

Whither MEAs?

The Role of International Environmental Management in the Trade and Environment Agenda

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Table of Contents

Executive Summary	i
1. Introduction	1
1.1 International Economic Policy and Environmental Management.....	2
1.1.1 Globalization	3
1.1.2 Development of the Trade Regime	5
1.1.3 Development of Environmental Regimes	6
1.1.4 Trade and Environment	7
1.2 Multilateral Environmental Agreements—International Environmental Regimes.....	8
1.2.1 “Regimes” and “Governance”	10
1.2.2 “Institutions” and “Organizations”	11
1.2.3 Problem Structure and Institutional Fit	11
2. Strengthening International Environmental Regimes	14
2.1 Problem Structure	17
2.1.1 The Conservation Complex.....	17
2.1.2 The Global Atmosphere	18
2.1.3 The Hazardous Substances Complex	18
2.1.4 The Marine Pollution Complex.....	19
2.1.5 The Extractive Resources Complex	19
2.2 Joint Institutions.....	19
2.2.1 Science Assessment.....	20
2.2.2 Transparency and Participation.....	20
2.2.3 Implementation Review	21
2.2.4 Dispute Settlement	21
2.3 Sustainable Development	23
2.3.1 Development Assistance	23
2.3.2 Markets.....	24
2.3.3 Investment	24
2.3.4 Subsidies.....	25
2.3.5 Property Rights.....	25
2.3.6 Liability	26
2.3.7 Innovation.....	26
3. Upcoming International Negotiations	26
3.1 The Interface with Economic Policy	27
3.2 Natural Resources Extraction	29
4. Conclusions	29
4.1 Strengthening Regimes by Strengthening Regime Institutions.....	30
4.2 Organizational Change	30
4.3 A Standing Conference on Trade and Environment	32
4.4 The Prospects for Strengthening	33

Summary of Measures for Strengthening MEAs.....	35
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Annex: Institutions in International Environmental Regimes.....	36
--	-----------

A.1. Science	36
A.2. Precaution.....	38
A.3. Efficiency	39
A.4. Transparency	39
A.5. Participation	40
A.6. Subsidiarity.....	41
A.7. Environmental Assessment	43
A.8. Reporting.....	44
A.9. Implementation Review	45
A.10. Dispute Settlement	45
A.11. Technology Transfer	47
A.12. Other Significant Institutions	48

Executive Summary

Concern about the relationship between trade and the environment has generated a growing debate on the structure of international environmental management. In some instances, this debate has broadened to encompass a general discussion concerning possibilities for strengthening what are becoming increasingly known as “multinational environmental agreements” (MEAs). Such a strengthening is very welcome, indeed overdue.

The universe of international environmental agreements presents a highly complex, even confusing picture. Because it is difficult to discern any order in the current pattern, there exists a tendency to postulate an ideal structure for an effective international organization and then to seek to apply that to the MEAs. This paper argues that there are reasons for the current structure of international environmental management and that an attempt to strengthen these agreements must begin with an understanding of why environmental agreements are effective.

The paper then summarizes recent developments in research on the effectiveness of environmental regimes. It focuses on the issues of problem structure, institutions and organizations and argues that organizational design should flow from the institutions that are being employed, and that these in turn should display a good fit with the problem structure of an issue.

Based on this discussion, the most important institutions employed in MEAs are discussed: science, precaution, efficiency, transparency, participation, subsidiarity, environmental assessment, reporting, implementation review, dispute settlement and technology transfer.

The possibilities for organizational reform are outlined, based on a possible clustering of international environmental regimes based on problem structure or shared institutions. It turns out that any clustering will be difficult to implement in practice but that several key institutions, science assessment, transparency and participation, implementation review, dispute settlement, and advancing on sustainable development in particular, offer interesting opportunities for strengthening. Natural resource extraction regimes are identified as the most problematic from an environmental perspective and as posing the greatest challenges to the trade regime.

Significant opportunities exist to strengthen international environmental governance, and MEAs in particular, but they will require a sharp focus on measures that make environmental regimes more effective, rather than on steps that attempt to make environmental regimes resemble the trade regime.

1. Introduction

The debate about the relationship between trade and the environment has generated a growing debate on the structure of international environmental management. In some instances, this debate has broadened to encompass a general discussion concerning possibilities for strengthening what are becoming increasingly known as “multilateral environmental agreements” (MEAs). Such a strengthening is very welcome, indeed overdue.

In the past 18 months alone there have been several important initiatives designed to strengthen international environmental governance. The European Union Environment Council considered the desirability of promoting the creation of a World Environment Organization (WEO). At its October 2000 meeting, it adopted a resolution that recognized the complexity of the underlying issues without actually advocating the creation of a WEO. This resolution was endorsed by the European Council, that is the heads of state and government of the European Union, at its December 2000 meeting in Nice.¹ The Canadian government has considered the need for strengthening international environmental governance and presented a position paper to the Bergen ministerial meeting that has become a point of reference in the subsequent debate. Finally, the various initiatives intersected at the 2001 meeting of the Governing Council of the United Nations Environment Programme. The decision GC 21/21 launched a process on International Environmental Governance that is intended to inform the World Summit on Sustainable Development in Johannesburg, South Africa, in September 2002. The decision revealed, however, that there was limited interest among developing countries in strengthening international environmental governance.²

It has become increasingly obvious that the current structure of international environmental agreements poses almost insuperable problems for the trade regime; yet

¹ See <http://europa.eu.int/council/off/conclu/dec2000/index.htm>.

² This process is fully documented by the *Earth Negotiations Bulletin*, available at www.iisd.ca, which also

trade policy is increasingly hostage to addressing the relationship with environmental regimes. One approach to this dilemma has been to seek to have international environmental agreements acquire some of the institutions of the trade regime, dispute settlement for example. Another approach promotes emulating the creation of the World Trade Organization (WTO) by creating a World Environment Organization. Both proposals merit careful consideration.

This paper approaches the dilemma of trade and environment agreements differently. Rather than postulating a template of effective international organization, derived for the most part from the WTO, which is still widely considered to be both effective and powerful, it seeks to understand the reasons for the existing structure of international environmental management. In particular it considers the diversity of problem structure of different environmental issues and the wide range of institutions³ utilized by existing environmental regimes. It then discusses how international environmental management can be strengthened by making these institutions more effective and what steps can be taken to strengthen the organizational structure that has developed around the existing international environmental agreements. The result is an alternative approach to achieving more effective international environmental agreements that will interact successfully with the trade regime.

1.1 International Economic Policy and Environmental Management

Differences between trade agreements and international environmental agreements begin with names. “Multilateral Environmental Agreements” (MEAs) is now widely used to denote the major global environmental agreements, in parallel to the usage “the multilateral trade regime,” a term that dates back to a period when the General Agreement on Tariffs and Trade (GATT) included only a few countries. In reality this is a misnomer. Trade agreements not open to all countries are called “regional” or “bilateral,” implying some degree of geographic and political coherence. It is clearly

supplies access to the official documents.

³ See below for a discussion of the term “institutions” as used here.

desirable to achieve the most universal membership of the GATT/WTO yet the decision to include a country or not is purely economic and political.

Traditionally, environmental agreements have been categorized as being “bilateral,” “multilateral” (involving more than two but not all countries) or “global.” The defining characteristic determining membership is not political expedience but objective necessity as determined by the characteristics of the issue that is being addressed. In some instances, countries traditionally viewed as powerful play little or no role in an international environmental regime; in others, small or politically weak countries, particularly developing countries, can play a critical role. Indeed, most global environmental agreements have been negotiated and adopted despite significant reservations—and in some instances the active opposition—on the part of the most powerful of all countries, the United States, a situation that is entirely inconceivable in the GATT/WTO context.

The nomenclature of “multilateral environmental agreements” (MEAs) is here to stay. Yet the differences outlined above suggest that it will be necessary to measure MEAs by a different yardstick than the WTO. In particular, it is important to avoid using the institutions and organizations of one set of agreements as a normative template against which to measure the other agreements. From the perspective of international environmental agreements, the trade regime is not well developed, lacks institutional diversity and resilience, and is excessively dependent on states and their power relations. It does not know how to interact with private actors who are affected by its decisions. From the perspective of the trade regime, environmental agreements are unfocused and lacking in the most essential disciplines to ensure compliance. In practice, the trade regime may be more resilient and the environmental regimes more effective than one would expect.

1.1.1. Globalization The term “globalization” has come to encompass a host of interlinked developments in international society, with a primary focus on the emergence of international economic structures. The current process of globalization is being

promoted by several powerful forces, and it is sometimes difficult to determine which among them is most important.

In the economic arena, many of the barriers that existed at national borders have been dismantled, resulting in the emergence of new markets that are defined by economic factors rather than by history and politics. In practice not many of these markets are truly global, in the sense in which this word is used in describing environmental phenomena. Most markets involve only a segment of the human population and not all countries whereas “global” environmental issues affect every country and every person on this planet. Yet none of these new markets can be described in national terms any more, creating a major challenge to our way of thinking about states and international society.

The emergence of new market structures that transcend states is accompanied by powerful forces of technology, including traditional as well as new media, the Internet and the expansion of transportation infrastructures to match market demand.

The need to manage and protect the environment is itself a powerful force promoting “globalization.” This parallel to the processes of economic policy is not often discussed. The environment respects no frontiers and, as pressures from human activities have mounted, the need to develop international environmental regimes has been unrelenting. This has given rise to the paradoxical situation where some of the most vocal opponents of economic globalization are passionate advocates of a process of globalization of environmental management.

The economic and technological forces promoting globalization are largely congruent and mutually reinforcing. The forces promoting environmental globalization certainly have an economic dimension, and the policy challenge is to ensure that this aspect of environmental management is also mutually reinforcing with other forces for globalization. Yet there are other factors at work in the construction of international environmental regimes, which must also be respected. These factors are not adequately reflected in an approach to international environmental management that is too closely modelled on economic and technological priorities.

