

The Evolution of International Environmental Cooperation

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International environmental cooperation is a relatively new endeavor, appearing in a currently recognizable form within the last century, and becoming a major part of international relations only in the last three or four decades. During its brief history, the issues on which states have cooperated pertaining to the environment have shifted, as have the characteristics of the cooperative institutions established to address them. Some of these changes have come about because over time the environmental problems being addressed internationally have become more complex, both environmentally and politically. International environmental agreements, unlike some other areas of public international law, bind states, but for compliance require behaviour change primarily by private substate actors. The incentive structure in the agreements for these substate actors can thus have implications for how they are implemented. These incentive structures in collective self-regulation have changed from early agreements in which those substate actors whose behaviours needed to change directly benefited from their actions to protect a resource, to one in which the regulated industry gains little inherent advantage from being regulated. The time lag between activities that have environmental impacts and the manifestation of harm has increased as well (and, conversely, the time between taking action to protect the environment and the beneficial effects of that action has increased). Both these issues relate to a change in types of uncertainty underlying global environmental problems. Other changes in the nature of the environmental problems being regulated have led to an increasing degree of influence on the part of developing countries in international environmental agreements. Despite this increased complexity, multilateral environmental agreements have continued to be a powerful tool for mitigating difficult environmental problems.

I ISSUES AND INCENTIVES

The types of environmental issues addressed internationally have changed over time, and with them the incentive structure of actors whose behaviours need to change to mitigate the environmental problem in question. The first substantive international environmental agreements reflected efforts to manage shared resources in a sustainable manner, primarily water and wildlife. The early wildlife treaties generally addressed animal species that migrated from one state to

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another (or existed in a shared geographic space like the oceans). They had in common an effort to manage a shared resource so that it could continue to be harvested over time. Though the terminology would have been different at the time, this approach reflects what we now think of as sustainable use. The 1911 *Convention for the Preservation and Protection of Fur Seals* is one of the earliest examples of this type of treaty; the 1946 *International Convention for the Regulation of Whaling* (ICRW) (preceded by two other whaling treaties in the 1930s) is another. Most international fisheries agreements, negotiated in a period that began roughly in the 1950s, also fit into this category.¹

Resource management agreements can be, compared with other international environmental agreements, relatively easier to reach, because the actors that are regulated benefit directly from the regulation itself. As the preamble to the 1946 ICRW puts it, whale stocks 'are susceptible of natural increases if whaling is properly regulated, and ... increases in the size of whale stocks will permit increases in the number of whales which may be captured without endangering these natural resources.'² Whales, when left to their own devices, make more whales. If whalers can regulate whale catches so as to allow this to happen, their livelihood will be perpetually assured. Whaling states benefit, and whalers—the actual actors whose behaviour is impacted by the regulations—benefit if regulation works.

Despite this fortuitous incentive structure, agreement on even these issues can be difficult to reach for a number of reasons, most of which come down to the possibility that some states will want to free ride on the cooperative agreements. Each state would prefer, especially in an issue of sustaining a resource, that cooperative efforts limit the use of the resource so that it will exist indefinitely. But even better for a given state would be if all other states refrained from (for example) whaling so that the harm to the whale populations is kept within reason, but that it, itself, continue to catch as many whales as it can. Because this preference structure should hold for each state (or even for individual actors within the state), the danger always exists that someone will try to exercise this option. More importantly, because all states are aware of this incentive structure, they know it is possible that others will try to free ride on international cooperative agreements. If others do, they would be foolish themselves to uphold the agreement, and thus the entire process of cooperation can unravel. It is for this

¹ M.J. Peterson, 'International Fisheries Management' in Peter M. Haas, Robert O. Keohane & Marc A. Levy, eds., *Institutions for the Earth* (Cambridge, Mass.: MIT Press, 1993) 249.

² *International Convention for the Regulation of Whaling*, 2 December 1946, 161 U.N.T.S. 72, T.I.A.S. 1849 (entered into force 10 November 1948), preamble.

reason that monitoring strategies are generally included in such agreements. These monitoring provisions, even for resource agreements, have become stricter over time. Many fisheries agreements now require observers on board vessels to make sure that the catches recorded are accurate, and some fisheries agreements require satellite tracking of vessels. In fact, the types of monitoring provisions included in resource management agreements are generally more intrusive than in other issue areas. This may be possible because those who are regulated benefit directly from the regulations themselves as long as everyone upholds them. They may therefore be more willing under these circumstances to agree to intrusive monitoring provisions.

When we move to other areas of environmental cooperation, the direct benefit to the regulated actors diminishes. While it may be the case that states as a whole benefit from clean air or an intact ozone layer, the power plant operators, automobile manufacturers, or industrial users of chlorofluorocarbons (CFCs) do not themselves gain from environmental improvement that results from the restrictions placed on their activity. And while there may be some industries (in the case of water quality, for instance) that benefit from the clean water used as an input, these are rarely the industries whose behaviour is polluting the water in the first place.

The important implication of the move to regulating activities where those whose behaviour needs to change do not directly benefit from the environmental improvement it brings is that the actors to be regulated are likely to be more resistant to this change. We see this in the general resistance on the part of most industry (most notably in the United States) to serious action on climate change. Moreover, the need to appease industrial actors, who generally have political influence, has led to some of the forms of environmental regulation that Steven Bernstein elsewhere characterizes as 'the compromise of liberal environmentalism.'³ Mechanisms like tradable emissions permits and privatization of resources are ways to either try to fit existing incentive structures into the resource management model in which actors benefit from protection policies, or simply to make the actions taken less painful for the industrial actors who have the political clout to be able to prevent action altogether.

An interesting implication of this observation is that regulations crafted to give non-environmental advantages to regulated industry can thereby avoid political difficulties that come from opposition from some business actors. An industry that already meets standards to protect a given environmental resource (whether through domestic regulations or

³ Steven Bernstein, *The Compromise of Liberal Environmentalism* (New York: Columbia University Press, 2001).

because of how it has chosen to do business) may benefit competitively from international environmental regulations. Because there is generally at least an initial cost to producing in a way that protects the environment, internationally competing industries that already meet a standard may gain from requiring others to meet that standard as well. In this case it is not that those regulated benefit intrinsically from the regulation, but that they benefit from those regulations relative to others who have not previously met them.⁴ Support may also come from businesses that make the things that would be used to respond to the environmental problem. This dynamic further supports the advantages of regulations that provide benefits to those who are regulated, but also has strong implications for the types of regulations that are chosen, as suggested above.

II TIME HORIZONS

Even those who agree to participate in international cooperative arrangements face a disconnect between short run and long run incentives. Environmental issues feature a lag between when actions that could harm the environment begin and when the environmental damage they cause can be discerned; conversely there is also likely to be a lag between actions taken to protect the environment and a noticeable environmental improvement. One of the important trends in international environmental regulation is that this time lag is much longer for the types of environmental issues currently addressed than it was for earlier international environmental problems. This is not accidental; environmental problems with a short time lag are easier to address than those with a longer one, and thus provided easier initial opportunities for cooperation.

This disjunction between time of action and impacts is true of almost all environmental issues, even the early resource conservation agreements, and has important consequences. While it may be true that if a resource is adequately protected the actors will all be able to continue to make use of the resource indefinitely, planning for this end may require sacrifice in the short run—a restriction in fishing this year so that fish will be around next year or ten years from now. The tradeoff may be worthwhile, but can be hard to make if the need for the resource right now trumps any long term planning. Fishers who will not be able to make payments on their fishing vessels if they do not make enough money fishing this year may not be around to benefit from the long-term health of the fish stocks. Developing states whose primary concerns are

⁴ Kenneth A. Oye & James H. Maxwell, 'Self-Interest and Environmental Management' in Robert O. Keohane & Elinor Ostrom, eds., *Local Commons and Global Interdependence: Heterogeneity and Cooperation in Two Domains* (London: Sage Publications, 1995) 191.

meeting the basic needs of their populations may care less about the long run health of ecosystems than the present use of resources to keep their people alive, and may be unwilling or unable to bear a short term cost for a long term gain. How much actors value the future compared to the present is called a discount rate, and it has been demonstrated that actors with a high discount rate (those who value gains in the present much more highly than gains in the future) will be less likely to protect a resource even with the collective long-term benefits that environmental protection can provide.⁵

Even a short time lag increases uncertainty: if you catch this fish today, it is yours. If you leave it in the ocean until next year, it (and perhaps several others) will be yours, as long as the cooperative efforts put into place to make all actors restrict their fishing have succeeded. Actors discount the future not only because of what they could do with the resource, or the money it brings, in the present, but because of the uncertainty about whether the promised resource will exist in the future. And given the uncertainty discussed above about whether others will indeed restrict their behaviour, doing so yourself in the short run can be risky—you bear a certain current cost for an uncertain future benefit.

This discount rate becomes much steeper as the benefits from environmental protection come further and further into the future. If we have not yet begun to feel the problems from climate change, and changing our behaviour now might make things better a century into the future, assuming everyone else goes along with restrictions as well, it can be difficult to accept costly behaviour change in the present. For many of the most pressing international environmental issues currently requiring international cooperation, the primary benefits of cooperation will appear decades or, more likely, centuries hence. This issue then also intersects with the question of advantages of regulation discussed above, as the actual people who benefit from environmental actions taken today may not yet have been born. Philosophical debates about the role of future generations in decisions to protect the environment abound; from a political perspective, however, those who do not yet exist have little political clout.

III THE MANY FACES OF UNCERTAINTY

An important characteristic of most international environmental problems about which international agreements are made is uncertainty, but what it is we are uncertain about has changed across issues in ways that characterize different eras of international environmental policy

⁵ J. Samuel Barkin & George E. Shambaugh, eds., *Anarchy and the Environment: The International Relations of Common Pool Resources* (Albany: SUNY Press, 1999).

making. Several aspects of uncertainty have already been discussed in this article: the uncertainty about whether other actors who have agreed to cooperate in protecting an environmental resource will do so, and the related uncertainty about whether, over time, a protected resource will indeed bring advantageous results to those who have undertaken measures to protect it. But there is a more central underlying uncertainty that frames environmental issues, about what causes the problems and what the environmental impact will be of various behavioural changes.

In the early resource agreements this uncertainty was about what a sustainable level of use would be (and, to a lesser extent, what level of resource use was already taking place). Most resource agreements created scientific committees to take information about the current level of resource use and recommend levels that would be sustainable. Later pollution issues featured uncertainty about the cause of the problem itself. For example, acidification of Scandinavian lakes was an environmental problem, but its cause was uncertain, since at the time it seemed implausible that pollutants could travel far enough to be coming from the United Kingdom or elsewhere in Europe.⁶ Here again, research conducted by scientific bodies created as an essential part of international cooperation was able to ascertain the causes (and, in the case of acid rain, long-range transport) of pollution. Knowing the sustainable level of harvest or the transport mechanisms of pollutants does not solve all the political problems that underlie efforts to protect environmental resources; indeed, they can occasionally create new ones. (For instance, one reason states may have been willing to agree on a moratorium on mining in Antarctica, under the Environmental Protocol to the Antarctic Treaty, may have been continued uncertainty over whether, or where, valuable minerals are accessible). But resolution of uncertainty does avoid the important question about whether behaviours would have to change at all to protect the environment.

More recent environmental problems face a different type of uncertainty: about the very existence of the problem, or the impacts it might have. Beginning with the issue of ozone depletion in the 1980s, we have moved to environmental problems that are hypothesized before they are experienced. Ozone depletion is an excellent example of this type of problem. Research in the 1970s gave reason to suspect that CFCs could, in the presence of sunlight, destroy ozone molecules; other research indicated that CFCs were sufficiently stable that they could perhaps travel as far as the ozone layer. This led to international cooperative efforts to conduct scientific research into whether these substances were travelling that far, and what their effect would be.

⁶ Marc A. Levy, 'European Acid Rain: The Power of Tote-Board Diplomacy' in Haas *et al.*, *supra* note 1 at 75.

