BEYOND TERRITORIALITY: INTERNATIONAL REGIMES FOR THE CONTROL OF LAND-BASED MARINE POLLUTION

by

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ABSTRACT

International law since the Peace of Westphalia has focused on the definition and maintenance of physical and conceptual boundaries in international society. States have relied on international law to protect their independence and autonomy, only to discover that domestic policies and activities can have impacts beyond state territory with which neither individual states nor international law as traditionally conceived are equipped to deal. Such is the case with land-based marine pollution, which, because of its inherently transboundary nature, poses particular difficulties to international law. Land-based sources, being within domestic jurisdiction, are beyond the reach of an international legal system conceived of as a means for maintaining state sovereignty and territorial integrity. What is required is a basis upon which international law may bridge the gap between domestic and international spheres.

The international regime offers possibilities for developing a division of labour between municipal and international law to address the problem of land-based marine pollution. The land-based pollution regimes considered in this thesis function in the first instance as contextual regimes, in which relevant actors, both state and non-state, are brought together in order to define and frame the problem, gather and exchange information, and work out the basis for a coordinated or cooperative approach to problem-solving. It is through these initial processes that a body of consensual knowledge about land-based pollution may be developed which may then form the basis for understandings of state interests as convergent. Once a consensus about the problem and potential approaches to its solution begins to emerge, it is possible to move on to the elaboration of a legal regime setting out norms for the control of land-based marine pollution.

International regimes also help to bolster the legitimacy and effectiveness of international law. Regimes foster legitimacy in that they provide a forum for ongoing dialogue among a range of actors regarding the articulation, interpretation and application of norms. As such, they offer possibilities for the development of common approaches and shared meanings among the actors to whom these norms are addressed. Regimes foster effectiveness by providing, through information-gathering and -dissemination processes, a continuous feedback loop regarding questions of implementation of and compliance with international norms. Furthermore, these regimes operate within an extensive network of international actors. This network provides a basis for the development of a broader consensus on normativity applicable to land-based pollution and, more generally, environmental protection.

Regime theory provides an excellent basis for an examination of the role and function of international legal instruments for the control of land-based marine pollution. The regime is capable of bridging functional gaps between international and municipal legal systems, suggesting ways in which international law can move beyond state territoriality.

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DEDICATION

To Paul for his invaluable assistance, and to John for his perseverance.

We, who are as good as you, swear to you, who are not better than we, to accept you as our king and sovereign lord, provided you observe all our liberties and laws; but if not, then not. - from Lewis Mumford, The City in History: Its Origins, Its Transformations, and Its Prospects (New York: Harcourt, Brace and World, 1961).

CHAPTER 1: INTRODUCTION

As environmental protection comes to occupy an increasingly prominent place on the international agenda, tension has arisen between the demands that are placed on domestic and international legal systems and the capacity of those systems to respond. It is becoming apparent to policy-makers at every level that a clear distinction between domestic and international jurisdiction cannot be maintained, as the problems encountered in each of these spheres, and the range of possible solutions, are increasingly difficult to understand in terms of distinct jurisdictional categories. Environmental protection policy is coming to be conceptualized in terms of continuity and interconnectedness. The international legal system, meanwhile, continues to function on the basis of borders and boundaries. The capacity of international law to respond to the rising demand for legal mechanisms for global environmental protection depends to a large extent on its capacity to adapt itself to the physical and conceptual framework of the ecosystem.

Such an attempt at adaptation may be observed in the case of land-based sources of marine pollution. Land-based pollution is extremely problematic from the point of view of international law, as its sources are located within state territory and therefore within domestic

¹ Thom Kuehls, *Beyond Sovereign Territory* (Minneapolis: University of Minnesota Press, 1996) at 39-41 and 45.

jurisdiction. On the other hand, the impacts of such pollution are felt beyond state borders, either in the territory of neighbouring states or in waters within international or limited national jurisdiction. An international legal framework based on state territoriality would regard land-based marine pollution as relevant only in the case of significant cross-border impacts. However, to the extent that land-based pollution affects state territory or other state-centred interests, it does so indirectly. Furthermore, the immense difficulties with tracing sources of pollutants and proving causal links between such sources and damage within the territory of another state render the principal tool of international law, state responsibility, of extremely limited value. There is a fundamental physical and conceptual incongruence between the space of state territory and the space of ecosystems.²

The jurisdictional distinction between municipal and international law leaves a gap at the boundary between the two systems, since issues such as land-based marine pollution which span this boundary cannot adequately be addressed by either system acting independently of the other. The problem presented by land-based marine pollution is not so much a function of the location of this boundary, but rather with the existence of the boundary itself. The incongruence between territoriality and ecosystem cannot be overcome simply by restructuring jurisdictional categories, as this would fail to address the essential interconnectedness of ecosystems and the permeability of boundaries to environmental impacts. What is required are mechanisms whereby international law could span boundaries. Functionalist and regime

² Martin List and Volker Rittberger, "Regime Theory and International Environmental Management" in Andrew Hurrell and Benedict Kingsbury, eds., *The International Politics of the Environment* (Oxford: Clarendon Press, 1992) 85 at 85; Kuehls, *ibid.*, at 39-41.

theories in international relations provide a basis for understanding how this might be accomplished.

Functionalism is of particular interest in international law because it does not require the dismantling of the state and the erection of more centralized structures of international governance in its place. It does, however, depart from the notion of the state as an autonomous, monolithic entity with inherent attributes of sovereignty and independence. The state is instead presented as a social institution, comprising several overlapping communities, many of which have strong ties with communities or organizations beyond state borders.

Furthermore, functionalism recognizes the significance of actors other than states - particularly transnational and international organizations - in the international sphere. It also offers a perspective on processes of international governance that takes into account and seeks to address interdependence as a fact of international life rather than a difficulty to be overcome. Functionalism recognizes that, just as the issues which states and other actors in the international system must address are characterized by continuity across international boundaries, the responses of legal systems must possess a similar continuity.

Central to the functionalist approach to international governance is the concept of the international regime. Regimes provide a locus and a framework for the development of international law by bringing interested actors together and facilitating cooperative behaviour. Regimes may also be instrumental in the development of consensus by promoting the gathering and dissemination of information relevant to a given issue-area. Finally, they may play a role

in the gradual development of norms, as well as in ongoing processes of norm interpretation and application.

This paper will explore the response of international law to the problems posed by land-based sources of marine pollution. The insights which functionalism and regime theory provide will be employed in an attempt to come to terms with the apparent contradiction between the frameworks provided by international law, on the one hand, and the nature of environmental degradation, on the other. The notion of regimes will be relied upon to describe ways in which the basic institutional as well as substantive problems encountered in international environmental protection might be addressed. Finally, selected international regimes for the control of land-based marine pollution will be analyzed in order to better understand the contribution made by regimes to the development of international marine environmental protection law.

CHAPTER 2 - THEORY OF INTERNATIONAL ENVIRONMENTAL LAW: OVERCOMING THE LIMITS OF POSITIVISM

INTRODUCTION

Land-based marine pollution presents a number of challenges to a liberal approach to international law. In the first place, the scope of the problem, and therefore of the optimal solution, extends beyond the jurisdictional boundary separating the municipal from the international legal sphere. Second, the complexity of the problems within this issue-area demand an elaborate regulatory scheme for their resolution, one in which the actors must participate on an ongoing basis. In the pages which follow, I will consider the implications for a liberal framework of these two characteristics of land-based marine pollution. I will then examine a number of theories developed in the fields of international law and international relations in which the spheres of municipal and international law are reconceptualized to provide a functionalist basis for the development of regulatory structures for land-based marine pollution. In the course of this discussion, I will consider various theoretical efforts to overcome jurisdictional boundaries and to conceptualize the international and municipal spheres as mutually supporting and interlocking rather than discontinuous. Ways in which this conceptualization may come to be accepted and, eventually, acted upon by states and other actors in the international system will be explored. Working with the insights provided by international relations literature, I will explore the possibilities for employing international law to move from a state-centric approach to an ecosystem orientation. This teleological approach requires a clearer understanding of the ways in which international law comes to be developed and implemented, and the influences of various types of actors, structures

and processes on this development. I will therefore pay particular attention to the processes through which law develops and is interpreted and applied.

LIBERAL APPROACHES TO INTERNATIONAL LAW

Much current thinking on international law and international relations is heavily influenced by liberal traditions. One highly influential branch of traditional international scholarship draws on social contract theories of civil society, in which states are held to be analogous to individuals in society; the inviolability and independence of states are compared to security of the person; and sovereignty over a given territory and population is compared to rights in property. States are deemed to enter into a social contract under which they agree to be bound by certain rules of international law in order to secure protection for what are seen as their fundamental rights to sovereignty, independence and inviolability. Protection of these basic rights is deemed to constitute the general interest of all states, in that such protection provides a certain level of order and stability which is not so high as to be incompatible with the freedom of states to pursue their own interests.

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¹ For an analysis of the parallel drawn between the individual and the state, see John Gerard Ruggie, "Continuity and Transformation in the World Polity: Toward a Neorealist Synthesis" in Robert O. Keohane, ed., *Neorealism and its Critics* (New York: Columbia University Press, 1986) 131.

² See J.L. Brierly, *The Law of Nations: An Introduction to the International Law of Peace*, 6th ed. (Oxford: Clarendon Press, 1963) at 49-50; Louis Henkin, "The Mythology of Sovereignty" (1992) Can Council Intl L 15 at 18; and Hans Kelsen, *Principles of International Law*, 2d ed. (United States: Holt, Rinehart and Winston, 1966) at 243. Hedley Bull defines states as "independent political communities possessing internal and external sovereignty:" *The Anarchical Society: A Study of Order in World Politics* (New York: Columbia University Press, 1977) at 13, and argues that, from the time of the emergence of the idea of international society, that society has been defined as a society of states: *ibid.*, at 34 ff. He describes the international social contract which defines this society at chapter 1, *ibid.*

Although the notion of fundamental rights of states bears some resemblance to natural law thinking, many international scholars argue that the basic attributes of the state are derived not from its essential character but from rights and obligations conferred by the international legal system.³ Positivists, with some notable exceptions, such as Hans Kelsen and Josef Kunz,⁴ generally locate the authoritativeness of rules of international law in state consent. As a result, international law is seen to be created by and for states, and to reflect their interests. These interests are described in essentially contractarian terms, including preservation of independence and maintenance of territory. International law is viewed by liberalism as being concerned, essentially and perhaps exclusively, with relations between sovereign states.⁵

Hedley Bull's conception of an international society of states, based on a social contract, provides us with a good illustration of the role and purpose of international law as conceived in liberal scholarship. Bull argues that the central objective of international society is to secure the general interest of states through the provision of a level of order and stability adequate for the satisfaction of three basic needs: security against violence; promises kept and agreements carried out; and stability in possessions.⁶ This list is exhaustive, according to Bull. Martti Koskenniemi

³ Ian Brownlie, *Principles of Public International Law*, 4th ed. (Oxford: Clarendon Press, 1990) at 287. Bull notes that international order may be achieved otherwise than through a states system, arguing only that this is the case at present: *ibid.*, at 21.

⁴ Hans Kelsen argues that the basic norm (*grundnorm*) is located at a higher level, namely in the principle which grounds customary law that states ought to behave as they customarily behaved. Customary law, in turn, supplies the basis for the validity of treaty law, *pacta sunt servanda*: Kelsen, *supra*, note 2 at 564. Kelsen is essentially in agreement with Brownlie in arguing that the "spheres of validity" within which states are authorized to regulate are determined by international law: Kelsen, *ibid.*, at 553. See also Josef L. Kunz, *The Changing Law of Nations: Essays on International Law* (Toledo: Ohio State University Press, 1968) at 25.

⁵ Brownlie, *supra*, note 3 at 288: "The whole of ... [international] law could be expressed in terms of the co-existence of the sovereignties": *ibid*.

⁶ Bull, *supra*, note 2 at 4-5.

identifies the essentially liberal agenda behind this approach, in which the purpose of international society is simply to provide for an environment in which states retain as much freedom as is compatible with the protection of their basic rights to pursue their own interests as they define them.⁷ Bull does not argue that there is no possibility in the international realm for pursuing goals other than those described above, but rather that the maintenance of order within a society of states is incompatible with the pursuit of other possible objectives, such as justice on a human scale.⁸ Peaceful coexistence among states is understood by Bull to depend, first and foremost, on respect by each state for the sovereignty of others, which in turn depends on an assumption that each state has the capacity to manage its internal affairs without interference.⁹ This is described by Naoya Okuwaki as the self-restraint of international law.¹⁰

The decentralized nature of international society makes law's effectiveness depend on a perception by states that their own interests are coincident with the objectives of the legal system. States are represented as seeking maximum freedom, but in order to enjoy freedom they must have order. Conversely, international law seeks to impose and maintain order, a state of affairs which requires, in liberalism, that states be granted latitude to make their own determinations

⁷ Martti Koskenniemi, From Apology to Utopia: The Structure of Legal Argument (Helsinki: Finnish Lawyers' Publishing Company, 1989) at 35.

⁸Bull, *supra.*, note 2 at 82-3.

⁹ Martti Koskenniemi makes a similar point, arguing that an attempt to base international law on purportedly universal values as opposed to statehood creates, in the absence of agreement on the authentic purpose of social life, a risk of suppression of alternative value systems: "The Future of Statehood" (1991) 32 Harvard Intl LJ 397 at 402.

¹⁰ Naoya Okuwaki, "Changing Theory of International Law: A Japanese Perspective" (1990) Can Council Intl L 187 at 188.

regarding the good society and other value-laden matters. If this perception of coincident interests is present, it is anticipated that states will adhere to rules of international law even when adherence is not in their immediate interests, in the understanding that non-compliance may result in reciprocal non-compliance by other states, thereby threatening the stability of the entire system. Reciprocity is preferred to agreement on the fundamental values forming the basis of a particular rule, since preference for one set of values over another would violate the principle of sovereign equality. As a result, there is an attempt to push conflicts over values out of the international sphere by describing that sphere as the realm of the legal, whereas discussions about politics and morality take place exclusively within the municipal sphere. As long as matters of politics and morality are kept out of the realm of inter-state relations, it is assumed, conflict in the international realm will be minimized. International law is to be employed, according to this viewpoint, as a tool to achieve only those basic and fundamental needs upon which all states agree, and not as a means to pursue objectives which could not be the object of universal consensus among states.

The maintenance of order in international relations is seen, from this perspective, to involve the definition and maintenance of boundaries, both physical and conceptual. The inviolability of the

¹¹ Thomas M. Franck, *The Power of Legitimacy among Nations* (New York: Oxford University Press, 1990) at 199.

¹² Koskenniemi, From Apology to Utopia, supra, note 7 at 128.

¹³ David Kennedy, "Some Reflections on 'The Role of Sovereignty in the New International Order" (1992) Can Council Intl L 237 at 240; Koskenniemi, *From Apology to Utopia, ibid.*, at 129.

¹⁴ Okuwaki, *supra*, note 10 at 188.

¹⁵ Ibid.

physical boundaries which define state territory is maintained through laws regarding non-intervention and territorial integrity. The conceptual boundaries which define the limits of each state's jurisdiction are likewise maintained through rules about the rights of states over their own territory and population, and the rights and privileges of states in areas not contained within national boundaries, including those portions of the oceans beyond a state's territorial sea. Finally, the conceptual boundary which defines the realm of international law serves to draw the distinction between law and morality, or law and politics. Conflict in such a system is seen to arise either from interference by one state in the rights and privileges of another or from uncertainty over the location of the boundary defining the limits of state rights.

The Limitations of Liberalism

Enlightened self-interest combined with reciprocity is certainly not irrelevant to an explanation of the general authoritativeness and effectiveness of international law, nor of adherence to rules of law in particular cases. However, there are numerous occasions on which genuine, substantive conflicts of interest between states will arise, and will not be susceptible of resolution by reference to the objectives of order, stability and state freedom. In such instances, defining the limits of state freedom in light of the freedom of other states will not be sufficient, and a process and set of rules whereby a hierarchy may be established among competing interests will be required. This is precisely the process that liberal approaches to international law seek to prevent. However, a hierarchy of interests arguably becomes necessary if we are to avoid a situation in which states are free to define international law in terms of their own interests. If international law is to have an existence independent of state will, thereby retaining its normative quality and avoiding collapse

into what Koskenniemi describes as "apology", ¹⁶ or the definition of international law according to state interests, it must be capable of referring to interests, values or purposes beyond that of state will. ¹⁷ The existence of such interests, values or purposes is rejected by liberalism as being grounded in natural law thinking, thus inviting the charge of "utopianism". ¹⁸ As a result of the tensions between these two tendencies, international law is unable to live up to the expectations which liberal scholarship has of it. It cannot remain value-neutral and objective without losing its normativity; nor can it exert control over state behaviour and preserve order in the international system without losing its concreteness.

Frustration with the apparent inability of the traditional liberal account of international law to explain how substantive conflicts between states might be resolved has increased, particularly with rising expectations about the range of objectives that international law should pursue. In the postwar period there arose a perception that the existing system of international law was inadequate to meet the most basic needs of a society of states. At the same time, the massive human rights violations which occurred during World War II and the awareness following that war that humankind had developed the capacity to annihilate itself led to a focus on the needs of people as independent of those of states. ¹⁹ To the extent that the interests of states and those of humankind

¹⁶ Koskenniemi, From Apology to Utopia, supra, note 7 at 8.

¹⁷ *Ibid.*, at 2.

¹⁸ *Ibid.*, at 8.

¹⁹ Post-World War II scholarship which sought to reinvigorate international law includes C. Wilfred Jenks, *The Common Law of Mankind* (London: Stevens and Sons, 1958); Jenks, *Law in the World Community* (London: Longman's, 1967); and Philip C. Jessup, *A Modern Law of Nations: An Introduction* (New York: MacMillan, 1948). More recently, Fernando R. Tesòn has developed a Kantian approach to international law which seeks to unite discourses of law and justice: Tesòn, "The Kantian Theory of International Law" (1992) 92 Columbia L

do not coincide, international law might be called upon to do more than ensure the survival of states, particularly of those states responsible for atrocities against their own populations. This disillusionment with international law led some scholars to question the capacity of law to exercise significant influence in international society,²⁰ and others to call for a fundamental rethinking of the role of law, the role of states in making law, and the capacity of state interests to drive law-making processes.²¹ However, efforts to transform the law of interstate relations into a law of the world community run up against the reality of state sovereignty and of the power of states as institutions, on the one hand, and against the absence of a shared set of values at the global level, on the other.

The pessimistic response in the aftermath of World War II manifested itself most notably in the form of realism.²² International legal realists include Hans Morgenthau, Georg Schwarzenberger, E.H. Carr and George Kennan, who, as Slaughter Burley indicates, see law and power as operating independently of one another, ascribing the former to the domestic and the latter to the international realm.²³ Schwarzenberger argues that the role of law in a given society is

Rev 53; Tesòn, *Humanitarian Intervention: An Inquiry into Law and Morality* (Dobb's Ferry, Transnational Publishers, 1988).

²⁰ Edward Hallett Carr writes: "The course of events after 1931 clearly revealed the inadequacy of pure aspiration as the basis for a science of international politics, and made it possible for the first time to embark on serious critical and analytical thought about international problems:" *The Twenty Years' Crisis, 1919-1939* (New York: St. Martin's Press, 1962) at 9. See also Georg Schwarzenberger and E.D. Brown, *A Manual of International Law,* 6th ed. (Milton: Professional Books, 1976); Georg Schwarzenberger and George W. Keeton, eds., *Power Politics: A Study of World Society,* 3rd ed. (London: Stevens and Sons, 1964); and Hans J. Morgenthau, *Politics among Nations: The Struggle for Power and Peace,* 5th ed. (New York: Alfred A. Knopf, 1973).

²¹ See, for example, Jessup and Jenks, *supra*, note 19; and Brierly, *supra* note 2.

²² Anne-Marie Slaughter Burley, "International Law and International Relations Theory: A Dual Agenda" (1993) 87 AJIL 205 at 207-208.

²³ *Ibid.*, at 207.

determined by the nature of that society, and that the unorganized character of international society makes power predominant.²⁴ The entities which matter most in such a society are those capable of wielding power, namely states, and more particularly the small group of states with the greatest capacity.²⁵ The law of power politics is primarily concerned with justifying and sanctifying the use of power in international society and maintaining the hierarchical structure among groups within that society.²⁶ Schwarzenberger notes, however, that with respect to those issues not of central concern to states, law is capable of fostering reciprocity and coordination.²⁷ Morgenthau refers to "the concept of interest defined in terms of power" as being the key to understanding international politics.²⁸ "[i]nternational politics, like all politics, is a struggle for power."²⁹ He draws a distinction between politics and other areas of inquiry, such as law, religion and morality.³⁰ Thus, the existence of international law is acknowledged, but it is described as a "primitive" system due to the decentralized nature of international society.³¹ Furthermore,

²⁴ Schwarzenberger and Brown, *supra*, note 20 at 9. Carr also notes the more predominant role of power and politics in international than in municipal law: *supra*, note 20 at 178, 180.

²⁵ Schwarzenberger and Keeton, *supra*, note 20 at 141.

²⁶ *Ibid.*, at 199.

²⁷ *Ibid.*, at 203; Schwarzenberger and Brown, *supra*, note 20 at 9-10.

²⁸ Morgenthau, *supra*, note 20 at 5.

²⁹ *Ibid.*, at 29.

³⁰ *Ibid.*, at 12.

³¹ *Ibid.*, at 281. See also Carr, *supra*, note 20 at 170.

decentralized in character: identical or complementary interests of individual states and the distribution of power among them."32

The realist approach was later refined by Kenneth Waltz through the use of a structuralist theory of international society; this approach is known as neo-realism or structural realism. Neo-realism describes international relations as a system which, on one level, consists of a structure within which the units fit and form a set. On another level, this system consists of the interactions among the units.³³ The international system is decentralized and anarchic, since there are no entities capable of imposing a system-wide hierarchical structure. International organizations, though present, do not participate in systemic interactions.³⁴ Furthermore, there is no functional distinction among states; they differ only with respect to their capacity to ensure self-preservation and pursue other goals in the system.³⁵ This approach is consistent with the liberal approach described above in that the ultimate end of the state is deemed to be self-preservation,³⁶ but departs from it with respect to the description of the mechanisms by which this goal is pursued. Rather than agreeing to respect each other's sovereignty in exchange for similar respect from other states in the system, Waltz argues that states exercise self-help in order to ensure their survival.³⁷ Neo-realism also differs from realism in that it does not view law as a significant

³² Morgenthau, ibid., at 282.