1.1.2. Development of the Trade Regime The last 15 years have witnessed a remarkable evolution of the trade regime, beginning with the launch of the Uruguay Round in 1986. The trade regime has incorporated several new agreements, two of which—the General Agreement on Trade in Services (GATS) and the Agreement on Trade Related Intellectual Property Rights (TRIPS)—have taken it far beyond its original remit. It has emerged from an organizational limbo imposed by its strange legal origins⁴ to become the emblematic organization of globalization. This process has now stalled, following the failure of the U.S. Administration to obtain fast track authority, the collapse of the negotiations for a Multilateral Agreement on Investment (MAI) in the OECD, and the stalemate in Seattle. Even if a new comprehensive round of trade negotiations is launched at the next Ministerial meeting, scheduled for Doha, Qatar, in November 2001, it is likely that it will be dramatically different from the negotiation that was envisaged before Seattle.

It remains to be seen whether the architecture of international economic management requires significant reform. No matter how fast the international policy response to globalization has advanced, the informal processes and the development of new market structures requiring attention has moved even faster.

The WTO currently appears overburdened. An institutional structure that is actually quite modest is being asked to carry an extraordinary policy load, far beyond its traditional agenda of trade liberalization. This unintended result of the Uruguay Round may yet necessitate significant changes in the overall architecture of international economic management.

The unresolved issues linking trade and environment stand at the heart of this impasse. The argument about “trade” and “environment” sometimes is like a fraternal struggle. Trade policy and environmental policy exhibit a number of similarities, certainly in their economic and social impacts, so that their differences are frequently felt as betrayals.

⁴ John Jackson, *The World Trading System. Law and Policy of International Economic Relations*. Cambridge, MA: The MIT Press, 1991, pp. 34-39.

Environmental management is inescapably part of the processes of globalization. It now appears that the economic dimensions of these processes cannot continue without taking into account the environmental dimensions as well.

1.1.3. Development of Environmental Regimes Developments in international environmental governance have been no less dramatic than in the economic sphere. Since 1986 there have been more than 100 major international conferences on environmental issues, as documented by the *Earth Negotiations Bulletin*. Several major new environmental regimes have been launched, including several new MEAs, and existing environmental agreements have developed well beyond initial expectations. This process can be dated back to adoption of the Montreal Protocol on Substances that Deplete the Stratospheric Ozone Layer, an event that roughly coincided with the beginning of the Uruguay Round.⁵ The significance of the Montreal Protocol lies in its demonstration that previously unthinkable measures can be adopted at the international level, resulting in a shift of perceptions concerning what might be achievable. This process continues to date, with the recent adoption of significant agreements: the Convention on Prior Informed Consent (PIC Convention), the Biosafety Protocol to the Convention on Biodiversity and the Convention on Persistent Organic Pollutants (POPS Convention). The climate regime and the fraught issue of environmental aspects of resource extraction represent the overriding challenges for the coming years. It is hard to imagine a successful round of trade negotiations unless some of the key environmental issues relating to climate and natural resource extraction are adequately addressed.

A broad consensus exists that international environmental governance needs to be restructured to make it more effective and efficient, and to improve the interactions between economic and environmental policy at the international level. Before making proposals for change, however, it is critical to carefully assess the current structure of international environmental management, as well as its sources of strength and weakness.

International environmental management is a major undertaking, encompassing bilateral, multilateral and global regimes, whether these are public, private or mixed in character. There are more than 300 multilateral environmental agreements—that is agreements involving more than two countries.⁶ The number of bilateral agreements is unknown but certainly runs into the thousands. Some of the regimes that have developed around these agreements are very large, involving thousands of public and private actors. Some are tiny, of concern only to a handful of officials. The human resources devoted to this enterprise are substantial, but they are dispersed. It is not unreasonable to assume that, taken together, international environmental regimes represent the largest policy enterprise at the international level in terms of human resources. Even though many of these resources are mobilized locally or subnationally they still form part of the broader international regime. One indicator of the dimensions of this undertaking is the *Earth Negotiations Bulletin (ENB)*, which covers the major events in the major environmental regimes, primarily the global ones. In recent years, *ENB* has been covering between 130 and 150 days of formal negotiations annually.

1.1.4. Trade and Environment It is necessary to view the relationship between trade and environment in the broader context of international economic policy. Trade policy is but one of several important elements in the architecture of international economic management. Some of the others are public regimes, such as the International Monetary Fund, the Bank for International Settlements and the World Bank Group; many are private and public-private regimes, such as the key stock and commodity markets around the globe, the international clearing system for financial transactions and the numerous international product chains that have become veritable regimes in their own rights.⁷ The overlap between these economic regimes and the environment is hardly surprising. Environmental management has complex economic consequences. Indeed, much of environmental policy can be viewed as a process to promote structural economic change as economic activities that are more benign (“sustainable”) are advantaged and

⁵ This agreement has been studied extensively. The most balanced account is: Reiner Grundmann, *Transnational Environmental Policy. Reconstructing Ozone*. (Routledge Studies in Science, technology and Society). London: Routledge, 2001.

⁶ Philippe Sands, *Principles of International Environmental Law*. Vol 1: *Frameworks, Standards, and Implementation*. Manchester: Manchester University Press, 1995.

economic activities that have high environmental costs are disadvantaged. The result is hopefully a steady shift in economic activities towards a more sustainable economy. In the process there will be some “winners” and some “losers,” even though economic growth may continue. The politics of the environment are characterized by the resistance of “losers,” who have every incentive to overstate their losses, and the silence of “winners,” who have little incentive to advertise their gains.

The relationship between environmental protection and international economic policy has been a stormy one, with conflicts surrounding international development efforts at all levels, the effects of structural adjustment programs and now trade policy. Yet the relationship between environment and the economy is so close that a 1996 assessment of the WTO discovered that virtually every activity undertaken by the WTO has potentially significant implications for sustainable development.⁸

1.2. Multilateral Environmental Agreements—International Environmental Regimes

Several years of research have begun to shed some light on the question whether and why international environmental agreements are effective.⁹ This has turned out to be a remarkably challenging task. On the one hand, there are numerous definitions of “effectiveness.” On the other hand, traditional international relations research strategies turn out to be of limited usefulness when dealing with MEAs.

At its most fundamental, an MEA is effective if the environmental problem it addresses is solved.¹⁰ In practice, however, MEAs—like domestic environmental measures—do not address environmental issues directly. They set standards that are assumed to be appropriate instead; consequently an MEA can be deemed effective because it enables the respect of standards, even though these may turn out to be inadequate to protect the

⁷ Konrad von Moltke, et al., *Global Product Chains: Northern Consumers, Southern Producers, and Sustainability*. Geneva: United Nations Environment Programme, 1998.

⁸ International Institute for Sustainable Development, *The World Trade Organization and Sustainable Development: An Independent Assessment*. Winnipeg: IISD, 1996

⁹ Oran Young, “The Effectiveness of International Environmental Regimes: A Mid-Term Report,” *International Environmental Affairs* vol. 10 no. 4 (Fall 1998), pp. 267-289

¹⁰ Based on Oran Young, *International Governance: Protecting the Environment in a Stateless Society*. Ithaca: Cornell University Press, 1994, pp. 140-160

environmental values. To attain these standards, MEAs frequently seek to modify human behaviour in specific ways or require the respect of certain procedures. Again, the MEA may be seen as effective if it achieves that goal even though the result may fall short of the desired goal. Most often the modification of behaviour is achieved by requiring the adoption of certain laws and other policy measures; an MEA that results in such laws and policy measures may be viewed as effective, whether or not changes in behaviour ensue. Finally, it is reasonable to ask whether an MEA is efficient, that is whether effectiveness is achieved at the lowest cost.

It is readily apparent that each of these forms of “effectiveness” requires a different research strategy, and that an MEA that is effective in only two or three of the above dimensions may be “ineffective” in the others. This explains at least in part why evaluations of the effectiveness of international environmental agreements can diverge quite dramatically.

It has taken several years to sort out the underlying research issues and to identify an approach that is appropriate to the task at hand. In this context, traditional forms of international relations research, focusing on states and their relations, are of limited use. Attention has shifted increasingly to “regimes” and the “institutions” they employ to achieve their goals.

This research can in turn instruct any attempt to strengthen MEAs, that is to increase their effectiveness.

1.2.1. “Regimes” and “Governance” It has become customary to speak of international environmental “regimes,”¹¹ recognizing that each environmental agreement has spawned a complex social structure. These regimes include individuals who have formal and informal roles in the agreement. Environmental regimes often reach deep into the fabric

¹¹ International regimes are defined as “social institutions consisting of agreed upon principles, norms, rules, procedures and programs that govern the interaction of actors in specific issue-areas.” Marc A. Levy, et al., *The Study of International Regimes. European Journal of International Relations* 1 (1995), pp. 267-330. -Rosenau, James et al., eds. *Governance Without Government : Order and Change in World Politics.* Cheltenham: Edward Elgar, 1999.

of individual countries, sometimes bypassing formal lines of governmental authority. It is increasingly clear that this ability of international environmental regimes to attract the allegiance of public and private actors at all levels is a significant source of strength and effectiveness.

Alongside regimes, the term “governance” rather than “government” has gained currency. Government implies a formally constituted public authority, working in a framework of explicitly defined legal norms. “Governance” recognizes that all forms of society operate in a rules-based structure, but that these rules can also be created by means quite different from those employed by government: private covenant, customary practice and even unwritten conventions of social behaviour all contribute to governance. Thus “government” is a special instance of “governance.”

This terminology can be used to begin to understand the many novel forms of social organization that are emerging in international society, not all of which are the result of government action. “World government” is a utopian vision, and not a particularly attractive one; “world governance” describes the reality that international society has reached a level of development where it cannot exist without complex and well developed systems of rules, however constituted.