When international negotiations to address the potential problem of ozone depletion began, there was only limited evidence of any human impact on the ozone layer; the Antarctic ozone 'hole' (in reality a systematic thinning of the ozone layer over Antarctica) was only discovered as the Vienna Convention was being negotiated in 1985, and its human-induced causes remained unclear until after the agreement was completed.⁷

Climate change faces similar issues of uncertainty. Though the basic mechanisms linking increased human emissions of greenhouse gases and the global climate system are well understood, there are a number of factors about which there is legitimate uncertainty. What is the role of clouds? How do aerosols, increasing from some of the same activities that produce greenhouse gases (such as soot from power plants), impact temperature? More important is simply the fact the results of climate change have not yet been unambiguously felt. There is scientific agreement that the average global temperature has increased by small amounts and the sea level has risen a bit, both as predicted.⁸ But there is no smoking gun: neither have the impacts been strongly felt nor can any specific impact on its own be traceable to human impact on the climate system. Those who will be harmed by having to change their activities to prevent climate change know who they are and what the impact will be, but those who will benefit from mitigation have not yet clearly felt effects that can directly and unambiguously be traceable to climate change. From a political perspective, it is easy to understand why addressing this problem is difficult.

Moreover, in the ozone depletion and climate change examples, the long time horizons of these issues that make addressing them difficult in the present are the very reasons that they must be addressed before evidence of the problem is clear: because there is such a long time period between action taken and effects seen, waiting until the problems manifest themselves more clearly risks beginning to address a problem when it is too late to have the desired impact. These issues, and other recent ones such as persistent organic pollutants, are much harder to address than previous environmental issues because of the types of uncertainty they represent, but are especially important to address precisely for these reasons.

⁷ Edward A. Parson, *Protecting the Ozone Layer: Science and Strategy* (Oxford: Oxford University Press, 2003).

⁸ James J. McCarthy *et al.*, eds., *Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2001).

IV THE ROLE OF DEVELOPING STATES

Another important trend in international environmental cooperation is the changing role of developing states. Initially these states were more or less ignored in the process of international policymaking. But it became clear that on some issues their participation, whether or not they had contributed to the creation of the problem or were particularly impacted by it, was essential to environmental protection internationally. At the same time, because their future behaviours would have such an important impact on global environmental conditions, they gained bargaining power on some international environmental issues greater than they generally have in world politics. This dynamic has led to international mechanisms by which industrialized states compensate developing states for their environmental activities in a way that helps protect the environmental resources in question. When the incentives line up, everyone gains: developing states gain the ability to protect the environment without negatively impacting their development goals (and, perhaps, even contributing to them), and developed states gain the international cooperation they need to address environmental problems that affect them. The changing role of developing states is itself due to changes in the nature of environmental problems addressed. Most are problems of development, and impact the global commons. That means states remaining outside of the cooperative process have the ability to negate environmental improvements made by those who participate,⁹ and the relevant activities are sufficiently broadly related to industrialization that any developing state can have an impact on the environmental issue.

An important turning point for the role of developing states was negotiation of the international agreements to protect the ozone layer. Developing states, led by China and India, did not initially ratify the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, arguing that it would preclude development options that to them were of a higher priority than protection of the ozone layer. Their credible threat to stay outside of the agreement and develop while using substances prohibited within it resulted in the creation of the Montreal Protocol Multilateral Fund. Under this agreement, developed states give money to meet the full 'incremental costs' of developing countries in complying with the agreement; after its creation all the major developing countries joined the Montreal Protocol.¹⁰ All major global environmental agreements negotiated since then have contained such

⁹ Barkin and Shambaugh, *supra* note 5.

¹⁰ Elizabeth R. DeSombre & Joanne Kauffman, 'The Montreal Protocol Multilateral Fund: Partial Success Story' in Robert O. Keohane & Marc A. Levy, eds., *Institutions for Environmental Aid* (Cambridge, Mass.: MIT Press, 1996) at 89.

funding mechanisms, some of them via the Global Environment Facility (GEF), a similar funding mechanism with a broader mandate. It now covers funding for climate change, loss of biodiversity, ozone depletion, issues of transboundary water resources, persistent organic pollutants, and land degradation.

Also notable is the structure of decision-making under these mechanisms. In most international institutions that provide economic assistance voting is pegged to contributions, so that donors have the greatest degree of influence over how the funding is used, with recipients hardly able to influence prioritization of funding. From the beginning the negotiations to set up the Montreal Protocol Multilateral Fund focused on how its decisions would be made, with developing countries refusing to participate unless their concerns were assuaged. They successfully lobbied for the creation of a new institution with a decision-making body composed of seven donor and seven recipient countries with rotating terms. Projects are approved by 'double majority' voting, in which any decision not taken by consensus requires a two-thirds majority, which must include a majority of states in both blocs.¹¹ Even in the GEF decisions are made by consensus in a Council with split representation: sixteen developing states, fourteen industrialized states, and two states with economies in transition.¹²

At the same time, the influence of developing countries in international environmental cooperation has limits, often influenced by the structure of the issues addressed. Developing countries have traditionally had a high degree of influence when their participation was needed to address global environmental issues of particular concern to the industrialized states. But when the concern rests with the developing states and the problem either is not transboundary or does not particularly impact industrialized states, that influence wanes. Some of the starkest environmental problems facing people in developing countries involve things like access to clean water, indoor air pollution, and sanitation. An illustrative example is the negotiation over the 1994 *United Nations Convention to Combat Desertification*. On most of the contentious issues in the creation of this agreement—whether the problem would be identified as global, whether the convention would address the socio-economic causes of desertification, and whether a funding mechanism requiring new and additional aid transfers from developed to developing states would be created—the developing states did not get what they wanted.¹³

¹¹ *Ibid.*

¹² Global Environment Facility, 'Council', online: <<http://www.gefweb.org/participants/Council/council.html>>.

¹³ Pamela Chasek, *Earth Negotiations* (New York: United Nations University

In the broader scheme of things, the general principle that richer states should help poorer states pursue environmental protection, and the related idea that developing states should initially have more lenient obligations in international agreements, are rapidly becoming accepted norms. In this way, the normative role of developing principles of customary international law (in this case the idea of 'common but differentiated responsibilities') clearly has effects that take international policymaking beyond naked self-interest. Indeed, even the desertification difficulties, described above, have been mitigated by the recent inclusion of desertification in the focal areas of the GEF.¹⁴ As the interconnectedness of economic and environmental issues, and the global aspects of even local environmental problems, become clearer, and the norm about special consideration for developing countries generally expands, this trend will likely increase. This norm has its own complications, however. It is, in many ways, a fair way to deal with the responsibility that industrialized states bear for their contributions to existing environmental degradation. But it also makes environmental agreements more costly for developed states that are already, because of the increasing complexities addressed above, facing more difficult decisions about whether to cooperate internationally on environmental protection.

V MULTILATERAL ENVIRONMENTAL AGREEMENTS

What of the international environmental agreements themselves? Do they have any independent effect, once negotiated? When making an argument about the incentive structures that underlie and shape international environmental cooperation it is easy to lose sight of the effect of agreements themselves. On the one hand, it could be argued that treaties are simply the outcomes of the process of negotiation, codifying the results of the political jockeying that preceded them. But in the area of international environmental politics, the agreements that get adopted are rarely the end product, but instead create the framework and the process that guide responses to the environmental problem in question.

The increasing propensity to first create framework conventions, in which states agree on principles, set up a process for decision-making and find ways to increase and make use of scientific research to decrease some kinds of uncertainty about the extent or effects of the environmental problem, is one manifestation of this

Press, 2001).

¹⁴ United Nations Convention to Combat Desertification, Press Release, 'GEF Assembly endorses demands made in Agadez' (26 October 2002), online: <http://www.unccd.int/publicinfo/pressrel/showpressrel.php?pr=press26_10_02>.

process. These conventions are later followed by negotiation, within the framework they set out, of protocols in which the specific abatement measures are elaborated. The initial characterization of the framework convention matters. A number of substantive protocols—those pertaining to European acid rain, to ozone depletion, and to climate change, to name just a few—would have been impossible to negotiate without the new scientific information created, or interpreted, within the information gathering processes in their framework conventions. In addition, agreement in principle on the problem and a basic desire to address it can be essential in the process of cooperation; once states have agreed to address a problem it may become normatively harder to refuse to participate in specific measures that are aimed at ameliorating the problem.

Other types of environmental agreements have different structures that fulfill similar functions in allowing for the evolution of obligations: many resource management agreements, such as those regulating fisheries, set up commissions that make annual decisions about levels of harvest. In these cases, the process these agreements create is what is directly responsible for the changing obligations. Treaties that identify endangered species to be protected, or that specify chemicals that cannot be used or substances that cannot be dumped in the ocean, listed in an Appendix or Annex, follow a similar regulatory model in which the agreement itself outlines a process for changing obligations. These agreements are thus less the end point of a negotiation than the elaboration of the process through which continual negotiation will take place over time.

While strong enforcement mechanisms are rare in international environmental agreements, additional aspects increase the likelihood that states will live up to the agreements they create. Reporting requirements make it easier to determine when states are not doing what they have agreed to do, and increasingly intrusive types of monitoring (such as mandating observers on fishing vessels) have been created within existing agreements. Since the mutual benefits from cooperation accrue only if others live up to their obligations, reassurance that they are likely to do so increases willingness to participate.

Moreover, across international agreements, the processes, and often the norms that underlie them, gain further acceptance and become adopted elsewhere. The principle of common but differentiated responsibilities (especially the aspects calling for developed countries to take environmental action first, and to provide assistance to developing countries in meeting their obligations) has developed across international environmental agreements to the point where it is almost automatically included when a negotiation process begins. The expanding use of the precautionary principle is another example. The role of international agreements in helping to codify and expand these

norms exists apart from their focus on addressing a specific environmental problem.

CONCLUSIONS

International environmental cooperation is hard and is getting harder. Characteristics of the problems to be addressed, both environmentally and politically, make many of the current environmental issues more difficult to address than was true of earlier efforts at international environmental cooperation. But a number of the processes and approaches created to address environmental problems previously can help the process of doing so now, as the world turns to problems with more difficult incentive structures, longer time horizons, greater uncertainty, and a need to involve all states in cooperative solutions.

Some reassurance can be taken from the largely successful international efforts to protect the ozone layer, which evinces several of the more difficult conditions for multilateral environmental cooperation addressed here: the regulated actors did not benefit from the protection of the resource, the time between action taken and environmental improvement was long, and the problem needed to be addressed before the process or its effects were fully understood. Some states, whose participation was essential, were not especially concerned about this environmental problem relative to others they faced. The success of the international agreements to protect the ozone layer came from working within the framework laid out here. Affected industries in some of the major states were already regulated, thanks in part to action from non-governmental actors. These industrial actors were therefore willing to agree to international regulation because it evened the economic playing field with their competitors.¹⁵ Similarly, developing states were able to organize and advocate for economic assistance to meet the requirements of the agreements as a condition for joining. This process proved valuable for all parties concerned, since ozone depletion could be successfully mitigated collectively, developing states would not have to compromise their development goals in order to do so, and all states would eventually benefit from the protection of the ozone layer.

This success story provides some cautions as well, however. Because of an effort to work within existing incentive structures, or to modify them such that the major actors would be willing to take action on this issue, the approaches used were not radical. On the one hand, moderate fixes—substituting a chemical that does not deplete the ozone layer for one that does—do not provide the dramatic change in the

¹⁵ Elizabeth R. DeSombre, *Domestic Sources of International Environmental Policy: Industry, Environmentalists, and U.S. Power* (Cambridge, Mass.: MIT Press, 2000) at 94.

human relationship to the environment that would be the most beneficial route to environmental protection. On the other hand, such a radical change is unlikely to happen, since states are the ones to negotiate international agreements and few states have shown a willingness to radically rethink the economic structure that can underlie environmental problems. Given the difficulty of the modest but useful forms of international environmental cooperation outlined here, many have chosen to push for the possible over the ideal.