³³ Kenneth N. Waltz, *Theory of International Politics* (New York: Random House, 1979) at 40.

³⁴ *Ibid.*, at 88.

³⁵ *Ibid.*, at 96.

³⁶ *Ibid.*, at 91; 105.

³⁷ *Ibid.*, at 105.

element of the systemic analysis. Law is deemed to be of little or no importance to an understanding of international relations.³⁸

Despite significant differences between the liberal approach, on the one hand, and the realist and neo-realist approaches, on the other, a similar account of the role of state interest is provided by each. First, the interests of the various states in the international system are seen to provide the overall direction for action within the system. Second, state interest is deemed to be driven first and foremost by the goals of self-preservation and increased strength. Third, while it is not necessarily denied that states may pursue interests other than these, such interests are not seen to be significant in the international system. A bright line is drawn between domestic and international spheres,³⁹ and concerns which go beyond the *realpolitik* need for self-preservation are not seen to have an impact in the international sphere.

International environmental protection is, in the long run, a matter of self-preservation for all states. However, the type of self-preservation implied by environmental protection is not the same as that envisaged by any of the approaches described above. Although environmental impacts are often described, for the purposes of state responsibility, as violations of territorial integrity, their impact is felt more by human communities than by states. Furthermore, although an analogy between environmental impacts and invasion of territory bears a certain utility, a state territorial approach to environmental protection is of limited value. The only way to make state

³⁸ *Ibid.* See also Slaughter Burley, *supra*, note 22 at 217.

³⁹ Waltz defines the international system as a "bounded realm:" Waltz, "Anarchic Orders and Balances of Power", in Robert O. Keohane, ed., *Neorealism and its Critics* (New York: Columbia University Press, 1986) 98 at 115.

borders secure against transboundary environmental impacts is to eliminate the sources of those impacts, which in turn requires extensive and elaborate policy and regulatory mechanisms at the state, regional and international level. In other words, the elimination of transboundary environmental impacts must be pursued by way of concerted policy and normative efforts directed at global environmental protection rather than preservation of state territorial integrity. This implies thinking of domestic and international realms not as clearly differentiated but as continuations of one another. For the purposes of controlling land-based marine pollution, this awareness of continuity between land and sea, domestic and international, is crucial.⁴⁰

REORIENTING INTERNATIONAL LAW

Many international scholars have sought to respond to the realist conception of international law while at the same time moving beyond a liberal, positivist approach.⁴¹ As issues such as environmental protection assume an increasingly prominent place on the international agenda, the limitations of international law as a system dedicated to boundary maintenance become increasingly apparent. The issue of land-based pollution presents a clear case of an issue area which neither municipal nor international law, operating alone, is capable of addressing. A

⁴⁰ Philip Allott describes this continuity as follows:

The naturally communal character of the sea space is no longer so clearly differentiated from the nolonger-exclusive character of land territory. Exclusive political control over land territory is tending to become a residual phenomenon rather than a primary phenomenon. Preconceptions of exclusive political control over naturally communal sea areas must tend to become anomalous to the same extent: "Mare Nostrum: A New International Law of the Sea" (1992) 86 AJIL 764 at 767-8.

⁴¹ Slaughter Burley refers to this as a response to the realist challenge regarding the validity of international law. She argues that a central aspect of this challenge was a reconceptualization of the relationship between law and politics: *supra*, note 22 at 209.

scholarship which understands the international system to be made up of interdependent, rather than independent, states which are increasingly obliged to pursue their interests, both domestic and international, through cooperative activity with other states is much more conducive to the development of an international legal approach to land-based pollution. Cooperative activity among states cannot be understood within a theoretical paradigm which regards states as monolithic entities whose behaviour in the international realm is determined by self-preservation, and which holds state sovereignty to be absolute and inviolable. Instead, state sovereignty comes to be seen as a bundle or aggregate of rights, capacities, duties and responsibilities. In addition, a theoretical paradigm based on interdependence must recognize the role of non-state actors in shaping perceptions of state interest, acting as agents or mechanisms for the pursuit of various goals in international society, placing constraints on state behaviour and generally having an impact on outcomes in the international sphere. An attempt at creating such a paradigm was undertaken by Myres McDougal, Harold Lasswell and a number of other international legal scholars known collectively as the New Haven or policy science school.

The New Haven School

Adherents to the New Haven School seek to rethink the way in which international space is organized, and to describe and explain the links between domestic and international spheres. It is apparent to these scholars that the two spheres are not functionally separate, and that international

⁴² See, for example, Brierly, *supra* note 2 at 47; and John Gerard Ruggie, "Territoriality and Beyond: Problematizing Modernity in International Relations" (1993) 47 Intl Org 139 at 165; Thom Kuehls, *Beyond Sovereign Territory* (Minneapolis: University of Minnesota Press, 1996) at 45; Luzius Wildhaber, "Sovereignty and International Law" in R. St. J. Macdonald and Douglas M. Johnston, eds., *The Structure and Process of International Law: Essays in Legal Philosophy, Doctrine and Theory* (The Hague: Martinus Nijhoff, 1983) 425 at 442.

legal structures and processes should better reflect this interrelatedness. The New Haven scholars see interdependence not so much as a constraint upon state action as creating opportunities for the pursuit of a wide range of interests and objectives in the international sphere. Myres McDougal, Michael Reisman and other proponents of the New Haven School describe the international arena as consisting of a series of overlapping, interconnected human communities existing at different levels, ⁴³ the most general being what they refer to as the earth-space community. ⁴⁴ The issues and problems which confront human communities similarly take shape at different levels, and appropriate policy and legal responses may not necessarily be available to the state but rather must be sought at a higher level of generality. ⁴⁵ McDougal and his colleagues recognize the status of the state as the "major participant" in the international sphere, ⁴⁶ but they are particularly interested in what they perceive to be the growing number and importance of non-state actors in global processes and the increasing effectiveness of their participation in those processes. ⁴⁷ They argue that this participation signals a movement towards a genuinely pluralistic global public order within which common interests may be pursued. ⁴⁸ This movement is brought

⁴³ Myres S. McDougal and W. Michael Reisman, "International Law in Policy-Oriented Perspective" in *The Structure and Process of International Law, ibid.*, 103 at 117.

⁴⁴ *Ibid.*, at 115.

⁴⁵ McDougal and Reisman, "International Law in Policy-Oriented Perspective," *ibid.*; Wolfgang Friedmann, *The Changing Structure of International Law* (London: Stevens and Sons, 1964) at 276; Richard A. Falk, *The Status of Law in International Society* (Princeton: Princeton University Press, 1970) at 18; Ernst B. Haas, *Beyond the Nation-State: Functionalism and International Organization* (Stanford: Stanford University Press, 1964) at 6.

⁴⁶ McDougal and Reisman, "International Law in Policy-Oriented Perspective," *supra*, note 43 at 104-5.

⁴⁷ *Ibid.*, at 103.

⁴⁸ *Ibid.*, at 105-9.

about both by the growing importance of transnational interactions among non-state actors ⁴⁹ and by shifts in individuals' identities and loyalties outwards into the international sphere, causing individuals increasingly to define their interests and those of their communities in regional and global terms. ⁵⁰

The New Haven scholars do not appear to make a distinction between transnational interactions of an informal nature or those among non-state actors, on the one hand, and formal interactions among official state representatives, on the other. Instead, they speak of processes of claim and response through which actors communicate to each other their expectations about policy outcomes.⁵¹ International law is described as "a continuing process of authoritative decision-making"⁵² based on expressions of these community expectations.⁵³ It is anticipated that this process of claim and response, clarification of expectations and decision-making will promote the definition and pursuit of common interests.⁵⁴

⁴⁹ Myres S. McDougal and W. Michael Reisman, *International Law in Contemporary Perspective: The Public Order of the World Community* (Mineola: Foundation Press, 1981) at 94.

⁵⁰ *Ibid.*, at 101.

⁵¹ *Ibid.*. at 84.

⁵²McDougal and Reisman, *International Law in Contemporary Perspective, ibid.*, at 5-6. See also Rosalyn Higgins, *Problems and Processes: International Law and How We Use It* (Oxford: Clarendon Press, 1994) at 2.

⁵³ McDougal and Reisman, "International Law in Policy-Oriented Perspective", *supra* note 43 at 105-6.

⁵⁴ *Ibid.*, at 105-6; Myres S. McDougal and Harold D. Lasswell, "The Identification and Appraisal of Diverse Systems of Public Order" in Myres S. McDougal et al., *Studies in World Public Order* (New Haven: New Haven Press, 1987) 3 at 8.

To argue that in international law "there are no subjects or objects, only participants" is perhaps to overstate the case. To take an obvious example, non-governmental organizations participating as observers in treaty negotiations play a qualitatively different role from state representatives, although their presence may make itself felt in important and often unanticipated ways. 56

Furthermore, it is questionable whether an increased awareness among groups and individuals of the relevance to their lives of the international sphere amounts to the same thing as an identification with and loyalty to the global community strong enough to eclipse ties to national communities and the importance of national governments. Third, it is difficult to accept that these global processes of communication and decision-making will necessarily lead to definitions of common interest or universal values at a global level. 57 It is just as likely that fundamental differences in definitions of interests will arise, and that universalism will continue to elude the participants in international communicative processes. A theory which depends on the identification of universal values thus faces significant hurdles.

Koskenniemi argues that an international law based not on statehood but on human rights, selfdetermination, environmental protection and other such objectives would require the formation of

⁵⁵ Higgins, *supra*, note 52 at 50.

⁵⁶ See, for example, A. Dan Tarlock, "The Role of Non-Governmental Organizations in the Development of International Environmental Law" (1992) 68 Chicago-Kent L Rev 61. Tarlock notes that NGOs have become "permanent players" in the development of both domestic and international environmental law and policy: *ibid.*, at 63. He notes, however, that at the same time, NGOs' lack of legal status in international society often implies a marginal role for them: *ibid.*, at 64. In addition, certain governments seek to limit the effectiveness of NGOs by seeking to block their access to political and legal processes at both the domestic and international levels: Michael H. Posner and Candy Whittome, "The Status of Human Rights NGOs" (1993) 25 Columbia Human Rights L Rev 269 at 273 ff. Furthermore, it is difficult for many NGOs to gain consultative status at the United Nations, and in many cases the conferral of such status gives NGOs few useful participatory rights: *ibid.*, at 285-86.

⁵⁷ Oscar Schachter, *International Law in Theory and Practice* (Dordrecht: Martinus Nijhoff, 1991) at 29.

a genuinely universal system of values. Attempts to forge such a system of values must, in contemporary international society, proceed by way either of compromises among or the identification of preferences between conflicting definitions of the good society. In either event, the pursuit of one particular set of values implies the suppression of others which conflict with it. Choices about what constitutes the authentic self or the authentic purpose of society cannot be made once and for all, nor on behalf of everyone, since one's own conceptions of authenticity cannot be imposed on others.⁵⁸ Koskenniemi describes an international law based on statehood as a "second best ... defensible ... only to the extent that there can be no general agreement about the authentic purpose of social life."59 Philip Allott argues that such general agreement can only be arrived at in the context of a public realm in which individuals, rather than states or other institutions, interact. 60 International society or, as Allott refers to it, interstatal unsociety, 61 possesses such a public realm only in rudimentary form⁶² and is therefore not capable of generating the kind of agreement on substantive values necessary for the pursuit of collective goals. Allott identifies a "hidden theory of representation" at work in international law, according to which the international system relies on the state to aggregate social interests at the national level and represent them internationally. These social interests then undergo a further aggregation by states at the international level. The resulting aggregate of interests at the international level is distorted in two respects, according to Allott: in the first place, those interests which are

⁵⁸ Koskenniemi, "The Future of Statehood," *supra*, note 9.

⁵⁹ *Ibid.*, at 407.

⁶⁰ Philip Allott, Eunomia: New Order for a New World (New York: Oxford University Press, 1990) at 277.

⁶¹ *Ibid.*, at 244.

inadequately represented within the state are again excluded internationally; and second, the interests which the state represents at the international level are no longer construed as flowing from within a given national society but rather as having an independent, objective existence.⁶³ The identification or development of genuinely universal values or interests cannot be accomplished in the absence of mechanisms at the international level which facilitate social processes.

Refining policy science

If states are obliged in fashioning their own responses to both domestic and international issues to take into account processes occurring at various levels in the global sphere, and if non-state actors are seen to be influential in these processes, then traditional conceptions about the nature of interests which states pursue in the international realm must be re-examined. The processes by which decisions are made and actions undertaken in the international sphere are not determined solely by considerations relating to the maintenance of the independence and integrity of the state but may also be influenced by power imbalances, considerations of justice and fairness, appeals to global interests, or interdependence fostered by transnational contacts. Richard Falk describes these competing and at times complementary considerations as statist, hegemonical, naturalist, supranationalist and transnationalist logic.⁶⁴ No single paradigm is able to explain all decisions and actions in the international realm; rather, particular paradigms will be dominant in different

⁶² *Ibid.*, at 283-284.

⁶³ Allott, "Mare Nostrum," supra, note 40 at 775.

⁶⁴ Richard Falk, *Human Rights and State Sovereignty* (New York: Holmes and Meier, 1981) at 33-49.

sets of circumstances. Furthermore, these paradigms, while they will often be in conflict, may at times point in the same direction and thus complement each other.

A positivist account of international law, in which state interests drive the formation and enforcement of international rules, cannot by itself explain international efforts to control environmental degradation which take place in spite of the absence of significant impacts on state territory and security. Where a state is seeking to protect an environmental resource within its borders from degradation caused by exploitation or pollution in a neighbouring country, it may seek first and foremost to appeal to a statist logic by pointing to the violation of its sovereignty over territory and resources occasioned by the actions of the other state. However, it is also likely to bolster its statist arguments by appeals to naturalist logic through statements about the need to protect ecosystems for future generations.

Another scenario might involve a group of powerful industrialized states making arguments about the need for global governance to protect resources located in a weaker developing state. In this case statist logic is subsumed by hegemonical considerations, namely the desire of the industrialized states to maintain access to valued resources located outside their territory. The claim to participate in decision-making about those resources would more likely be phrased in terms of naturalist arguments about the inherent worth of the environment, or supranationalist arguments about the need for global governance to protect the earth's ecosystem from the short-term and short-sighted self-interest of individual states.

Another example might involve a group of states faced with a problem of environmental protection or resource management the solution to which escapes the jurisdiction and capacity of

each. Although the various states might be concerned about maintaining their freedom of action at the international level and would therefore be reluctant to assume international obligations vis-à-vis the others, they might also be aware that the transnational nature of the problem requires a common policy or legal response extending across international boundaries. Naturalist arguments about the need to protect environmental integrity might complement the transnational logic and contribute to the appeal of cooperative action. In each of these examples, although the different paradigms are based on divergent and possibly mutually exclusive assumptions about the international system, the fact that they may at times point in the same direction or complement each other suggests that statist logic may not always prevail.

Falk's discussion of competing and coinciding paradigms indicates that, even in a system in which the state remains the dominant actor and the prevailing influence upon the role and content of international law, other influences are not only significant but at times determinant. The capacity of paradigms other than statist logic to determine outcomes in international law can best be understood in light of a recognition that the state is not a natural and inevitable entity but rather a social construct - an institution charged with certain functions and imbued with certain capacities. The ends which a state pursues in the international sphere will not always reflect a uniquely statist logic because states, as social institutions which must respond to a variety of demands and which seek to fulfil a range of purposes, do not always define their interests in terms of the classic conception of statehood - independence, autonomy, power and so on. States frequently do behave in ways which vindicate these traditional assumptions about state interests, while at other times their actions are consistent with such interests though not solely or primarily determined by them. One may also find behaviour in the international realm which defies explanation according

to statist paradigms. This suggests that attention must be paid to a wide range of influences upon outcomes in the international system, which in turn requires a reassessment of assumptions about that system.

Sovereignty and interdependence

The context in which the competing paradigms described by Falk operate is characterized by conditions of complex interdependence,⁶⁵ in which states are enmeshed in a set of interactions, events and regulatory structures which operate as constraints on their behaviour and which have a significant impact on outcomes in the international sphere.⁶⁶ Interdependence represents more

⁶⁵ Ernst B. Haas, "Why Collaborate? Issue-Linkage and International Regimes" (1979-80) 32 World Pols 357 at 358.

⁶⁶ See, for example, Ernst B. Haas, "Reason and Change in International Life: Justifying a Hypothesis" (1990) 44 J Intl Aff 241 at 213; Haas, "Why Collaborate?" ibid., at 358; Robert W. Cox, "Towards a Post-Hegemonic Conceptualization of World Order: Reflections on the Relevancy of Ibn Khaldun" in James N. Rosenau and Ernst-Otto Czempiel, eds., Governance without Government: Order and Change in World Politics (Cambridge; New York: Cambridge University Press, 1992) 132 at 143; Ruggie, "Territoriality and Beyond," supra, note 42 at 172; Joseph S. Nye, Jr. and Robert O. Keohane, "Transnational Relations and World Politics: An Introduction" in Keohane and Nye, eds., Transnational Relations and World Politics (Cambridge: Harvard University Press, 1972) ix at x-xii: and Abram Chaves and Antonia Handler Chaves. The New Sovereignty: Compliance with International Regulatory Agreements (Cambridge, Mass.: Harvard University Press, 1995) at 123. Joseph Nye and Robert Keohane point to five major effects which transnational relations have on the international system: influences on the attitudes of national decision-makers towards actors and events beyond national borders; fostering international pluralism, which is described as a linking of national interest groups in transnational structures; constraints on state action by contributing to interdependence; impacts on the ability of governments to influence one another; and the promotion of the emergence of autonomous actors with their own foreign policies which may compete with state policy: Keohane and Nye, ibid., at xvii-xviii. Ernst Haas describes complex interdependence as resulting from the proliferation of channels of communication; the relative unimportance of force; and disagreement over how issues on the global agenda should be prioritized: Haas, "Why Collaborate?", ibid., at 358. Mark Zacher similarly emphasizes the importance of improved lines of communications and the diminished utility of the use of force in fostering interdependence. He also draws attention to the increasing importance to policy-making of physical externalities, particularly in the form of pollutants; increased economic interdependence; the proliferation of democratic governments; and diminishing cultural, political and economic heterogeneity: Mark W. Zacher, "The Decaying Pillars of the Westphalian Temple: Implications for International Order and Governance" in Governance without Government, ibid., 58 at 62. This shift in the context within which states carry out relations with one another has implications for the way in which laws to structure those interrelationships are formulated. Furthermore, it creates a need for international law to manage problems common to states.

accurately than independence the character of interstate relations with respect to environmental protection. It is a particularly useful description of issues such as land-based marine pollution in which the sources subject to regulation are located in the domestic sphere while the impacts flow back and forth across international boundaries in a manner which renders the drawing of connections between cause and effect extremely difficult. The incongruence between state territoriality and the scope of ecosystems gives rise to unavoidable environmental externalities and to ecological interdependence,⁶⁷ implying that the jurisdictional categories upon which the framing of solutions in international law has depended must be approached differently, if not reorganized and reordered.

The significance of transnational interactions is augmented by the expanding scope of governmental activity. 68 Governments are increasingly held responsible, both by their own populations and by actors such as international and transnational organizations, for the well-being of their citizens, and are therefore more active in the fields of health and welfare, social services, economic development and, of course, environmental protection. As a result, the influences of non-governmental actors and extra-territorial events increasingly operate as constraints on the policy-making activities of national governments. 69 Furthermore, as Ernst Haas argues, since state interests cannot be described exhaustively in terms of enhancing power in order to preserve freedom and independence, but must also be seen to include a range of goals relating to economic

⁶⁷ Martin List and Volker Rittberger, "Regime Theory and International Environmental Management" in Andrew Hurrell and Benedict Kingsbury, eds., *The International Politics of the Environment* (Oxford: Clarendon Press, 1992) 85 at 85.

⁶⁸ Nye and Keohane, *supra*, note 66 at xxiii; Haas, "Why Collaborate?", *supra*, note 65 at 357.

⁶⁹ Ernst B. Haas, "Reason and Change in International Life," *supra*, note 66 at 213.

and social policy and the provision of benefits to their populations, structuralist arguments are unable to provide a convincing explanation for increasingly important elements of state behaviour. The interdependence operates as a constraint on state behaviour, and limits the utility of power in international society.

Functionalism

The New Haven School may go too far in blurring the boundaries between the domestic and international arenas, state and non-state actors, and law and policy ⁷² Nevertheless, this scholarship is valuable in that it acknowledges the significance to international legal processes of the activities of non-state actors and of interactions taking place at informal levels. Of equal importance is the possibility which these scholars invoke of contemplating the disaggregation of the functions of the state and their recombination at a transnational or international level.

The disaggregation of state sovereignty is not the same thing as the dissolution of the state. It instead provides the basis for a reconceptualization of the functions of the state in international society. This reconceptualization may take many forms. For example, we have seen that McDougal and Reisman describe the international sphere as a series of overlapping, intersecting communities.⁷³ Hedley Bull speaks of a "new medievalism," in which individuals simultaneously

⁷⁰ Haas, "Why Collaborate?", supra, note 65 at 359.

⁷¹ Haas, "Reason and Change in International Life", supra, note 66 at 213.

⁷² In the words of Richard Falk, "[t]his reconciliation between politics and law and between morality and law has been overconsummated": Falk, *The Status of Law in International Society, supra*, note 45 at xi.

⁷³ McDougal and Reisman, "International Law in Policy-Oriented Perspective", *supra*, note 43 at 117.

owe loyalty to various overlapping entities at different levels of generality and for different purposes.⁷⁴ John Ruggie speaks of "multiperspectival international forms"⁷⁵ achieved through an unbundling of state territoriality. This process of disaggregation would involve the pursuit of solutions to problems faced by states on a basis other than that of territorial jurisdiction. particularly through the creation of functional regulatory regimes at the international level in order to overcome what Ruggie describes as the defects in modern approaches to state territoriality. Each of these approaches is based on a belief that states face problems and demands which extend beyond their boundaries and therefore beyond their jurisdiction. Many such problems and demands arise in arenas which are neither entirely domestic nor entirely international, and which transcend not only state boundaries but conceptions of territoriality based on state jurisdiction. The limitations of territoriality are squarely encountered in efforts to protect state territory from environmental degradation. Indeed, it is not possible to do so unless state territory is conceived of as part of an ecosystem which itself becomes the object of protection efforts. Municipal law cannot reach far enough to account for the full range of environmental impacts originating domestically; nor can it prevent impacts flowing from beyond state borders.

