is similarly armed with a very different perspective.³⁵⁴

Two particular schools of jurisprudence have greatly affected the field of international environmental law. Naturalism and Positivism have both affected divergent world-views on the importance of the environment in its relationship to modern times and societal development, both in a monetary and social context. As time has evolved, international jurists have borrowed concepts from both schools of jurisprudence to assist in problem solving.

With underpinnings in theology, Naturalism has historically maintained that international law is the law of the Divine, that is to say, the law derived from God. Under a pure naturalist theory of jurisprudence, nation-states are obligated to follow the Divine law and all laws that evolve from the natural state as an extension of God's will of progression. To develop laws without the foundation of God's law as justification would create situations wherein the laws made by men could not be enforced due to their human nature, thus falling short of the Divine. In essence, pure Naturalists dislike the notion that law can be enforced only by municipal

³⁵⁴ TIMOTHY SWANSON & SAM JOHNSTON, GLOBAL ENVIRONMENTAL PROBLEMS AND INTERNATIONAL ENVIRONMENTAL AGREEMENTS: THE ECONOMICS OF INTERNATIONAL INSTITUTION BUILDING 69 (1999).

legislators.³⁵⁵ In the context of environmental jurisprudence, self-interest can be viewed through a natural law framework. Here, the idea is that the survival and prosperity of humanity is linked to the protection of the environment. Under this conceptual framework, humanity should protect Nature, because it is Nature that protects humanity.³⁵⁶ The idea of Jus Naturae is not new and can be found in principles of stoicism dating back to the third century A.D.³⁵⁷

Under the concept of Jus Naturae, man is capable of invoking his reason in order to understand the natural law of the Divine. Related to protecting the world from the impacts of hazardous materials, a natural law jurisprudentialist would hold that it is the Divine which seeks to protect the environment and it is therefore the obligation of nation-states to adhere to the Jus Naturae as a manifestation of Jus Gentium and the Jus Inter Gentes when in practice. Under the natural law approach, customary law (*lex non scripta*) and treaties (*lex scripta*) are to be extensions of the law of the Divine as given to nation-states as a fundamental right of nature.

The present trend in environmental jurisprudence, however, is one of Positivism. In its most fundamental form, Positivism stands for the proposition that legal norms are valid only as they have been created according to a definite rule that is clear and discernable, such as a legislative mandate.³⁵⁸ Under a positivist approach, hazardous materials must be properly managed not because of a will of the Divine, but because so managing such risks protects state integrity. Here, the will of the state is made manifest through the development of rules of law.

³⁵⁵ Alfred P. Rubin, *The Impact of Changing International Institutions on Environmental Law*, in *TRANSNATIONAL ENVIRONMENTAL LAW AND ITS IMPACT ON CORPORATE BEHAVIOR* 7 (Eric J. Urbani, et al., eds., 1994).

³⁵⁶ ALEXANDER GILLESPIE, *INTERNATIONAL ENVIRONMENTAL LAW, POLICY AND ETHICS* 19 (1997).

³⁵⁷ Jianming Shen, *The Basis of International Law: Why Nations Observe*, 17 *DICK J. INT'L L.* 287, 355 (1999).

³⁵⁸ DAVID HUNTER & JAMES SALZMAN, et al., *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* 200 (1998).

Positivists promote the creation of treaties as *Jus Inter Gentes*. Dutch jurist, Cornelius van Bynkershoek, emphasized the importance of custom and treaty within a positivist framework, holding that rules of international law are only established via the consent of states and that all agreements (e.g. on hazardous materials management) are the products of their sovereign wills.³⁵⁹ The doctrine of *Pacta Sunt Servanda*, is an extension of Bynkershoek's premise.

The United Nations Environment Programme Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movements of Hazardous Wastes, known as the Basel Convention, and the Convention of the Transboundary Effects of Industrial Accidents, are two examples of modern hazardous materials related treaties which employ an enviropositivist framework.³⁶⁰ Indeed, the Basel Convention recognizes the sovereign will of the state in the treaty's preamble which recognizes that any state that is a party to the treaty can invoke its sovereign will and ban the importation and disposal of foreign hazardous wastes within its territories. Subject only to the Basel Convention's requirement of prior notification of a ban on importation of hazardous wastes to the exporting country, nation-states initially slated for the importation can refuse to accept those wastes even if they are in transit to them (see: Article 4 (1) (a) of the Basel Convention).