Additional trends, examined in this *Journal* by others, also bear watching. The increasing role of non-governmental actors, both environmental activists and businesses, is likely to have broad impacts on the direction of multilateral environmental cooperation. New forms of cooperation—the move to public-private partnerships or non-binding agreements—are also becoming more prominent. But states remain central actors in international environmental cooperation, and many of the concerns expressed about the modest outcomes possible with multilateral environmental agreements would apply to these mechanisms as well.

The experience of multilateral environmental cooperation thus far should nevertheless leave us feeling relatively optimistic. As outlined here, the environmental problems faced globally have become more complicated, in incentive structures, time horizons, and uncertainty, and have necessitated new mechanisms for involving developing states. Despite this increasing degree of difficulty, states have moved forward with increasingly substantive agreements for addressing global environmental problems. By integrating research into mechanisms of cooperation, including monitoring to ensure that states live up to their obligations and thus diminish some of the difficulties of increasing time horizons, providing compensation to developing states for changing their environmental behaviours, and generally working to line up the incentive structures of various actors, multilateral environmental agreements have managed to mitigate difficult environmental problems, and can continue to tackle the new ones that will inevitably arise.

Rethinking International Environmental Regimes: What Role for Partnership Coalitions?

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I INTRODUCTION

Governments create international agreements to deal with environmental, economic, technological, and legal problems that they cannot solve by themselves. In the absence of a supranational government, governments of states realize that they need new rules, multilateral institutions, and governance structures to promote cooperation, prevent and resolve conflicts, and facilitate information sharing between like-minded parties. This strategy is particularly evident in the establishment over the past four decades of several international regulatory regimes for the protection and management of certain environmental conditions of worldwide concern.

The direction and success of that strategy warrants rethinking early in the twenty-first century. A number of questions are now apparent: Is the creation of multilateral protection regimes, while unquestionably necessary, really sufficient to control environmental problems on a global basis? Has the tide shifted from mega-conference diplomacy and reliance on multilateral environmental agreements towards implementing more localized, domestic initiatives of environmental regulation, in particular, the resort to forming like-minded group coalitions (such as partnerships) to work in concert on remedies for environmental problems affecting an area or a region? If such considerations are lacking, has the time arrived for a shift in international strategy that aims to enhance the prospects for implementing more effective management of the environment at the local level? While today salient, these thoughts seem to remain more political contemplation than legal fact, more theoretical rumination than actual conduct.

This article addresses these queries by clarifying the nature of partnership coalitions within the mix of solutions that special regimes might use for managing the global environment. The second section sets out the nature of the regimes that are available as multilateral regulatory mechanisms for effecting environmental protection and management. In this regard, Section III addresses the notion of partnerships—or like-minded coalitions of groups—as instruments for implementing these regimes at the sub-national level. In doing so, the analysis treats both the advantages of resorting to partnerships for regime implementation at the local level, as well as the encumbrances they bring as pieces of the

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global regulatory puzzle. Finally, the article concludes by assessing the place of partnerships as a practical means for implementing those regimes already in place.

II THE NATURE OF INTERNATIONAL ENVIRONMENTAL REGIMES

Theoretical Observations

During the past half-century, international strategies for managing protection and conservation of the global environment were enacted through the promulgation of multilateral regimes. These environmental regimes are specially designed and purposefully implemented through processes of interstate negotiation and adoption. Governments confront a situation in which complex transnational problems arise (or might arise) that a single state or small group of states cannot resolve on their own. A broader, more extensive web of international obligations is deemed necessary. International associations are then created through legal obligation to generate sets of rules and standards aimed at producing desired conditions or outcomes that individual governments are incapable of attaining on their own. These international environmental regimes provide particular ways and means for regularizing the conduct amongst their participants, usually governments of states. Put tersely, an international regime provides for mutually interdependent sets of norms, rules, principles, values, and policy-making procedures that governments of states come to agree upon and abide by in managing a particular issue-area affecting world affairs, in this case, the quality of the Earth's environment.¹

¹ The presence of norms is essential for the foundation of an international regime. A norm here means an authoritative rule or goal-value that defines a generally shared standard of acceptable or unacceptable behavior for the international community. Norms relate to the powers, rights, and duties of the individual state, which aid in identifying expected roles and anticipated conduct from others in the international system. Importantly, norms may be embodied in formal rules (i.e. explicit norms) or presented as informal understandings (i.e. implicit norms). In either event, norms prescribe desirable social goals for the international community and set the means that are acceptable for achieving them. Norms, in short, carry moral and ethical imperatives. They indicate the right thing to do, the sense of 'oughtness' in state conduct in international relations.

Rules are operational regulations or specific maxims adopted to govern an individual state's conduct. Rules order the practice and procedure of states in their international relations. Rules, which are regulations having the force of law, are framed and adopted explicitly for governing a body's conduct and that of its members. Rules, established by some authority, tend to lack moral or ethical connotations and are followed more for reasons of expedience than for reasons of morality.

Principles refer to fundamental tenets or truths that are generally believed and serve as a guide for state conduct. Principles supply for states

Two rationales stand out for creating regimes to manage the international environment. First, some goals may be better attained if sought broadly through cooperation among several governments. Second, the purposeful coordination of intergovernmental activities can be facilitated through obligatory normative institutions. Regimes can be viewed as social creatures that generate normative guidelines for their member governments. That is to say, international regimes represent efforts to make more predictable and controllable the activities of states and their nationals in affecting areas of the global commons. Securing greater international certainty allows environmental regimes to enhance stability and promote order among states. It seems reasonable to expect that greater predictability for state actions arises in relationships among governments that interact more frequently with each other.

An environmental regime can influence government participants through socialization and role enactment. Governments learn shared values and norms, which are then perpetuated through policy actions by responsible members of the regime. The regime gains normative cohesion as moral norms based on shared values become ingrained within governments. The extent of regime cohesion is fixed mainly by the extent to which national interests are common to the participant governments.

the rules for international intercourse; that is, a code of conduct. When used as the basis of state behavior, principles can evolve into comprehensive and fundamental law. Principles widely adhered to may become fundamental truths and hence, accepted legal doctrine.

An international value inculcates something worthy of esteem for its own sake, something that possesses intrinsic worth and the quality of being desirable by the international community. An international value reflects some generally accepted judgment of what is desirable or undesirable in the life of states. In short, international values reflect international principles, standards or qualities that are considered desirable in the international relations among states. Values are moral conditions to be pursued or avoided.

Finally, the adequate availability and effective operation of policy-making procedures are vital for an international regime to function and adapt to changing international conditions and circumstances. Such procedures include the ways and means for conducting interstate affairs. Policy-making procedures fix established modes of acting and set patterns for conducting international affairs and directing the course of adopted policies for the regime. On the construction of regimes, see generally Oran R. Young, *Resource Regimes: Natural Resources and Social Institutions* (Berkeley: University of California Press, 1982) at 20; *Compliance and Public Authority* (Washington, D.C.: Resources for the Future, 1979); and 'International Regimes: Problems of Concept Formation' (1980) 32 *World Politics* 331 at 331-5.

A government conforms to an environmental regime by complying with its rules. At times, certain rules might not be liked, especially by a government that did little to shape them, or might feel unduly affected by them. Still, as a participant regime player, a government inherits certain obligatory norms as rules of the game. By agreeing to join a particular multilateral instrument, a government voluntarily opts to subscribe to and obey the ways and means of that accord. This process involves implementation by that government into its domestic law and policy the legally binding obligations to abide by normative tenets of the regime. For most governments most of the time, it remains preferable to live by a regime's rules than to engage in deviant behavior and antagonize other governments party to that regulatory system.

III CONFERENCE DIPLOMACY AND REGIME CREATION

International response to the need to manage the Earth's environment has been significant, but piecemeal and ad hoc. Over the past five decades, governments established through conference diplomacy a series of distinct, sophisticated regimes to regulate their national activities in the global commons—the oceans, the Antarctic, and the atmosphere—as well as various multilateral regimes for dealing with transnational environmental concerns about living resources. With respect to the oceans and the south polar-region, efforts to regulate state activities evolved into highly institutionalized regimes that incorporate strongly-rooted norms and overlapping multilateral agreements. In the case of atmospheric and living resource agreements, governance regimes are also defined by multilateral legal instruments, but are less developed. In all four areas, regime development was driven by technological change and the shared perception that anthropomorphic activities and conditions threatened that environmental area. Similarly, for all these issue-areas of environmental concern, active involvement by powerful states with advanced technologies was essential for regime formation and growth. The converse was also true. In seeking remedies for each commons region or environmental issue, the abdication of leadership by powerful governments frustrated or impeded regime development or change, even if advocated and supported by the majority of other governments.

Construction of international environmental regimes was stimulated over the past four decades through intensive international conference diplomacy. Beginning in 1972 with the Stockholm Conference on the Human Environment, a series of major United Nations-sponsored international conferences convened to discuss problems critically and formulate action plans to remedy vital

environmental issues.² Of these, the Stockholm Conference that convened from 5–16 June 1972 was the most critical, since it served to concentrate worldwide recognition of the need to address issues affecting the health of the planet.³

Twenty years after Stockholm, the United Nations Conference on Environment and Development (UNCED) convened in June 1992 in Rio de Janeiro to spur on governments to rethink economic development and find ways to halt the destruction of irreplaceable natural resources and the pollution of the planet.⁴ While not meeting all of its goals, UNCED made three notable strides in promoting international environmental legal rules. First, the Conference adopted the 1992 *Convention on Biological Diversity*;⁵ second, the 1992 *United Nations Framework Convention on Climate Change* (UNFCCC)⁶ was

² In late 1973, the Third United Nations Conference on the Law of the Sea began its preparatory deliberations in New York, and its substantive negotiating sessions continued until late 1982; in 1974 the World Population Conference convened in Bucharest, Romania and a World Food Conference convened in Rome. In 1976, the first Conference on the Status of Women convened in Mexico City, and the first Conference on Human Settlements convened in Vancouver, Canada; in 1977, the World Conference on Water convened in Mar del Plata, Argentina; in 1977, the Conference on Desertification convened in Nairobi, Kenya; and in 1979, the Conference on Science and Technology convened in Vienna, Austria.

³ This global gathering, to address the condition of the world environment, attracted 113 states and 13 United Nations specialized agencies as participants. Participant governments agreed by acclamation on the *Declaration on the Human Environment*, a non-binding document that articulates a set of twenty-six principles intended to guide future activities affecting the environment, including, *inter alia*, human rights, natural resource management, institutional arrangements, and economic development. While the Stockholm Declaration does not codify these principles as legal obligations, it does set constructive precedents that facilitate the emergence of environmental legal rules. Thus, the Stockholm Declaration served as a catalyst for creating new international environmental regimes. See Louis B. Sohn, 'The Stockholm Declaration on the Human Environment' (1973) 14 Harv. Int'l L.J. 423 at 423-89.

⁴ The attendance at UNCED was truly impressive. More than 100 heads of state attended and some 178 states sent official representatives. In addition, more than 1000 non-governmental organizations were present, as were some 10,000 journalists. The Rio Summit sought to create strategies that might facilitate the integration of environment and development with the consideration of present and future global conditions.

⁵ 5 June 1992, 1760 U.N.T.S. 79, 31 I.L.M. 818 (entered into force 29 December 1993, 189 states are party to the Convention in April 2005).

⁶ 9 May 1992, 1771 U.N.T.S. 107, 31 I.L.M. 849 (entered into force 21 March 1994, 190 states are party to the Convention in April 2005) [UNFCCC]. The Kyoto Protocol implements the UNFCCC. *Conference of the Parties to the Framework Convention on Climate Change: Kyoto Protocol*, 11

completed; and third, the Conference drafted and adopted by consensus *Agenda 21*, an 800-page document that outlines a common international approach to major environmental and developmental priorities at the close of the twentieth century.⁷ *Agenda 21* presents a blueprint for state action that both builds on existing laws and serves to initiate new ones.