Domestic environmental protection efforts are affected not only by transboundary flows of pollutants but by legal and policy decisions made by other states as well as the activities of a range of non-state actors such as corporations, industry and environmental interest groups, and

⁷⁴ Bull, *supra*, note 2 at 264. Bull does not give credence to the notion that new medievalism will replace the state as the basis for the organization of international society, but his description of this structure has caught the attention of certain international scholars: see, for example, Cox, *supra*, note 66 at 144.

⁷⁵ Ruggie, "Territoriality and Beyond," *supra*, note 42 at 172.

international organizations, to name a few. Transnational interactions taking place outside the context of formal interstate relations undermine the autonomy and independence of states in ways which states, acting unilaterally, are helpless to counteract. As domestic politics extend beyond the boundaries of state territory, bringing about a series of unintended and often undesired consequences, states turn to international law to fashion responses. In some instances, international law is used as a tool to re-establish the borders between states, between domestic and international activity, and between the rights of states in the international sphere. In other instances, however, international law and, more generally, interstate relations are employed as a means of seeking common solutions to problems which states cannot resolve unilaterally. The sharp distinction between domestic politics and international law is blurred.

Thom Kuehls' efforts to reconceptualize state sovereignty are of particular interest in the context of global environmental protection, in that they focus on the challenges which environmental degradation pose to conceptions of state territory and jurisdictional issues in international law.

Kuehls argues that the space of ecology conflicts with the space of the state in two respects. He states:

[T]his sovereign territorial description of political space fails to contain politics along two basic lines: the inability of the space of sovereignty to contain the flows of political, economic, and ecological activity, and the extent to which both the territory and the population of sovereign states are constructed through practices that exceed the apparatus of state sovereignty.⁷⁶

The first conflict between political and ecological space identified by Kuehls is the wellunderstood failure of international boundaries to contain flows of pollutants and other

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⁷⁶ Kuehls, *supra*, note 42 at ix.

environmental impacts.⁷⁷ The discontinuities in space described by international boundaries translate into continuities within and between ecosystems when this same space is considered from an ecological point of view. The second conflict is a reflection of the increasingly significant flows across international borders of capital, commodities, technology, ideas, people and other tangible and non-tangible items. Robert Kehoane and Joseph Nye note that many of these flows are transnational rather than international - that is, they take place without the involvement of formal governmental machinery.⁷⁸ These transnational movements can have impacts on the environment which are as significant as physical flows of pollutants. Kuehls describes the impact on conceptions of state territory as follows:

Ranging from the effects of massive deforestation, to air or water-borne toxic, radioactive, or other waste products, to the capital that finances ecologically destructive projects, to the activists who struggle against the rapid decline of our environment, to indigenous peoples across the globe, the concept of territory as thought and practiced by the state is problematized by the movements of these actors.⁷⁹

Kuehls does not argue that such transborder flows negate sovereignty, but rather that they demonstrate its limitations and, to some extent, transform conceptually the space of the state. On the one hand, states, while they are sovereign within their territory, are not capable of exercising control over every event and activity which takes place on that territory. On the other hand, events taking place within state territory, including those in which the apparatus of government is

⁷⁷ *Ibid.*, at 25.

⁷⁸ Nye and Keohane, *supra*, note 66 at x.

⁷⁹ Kuehls, *supra*, note 42 at 45.

⁸⁰ *Ibid.*, at 41.

implicated, may have impacts which extend beyond the state's borders, "thus deterritorializing the sovereign space of the state, yet extending territory on their travels."81

Kuehls uses the terms striated and smooth space to describe the distinction between state territoriality and global ecology. As explained above, international law imposes boundaries on the international system. These boundaries are drawn not only around states but also in the international sphere, in that state activities extended beyond the borders of state territoriality are still understood in terms of state rights and obligations. This can be observed with the division of the world's oceans into the categories of territorial sea, exclusive economic zone, international waters and so on. It can also be observed in the way in which international law addresses human activities in the international realm. Dumping at sea may be understood from the point of view of state rights and obligations, which in turn depend on the extension of quasi-sovereignty to ships and the assertion of jurisdiction over people and activities outside state territory. Viewing the earth from an ecological viewpoint, however, these boundaries and borderlines do not exist; the space of the globe is smooth. Environmental degradation escapes not only current delineations of state territory, but also the framework of territoriality altogether. As described above, the continuity of ecosystems must be addressed by a greater continuity in structures of global

⁸¹ *Ibid.*, at 39.

⁸² *Ibid.*, at 52.

⁸³ *Ibid.*, at 53.

⁸⁴ *Ibid.*, at 117.

governance. The question then becomes one of finding a mechanism or process through which a restructuring of global governance may take place.

Functionalism and Learning

Functionalism offers a basis upon which a reorganization or reconceptualization of global governance could occur. In order to accomplish their policy objectives in conditions of interdependence, states may increasingly find collaboration with other states, as well as with transnational and international organizations, to be advantageous and even necessary. States may use international law to achieve policy goals which they hold in common or which intersect in such a way as to render coordinated or cooperative action beneficial. International law becomes, from the perspective of government actors, an additional means through which goals may be pursued.

Ernst Haas argues that decision-makers in national bureaucracies may go through a process of learning to manage conditions of complex interdependence, ⁸⁶ beginning with a re-examination of the goals which the state is pursuing and leading to the acquisition of new understandings about cause-and-effect relationships. ⁸⁷ At a certain point in the learning process, Haas argues that decision-makers recognize that problems with which they are faced cannot be resolved at the nation-state level. ⁸⁸ The new understandings which lead to this conclusion are prompted by the

⁸⁵ Haas, "Why Collaborate?", supra, note 65 at 213.

⁸⁶ Ernst B, Haas, When Knowledge is Power (California: University of California Press, 1990) at 129.

⁸⁷ *Ibid.*, at 36.

⁸⁸ Haas, "Reason and Change", supra, note 66 at 212.

acquisition of new bodies of knowledge⁸⁹ which may, under certain circumstances, lead decision-makers to unpackage their previous understandings about the nature of the problems with which they are faced, the cause-and-effect linkages around these problems, and linkages between issue-areas.⁹⁰ Linkages are of particular significance to Haas's theory, since he believes that learning is an evolutionary process which leads to increasingly more complex understandings of problems and issue areas.⁹¹ This increasing complexity leads decision-makers to look beyond territorial understandings of cause-and-effect linkages and actively to pursue collaboration at the international level to resolve dilemmas that were previously understood as being matters of exclusively domestic concern.⁹²

Haas's conception of knowledge and its influence on decision-making bears some explanation. First of all, Haas does not equate knowledge with truth.⁹³ Actors will, at different times, possess different understandings of problems and linkages which will condition their perceptions about goals to be pursued, means to be employed and so on. The test of the value of knowledge is not its relation to truth or ultimate reality, but its capacity to help decision-makers solve problems.⁹⁴ Second, the knowledge with which Haas is particularly concerned is consensual knowledge - that is, "generally-accepted understandings about cause-and-effect linkages about a set of

⁸⁹ Haas, When Knowledge is Power, supra, note 86 at 36.

⁹⁰ *Ibid.*, at 192.

⁹¹ *Ibid.*, at 192; Haas, "Reason and Change in International Life", *supra*, note 66 at 212.

⁹² Haas, When Knowledge is Power, ibid., at 185; "Reason and Change in International Life", ibid., at 212.

⁹³ Haas, When Knowledge is Power, ibid., at 21.

⁹⁴ Haas, When Knowledge is Power, ibid., at 41.

phenomena,"95 or "the sum of technical information and theories about that information which commands sufficient consensus at a given time among interested actors to serve as a guide to public policy designed to achieve a social goal."96 While Haas states that knowledge is not free of ideology, he argues that consensual knowledge can transcend ideological lines⁹⁷ and can thus form the basis for common perceptions of interest vis-à-vis a particular issue area and common policy responses despite ideological differences.

Consensual knowledge is channelled into the bureaucracies of states and other organizations by professional civil servants, who in turn have access to this knowledge through informal networks of like-minded professionals including scientists, lawyers, policy analysts and others working in a given issue-area. These networks may constitute epistemic communities, which Haas describes as knowledge-oriented communities

composed of professionals who share a commitment to a common causal model and a common set of political values ... united by a belief in the truth of the model and by a commitment to translate truth into public policy in the conviction that human welfare will be enhanced as a result". 98

Where the members of an epistemic community are located in the bureaucracies of a number of states and international organizations involved with developing policy responses to a common problem, the consensual knowledge which the community has developed can seep into the

⁹⁵ *Ibid.*, at 21.

⁹⁶ Haas, "Why Collaborate?", *supra*, note 65 at 367-8.

⁹⁷ Ibid., at 368.

⁹⁸ Haas, When Knowledge is Power, supra, note 86 at 40-41.

decision-making processes and come to be reflected in the policies of the various actors.⁹⁹ At this point, cooperation to overcome common problems is likely to be seen as a viable approach rather than as an undesirable constraint on state autonomy.

Regimes

Where consensual knowledge suggests that a given problem is linked to issues, events and decisions beyond the borders of the state, the resulting loss of state control over policy-making regarding that problem may in many instances be alleviated through collaboration at the supernational level. While such collaboration may take the form of informal, *ad hoc* arrangements among international actors, it is more likely to be accomplished through international regulatory regimes. Stephen Krasner's definition of international regimes has proved to be particularly influential:

[Regimes comprise] principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue-area. Principles are beliefs of fact, causation and rectitude. Norms are standards of behaviour defined in terms of rights and obligations. Rules are specific prescriptions or prescriptions for action. Decision-making procedures are prevailing practices for making and implementing collective choice. 100

This is a deliberately open-ended definition, encompassing regimes which operate through formal, institutional structures as well as those which comprise more informal practices, procedures, standards or rules. While regimes are constructed to fashion responses to problems faced by

⁹⁹ Haas, "Why Collaborate?", supra, note 65 at 369.

¹⁰⁰ Stephen D. Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables" (1982) 36 Intl Org 185 at 185.

actors in the international sphere, their existence also serves to influence behaviour and outcomes.¹⁰¹

Ernst Haas argues that regimes may arise in the absence of a harmony of interests among the actors involved or shared conceptions of the common good. Regimes may instead be based on a convergence of separate definitions of interest. 102 Haas does seem to suggest, however, that the construction of a regime requires a body of consensual knowledge. 103 This is undoubtedly the case, up to a certain point. If national decision-makers did not come to hold a view of a given issue as being shaped by conditions of interdependence, it is unlikely that they would reach the conclusion that international collaboration through the construction of a regime would be necessary or even desirable. However, the level of consensual knowledge required for regime formation may be quite low, involving a perception that the parameters of the issue under consideration are broader than state jurisdiction, and that some form of international coordination or collaboration may be required. A regime based on such a body of consensual knowledge would likely be skeletal, functioning as a conduit for informational flows and possibly as a coordinator of research activities. Nevertheless, the regime may itself come to influence perceptions of the issue, for example by becoming a focal point for the development of a consensus around policy approaches, further linkages with other issue areas, and bases for future cooperative activities.

¹⁰¹ *Ibid.*, at 189.

¹⁰² Haas, Beyond the Nation-State, supra, note 45 at 34.

¹⁰³ Ernst B. Haas, "Words can Hurt You: or, Who said What to Whom about Regimes" (1982) 36 Intl Org 207 at 209; Haas, "Reason and Change in International Life", *supra*, note 66 at 238; Haas, "Why Collaborate?", *supra*, note 65 at 369.

Regimes constitute the mechanisms through which an unbundling and recombining of state functions can take place. In one respect, they make possible an extension of state territoriality into the international realm, as states build structures and processes which will enable them to extend their jurisdictional reach to tackle problems extending across international boundaries. In another respect, they bring about the de-territorialization of the issues which they address, in that the boundaries which were previously understood to delimit a realm in which the state alone was competent to act are transcended in an attempt to make governing structures and processes better reflect the continuity of issues and problems across those boundaries.

International regimes have proven to be, and are likely to continue to be, of central importance for global environmental protection. While national governments have begun to respond to environmental protection demands made by their own and other populations, individual states lack the jurisdictional capacity and, on occasion, the political will to pursue aggressively environmental goals which do not result in short- or medium-term benefits to them. At the same time, decision-makers in the bureaucracies of national governments and international organizations have been exposed to a growing consensus that domestic environmental protection is intimately linked to global protection and, furthermore, that international cooperative action is required for the achievement of both. Many national governments have for years paid lip service to the notion that global environmental protection is a goal which must be pursued in the common interest of humanity, without making the commitment to implement the measures and absorb the costs that achieving such a goal would require. However, the linkage between satisfaction of demands being made at the nation-state level for environmental and resource protection measures both at home and abroad, on the one hand, and protection of the global environment, on the other, is

beginning to be made with greater clarity and insistence. This may reflect an instance of relatively short-term goals within various states converging with each other and with a broader interest in global environmental protection for the sake of human populations and for its own sake. Through this process of convergence and overlap among different paradigms at work in the international system, policy and legal responses which do not reflect a statist logic may nevertheless come to predominate because they coincide with other packages of interests - other logics - to which states and other actors are, to a greater or lesser extent, committed.

This convergence between national and global interests is neither natural nor inevitable. Global environmental protection requires more than self-interested state behaviour. However, as suggested above, regimes are not simply the passive creatures of the states which created them and whose ends they are intended to serve. Through direct contacts with groups within state populations, transnational and international organizations, regimes can both receive and disseminate information, ideas and perspectives on the issue-areas they are involved in. These contacts can serve to counter-balance expressions of self-interest on the part of national governments, leading to a redefinition of problems and the range of potential solutions which transcends the interests of the several states represented by the regime.

It has also been suggested that the very process of participating in a regime, which involves repeated interactions and ongoing contact among states, may itself foster further cooperative initiatives. John Setear uses game theory to argue that states are less likely to refuse to cooperate if they are engaged in ongoing interactions with other states. While defection from a cooperative regime might make sense in one particular instance, states are likely, according to Setear, to assess the benefits of defection in light not only of the single instance but also of the ongoing

relationship with potential cooperative partners. Setear describes regimes or institutions in the international sphere as the loci of such cooperative initiatives. 104 He also sees such repeated interactions as contributing to the coalescing of expectations around standards of behaviour. 105 Such expectations do not operate in the same way as rules of law, but as certain standards of behaviour come to be the object of expectations, there will be certain costs associated with behaving in ways contrary to expectation. Oran Young makes a similar point, arguing that interaction among states over a period of time makes it more difficult for states to predict what impact a particular action will have on the ongoing relationship. Being unable to assess with any accuracy the potential costs of defection from cooperative initiatives, states are more likely to avoid the risk of defecting to realize short-term gains, and to continue cooperative behaviour. 106 The above discussion suggests that there are a number of influences upon state behaviour which may, in certain circumstances, foster perceptions of interest, establishment of goals and pursuit of policy objectives favourable to global environmental protection. However, I have also suggested that these processes do not inevitably lead to the achievement of environmental goals. While a functional approach to international governance based on regimes provides us with a framework

territoriality, we require, in addition, a normative structure to ensure that this framework is in fact

for global environmental protection superior in many respects to that provided by state

¹⁰⁴ John K. Setear, "An Iterative Perspective on Treaties: A Synthesis of International Relations Theory and International Law" (1996) 37 Harvard Intl LJ 139 at 181.

¹⁰⁵ *Ibid.*, at 189.

¹⁰⁶ Oran R. Young, "The Politics of International Regime Formation: Managing Natural Resources and the Environment" (1989) 43 Intl Org 349 at 362. See also Oran R. Young and Gail Osherenko, eds., *Polar Politics: Creating International Environmental Regimes* (Ithaca: Cornell University Press, 1993) at 13.

established and that it is employed in the furtherance of environmental goals. The development of such a normative structure can be fostered by the building of international regimes, such as those established to address land-based marine pollution. As I will discuss in the following chapter, these regimes may evolve out of low-level cooperative initiatives such as joint research and monitoring programmes and information exchanges, which foster processes of learning and which contribute to more elaborate forms of cooperation. Normativity develops as states, through interactions with each other and with non-state actors, reach a consensus regarding the nature and scope of the problem of land-based pollution and the most appropriate approaches to dealing with the problem.

INTERNATIONAL NORMATIVITY

International regimes may provide for a within which interests are articulated, compromises worked out, and common goals identified and implemented. However, these processes, while they can contribute to the articulation of norms, cannot take the place of a normative framework. 107 At the same time, the creation of a body of rules whose content is consistent with environmental and resource protection goals cannot in and of itself ensure the furtherance of those goals. The creation of a normative framework can be fostered through regimes, while at the same time the emergence of norms can bolster the effectiveness of regimes. I will begin with a discussion of certain qualities which contribute to the effectiveness of a normative structure, and

¹⁰⁷ Schachter, *supra*, note 57 at 29-30. Koskenniemi describes what he refers to as the professional argument that international law is essentially a procedural framework wherein mechanisms for sovereign cooperation are developed. According to this argument, procedure obviates the need to resolve material conflicts. However, Koskenniemi argues that conflict between states is, by definition, conflict over the nature and extent of their respective freedoms and therefore inherently substantive: *From Apology to Utopia, supra,* note 7 at 123.

will then move on to a consideration of the role which regimes might play in the construction and operation of such a normative framework.

Discourse and Legitimacy

The absence of a centralized mechanism for the adjudication of disputes and the enforcement of legal rules, while it does not make the international system any less "legal," does mean that the system must rely on other factors for its authoritativeness and efficacy. For example, perceptions that a rule possesses legitimacy may contribute to the capacity of that rule to influence behaviour. Thomas Franck proposes the following definition of legitimacy:

Legitimacy is a property of a rule or rule-making institution which itself exerts a pull towards compliance on those addressed normatively because those addressed believe that the rule or institution has come into being and operates in accordance with generally accepted principles of right process.¹⁰⁸

The starting point for achieving right process in the international sphere involves, according to Franck, the identification of certain "barrier assumptions" regarding what is unconditionally unfair. ¹⁰⁹ These assumptions operate as "gatekeepers to discourse." ¹¹⁰ One such gatekeeper identified by Franck is the principle that no one value system should be entitled to trump all others. ¹¹¹ This conception departs from liberalism insofar as it acknowledges the necessarily

¹⁰⁸ Franck, The Power of Legitimacy among Nations, supra, note 11 at 24.

¹⁰⁹ Franck, Fairness in International Law and Institutions (Oxford: Clarendon Press, 1995) at 15.

¹¹⁰ *Ibid.*, at 15. See also Thomas M. Franck, "A Critical Analytical Framework for the Study of International Law" in *Fairness in the International Legal System, Hague Academy of International Law*, vol. 240 (1993-III) at 34.

¹¹¹ Franck, Fairness in International Law and Institutions, ibid., at 16-17; Franck, "A Critical Analytical Framework for the Study of International Law", ibid., at 34.

political, value-driven character of law and legal decision-making. Rather than seek to construct a system of law without reference to values, Franck's approach maintains a liberal respect for pluralism by seeking to balance different value systems within law. Rather than seek to establish a global system of values upon which international law is to be based, a proposition which, as Koskenniemi argues, creates a risk of suppressing value systems which do not coincide with the dominant perspective, 112 Franck posits an international community in which there can be no fundamental rule which excludes the application of all other possible approaches to a problem. Once this principle is in place, it follows that agreement among actors in international society is arrived at through negotiation rather than through the invocation of fundamental rules which tend to produce a particular type of outcome. We find an uncomfortable echo in this conception of the stalemate which Koskenniemi describes between apology and utopia, in which the legal system is built upon state consent but cannot be tied solely to statist conceptions of interest. 113 However, I would suggest that Franck's conception of the building of legitimacy through the process by which rules are formulated and applied offers us a way out of this impasse. This process does not end with states asserting their differing perceptions of the validity or meaning of a rule, but rather begins there. Through discourse, complemented by other factors such as the sharing of knowledge among relevant actors and the building of confidence through repeated interactions, the agreed-upon outcome envisaged by Franck may be brought about.

¹¹² See the discussion *supra*, at p. 20.

¹¹³ See the discussion *supra*, at p. 10.

The notion that discourse might constitute a fundamental aspect of right process appears in many forms in contemporary literature. Fernando Tesòn makes reference to a Rawlsian conception of justice, in which rules must assume a form and content which would theoretically be acceptable to all regardless of the specific impact which they might have on differently-situated individuals. 114

Another possibility, identified by Jürgen Habermas, is based on the theoretical acceptability of a rule to all affected by it, which in turn is accomplished through a process of discourse. 115

Habermas states: "Only those norms can claim to be valid that meet (or could meet) with the approval of all affected in their capacity *as participants in a practical discourse*. 116

Habermas argues that, in a complex, pluralistic society, law cannot be legitimated by reference to a universal set of values. Legitimacy must instead flow, at least in part, from the capacity of norms to be justified based on reasons. Legitimacy is therefore procedural rather than substantive: "[t]he law receives its full normative sense neither through its legal *form*, nor through an *a priori* moral *content*, but through a *procedure* of lawmaking that begets legitimacy." 117

In the context of environmental justice, where the responses of a community to questions about the level of environmental protection they wish to attain and the trade-offs which they are willing to make to achieve it depend so heavily on the values and priorities of that community, Habermas' notion of discursive ethics holds real promise. Since the international arena consists of several

¹¹⁴ Tesòn, Humanitarian Intervention, supra, note 19 at 59 ff.

¹¹⁵ Jürgen Habermas, "Discourse Ethics: Notes on a Program of Philosophical Justification" in *Moral Consciousness and Communicative Action* (Cambridge, Mass.: The MIT Press, 1995) 43 at 93.

¹¹⁶ *Ibid.*, at 66. Emphasis in original.