Developed in 1989, the Basel Convention initially adopted a managed trade approach to hazardous wastes, which allowed transboundary movements of hazardous wastes provided that prior informed consent was given to the exporting nation-state by the importing one. Critics of Basel contend that it only acts as a tracking system of wastes and has done little to restrict the actual

³⁵⁹ Shen, *supra* note 46, at 312.

³⁶⁰ *Environment Programme Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movements of Hazardous Wastes: Final Act and Text*, U.N. Basel Convention, Mar. 22, 1989, 28 I.L.M. 649. [hereinafter *Basel Convention*]. See also: U.N. Convention on the Transboundary Effects of Industrial Accidents, Mar. 17, 1992, 31 I.L.M. 1330.

trade in hazardous wastes. However, Article 2(8) of the Basel Convention adopts a concept of “environmentally sound management” wherein parties to the treaty must take demonstrative steps to decrease the generation of hazardous wastes. Under Basel, each party must seek to develop methodologies of safe waste handling and facilities management.

Insofar as trans-boundary movement of waste is concerned, party-members of the Basel Convention shall not export wastes to countries that cannot dispose of such wastes via means that demonstrate environmentally sound management. This essentially means that many less developed nations cannot accept wastes under the Basel Convention due to a lack of adequate support services for waste management. Despite the protections afforded by the Basel Convention, some less-developed nation-states still accept wastes due to the financial gain that may transpire through the acceptance of such wastes. It remains problematic, at best, to prevent local government leaders from accepting hazardous wastes from illegal shippers when the financial gains can be quite extensive. Despite the problem of unethical local leaders and illegal shippers, the Basel Convention does provide a complex and highly detailed paper-trail for tracking the trans-boundary movement of hazardous wastes. Via Article 4(7)(b) of the Basel Convention, parties to the treaty must employ packaging, labeling, and transportation measures that conform with international rules and norms. Under Article 6(1), the nation-state of importation must give written consent to the exporting nation-state with regards to the particularities of the exchange. Importing nation-states must assure countries of export that adequate facilities and measures are employed by the importer to maintain environmentally sound management.

In response to the Basel Convention’s managed trade approach, various African nation-states developed the Bamako Convention on the Ban of Import into Africa and the Control of Trans-Boundary Movement and Management of Hazardous Wastes

Within Africa.³⁶¹ Under Bamako, the complete ban of hazardous waste importation into treaty nation-states in Africa is accomplished, with few exceptions provided. Bamako Convention members are afforded the opportunity to transport hazardous wastes across their boundaries within the continent, but are not to accept wastes from abroad.

Of interest within the Bamako Convention is the liability scheme. Under Article 4(3)(b), unlimited liability, as well as joint and several liability is provided to punish violators. Another important aspect of the Bamako Convention is its approach toward the maintenance of a precautionary principle, wherein the foci is on developing clean production methods vis a vis encouraging permissible emission levels of hazards materials.

In 1992, the United Nations Conference on Environment and Development was born. Held in Rio de Janeiro, various nation-states sent representatives to Brazil to discuss the state of the environment, and what methods could be employed to enhance global environmental protection. The result of this conference was the development of a series of documents known as Agenda 21.³⁶² Chapter-20 of Agenda 21 addresses the concerns of hazardous wastes via, inter alia:

(1) Calling for the effective control of hazardous wastes at all stages (e.g. generation, storage, treatment, and transportation);

(2) Prevention of the generation of hazardous wastes when possible;

³⁶¹ Organization of African Unity (OAU), Bamako Convention on the Ban of Import into Africa and the Control of Trans-Boundary Movement and Management of Hazardous Wastes within Africa, Jan. 29, 1991, 30 I.L.M. 775 [hereinafter Bamako Convention].

³⁶² U.N. Doc. A/CONF. 151/26 (vols. I, II, III)(1992).

(3) Development of cleaner production methodologies to curtail the amount of hazardous emissions;

(4) Industry-wide environmental management systems designed to protect the environment; and

(5) National hazardous waste planning and legislation.³⁶³

Agenda 21 also addressed the need for prevention in the area of illegal international traffic in hazardous wastes.³⁶⁴ Criticism of Agenda 21 ostensibly revolves around the execution of its target goals. Highly aspirational, Agenda 21 seems to provide incentives for the sound management of hazardous wastes without providing concrete means for accomplishment. Promoters of Agenda 21 contend that the Agenda developed out of one United Nations Conference, and that other similar conferences are likely to follow with more detail and methods for meeting the target goals of Agenda 21.