The Oceans

Among the commons, the world ocean or, more accurately, the high seas, is best known. Ocean space covers some seventy per cent of the Earth's surface and serves as a main conduit for international trade and commerce, as well as a storehouse of food, mineral, and energy resources, the potential of which is not fully realized. Yet, given its vastness, the ocean is used by humans as a global sink for disposing of waste materials. Such pollution of the seas occurs by intentional land-based discharge of effluents into rivers that empty into the sea, or rise into the atmosphere, and eventually precipitate out over ocean areas. Marine pollution also occurs by intentional dumping or accidental spillage of substances, often oil, by ocean-going vessels. Accordingly, since 1960, international agreements have divided ocean space into special legal zones and designated jurisdiction over various activities affecting the health of the high seas, including shipping, fishing, dumping, transporting toxic wastes, mining the deep seabed, and vessel-source pollution.⁸ International agreements for regulating high seas activities were negotiated by special United Nations conferences, as well as by ad hoc multilateral arrangements. Even so, governance regimes to manage the high seas and its resources were slow to develop, largely because various states' economic interests in exploiting high seas resources produced only a patchwork of rules, principles and treaty law, while leaving serious problems of jurisdiction unresolved.⁹

The 1982 *United Nations Convention on the Law of the Sea*

December 1997, 37 I.L.M. 22 (entered into force 16 February 2005, 146 states are party to the Protocol in April 2005).

⁷ *Report of the United Nations Conference on Environment and Development: Agenda 21*, UN Doc. A/CONF. 151/26 (Vols. I, II, III).

⁸ Chief among these were the 1982 *United Nations Convention on the Law of the Sea* [UNCLOS], the 1972 *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter* [London Dumping Convention] and the 1973/78 *International Convention for the Prevention of Pollution from Ships*. See *infra* notes 10, 11.

⁹ See generally *The Ocean Our Future: Report of the Independent World Commission on the Oceans* (Cambridge: Cambridge University Press, 1998); Anne Platt McGinn, *Safeguarding the Health of Oceans*, Worldwatch Paper No. 145 (Washington, D.C.: Worldwatch Institute, March 1999); and Elisabeth Mann Borgese, *The Oceanic Circle: Governing the Seas as a Global Resource* (Tokyo: United Nations University Press, 1998).

(UNCLOS) supplies the contemporary framework regime for managing the world's oceans.¹⁰ Finally, linked to the UNCLOS are a number of sub-regimes created in response to various maritime needs and problems. Particular consideration focused on the need for special regimes to manage fisheries and other living resources in the high seas, the regulation of which was only generally provided for in the UNCLOS.¹¹ In October 1995 the Food and Agriculture Organization of

¹⁰ 10 December 1982, UN Doc. A/CONF. 62/122, 21 I.L.M. 1261, reprinted in *The Law of the Sea: United Nations Convention on the Law of the Sea with Index and Final Act of the Third United Nations Conference on the Law of the Sea* (Sales No. E.83.V5, 1982) (entered into force 16 November 1994, 148 states are party to the Convention in April 2005). The 440 provisions of the UNCLOS incorporate generally accepted norms—variously identified as rules, standards, regulations, procedures and practices—relating to the use of ocean space. New legal concepts are established for 12-mile territorial seas, 200-mile exclusive economic zones, and the high seas. UNCLOS creates an International Seabed Authority as a special institution for regulating deep ocean mining for seabed minerals. In addition, new rights and duties are set out for transit passage through international straits and archipelagoes, as well as for state responsibilities regarding flag state control over ships, rights and duties of vessels on the high seas, and the universal duty to conserve resources and to prevent pollution. See Bernard H. Oxman, 'Law of the Sea' in Christopher C. Joyner, ed., *The United Nations and International Law* (Cambridge: Cambridge University Press, 1997) 309 at 309-35.

¹¹ The key institution for overseeing international shipping and navigation through the oceans is a specialized agency of the United Nations, the International Maritime Organization (IMO). The IMO sets standards for world shipping and works to ensure the effectiveness of vessel safety and navigation standards. For contemporary information on the structure and functions of IMO, see online: IMO Homepage <<http://www.imo.org>>.

Since 1960, IMO has negotiated more than forty obligatory conventions and protocols dealing with the efficiency of maritime services, safety standards, and marine environmental protection. The most prominent among these IMO-sponsored agreements set rules against the dumping of wastes by ocean-going vessels, establish safety standards for commercial traffic, and prohibit the hijacking of ships at sea. See *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, 29 December 1972, 1046 U.N.T.S. 120, 26 U.S.T. 2403, T.I.A.S. 8165 (entered into force 30 August 1975); *International Convention for the Prevention of Pollution from Ships*, 2 November 1973, IMCO Doc. MP/CPNF.WP.35 (1973), 12 I.L.M. 1319, and *Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships*, 17 February 1978, IMCO Doc. TSSP/CONF/11 (1978), 17 I.L.M. 546 (entered into force 2 October 1983); *International Convention for the Safety of Life at Sea*, 1 November 1974, 1184 U.N.T.S. 2, T.I.A.S. 9700, 14 I.L.M. 959 (entered into force 25 May 1980); *Convention on the International Regulations for Preventing Collisions at Sea*, 20 October 1972, 28 U.S.T. 3459, T.I.A.S. 8587 (entered into force 15 July 1977); and the *Convention on the*

the United Nations (FAO) elaborated a non-binding *Code of Conduct for Responsible Fisheries*, which sets out international principles and standards of conduct with a view to ensuring the effective conservation, management, and development of aquatic living resources.¹² Separate but integral to ocean resource management are two special regimes that oversee conservation of whales and seals.¹³

Suppression of Unlawful Acts Threatening the Safety of Maritime Navigation, 10 March 1988, 1678 U.N.T.S. 221 (entered into force 1 March 1992).

IMO also contributes to the raft of non-binding norms, especially in its promulgation of important international codes. Exemplary among these is the *International Maritime Dangerous Goods Code*, 26 July 1988, IMO Doc. MSC/Cr. 497 [IMDG Code]. The IMDG Code has been constantly updated and amended in order to keep pace with changing technologies and developments in both the international shipping and chemical industries, with special attention to the classification of dangerous goods, as well as labelling, marking, packaging, and documentation requirements.

Finally, IMO has sponsored conventions that deal with problems particular to various regions, principally by promoting anti-pollution norms and conservation measures among littoral states. These regional conventions cover the following areas of the ocean commons: the Black Sea, Mediterranean Sea, Persian/Arabian Gulf, West African coast, North-East Pacific, South-East Pacific, Red Sea and Gulf of Aden, Caribbean Sea, East African region, and South-West Pacific. See Christopher C. Joyner, 'Biodiversity in the Marine Environment: Resource Implications for the Law of the Sea' (1995) 28 Vand. J. Transnat'l L. 635 at 672-9, and Peter H. Sand, *Marine Environmental Law in the United Nations Environmental Programme* (1988).

Outside the United Nations system, other special regional seas agreements have been negotiated for the North Sea, the Baltic Sea, and the circumpolar Antarctic waters.

¹² See FAO Fisheries Department, *Code of Conduct for Responsible Fisheries*, online: <<http://www.fao.org/fi/agreem/codecond/ficonde.asp>>. To implement the Code, FAO prepared a series of technical guidelines involving issues such as fishery operations, the precautionary principle, coastal management, inland fisheries, responsible fish usage, and aquaculture. FAO also promotes institution-building in the form of eleven regional fishery bodies, among them the General Fisheries Council for the Mediterranean, the Indian Ocean Tuna Commission, the Asia-Pacific Fisheries Commission, the South Western Indian Ocean Fisheries Commission, and the South Pacific Fisheries Commission. FAO remains the principal global institution responsible for compiling statistics on fishery resources, and its Committee on Fisheries examines and recommends strategies to governments and its regional fisheries organizations.

¹³ In 1946, motivated by the long history of overexploitation of whales, the International Whaling Commission was established by the *International Convention for the Regulation of Whaling*, 161 U.N.T.S. 72, T.I.A.S. 1849 (entered into force 10 November 1948). The Commission sets quotas for its members regulating how many whales can be taken, and has adopted voluntary moratoria for member states that aim to prevent the taking of

Antarctica

The continent of Antarctica, surrounded by the Southern Ocean, has an area of 5.4 million square miles, about the size of the United States and Mexico combined. Following the success of the International Geophysical Year in 1957/58, those states whose scientists had cooperated in that project agreed that preserving international cooperation in the region was necessary and appropriate, and that territorial disputes should be set aside to further that goal.¹⁴ To that end, in 1959 twelve governments negotiated the *Antarctic Treaty*, which entered into force in 1961.¹⁵ The *Antarctic Treaty* regime stands today as an unprecedented example of conservation and research values overcoming national interests and forging sophisticated cooperation in scientific research and environmental protection.

Concerns over conservation and environmental protection, however, made necessary new rules to regulate activities in the region. These new worries, combined with the successful experience of

certain whale species altogether. In 1994 the IWC established a long-term ban on whale-taking—in effect, a global whale sanctuary—south of 40° south latitude. Nonetheless, Norway and Iceland opted out of the ban, and Japan persists in taking whales for ‘scientific’ purposes.

The conservation of seals in the high seas has also received particular management attention. Largely stemming from concerns about overexploitation of seals in southern polar waters, a special regime in the *Convention on the Conservation of Antarctic Seals*, 1 June 1972, T.I.A.S. 8826, 11 I.L.M. 251 (entered into force 11 March 1978), was negotiated in 1972 among interested governments. Six species of seals were specifically protected, as commercial harvesting of seals south of 60° south latitude was prohibited for the states party, which include those nations most engaged in sealing operations throughout the nineteenth and twentieth centuries, including Canada, Japan, Norway, Russia, the United States, and the United Kingdom.

¹⁴ Seven countries—Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom—claim territory in the Antarctic, and three of these claims conflict with one another. These states plus Belgium, Japan, South Africa, the Soviet Union, and the United States were involved in the 1957/58 International Geophysical Year and were the first parties to the 1959 *Antarctic Treaty*.

¹⁵ 1 December 1959, 402 U.N.T.S. 71, 12 U.S.T. 794, T.I.A.S. 4780 (entered into force 23 June 1961, 45 states are party to the Treaty in April 2005). The Treaty totally demilitarizes the continent and pledges peaceful uses only of the treaty area, which includes the circumpolar ocean space south of 60° south latitude. Nuclear explosions and disposal of radioactive wastes are prohibited there. Parties are free to engage in scientific investigation, exchange, and international cooperation, and have the right to unannounced inspection of other countries’ stations and facilities on and around the continent. Thus, security and science comprise the core values of this multilateral agreement.

cooperation lent by the 1959 agreement, facilitated the *Antarctic Treaty's* evolution into a sophisticated commons regime that protects flora and fauna on land, seals and finfish in the circumpolar waters and in the region, and the Antarctic environment generally.¹⁶ Even so, the *Antarctic Treaty* regime still confronts serious environmental issues today, namely the need to supervise and regulate increasing ship-borne tourism visiting the area; the continued serious depletion of fisheries in circumpolar seas; and the persistent global warming that is melting the icecap and causing massive calving of ice from the continent's shelf areas.¹⁷

The Atmosphere

Life could not exist without the Earth's atmosphere since it provides virtually limitless sources of oxygen, carbon dioxide and nitrogen essential for both plants and animals.¹⁸ Three specific human threats

¹⁶ The initial step was the adoption in 1964 of certain agreed measures by the *Antarctic Treaty* parties to protect flora and fauna in the region. *Agreed Measures for the Conservation of Antarctic Flora and Fauna*, Recommendations III-VIII, 13 June 1964, 17 U.S.T. 996, 998, T.I.A.S. 6058 (1965), modified 24 U.S.T. 1802, T.I.A.S. 7693 (1973) (entered into force 1 November 1982). The *Convention for the Conservation of Antarctic Seals* was negotiated in 1972, and was followed in 1980 by the negotiation of a special international instrument aimed at the conservation of living marine resources, especially krill, within the Antarctic Convergence Zone. See *Convention on the Conservation of Antarctic Living Marine Resources*, 20 May 1980, 33 U.S.T. 3476, T.I.A.S. 10240 (entered into force 7 April 1982). Throughout the 1980s, negotiations proceeded on an Antarctic minerals agreement and, although completed in 1988, the mineral treaty's entry into force was blocked the next year by concerns over the implications it posed for the environment. See *Convention on the Regulation of Antarctic Mineral Resource Activities*, 2 June 1988, Doc. AMR/SCM/88/78, 27 I.L.M. 859 (not in force). In 1991, an environmental protection protocol that provided a more comprehensive approach for regulating activities potentially harmful to the circumpolar environment was negotiated for the *Antarctic Treaty (Protocol on Environmental Protection to the Antarctic Treaty*, Eleventh Special Consultative Party Meeting, 4 October 1991, Doc. XI ATSCM/2/21 (entered into force 14 January 1998)).