The analytical constructs of regimes and governance reveal that the trade regime has a system of governance in which public and private actions are not well integrated. Over the past 15 years, the GATT/WTO has evolved, but the informal and private systems of governance for international economic relations have exploded, frequently leaving the formal structure groping for adequate responses. International environmental regimes, on the other hand, exhibit a much more diversified form of governance that recognizes the impossibility of achieving effectiveness through governmental action alone. It remains to be seen which approach will turn out to be the more robust in the long run.

1.2.2. “Institutions” and “Organizations” In addition to focusing on regimes, effectiveness research is increasingly looking at the “institutions” that are employed in

these regimes.¹² Institutions are social conventions or “rules of the game,” in the sense that marriage is an institution, or property, markets, research, transparency or participation. In effect, institutions are the building blocks of societies, frequently employed without much reflection but capable of significant variation from one culture to the next.

The confusion between the terms “institution” and “organization” is unfortunate. The distinction, however, is critical to any attempt to strengthen international environmental governance. Organizations are institutions that have a physical existence, a charter, an office and employees. Thus the church is both an institution and an organization. Or to put it differently, government is an organization for governance. Generally regimes will encompass organizations as well as institutions.

To focus on organizational issues rather than on institutions assumes that the necessary institutions are known and in place. That is not necessarily the case for MEAs. It may also not prove to be the case for the trade regime.

1.2.3. Problem Structure and Institutional Fit Focusing on the institutions that are employed by international (environmental) regimes raises the question of how to determine which institutions are needed for a particular task. The emerging response to this question begins with an analysis of problem structure, that is of the determinants of an issue. Research has not yet developed a nomenclature or an analytical framework for problem structure, resulting in largely descriptive methods.¹³ In the case of MEAs, problem structure is determined by a combination of objective factors that reflect the nature of the environmental values that are being protected together with economic and social factors that arise from the range of affected interests.

¹² The definition given in the Oxford English Dictionary is: 6. “An established law, custom, usage, practice, organization or other element in the political or social life of a people; a regulative principle or convention subservient to the needs of an organized community or the general ends of civilization.”

¹³ Konrad von Moltke, “Institutional Interactions: The Structure of Regimes for Trade and Environment,” in Oran Young, ed., *Global Governance. Drawing Insights from the Environmental Experience*. Cambridge, MA: MIT Press, 1997, pp. 247-272.

The natural environment forms an interlocking entity. In policy terms, however, the “environment” is in fact a series of relatively independent issues that exhibit widely differing problem structure. Environmental policy is essentially an attempt to map the natural environment onto social and economic institutions, an undertaking that requires dismembering it into manageable pieces. The result is a complex structure in which hazardous waste management and the control of atmospheric emissions, conservation and use of biodiversity and water pollution control form part of a single complex while each exhibits dramatically different problem structure. The consequence is that the institutions to address each of these issues differ quite widely even while some are common to most environmental regimes.

The need to incorporate objective, science-based factors as well as numerous social and economic interests is a unique characteristic of MEAs. It is a principal cause for the high degree of complexity that characterizes most environmental regimes. The result is generally an increase in the number and complexity of institutions. Economic regimes, on the other hand, can be constructed around a significantly more limited set of factors that reflect primarily the economic goal that is being pursued and the interests that are viewed as essential to its attainment. This will generally result in fewer institutions and more strongly focused organizations.

Depending on problem structure, a wide range of institutions may prove necessary. Some institutions are widely used in environmental regimes—for example science or participation—that play little or no role in economic regimes. Obvious conflicts arise when certain institutions are addressed in both economic and environmental regimes but are placed in a different organizational context depending on the issue—for example transparency or subsidies.

The key determinant for the effectiveness of a regime—whether economic or environmental—is the “fit” between problem structure and institutions employed. Issues of organization are second-order problems, flowing in large measure from the prior

decisions concerning institutions. It follows, however, that there is unlikely to be an ideal organizational template that will guarantee effectiveness.

This approach highlights the structural differences between the trade regime—which operates with a single set of institutions that are replicated in all trade agreements—and the environmental regimes that are forced to innovate institutionally to address the highly complex set of issues they confront. The underlying assumption is that these differences are fundamental and that any attempt to address the trade and environment interface that does not respect them is bound to fail.

This does not, however, imply that international environmental regimes do not need to be reformed and strengthened. Strong environmental regimes are essential to the success of the trade regime. To the extent that environmental issues are well managed in the appropriate regimes, there is less likelihood that conflicts will emerge with the trade regime. The trade regime must defer to environmental policy decisions that are recognized as necessary, even when these conflict with aspects of the trade regime. It is international environmental issues that are not adequately managed that threaten the trade regime since they transfer many of the conflicts that arise out of the problem structure of the issue into a setting that is known to be institutionally ill-equipped to handle such issues.

International environmental regimes are rich in institutions.¹⁴ The test of any efforts to strengthen international environmental governance—and the MEAs in particular—will be whether they respect the need to achieve a good fit between problem structure and institutions and whether the organizational environment that is created is conducive to the effectiveness of the institutions that are employed.

It is of course desirable to strengthen selected institutions in individual environmental regimes. Presumably this is the process that most international environmental regimes undertake as they seek to promote their effectiveness step by step. The current challenge is, however, to identify ways to strengthen the entire system, preferably by adopting

¹⁴ See the Annex for a discussion of some key institutions utilized in international environmental regimes.

measures that will have an impact across the entire spectrum of MEAs, or at least for a significant number of MEAs. To achieve this goal, it will be necessary to seek appropriate organizational changes while continuing to focus on the ultimate goal of institutional strengthening.

2. Strengthening International Environmental Regimes

Almost all discussion concerning the strengthening of international environmental regimes has focused on organizational issues.¹⁵ This paper argues that organizational issues are secondary to institutional ones, and that organizational changes only make sense if they result in more effective institutions.

Grouping all international environmental regimes in a single organization appears undesirable and inefficient.¹⁶ There is a great range of institutional variability between environmental regimes, largely as a function of the problem structure of these issues. The result would be a very large, unwieldy and essentially incoherent international organization that would probably prove ineffective. Equally seriously, if it proved effective it would wield remarkable power over the economic affairs of most countries, certainly much more power than any other international organization. It would be seen as intrusive and coercive while addressing an issue that requires extraordinary levels of cooperation.

An alternative has been the proposal to group the MEAs that are of concern from the perspective of the trade regime, those that involve trade rules or that have a high likelihood of interacting with the trade regime.¹⁷ This approach also has several drawbacks. Most international environmental regimes have a significant economic dimension, and any effort to render them more efficient is likely to accentuate this aspect. Consequently it is difficult to predict in which regimes these economic factors will

¹⁵ The most recent report, building on prior literature, is: Joy Hyvarinen and Duncan Brack, *Global Environmental Institutions. Analysis and Options for Change*. London: The Royal Institute of International Affairs (RIIA): September 2000. Available at: www.riia.org/Research/eep/eep.html

¹⁶ For a discussion of this issue see: *Global Environmental Politics* vol. 1 no. 1 (Spring 2001), which contains articles supporting and critical of the creation of a WEO.

¹⁷ This is the approach that underlies the agenda of the Committee on Trade and Environment of the WTO.

develop into specifically trade-related issues. Moreover the group of trade-relevant MEAs, currently 10–15 in number, exhibits no more coherence in terms of problem structure and institutions than the entire universe of international environmental regimes. Grouping in this manner would mean imposing an extraneous institutional priority in the form of an organizational framework and is likely to create more conflict rather than less, and decrease rather than increase the effectiveness of these international environmental regimes.

Nevertheless there can be little doubt that steps are needed to strengthen and focus the international system of environmental management and to render it more efficient and effective. The existing system has grown step by step over more than 30 years. It has grown in response to manifold pressures, including several dramatic and symbolic environmental events. Despite two major UN Conferences and what is probably the most successful Commission in the history¹⁸ of the United Nations, there has never been an occasion when the entire structure has been reviewed with a view to developing optimum architecture. The 1972 Stockholm Conference put the environment on the map, but it came at a time when no country had worked out its domestic arrangements for environmental management and consequently established an international structure that was ill suited for the task. The Brundtland Commission¹⁹ made the critical link between environment and development that was taken up by the United Nations Conference on Environment and Development (UNCED), but it also came well before any country had resolved the dilemmas surrounding these issues domestically. The organizational solutions proposed at the Earth Summit in Rio de Janeiro in 1992 can be described as minimalist at best.²⁰ Moreover, by then the environment had become an issue that was coveted by many agencies and consequently UNCED was characterized by much maneuvering to protect bureaucratic turf. The overall structure was hardly considered. It is urgent to launch a process that will provide adequate answers, but it is decidedly premature to propose specific organizational responses at this time.

¹⁸ World Commission on Environment and Development, commonly known as the Brundtland Commission.

¹⁹ *Our Common Future*. London: Oxford University Press, 1977.

²⁰ The complexity of the UNCED negotiations are clearly reflected in: Pamela Chasek, "The Negotiation System of Environment and Development," in: Bertram L. Spector, et al., eds., *Negotiating International*

In this situation there are two possible approaches to organizational strengthening of international environmental management. One focuses on problems and problem structure, on the assumption that issues that exhibit comparable problem structure will require comparable institutional and organizational responses. This represents a “clustering” of regimes. The other looks at certain institutions that recur in most international environmental regimes and seeks to pool the resources currently devoted to these activities with a view to improving quality and increasing efficiency.

Neither of these approaches offers a panacea. No clustering will appear perfect, so a political consensus is needed to achieve an acceptable outcome. Moreover the existing structure reflects a historical evolution that has developed a certain inertia. Every international environmental regime has its group of supporters—indeed, that is one of the key reasons for its effectiveness. These supporters will resist change. Among those who are likely to resist change particularly vigorously are the domestic administrative counterparts of an agreement who tend to have a proprietary attitude towards the

agreement. Finally an aspect of international agreements will come into play that is not generally recognized. The need for consensus makes every international agreement a product of compromise. The same need for consensus, however, makes that compromise much stronger than most anticipate. Consequently changing an agreement can be harder than adopting it in the first place—itsself a reason for addressing each environmental problem through a separate agreement rather than in a clustered manner.