Similar to the Basel Convention, the Convention on the Transboundary Effects of Industrial Accidents, also recognizes the sovereign will of the state. Article 22 of the treaty deals with the privacy of information about hazardous materials or practices which could cause trans-boundary damage. Under Article 22, signatory nation-states are not bound to supply all information about hazardous materials and practices to neighboring nation-states. If the information is considered to be of military significance or pertain to commercial secrecy, then a nation-state which suffers an industrial accident may not be obligated under the treaty to provide to other states what might be important

³⁶³ UNCED Agenda 21, U.N. DESA, U.N. Doc. A/Conf. 151/26 (1992). [hereinafter Agenda 21].

³⁶⁴ Agenda 21, *supra* §§ 20.39-20.46.

information that may be needed in order to address the emergency and its trans-boundary effects.³⁶⁵

The sometimes-overbearing role of sovereignty is made ever apparent when the effectiveness of rules is measured in terms of legal status and quality.³⁶⁶ Consequently, all trans-global efforts aimed at dealing with environmental issues ultimately revolve around the willingness and abilities of nation-states, agencies, and international organizations to follow certain rules and change national behavior and policy positions when necessary in order to achieve effective environmental protection goals.³⁶⁷ However, the reluctance of nation-states to give up some sovereignty in order for treaties to move forward is nothing new.³⁶⁸

As indicated, sovereignty is an ever-present aspect of international environmental law, and is unlikely to diminish at any time in the near future. The importance of sovereignty is recognized also in Principle-21 of the Stockholm Declaration of the United Nations Conference on the Human Environment:

States have, in accordance with the Charter of the United Nations and the principle 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

³⁶⁵ See Article 22(1) of the Convention of the Trans-boundary Effects of Industrial Accidents.

³⁶⁶ JOHN VOGLER, *THE GLOBAL COMMONS: ENVIRONMENTAL AND TECHNOLOGICAL GOVERNANCE*, 2nd ed., 155 (2000).

³⁶⁷ LAWRENCE E. SUSSKIND, *ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS* 13 (1994).

³⁶⁸ *ENVIRONMENTAL PROTECTION AND INTERNATIONAL LAW* 71 (W. Lang & H. Neuhold, et al. eds., 1991).

or of areas beyond the limits of national jurisdiction.³⁶⁹

It should be noted that this same principle was prescribed 20 years later in Principle-2 of the Rio Declaration on Environment and Development.³⁷⁰

Conclusion

The science, international law and jurisprudence of hazardous materials management will continue to evolve as technologies develop, and new problems in global governance arise. Although treaties have been developed to deal with the dangers that emanate from hazardous materials, general principles of law and customary law also influence how nation-states treat the hazardous materials issue. The observance of treaty guidelines, however, depends in large part on the forms and norms of the treaty documents, and how they are interpreted by the various signatory nation-states.³⁷¹ Regulatory regimes are often employed in the treaty-making process and involve, *inter alia*, the development of policy objectives and instruments; the involvement of governmental institutions; decision-making procedures and supporting norms as legitimized by key regime actors.³⁷² It is apparent that nation-states must establish clear understanding of basic goals of hazardous materials treaties, even if only in fundamental forms. Even a basic agreement on general principles can provide a forum for further dialogue on the issues presented. Varying interpretations and divergent program implementations among signatory states only furthers confusion, and fails to establish significant groundwork in

³⁶⁹ Stockholm Declaration of the United Nations Conference on the Conference on the Human Environment, 11 I.L.M. 1416, 1420 (1977).

³⁷⁰ Rio Declaration on Environment and Development, 31 I.L.M. 874, 876 (1992).

³⁷¹ THE INTERNATIONAL POLITICS OF THE ENVIRONMENT: ACTORS, INTERESTS, AND INSTITUTIONS 71 (Andrew Hurrell & Benedict Kingsbury, eds., 1992).