¹⁷ See generally Christopher C. Joyner, *Governing the Frozen Commons: The Antarctic Regime and Environmental Protection* (Columbia, SC: University of South Carolina Press, 1998) at 220-58.

¹⁸ The atmosphere also provides water needed for life and dissipates, through its circumglobal reach, many of the waste products of biological life and human industries. The atmosphere transmits the radiation from the sun that is essential for photosynthesis. At the same time it shields the Earth from ultraviolet radiation as well as from cosmic rays and meteors that shower down upon the planet from space. Moreover, the atmosphere acts as a blanket to maintain a higher temperature on Earth than would otherwise exist, and also moderates the planet's climate, warming the polar regions and cooling tropical areas. The atmosphere is essential for communications. Air readily transmits sound and electromagnetic (light

affecting international airspace led to the development of three principal regimes for that commons' management. The legal principle underpinning each regime is state responsibility to do no harm; the activities occurring within one state's national jurisdiction or control should not cause damage to the environment of other states or to areas beyond the limits of national jurisdiction.¹⁹

The first threat manifests itself in the stratosphere, and concerns the human-induced chemical changes that affect solar radiation penetrating the upper atmosphere, commonly known today as the hole in the ozone layer.²⁰ In reaction to growing quantities of scientific information and popular concern about this threat, the *Vienna Convention for the Protection of the Ozone Layer* was negotiated in 1985 and the 1987 Montreal Protocol set out a schedule for the progressive phase-out of chlorofluorocarbons (CFCs).²¹ The Montreal Protocol furnished

and radio) waves, and an electro-conductive layer in the upper atmosphere reflects radio waves, thus permitting communication beyond the horizon. See Marvin S. Soroos, *The Changing Atmosphere: The Quest for Global Environmental Security* (Columbia, SC: University of South Carolina Press, 1997).

¹⁹ Importantly, this reflects the cardinal notion of international environmental law found in Principle 21 of the 1972 *Declaration of the United Nations Conference on the Human Environment*, 16 June 1972, UN Doc. A/CONF. 48/14/REV.1, 11 I.L.M. 1416.

²⁰ The release of chlorofluorocarbons (CFCs) that find their way into the upper atmosphere and react photochemically has resulted in substantial ozone reduction, thus allowing greater exposure of the Earth's surface to more intense ultraviolet radiation.

²¹ 22 March 1985, 26 I.L.M. 1516 (1987) (entered into force 22 September 1988). The Vienna Convention does not contain specifics on how to combat ozone depletion. Instead, the Convention is a framework instrument that provides the basis for more substantive future action by confirming the existence of a serious worldwide problem, and calls for information exchange, monitoring and research. As such, the Vienna Convention allowed for quick acknowledgment of a problem by a large number of states, even while the implications for state policies were still being debated. The instrument that implements the general principles in the Vienna Convention is the *Protocol on Substances that Deplete the Ozone Layer*, 16 September 1987, 26 I.L.M. 1541 (entered into force 1 January 1989). The key to the Montreal Protocol's flexible development and enforcement rests in its institutional provisions. The powers enjoyed by the meeting of states party are unique. Once efforts to reach a consensus have been exhausted, certain decisions may be taken by a two-thirds majority that will bind all members of the Protocol, including those that voted against the decision. Such decisions must be supported by a balance between developed and developing states. Second, the Protocol provides for a formal noncompliance procedure through which an implementation committee hears complaints and reports to the meeting of states party, which makes a decision on the most appropriate action. One measure of

an important precedent for rapid, positive remedial action to address a pressing problem of commons preservation.

A second atmospheric threat is global climate change. In 1995, the United Nations Intergovernmental Panel on Climate Change issued its second report, which asserted that notable increases in carbon dioxide emissions had occurred since 1750, likely leading to greater concentrations of CO₂ over the course of the next century.²² It is now known that human activities, most importantly deforestation and the burning of fossil fuels such as coal, oil and natural gas, alter the atmosphere's composition and contribute to climate change, potentially having a serious impact on the condition of the Earth.²³ The international response to the threat of global warming came in the UNFCCC, adopted at the Rio Summit in 1992,²⁴ and later augmented

the Vienna Convention/Montreal Protocol's success is that the Convention in January 2005 has 190 parties, including Russia, the United States, the United Kingdom, Germany, and the EEC. Substantial progress on the level of global adherence suggests that the Protocol will probably be even more effective.

²² Intergovernmental Panel on Climate Change, *Climate Change, 1995: Second Assessment* (Cambridge: Cambridge University Press, 1996).

²³ The results of global warming could cause glaciers and polar ice caps to melt, thus raising sea levels and threatening islands and low-lying coastal areas. Other likely effects include shifts in regional rain patterns and agricultural zones, leading to famines and population displacements. See generally John R. Justus & Susan R. Fletcher, '89005: Global Climate Change' *CRS Issue Brief for Congress* (13 August 2001), online: <<http://cnie.org/NLE/CRSreports/Climate/clim-2.cfm>>; and G.O.P. Obasi, 'The Atmosphere: Global Commons to Protect' *Our Planet* 7.5 (February 1996), online: <<http://www.ourplanet.com/imgversn/75/obasi.html>>.

²⁴ *Supra* note 6. This instrument establishes a framework for international action and a process for agreement on policy action. The action plan in the UNFCCC, while notable, suffered from being more a pledge to principles than a hard, legally binding obligation on parties. Moreover, the growing scientific consensus over global warming made it apparent that major greenhouse gas producers like the United States and Japan would not meet their voluntary stabilization targets by 2000. The upshot was the negotiation in December 1997 of a special protocol in Kyoto, Japan, that commits industrialized countries to legally binding reductions in greenhouse gas emissions of an average of 6-8 per cent below 1990 levels between the years 2008-12. The UNFCCC commits governments to voluntary reductions of greenhouse gases, or other actions such as enhancing greenhouse gas sinks (areas of the Earth's surface such as tropical forests that absorb these gases). These actions were aimed mainly at developed countries by requiring them to stabilize their emissions of greenhouse gases at 1990 levels by the year 2000. Industrialized countries are also expected to render fiscal and technological assistance to economically developing countries in order to facilitate the latter's control

and reinforced by its Kyoto Protocol, completed in 2001.²⁵

A third major problem for managing the atmosphere is that air space allows substances to be carried across borders. The air serves as a medium for many forms of pollutants, though since the 1970s much attention has focused on the transnational acid rain generated by the burning of fossil fuels. An early attempt to redress acid rain pollution is the 1979 *Convention on Long-Range Transboundary Air Pollution*, which remains the only major multilateral agreement devoted to the regulation and control of transborder air pollution.²⁶

Living Resources

Environmental conventions aim to preserve and protect the existence and habitats of various species thought to be endangered or at risk. These agreements are broad in scope, ranging from the protection of individual species, as in the Polar Bears Convention,²⁷ the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*

of indigenous greenhouse gases. All parties are encouraged to share information about sources and sinks of greenhouse gases and what measures are being taken to control any local emissions of those gases.

²⁵ *Supra* note 6. The Kyoto Protocol underlined the critical rift between the United States and developing countries over the 'meaningful participation' of developing countries in the Protocol. The Group of 77 and the Association of Small Island States proposed that if industrialized countries reduced CO₂ emissions to thirty-five per cent below 1990 levels, then developing countries would be exempt from any emissions reductions. The United States insists, before ratifying the instrument, that developing countries make meaningful commitments to the Protocol by becoming subject to binding emissions targets. In contrast to the Montreal Protocol, the Kyoto regime's effectiveness is hobbled by a split between developed and developing states.

²⁶ 13 November 1979, 1302 U.N.T.S. 217, 18 I.L.M. 1442 (entered into force 16 March 1983, 49 states are party to the Convention in April 2005). The instrument deliberately does not deal with state liability for air pollution damage. Nor are there tangible commitments to require specific reductions in air pollution in the treaty. Parties are pledged instead to broad principles and objectives for pollution control policy, in very weak language. There are provisions on notification and consultation in cases of significant risk, but no multilateral tools of implementation or enforcement are institutionalized or required. In effect, the 1979 agreement contains an elastic obligation not to pollute the atmosphere. Since 1984, eight protocols to the Convention have been negotiated that deal with financing monitoring programs, as well as reducing emissions of sulphur, nitrogen oxides, and volatile organic compounds and curtailing pollution by heavy metals, persistent organic pollutants, and ground level ozone.

²⁷ *Agreement on the Conservation of Polar Bears*, 15 November 1973, 27 U.S.T. 3918, T.I.A.S. 8409 (entered into force 26 May 1976). Parties to the Agreement include Canada, Denmark, Norway, the Soviet Union (now Russia), and the United States.

(CITES),²⁸ the UNESCO World Heritage Convention,²⁹ and the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn),³⁰ to the protection of whole ecosystems, as in the *Convention on Biological Diversity*³¹ and the Ramsar Convention on Wetlands.³² All these instruments strive to protect species and ecosystems. Important also is the United Nations Convention to Combat Desertification,³³ the

²⁸ 3 March 1973, 993 U.N.T.S. 243, 27 U.S.T. 1087, T.I.A.S. 8249 (entered into force 1 July 1975, 167 states are party to the Convention in April 2005) [CITES]. The Convention operates through a national import/export permit system, in combination with an international management system. The permit system is keyed to regulating trade in species as enumerated in three appendices: Those threatened with extinction (Appendix I); those possibly facing extinction if their trade is not governed (Appendix II); and those facing over-exploitation in some countries (Appendix III).

The Convention is criticized for the non-binding character of its conference resolutions, and loopholes that allow governments to take special exemptions to trade in endangered species listed in the appendices. Nevertheless, CITES contributes substantially to world environmental law by providing a global mechanism that regulates the trade in specified species and underscores the need to protect endangered species. The fact remains that the success or failure of CITES, like any international agreement, rests on the governments now contracted to the Convention and how willing they are to implement and enforce its provisions. The Convention now covers more than 800 species categorized as seriously endangered; 5,000 species of animals and 28,000 species of plants are protected by CITES on its threatened species list. See online: The CITES Species <<http://www.cites.org/eng/disc/species.shtml>>.

²⁹ *Convention Concerning the Protection of the World Cultural and National Heritage*, 16 November 1972, 1037 U.N.T.S. 151 (entered into force 17 December 1975).

³⁰ 23 June 1979, 19 I.L.M. 15 (1980) (entered into force 1 November 1983).

³¹ *Supra* note 5.

³² *Convention on Wetlands of International Importance especially as Waterfowl Habitat*, 3 February 1971, 996 U.N.T.S. 243, 11 I.L.M. 969 (entered into force 21 December 1975). This is the first major global wildlife convention that protects habitat, particularly wetlands, from human destruction. Governments are obligated to designate on a national list wetlands in their state for protection, and they meet every three years to review policies, activities, and plans. Though the Convention contains no strict enforcement or oversight provisions, it spotlights the need for wetlands protection and permits international monitoring of protected areas by Convention secretariat officials conducting on-site visits. As of April 2005, 144 states were contracting parties to the Ramsar Convention, with some 1422 sites covering 124 million hectares on its protected list. See online: The Ramsar Convention on Wetlands <<http://www.ramsar.org>>.

³³ *Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa*, 14 October 1994, 1954 U.N.T.S. 3, 33 I.L.M. 1328 (entered into force 26 December 1996, 191 states are party to the Convention in April 2005).

chief aim of which is to counter spreading desert and mitigate the effects of drought, particularly in Africa.