2.1. Problem Structure

It is common practice to group international environmental agreements by topic, since this is preferable to the only alternative—chronological order—to create some structure in a universe of several hundred agreements. Like any system imposed on a structure that evolved without systematic intent, this requires a certain degree of arbitrary assignment. The purpose of the following grouping is not, however, to achieve a perfect system to

Regimes: Lessons Learned from the United Nations Conference on Environment and Development.(UNCED). London: Graham & Trotman, 1994.

categorize all international environmental agreements. Its intent is to form clusters of agreements not by subject area but by problem structure. While some clusters remain quite predictable, it emerges that some agreements that apparently deal with the same issue—the atmosphere or conservation for example—do not belong together because of major institutional differences that are rooted in differences in problem definition. Other agreements that appear to deal with institutional issues relevant to most problem clusters—the PIC Agreement for example—in fact address only the institutional needs of a single cluster.

The following proposal is designed to stimulate discussion rather than pretend to provide a definitive structure to the major international environmental agreements.

*2.1.1. The Conservation Complex*²¹ The conservation complex is characterized by two major global conventions whose relationship remains a matter of discussion, and a number of other global and regional agreements that are poorly integrated. While the complex would clearly benefit from a significant organizational overhaul, each regime has developed its own constituency, which is frequently willing to defend its independence. To represent a significant step forward, a Global Conservation Organization would need to provide additional institutional support to the protection of wetlands and other critical habitat and incorporate most regional conservation activities. An initial step could be the identification of critical conservation areas that are of importance to all or most of the conservation regimes and to focus resources on these areas.²²

*2.1.2. The Global Atmosphere*²³ The two agreements in this cluster involve such complex institutional arrangements that they merit separate organizational responses. While this represents an obvious clustering the prospects for achieving significant

²¹ World Heritage Convention; Convention on Biological Diversity; Convention on the Conservation of Migratory Species; CITES; Ramsar. The Convention to Combat Desertification, the FAO International Undertaking on Plant Genetic Resources, and the International Tropical Timber Agreement exhibit significantly different problem structure.

²² There are currently competing definitions of “critical area.” These differences would need to be negotiated so as to arrive at a single operational definition.

²³ UNFCCC; Vienna Convention and Montreal Protocol. LRTAP exhibits significantly different problem structure.

progress are burdened by the historical decision to set up UNFCCC as an essentially independent organization within the UN system rather than assign it to one of the competing claimants—primarily UNEP and WMO. The greatest hazard in clustering these two regimes lies in the risk of false analogies: it is widely assumed that the climate regime needs to draw on the model of the regime for stratospheric ozone. In truth the ozone regime represents little more than a point of departure for climate, which is vastly more complex and requires measures that impact much more heavily on the structure of the global economy.²⁴

*2.1.3. The Hazardous Substances Complex*²⁵ All of the agreements in this cluster are managed by UNEP, so that it already exhibits a certain coherence. The relationship to the OECD chemicals program needs to be rendered more explicit.

*2.1.4. The Marine Pollution Complex*²⁶ There are a large number of agreements in this cluster with several organizations involved, including IMO, UNEP and the LOS. Its current effectiveness is mixed.

*2.1.5. The Extractive Resources Complex*²⁷ This is unquestionably the most difficult of all environmental issues, and the one with the largest potential impact on the trade regime. At present, the international commodity regimes are largely mixed public/private structures designed to extract natural resources and to distribute them globally, for example the banana regime, the aluminum regime, the cotton regime and the forest products regime. Attempts to introduce environmental criteria, let alone sustainable

²⁴ David Downie, “Road Map or False Trail? Evaluating the ‘Precedence’ of the Ozone Regime as a Model and Strategy for the Global Climate Regime,” *International Environmental Affairs* vol. 7 no. 4 (Fall 1995), pp. 321-345.

²⁵ Bamako Convention; Basel Convention; Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail, and Inland Navigation Vessels; PIC Convention; Convention on Transboundary Effects of Industrial Accidents; Waigani Convention; POPs Convention. The FAO Code of Conduct on the Distribution and Use of Pesticides could be included since it has similar problem structure. Its institutional approach is, however, hardly comparable.

²⁶ IMO Conventions; Regional Seas Conventions; OSPAR Convention; Helsinki Convention.

²⁷ This complex includes most forestry agreements and public/private initiatives such as the Forest Stewardship Council or the Marine Stewardship Council. It also encompasses fisheries and agreements concerned with the environmental impacts of agriculture. For a theoretical background, see Konrad von

development criteria, into these regimes have met with limited success. Yet all of these regimes have a significant sustainable development dimension. The environmental impacts are largely focused at the extractive end, while funding for each regime, including for sustainable development, needs to come from the ultimate consumer rather than from public sources. Consequently the problems of these regimes relate as much to the functioning of international markets as to the possibility for developing international agreements covering their sustainability.

2.2. *Joint Institutions*

Several institutions recur throughout the structure of international environmental management. Even when not every regime utilizes them, they are so pervasive that it is worth considering the options for creating cross-cutting rules to ensure consistent application and to develop new organizational structures to promote greater efficiency and effectiveness.

2.2.1. Science Assessment Science assessment is the interpretation of research for policy purposes. Most countries use science assessment institutions to mediate the complex relationship between scientific research and public policy. Arguably the most characteristic institution of all environmental regimes—because without scientific research there can be no environmental management—science assessment offers a range of options for strengthening.

In general few international environmental regimes have the necessary resources to undertake science assessments of their own, or even to review science assessments undertaken at national level, with a view to identifying the specifically international interest. Apart from the Intergovernmental Panel on Climate Change, there are no fully developed science assessment mechanisms at the international level. The resources required to undertake full-scale science assessment on a major issue of international environmental concern are very significant. It makes much more sense to focus the necessary resources on one or two regimes at any one time rather than distributing them

Moltke, et al., *Global Product Chains: Northern Consumers, Southern Producers, and Sustainability (Trade and Environment 15)*. Geneva: United Nations Environment Programme, 1998.

widely, as occurs now. This represents a priority area that will require financial and organizational effort.

2.2.2. Transparency and Participation Transparency and participation have emerged as central institutions for all environmental regimes, a reflection of scientific uncertainty and subsidiarity. Public authorities, even local authorities, cannot have detailed knowledge about environmental conditions in specific locations, and some environmental phenomena emerge in the field before they become apparent in the laboratory. The institutions of transparency and participation have become the standard response to this dilemma. Indeed, they are central to the trade and environment debate since most concerned with environmental issues have come to expect certain levels of information and access as an integral part of all environmental regimes. The trade regimes, and the WTO in particular, do not meet these expectations, with resultant criticism.

The Århus Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters (1998) represents a first step towards developing universally applicable rules—although they do not apply to international agreements but rather are binding on countries party to the Convention only. The Århus Convention was adopted in the context of UN-ECE, and has not been signed by all members of that body.²⁸

An attempt to develop a broader international agreement applicable to all international environmental regimes is necessarily fraught with risk: asked to codify current practice, some countries are likely to seek to limit it.

2.2.3. Implementation Review Implementation review is the responsibility of the Conference of the Parties (COP) in most international environmental agreements. One instrument to promote greater coherence among these regimes, and within their member states in matters of international environmental management, is to institute joint implementation review of individual countries, as is done in the WTO context with the Trade Policy Review Mechanism. Such a review process would require some level of

²⁸ Canada, Georgia, Russia, and the United States have not signed.

cooperation between the regimes involved and at the same time foster greater coherence in the implementation efforts of the countries that are being reviewed.

2.2.4. Dispute Settlement Dispute settlement is perhaps the issue most frequently mentioned as distinguishing trade regimes from environmental ones. It is also frequently mentioned as an area where environmental regimes could benefit from further institutional strengthening. Yet there is no evidence from environmental regimes themselves that this is an area of great current concern. In practice, the International Court of Justice (ICJ) serves as a dispute settlement mechanism of last resort. Not only has it not been used, there are few cases where it has been explicitly avoided and in those instances alternative forms of dispute settlement have emerged.

The assumption that stronger dispute settlement in environmental agreements will relieve pressure from the trade dispute settlement process again assumes a parallelism between trade and environment that does not exist. In the trade regime, dispute settlement is the premier implementation tool—and to a significant degree the pathway by which interpretation of the agreements can be adjusted²⁹—and consequently the place to which issues such as the environment must migrate. Environmental regimes pursue effectiveness and implementation through entirely different institutions and there is no reason to assume that the availability of a reinforced dispute settlement mechanism will change that in any way.

The nature of the legal obligations entailed in MEAs—and the structure of the ensuing regime—is such that environmental regimes rarely generate the kind of state-state dispute that is characteristic of the WTO system. Appropriate remedies would be difficult or impossible to craft. When such disputes arise, they tend to migrate directly to the Conference of the Parties of the relevant agreement since they require a process of negotiation rather than adjudication. Environmental disputes revolve around the actions

²⁹ This is an area in which theory and practice diverge in the trade regime. Theoretically dispute settlement should not be a vehicle for interpretation of the WTO agreements. In practice this has repeatedly occurred, for example in the evolving interpretation of Art. XXb and XXg. See John Jackson, “the Legal Meaning of a GATT Dispute Settlement Report: Some Reflections,” in: John Jackson, *The Jurisprudence of GATT & WTO. Insights on Treaty Law and Economic Relations*. Cambridge: Cambridge University Press, 2000, pp. 118-132.

of individuals in one country who cause damage in another; around the failure of countries to implement their own legislation; and around the interpretation of factual information that can itself be in dispute. Such disputes require different forms of dispute settlement.