³⁷² GEORGE HOBERG, PLURALISM BY DESIGN: ENVIRONMENTAL POLICY AND THE AMERICAN REGULATORY STATE 5 (1992).

the progression of environmental safety and regulatory response to the dangers posed by hazardous materials.³⁷³

Due to the relatively new treaties that deal with the trans-boundary effects of hazardous materials and wastes, there have been no international law cases dealing with the subject that have made it before the International Court of Justice. Four cases, however, hold relevance to the subject matter, even if only in ancillary terms: *Lake Lanoux Case*,³⁷⁴ *Trail Smelter Case*,³⁷⁵ *Corfu Channel Case*³⁷⁶, and the *Nuclear Test Cases*.³⁷⁷

In the arbitral decision of *Lake Lanoux*, Spain objected to a French hydroelectric power plan, contending that such an operation would alter the flow of a river that crossed from France into Spain. Although Spain was unsuccessful in its objection, the Tribunal reinforced its support of comity, holding that nation-states must strive to reach agreements prior to the creation of operations that can pose potential problems (witness the importance of treaties designed to regulate future conduct). In *Trail Smelter*, the United States brought arbitral action against Canada for trans-boundary pollution caused by a smelter plant in Canada. After reviewing U.S. Supreme Court case law, the Tribunal held that Canada was responsible for the pollution and should provide the United States with compensation for the damage. In its decision, the Tribunal found that no nation-state has a right to use its territory in such a manner that causes serious consequences, with damage that can be evidenced via clear and convincing means. The Tribunal's decision in *Trail Smelter* reinforces Principle-21 of the Stockholm Declaration, and Principle-2 of the Rio Declaration.

³⁷³ David P. Hackett, *An Assessment of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 5.2 AM.U.J. INT'L L. & POL'Y. 291,323(1990).

³⁷⁴ *Lake Lanoux Case* (Spain v. Fr.), 12 U.N.R.I.A.A. 281 (1957). [Hereinafter *Lake Lanoux*].

³⁷⁵ *Trail Smelter Case* (U.S. v. Can.), 3 U.N.R.I.A.A. (1949). [Hereinafter *Trail Smelter*].

³⁷⁶ *Corfu Channel* (U.K. v. Alb.), 1949 I.C.J. 4. [Hereinafter *Corfu Channel*].

³⁷⁷ *Nuclear Tests*, 1974 I.C.J. 253. [Hereinafter *Nuclear Tests*].

The International Court of Justice made an interesting decision in *Corfu Channel*. In *Corfu Channel*, the United Kingdom brought action against Albania for damages incurred on British warships by mines placed near Albanian waters. Holding Albania responsible for the damage, the Court held:

It is true, as international practice shows, that a State on whose territory or in whose waters an act contrary to international law has occurred, may be called upon to give an explanation. It is also true that that State cannot evade such a request by limiting itself to a reply that is ignorant of the circumstances of the act and of its authors.

In *Corfu Channel*, the Court reasoned that nation-states must cooperate when damage occurs to one nation-state by the possible actions of another. The central concern that the Court had in *Corfu Channel* was the apparent inattentiveness demonstrated by Albania during the fact-finding period of the Court's investigation. Albania had neither notified the existence of the minefield to the British, nor warned the British ships of the potential dangers posed by the underwater minefield. Clearly, this case stands for the importance of comity and the concept of *Droit Moral* in international jurisprudence.

One possible solution to the dilemmas posed by treaty enforcement is international conflict negotiation as an alternative form of dispute resolution. Traditionally the trans-boundary movements of hazardous materials has been bound by the comity of nations and "good neighborliness" between nation-states, known through the maxim: *sic utere tuo, ut alienum non laedas*.³⁷⁸ However as multinational companies recognized the lower costs they would incur by establishing hazardous materials and waste facilities in third-world countries, those non-developed societies

³⁷⁸ Jason L. Gudofsky, *Transboundary Shipments of Hazardous Waste for Recycling and Recovery Operations*, 34 STAN. J. INT'L.L. 219, 286 (1998).

faced the dangers posed by environmental degradation.³⁷⁹ Indeed the gross economic disparity across the world and the varying stages of industrial development among nation-states plays a significant role in the environmental protection equation.³⁸⁰ How nation-states manifest responsibility, with regard to hazardous materials within their borders, must evolve much like the duty of care has evolved within the law of torts.³⁸¹ Each nation-state must develop systems of municipal law that are designed to regulate those industries that manufacture and use hazardous materials. Furthermore, each nation-state must establish procedures and organizations that can enforce those laws so developed by municipal legislative, judicial, and/or executive bodies. The fundamental differences in culture, risk perception, economic growth and government administration all effect how nation-states perceive the importance of regulating hazardous materials and related dangers.

The duty to inform neighboring nation-states of the dangers posed by trans-boundary effects of environmental hazards is an emerging doctrine of customary law that is not without controversy. At the heart of the doctrine is the notion that nation-states must inform their neighbors about the potential adverse environmental effects that they may face should environmental accidents occur within the reporting nation-state.³⁸² As indicated previously with regard to the Convention on the Trans-boundary Effects of Industrial Accidents, treaty provisions can sometimes be used to circumvent key notions of customary law, such as the duty to inform.