Finally, also associated with environmental regimes are special conventions concerned with chemical and hazardous wastes, the overriding objective of which is the protection of human health and the environment.³⁴ Relatedly, the 1992 *Convention on Biological Diversity* serves as a framework agreement that treats biological diversity in a comprehensive fashion by addressing biological and genetic resources, access to and transfers of biotechnology, and the provision of financial resources.³⁵

IV PARTNERSHIPS AS REGIME IMPLEMENTATION DEVICES

The foregoing clearly suggests that international environmental regimes are intended to tackle particular global environmental problems. But the extent to which the multilateral agreements establishing these regimes can effectively attend to local causes and domestic environmental impacts of such problems remains murky. It is true that grand concerns such as transboundary air and ocean pollution, ozone depletion, and global warming are addressed legally through the formation of regimes. Yet scant attention is given to the harmful toll these environmental problems exact on local societies, such as sustaining access to affordable energy supplies, ensuring access to potable drinking water, facilitating reduction in child mortality rates, fostering reduction of poverty, and promoting sustainable bases for agricultural production. If these global regimes are to be implemented and made relevant at the local level,

³⁴ Such protection is to be accomplished by controlling trade in selected dangerous chemicals through informed consent, such as in the *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*, 11 September 1998, UN Doc. UNEP/FAO/PIC/CONF/5, 38 I.L.M. 1 (entered into force 24 February 2004, 88 states are party to the Convention in April 2005). Also included are phasing-out, reducing, and restricting the production and use of certain chemicals, such as by the *Stockholm Convention on Persistent Organic Pollutants*, 22 May 2001, UN Doc. UNEP/POPS/CONF/2, 40 I.L.M. 532 (entered into force 17 May 2004, 97 states are party to the Convention in April 2005), and reducing the production of hazardous wastes and their transboundary movements, as provided for in the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 22 March 1989, 1673 U.N.T.S. 57, 28 I.L.M. 649 (entered into force 5 May 1992, 165 states are party to the Convention in April 2005).

³⁵ The *Convention on Biological Diversity* provides for monitoring biological diversity, promotion of national plans and strategies to protect biological diversity, and submission by parties of reports that inventory plant and animal species, evaluate implementation of convention measures, and assess the effectiveness of national programs. See *supra* note 5, and online: The Convention on Biological Diversity <<http://www.biodiv.org>>.

specific means for their linkage and implementation must be found.

One innovative means for linking and implementing international environmental regimes to sub-national problems is the notion of public-private partnerships, or in United Nations parlance, 'Type II outcomes'. This concept of partnership, which originated from the 2002 World Summit on Sustainable Development (WSSD), involves the creation of voluntary, non-negotiated, multi-stakeholder, multilateral, collaborative enterprises.³⁶ Partnerships entail coalitions drawn from governments, international organizations, non-governmental organizations, private corporations and civil society, as opposed to politically-negotiated agreements and commitments (Type I agreements). These coalitions of like-minded groups are supposed to contribute by linking the intergovernmental objectives set out at the Rio Summit in 1992 in Agenda 21³⁷ (the United Nations blueprint for addressing environmental issues affecting sustainable development) to implementation at the local levels. It is important to realize, though, that partnerships are supposed to act as implementation devices; they are not intended as substitutes for legally-binding intergovernmental commitments.³⁸

Several serious global environmental problems—including pollution of the oceans, stratospheric ozone depletion, and global climate change—are inherently transnational in both cause and impact. The perceived transboundary impacts of these problems are so great that they motivated governments to cooperate in mobilizing their diplomatic

³⁶ See *Toward Global Partnerships*, GA Res. 215, UN GAOR, 55th Sess., UN Doc. A/RES/55/215 (21 December 2000); *Toward Global Partnerships*, GA Res. 76, UN GAOR, 56th Sess., UN Doc. A/RES/56/76 (11 December 2001); and *Toward Global Partnerships*, GA Res. 129, UN GAOR, 58th Sess., UN Doc. A/RES/58/129 (19 February 2004). See also Jan Kara & Diane Quarless, 'Explanatory Note by the Vice-Chairs: Guiding Principles for Partnerships for Sustainable Development' PrepCom IV Bali (7 June 2002), online: <http://www.johannesburgsummit.org/html/documents/prepcom4docs/balidocuments/annex_partnership.pdf>.

³⁷ *Supra* note 7, and online: Agenda 21 <<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm>>. See also 'Partnerships/Initiatives to strengthen the implementation of Agenda 21', online: <http://www.johannesburgsummit.org/html/sustainable_dev/type2_part.html/partnerships2_form.doc>.

³⁸ See UN DESA Division for Sustainable Development, World Summit on Sustainable Development, 'Plan of Implementation of the World Summit on Sustainable Development', online: <http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf>; and UN DESA Division for Sustainable Development, 'Partnerships for Sustainable Development', online: <<http://www.un.org/esa/sustdev/partnerships/partnerships.htm>>.

wherewithal into negotiating and adopting special international conventions aimed at regulating each respective harmful activity. The upshot was the creation of special regimes to deal with these commons areas. That development appears may be fine. The critical point remains, though, the extent to which partnership coalitions can make a real difference in implementing or improving the efficacy of concomitant policy duties emanating from these various environmental regimes.

Partnerships

How They Operate

How do partnerships operate? These arrangements are connected to international networks of expertise and funding. Partnerships can, at least theoretically, assemble a coalition of partners from a worldwide pool of like-minded environmentally protective organizations, public and private, national and international. The great advantage of partnerships is that they focus worldwide resources on particular environmental goals, although an ancillary aim involves shifting emphasis from global legal commitments to more intense local projects. Moreover, the notion of partnership, especially when applied to land-based environmental concerns, permits greater clarity with respect to which groups must be included within the coalition in order to redress more effectively a particular environmental problem or project. A critical contribution made by partnerships is to disaggregate general worldwide goals into specific local projects by mobilizing resources to take remedial or preventative action. Likewise, conjoining ad hoc groups and international organizations into partnerships permits their disparate activities to be coordinated and more directly focused through a multilateral process on specific environmental and developmental issues.

One can consider, for example, the Critical Ecosystems Partnership Fund, which has as joint initiative donor partners Conservation International, the Global Environment Facility of the World Bank, UNDP, UNEP, the Government of Japan, the MacArthur Foundation, and the World Bank. Twenty-six 'hotspots' have been identified for biodiversity protection.³⁹ At least \$125 million has been raised to provide strategic assistance to non-governmental organizations, community groups and other civil society partners to help safeguard the Earth's biodiversity 'hotspots,' which are the

³⁹ The twenty-six 'hotspots' include Bolivia, Sierra Leone, Liberia, Côte d'Ivoire, Ecuador, Madagascar, Armenia, South Africa, Kenya, Namibia, Guinea, Azerbaijan, Ghana, Russian Federation, Indonesia, Costa Rica, Panama, Georgia, Togo, Brazil, Peru, China, Philippines, Iran, Colombia, and Nicaragua.

biologically richest yet most threatened places on Earth. Among these are the Cape Floristic Region (South Africa), the Guinean Forests of West Africa, Succulent Karoo (in Namibia and South Africa), the mountains of Southwest China, and the Chocó-Darién-Western Ecuador (in Colombia and Ecuador).

Types of Partnerships

There are a number of different forms that partnerships may take. Networked partnerships, for example, appear capable of accomplishing certain objectives that can contribute towards the amelioration of global environmental crises. For one, networked partnerships can generate cooperative enterprise amongst organizations. Such collaborative relationships can transcend boundaries between the public and private sectors, as well as between groups and national governments. It also seems plausible that if designed in an interdependent manner, multi-sectored networks could reflect the changing roles and relative resources of various transnational actors in attempting to solve global problems.

Multidimensional group partnerships also enjoy advantages of flexibility. The groups comprising partnerships come in various types and levels of organizational ability, and they are often equipped with less organizational constraints than the individual national governments might have. Partnerships can evolve and adapt in response to successes and failures through cooperative processes with their member organizations, as well as with governments.

Exemplifying this kind of partnership initiative is the Global Ocean Data Assimilation Experiment (GODAE).⁴⁰ This effort began in 1997, with the aim of establishing a long-term global ocean observing system for monitoring the ocean, particularly to allow for better predictions on climate and climate change, as well as on ship routing and fisheries information. This partnership involves the participation of seven countries, two United Nations agencies, and three other groups.⁴¹ According to official sources, the partnership is being implemented in eleven places worldwide.⁴² GODAE is meant to be an autonomous,

⁴⁰ See online: The Global Ocean Data Assimilation Experiment <<http://www.bom.gov.au/GODAE/>>.

⁴¹ With Australia as the lead government, Canada, Japan, France, Norway, the United States, and the United Kingdom are also participating, in league with three groups—the Committee on Earth Observing Satellites, the Global Climate Observing System (Switzerland), and the Global Ocean Observing System—as well as two United Nations agencies, the International Oceanographic Commission/UNESCO and the World Meteorological Organization.

⁴² These include Norway, the United States, France, Australia, China, European Community, the United Kingdom, New Caledonia, Japan, Canada, and Fiji. Partners for Sustainable Development, Global Ocean

self-supporting initiative funded principally through the agencies represented on the 'Patrons Group,' including the IOC/UNESCO, WMO, and certain governments.⁴³ Yet, while the Patrons Group is supposed to coordinate agency sponsorship among the partner nations, no funds have been indicated for this purpose as of early 2005.

Factors Required for Success

It seems clear that partnerships created for implementing rules and norms for various environmental regimes aim to assemble diverse groups of stakeholders having disparate needs and capabilities. Even so, to attain success in building cooperative bases for effecting regime norms, all partnerships must embrace and be committed to at least three fundamental objectives. First, all stakeholders must share in a mutuality of interests and benefits for the partnership contributing to the successful operation of a regime. Second, all stakeholders must support a shared sense of purpose in the regime's management. And, third, all stakeholders must work to foster respect for one another to ensure continued participation by all other partners. A separate thematic partnership group on 'Means of Implementation' highlights these concerns.

Constructing Partnerships

The availability of partnerships for 'localizing' environmental regimes will not just happen. Partnerships must be thoughtfully designed and consummated through an iterative process. Construction of a partnership proceeds through a series of steps. Indeed, all partnerships require a catalyzing or organizing principle that furnishes the basis for collaborative action. In the case of environmentally-related partnerships, such a catalytic premise often emerges in the nature of the particular environmental regime.

A preliminary step in partnership creation usually involves a dialogue amongst interested parties. This discourse seeks to ferret out salient policy issues that facilitate arranging the partnership. Such a dialogue procedure might be initiated by a core partner, or through multilateral consensus on an environmental issue requiring remedy. The directorship role played by a leading actor, presumably the government of a powerful state, seems critical to determining the success of the partnership. This pre-eminent partner must work to maintain continuity

Data Assimilation Experiment (GODAE) (lasted updated 24 December 2003), online: <http://webapps01.un.org/dsd/partnerships/public/partnerships/227.html#targets_progress>.

⁴³ See online: Global Ocean Data Assimilation Experiment—Targets and Progress <http://webapps01.un.org/dsd/partnerships/public/partnerships/227.html#targets_progress>.

in the dialogue process, as well as to recruit other potentially viable partnership members and to sustain the continued engagement of other partnership members.

Once the need for a partnership is realized and agreed upon, the second step involves devising a strategy for making it operational. The structural elements for creating partnerships entail process-oriented considerations that involve the initiation, growth, implementation and maturation of coalition actions to bring about the success of the environmental regime. Toward this end, the goals of the partnership must be formulated. When a partnership is being contemplated, stakeholders must participate in a collaborative process to determine the purposes and objectives of the partnership coalition, as well as the particular roles and responsibilities of its members. Critical here is consultation among the different actors to determine priorities and means for balancing the views and needs among stakeholders, donors, participant institutions, and technical groups. From this goal-setting process, an action plan for regime implementation should emerge among the partners.