Environmental disputes between private parties represent a challenge to the international legal system. The protracted dispute about salt pollution of the Rhine is emblematic for these issues. The issues such private disputes raise are issues of general international law rather than of the institutions of environmental regimes. They need to be addressed in other forums.

The disputes that can arise in international environmental regimes concern lack of implementation of domestic environmental law, in particular when it implements international obligations. One state cannot launch a complaint about such non-compliance against another because no state is flawless in this regard. The assessment of the adequacy of domestic implementation is a matter that requires careful balancing of priorities. It is not a matter of interpreting international legal obligations, and the remedy is not a change in the rules, domestic or international, but a change in the functioning of domestic institutions. Consequently the only institution that has been identified to launch such disputes is that of citizen complaints. This institution has been used in the European Union and in NAFTA with mixed results but undeniably it has strengthened international environmental management

2.3. Sustainable Development

The fact that environment and development do not need to be in conflict has been reaffirmed many times, and there is much objective evidence to support this assertion. Yet the perception remains that countries of limited means face a stark choice between these two policy priorities. Wealthier countries are thought to be able to afford the luxury of achieving environmental quality and development at the same time. This gap between evidence and perception represents a challenge as well as an opportunity. It must be assumed that relatively modest incentives can generate quite significant results, and that a substantial proportion of these cases can be self-sustaining in the long term. The

challenge is to identify these opportunities and to support them through the available international institutional and organizational arrangements, which inevitably exhibit rigidities, inefficiencies and high transaction costs.

2.3.1. Development Assistance Bilateral and multilateral development assistance has been the subject of a long process of criticism and review from the environmental perspective, augmented since 1992 by the broader vision of sustainable development. Despite extensive efforts at reform it remains true that much official development assistance supports environmentally unsound or unsustainable activities. Apart from the direct impact of each particular project the symbolism is hard to overstate. As long as developed countries, directly or through multilateral agencies, continue to pour money into projects that are questionable from the perspective of sustainability, particularly when these projects involve their own companies and services, official declarations in favour of sustainable development will carry little weight with developing countries.

Official development assistance faces a multiple crisis at the present time, arising from the changes wrought by globalization. As private capital flows take up the most profitable projects in developing countries, the economic viability of publicly funded projects becomes increasingly tenuous. This risks decreasing public support for the remaining activities. A sharp focus on the transition to sustainable development holds some promise of attracting broader support from citizens in developed countries.

2.3.2. Markets The process of globalization has transformed markets. A central tenet of environmental policy has been the polluter-pays principle that involves the internalization of environmental costs as a means of harnessing market forces to the goal of environmental improvement. This has been achieved by a range of institutional mechanisms, ranging from regulation to the creation of positive and negative financial incentives. International markets require such mechanisms as an essential discipline to ensure that environmental outcomes are acceptable. The result is a pressing need for the integration of international environmental regimes with international economic regimes. This need is one of the driving forces for any strengthening of international environmental regimes.

2.3.3. *Investment* Investment is perhaps the most important of all economic institutions for sustainable development. The transition from less to more sustainable patterns of economic development is a process of structural economic change. It is terrifyingly expensive if it is viewed as a cost function. Viewed as part of the investment process it becomes possible to recognize that countless measures for the benefit of the environment are in truth economically productive. The goal of public policy must be to steer investment activity in that direction and to ensure that such investments are secure, risks reasonably calculable and the opportunity costs acceptable. This goal will involve some international investment measures of a general nature, for example a framework agreement on investment, and some investment measures that are firmly linked to a significant goal of international public policy, such as conservation and environmental management. This can be achieved by the inclusion of investment provisions in international environmental regimes. In this manner the central task of public policy is to balance investor rights and obligations.

2.3.4. *Subsidies* Many developed countries have utilized subsidy schemes extensively to install the basic infrastructure of environmental protection—to the extent that the WTO Subsidies Agreement provided special treatment for such programs. Such subsidy programs entail certain risks since they can create a situation where even economically viable environmental investments are not undertaken without subsidy. Moreover, every temporary subsidy program risks becoming permanent, thereby distorting essential market signals. In general, these subsidy programs have been effective in accelerating the installation of needed infrastructure and in reducing emissions faster than might otherwise have been possible.

More recently, environmentally harmful subsidies in extractive industries have become a focus of attention. In practice it can be extremely difficult to determine the sustainable yield of some resources, fisheries for example, and subsidy programs that aim primarily at maintaining incomes for certain groups will frequently result in overexploitation. Similarly it has become increasingly evident that the prices for fossil fuels do not result in the proper internalization of environmental costs. The effects of such underpricing are

comparable to the effects of subsidies, although the precise level of subsidy can be very hard to calculate. The elimination of such subsidies represents an opportunity for environmental management and trade policy alike, but it is proving extremely difficult to achieve.

2.3.5. Property Rights It has long been recognized that appropriately defined and secured property rights constitute an essential element of a sustainable development strategy. Markets cannot function without clear property rights. Yet there are key environmental values that do not lend themselves to private appropriation. There is little that international environmental regimes can undertake specifically to protect property rights, other than those in goods created by international action, for example greenhouse gas emissions or property rights in tradable permits.

2.3.6. Liability Assignment of liability represents a market mechanism to promote prudent environmental management practices. At the same time, the existence of significant levels of liability can lead to the development of insurance markets to pool risk and thus to create private, market-driven enforcement structures. Increasingly such liability can entail parties located in different jurisdictions so that an international framework needs to ensure that it is properly assigned in specific instances that are environmentally significant.

2.3.7. Innovation Technology transfer is the Achilles heel of international environmental management.³⁰ Innovation is the obverse of the technology transfer process. Innovation is also widely recognized as one of the important motors of economic growth. Environmental management engenders significant amounts of innovation that in turn can become the source of sustainable economic growth. At present the ability to stimulate innovation, however defined, is unequally distributed, with developing countries decidedly at a disadvantage. Intellectual property rights (IPR)—now an integral part of the WTO—are an essential aspect of innovation since market economies tend to produce less innovation where IPR are not secure. Presumably IPR systems offer the best

prospects for market-based forms of technology transfer. Identifying the linkages between IPR and environmental technology transfer remains an important challenge for international environmental management.

3. Upcoming Environmental Negotiations

It has proven imprudent to assume that any given environmental negotiation is the last. Yet the international environmental agenda appears increasingly stable—reflecting the environmental agenda at the domestic level. It is important to recognize the dynamic nature of the existing environmental agreements. Virtually all of them are constructed as a continuous process to permit adjustment as new insights emerge, or as the political will develops to take difficult decisions. Indeed, it is hard to identify any environmental regime that does not remain in need of extensive development.

Clearly the climate regime requires the greatest effort and attention in the coming years, but the saga of persistent organic chemicals remains but partially covered and largely unaddressed, and the struggle to balance conservation needs with a burgeoning human population will intensify rather than diminish. For the foreseeable future, however, the existing agreements provide a framework to take up issues as they may arise. With strengthening, it may even be capable of identifying problems in a more timely manner, leading to proactive measures.

3.1. The Interface with Economic Policy

Many of the most important environmental decisions will increasingly be made in fora that were not originally designed to address environmental matters. Just as environmental policy promotes structural economic change so economic policy has inescapable environmental consequences. As more economic policy is made at the international level

³⁰ The most recent discussion is: Intergovernmental Panel on Climate Change, *Methodological and Technological Issues in Technology Transfer*. Cambridge: Cambridge University Press, 2000. Interestingly, this publication does not discuss the TRIPS agreement.

it will become necessary to address the environmental consequences of such decisions in a much more systematic manner.

This observation covers virtually any international economic policy measure. The pattern is by now well-established: better economic policy creates opportunity for environmental improvements. Without appropriate measures, these are missed opportunities since economic policies make no distinction between environmentally sound and environmentally unsound economic activities. Introducing such distinctions entails the risk of limiting the effectiveness of the measures in economic terms, for example by creating opportunities for unjustifiable discrimination in the trade regime.

As a general rule of thumb the environmental consequences are most evident when economic policy has direct impacts on the production, transformation, consumption and disposal activities that engender environmental consequences. Yet even the most arcane economic policy measures—tax law, or control of the money supply, for example—can have unexpected environmental consequences.

Constructing an international institutional architecture that is capable of taking the relationship between economic and environmental policy into account is perhaps the most urgent task of current international environmental management. It is also a pressing need if needed economic policy measures are to continue to attract the kind of public support that is essential.

The central dilemma in fashioning this architecture lies in the need to balance conflicting goals of public policy, essentially legitimate private interests and public goods. This is an activity of which international regimes are typically incapable, with the notable exception of the European Union. It involves the development of institutional mechanisms whose actions can be accepted as legitimate by citizens in countries with widely varying traditions of governance.

Achieving the necessary architecture will require changes in economic as well as environmental regimes. It will presumably involve creating greater checks and balances

at the international level so that no single organization can act without the consent of other affected parties. And it will require a dispute settlement process that is accessible, transparent, balanced and legitimate. In other words it implies that the tendency to overload the WTO must stop, and may need to be reversed. Certainly investment or competition rules should not be included in the WTO.³¹ The WTO dispute settlement process may need to be removed from that organization and given greater independence to ensure that it can take other priorities into account.³²

³¹ Konrad von Moltke, *An International Investment Regime: Issues of Sustainability*. Winnipeg: IISD, 2000.

³² Konrad von Moltke, "WTO Reform: Time for an Independent Dispute Settlement Mechanism?," in: *BRIDGES* vol. 4 no. 5 (June 2000).

3.2. *Natural Resources Extraction*

The other broad domain likely to require significant international policy attention in the coming years concerns the environmental consequences of resource extraction: agriculture, forestry, fisheries and mining. Since this is also an area of interface between environment and economy, it has proven intractable with currently available institutional means.