³⁷⁹ See Thomas O. McGarity, *Bhopal and the Export of Hazardous Technologies*, 20 TEX. INT'L L.J. 333 (1985).

³⁸⁰ RICHARD L. REVESZ, FOUNDATIONS OF ENVIRONMENTAL LAW AND POLICY 308 (1997).

³⁸¹ Ian Brownlie, *State Responsibility and International Pollution: A Practical Perspective*, in INTERNATIONAL LAW AND POLLUTION 121, 123 (Daniel Barstow Magraw, ed., 1991).

³⁸² Daniel G. Partan, *The "Duty To Inform" in International Environmental Law*, 6 B.U. INT'L L.J., 43 (1988).

Recently, scholars have been revisiting the conception that there is, or at the very least should be, a recognized human right to a healthy environment.³⁸³ Some scholars, such as Professor Edith Weiss argue that the global society has an obligation to future generations that requires that we not damage the environment beyond that which has already been done.³⁸⁴ Sustainable development is an avenue for the realization of protecting the rights of future generations via responsible planning and environmental policy-making at the international level, a key component of which is the balance between the ecologic and the economic.³⁸⁵

Of practical concern is how environmental risks affect the resources upon which we rely. James Anaya contends that there are four fundamental international norms that speak to the issue of environmental protection.³⁸⁶ First, it is contended that there is a basic right to physical well being which would also include the right to be free from bodily harm, and the right to physical and mental health. This first category of international norms focuses on the physical well-being of people and can easily lend itself to the need for responsible hazardous materials management. A second category of international norm revolves around the notion of cultural integrity. Here the focus is on protecting the culture of societies from degradation by other cultural groups or institutions. The third international norm, according to Anaya, is the right to own property and manage such property free from hindrances imposed by other nation-states. This category could address environmental and property damage that can occur from, inter alia, the accidental release of hazardous chemicals into groundwater.

³⁸³ Sevine Ercmann, *Linking Human Rights, Rights of Indigenous People and the Environment*, 7.1, 2 BUFF. ENVTL. L.J.15, 46 (1999-2000).

³⁸⁴ Edith Brown Weiss, *Our Rights and Obligations to Future Generations for the Environment*, 84 AM. J. INT'L L. 198, 207 (1990).

³⁸⁵ HENDRIK PHILIP VISSER, T HOOFT, JUSTICE TO FUTURE GENERATIONS AND THE ENVIRONMENT 19 (1999).

³⁸⁶ James S. Anaya, *Environmentalism, Human Rights and Indigenous Peoples: A Tale of Converging and Diverging Interests*, 7.1, 2 BUFF. ENVTL. L.J. 1, 13 (1999-2000).

The proposed right of 'self-determination' is the fourth norm in Anaya's analysis. Here, it could be conceived that self-governance can be hindered by other sovereignties through the release of hazardous materials and substances (e.g. the release of poison gases or radiation through carelessness). It is conceivable that smaller indigenous groups could be affected in major ways by exposure to chemicals and other dangerous substances.

An international human right to a healthy environment is conceptualized by some scholars as within the bounds of customary law and also can be interpreted from Article VI of the International Covenant on Civil and Political Rights, which recognizes a right to life,³⁸⁷ and Article XXV of the Universal Declaration of Human Rights, which acknowledges a right of all people to a standard of living adequate for acceptable levels of human health.³⁸⁸ The entire idea of an international human right to a healthy environment is highly controversial, with divergence of opinion in the literature. Whether such a human right will ever reach the level of *Jus Egra Omnes* remains to be seen. It is clear from the literature on the proposed right to a healthy environment that discourse will continue in this area for some time to come.³⁸⁹ As Boyle and Anderson describe, debate even brews within the progressive camp:

Environmentalists may distrust the priority which human rights activists are likely to accord to the human being over other species and ecological processes ... In contrast, some human rights activists have

³⁸⁷ International Covenant on Civil and Political Rights, Dec. 19, 1966, 999 U.N.T.S. 171.

³⁸⁸ Universal Declaration Of Human Rights., G.A. Res. 217A (III), U.N. Doc.A/810, at 71 (1948). *See also*: John Lee, *The Underlying Legal Theory to Support a Well-Defined Human Right to a Healthy Environment as a Principle of Customary International Law*, 25 COLUM. J. ENVTL L 283,346 (2000).