¹¹⁷ Jürgen Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, transl. William Rehg (Cambridge, Mass.: MIT Press, 1996) at 135. Emphasis in original.

communities with disparate value systems and priorities, it cannot accurately be described as a community in its own right. Therefore, environmental norms at the international level will rely for their legitimacy on perceptions that the process through which they were adopted meet the expectations of states and other actors in terms of fairness, inclusiveness and effectiveness. Any attempt to make the legitimacy of these norms depend on universal values will risk eclipsing real divergences of opinion and value and may thus represent the values of some imposed upon others. 118

Ernst Haas's views regarding the way in which the process of learning takes place reflects
Habermas's discursive ethics. Haas describes learning as a form of persuasion, which occurs
"... when bargaining positions begin to converge on the basis of consensual knowledge tied to
consensual goals and when the concessions exchanged are perceived as instrumental toward the
realization of joint gains."

Such convergence gives rise to a situation which is particularly
favourable to the creation of international legal norms. Perhaps even more importantly, the norms
which flow from the processes of bargaining leading to the realization of joint gains described by
Haas are more likely to be perceived as legitimate. The sharing of information and gradual
accumulation of a body of consensual knowledge, fostered by the operation of regimes and
through the presence of epistemic communities, among other factors, may form an important part
of right process in international society, contributing to legal norms imbued with legitimacy.

¹¹⁸ McDougal and Lasswell, "The Identification and Appraisal of Diverse Systems of Public Order," *supra*, note 54 at 8; Koskenniemi, "The Future of Statehood", *supra*, note 9 at 402.

¹¹⁹ Haas, "Why Collaborate?", supra, note 65 at 392-3.

Abram Chayes and Antonia Handler Chayes place a great deal of emphasis on the importance of discourse to international law for which the regime serves as a forum. Discourse is relevant, they argue, not only for purposes associated with fostering legitimacy¹²⁰ but also for giving more concrete and specific content to international norms, ¹²¹ defining what constitutes acceptable or unacceptable behaviour under a norm, ¹²² and for fostering compliance. ¹²³ States which appear to have violated a norm of international law are not able to remain silent about this apparent violation, but rather are compelled to enter into a discourse through which they seek to justify their action, often before a wide audience which includes states as well as non-state actors.

Through this discursive process, the participants seek to convince one another of the correctness of their respective positions, and in the process, according to Chayes and Chayes, common understandings respecting the significance of the norm may be reached. ¹²⁴ This process contributes not only to a clearer understanding of the norm by all concerned, but also to an enhancement of the norm's authoritativeness. ¹²⁵ Furthermore, as Oscar Schachter has argued, the need for states to justify their actions and position on the basis of international law rather than

¹²⁰ Chayes and Chayes, *supra*, note 66 at 127.

¹²¹ *Ibid.*, at 126.

¹²² *Ibid.*, at 122.

¹²³ *Ibid.*, at 123.

¹²⁴ *Ibid.*, at 122-3.

¹²⁵ *Ibid.*, at 126.

self-interest contributes to the status of international law by reinforcing the notion that law is separate from state will. 126

Fairness and Legitimacy

Of growing concern and interest to international scholars is the concept of fairness - also described as equitableness and, on occasion, justice - in international law. Thomas Franck describes fairness in both substantive and formal terms:

The fairness of international law will be judged by the degree to which rules satisfy the participants' expectations of a justifiable distribution of costs and benefits, and by the extent to which rules are made and applied in accordance with what the participants perceive as right process. [Fairness involves] distributive justice and right process. ¹²⁷

Franck argues that fairness depends on the existence of a community based not only on reciprocity in the contractarian sense of submission to rules in order to secure collective goods, ¹²⁸ but also on "shared moral imperatives and values." ¹²⁹ Franck speaks of the emergence of a "rule community," which he describes as possessing two basic attributes: an agreed-upon core of reciprocally applicable rules; and an agreed-upon process for making and applying rules and resolving disputes. ¹³⁰ Franck believes that such a global rule community is emerging, fostered by

¹²⁶ Schachter, supra, note 57 at 35.

¹²⁷ Franck, Fairness in International Law and Institutions, supra, note 109 at 7.

¹²⁸ *Ibid.*, at 27.

¹²⁹ *Ibid.*, at 10.

¹³⁰ *Ibid.*, at 12. See also Franck, "A Critical Analytical Framework for the Study of International Law", *supra*, note 110 at 29.

conditions of interdependence.¹³¹ The notion of community is important to Franck's conceptions of fairness because of his emphasis on substantive fairness or fairness in results, and more particularly on distributive justice. Franck argues that John Rawls' maximin principle, according to which an unequal distribution of goods may be justified if it has advantages not only for the immediate beneficiaries but for everyone else,¹³² may constitute an emerging core principle of fairness.

Franck is probably correct in arguing that "fairness discourse presumes community" ¹³³ if he means that reaching agreement on what constitutes a fair outcome requires prior agreement as to what constitutes fairness. Unfortunately, it would appear that we are a long way from realizing such agreement in international society. Although there is emerging awareness that collective goods in the international system may encompass more than orderly relations among states, it seems unlikely that this awareness can form the basis for a global community based on shared values, at least in the short or medium term. Nevertheless, this does not mean that fairness cannot manifest itself as an element of international discourse and have some influence on outcomes. ¹³⁴

Ernst Haas makes reference, in the passage quoted above, ¹³⁵ to the possibility that discourse between actors in international society may produce a compromise acceptable to all where such

¹³¹ Franck, Fairness in International Law and Institutions, ibid., at 12.

¹³² *Ibid.*, at 18.

¹³³ *Ibid.*, at 26.

¹³⁴ Chayes and Chayes, *supra*, note 66 at 127.

¹³⁵ Text corresponding to footnote 119.

compromise makes possible the realization of joint gains. This may mean that in certain circumstances actors will be prepared to accept unequal contributions to and benefits from a cooperative initiative where such a compromise is necessary in order to gain access to such benefits. However, Oran Young suggests that the willingness of states to accept such unequal arrangements may be limited. He notes that equitableness in the institutional arrangements surrounding a cooperative initiative appears important to its acceptability, ¹³⁶ and that perceptions of equitableness may be even more important to the legitimacy of a rule than perceptions of efficiency. ¹³⁷ While it may be necessary to trade off efficiency in favour of equitableness to some extent, it does not follow that unequal contributions and distribution of benefits will detract from a rule's legitimacy - on the contrary, it may, in certain circumstances, enhance legitimacy. For example, there is growing acceptance for the principle of common but differentiated obligations, whereby developing countries assume less onerous obligations than developed countries in order to reflect their lesser capacity to meet such obligations, ¹³⁸ and, particularly in the case of agreements respecting pollution control, their lower rates of contribution to the problem. ¹³⁹

¹³⁶ Young and Osherenko, *supra*, note 106 at 14; Young, "The Politics of Regime Formation," *supra*, note 106 at 368.

¹³⁷ Young, "The Politics of Regime Formation", *ibid*. This appears inconsistent with Rawls' maximin principle.

¹³⁸ Obiora Chinedu Okafor, "The Status and Effect of the Right to Development in Contemporary International Law: Towards a South-North *Entente*" (1995) 7 African J Intl L 865 at 884-5.

¹³⁹ See, for example, Anne Gallagher, "The 'New' Montréal Protocol and the Future of International Law for the Protection of the Global Environment" (1992) 14 Houston J Intl L 267 at 356; Frank Biermann, Saving the Atmosphere: International Law, Developing Countries and Air Pollution (Frankfurt am Main: Peter Lang, 1995) at 60.

A more modest approach to fairness in international norms is based not on a community of values but on a convergence of interests. Developed countries might be willing to make allowances in international conventions to developing countries, either through assistance geared toward capacity-building or through common but differentiated obligations, not out of adherence to notions of fairness held in common by all countries participating in the conventions but rather out of a recognition that, in the absence of such measures, the participation of many developing countries in the treaty regime could not be obtained. Where an environmental problem which states wish to address is perceived as being regional or global in scope, such participation may well be seen to be imperative to the success of efforts to resolve the problem. If this understanding is shared by all states in the affected region, the likelihood that compromises deemed necessary to arrive at an agreement will be accepted increases.

In the scenario described above, a convergence of interests may encourage states to compromise in order to achieve agreement even in the absence of a core of shared values. Such convergence may nevertheless be instrumental in longer-term processes of developing a system of shared values. In the shorter term, however, issues of fairness may be seen in certain instances to operate alongside considerations of interest. For example, the international instruments on marine pollution which will be discussed in the next chapter contain provisions on technological and financial aid to developing countries in order to assist these countries in meeting their obligations. An understanding of land-based marine pollution as a regional and global as opposed to a domestic problem necessitates the involvement of developing countries in the construction of regulatory instruments for land-based sources. It is therefore in the interests of developed countries wishing to reduce land-based pollution to provide assistance to developing countries in

meeting international environmental protection obligations. Conversely, developing countries might be interested in participating in environmental protection regimes in order to gain access to such assistance. However, the provision of assistance in meeting international pollution control obligations may also be justified on the grounds of fairness, in light of the lesser degree of responsibility for environmental degradation which may be attributed to developing countries and in light of the greater capacity of developed countries to absorb the costs and forego the benefits associated with international environmental protection. Again we see that the overlapping of different logics can push outcomes in a certain direction.

Legitimacy and the Authoritativeness of Norms

Legitimacy does not operate in the same way as centralized enforcement mechanisms to compel obedience to a norm. It does, however, have a significant impact on the capacity of the norm to shape state behaviour. This capacity is described by Franck as a rule's "compliance pull." Franck suggests that there is something in the rule itself or in the context of its creation and operation which affects the strength of the rule and its capacity to generate adherence. Compliance pull is a matter of degree, suggesting that it is unhelpful to draw sharp distinctions between rules which may be described as formal and binding - hard law - and informal, non-binding norms intended to guide rather than constrain state behaviour - soft law.

¹⁴⁰ Franck, The Power of Legitimacy among Nations, supra, note 11 at 24.

¹⁴¹ *Ibid.*, at 20-21.

Soft law may take the form of a general policy or principle which is intended to inform decision-making in the international arena. The content of rules of soft law is frequently articulated at a high level of generality, such that it is not clear what specific obligations these rules might impose on states. However, soft law serves a range of important functions within the international legal system. The significance of soft law is frequently said to lie in its capacity to "harden" or "crystallize" into a formal, binding norm. However, it may also be regarded as part of the context within which formal rules of international law operate. Thus, soft law can serve the purpose of establishing overall objectives in which national and international policy should move on a particular issue. It may constitute paradigms which states and other actors employ in solving international problems. Soft law may also serve, as argued by Obiora Okafor, to "legitimate" or "de-legitimate" rules of law by strengthening or weakening their compliance pull. To anticipate the discussion in the next chapter, feerence in international conventions and statements of policy to the precautionary principle, whereby an absence of scientific evidence of a link between

¹⁴² See Paul C. Szasz, "International Norm-making" in Edith Brown Weiss, ed., *Environmental Change and International Law: New Challenges and Dimensions* (Tokyo: United Nations University Press, 1992) 41 at 71-72. Szasz notes that soft law norms may be observed because the states to which they are addressed have agreed to them and therefore have some interest in their implementation; this is similar to Franck's argument respecting legitimacy. Second, such norms may be observed because of pressure from other actors in the form of a "mobilization of shame."

¹⁴³ See, for example, I.A. Shearer, *Starke's International Law*, 11th ed. (London: Butterworths, 1994) at 34; Rebecca M.M. Wallace, *International Law*, 2d ed. (London: Sweet and Maxwell, 1992) at 13; Pierre-Marie Dupuy, "Hard Law, Soft Law, and the International Law of the Environment" (1991) 12 Michigan J Intl L 420 at 431; Szasz, *ibid.*, at 71. Szasz notes that the hardening of soft law norms may proceed by one of two routes: incorporation into a treaty, or development into customary law.

¹⁴⁴ Okafor, *supra*, note 138 at 883.

¹⁴⁵ See discussion *infra*, at p. 110. Philippe Sands makes the argument that the precautionary principle, as articulated in the *Rio Declaration* and the conventions on climate change and biodiversity, has received sufficient state support to be deemed a principle of customary international law: *Principles of International Environmental Law*, vol. 1 (Manchester: Manchester University Press, 1995) at 212-13.

a given pollutant and environmental degradation may not be employed to justify a failure to regulate that pollutant, ¹⁴⁶ helps to weaken the position that states have a right to pollute the ocean in the absence of significant harm to the territory of other states. Furthermore, it helps to legitimate rules or principles imposing on states obligations to enact regulations and formulate policies to prevent harm to the marine environment.

The Unique Status of Law

While the above discussion suggests that the line between rules of law and statements of principle or policy is less solid than positivist scholarship would allow, the distinction between the two remains significant. Brunnée and Toope have argued that the definition of a norm employed in regime theory suggests that normativity is "a mere sociological description of collective expectations about proper behaviour" rather than a rule which can be enforced through legal mechanisms. ¹⁴⁷ They instead employ an approach to normativity which considers a norm's legitimacy, a factor which is in turn influenced by a norm's embeddedness "in a normative community generating common standards of legitimation." ¹⁴⁸ Without a distinction between law and policy, there would be no apparent basis upon which to argue that a state should adhere to a

¹⁴⁶ For a description of the precautionary principle, see David Freestone and Ellen Hey, "Origins and Development of the Precautionary Principle" in Freestone and Hey, eds., *The Precautionary Principle and International Law: The Challenge of Implementation* (The Hague: Kluwer Law International, 1996) 3 at 12-14.; James Cameron and Juli Abouchar, "The Status of the Precautionary Principle in International Law" in *The Precautionary Principle and International Law, ibid.*, 29 at 44-46; André, Nollkaemper, "'What you Risk reveals what you Value,' and Other Dilemmas encountered in the Legal Assaults on Risks" in *The Precautionary Principle and International Law, ibid.*, 73 at 81 ff.

¹⁴⁷ Jutta Brunnée and Stephen J. Toope, "Environmental Security and Freshwater Resources: Ecosystem Regime Building" (1997) 91 AJIL 26 at 30.

¹⁴⁸ *Ibid.*, at 31.

rule despite the existence of a contrary policy or purpose either within the state or at the level of international society. ¹⁴⁹ For example, the rule granting to states sovereignty over territorial resources cannot simply be overridden by the international objective of protecting the marine environment based on its status as a common concern of humankind. ¹⁵⁰ Instead, as actors in international society come to recognize that the objective of global environmental protection must be accommodated alongside the objective of protecting sovereignty over territory and resources, new rules may be devised which either modify the operation of existing rules or replace them altogether.

Oscar Schachter argues that rules of international law are necessary precisely because there is no shared system of values by which global means and ends may be selected. Because international actors pursue a range of objectives and because these objectives are as likely to conflict as they are to coincide, rules to provide a basis for mutual accommodation are required. Schachter distinguishes this approach from that favoured by the conventional conception of international law as being a system of rules regarding the location of boundaries within which states are free to pursue their own self-chosen ends. He argues that the pursuit of state interests is not necessarily incompatible with a purposive approach to international law that identifies certain common objectives within international society. The process of law-formation in international society is

¹⁴⁹ Schachter, *supra*, note 57 at 22.

¹⁵⁰ The Convention for the Protection of the Mediterranean Sea against Pollution (1976) 15 I.L.M. 290 refers in its preamble to the Mediterranean Sea as a common heritage.

¹⁵¹ Schachter, *supra*, note 57 at 30.

¹⁵² *Ibid.*, at 31.

thus in part a process of determining the means by which the various objectives pursued by international actors may be reconciled and, to the extent that they cannot, a means by which hierarchies among objectives may be established.

CONCLUSION

International treaties and conventions are often instrumental in bringing regimes into existence and describing their role, functions and objectives. In one respect, regimes act as an instrument through which the law operates, since there are no centralized mechanisms equivalent to those found in domestic society for legislation, implementation and adjudication of norms. However, this relationship between regime and law may also be reversed, in that the regime can come to be the site of discussion, negotiation and consensus-building processes through which the law is developed.

Regimes may provide a focal point for the activities of epistemic communities, particularly if the organizations associated with them seek to develop contacts with potential members of epistemic communities, including national and international organizations, scientists and other professionals, decision-makers within domestic and international bureaucracies, and so on. In this way, regimes can foster informal processes of consensus-building which take place among primarily non-state actors in the international sphere, but which may in certain instances feed into processes of negotiations among states and come to have an influence on the ways in which issue-areas and problems are defined and approaches to them selected. Consensual knowledge developed through the functioning of epistemic communities may provide the foundation upon which a

normative structure is built, or, alternately, may contribute to processes of legitimation or delegitimation of existing norms.

Regimes may also create a forum within which discussion and debate concerning the relevant issue-area can take place. In the context of meetings of representatives of the parties or the ongoing activities of the secretariat and working groups, states and other actors may have the opportunity to communicate their understandings about the meaning of a given norm and the obligations which it places upon parties to the governing convention. This process may also be fostered by the presence of a requirement in the convention that parties report on the progress they have made toward implementing their obligations. As Chayes and Chayes have pointed out, these requirements need not have as their purpose the identification and sanctioning of deviant behaviour; instead, they may provide the parties with an opportunity to identify the reasons for non-compliance and seek to remove obstacles that may be present.¹⁵³ The discussions surrounding compliance may also provide an opportunity to clarify understandings about the nature of state obligations imposed by a norm and to flesh out the contents of that norm.¹⁵⁴

Regime theorists and functionalists have long argued that the presence of a regime has an impact on the behaviour of states and other actors and therefore on outcomes in the international sphere.

155 International legal scholars are now beginning to explore the possibility that regimes, in

¹⁵³ Chayes and Chayes, supra, note 66 at 110.

¹⁵⁴ Ibid., at 126.

¹⁵⁵ See, for example, Setear, *supra*, note 104; Robert O. Keohane, Peter M. Haas and Marc A. Levy, "The Effectiveness of International Environmental Institutions: in Haas, Keohane and Levy, eds., *Institutions for the*

addition to being constructed and defined to a great extent by law, may also influence significantly processes of law formation, interpretation and application. In the following chapter, I will explore the interplay between regimes and international law in the issue-area of land-based sources of marine pollution. Regimes to control marine pollution, including land-based sources, have enjoyed some measure of success precisely because they have departed from a positivist approach in which the emphasis is on the conclusion of conventions setting out legally binding, substantive obligations. These regimes have sought instead to foster interactions among states and between states and non-state actors in order to facilitate flows of information, cooperative initiatives, and consensus-building. It is precisely the deferral of the creation of a legally binding convention to such a time as the groundwork for the development of legal norms has been laid which permits those norms, once they have emerged, to attract respect and adherence.

Earth: Sources of Effective International Environmental Protection (Cambridge: MIT Press, 1993) 3; Young, "The Politics of Regime Formation," supra, note 136; and Lorraine M. Ellott, International Environmental Politics (Chippenham: St. Martin's Press, 1994).

CHAPTER 3: BUILDING REGIMES TO CONTROL LAND-BASED MARINE POLLUTION

INTRODUCTION

The international law of marine environmental protection has undergone a significant evolution over the course of the last half-century. The emphasis remains on the elaboration of formal treaties containing rules to define the extent and nature of state jurisdiction over ocean spaces. However, one may also observe the emergence of contextual regimes upon which more elaborate regulatory structures for marine pollution control are being built. These regimes employ a functional rather than a sectoral approach, taking their geographic and conceptual scope from the extent and contours of a given problem rather than from jurisdictional boundaries. While the conclusion of formal rules remains a central preoccupation within these regimes, attention is also focused on cooperative initiatives, information-gathering and -dissemination, and forum-building.

There has also been a shift over the last half-century in the legal approach to marine pollution. The rule which prevailed in the 19th and early 20th centuries, that pollution of the ocean was one of the freedoms which states enjoyed in that realm, is being replaced by a rule according

¹ Jutta Brunnée and Stephen Toope, "Environmental Security and Freshwater Resources: Ecosystem Regime Building" (1997) 91 AJIL 26 at 29. Brunnée and Toope describe contextual regimes as pre-legal fora within which states engage in dialogue and cooperative initiatives, and through which convergences of interest and points of consensus may be identified and expanded upon. These contextual regimes form the basis for the development of legal regimes.

to which marine environmental protection is to be achieved through domestic and international regulation.² A statist approach, whereby international rules are formulated in order to protect state territory from the effects of ocean pollution, is gradually being supplanted by an ecosystem approach which assumes that a healthy marine environment is a good in itself, to be pursued even in the absence of state territorial interests.

The international law of land-based marine pollution is evolving in many layers and through various fora, which tend to interconnect and reinforce each other. The imposing architecture of the *Law of the Sea Convention*, which purports to elaborate a structure capable of embodying all rules relating to marine matters, is complemented by the development of more modest conventions limited to particular regions or sectors. Broad policy statements exist alongside narrowly-defined regulatory instruments. A variety of actors, including scientists, policy analysts, state representatives, and a vast array of international organizations, are involved in the development of policy and normativity relating to the marine environment. Cooperative ventures involving research and information-sharing move forward along with normative developments. Furthermore, these normative developments take shape not only within policy statements and conventions, but also through the development of customary international law. It is within this multi-layered network of cooperation, discourse and normative development that land-based pollution control regimes operate.

² Patricia W. Birnie and Alan E. Boyle, *International Law and the Environment* (Oxford: Clarendon Press, 1992) at 253.

The most progress in the development of substantive norms for the control of land-based marine pollution is taking place at the regional level. This regional approach is seen by certain authors as something of a compromise,³ in that it covers only portions of the globe and gives rise to wide variations in the stringency and efficacy of land-based pollution control.

Furthermore, it is feared that the regional approach will detract from the essential unity of the earth's ecosystem and will fail to provide a sufficiently high degree of environmental protection on a global basis. However, others argue that regionalism is an appropriate and even necessary aspect of global marine pollution.⁴ Regional agreements provide the advantage of greater adaptability to local socio-economic, geographic and environmental characteristics,⁵ and may also constitute a particularly promising basis upon which to develop further

³ R. Michael M'Gonigle, "'Developing Sustainability' and the Emerging Norms of International Environmental Law: The Case of Land-Based Marine Pollution Control" (1990) 28 Can YB Intl L 169; Patricia Bliss-Guest, "The Protocol against Pollution from Land-Based Sources: A Turning Point in the Rising Tide against Pollution" (1981) 17 Stanford J Intl L 261 at 263.