Resource extraction is the point at which a part of the environment becomes an economic good. In practice, commodity markets price the environment on a daily basis. Moreover resource extraction typically has extensive environmental consequences because it inevitably occurs in the natural environment and not in a controlled situation like manufacturing.

The difficulties that exist in these areas are best illustrated by a paradox. High commodity prices have potentially harmful environmental consequences (related primarily to increased extraction); and low commodity prices have potentially harmful environmental consequences (related primarily to abandonment of production and producers' lack of resources to address the environmental consequences of their activities. This suggests that it is not just a matter of "getting the prices right" and that solutions will need to incorporate more than just economic criteria.

The task in this area is to develop institutions that help to protect essential environmental values outside the economic sphere even while permitting market forces to function in the allocation of available resources within the economy.

4. Conclusions

There is a need to strengthen international environmental agreements. While there may be a temptation—and political pressures—to seek a few dramatic steps, the existing system of international environmental management is so large and complex that it will take a series of steps—some modest; some quite dramatic—to achieve the necessary

strengthening. It is certainly possible to combine several of these measures into a single package to increase their impact, to heighten their political attractiveness and to facilitate the inevitable trade-off that must occur in any negotiation.

4.1. Strengthening Regimes by Strengthening Regime Institutions

Institutions are at the heart of international environmental regimes and the scope and variety of institutions that come into play in them is quite remarkable. The preceding sections have suggested a number of steps to strengthen institutions, either agreement by agreement or through the creation of an organizational setting that can provide certain institutions across the entire spectrum of international environmental regimes, in particular science assessment, environmental monitoring and assessment and implementation review.

Strengthening institutions is necessarily a step-by-step process once the goal itself has been properly identified. It must occur in individual environmental regimes and at a relatively high level of aggregation. Difficult as it is, institutional strengthening may prove a better strategy than large-scale organizational change.

4.2. Organizational Change

The existence of many small environmental regimes—and the dispersion of their administrative functions—is widely perceived as dysfunctional. Organizational change for its own sake will be widely resisted, and justifiably so. Any process aiming at consolidation and integration of international environmental functions must clearly identify the gains in effectiveness that are expected and justified.

UNEP must stand at the heart of any organizational restructuring of international environmental management. It is the only UN organization with a single and comprehensive environmental mandate. The task of “coordinating,” however expressed, that stood at the origin of UNEP is an impossible mandate for reasons largely related to the inadequacies of the current structure of international organization.³³ UNEP needs to

³³ See Konrad von Moltke, “Why UNEP Matters,” in: *Green Globe Yearbook 1995*, London: Oxford University Press, 1995.

have responsibility for the administration of significant parts of the UN environmental effort, as well as access to substantial project funding as the only instrument to which other international organizations are likely to respond in a constructive fashion. This may involve transforming UNEP into a specialized agency of the United Nations, a step that would give it access to assessed contributions while leaving it free to pursue additional voluntary funding.

Organizing science assessment and implementation review are tasks for which UNEP could be suitable. UNEP would be in a position to shift funds from one regime to another in a manner no other organization could accomplish.

In practice, it may prove difficult to extricate UNEP from its current dilemma. As the only major UN organization to be headquartered in a developing country—a 1972 decision that expressed a certain disdain for UNEP at the outset, and one that has not been replicated, even with organizations whose primary mandate involves developing countries—UNEP is a powerful symbol to developing countries while it attracts grudging support at best. In general, UN organizations headquartered outside New York and Geneva have depended heavily on the patronage of the country in which they are located.

With its current location, even modest administrative acts can become major hurdles for UNEP. It is hard to envisage a structure in which UNEP retains its current location and acquires additional authority over significant parts of the international environmental management structure, even if those parts are located elsewhere and enjoy a measure of autonomy. It is equally difficult to envision new organizational structure that would further marginalize UNEP. That approach was tried at UNCED and has contributed significantly to the current state of dissatisfaction.

Theoretically in the era of globalization and new media, location should play a lesser role. In practice that is not the case for private or for public organizations, both of which ultimately depend on interaction between people. Where there is trust, or where authority is indisputable, interaction can occur electronically but it takes personal interaction to create either authority or trust.

There is a growing debate about the creation of a World Environment Organization (WEO). This paper has set out the reasons why a comprehensive organization dealing with all environmental issues at the international level is not possible. It also provides some guidance on the functions that can be added to those currently assigned to UNEP to create an entity that might reasonably be called a World Environment Organization. Presumably UNEP would become a division of a new WEO with headquarters in a location that increases, rather than decreases, leverage.

4.3. A Standing Conference on Trade and Environment

Many of the proposals to create a World Environment Organisation take the WTO as a starting point or template and seek to create a structure that will better manage the relationship between trade and environment at the international level. There are a number of reasons to doubt that this would actually happen, relating primarily to the problem structure of the two issues—trade and environmental management—and the differences in institutional characteristics of the organizations that are likely to emerge to manage them.

The World Conservation Union (IUCN) and the International Institute for Sustainable Development (IISD) have suggested the creation of a Standing Conference on Trade and Environment, a body designed to specifically structure the environmental interest in trade policy and to develop solutions at the interface. Such a body would need to straddle the two policy areas.³⁴ It would not be responsible for actually managing environmental resources but rather represent a structure to focus the international public interest in the environment in a fashion that permits the development of needed market disciplines to integrate trade and environmental interests.

4.4 The Prospects for Strengthening

This is a period when doubts are increasing about the benefits of globalization, and the environment is inextricably linked to globalization. The need to develop effective

³⁴ IISD and IUCN, *A Standing Conference on Trade and Sustainable Development* (1997). Available at: <http://www.iisd.org/trade/scte03.htm>.

international regimes for environmental management has been, alongside technological change and the emergence of international markets, one of the principal drivers of global governance. It could follow that stalemate in the trade regime and the lack of progress on reviewing the international architecture for economic management following the Asian crisis suggest that there is little prospect for strengthening environmental regimes.

Actually the opposite may be true. The international environmental agenda remains that part of the broader agenda of international governance that continues to enjoy widespread public support. In some areas, notably trade and investment, moving first on environmental issues could serve to improve the prospects for action on the broader economic agenda. It may be difficult for economic policy makers to accept that their agenda has become hostage to environmental interests. Yet this resistance may be blinding them to the opportunity that exists to move forward by promoting a strengthening of international environmental regimes.

At the same time it would be imprudent to underestimate the forces that impede the necessary strengthening of international environmental regimes, among them inertia, fear of change and the overwhelming need to convince developing countries that this is in their own best interests. In this regard international environmental regimes are in the same dilemma that faces the trade regime: there will be no effective progress without the active support of developing countries.

This combination of opportunities and obstacles provides an extraordinary opportunity for leadership. But it will take a broadly based, carefully constructed, substantive agenda to attract the necessary support. Such an agenda must be firmly based on the strengths of the current structure and hold visible promise of more effective action following the strengthening. This paper has sought to show that such an agenda exists and is composed of a number of measures that, taken together, could represent an important step towards the ultimate goal of sustainable development.

Summary of Proposals for Strengthening MEAs

1. Cluster multilateral environmental agreements in the conservation complex.
2. Cluster multilateral environmental agreements in the global atmosphere complex.
3. Cluster multilateral environmental agreements in the hazardous substances complex.
4. Cluster multilateral environmental agreements in the marine pollution complex.
5. Create multilateral environmental agreements in the extractive resources complex.
6. Create a fund for science assessment that can be devoted to one or two MEAs on a rotating basis.
7. Codify current practice with respect to transparency and participation.
8. Establish a common implementation review mechanism for international environmental agreements.
9. Create additional opportunities for citizen-initiated review of the implementation of domestic environmental measures relevant to multilateral environmental agreements.
10. Focus development assistance more sharply on the goal of sustainable development.
11. Construct an international institutional architecture that is capable of taking the relationship between economic and environmental policy into account.
12. Include investment rules in select MEAs.
13. Eliminate environmentally-perverse subsidies, for example in the energy sector.
14. Ensure that liability is enforceable internationally.
15. Review the TRIPS Agreement to ensure that it actively supports innovation that promotes sustainable development.
16. Develop institutions that help to protect essential environmental values outside the economic sphere while permitting market forces to function in the allocation of available natural resources within the economy.
17. Strengthen the United Nations Environment Programme to give it a more central role in the UN environmental management structure.
18. Create a Standing Conference on Trade and Environment.

Annex

Institutions in International Environmental Regimes

The universe of multilateral environmental agreements (MEAs) comprises more than 100 regimes, some of which involve several agreements and most of which continue to evolve. A review of this universe reveals a remarkable diversity of institutional approaches. The range of problems being addressed is large, and the number of institutions being adopted is surprising, including some highly innovative arrangements. As argued above, the point at which to initiate discussion of strengthening international environmental regimes is at the level of the institutions they employ, rather than at an organizational level. This offers a wide range of opportunities for improvement and strengthening.

A.1. Science.

To the extent that problem structure is determined by the objective characteristics of the environmental issue under consideration, the starting point of every environmental agreement must be the institution of scientific research. The major regimes exhibit a wide range of approaches to the necessary scientific research but all have a foundation in natural science. This alone distinguishes them sharply from international economic regimes.

Two major steps need to be considered in relation to incorporating scientific research into policy. One concerns the conduct of the necessary research. The other concerns the institutions that assess the results of this research with a view to supporting policy action.

Research funding remains the domain of national governments. This is ironic, given the self-image of much scientific research as being free from national bias. Yet the essential institutions of scientific quality control are managed in relation to national funding sources, even though they may involve individuals from other countries. Few countries can afford to support research of international stature across the entire range of environmental issues so that priorities for funding must be set. A mechanism could be sought to discuss these priorities and to ensure that research concerns that are essential from an international policy perspective are not neglected. This is a function that the

International Council of Scientific Unions (ICSU) was designed to fulfill but it has generally been ponderous and poorly integrated with the policy process.