³⁸⁹ Luis E. Rodriguez-Rivera, *Is the Human Right to Environment Recognized Under International Law? It Depends on the Source*, 12 COLO. J.INT'L ENVTL L. & POL'Y., 1, 45 (2001).

criticized the environmental movement for disregarding immediate human needs in the quest to protect biota, finite natural resources, and the basic needs of future generations.³⁹⁰

Even the concept of sustainable development is a construct that brings with it ambiguity.³⁹¹ What may be sustainable in one nation-state, may not be the same for a neighboring state. As stated earlier, economic development often influence government perceptions of sustainability. Countries to the South (third-world nations) usually have cheaper labor pools which influences western cultures and Europeans from the north to send labor southward. The nations of the South end up with increased labor but pay with a major negative impact to their local environments.³⁹²

The 'precautionary principle', as interpreted by some scholars and international jurists can provide one avenue for protecting the environment and the proposed rights of future generations to a healthy environment. In its fundamental form, the precautionary principle suggests that key governmental decision-makers should regulate environmental risks with a focus on preliminary determinations about how those risks may effect the environment. Here, the emphasis is on preventing environmental damage before it begins.³⁹³ Requiring that manufacturers test chemical products

³⁹⁰ HUMAN RIGHTS APPROACHES TO ENVIRONMENTAL PROTECTION 3 (Michael R. Anderson & Alan E. Boyle, eds., 1996).

³⁹¹ Günther Handl, *Sustainable Development: General Rules versus Specific Applications*, in SUSTAINABLE DEVELOPMENT AND INTERNATIONAL LAW 37 (Winfried Lang, ed., 1995).

³⁹² THE NORTH, THE SOUTH, AND THE ENVIRONMENT: ECOLOGICAL CONSTRAINTS AND THE GLOBAL ECONOMY 148, 150_(V. Bhaskar, & Andrew Glyn, eds., 1995).

³⁹³ James Cameron & Juli Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B.C. INT'L & COMP. L. REV. 1, 27 (1991). See also PROTECTING PUBLIC HEALTH AND THE ENVIRONMENT: IMPLEMENTING THE PRECAUTIONARY PRINCIPLE 16 (Carolyn Raffensperger & Joel A. Tickner, eds., 1999).

for environmental risks, before those products are sold in the marketplace, is an example of the precautionary principle. Many of the federal environmental laws in the United States employ the precautionary principle, such as the FIFRA legislation enforced by the U.S. E.P.A. A key concern in any legislation is how to establish liability should environmental damages occur.³⁹⁴ In domestic and municipal law it is the territorial government that is responsible for setting the standards for criminal and civil liability. At the global level, the problem is more complex due to the nature of international relations and present trends in foreign policy setting and affairs.

In conclusion, the problems posed by hazardous materials cannot be denied as technology continues to increase. Along with this environmental dilemma, many parts of the world are growing in population. Treaties can provide some relief, however they must be strictly adhered to in order to have any significant weight in the international arena. It is proposed that the Permanent Court of Arbitration within the United Nations be acknowledged as a significant supplement to the International Court of Justice. The Permanent Court of Arbitration, established by the Hague Convention of 1899 and 1907 is capable of handling international environmental disputes.³⁹⁵ The use of the PCA would provide for international environmental disputes to be handled on a case-by-case basis without having to resort to the invocation of treaties that may, or may not be adhered to in the end. Arbitration brings less negative public exposure, and allows for nation-states to save face when compared to other consequences (i.e. being perceived as a treaty-violator or party before the International Court of Justice). Further research into the powers and abilities of the PCA is in order for the progression of global environmental safety to continue.

³⁹⁴ Sean D. Murphy, *Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes*, 88 AM. J. INT'L L. 24, 75 (1994).

³⁹⁵ JON MARTIN TROLLDALEN, INTERNATIONAL ENVIRONMENTAL CONFLICT RESOLUTION: THE ROLE OF THE UNITED NATIONS 20 (1992).

From an academic perspective, it is vital that scholars in the social sciences and law develop dialogue for furthering knowledge about the global environment and how to protect it. A United Nations sponsored academic forum could provide the foundation for cross-disciplinary research in international environmental law and hazardous materials management. Major international organizations, such as the World Health Organization (WHO) and the International Maritime Organization (IMO) could assist in the development of such a global forum that could occur on a yearly basis at various educational institutions across the world.