⁴ Douglas Johnston and Lawrence E.G. Enomoto, "Regional Approaches to the Protection and Conservation of the Marine Environment" in Douglas M. Johnston, ed., The Environmental Law of the Sea (Gland, Switzerland: International Union for Conservation of Nature and Natural Resources, 1981) 285 at 287, 325; Peter H. Sand, Marine Environment Law in the United Nations Environment Programme: An Emergent Eco-Regime (London: Tycooly, 1988) at xiii; Malgosia Fitzmaurice, International Legal Problems of the Environmental Protection of the Baltic Sea (Dordrecht: Martinus Nijhoff, 1992) at 16-17; Douglas M. Johnston, "Vulnerable Coastal and Marine Areas: A Framework for the Planning of Environmental Security Zones in the Ocean" (1993) 24 Ocean Dvmt & Intl L 63 at 70; José A. De Yturriaga, "Regional Conventions on the Protection of the Marine Environment" (1979) 162(1) Recueil des cours de L'Académie de droit international 323 at 334; Sachiko Kuwabara, The Legal Regime of the Protection of the Mediterranean against Pollution from Land-Based Sources (Dublin: Tycooly, 1984) at 20; David M. Dzidzorne, "Marine Pollution Control in the West and Central African Region" (1995) 20 Queen's LJ 439 at 461; Martine Rémond-Gouilloud, "Land-Based Pollution" in The Environmental Law of the Sea, ibid, 230 at 238-9; Vaughan A. Lewis and Brian Challenger, "Regional Cooperation and Ocean Development: The OECS Experience" in Edgar Gold, ed., A New Law of the Sea for the Caribbean: An Examination of Marine Law and Policy Issues in the Lesser Antilles (New York: Springer-Verlag, 1988) 249 at 249.

⁵ Charles Odidi Okidi, "Toward Regional Arrangements for Regulation of Marine Pollution: An Appraisal of Options" (1977) 4 Ocean Dvmt & Intl L 1 at 11; Dzidzorne, *ibid*, at 461; Gouilloud, "Land-Based Pollution", *ibid*, at 239; Johnston and Enomoto, *ibid*, at 325.

cooperative initiatives. These regional conventions must, of course, fit into a larger global approach in order to be truly successful. This means that they must be compatible with one another and with normative developments at other levels. Marine environmental regimes must also be complemented by other regimes addressing, most notably, pollution of watercourses and atmospheric pollution. In other words, the critics of the regional approach are correct insofar as a series of regional agreements with no connection to one another or to broader principles of environmental protection at the global level is unlikely to represent an appropriate response to what is very much a global environmental problem. The regional and global approaches are not, however, mutually exclusive. In fact, the process of concluding agreements at each level holds out the possibility of reinforcing and furthering ongoing work at the other level.

A further advantage of the regional approach is that it permits experimentation, an important quality given the transjurisdictional character of land-based pollution and the difficulty of fitting it into the existing international legal framework. The recognition of land-based marine pollution as a valid subject for regulation by international law represents, in and of itself, something of a departure from the rule-based, territorial approach found in early efforts to control marine pollution. The early law of marine pollution was characterized by a sharp distinction between domestic and international realms, a distinction which imposed significant limitations on the capacity of international law to regulate marine pollution. The international law relating to land-based pollution recognizes the artificiality of the border between territorial and international waters, and seeks to develop a system of rules capable of straddling this border. However, a territorial approach has not been altogether abandoned in favour of an

ecosystem orientation, and the conclusion of formally binding treaties remains a central preoccupation of international normative efforts. In the following section, I will trace the evolution of the law of marine environmental protection leading to the emergence of land-based pollution regimes.

THE EVOLUTION OF MARINE ENVIRONMENTAL LAW

The attitude of both municipal and international law to the oceans was for centuries conditioned by a belief that ocean resources were inexhaustible. Access to ocean spaces was of central concern, rather than access to resources. In the 17th century, two views regarding national access to ocean space competed for acceptance: that of Hugo Grotius, who promoted the concept of the freedom of the seas, and that of John Selden, who advocated extensive national jurisdiction over the seas.⁶ It was the view argued by Grotius that eventually won out.⁷ Given the state of technology at that time, the two most important uses made of the seas - fisheries and navigation - were not initially prone to give rise to conflict among states.⁸ Over

⁶ E.D. Brown, *The International Law of the Sea*, vol. 1 (Aldershot, England: Dartmouth, 1994) at 6. For a discussion of the challenges to Grotius' thesis, see W.E. Butler, "Grotius and the Law of the Sea" in Hedley Bull, Benedict Kingsbury and Adam Roberts, eds., *Hugo Grotius and International Relations* (Oxford: Clarendon Press, 1990) 209 at 209-212 and Frans De Pauw, *Grotius and the Law of the Sea*, P.J. Arthern, transl. (Brussels: Editions de l'Institut de Sociologie, 1965).

⁷ Butler, *ibid*., at 211.

⁸ Brown, supra, note 6 at 8; Ted L. McDorman et al., The Marine Environment and the Caracas Convention on the Law of the Sea (Halifax: Dalhousie Ocean Studies Programme, 1981) at 1. It would appear that Grotius' primary concern was freedom of navigation, principally for the purposes of trade. Butler writes: "[S]ince not every place is supplied with the necessaries of life, some excel in some things and others in something else. By 'divine justice' it was brought about that one people should supply certain needs of others." Grotius also noted that use of the oceans for purposes of navigation by one nation did not make it unusable by other nations: Butler, ibid., at 213-214.

time, advances in technology put more pressure on the fisheries resource⁹ and created new possibilities for exploitation of other ocean resources.¹⁰ Conflicts among uses and competition between states for access to both ocean resources and ocean space became more prevalent as a result.¹¹

The modern trend toward assertions of broader jurisdiction over ocean spaces and resources was prompted largely by these technological advances which had the twin effects of making states aware of the threat to fisheries resources lying off their coasts, and aware of the benefits to be procured through exploitation of seabed resources. This round of jurisdictional expansion began with two Proclamations by President Truman of the United States in 1945.

The first was an assertion of American jurisdiction over the natural resources contiguous to its coasts, the second over the non-living resources of the continental shelf and the living resources of the water column above it. A number of other countries, particularly in Latin America, followed suit. This trend continued in the 1960s with the gradual unilateral extension by several countries of exclusive fisheries and economic zones. The second countries of exclusive fisheries and economic zones.

⁹ McDorman, *ibid*.

¹⁰ Brown, supra, note 6 at 9-10.

¹¹ Martin H. Belsky, "The Ecosystem Model Mandate for a Comprehensive United Nations Ocean Policy and Law of the Sea" (1989) 26 San Diego L Rev 417 at 452-453.

¹² Brown, supra, note 6 at 9.

¹³ McDorman, supra, note 8 at 1.

¹⁴ Brown, supra, note 6 at 9.

It has been suggested that this trend toward the expansion of state jurisdiction over ocean spaces and resources might constitute a sound basis for the protection of the marine environment, and more particularly for the control of land-based pollution, as the area of the ocean most seriously affected by such pollution is brought within the reach of national legislation. 15 In this way, marine pollution would cease to be an externality, beyond either the control or the concern of the coastal state. However, this logic does not appear to hold. In the first place, although land-based marine pollution has a significant impact in coastal waters, its effects extend much farther into the ocean than does state jurisdiction, even subsequent to the expansionist trend described above. It is not possible to push state jurisdiction far enough into the ocean to encompass the impacts of land-based marine pollution. ¹⁶ Interstate impacts are impossible to avoid, particularly in regions where a number of coastal states border a maritime area. Pollutants from a number of states mingle in the coastal waters, flowing back and forth across international boundaries, and rendering identification of sources and the drawing of causal connections between pollutant and harm extremely difficult. Furthermore, there are important interrelationships between issue-areas such as marine and atmospheric pollution which would continue to be missed in a territorial framework for environmental protection. Within a territorial framework, incentives to externalize the costs of domestic activities in order to derive maximum benefit from finite resources will continue to operate. States will be likely to continue to take a short-term approach to pollution control.

¹⁵ Odidi Okidi makes reference to this argument but rejects it, stating that unilateral regulatory initiatives are inadequate unless undertaken in coordination with neighbouring states: *supra*, note 5 at 7.

¹⁶ Oran Young, Resource Management at the International Level: The Case of the North Pacific (London: A. Wheaton, 1977) at 184.

Inconsistencies among different national regulatory regimes will create problems as environmental policies pursued by one state risk being defeated by inconsistent policies elsewhere. A territorial approach to land-based marine pollution would be inadequate and ineffective because such pollution is by its very nature a domestic and an international issue at one and the same time.

Given the limitations of municipal law as an instrument for the control of land-based marine pollution, international law is employed as a basis upon which to achieve such control. Customary international law sets out a number of rules and principles geared toward the protection of state territorial integrity and the extent of state rights in the international sphere, but is not an adequate instrument for such a complex regulatory task as controlling land-based marine pollution. In the first place, customary international law does not permit coastal states to adopt anti-pollution laws applicable beyond their jurisdictional waters, except to the extent that those laws apply to their own state vessels (such as naval ships) and flag vessels on the high seas. Second, the general *sic utere tuo* principle, which holds that a state is not to use or allow the use of its territory to cause harm to the territory of other states, cannot be employed as a basis for protection of the marine environment generally, but only of the territorial interests of states. Certain international scholars argue that even today there is no customary duty not to pollute the ocean environment, although customary international law

¹⁷ *Ibid.*, at 163-4; 184-5.

¹⁸ McDorman, *supra*, note 8 at 9.

¹⁹ *Ibid.*, at 10-13.

²⁰ *Ibid.*, at 14.

appears to at least be moving in that direction.²¹ At any rate, the slowness with which customary norms come into existence, and the difficulties of demonstrating when and if such norms may be said to be binding and on whom, make it unlikely that customary law will yield a comprehensive system of marine environmental protection. A greater reliance has been placed in recent decades on treaty law, which presents the possibility of adopting environmental protection *per se*, rather than the protection of territorial interests, as the basis of normativity.

The weaknesses of customary international law led, in the 1950s and 1960s, to the conclusion of a series of treaties addressing marine environmental protection. The focus of this treaty law was initially on oil pollution from tankers, to the virtual exclusion of other forms or sources of marine pollution. Vessel-source pollution, particularly as a result of oil spills, was an extremely visible cause of marine environmental degradation, and attention became focused on this source following well-publicized maritime disasters involving large oil spills with clearly identifiable environmental impacts.²² These environmental impacts were, moreover, strongly felt on coastal state territory, thus further increasing their visibility. Vessel-source pollution is a relatively easy target for international law, since vessels on the high seas are generally subject to relatively uncontroversial attributions of state jurisdiction. Regulation of the activities of such vessels in international waters and in the territorial waters of states other than

²¹ Brian D. Smith, *State Responsibility and the Marine Environment* (Oxford: Clarendon Press, 1988). Smith argues, at 94, that the prevention of material injury to the high seas environment is an obligation of customary law.

²² See Edgar Gold, *Handbook on Marine Pollution* (Arendal, Norway: Assuranceforeningen GARD, 1985) at 23-24.

the flag state is uncontroversial as it does not constitute a significant intrusion into domestic territorial jurisdiction.

In 1954, the *International Convention for the Prevention of Pollution of the Sea by Oil*²³ was concluded; it came into force in 1958. This convention prohibits the discharge of oil from ships except in accordance with conditions set out in art. III.²⁴ The mechanism devised for implementation of this prohibition involves the keeping of records regarding oil cargo, fuel oil and discharges by tanker operators,²⁵ these records to be made available to inspection by officials of states into whose territory the tanker enters. Evidence of violations is to be reported to the state to which the tanker is registered.²⁶ Proceedings are to be taken, where necessary, by the state of registration against the tanker's owner.²⁷ The 1971 modifications to this convention establish standards which newly constructed tankers must meet.²⁸

The 1958 Convention on the High Seas²⁹ represents an effort at codification of customary law of the sea. It places emphasis on the principle of freedom of the seas, to be exercised under the conditions laid down by international law and with due regard to the interests of other

²³ International Convention for the Prevention of Pollution of the Sea by Oil 327 U.N.T.S. 3.

²⁴ Exceptions are provided for in arts. IV and V, *ibid*.

²⁵ *Ibid.*, at art. IX, paras. 1-4.

²⁶ *Ibid.*, at art. IX, para. 5.

²⁷ *Ibid.*, at art. X.

²⁸ Amendments to the International Convention for the Prevention of Pollution of the Sea by Oil (1972) 11 ILM 267.

²⁹ 1958 Convention on the High Seas, [1962] 450 U.N.T.S. 82.

states in the high seas.³⁰ The convention is chiefly concerned with defining the limits and modalities of these freedoms, including navigation, fishing, the laying of cables and pipelines, and overflight. There are, however, two provisions concerning marine pollution: art. 24, which calls upon states to "draw up regulations to prevent pollution of the seas by the discharge of oil from ships or pipelines or resulting from the exploitation and exploration of the seabed and its subsoil ...;" and art. 25, whereby states are to take measures to prevent dumping of radioactive waste, and to cooperate "with the competent international organizations" to prevent pollution from the use of radioactive materials. These provisions leave the bulk of responsibility for regulating marine pollution to states through municipal regulation.

In the 1960s and '70s, more concerted efforts to combat the pollution of the seas through international law began to be made. The *Agreement for Cooperation in dealing with Pollution of the North Sea by Oil*³¹ concluded in 1969, is essentially statist in orientation. Article 1 of this convention reads: "This agreement shall apply whenever the presence or the prospective presence of oil polluting the sea within the North Sea area ... presents a grave and imminent danger to the coast or related interests of one or more Contracting Parties." Also concerned primarily with the impact of marine pollution on state territorial interests is the *International*

³⁰ *Ibid.*, at art. 2.

³¹ North Sea Oil Pollution Agreement, 704 UNTS 3 (1969).

Convention relating to Intervention on the High Seas in cases of Oil Pollution Casualties.³² Its objective, as set out in art. 1, is to permit states to

... take such measures on the high seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution to the sea by oil, following upon a maritime casualty ..., which may reasonably be expected to result in major harmful consequences.

Article III of this convention establishes a series of conditions which actions taken pursuant to this goal must meet. Annexes to the convention provide for conciliation and arbitration. The *International Convention on Civil Liability for Oil Pollution Damage*, ³³ as its title suggests, establishes the modalities for findings of liability for oil pollution from ships and for payment of compensation. Article II provides: "This Convention shall apply exclusively to pollution damage caused on the territory including the territorial sea of a Contracting state and to preventive measures taken to prevent or minimize such damage." Rules and procedures relating to limitations of liability, ³⁴ insurance, ³⁵ the taking of legal action against owners of ships responsible for pollution damage, ³⁶ and mutual recognition of judgments against such owners ³⁷ are established.

³² (1970) 64 AJIL 471.

³³ (1970) 64 AJIL 481.

³⁴ *Ibid.*, at art. V.

³⁵ Ibid., at art. VII.

³⁶ *Ibid.*, at art. IX.

³⁷ *Ibid.*, at art. X.

In 1972, the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (the Oslo Convention)³⁸ was adopted. This convention differs from those considered above in many important respects, not least of which is its orientation toward the preservation of the environment as well as the integrity of state territory. Its preamble refers to the "vital importance" of the marine environment and its resources, and to the threats to marine ecology and to "legitimate uses of the sea" posed by marine pollution. The convention prohibits the dumping in the area to which it applies³⁹ of substances listed in Annex I,⁴⁰ and prohibits the dumping of certain quantities of substances listed in Annex II.⁴¹ States party to the convention are, furthermore, to prohibit the dumping of any substance except where a permit has been issued which meets the conditions set out in Annex III.⁴² Article 11 provides for the keeping of records by the parties of materials dumped "under permits or approvals issued by that Contracting Party." These substantive provisions indicate a much more elaborate division of labour between municipal and international law than was previously the case, creating a structure at the international level within which municipal regulation of dumping activities is to take place.

³⁸ (1972) 11 I.L.M. 262. The parties are Belgium Denmark, Finland, France, the Federal Republic of Germany, the Netherlands, Norway, Portugal, Spain, Sweden and the United Kingdom.

³⁹ This area is defined at art. 2, *ibid.*, as the high seas and territorial seas in a portion of the Atlantic and Arctic Oceans and the Mediterranean Sea.

⁴⁰ *Ibid.*, at art. 5.

⁴¹ A Commission, established by art. 16, *ibid.*, is to establish the quantities of Annex II substances which may be dumped without a permit. For greater quantities, a permit which meets conditions set out in Annexes II and III must be issued: *ibid.*, at art. 6.

⁴² *Ibid.*, at art. 7.

This convention is also distinguished from earlier efforts in its somewhat more elaborate institutional and cooperative provisions. Article 12 provides for the establishment of joint programmes of scientific and technical research; art. 13 for the establishment of joint programmes, in conjunction with international organizations and agencies, to monitor the distribution and effects of pollutants; and art. 14 for international cooperation to promote marine environmental protection measures. Responsibility for monitoring and enforcing compliance continues to rest with states with respect to vessels in their territory or those registered to them, but provision is made for the development of "cooperative procedures for the application of the convention, particularly on the High Seas." Articles 16-18 address the Commission established under the convention. The Commission is made up of representatives of the parties and given responsibility, *inter alia*, for supervising implementation of the convention, receiving and considering permits issued by contracting parties, reviewing the condition of the seas to which the convention applies, and reviewing the annexes and making recommendations for modifications thereto.

The International Convention for the Prevention of Pollution from Ships (the London Dumping Convention), ⁴⁴ adopted the following year, reflects the same ecosystem orientation as the Oslo Convention. It refers, in its preamble, to the "need to preserve the human environment in general and the marine environment in particular," and cites as its objective "the complete elimination of intentional pollution of the marine environment by oil and other harmful

⁴³ *Ibid.*, at art. 15(5).

⁴⁴ (1973) 12 I.L.M. 1319.

substances and the minimization of accidental discharge of such substances." The compliance scheme established under the convention places most of the responsibility for punishment of violations on states to whom vessels in violation are registered. However, all states party to the convention share responsibility for detecting violations. For example, art. 6(1) calls upon the parties to cooperate in detecting violations, and art. 6(2) permits states to inspect ships of other states in order to determine whether violations of the convention have occurred. Any evidence of such violations is then provided to the government responsible for that ship. 46

The substantive provisions of the convention are quite elaborate; they appear in annexes to the convention,⁴⁷ three of which are optional.⁴⁸ One may also observe an attempt at providing institutional stability and ongoing cooperation in art. 17, "Promotion of Technical Cooperation," which delegates to the Inter-Governmental Maritime Consultative Organization, with the assistance of the United Nations Environment Programme (UNEP), responsibility for promoting support for parties requiring technical assistance.

⁴⁵ *Ibid.*, at art. 4. See also Annex I, *Regulations for the Prevention of Pollution by Oil*, which provides, at Regulation 5, that parties must carry out surveys of ships operating under their authority in order to confirm compliance with standards established by the convention, and must issue certificates attesting to this fact. Article 5 of the convention authorizes states in whose territory such ships are found to ensure that the certificate is present.

⁴⁶ *Ibid.*, at art. 6(3).

⁴⁷ See *ibid.*, Annex I, entitled "Regulations for the Prevention of Pollution by Oil, and Annex II, "Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk."

⁴⁸ *Ibid.*, Annex III, "Regulations for the Prevention on Pollution by Harmful Substances carried by Sea in Packaged Forms, or in Freight Containers, Portable Tanks or Road and Rail Tank Wagons;" Annex IV, "Regulations for the Prevention of Pollution by Sewage from Ships;" and Annex V, "Regulations for the Prevention of Pollution by Garbage from Ships."

One can observe a certain evolution in these conventions away from an almost exclusive focus on state territorial interests toward greater attention to environmental protection for its own sake. In addition, there is a greater effort in the *London Dumping Convention* and the *Oslo Convention* to internationalize procedures and mechanisms for detecting and reporting violations, and to set international guidelines and conditions which municipal pollution prevention regulations must meet. In contrast, the earlier conventions are geared much more toward facilitating state action with respect to marine pollution. More concerted efforts at establishing ongoing cooperation, not only with respect to the detection and reporting of violations, but also toward the elaboration of further marine environmental protection measures, may also be observed in the latter two conventions.

The major weakness in the marine pollution conventions adopted prior to 1974 lies in their failure to address the most significant sources of marine pollution, namely land-based pollution. These sources, given their domestic origin, pose particular problems for international regulation, as they had been considered to be generally a matter of exclusive domestic jurisdiction.⁴⁹ Although land-based marine pollution has an impact on both the territorial and non-territorial interests of states, it cannot readily be addressed by a legal framework based on protecting the rights of states *vis-à-vis* one another. Because of the diffuse and indirect nature of harm caused by land-based pollution, and the extreme difficulty in drawing cause-and-effect linkages, it is not feasible to approach it solely as an injury done

⁴⁹ Martin H. Belsky, "Management of Large Ecosystems: Developing a New Rule of Customary International Law" (1985) 22 San Diego L Rev 733 at 737. The only exception to this rule occurs in the case of transboundary flows of pollutants causing significant harm to state territory.

by one state to another. Such pollution causes harm to the marine environment, which in turn has an impact on state as well as other interests. It would therefore be more appropriate to approach marine pollution from the point of view of harm to the environment than from that of harm to state territory. It is for this reason that the emerging ecosystem orientation to be observed in international marine environmental law is of particular significance to the international control of land-based marine pollution. Before turning to a discussion of the development of this body of international law, however, I would like to consider a development which parallels and in many respects complements the emerging ecosystem orientation, namely increasing criticism of the statist orientation of maritime law.

In the 1960s, while efforts to build a body of marine environmental treaty law were moving forward, the territorial approach to ocean spaces and the drive toward expanded jurisdiction came to be seriously questioned, particularly by newly independent states which had not been involved in the creation of international law to date and which perceived that law to be often contrary to their interests. ⁵⁰ These states were interested not only in securing their own places in the international system, but also in effecting changes to the system in order to redress what they perceived to be inequities and injustices in the way in which international law governed access to resources, among other things. ⁵¹ Such concerns culminated in the famous speech in 1967 by Arvid Pardo, Malta's ambassador to the United Nations, in which the principle of the common heritage of humankind was introduced. Pardo spoke of the concern among

⁵⁰ Brown, *supra*, note 6 at 8.