Science assessment, on the other hand, is a regime function, since the institutional framework of assessment can significantly impact the results of the process. Few international environmental regimes have an adequate science assessment process. A full review of the science assessment institutions of international environmental regimes and their adequacy for the purposes pursued is essential. The legitimacy of this process depends on its being perceived as open and fair by all constituencies. This requires the participation of researchers from a wide range of backgrounds.

Burden sharing with respect to science assessment creates the problem of non-participating countries, that is countries that contribute none of the research and are not directly involved in the science assessment. Many governments are hesitant about taking significant policy measures based on science and science assessment carried out in other jurisdictions. Developing countries are generally under-represented in the science assessment process. One strategy to improve this situation is to support developing country research with a view to facilitating the participation of developing country researchers in the science assessment process.

Frequently problems are encountered because of the costs associated with large-scale science assessments. Few international environmental regimes have the resources to support such assessments on a continuing basis. Yet most environmental regimes require periodic review based on a full-scale science assessment. Setting up a process that shifts the needed resources from one regime to the next on the basis of some agreed criteria of priority could provide a practical solution.

A.2. Precaution

The precautionary approach is a central institution of environmental management. Only rarely is the scientific evidence concerning environmental conditions entirely unambiguous. The decision to act, however, needs to be made before the crisis is manifest since the environmental damage will often be irreversible. The challenge facing many international environmental regimes is to institutionalize and operationalize precautionary action. A surprising number of international regimes have developed some steps to address the issue of precautionary action but these are rarely adequate and are frequently in need of review and revision.

It is essential to know much more precisely how different countries deal with the issue of precaution. This can be discovered through research, but at a certain point it becomes essential to submit these issues to active negotiation to identify the factors that are essential and those that can be handled in a more pragmatic manner. The Biosafety Protocol represents a first step in this direction but it is desirable to seek out other fora where the issues surrounding precaution can be negotiated in a constructive manner.

Most of the countries that confront the issues of precaution at an early stage are members of the OECD, which is ideally suited for the exploration of important policy issues prior to action. To fulfill this role, however, the OECD would need to adopt much more robust forms of transparency and public participation.

Most environmental regimes utilize broad rules governing participation as an element of precautionary management. The broad access that is frequently granted interested parties to environmental regimes also reflects the fact that the information base for policy action remains uncertain. It is consequently impossible to predict reliably which interests will be affected in what ways, leading to a situation where interested parties are largely permitted to identify themselves as an issue evolves and policy implications become clearer.

A.3. Efficiency

Efficiency has two dimensions in environmental regimes, a sustainability dimension and a purely economic one. From the perspective of sustainability it is essential to ensure that natural resources are used in a manner that ensures their equitable distribution and their availability to future generations. Frequently this involves efforts to limit the taking of environmental resources. The economic dimension seeks to ensure the availability at lesser cost of goods that have a market value. While the two goals can be congruent, this is not necessarily the case. Achieving efficiency, whether from the perspective of sustainability or the narrower economic outlook, requires significant institutional resources to ensure that the necessary balancing of priorities and outcomes can occur. It is beyond the capabilities of most international (environmental) regimes.

Nevertheless a number of international environmental regimes have embarked on the process of creating institutions capable of promoting greater economic efficiency while safeguarding the essential values of the regime. This is particularly true of the climate regime with its flexibility mechanisms.

Agreements that address problems of natural resource extraction have had a particularly difficult time moving toward greater efficiency while maintaining the essential balancing functions of sustainable development. This includes virtually all commodities. This is an area that would benefit from greater policy attention, which would need to encompass the issue of environmentally damaging subsidies, the prospects for creating economic incentives to promote environmentally desirable outcomes and the functioning of commodity markets from the perspective of sustainable development.

A.4. Transparency

It is widely acknowledged that transparency is an essential institution of environmental management, reflecting the central role many non-governmental actors play in most of the environmental regimes. Transparency permits participation without forcing a prior determination on who is to participate.

It is surprising that until recently few international agreements incorporated explicit rules governing transparency. In most instances the practice of transparency has been established by the application of UN procedural rules, often modified to reflect the special needs of the individual regime. This is also an issue on which some

environmental secretariats have taken independent initiatives to ensure wide diffusion of their documents. There are few complaints concerning the transparency of international environmental regimes, reflecting the fact that even where problems exist the practices of these regimes in matters of transparency are among the very best in international society.

It is important to safeguard transparency in international environmental regimes, as this is a vital component of their effectiveness. It is clearly undesirable to reopen agreements just to codify practices that are widely perceived as being satisfactory. Yet it appears desirable to ensure that the existing practices are firmly grounded in the legal texts. Opportunities to provide general sanction for these practices should be taken when opportunities arise, for example when agreements are reviewed or reopened for other reasons. This involves some risk since there are always some countries that are liable to dislike the current degree of transparency and will view this as an opportunity to roll it back.

The issue of transparency is particularly significant in relation to trade regimes that are currently struggling to rebalance their rules governing transparency, in response to pressure from environmental interests among others. The lack of clarity surrounding current practices in environmental regimes renders more difficult the task of developing approaches to this problem in the trade regimes that will satisfy environmental concerns.

The *Earth Negotiations Bulletin* represents a unique resource that contributes directly to the transparency of these regimes. This is in particular the case when *ENB* reporting includes coverage of otherwise closed meetings.

A.5. Participation

Participation has become a central feature of international environmental regimes. Indeed, UN practices have evolved several times in response to the specific needs of environmental regimes or of the UNCHE in 1972 and UNCED in 1992. Participation is itself an element of precaution (see above). As in the case of transparency, explicit provisions in agreements that address participation are relatively infrequent so that the current situation reflects established practice rather than legal prescription. This may be an adequate legal basis for the time being.

*A.6. Subsidiarity*³⁵

The institution of subsidiarity represents one of the central dilemmas of environmental management and one of the biggest challenges to international regimes. Traditional international organizations rest on the principle of state sovereignty. In other words how states organize internally to meet international commitments is of no concern at the international level. This assumes that states can fulfill their obligations by themselves—and is reflected throughout the institutional structure of trade regimes. The dilemma faced by environmental regimes is a dual one: there are international public interests that are not adequately reflected in the action of individual states; and there are international environmental issues that require the active cooperation of states and subnational jurisdictions employing international institutions within an international organizational framework. This is frequently reflected by the requirement imposed on states to ensure that all subnational jurisdictions conform to the international standards and by the requirement to identify national focal points that effectively become part of the organizational structure of the regime in question. In other words these (national) organizations assume an international organizational dimension.

Subsidiarity is equally a key institution for environmental management within countries, requiring continuous cooperation between several levels of governance. For example the North American Great Lakes regime involves international negotiations between the federal governments, which in turn implicate certain states and provinces, which in turn must involve affected local communities. The institutional response has been lakewide management plans (LAMPs) and the identification of areas of concern with associated remedial action plans (RAPs).

The existence of an international dimension to environmental management issues that are shared domestically between jurisdictions can cause complex jurisdictional problems, to the point of drawing into question the ability of the national government to meet its international obligations. International affairs are the exclusive competence of most national governments, providing them with leverage over domestic developments that

³⁵ Subsidiarity recognizes that action will occur at different levels of jurisdiction, depending on the nature of issues. It assigns priority to the lowest jurisdictional level consistent with effectiveness. International policies should be adopted only when this is more effective than policy action by individual countries or jurisdictions within countries. International Institute for Sustainable Development. Trade and Sustainable Development Principles. Winnipeg: IISD, 1994 (<http://www.iisd.org/trade/princip2.htm>).

they do not otherwise possess under the respective constitutional arrangements. This dilemma is particularly pronounced in federal countries—Australia, Brazil, Canada, Germany, Italy and the United States come to mind. These countries need to develop their own institutional responses to the dilemma of subsidiarity.

These problems become particularly acute whenever an issue characterized by subsidiarity—like the environment—conflicts with an issue that is organized hierarchically—like trade. When trade disputes arise it is always possible to move them to the next higher level of hierarchical concentration, which has the authority to act precisely in those areas that lower levels cannot settle. The result is a “clean” structure, in which roles are clearly assigned and issues can be moved to the level at which they can be resolved. This is not the case when it comes to the environment: as decisions are taken further and further from “the field” they lose the specificity that is characteristic of most environmental disputes. They are taken on the basis of general principles of the regime rather than the specific needs of a given environment, resource or species. In most countries, elaborate institutional structures have been developed to address this dilemma. These structures are often missing or deficient at the international level, with the result that decisions are taken on the basis of what is widely viewed as incomplete information.

It is important for large or federal states to address the problems of subsidiarity posed by international environmental regimes directly and systematically. Most such states by now include representatives from subnational jurisdictions in their delegations to international negotiations but their impact on the outcome is typically minimal. It appears desirable to create a domestic institutional framework to promote the engagement of key domestic jurisdictions in international environmental affairs and to foster more effective domestic implementation of international obligations.

A.7. Environmental Assessment

The ultimate goal of international environmental regimes is to protect or improve the natural environment. This goal is translated through complex institutional processes into operational requirements, legal provisions and the development of certain standards for human activities, for example emission standards or product standards. There is never an assurance that respect of these standards will actually achieve the desired environmental

goal. This reflects both scientific uncertainty and political limitations of action. Indeed, in some regimes standards have been adopted that have been known to be insufficient to attain the desired outcome, in particular in the early stages of regime formation when there is a greater degree of uncertainty about the need for action. Environmental monitoring that leads to environmental assessment is essential to ensure that the compromises inherent in any political process do not lead to environmental conditions that are not only at odds with the stated goals of the regime but represent significant threats to human, animal or plant life.

The Convention on Long Range Transboundary Air Pollution and the Great Lakes Water Quality Agreement exhibit what are probably the most substantial international efforts at environmental assessment in the framework of a continuing regime. Both rely heavily on the active participation of public authorities at all levels in producing the essential environmental information that is needed to guide the regime. The Great Lakes regime also relies on public participation to a significant degree.³⁶

Environmental assessment represents a further level of precautionary action, recognizing that initial steps taken to protect the environment may prove inadequate and that it is consequently important to seek indications of impending problems. The continuing assessment of the environment seeks to ensure that unanticipated problems are identified in a timely manner.