A third stage involves mobilizing resources that can furnish the financial, institutional and human capacities required to implement the partnership arrangement. Clearly, this stage remains vital for the overall success of a partnership, as well as for purposefully affecting the efficacy of an international environmental regime. In this respect, partnerships presuppose that stakeholders will accept their roles. Moreover, partners must go on to follow the agreed upon blueprint for action that would implement an environmental regime. Hence, partnership operations entail dynamic processes that amount to 'works in progress' toward fulfilling anticipated objectives for regime implementation.

A fourth stage is the need to monitor a partnership arrangement's progress and appraise its results. Once agreed upon and launched, a partnership's stakeholders must devise means for reviewing and evaluating its operations and strategies. Tracking both near and long-term results remains critical to whether a partnership can successfully evolve. Monitoring allows policy modifications in the partnership to be made and permits tasks and responsibilities of various partners to be further refined in light of the coalition's strengths and weaknesses. Similarly, such scrutiny can permit assessment of how effectively the partners are fulfilling the group's objectives to facilitate implementing the rules, norms and principles associated with a particular environmental regime.⁴⁴

⁴⁴ See *A Guide for Potential Partnerships on Energy for Sustainable Development*, UN DESAOR, Background Paper No. 3, UN Doc. DESA/DSD/PC4/BP3 (June 2002) at 21-3.

The forging of partnerships among stakeholders could constitute a key component for action agendas for implementing international environmental regimes. At the Johannesburg Summit in 2002, the essential focus of partnerships fell on stakeholders—especially the major groups associated with the Commission on Sustainable Development—as facilitators of sustainable development. In the case of international environmental regimes, the focus of this article falls on the use of partnerships as implementers of these regimes.⁴⁵

Stakeholders may be categorized as national, regional or international actors. Within the national category of actors, potential partners might include governments, domestic authorities, local and state businesses and industries, corporations, financial institutions, and local and national non-governmental organizations. Regional actors include regional banks, research institutions, and industrial groups. Counted among international actors are United Nations institutions and agencies, multilateral financing organizations, multinational corporations, intergovernmental groups, and global non-governmental organizations.⁴⁶ A 2004 report by the United Nations Secretary-General inventoried thematic categories of partnerships (totaling 277). Of the thirty-five diverse themes identified for partnership arrangements, at least fifteen directly impact on international environmental regimes. Among these are formally registered partnership groups created to address air pollution (nine), biodiversity (twenty-five), chemicals (three), climate change (fifteen), desertification (five), drought (four), energy for sustainable development (thirty-seven), forests (twelve), land (twenty), marine resources (ten), oceans and seas (twenty-five), sustainable development in a globalizing world (twenty-four), transport (six), waste management (five), and water (thirty-six). As indicated by the numbers in parentheses, each of these thematic areas attracted several registered partners.⁴⁷

Critique: Positive Considerations

Promotion of Pluralism

Partnerships carry the advantages of pluralism and diversity among

⁴⁵ See UN ESCOR, *Accreditation of non-governmental organizations and other groups for the World Summit on Sustainable Development*, UN Doc. E/CN.17/2002/PC.2/16 (22 January 2002), online: <<http://daccessdds.un.org/doc/UNDOC/GEN/N02/225/30/IMG/N022OpenElement2530.pdf?>>.

⁴⁶ *Supra* note 44 at 3.

⁴⁷ *Partnerships for Sustainable Development: Report of the Secretary-General*, UN ESC CSDOR, 12th Sess., UN Doc. E/CN.17/2004/16 (10 February 2004) at 17.

their memberships. Such group networks also draw greater strength through larger numbers, as the weaker members can piggyback on the assets of stronger partners. This arrangement presumably can facilitate more discussion and debate over various environmental issues, which thereby permits a looser, less aggressive setting for problem-solving deliberation. In addition, partnership initiatives tend to be voluntary, and aim to complement negotiated outcomes of conference action plans by proffering means for genuine commitment to implement goals in an action program. A notable example of this is the International Coral Reef Action Network, established in the year 2000, as a collaborative effort working to halt and reverse the decline in health of the world's coral reefs. The United Kingdom is the lead government, with the Seychelles and France also participating. Numerous non-governmental and government groups are partners, as are a number of United Nations groups.⁴⁸ Of a \$25 million target, at least \$8.5 million has been raised to support this partnership in protecting the offshore coral reefs of twenty-seven territorial entities.⁴⁹ These vital ecosystems shelter a vast amount of marine biodiversity and sustain millions of people through fishing, tourism and protection from erosion and storm surges.

⁴⁸ Among these groups are the Coral Reef Alliance, Marine Aquarium Council, McCann-Erickson, Reef Check, the Disney Wildlife Conservation Fund, the Global Environment Facility, the Nature Conservancy, the Richard and Rhoda Goldman Fund, the World Bank, US Agency for International Development, World Resources Institute, UN Fund for International Partnerships, and World Wide Fund for Nature (United States); Australian Institute of Marine Science and Global Coral Reef Monitoring Network (Australia); the ICLARM—World Fish Center (Malaysia); International Hotel & Restaurant Association (France); and the World Travel & Tourism Council (UK). Among the United Nations groups are the UN Environmental Programme's Division of Technology, Industry, & Economics, Caribbean Regional Coordinating Unit, East African Regional Coordinating Unit, the World Conservation Monitoring Center, and the United Nations Foundation (Partnerships for Sustainable Development—CSD Database (December 24, 2003), online: <<http://webapps01.un.org/dsd/partnerships/public/partnerships/129.htm> 1>).

⁴⁹ These are: Cuba, Colombia, Samoa, Jamaica, Fiji, Cambodia, Sri Lanka, Marshall Islands, Solomon Islands, Honduras, American Samoa, Mexico, Madagascar, Haiti, Seychelles, Belize, Malaysia, Viet Nam, Guatemala, Thailand, Nicaragua, Indonesia, Saint Lucia, China, Kenya, Dominican Republic, and Trinidad and Tobago (Partnerships for Sustainable Development—CSD Database (December 24, 2003), online: <<http://webapps01.un.org/dsd/partnerships/public/partnerships/129.htm> 1>).

Conveyors of Cooperation

As demonstrated in the above partnership arrangements, cooperation among governments, businesses, social groups, and international organizations is essential for critical environmental challenges to be successfully addressed. As a consequence, forging new partnerships among all stakeholders entails a key component of the action agenda. For the process of partnerships to function cooperatively, considerable support must be forthcoming from governments, non-governmental organizations, and the international community. Moreover, for public-private partnerships to be successfully created, the private sector must be actively involved as a strategic partner in building strong alliances to implement specific initiatives and to attract sources of expertise, financing and experience.

Clarifiers of Shared Goals

Partnerships among stakeholders are guided by strong motivation and incentives for working together in order to achieve shared goals. The motivation for partnerships stems from various considerations, among them the realization that the private sector and civil society must play special roles in fighting poverty, improving health and sanitation, reducing inequities and creating employment opportunities. In efforts to implement multilateral regimes for addressing environmental concerns, partnerships facilitate certain benefits, including improvements in quality of life (health, water, sanitation, education), improvements in worldwide environmental quality, expanded markets for services, increased access to technologies, enhanced capacity to address critical environmental issues, potential technological innovation, increased regional and international cooperation, increased roles for private and civil society sectors, and increased opportunities for institutional reforms.

Coordinators of Shared Frameworks

The development of certain partnerships in the absence of any broader contextual framework suggests that partnerships might be created in isolation from each other, absent benefits of information exchange and coordination of mission objectives. Even so, it seems reasonable that a more effective way of coordinating such diverse partnerships would be to agree upon a shared framework, linked together by common key elements. Absent such a common framework, individual partnership initiatives could result in overlap and duplication of effort by participant groups as well as unexpected limitations placed on resource allocations by stakeholders. It seems reasonable to expect that the creation of a partnership may help bridge gaps between multilateral agreements and facets of the environmental problems that they seek to manage. Active participation in these arrangements may be fostered by a desire to improve simultaneously the environmental conditions for both the local and international milieus. Even so, the failure of a single state,

especially a great economic power, to participate as a stakeholder or supporter of the coalition, can frustrate or impede the ability of such partnerships to solve global problems effectively.

Critique: Negative Considerations

Untested Instruments

Use of partnerships as instruments for environmental regime implementation is not a panacea. These groupings do not provide automatic solutions to technological crises. In this regard, it is critical to realize that partnerships embody political priorities and objectives. It seems reasonable to expect that partnership conditions require some kind of democratic control and power-sharing capability. Importantly, these are processes and styles that have not yet been adequately addressed by government officials and environmental planners. Moreover, partnerships do not operate naturally; they must be made to work. This process will not be easy, largely because partnerships must be made to form an interdependent network of institutional innovations to address particular environmental problems. That plain fact today indicates that partnerships are not able to develop solutions for all environmental problems, nor can they implement effective universal global environmental governance for international institutions.

Agents of Disequilibria

Partnerships might produce imbalances of power within civil society. Partnerships seek to bring together governmental agencies and small rural communities, as well as multinational corporations and local non-governmental organizations. By doing so, these arrangements might invite larger, more powerful government or economic agencies to co-opt or overshadow the smaller local partners. A second concern rests in the possibility that resort to partnerships might be used by governments and transnational enterprises to illustrate progress in sustainable development, while actually diverting attention from other harmful environmental activities. Such a problem could be aggravated if a United Nations agency, such as the Secretariat, were to endorse such projects, thereby creating a false sense of legitimacy. Such flaunting of a United Nations body might alleviate pressure on governments to follow through with their binding commitments pledged in the initial international environmental agreement.

Still another unresolved question pertains to finances. Will partnerships become a successful mechanism for fundraising to deal with local environmental problems, or will these arrangements amount to little more than a drain on domestic and international fiscal resources? Viewed another way, if funds are not immediately available for these partnership activities, might monies be drawn from other accounts or redirected from other environmental restoration projects? The answers to these queries are not yet clear. Indeed, several

partnerships found on the United Nations Commission on Sustainable Development's list of initiatives indicate valuable intentions, but cite no viable funding sources available. For example, those partnerships for Capacity Building for Environment and Natural Resources Management in the Caribbean,⁵⁰ Caribbean Adaptation to Climate Change and Sea Level Rise,⁵¹ the Global Conservation Trust,⁵² and the Partnership for Principle 10⁵³ do not enumerate any funding providers or revenues raised.

Lack of Transparency

It is true that the partnership concept's application to environmental protection regimes engenders great appeal, particularly among advocates of a sustainable development philosophy. Even so, this notion merits caution. If effectively applied, partnerships can generate considerable global resources for mitigating international environmental problems, while involving a range of international and domestic actors from both the public and private sectors. Recent experience suggests, however, that resort to partnerships remains hamstrung by serious impediments, most notably in areas of transparency and follow-through to commitment. Consideration of certain factors by the originators of various partnerships might contribute to alleviating these deficiencies. For example, if the notion of partnership were viewed as a kind of laboratory for experimenting with environmental protection projects, then new approaches might be found for managing and conserving the environment. Such experimentation can yield results, which produce

⁵⁰ This partnership seeks to further advance graduate education concerning environment and natural resources management. See online: Capacity Building for Environment and Natural Resources Management in the Caribbean <<http://webapps01.un.org/dsd/partnerships/public/partnerships/154.html>>.

⁵¹ This partnership aims to enable increased understanding and capacity by the region's population to respond to climate change, climate variability, and sea level rise. See online: Caribbean Adaptation to Climate Change and Sea Level Rise <<http://webapps01.un.org/dsd/partnerships/public/partnerships/154.html>>.

⁵² The Global Conservation Trust is a public-private partnership the goal of which is to establish an endowment fund to provide permanent funding for the conservation of plant genetic resources for food and agriculture around the world. See online: Global Conservation Trust <<http://webapps01.un.org/dsd/partnerships/public/partnerships/42.html>>.

⁵³ See online: Partnership for Principle 10 <<http://webapps01.un.org/dsd/partnerships/public/partnerships/219.html>>. The Partnership for Principle 10 seeks to improve national public participation systems to ensure access to information, public participation, and justice in decision-making that affects the environment. Improved public access to information, participation, and justice in decision-making makes decisions more fair, legitimate, and sustainable.

lessons learned that can be applied to future endeavors aimed at sharing information about protecting the environment at the local, regional, and international levels. Such a didactic system could generate partnerships in which various groups share their experiences, explain their approaches, and display the results and implications they pose in general for the partnership concept.