⁵¹ Ernst B. Haas, "Why Collaborate? Issue Linkage and International Regimes" (1979-80) 32 World Pols 357 at 366; Brown, *ibid*, at 10.

developing nations that the trend to increasingly sweeping assertions of national jurisdiction over the oceans would deprive those nations of access to the benefits to be derived from the ocean's resources. Instead, he argued, these resources, particularly those of the high seas, should be managed and exploited in such a way as to protect the interests of all countries - but particularly those in the developing world.⁵² Pardo's speech is credited with being the catalyst for the convening of the Third United Nations Conference on the Law of the Sea in 1973,⁵³ which represented an effort to completely re-examine the law of the sea and as such involved a significant law-reform component.⁵⁴

The concept of the common heritage of humankind represents a major innovation in international law, particularly to the extent that it departs from the territorial basis upon which customary and treaty law had been built up to this point. The principle behind this concept is that areas not currently subject to state sovereignty should not be available for appropriation by any state but rather should be available to all states. States would share responsibility for management of the resources within these areas as well as sharing in the benefits to be derived therefrom. Furthermore, these areas are to be reserved for peaceful purposes and are to be preserved for posterity.⁵⁵

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⁵² McDorman, supra, note 8 at 3;-4 Haas, "Why Collaborate?", ibid., at 366.

⁵³ McDorman, *ibid.*, at 3-4; Brown, *supra*, note 6 at 10.

⁵⁴ Gold, *Handbook on Marine Pollution*, *supra*, note 22at 28; Brown, *ibid.*, at 10. The *Law of the Sea Conference* will be discussed *infra* at 78.

⁵⁵ Harminderpal Singh Rana, "The 'Common Heritage of Mankind' and the Final Frontier: A Revaluation of Values constituting the International Legal Regime for Outer Space Activities" (1994) 26 Rutgers LJ 225 at 228. See also Gennady M. Danilenko, "The Concept of the 'Common Heritage of Mankind' in International Law" (1988) 13 Annals of Air and Space Law 247 at 249 ff.

Although common heritage of humankind bears a specific meaning in the context of the Law of the Sea Convention, as well as international law governing outer space, the moon and Antarctica, 56 the approach which underlies it has proven to be influential in a wide range of contexts, most particularly with respect to environmental matters. The common heritage approach implies coordination of policy responses and cooperative initiatives to achieve common goals with respect to maritime regions. It emphasizes the convergence among the interests of states and the need for a collective approach to a problem experienced by a range of actors, as opposed to the individual pursuit of separate interests by actors whose aims are presumed not to overlap to any significant extent. Rather than a scenario whereby individual states extend their jurisdiction further into ocean spaces in order to better pursue their interests there, the common heritage approach aims at the establishment of a regime at the international level through which state interests would be pursued collectively, presumably to the greater advantage of all who participate. This new approach is reflected in the emergence of an ecosystem orientation toward international environmental protection which was brought into prominence by the 1972 United Nations Conference on Environment and Development held in Stockholm, Sweden.

⁵⁶ Rana, *ibid.*, at 229-230. See also Bradley Larschan and Bonnie C. Brennan, "The Common Heritage of Mankind Principle in International Law" (1983) 21 Columbia J Transnatl L 305 at 320 ff. with respect to deep seabed resources and at 326 ff. with respect to outer space.

The Stockholm Conference

The year 1972 appears to represent something of a watershed in marine environmental protection, and indeed in international environmental protection generally. Beginning in that year, a convergence can be observed among the three trends described above: increasingly broad assertions of national jurisdiction over ocean spaces and environment; growing awareness of and concern with marine environmental protection; and dissatisfaction among developing countries with the existing distribution of access to marine resources. The catalyst for this convergence was the 1972 United Nations Conference on the Human Environment, held in Stockholm, Sweden. One of the central achievements at Stockholm and of the range of discussion and study which flowed from it was to focus attention on the significance of the natural environment as worthy of protection in and of itself. Environmental degradation began to be approached not simply as a potential threat to the territorial interests of states, but as a threat to human communities. The essential inter-relatedness of the natural environment also came to be recognized, which meant that one could not make clear distinctions between domestic, regional and international environmental problems. This approach may be described as an ecosystem approach, as distinguished from the statist approach which preceded it and which remains prevalent today.

The *Declaration on the Human Environment*, ⁵⁷ adopted at Stockholm, notes, at Principle 7, the need for states to prevent marine pollution. The *Action Plan*, which forms part of the

⁵⁷ Declaration on the Human Environment A/Conf.48/14/Rev.1.

declaration, sets out twenty-three principles regarding marine pollution, including the principle that the best practicable methods for minimizing discharges of hazardous substances should be used; the need for regional and international cooperation to control marine pollution in the areas of the sea beyond state jurisdiction; and the need for coastal and flag states to take action regarding pollution incidents within their jurisdictions.⁵⁸

The influence of the Stockholm Conference has been significant, as references to an ecosystem orientation surface in various contexts and fora. In the area of marine environmental protection, this influence is reflected at the global level, in the *United Nations Convention on the Law of the Sea (LOSC)*, ⁵⁹ which will be discussed below, and at both the global and regional levels in UNEP's Regional Seas Programme. As will be suggested below, the impact of the ecosystem orientation on the *LOSC* is equivocal, the principal preoccupation observable within that document being the resolution of jurisdictional issues. Nevertheless, the ecosystem orientation is at work in the comprehensive approach taken to marine pollution, under which all sources of pollution are addressed irrespective of their point of origin within state domestic jurisdiction or the absence of an impact on state territorial interests.

More perceptible is the impact of Stockholm on the work carried out by the United Nations Environment Programme (UNEP), which was mandated to implement the Action Plan.⁶⁰ UNEP has initiated a Regional Seas Programme, discussed below, under which a series of

⁵⁸ McDorman, *supra*, note 8 at 16.

⁵⁹ United Nations Convention on the Law of the Sea (LOSC), (1982) 21 I.L.M. 1261.

⁶⁰ McDorman, supra, note 8 at 17.

regional conventions for marine environmental protection have been concluded and implemented. Efforts at drafting a global convention on land-based sources are also underway. UNEP is a strong proponent of the ecosystem orientation advocated at Stockholm, and has been instrumental in generating a growing consensus around this approach among scientists, policy-makers, members of government, international organizations and other actors.

UNCLOS III

The Third United Nations Conference on the Law of the Sea (UNCLOS III)⁶¹ began in 1973, and resulted in the conclusion of the *LOSC* in 1982. The *LOSC* reflects an interaction between ecosystem and territorial approaches to marine pollution. Six sources of marine pollution are identified and addressed in the convention: land-based pollution;⁶² pollution from seabed activities;⁶³ pollution from activities in the Area;⁶⁴ dumping;⁶⁵ vessel-source pollution,⁶⁶ and atmospheric pollution.⁶⁷ Only vessel-source pollution is dealt with in any detail.⁶⁸ The *LOSC*

⁶¹ *Ibid.*, at 16.

⁶² LOSC, supra, note 59 at art. 207.

⁶³ Ibid., at art. 208.

⁶⁴ *Ibid.*, at art. 209. The Area is that portion of the ocean not subject to any form of state jurisdiction: art. 1(1).

⁶⁵ *Ibid.*, at art. 210.

⁶⁶ *Ibid.*, at art. 211.

⁶⁷ *Ibid.*, at art. 212.

⁶⁸ McDorman, supra, note 8 at 19-20.

can best be described as creating a framework, rather than a regulatory structure, for marine environmental protection. ⁶⁹ Its most significant achievements lie in the articulation of a general obligation to preserve the marine environment⁷⁰ and in its comprehensive approach by which all forms of marine environmental degradation are addressed. ⁷¹ As Boyle has put it, it is no longer accurate to speak of a "right to pollute" as an implicit freedom of the sea. ⁷² On the other hand, the *LOSC* contains no substantive provisions on pollution control. ⁷³ For example, art. 207 obliges states to adopt legislation on land-based sources of pollution, "taking into account internationally agreed rules, standards and recommended practices and procedures." Article 212 creates a similar obligation regarding atmospheric pollution. The rules, standards and procedures to which states are to refer remain, by and large, to be developed. The manner in which this is to be accomplished is set out in the *LOSC* at art. 217: cooperation on a global or regional basis.

In addition to establishing a framework for future normative developments, *UNCLOS III* created a temporary forum for discourse among states and other actors. The lengthy process of negotiating the *LOSC* and bringing it into force generated a substantial amount of debate among politicians, lawyers, academics, members of national bureaucracies, and governmental and non-

⁶⁹ Ibid., at 20.

⁷⁰ *LOSC*, *supra*, note 59 at art. 194.

⁷¹ Alan E. Boyle, "Marine Pollution under the Law of the Sea Convention" (1985) 79 Am J Intl L 347 at 370; Birnie and Boyle, *supra*, note 2 at 253.

⁷² Boyle, *ibid.*, at 370; Birnie and Boyle, *ibid.*, at 253.

⁷³ Boyle, *ibid.*, at 357; McDorman, *supra*, note 8 at 20; Brown, *supra*, note 6 at 336.

governmental organizations. Much of the significance of this convention lies in the wealth of debate and analysis which led to its conclusion. The fact that the convention adopts a perspective which is influenced, if not driven, by an ecosystem approach renders this approach more credible in other contexts and lends it substance. The *LOSC* acknowledges that marine pollution and marine environmental protection generally are international issues requiring a comprehensive approach. The inclusion of land-based pollution in the *LOSC* lends support to the notion that such sources, despite their location within state territory and jurisdiction, constitute an appropriate object of concern to international law. In short, the immediate value of the *LOSC* lies in large part in its capacity to focus attention on marine pollution, including land-based sources, as issues of international law and to shape the ongoing dialogue regarding policy and normative responses to this issue.

In many respects, however, the *LOSC* takes a very conventional approach. I suggested above that a primary preoccupation within the *LOSC* is the delineation of different spheres of state jurisdiction and the extent of state rights and obligations within these spheres. It is not clear on what basis rules governing land-based marine pollution are to be concluded, but the emphasis on jurisdictional spheres suggests that a territorial approach is envisaged. Paragraphs 1-3 of art. 207, which describes how land-based pollution is to be regulated, refer to actions to be taken by states. States are to "adopt laws and regulations" and to "take other measures as may be necessary" to "prevent, reduce and control pollution of the marine environment from land-based sources" and to "endeayour to harmonize their [land-based] policies ... at the appropriate regional level." 75

⁷⁴ *LOSC*, *supra*, note 59 at art. 207, paras. 1 and 2.

⁷⁵ *Ibid.*, at art. 207, para. 3.

Paragraph 4 contains the only mention of international, as opposed to municipal, law relating to land-based pollution. Pursuant to this paragraph,

"[s]tates, acting through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources ..."

An almost identical structure is employed in art. 212, dealing with atmospheric sources of marine pollution. Article 213, which addresses enforcement of rules for land-based pollution, emphasizes enforcement by states of their own domestic laws, as well as the adoption of "laws and regulations and [the taking of] other measures necessary to implement applicable international rules and standards" Again, art. 222, addressing the enforcement of rules regarding atmospheric pollution, follows the same structure. No indication is given, in any instance, of the manner in which the jurisdictional difficulties posed by land-based marine pollution are to be overcome.

A further difficulty with the approach taken in the *LOSC* is its emphasis on the negotiation by states of formal rules for the control of marine pollution. As I argued in Chapter 2, this rules-based approach holds serious limitations. In the absence of a centralized mechanism for the adoption, implementation and enforcement of rules of international law, rules within that system must rely on some other factor for their validity and effectiveness. One such factor upon which the rules-based approach relies heavily is the interest of states in reciprocal obedience to particular rules and to the normative system generally. However, once one departs from rules based on protection of state territorial interest and begins to focus on the

protection of the environment in and of itself, this reciprocal principle ceases to operate as an authoritative basis for the rules in question. The perceived legitimacy of these rules takes on much more importance.

The crafting of legtimate rules under the *LOSC* is problematic in that, although the convention provides a framework for rules, it does not provide a context within which they might be created. The *LOSC* makes reference to international organizations being involved in the regulatory process, but neither identifies nor creates them.⁷⁶ Confidence-building measures such as research and information exchange,⁷⁷ monitoring and environmental assessment,⁷⁸ and reporting⁷⁹ are referred to, but no forum is created within which such activities might take

States shall cooperate, directly or indirectly through competent international organizations, for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment. They shall endeavour to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of pollution, exposure to it, and its pathways, risks and remedies.

States shall, consistent with the rights of other States, endeavour, as far as practicable, directly or through the competent international organizations, to observe, measure, evaluate and analyse, by recognized scientific methods, the risks or effects of pollution of the marine environment.

States shall publish reports of the results obtained pursuant to article 204 or provide such reports at appropriate intervals to the competent international organizations, which should make them available to all States.

⁷⁶ See, for example, art. 197, *ibid.*, which states:

[&]quot;States shall cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features."

⁷⁷ Article 200, ibid., states:

⁷⁸ Art. 204, *ibid.*, states:

⁷⁹ Article 205, ibid., states:

place. The initiative to set all these processes in motion, to employ David Kennedy's expression, is deferred to a later time and another forum.⁸⁰ This is, perhaps, inevitable, given the immensity and complexity of the issues addressed in the convention. Much of the work of developing norms and principles is accomplished at the regional level, including the conclusions of conventions in which UNEP has been involved. It is to these regional efforts that I now turn.

INSTRUMENTS ON LAND-BASED MARINE POLLUTION

The three most elaborate and effective international legal instruments for the control of land-based marine pollution were adopted in the mid-1970s for the North-East Atlantic, the Baltic and the Mediterranean seas. I will argue that although none of these conventions contains substantive provisions controlling land-based sources, their success lies in their capacity to foster ongoing interaction among states and continued progress in normative development.

The North-East Atlantic

The European Convention for the Prevention of Marine Pollution from Land-based Sources, 81 adopted in 1974, was the first international instrument directly to target land-based marine pollution. It reflects certain elements of an ecosystem orientation, particularly in the manner in which it defines marine pollution and in the scope of its application. While the definition of

⁸⁰ David Kennedy, International Legal Structures (Baden-Baden: Nomos, 1987) at 234.

⁸¹ 1974 Convention for the Prevention of Marine Pollution from Land-based Sources (the Paris Convention) (1974) 13 I.L.M. 352.

marine pollution refers to state territorial interests, it is broader than that; pollution of the sea is defined as:

... the introduction by man, directly or indirectly, of substances or energy into the marine environment ... resulting in such deleterious effects as hazards to human health, harm to living resources and to marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.⁸²

In addition, marine environmental protection is described in the preamble as being in the common interest of states and as requiring regional and sub-regional cooperation.

Furthermore, the scope of the convention's application extends into the territorial seas and internal waters of the parties, 83 representing a recognition of the interconnectedness of coastal and marine pollution and of the domestic and international spheres.

The central mechanism for regulation of land-based pollution under the convention is contained in art. 4(1), which establishes obligations to eliminate and to strictly limit, respectively, substances listed in Annex A. Similarly, art. 5 calls upon the parties to "undertake to adopt measures ... to eliminate pollution ... by radioactive substances referred to in Part III of Annex A" With respect to substances not appearing in Annex A, the parties are to reduce existing and forestall new pollution. 84 Article 9 calls for consultation where pollution from one state "is likely to prejudice the interests of one or more of the other Parties" The convention also includes provisions designed to foster ongoing cooperation among the parties;

⁸² *Ibid.*, at art. 1(1).

⁸³ *Ibid.*, at art. 3(a).

⁸⁴ *Ibid.*, at art. 6(1).

these include provisions on joint programmes of scientific and technical research,⁸⁵ on the establishment of a permanent monitoring system,⁸⁶ and on the establishment of a Commission, known as PARCOM, to oversee the implementation of the Convention.⁸⁷

The 1974 Paris Convention is to be superseded by the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic, 88 which has not yet entered into force.

The 1992 Convention provides, among other things, for a more elaborate institutional structure 89 and a dispute-resolution mechanism. 90 In addition, reference is made to a number of principles which have been articulated in various policy statements and conventions at the international level. These principles include the precautionary principle, the polluter pays principle, and the principle according to which the best available techniques and best environmental practice are to be employed. 91

The regulatory structure for land-based pollution is set out in Annex I, which begins by identifying principles and criteria which the parties are to employ in adopting regulations and

⁸⁵ *Ibid.*, at art. 10.

⁸⁶ *Ibid.*, at art. 11.

⁸⁷ *Ibid.*, at art. 16.

⁸⁸ Convention for the Protection of the Marine Environment of the North-East Atlantic (the 1992 Paris Convention) (1993) 32 I.L.M. 1069.

⁸⁹ *Ibid.*, at arts. 10-13.

⁹⁰ *Ibid.*, at art. 32.

⁹¹ *Ibid.*, at art. 2.

other mechanisms for the control of land-based pollution. ⁹² As in the 1974 convention, the burden of adopting substantive measures to control pollution is placed on the individual parties. However, rather than identify certain substances with respect to which a more rigorous obligation is imposed, this version of the convention requires parties to regulate all point source discharges and releases into water or air which may affect the marine environment. ⁹³

In addition to the provisions directed to the regulation of land-based pollution, there is a series of provisions which promote ongoing interaction and cooperation among the parties and facilitate the gathering and dissemination of information relevant to the convention. These provisions include art. 8, which calls for the establishment of joint scientific and technical research programmes; art. 22, which creates an obligation to report on measures taken by states to implement the convention; and art. 23, pursuant to which compliance is to be assessed and steps to improve the rate of compliance taken. The institutional and procedural provisions also provide a point of entry for actors other than states. For example, the establishment of joint scientific and technical research programmes introduces scientists and international organizations and agencies involved in marine environmental research to the regime. Article 11, addressing the admission to its meetings of international governmental and non-governmental organizations, likewise provides for the integration of non-state actors.

⁹² The principles identified are the use of the best available techniques and the best environmental practice. In addition, a number of criteria are listed in Appendix 2. Thus, in making policies regarding land-based pollution, parties must take into account factors such as persistency, toxicity, tendency to bioaccumulate, radioactivity, transboundary significance and a range of other factors: *ibid*.

⁹³ *Ibid.*, Annex I, art. 2(1).

These cooperative processes are facilitated by OSPARCOM, the commission established by the convention. OSPARCOM both provides support and assistance to the parties in implementing the convention, and acts as a sort of anchor or focal point for the various activities which the convention engenders. It has the primary responsibility for driving the implementation and further development of the convention through its responsibilities for drawing up programmes and measures for pollution control,⁹⁴ adopting proposals for amendments to the convention,⁹⁵ adopting decisions and recommendations in the acquittal of its duties,⁹⁶ and adopting annexes to control sources of pollution not addressed by other international instruments.⁹⁷ OSPARCOM may also establish working groups to assist it in its functions.⁹⁸

The Baltic Sea

The Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention)⁹⁹ was also adopted in 1974, and has been superseded by the 1992

^{94 1992} Paris Convention, supra, note 81 at art. 10(2)(c).

⁹⁵ Ibid., at art. 10(2)(f).

⁹⁶ *Ibid.*, at arts. 10(3) and 13. Decisions and recommendations are to be adopted unanimously by the parties, but where unanimity cannot be attained, the Commission may adopt them by a three-quarters majority vote, in which case they are binding only on those parties which have consented: *ibid.*, at art. 13.

⁹⁷ *Ibid.*, at arts. 7 and 16. Art 16 provides that annexes referred to in art. 7 be adopted by the Commission by a three-quarters majority vote.

⁹⁸ *Ibid.*, at art. 2(e).

⁹⁹ 1974 Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention) (1974) 13 I.L.M. 352, modified by the Protocol amending the Convention for the Prevention of Marine Pollution from Land-Based Sources (1988) 27 I.L.M. 625.

Helsinki Convention. ¹⁰⁰ The 1992 convention provides somewhat more guidance to states than either its predecessor or the 1992 Paris Convention. In addition to the provisions addressing control of particular pollution sources, the convention calls upon parties to "undertake to prevent and eliminate pollution of the marine environment ... caused by harmful substances from all sources ... "¹⁰¹ Other provisions include notification and consultation in the event of pollution incidents; ¹⁰² nature conservation and biodiversity; ¹⁰³ reporting and exchange of information; ¹⁰⁴ the provision of information to the public; ¹⁰⁵ scientific and technological cooperation; ¹⁰⁶ and settlement of disputes. ¹⁰⁷ Land-based sources are addressed at art. 6, which prohibits the introduction of harmful substances from point sources unless the relevant government has issued a permit ¹⁰⁸ conforming to certain guidelines. ¹⁰⁹

¹⁰⁰ 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area (the 1992 Helsinki Convention), International Environment Reporter (Washington: Bureau of National Affairs, 1993) 35:0401.

¹⁰¹ *Ibid.*, at art. 5. States are to "implement the procedures and measures of Annex I." Annex I establishes a series of general principles which the parties are to take into account in identifying and evaluating harmful substances; lists a series of substances whose use, excepting certain specified applications, is banned; and calls upon parties to minimize the use of a list of pesticides in the Baltic Sea Area and catchment area.

¹⁰² *Ibid.*, at art. 13.

¹⁰³ Ibid., at art. 15.

¹⁰⁴ *Ibid.*, at art. 16.

¹⁰⁵ Ibid., at art. 17.

¹⁰⁶ Ibid., at art. 24.

¹⁰⁷ *Ibid.*, at art. 26.

^{108 1992} Helsinki Convention, supra, note 100 at art. 6(3).

¹⁰⁹ Annex III, *ibid.*, entitled "Criteria and measures concerning the prevention of pollution from land-based sources," contains, at Regulation 1, a requirement that states "take into account Best Environmental Practice (BEP) and Best Available Technology (BAT) ...". Regulation 2 contains requirements respecting sewage and industrial and agricultural waste waters. Regulation 3 sets out "principles and procedures" which national authorities are to

The convention provides for a relatively influential institutional structure, embodied in the Baltic Marine Environment Protection Commission (HELCOM). Of particular interest is the delegation of responsibility to HELCOM to "make recommendations on measures relating to the purposes of [the] Convention";¹¹⁰ to make recommendations for amendments to the convention and its annexes;¹¹¹ and to "define pollution control criteria, objectives for the reduction of pollution, and objectives concerning measures, particularly those described in Annex III [on land-based pollution]".¹¹² HELCOM has employed these advisory powers to enhance regional cooperation generally, and in particular has been able to enhance prevention of land-based pollution.¹¹³ In fact, HELCOM's efforts to combat land-based pollution began prior to the adoption of the 1992 convention, with the establishment of a temporary working group, the *Ad Hoc* Group of Experts on Airborne Pollution of the Baltic Sea Area.¹¹⁴

HELCOM is also charged with cooperating with governmental bodies in devising "additional measures to protect the marine environment" and with working with regional and international

respect in issuing permits for the introduction of harmful substances; a series of factors to be taken into account in issuing permits; a requirement that the national authority carry out a "comprehensive assessment" in which a series of factors are to be taken into account before issuing a permit; and a number of obligations which national authorities must acquit, including inspections of discharges, monitoring of environmental impacts, and review of permits.