International environmental assessment functions are generally not well developed, since most international environmental regimes have focused on regime development based on existing needs rather than on the complex issues associated with implementation and the identification of yet unrecognized needs. In most international environmental regimes, the responsibility for environmental assessment rests with the COP. In general, few specific institutional arrangements have been instituted to structure this process at the international level. In consequence, environmental assessment tends to be carried out by individual members, frequently reflecting their respective domestic interests and priorities. There appear to be two options available at this time. It is possible to reinforce national assessment procedures while ensuring that they reflect the international interest.

³⁶ Lee Botts and Paul Muldoon, *The Great Lakes Water Quality Agreement. Its Past Successes and Uncertain Future*. Hanover, N.H.: The Institute on International Environmental Governance, 1997.

This should involve some degree of explicit burden sharing among members of a regime. Alternatively international assessment procedures could be developed. These would presumably reflect the international public interest more comprehensively and could prove to be economically more efficient.

A.8. Reporting

The flow of information between levels of jurisdiction is critical in a policy structure subject to subsidiarity. For this reason, numerous environmental agreements have extensive monitoring and reporting requirements. These can include reports on all aspects of the environmental process, such as legal requirements, information about actions undertaken by public and private authorities under the relevant legal mandates, information about emissions into the environment, information about pollutant loads, and information about the consequences of all these factors for environmental quality, the ultimate issue of concern.

Most international environmental regimes experience difficulties with reporting requirements, primarily related to failure to report or the provision of insufficient information. These difficulties frequently originate from the structure of accountability that underlies the reporting system: sovereign states control the central institutions of a regime and are generally unwilling or unable to question the reporting activities of other sovereign states. One response to this dilemma is the introduction of independent public or private agencies responsible for assembling reports and preparing these for review by the COP. Such agencies would be under a contractual obligation to the regime, and only to the regime and might consequently pursue issue of underreporting or failure to report more vigorously than public authorities or international officials dependent on public authorities might be willing to do.

There is some evidence that the existence of non-governmental organizations holding significant amounts of independently verifiable information can promote compliance throughout the regime. This is true in particular of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Basel Convention and in the climate regime. Institutionalizing these relationships may strengthen them and increase their effectiveness as compliance tools.

A.9. Implementation Review

Environmental assessment and reporting together form the basis of implementation review. In all international (environmental) regimes this is the responsibility of the COP. This represents perhaps the most essential of all functions of the COP so it deserves the continuing attention of all members of the regime. In most international environmental regimes this review is based on information provided by the secretariat. In some regimes, the COP has sought outside advice on implementation review, and this may be a strategy worth pursuing more systematically.

The WTO utilizes the Trade Policy Review Mechanism as a tool for implementation review—in addition to transparency rules and dispute settlement—and a similar tool has been developed in the OECD and the United Nations Economic Commission for Europe (UNECE). It may be worth instituting reviews of country responses to international environmental agreements based on the experience of these examples.

A.10. Dispute Settlement

All international environmental regimes have some form of dispute settlement. Several international environmental agreements explicitly reference the International Court of Justice as a forum for dispute settlement (and the ICJ has established an environmental bench for this purpose), yet these provisions have not been used, suggesting that states are reluctant to take environmental disputes to a formal proceeding. This is counter-intuitive, since many of the conflicts between trade regimes and environmental regimes appear to revolve around the dispute settlement process of the trade regimes. It has been suggested that there is a need for revised or strengthened dispute settlement procedures in international environmental regimes so as to permit certain disputes to be settled there rather than in the trade forum. Yet there has been scant discussion whether the problem lies in the nature of the dispute settlement process or actually reflects certain characteristics of environmental disputes.

Trade disputes involve states that complain about the actions of other states that deprive them—or their citizens—of benefits conveyed by trade agreements. The dispute settlement process involves the determination of the facts in the matter and the subsequent application of legal rules to these facts. Environmental disputes revolve around the actions of individuals in one country who cause damage in another; around the

failure of countries to implement their own legislation; and around the interpretation of factual information that can itself be in dispute. Such disputes require different forms of dispute settlement.

Addressing damage caused by individuals from one state in another state is a delicate problem of international law, but not one that requires a new dispute settlement process. The settlement of disputes concerning the appropriate measures to adopt on the basis of uncertain information is the task of government agencies, not of judicial or quasi-judicial proceedings. In most regimes these disputes are the responsibility of the COP. Virtually every international environmental regime knows these kinds of disputes and on the whole they have an acceptable record when it comes to resolving them, even though this can on occasion take a significant amount of time.

This leaves disputes between states concerning the adequate implementation of domestic environmental law that implements international obligations, or otherwise impacts on environmental values in other countries. It is impractical to pursue such matters through disputes that are initiated by one country against another—no country has a perfect environmental record so none is likely to want to throw the first stone. In the few instances where such proceedings are possible, they are initiated by a citizen complaint—under the NAFTA side agreement and in the European Union—or by an executive agency that can act as of right—in the European Union. This is an approach that could well be extended to other regimes. Governments in Europe and North America have found the experience of being pursued in this manner unsettling at first, although the European example suggests that it is an acceptable process.

A.11. Technology Transfer

Technology plays an important role in environmental management, in particular with respect to pollution: technology created the circumstances that so magnified the human impact on the environment as to create the phenomenon of pollution. The response to this problem has been to seek alternative, less polluting technologies. The associated process of innovation is central to the solution of environmental problems.

Innovation is also widely recognized as one of the motors of economic growth, so governments are generally quite reluctant to interfere in the exercise of IPR by their citizens. This has made technology transfer virtually impossible to implement.

The number of international environmental agreements that call for technology transfer is quite surprising. Successful examples of the implementation of such transfers are few and far between. Few issues are as central to the necessary extension of many environmental measures to developing countries as is the issue of technology transfer. Lasting solutions are nowhere in sight.

Private actors through intellectual property rights control many of the relevant technologies so that measures to force their transfer are tantamount to expropriation and illegal in most countries where the relevant private interests are domiciled. Subsidizing technology transfer presents significant problems in its own right. It represents a transfer of public funds to private actors who have already been privileged by the grant of intellectual property rights. Like any other subsidy scheme it risks becoming integrated into the cost and revenue calculations of all concerned so that transfers no longer occur without subsidy.

The focus on cutting edge technology, with its built-in economic conflicts, has obscured opportunities for the transfer of technologies that are in the public domain, or that require only limited amounts of proprietary technologies. To explore these opportunities, however, requires careful measures to ensure that they are not perceived as being second-best. Even when technologies are made available, their effective transfer requires infrastructure, training and research and development activities. In this sense, technology transfer is comparable to trade in services, but with the proviso that the public interest that needs to be promoted is the transfer of sustainable technologies rather than unsustainable ones.

The transfer of technology can only be promoted by a complex structure of rights and obligations that creates adequate incentives (and disincentives) to engage in this activity. Secure rights to a range of benefits—from IPR to investor rights to tradable emission rights—can create such incentives if they are carefully linked to the relevant public policy goal.

A.12. Other Significant Institutions.

International environmental regimes are characterized by the number of different institutions they employ, ranging from the flexibility mechanisms of the climate regime to step-by-step reduction programs of the Montreal Protocol or the use of “critical loads” in the Convention on Long Range Transboundary Air Pollution (LRTAP). Many of these institutions are employed only once or twice because they correspond to the particular problem structure of a specific agreement. Among the recurring institutions that merit further attention is the use of financial mechanisms and the recognition of special and differential treatment for developing countries. The two are closely linked.

Many environmental agreements provide for asymmetrical efforts by different countries. Thus the climate regime has essentially three different groups of countries and even within groups some countries carry a larger portion of the burden than others. The Montreal protocol has separate implementation schedules for developing countries. The Convention on Biodiversity (CBD) has special provisions for developing countries. All of these are potentially problematic from the perspective of the trade regime, with its emphasis on most favoured nation treatment (MFN) and national treatment as the primary institutions for achieving non-discrimination. The environmental regimes have a range of discriminatory measures, reflecting either differences in the natural environment, or differences in development status.

The theoretical foundation of special and differentiated treatment is beyond dispute. Many international environmental issues are the result of actions by countries that are now among the most developed in the world. They have an obligation to clean up. Moreover wealthier countries enjoy the luxury of extensive choice in pursuing policy goals, whereas poorer countries lack the resources to meet even the most pressing priorities. Consequently wealthier countries have the option to support poorer ones to ensure that environmental problems that affect all of them are resolved more quickly. The implementation of special and differential treatment is problematic in several ways. It conveys the impression that environmental protection carries economic penalties, an assumption that is only partially correct. Where such penalties exist, there is an expectation of a funding mechanism and financial support. It is, however, imperative to identify situations where no economic penalties exist. In these situations, and they are

numerous, it would be a mistake to provide financial assistance, since it would distort the positive incentives. Moreover the application of special and differential rules can lead to continuing problems for developing countries since necessary innovations will tend to occur elsewhere and must ultimately be transferred to developing countries, often at additional expense and with resulting dependencies. This is an aspect of special and differential treatment that has not received the attention it deserves.

The Global Environment Facility (GEF) has emerged as the preeminent financial mechanism for international environmental regimes. The focus on the GEF may have resulted in obscuring other options for improving the financial dimension of compliance with international environmental mandates. In many instances, such compliance requires significant investments that may involve opportunity costs even when they are financially sound. It is desirable to explore mechanisms to reduce these opportunity costs, that is to provide dedicated incentives for certain investments. It may also be possible to improve the economic return on such investments without resorting to subsidy, for example by providing greater security and calculability of returns or access to ancillary sources of investment revenue.