Aligned with the notion of partnership is the concept of the adaptive management system that a number of multilateral environmental agreements incorporate as concomitants to framework instruments. Prominent examples include the 1994 *Implementation Agreement to the United Nations Law of the Sea Convention* and the 1995 *Straddling Stocks Convention* for oceans management, the Montreal Protocol for treating ozone depletion, the Kyoto Protocol for global warming, and the eight special protocols negotiated under the European Transboundary Air Pollution accord that deal with specific aspects of air pollution control. Such adaptive management systems require that parties to a regime publicly issue periodic assessments of relevant developments in science, technology, law, and economics that might impact upon the efficacy of partnerships accomplishing their environmental protection and management objectives. Not all partnerships might approve of such reporting requirements or critical assessments.

Lack of Accountability

One serious defect that weakens international respect for partnerships is the lack of accountability attached to their operation. Non-governmental organizations and developing countries are apprehensive that partnerships might create the illusion of progress, thereby giving corporations and governments favorable publicity without producing tangible results toward sustainable development. The rhetoric of corporate and state activities might exaggerate the reality of the partnership's remedial accomplishments. The catch-22 here is that corporations and governments of developed states are similarly concerned that such fears could generate a perceived need for more onerous regulation, which would disadvantage their political, economic, and technological interests.

Accountability within a partnership association involves not just the governments of states and the private sector, but must also attach to all players in a partnership arrangement. Clearly, the incentive to participate in a partnership coalition depends on a player's perception of what gains or losses in reputation might be incurred by doing so. While no system of accountability has yet been universally agreed upon, a reasonable inference suggests that partnerships should be acceptable to all stakeholders in the coalition—governments, corporations, non-governmental organizations, patrons, the media, intergovernmental organizations, epistemic communities, and the public in general. If such

broad acceptance is found wanting, the chances for a partnership's success are correspondingly diminished.⁵⁴

The accountability of a partnership also depends on its transparency. If environmental partnerships are to be rewarded or sanctioned, their activities must be known. The accountability of a partnership depends on its reputation, which in turn depends on the accessibility of information about its activities. For the most part, no guarantee of transparency is presently incorporated into the partnership mix. Reporting systems and monitoring mechanisms are neither universal nor mandatory for all partnerships. As a consequence, new ways must be institutionalized for reporting to the public on activities and progress by partnerships. In addition, new means must be devised for following and gauging a partnership's accomplishments.

Lack of Private Sector Participation

Still another worry about partnerships concerns the dearth of private sector participation in their activities.⁵⁵ Given their immense economic power, technological wherewithal, and scientific knowledge, corporations hold great potential as leading partnership players within environmental regimes. Corporate enthusiasm for partnerships, however, has waned, probably because the partnership process poses unpredictable regulatory consequences. Corporations are more strongly attracted to joining a partnership if profits from the enterprise appear likely. The uncertain regulatory and investment climates surrounding partnerships and their creation, however, tend to dissuade corporate participation. For corporate behavior, greater transparency equates with the prospect of inheriting greater accountability, and greater uncertainty equates with accepting greater risk to investment. Concern over the possibility that this scenario might occur tended to dissuade Western

⁵⁴ At times damage to an actor's reputation can produce economic effects, thereby impairing a firm's sales or making it more difficult for an organization to obtain financial backing. These impacts, which are especially salient for multinational corporations that depend on respectability to generate business, also apply to non-governmental organizations and national agencies involved in transnational activities. Such forms of accountability reward good behavior by transnational enterprises and provide mechanisms that can sanction undesirable behavior. See Robert O. Keohane & Joseph S. Nye, 'Democracy, Accountability, and Global Governance', Harvard Research Group Working Paper on International Relations, online: <<http://www.ksg.harvard.edu/prg/nye/ggajune.pdf>>.

⁵⁵ Perusal of the official United Nations partnership website clearly reveals the predominance of governments, United Nations agencies, and non-governmental organizations listed as participants in partnerships, while private sector involvement remains relatively scant. See Partnerships for Sustainable Development, *supra* note 38.

corporate participation in the deep seabed mining regime contained in the 1982 *United Nations Law of the Sea Convention*. Taken in tandem, these conditions seem bound to cause corporations to rethink the balance between the costs and rewards of participation.

Lack of Grassroots Participation

Partnerships are touted as a means of connecting the outcomes of conference diplomacy with real people living in real places. It is often presumed that the energy for stimulating the process and progress of partnerships flows from grassroots sources. In practice, however, most partnership activity is fuelled by prosperous, developed governments, influential non-governmental organizations, intergovernmental organizations, and multinational corporations, not grassroots involvement. Nearly three-fourths of government-led partnerships created thus far come from six states—Australia, France, Indonesia, the United States, Italy and Japan. Of the 190 states represented in Johannesburg, only a few of the richest and largest governments have since taken on an active role in promoting the creation of new partnerships. Most non-governmental organizations are western organizations, and small businesses—which are more familiar with local development and environmental issues—are noticeably absent from leadership roles.

The prospects for intense partnership activity at the grassroots level, especially for local land-based environmental regimes, would appear greater if carried out by small businesses, local communities, and small non-governmental organizations. This, however, has not been the situation. Governments and international organizations have tended not to inform local governments and smaller associations about the possibilities of participating in partnerships. At the same time, the lack of financial and human resources has tended to dissuade grassroots involvement. Consequently, even a greater burden falls on rich governments, wealthy organizations, and powerful corporations to support the participation of their less affluent partners. Here again, the prospects for poorer partners to participate at local levels of environmental regime development are diminished.

Economic incentives loom large in the calculus of partnership formation. The world is marked by a conflict between urgent priorities and limited resources. As a result, priorities in issue-areas (for example, energy development, biodiversity, technology transfer, and forest conservation) must be set for environmental partnerships. Unfortunately, partnership formation has not responded to urgent priorities in the areas of sub-national environmental protection and conservation. The actions of governments, non-governmental organizations, and multinational corporations suggest that partnership creation is more aligned with the capabilities of rich states and donor organizations than with the economic and environmental needs of less

affluent countries.

Not all is favorable about the partnerships proposal. Much debate arises over whether this new development is positive. Concern among non-governmental organizations focuses on whether the partnership concept, which carries new binding commitments for players, might entice governments to shirk their responsibility in supporting national policies aimed at more sustainable development. In this regard, such relationships might lessen pressure on rich, technologically-advanced states to provide more resources for developmental priorities in the economies of developing countries. This argument suggests that the partnership approach might undercut formal institutional processes made legally obligatory in multilateral regimes, thereby fostering extensive privatization schemes within the United Nations.

Possibility of 'Greenwash'

The strategy of partnerships might also allow multinational corporations to dodge their spotty environmental records—that is, to promote 'greenwashing' by appearing to uphold environmental principles without offering commitment to their policy substance. Such greenwashing might be used to manipulate the public perception of corporate behavior, as well as to disperse public pressure to impose obligatory rules for environmental protection and preservation. The upshot is that the corporate promotion of partnerships could engender the privatization of efforts to implement regulations that implement environmental standards, thereby insulating corporate agents from legal directives that mandate responsible reform.

Lack of Conceptual Clarity

One serious deficiency in the WSSD debate was the inability to define clearly the partnership concept. No generally agreed upon, comprehensive understanding emerged about what results could be expected from the partnership strategy, nor were specific roles clearly spelled out for potential partnership players. Moreover, it remained unclear how 'Type II' outcomes should be linked to formal intergovernmental processes created by the nexus of binding commitments contained in the numerous multilateral instruments and legal principles that today comprise established environmental regimes. The problem is obvious: two processes—one across state borders, the other within states—coexisted, but they did so without substantive interaction, integration or even speculation on how they might be made more complementary. Various facets of environmental governance were touted as being networked, even though there were no established rules or procedures that might contribute to their effective collaboration.

A lack of conceptual clarity for partnerships still remains. The 298 partnerships listed on the WSSD website represent such a broad

range of organizations, procedural rules, and goals that comparisons among them are difficult.⁵⁶ Thus the problem emerges that partnerships are being created without serious forethought being given about to whom they are accountable, what conduct is ethically permissible, or how efficient they are as transnational mechanisms, all of which adds to the difficulty of assessing their potential, and limitations.⁵⁷

V CONCLUSION

That legal regimes have been fashioned for internationally managing activities in the oceans, Antarctica, atmosphere, and space highlights a critical realization by governments that no state or group of states can satisfactorily deal with these global problems alone. If human threats to global common areas are to be seriously redressed, or at least curbed, a concerted international effort is required. There is greater international safety in numbers, when the behavior of all parties is guided by the same set of rules and guidelines. Thus, only through such common legal means can these threats to the commons be minimized.

The key lesson for success, however, lies not in the need to negotiate sufficient rules or attract enough state parties. Rather, the critical factor remains the ability to galvanize the requisite political will of governments to adhere to rules and laws already created for various global commons regimes. This ability to influence the political will of governments depends on the extent to which officials perceive these regimes as enhancing their states' national interests, at costs that seem fair and not disadvantageous when compared to those associated with being outside the regime. Governments must be willing to comply with and enforce these regulatory regimes in order to counter humanity's abuse of the oceans, polar regions, and atmosphere. This ambitious challenge must be met if an acceptable quality of life on our planet is to be preserved and protected for future generations. The creation of multinational, multi-group partnerships can contribute to that end, but it will not be sufficient. These groups depend on active participation and financial support by governments, which in combination might weaken

⁵⁶ *Ibid.*

⁵⁷ On 27 February 2004, the Secretariat for the United Nations Commission on Sustainable Development launched a new online database of partnerships for sustainable development. See online: Partnerships for Sustainable Development—CSD Database <<http://webapps01.un.org/dsd/partnerships/public/browse.do>>. This interactive database contains information based on voluntary self-reports from partnerships initiated in the context of the 2002 World Summit on Sustainable Development and aims to increased sharing of experience and knowledge on the implementation of sustainable development.

the role that private groups can afford to take in striving to protect the Earth's environment.

The tide has not shifted away from multilateral conference diplomacy in the search for multilateral solutions to transnational environmental problems. Resort to multilateral negotiation to create regimes still is viewed as the most practical international means for bringing governments together to address environmental issues of mutual concern. At the same time, opportunities for multilateral collaboration allow governments to exercise their sovereign prerogatives in seeking ways and means to manage and protect the global environment.

The partnership notion elaborated in 2002 at Johannesburg concentrates on associations that can be dedicated to promoting environmental protection and conservation, as well as sustainable development. The aim is to disaggregate general international legal goals into specific national and local policy commitments. Whereas an international agreement will bind participating governments into finding solutions for particular environmental problems, the creation of spin-off partnership arrangements strives to produce local solutions for local environmental problems that contribute to and exacerbate the general environmental concern.

In a grand sense, the creation of sub-national partnerships appears consonant with the goal of managing through legally-created regimes a particular environmental problem or region. Bringing together numerous governments, international agencies, sub-national groups, and private sector parties that might act in concert to foster policies and activities for environmental protection and management seems desirable, particularly at the national level. Yet, fostering transnational partnerships poses multiple difficulties, not only in terms of logistics but also with respect to philosophies. Partnerships may assist in bridging gaps between multilateral regime agreements and the principal local problems they seek to remedy. In sum, partnerships may aspire to spark non-governmental and private sector participation in implementing international environmental regimes. Serious obstacles, however, impede the reality of this happening effectively. Scant financing for partnerships is available from new sources. Most is allocated from governments and less than one per cent from the private sector. Concern over partnerships also persists because these coalitions are seen as possibly reducing pressure on governments to fulfill legal commitments made in the construction of a regime. In any event, until all major participants—governments, intergovernmental organizations, non-governmental organizations, and multinational corporations—invest more resources in partnership coalitions, their role in redressing environmental problems will remain more passive than active in effect and their impacts more ancillary than revolutionary in scope.