¹¹⁰ *Ibid.*, at art. 20(1)(b).

¹¹¹ *Ibid.*, at art. 20(1)(a).

¹¹² *Ibid.*, at art. 20(1)(d).

¹¹³ Jutta Brunnée, "The Baltic Sea Area and Long-Range Atmospheric Pollution - How Regional Cooperation fits into the Picture" (1991) 36 McGill LJ 853 at 874.

¹¹⁴ Ibid., at 880.

^{115 1992} Helsinki Convention, supra, note 100 at art. 20(1)(e).

organizations to carry out scientific and technological research and other activities. ¹¹⁶ Under both the previous and the current conventions, HELCOM has been able to build links with nongovernmental organizations. ¹¹⁷ The attention paid in the convention to cooperation with national, regional and international organizations may be due to the fact that international scientific cooperation has always been prevalent among the Nordic countries, particularly with respect to marine environmental protection and other marine matters. ¹¹⁸ This cooperative ethos appears to be at least partly responsible for the formation of a fairly solid scientific consensus respecting the sources of and policy responses to pollution in the Baltic, ¹¹⁹ which in turn has contributed to the acceptance of international cooperation as a central aspect of the response to Baltic Sea pollution. ¹²⁰ However, it has also been argued that the major impetus toward international cooperation has been the political shift brought about in Eastern Europe by the fall of communism. ¹²¹ In this instance, consensus about the science and policy issues surrounding the issue-area of environmental pollution was not sufficient to build the necessary momentum toward significant cooperative activity.

¹¹⁶ Ibid., at art. 20(1)(f).

¹¹⁷ Brunnée, "The Baltic Sea Area", *supra*, note 113 at 880; Jutta Brunnée, "The Jigsaw Puzzle of International Environmental Protection: International Approaches to Atmospheric Pollution and the Baltic Sea" (1992) 20 Intl J Leg Info 1 at 7.

¹¹⁸ Boleslaw A. Bozcek, "The Baltic Sea Area: A Study in Marine Regionalism" (1980) 23 German YB Intl L 196 at 224.

¹¹⁹ Ronnie Hjorth, "Baltic Sea Environmental Cooperation: The Role of Epistemic Communities and the Politics of Regime Change" (1994) 29 Coop & Conflict 11 at 14.

¹²⁰ *Ibid.*, at 25.

¹²¹ *Ibid.*, at 21.

The Mediterranean

The Convention for the Protection of the Mediterranean Sea against Pollution¹²² (the Barcelona Convention) was adopted in 1976. It is the first convention to have been concluded under UNEP's Regional Seas Programme, which was launched in 1974 pursuant to its mandate to implement the Stockholm Action Plan. The Barcelona Convention is a framework convention under which three protocols, including the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (the Athens Protocol), ¹²³ have been adopted.

The convention, like the Paris and Helsinki Conventions, reflects elements of an ecosystem orientation. Its preamble refers to the "economic, social, health and cultural value of the marine environment," to the "responsibility [of states] to preserve this common heritage," and to the "need for close cooperation among the States and international organizations concerned in a coordinated and comprehensive regional approach for the protection and enhancement of the marine environment" The convention does not itself apply to the internal waters of the parties, although provision is made for the application of protocols to such waters. Article 9 contains a general provision relating to land-based pollution, whereby the parties are to "take all appropriate measures to prevent, abate and combat pollution" Article 10 calls for the establishment of joint monitoring programmes, and art. 11 for scientific and technical cooperation and exchange. The institutional arrangements at art. 13 are fairly laconic, simply designating

¹²² 1976 Convention for the Protection of the Mediterranean Sea against Pollution (the Barcelona Convention) (1976) 15 I.L.M. 290.

¹²³ Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (the Athens Protocol), (1980) 19 I.L.M. 869.

UNEP as the convention secretariat and providing it with a number of largely administrative functions. A reporting requirement is set out at art. 20.

The Athens Protocol, adopted in 1980, begins with a general provision enjoining the parties to "take all appropriate measures to prevent, abate, combat and control pollution of the Mediterranean Sea Area caused by discharges from rivers, coastal establishments or outfalls, or emanating from any other land-based sources within their territories."124 The area to which the protocol applies includes the inland waters of the parties up to the freshwater limit. 125 The protocol, like the 1974 version of the *Paris Convention*, proceeds by way of black and grey lists, setting out an obligation to eliminate discharges of the former¹²⁶ and to strictly limit discharges of the latter. 127 These obligations are to be met through joint or individual implementation of programmes and measures. Article 5, pertaining to black list substances, provides that these programmes and measures are to include "common emission standards and standards for use," and that "standards and timetables ... shall be fixed by the parties and periodically reviewed" Article 6, pertaining to grey list substances, states that "[d]ischarges shall be strictly subject to the issue, by the competent national authorities, of an authorization taking due account of the provisions of Annex III" The factors listed in Annex III include factors relating to the characteristics and composition of wastes; characteristics of waste constituents with respect to

¹²⁴ *Ibid.*, at art. 1.

¹²⁵ *Ibid.*, at art. 3.

¹²⁶ *Ibid.*, at art. 5.

¹²⁷ *Ibid.*, at art. 6.

their harmfulness; characteristics of discharge site and receiving marine environment; availability of waste technologies; and potential impairment of marine ecosystems and sea-water uses. The parties are also required, at art. 7, to adopt common guidelines, standards and criteria pertaining to pipelines, special requirements for certain effluents, industrial processes, water quality and substances appearing on the black and grey lists.

In addition to its substantive provisions, the protocol contains its own procedural provisions relating to monitoring, ¹²⁸ scientific and technical cooperation, ¹²⁹ technical assistance to developing countries, ¹³⁰ consultation respecting transboundary flows of pollutants, ¹³¹ and reporting on progress made to implement the protocol. ¹³² Although the protocol does not provide for an independent institutional structure, it does call for meetings of the parties ¹³³ at which the programmes and measures provided for at arts. 5 and 6 may be adopted by a two-thirds majority. ¹³⁴

¹²⁸ *Ibid.*, at art. 8.

¹²⁹ *Ibid.*, at art. 9.

¹³⁰ *Ibid.*, at art. 10.

¹³¹ Ibid., at arts. 11 and 12.

¹³² *Ibid.*, at art. 13.

¹³³ *Ibid.*, at art. 14.

¹³⁴ *Ibid.*, at art. 15.

Global Regimes

The Montréal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources, 135 drafted by UNEP in 1985, represented an attempt to globalize the principles and structures featured in the regional seas programme. These guidelines were intended to provide a template or checklist of basic provisions to which countries could refer in the process of drafting their own legal instruments for the control of land-based pollution. They have now been replaced by the more ambitious Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities 36 and the Washington Declaration on Protection of the Marine Environment from Land-Based Activities. 137

The process leading up to the adoption of the non-binding *Global Programme of Action* was initially intended to result in a global treaty, and represents the construction of a contextual regime on the basis of which such a treaty may eventually be negotiated. The *Global Programme of Action* consists of four parts: national action, regional cooperation, international cooperation and action for different source categories. It contains no substantive provisions, but rather is structured around the identification and description of the problem of land-based marine pollution, the establishment of objectives and priorities, and a description of action which should be taken to address the problem. The document lays the groundwork for the

¹³⁵ Reproduced in Sand, supra, note 4 at 235.

¹³⁶ Global Programme of Action for the Protection of the Marine Environment from Land-based Activities UNEP (OCA)/LBA/IG.2/7, 5 December 1995.

¹³⁷ Washington Declaration on Protection of the Marine Environment against Pollution from Land-based Activities (UNEP (OCA)/LBA/IG.2/6, 5 December 1995.

creation of a contextual regime by focusing on three elements: cooperation among the range of actors which are, or should be, involved in the land-based pollution issue-area; the gathering and dissemination of informational resources; and the provision of funding for national and regional land-based pollution control strategies and capacity-building.

The section on regional activities contains a series of provisions on institution-building, which call upon states to develop cooperative links with international financial organizations and regional organizations involved in activities related to the marine environment, such as regional river commissions.¹³⁸ Cooperation with other states, including land-locked states, is recommended for the purposes of national and regional programme development.¹³⁹ At the international level, states are to work toward the development of an international institutional framework composed of states and those international organizations and institutions involved in the issue-area of land-based pollution.¹⁴⁰ UNEP is to act as a catalyst for moving the development of this framework forward,¹⁴¹ in particular by entering into partnerships with international organizations¹⁴² and by convening intergovernmental meetings.¹⁴³

The international institutional framework for implementation of this Programme of Action ... should be based upon concerted action by States within the relevant organizations and institutions to accord attention and priority to impacts on the marine environment from land-based activities and concerted action by States to ensure effective coordination and collaboration among such organizations and institutions. In addition, the framework should make provision for regular review of the Programme of Action, including its implementation and necessary adjustment.

¹³⁸ Global Programme of Action, supra., note 136 at para. 32.

¹³⁹ *Ibid.*, at paras. 32 and 34.

¹⁴⁰ *Ibid.*, at paras. 72 and 73. Paragraph 72 reads:

¹⁴¹ *Ibid.*, at para. 74.

¹⁴² *Ibid.*, at para. 76.

With respect to the second major element, the facilitation of flows of information, states are called upon to develop an international clearing-house to facilitate scientific, technical and financial cooperation and capacity-building. The clearing-house is to be responsible for three major features: a data directory on each of the source-categories identified in the programme of action; information-delivery mechanisms; and an institutional infrastructure. Similarly, in the section on regional cooperation, reference is made to the establishment of informational networks and clearing-houses 145 and to the promotion of information, experience and expertise among international organizations. 146

The third element, arrangements for funding land-based pollution control programmes, receives a good deal of attention in the section on international cooperation. The main emphasis here is on strategies to mobilize financial resources. ¹⁴⁷ Thus, potential domestic and international sources of funding are to be identified and ongoing cooperation to mobilize financing to be engaged in. ¹⁴⁹ In addition, the potential role of the Global Environment

¹⁴³ *Ibid.*, at para. 77.

¹⁴⁴ *Ibid.*, at para. 42. This clearing-house mechanism is described as

^{...} a referral system through which decision makers at the national and regional level are provided with access to current sources of information, practical experience and scientific and technical expertise relevant to developing and implementing strategies to deal with the impacts of land-based activities.

¹⁴⁵ *Ibid.*, at para. 32(c).

¹⁴⁶ *Ibid.*, at para. 32(e).

¹⁴⁷ *Ibid.*, at paras. 50 ff.

¹⁴⁸ *Ibid.*, at paras. 55 and 56.

¹⁴⁹ *Ibid.*, at paras. 63 and 64.

Facility is described.¹⁵⁰ Less attention is paid to financial resources in the section on regional cooperation, although mention is made of the importance of establishing communication with international financial institutions and regional economic groupings.¹⁵¹

Section V of the *Global Programme of Action*, entitled *Recommended approaches by source category*, addresses objectives to be met and approaches to be taken with respect to specific sources of land-based pollution. For each of the nine source categories listed, ¹⁵² the *Global Programme of Action* describes the impact of the source of pollution on the marine and coastal environment and on human health ("basis for action"); ¹⁵³ the objective or proposed target for that source; ¹⁵⁴ and activities to be undertaken at the national, regional and international levels to attain the objective. ¹⁵⁵ For the most part, the objectives are set out in general terms, stating that the substances in question are to be reduced and/or eliminated. ¹⁵⁶

The bulk of concrete action to be taken with respect to the various sources of pollution is to be accomplished at the national level. These activities include the identification and assessment of

¹⁵⁰ *Ibid.*, at para. 69.

¹⁵¹ *Ibid.*, at para. 32.

¹⁵² The source categories are: sewage; persistent organic pollutants; radioactive substances; heavy metals; hydrocarbons; nutrients; sediment mobilization; litter; and physical alterations and destruction of habitats.

¹⁵³ See, for example, *ibid.*, at paras. 94 and 95.

¹⁵⁴ See, for example, *ibid.*, at para. 96.

¹⁵⁵ See, for example, *ibid.*, at paras. 97 and 98.

¹⁵⁶ See, for example, *ibid.*, at para. 103 respecting persistent organic pollutants; para. 109, respecting radioactive substances; and para. 117, respecting heavy metals.

major sources of pollutants and the development of national action plans. Regional action includes the adoption of timetables; harmonization of procedures and standards; the provision of technical information; monitoring compliance; and strengthening regional institutions.

International action includes strengthening institutions, capacity-building, fostering technical and financial assistance, facilitating flows of information, and other such activities.

The Washington Declaration identifies a series of activities referred to in the Global Programme of Action which require states to take action and which can be accomplished, or at least initiated, in the short term. However, these provisions are drafted in such general terms as to be programmatic rather than normative, intended to capitalize on the momentum generated by the conference rather than to create legal obligations. The three themes found in the Global Programme, establishing institutional networks, cultivating flows of information and mobilizing financial resources, are echoed here. Thus, states are called upon to cooperate with each other at the regional level¹⁵⁷ and with domestic and international organizations and agencies. Reference is made to the establishment of the clearing-house mechanism and to periodic intergovernmental review of the Programme of Action. States are also to seek external financing for land-based pollution programmes and to work with international financial institutions, including the Global Environment Facility, to develop additional sources

¹⁵⁷ Washington Declaration, supra, note 137 at para, 7.

¹⁵⁸ *Ibid.*, at para. 8.

¹⁵⁹ *Ibid.*, at para. 13.

¹⁶⁰ *Ibid.*, at para. 9.

of funding for such programmes.¹⁶¹ Priority is given to waste water and industrial effluents¹⁶² and to persistent organic pollutants, the signatories having committed themselves to the drafting of a global, legally binding instrument on persistent organic pollutants.¹⁶³

Following on a commitment made in the *Washington Declaration* to work with UNEP toward the adoption of a United Nations General Assembly resolution regarding institutional follow-up, ¹⁶⁴ UNEP has prepared a proposal entitled *Institutional Arrangements and Implementation of the Global Programme of Action for the Protection of the Marine Environment from Landbased Activities*. ¹⁶⁵ This proposal focuses on the establishment of institutional arrangements, the setting of timetables, the definition of the role of UNEP and other UN agencies, financial implications, and reviews of the progress made toward implementing the *Global Programme*. ¹⁶⁶ The institutional structure described in this document explicitly ties the *Global Programme* into the regional seas programme administered by UNEP, thereby avoiding duplication of effort and providing mutual support and feedback between global and regional levels. ¹⁶⁷ Cooperation between UNEP and other international agencies and organizations is

¹⁶¹ *Ibid.*, at para. 11.

¹⁶² *Ibid.*, at paras. 15 and 16.

¹⁶³ *Ibid.*, at para. 17.

¹⁶⁴ Washington Declaration, ibid., at para. 18.

¹⁶⁵ Proposal submitted to the Commission on Sustainable Development at its fourth session, April 18 - May 3 1996.

¹⁶⁶ *Ibid.*, at para. 7.

¹⁶⁷ *Ibid.*, at para. 12.

envisaged.¹⁶⁸ The role identified for UNEP is essentially one of managing the institutional framework and facilitating interactions among the various actors participating in it.¹⁶⁹

By creating a network of institutions, organizations and agencies, UNEP will be capable of broadening the reach and increasing the influence of the epistemic communities involved in marine environmental protection. In this way, the progress made at the regional level toward constructing land-based pollution control regimes will be employed as a base upon which a global regime may be developed. This network can operate as a series of conduits along which informational, technological and financial resources may be passed. In addition, its establishment permits the expansion of discursive processes beyond particular regimes and beyond the regional level. Policy and normative developments taking place within one regime which are later echoed elsewhere will be reinforced by this process of reiteration and application in different contexts.

THE LAND-BASED MARINE POLLUTION CONVENTIONS AS CONSTITUTIVE OF LEGAL AND CONTEXTUAL REGIMES

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¹⁶⁸ *Ibid.*, at para. 13. Some of the agencies identified are the World Health Organization, the Food and Agricultural Organization, the International Council of Scientific Unions, the Convention on Biological Diversity, and the United Nations Development Programme.

¹⁶⁹ UNEP is responsible for coordinating the activities relating to the *Global Programme*; collecting, collating, evaluating and disseminating information respecting land-based pollution and the activities of relevant organizations; reviewing the *Global Programme*; organizing assistance for national programmes; strengthening regional cooperative arrangements; assisting in capacity-building; mobilizing informational and financial resources; promoting access to environmentally appropriate technologies and practices; and raising awareness of the *Global Programme*; *ibid.*, at para. 14.

The Regime and the Unbundling of Sovereignty

From a positivist viewpoint, the conventions just discussed appear virtually devoid of content.

They do not contain provisions directly regulating the introduction of land-based pollutants into the marine environment; regulation is deferred either to the parties' own municipal legislative efforts or to cooperative initiatives to take place at some future time. The conventions establish a regulatory architecture which is to be filled in by norm-creating activity at the municipal and regional levels. Yet the architecture itself is indicative of an innovative approach to land-based pollution, based on a division of labour between municipal and international legal systems.

The 1992 *Helsinki Convention* presents an excellent example of such a division of labour. In addition to general obligations to "prevent and eliminate pollution of the Baltic Sea Area from land-based sources," ¹⁷⁰ the convention provides, at art. 6(3):

Harmful substances from point sources shall not, except in negligible quantities, be introduced directly or indirectly into the marine environment of the Baltic Sea Area, without a prior special permit ... issued by the appropriate national authority in accordance with the principles contained in Annex III, Regulation 3. The Contracting Parties are to ensure that authorized emissions to water and air are monitored and controlled.

Annex III, Regulation 3 sets out guidelines regarding the information which should be contained in an application for a permit; requires the national authority to carry out a comprehensive assessment of the planned activities prior to issuing a permit; sets out types of terms and conditions to which permits are to be subject; and calls for inspection and monitoring of permitted activities and review of permits.

^{170 1992} Helsinki Convention, supra, note 100 at art. 6(1).

The convention does not itself regulate discharges of pollutants into the marine environment, but rather establishes how and by whom such regulation is to be carried out. The legislative and administrative apparatus of the states party to the convention are employed by the regime to carry out its purposes. In this manner, the jurisdictional reach of international law can be extended, *de facto*, into the municipal realm - and *vice versa* - to better encompass the extent of the problem of land-based pollution. This extension of jurisdiction occurs on a functional basis, related to a particular issue-area and to a particular set of purposes, and does not involve a restructuring of state sovereignty on a formal level. Instead, sovereignty is unbundled on a functional basis in order that several states, acting in concert with international agencies, may achieve goals which are beyond their individual capacities.

The unbundling of sovereignty and the constitution of functional regimes to harness the legislative and administrative capacities of states for the achievement of collective or common purposes represents a promising avenue for overcoming the incongruencies between ecosystems and state territory, or, in the words of Kuehls, smooth and striated space. The 1992 Helsinki Convention, as with the other conventions considered above, employs international law to construct a framework for municipal regulation of discharges of pollutants, essentially leaving to states the authority to issue permits pursuant to certain criteria and conditions. This framework is also intended to guide the development of norms at the regional level; for example, art. 6(2) of the convention calls for the cooperative establishment of programmes, guidelines, standards and regulations for land-based pollution control. The Baltic Sea regime may thus be conceived of as a

¹⁷¹ Thom Kuehls, *Beyond Sovereign Territory* (Minneapolis: University of Minnesota Press, 1996) at 52.

point of convergence among the municipal and international legal mechanisms available to combat land-based marine pollution.

The Regime and Flows of Information: Confidence-building and Learning

The conventions create contextual as well as legal regimes, which is to say that they provide a basis for ongoing interaction among states concerned in a particular issue-area, along with other actors such as international organizations. This interaction initially takes the form of low-risk cooperative ventures, such as joint research and monitoring programmes, which place few constraints on state autonomy and provide tangible benefits which might not be available to states acting alone. As confidence in the other parties and in the regime itself grows, states may become involved in more highly structured forms of cooperation which require the investment of additional resources and involve the assumption of obligations and the acceptance of constraints on behaviour.

Processes of information gathering and dissemination permit the development, through concerted activity, of a body of knowledge which, because each of the states has contributed to it, enjoys a measure of credibility which knowledge from an outside source may not have. 172 This body of knowledge can form the basis for a consensus regarding such matters as the dimensions of the problem, the nature of the preferred solution and the direction in which the legal regime should be taken. As this consensus develops, the regime can move, in incremental fashion, from the

¹⁷² Peter M. Haas, Saving the Mediterranean: The Politics of International Environmental Cooperation (New York: Columbia University Press, 1990) at 80.

relatively modest tasks of studying the problem to constructing a conceptual and normative framework for its solution.

The Mediterranean regime presents an excellent example of incremental regime-building, particularly since the creation of a contextual regime to serve as a foundation for a legally-binding convention represents a deliberate strategy on the part of UNEP, one which it has employed consistently in its regional seas programme. 173 The first step in this strategy is the adoption of an action plan which provides for joint research and monitoring programmes and other low-intensity cooperative ventures as a preliminary step toward the conclusion of a legally binding convention. The *Action Plan for the Protection of the Mediterranean Basin*, 174 or Med Plan, comprises four sections: "integrated planning of the development and management of the resources of the Mediterranean Basin"; "coordinated pollution monitoring and research programme in the Mediterranean"; "framework convention and related protocols with their technical annexes for the protection of the Mediterranean environment"; and "institutional and financial implications of the Action Plan". The states participating in the Med Plan have thus initiated a range of activities related to protection of the Mediterranean environment, rather than simply focusing on the adoption of a legal text.

The various aspects of the Med Plan have proven to be mutually supportive, in that a pool of benefits is created to which participants in the regime have access by participating in low-

¹⁷³ Sand, *supra*, note 4 at xiii.

¹⁷⁴ Action Plan for the Protection of the Mediterranean Basin, reprinted in Kuwabara, supra, note 4 at 143.

contributes to the establishment of such a pool of benefits, which, furthermore, does not involve diminution of state sovereignty or autonomy. The tangible benefits to be reaped through participation in Med Pol include access to information on the sources, effects and flows of pollution in the Mediterranean Basin, information which would be extremely difficult for individual states, acting alone, to generate. These benefits are enhanced by UNEP's decision to distribute contracts for equipment and supplies used in pollution monitoring and research among the participating countries and to use Med Pol as an opportunity to enhance technical and scientific capacity in developing countries. UNEP's decision to set up research centres in various participating countries, rather than centralizing the research effort, gave developing countries in the Mediterranean Basin access to equipment, technology, know-how and training which they may not otherwise have had. The creation of a pool of benefits encourages states to view participation in the regime to be in their interest, and to accept the constraints on autonomy implied by such participation as an acceptable price to pay.

In addition to serving as an inducement to state participation, the information-gathering exercises provided for in the Med Plan tend to motivate states to participate in the regime by underlining

¹⁷⁵ The information- and data-gathering activities carried out within the Med Plan are collectively known as the Mediterranean Pollution Monitoring and Research Program (MEDPOL): Haas, *Saving the Mediterranean, supra,* note 172 at 101; Gabriela Kütting, "Mediterranean Pollution: International Cooperation and the Control of Pollution from Land-Based Sources" (1994) 18 Marine Pol 233 at 236.

¹⁷⁶ Kütting, ibid, at 236.

¹⁷⁷ Haas, Saving the Mediterranean, supra, note 172 at 79.

¹⁷⁸ *Ibid.*, at 79.

the importance of the regional and international, as opposed to domestic, aspects of land-based marine pollution. The Med X Report, carried out under the auspices of the Med Plan, revealed that the vast majority of pollution in the Mediterranean comes from land-based sources. ¹⁷⁹ As a result, attention came to be focused on controlling sources of pollution within the jurisdiction of the Mediterranean states, in addition to activities beyond the territorial sea. ¹⁸⁰ Although the notion of using international law to control inland sources of pollution was obviously much more controversial than that of applying international law to activities taking place outside state territory, the data generated by the Report diminished state reluctance. The success of this information-gathering process was not lost on UNEP, which has incorporated similar processes into the other regional conventions in which it is involved, ¹⁸¹ as well as into the global regime-building process. ¹⁸²

These information-gathering processes influence states to participate in the land-based pollution regimes in a further manner, namely through the operation of epistemic communities. Peter Haas has undertaken an extensive analysis of the role of epistemic communities in the process of

¹⁷⁹ *Ibid.*, at 100; Kütting, *supra*, note 175 at 236.

¹⁸⁰ Haas, Saving the Mediterranean, ibid., at 101. See also Kütting, ibid., at 236.

¹⁸¹ See, for example, the *Protocol for the Protection of the South-East Pacific against Pollution from Land-based Sources*, adopted under the *Convention for the Protectin of the Marine Environment and Coastal Area of the South-East Pacific*, reproduced in Sand, *supra*, note 4 84, at arts. VIII (monitoring programmes); IX (exchange of information); and X (scientific and technological cooperation). See also the *Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution*, reproduced in Sand, *ibid.*, 45, at arts. X (scientific and technological cooperation); and XI (environmental assessment).

¹⁸² Washington Declaration, supra, note 137 para. 13; Global Programme of Action, supra, note 137 at paras. 32 and 40.

building the Mediterranean regime, ¹⁸³ and contends that they are, at least in part, responsible for the success of the regime as a whole. ¹⁸⁴ UNEP, whose leaders include members of an epistemic community promoting an ecosystem approach to international environmental cooperation, ¹⁸⁵ forged alliances with maritime scientists and NGOs, who then began delivering the ecosystem message to their own national governments. ¹⁸⁶ UNEP employed a number of strategies to forge these alliances, including having scientific studies conducted within the various countries participating in the Med Plan rather than in a centralized fashion and inviting scientists to participate in technical meetings in their professional capacity rather than as representatives of their respective governments. ¹⁸⁷ The data generated by national scientists was more credible to the various governments involved since their own nationals participated in its production. ¹⁸⁸

Haas argues that the activities of the epistemic community had the effect of leading decision-makers within national governments to redefine their interests through a process of learning which made them aware of the benefits of a functional approach to environmental policy-making. 189

This functional approach, according to Haas, represents a new form of international

¹⁸³ Haas, *Saving the Mediterranean, supra*, note 172. See in particular the discussion of epistemic communities at 52 ff.

¹⁸⁴ Ibid., at 216.

¹⁸⁵ *Ibid.*, at 74-5.

¹⁸⁶ *Ibid.*, at 78.

¹⁸⁷ *Ibid.*, at 80-1.

¹⁸⁸ *Ibid.*, at 80.

¹⁸⁹ Ibid., at 229.

cooperation.¹⁹⁰ Perhaps the best indication of the role of epistemic communities in this process is Haas's observation that the countries in which the activity of the epistemic community was the greatest tend to be those with the strongest environmental policies, as well as being the strongest supporters of the Med Plan.¹⁹¹

The epistemic community active in the Med Plan was able, to a certain extent at least, to bring states around to an ecological approach to controlling ocean pollution. Elements of this ecological approach include a perception of Mediterranean pollution as a collective problem which may be resolved only through cooperation and coordination among all of the states in the basin¹⁹² and a recognition of the interconnectedness of domestic and international pollution and environmental concerns. This approach to the problem enabled states to focus attention on the previously neglected area of land-based pollution. States in the Mediterranean basin are coming to accept as appropriate the functional extension of domestic pollution control and environmental strategies outwards into the oceans while at the same time developing international strategies capable of guiding regulatory and other activities within the domestic sphere. The jurisdictional boundary between state territory and international waters has not disappeared or even been redefined in any fundamental way, yet states are in the process of devising policy and legal strategies capable of reaching across the boundary for certain as yet limited purposes.

¹⁹⁰ *Ibid.*, at 214, 216.

¹⁹¹ *Ibid.*, at 130.

¹⁹² Barcelona Convention, supra, note 122, preamble.

The Regime as a Forum for the Emergence of Normativity

In addition to its existence as a set of rules, norms and behavioural expectations, the regime may also have some institutional presence and thus be capable of operating as a forum for ongoing interaction among states and other actors involved in an issue-area. Institutional structures need not be elaborate or highly formalized in order to provide such a forum. What is important is that there be a locus of activity which exists at some distance from the states participating in the regime. This distance may be achieved by giving the organization a certain amount of continuity, for example by providing for extended terms for national representatives rather than having states name these representatives on an *ad hoc* basis. It may also be achieved by giving the organization responsibility for a clearly identifiable set of tasks such as coordinating research, gathering and disseminating data, and liaising with other organizations involved in the relevant issue-area.

The creation of an organization with some permanence and continuity within a regime may generate momentum for the regime's activities. To the extent that work related to the regime is carried out at a physical and notional distance from the states involved in the regime, there is a possibility for the generation of a regional or international perspective which may come to complement the state-centred perspective. Furthermore, the fact that these organizations are not endowed with the authority to make decisions on substantive matters which are binding on the states party to the convention does not appear to preclude their capacity to influence state behaviour and the evolution of the regime. The regime's capacity to operate as a locus for discussion and debate, and as a participant in networks which extend beyond the particular region

or issue-area concerned facilitates the emergence of consensus about policy approaches and about normativity.

If one considers the principles and guidelines contained in the conventions and documents described above as framing discussion and fostering consensus, rather than creating behavioural expectations, their significance becomes more apparent. This point may be illustrated with reference to the precautionary principle. The precautionary principle belongs to a body of international principles described as "soft law" which, due to their vagueness and generality, as well as to an absence of consensus as to their binding legal quality, cannot be numbered among the binding rules of customary or conventional international law. This principle is given greater substance and greater compliance pull, to employ Franck's expression, as it is taken up in regional and sectoral conventions, non-binding documents, and dialogues among states. ¹⁹³ The significance of the precautionary principle has been described as lying not in its capacity to dictate regulatory measures, but in its influence on regulatory *approaches* and, more specifically, the timing of regulatory action. A presumption is created in favour of environmental protection

¹⁹³ For a discussion of the origins of the precautionary principle and its acceptance in a wide range of international environmental conventions, see David Freestone and Ellen Hey, "Origins and Development of the Precautionary Principle" in David Freestone and Ellen Hey, eds., The Precautionary Principle and International Law: The Challenge of Implementation (The Hague: Kluwer Law International, 1996) 3 at 3-12; and James Cameron and Juli Abouchar, "The Status of the Precautionary Principle in International Law" in Freestone and Hey, ibid., 29 at 36-50. A number of international instruments make reference to the precautionary principle: see, for example, the Protocol on Substances that Deplete the Ozone Layer (1987) 26 I.L.M. 1541; the Rio Declaration on Environment and Development (1992) 31 I.L.M. 874; and the Framework Convention on Climate Change (1992) 31 I.L.M. 849. The principle has also received a good deal of attention from international legal scholars: see, for example, James E. Hickey, Jr. and Vern R. Walker, "Refining the Precautionary Principle in International Environmental Law" (1995) 14 Virginia Envtl LJ 423; Bernard A. Weintraub, "Science, International Environmental Regulation, and the Precautionary Principle: Setting Standards and Defining Terms" (1992) 1 NYU Envtl LJ 173; James Cameron and Juli Abouchar, "The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment" (1991) 14 Boston College Intl & Comp L Rev 1; and D. Lothar Gündling, "The Status in International Law of the Principle of Precautionary Action" (1990) 5 Intl J Estuarine & Coastal Law 23.

measures upon the identification of risk rather than upon scientific proof of a cause-and-effect link between a particular practice or activity and harm to the environment. ¹⁹⁴ It entails the application of policies and practices such as the use of clean production methods, best available technology and best environmental practice, environmental and economic assessment, and the promotion of research. ¹⁹⁵ This principle is particularly influential in the context of a regime, where processes of information-gathering, policy-making and normative development are carried out on a continuous basis. The principle was taken up by OSCOM and PARCOM through the adoption of decisions and recommendations ¹⁹⁶ before making its way into the 1992 *Paris Convention*. It has also been included in the 1992 *Helsinki Convention* and the *Global Programme of Action*. ¹⁹⁷ Some effort has been made in the *Helsinki Convention* to describe the convention and to elaborate criteria for its application. ¹⁹⁸

¹⁹⁴ Freestone and Hey, "Origins and Development of the Precautionary Principle," *ibid.*, at 12-13.

¹⁹⁵ *Ibid*.. at 13.

¹⁹⁶ PARCOM made a recommendation calling for the application of the best available technology to the control of land-based pollution: PARCOM Recommendation 89/2, June 22, 1989 on the Use of the Best Available Technology, reprinted in David Freestone and Tom Ijlstra, *The North Sea: Basic Legal Documents on Regional Environmental Cooperation* (Dordrecht; Boston: Graham and Trotman/Martinus Nijhoff, 1991) at 152, while OSCOM adopted a decision implementing a "prior justification procedure" according to which permits for the dumping of industrial waste may be issued by national authorities only upon the condition that alternatives are not available and that no harm will be caused to the marine environment: OSCOM Decision 98/1, June 14, 1989, reprinted in Freestone and Ijlstra, *ibid.*, at 119. See Freestone and Hey, "Origins and Development of the Precautionary Principle," *ibid.*, at 6.

¹⁹⁷ The *Global Programme of Action, supra*, note 136, calls upon states at para. 26, to employ best available techniques and best environmental practices as well as polluter pays principle in their own national programmes, although no attempt is made in this document to define these terms. These three principles are taken up again in Section V, "Recommended approaches by source category".

¹⁹⁸ The 1992 *Helsinki Convention, supra,* note 100, contains, at Annex II, Regulation 2, criteria for the application of Best Environmental Practice, meaning "the application of the most appropriate combination of measures," and, at Annex II, Regulation 3, to Best Available Technology, meaning "the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical

The inclusion of this principle in a wide range of international conventions and policy documents establishes a feedback loop which shapes dialogue within and across regimes, thus guiding the development of environmental protection programmes, standards and norms in a range of contexts. Conversely, this dialogue contributes to the determinacy and validity of the principle itself, enhancing its normative status and its compliance pull. UNEP has constructed such a feedback loop between regional and global initiatives for controlling land-based pollution, and has provided the basis for its extension into the broader network of organizations and agencies implicated in various aspects of marine environmental protection.

The articulation of the precautionary principle in international conventions and statements of policy or objectives, and more specifically their reiteration in a number of such documents, does little more than shape dialogue on issues of environmental protection. However, in the context of particular regimes and of networks of regimes, this is a fairly significant accomplishment. On one level, states are increasingly obliged to at least pay lip service to the principle in the course of describing and justifying policy and regulatory decisions having to do with environmental protection. Furthermore, other actors seeking to criticize national action or lack thereof will be able to employ the language of precaution, thereby conditioning the manner in which states respond. This process of justification, criticism and response is facilitated by the requirements in the three regional conventions that states report to a designated body regarding the progress made in implementing the obligations created by the convention.

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suitability of a particular measure for limiting damage." These principles are to be employed by states in combatting land-based marine pollution: Annex III, Regulation 1.

The 1992 Paris Convention endows OSPARCOM with the responsibility for assessing, on the basis of reports submitted, parties' compliance with the convention and with decisions and recommendations. For example, OSPARCOM is also authorized to "call for steps to bring about full compliance ..., including measures to assist a Contracting Party to carry out its obligations." Thus, parties' activities regarding the convention become more transparent to one another, enhancing confidence in the regime. Furthermore, discussion and debate about the meaning of particular obligations and the extent to which state behaviour is in compliance may be initiated, either by the commission attached to the regime, by other parties to the convention, or by international organizations working in the issue-area. Finally, problems which states are encountering in efforts to implement the convention may be identified and solutions found. This dialogue will assist states in reaching consensus, both within and across regimes, on ways of operationalizing and implementing the principle in particular contexts. As such a consensus emerges, the compliance pull of the principle will be strengthened both as a result of its increasing determinacy and of its enhanced legitimacy.

It has been argued that the precautionary principle, because of its inclusion in a wide range of international environmental conventions and its acceptance by a large number of states through their adherence to those conventions, has attained the status of a principle of customary international law.²⁰⁰ Customary law, because of the slowness with which it develops and the uncertainty to which its norms are subject, does not provide a sufficiently solid foundation upon

^{199 1992} Paris Convention, supra, note 88 at art. 23.

²⁰⁰ Cameron and Abouchar, "The Status of the Precautionary Principle," *supra*, note 193 at 30-31.

which to build a regulatory structure for the control of marine pollution. However, as customary law relating to international environmental protection comes to be more clearly elaborated, it assumes the function of bridging gaps between treaty regimes by providing a basic set of principles which may be applied in different realms. To the extent that norms of environmental protection are absent, poorly developed or insufficiently stringent, it may become possible to refer back to these general principles to provide for a certain standard of environmental protection. The establishment of a body of general international environmental law will lend normative support to particular environmental regimes, and will obviate the need to establish a normative basis for each new environmental regime.

CONCLUSION

The land-based marine pollution regimes considered above represent a new approach to the development of international law. Although the conclusion of legally binding international conventions remains an important objective, the creation of bases upon which such conventions may rest, and to which they owe a significant portion of their legitimacy and effectiveness, is seen as a necessary first step. The creation of contextual regimes to foster the development of international law for the control of land-based marine pollution may have been regarded as appropriate because of the jurisdictional difficulties which this particular issue-area poses to international law. It is likely, however, that the creation of contextual regimes could prove to be an effective approach to the development of international normativity in any number of issue-areas.

CHAPTER 4: CONCLUSION

I have argued that the effectiveness of the international law applicable to land-based marine pollution is much more dependent upon the context out of which rules arise and within which they are interpreted and applied than on the binding nature of those rules. The regime constitutes a significant aspect of this context. It provides an institutional and organizational framework for cooperative initiative and for the development of law and policy; it serves as a forum within which actors may develop common understandings about rules and principles and about the nature of obligations; and it constitutes a locus within which the processes which underpin the building of legitimacy may take place.

The organizational and institutional aspects of the regime provide a basis for supplementing the jurisdictional orientation of international law with a functional approach. Functional problem-solving begins with an analysis of the nature and dimensions of the problem itself. The points at which a given problem - in this case, land-based marine pollution - transcends jurisdictional boundaries would be identified and the legal and policy mechanisms required to address this problem brought together, either by initiating *ad hoc* cooperative activity or by constructing a more permanent regime to facilitate ongoing cooperation. The international instruments analyzed above contain provisions attributing various aspects of the regulation of land-based pollution to states, thus placing municipal legal mechanisms at the service of international law for certain

purposes. These international instruments provide a legal basis for the extension of municipal and international legal mechanisms across jurisdictional boundaries.

A functional approach to land-based pollution would not require that the entire legal machinery of states be mobilized by the international regulatory effort. Instead, those governmental departments and agencies involved in environmental and resource issues would be more intimately involved in international land-based pollution regimes. In addition, certain groups and communities within the state would be more interested in land-based pollution than others. The legal mechanisms at the international level could be designed to provide avenues for more extensive involvement by those actors to whom these mechanisms have the greatest relevance.

The second function of regimes, that of providing a forum for discussion and debate surrounding the interpretation and application of rules and principles, serves to bolster the effectiveness of the regime's institutional framework and the rules contained therein. Discussion and debate about rules contributes to their substance and also provides a means for the formation of consensus regarding the nature of obligations imposed on states and other actors. This process enhances the effectiveness of rules both by contributing greater clarity and substance, and by compelling actors to justify their behaviour in light of these rules.

The third role played by regimes is that of providing a context for discursive and deliberative processes. Such processes permit the development of convergences of values and interests upon which the rules and principles contained within a regime may be established. The establishment of priorities among ends to be pursued is an inherently political process, one that must take into account the interests of those involved and in which the inevitable trade-offs among ends and

means are made as far as possible in a manner which will be acceptable to all. By providing a locus for this political process, the regime's legitimacy is enhanced. A rule which emerges from discourse among the parties to which it will apply and those who will be affected by it, and in which the choice of one rule instead of another is made on the basis of reasons which have been debated among those parties and accepted, so far as is practicable, by all, will possess a significant degree of legitimacy.

The regime also operates as a locus of legitimacy-building by permitting the development of a limited kind of community made up of the various actors who participate in these discursive and deliberative processes. This community is organized along functional lines, and is therefore focused on a particular issue-area. It may nevertheless operate in a manner akin to the public sphere in domestic society, in which decisions about the values and priorities within that society and the means to be adopted to pursue them are made.

The effectiveness of the regime as a legal mechanism - that is to say, the extent to which its rules serve to determine or guide the behaviour of actors associated with it - depends, in the first instance, on the appropriateness of the organizational and institutional structure which serves as the basis for problem-solving. For example, if the organizational basis of the regime fails to account for a significant aspect of the problem, or if it fails to provide linkages to related issue-areas, or again, if actors who play a crucial role in the issue-area are not included, the effectiveness of the regime will be compromised. Thus, Ernst Haas argues that the only basis for evaluating the "truth" of consensual knowledge used to define and address an issue-area is its

capacity to generate effective policies.¹ Consensus around a particular approach to the regulation of land-based pollution would ultimately collapse if the approach proved to be inappropriate for this task.

Haas may be correct in arguing that consensual knowledge must be based on effective paradigms, but such a consensus is unlikely to emerge out of the perceived effectiveness of a proposed solution. Young notes that if the costs and benefits of a particular policy are not evenly distributed, then the policy will likely prove unacceptable to those who stand to lose more and gain less, regardless of the possibility of making aggregate gains as a result of the policy.² Furthermore, following Franck's thesis, a rule which has emerged out of an inclusive, well-balanced process is likely to possess greater legitimacy than one which certain parties perceive as having been imposed on them.³ This observation appears to be borne out in the case of the Mediterranean regime, in which, as Peter Haas observes, decentralized environmental studies were carried out in order to involve as many states as possible in research so as to encourage their support of the conclusions arrived at.⁴

The reason why effectiveness at resolving the problem at hand is not sufficient to generate compliance is that there is a wide range of possible approaches to a given problem, and a choice

¹ Ernst B. Haas, When Knowledge is Power (California: University of California Press, 1990) at 21.

² Oran R. Young, "The Politics of International Regime Formation: Managing Natural Resources and the Environment" (1989) 43 Intl Org 349 at 368.

³ Thomas M. Franck, *The Power of Legitimacy among Nations* (New York: Oxford University Press, 1990) at 19; 24.

⁴ Peter M. Haas, Saving the Mediterranean: The Politics of International Environmental Cooperation (New York: Columbia University Press, 1990) at 80.

of one approach rather than another will depend in large measure upon the extent to which that approach conforms to the values and priorities of the community adopting it. The acceptability and distribution of the costs and benefits generated by a particular regulatory framework cannot be evaluated in a vacuum, but rather depend upon the perception of those affected by the framework. When members of different communities come together in order to achieve a common goal, it can become exceedingly difficult for each to understand the other's preference for a given rule or principle.

The regime, in all three of the aspects referred to above, contributes to communication between actors who do not necessarily belong to the same community and among whom there may be little in the way of shared values and priorities. This communication constitutes a means, in the first instance, for each actor to describe to the others its own approach and to seek to convince the others of the appropriateness of this approach as the basis for collective action. Activities such as joint research and monitoring programmes, information gathering and dissemination, legislative drafting workshops and scientific conferences involve a low level of commitment to cooperative action, but nevertheless serve to facilitate communication. At the same time, they serve to develop in common a body of knowledge about the issue-area which is more likely to be the object of consensus precisely because of its commonality. A third contribution of such activities is to lay the organizational foundations for a regulatory regime.

The capacity of the regime to provide a context for an authoritative and effective regulatory and policy mechanisms is a question both of structure and of process. Building successful legal mechanisms for the control of land-based marine pollution is not a matter of arriving at the perfect international convention or the perfect institutional framework, although conventions and

institutions make an important contribution. The success of legal mechanisms at the international level is determined in large measure by their capacity to provide a framework for convergences of interest and value which can then form the basis for ongoing problem-solving. Conflicts and controversy will not be banished with the construction of the appropriate legal framework. For this reason, the contribution of the regime to the provision of a public sphere within which discursive processes can take place - the regime as a locus of legitimacy - must be better understood.

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