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Active Compliance Management in Environmental Treaties

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Examples of the influence that international agreements exercise over policy and action in the world are to be found everywhere, as recent media reports testify:

(a) Mr Yeltsin insists that NATO cannot resort to air strikes without returning to the UN Security Council and obtaining Russian consent.
(b) The United States threatens a "trade war" if Japan does not open its markets to American goods and services.
(c) A significant attack on NAFTA is mounted because of the inadequacy of its environmental provisions, and even more, of its labour provisions.
(d) The new US Secretary of Defence is accused by an NGO of allowing the proliferation of technology that will enable nations to develop nuclear weapons, because the Department of Defence is not taking a hard line on export controls on dual-use technology.

Is there any way to create a framework that is understandable, coherent and provides a source of direction for treaty negotiators and treaty implementers – as well as for the concerned citizen? Over the last several years, we have concerned ourselves with trying to develop just such a framework. Our research on international regulatory treaties in security, economic, social and environmental affairs has provided an empirical foundation for a framework based on five key propositions. We believe that these findings can provide useful insights into the effective operation of environmental treaties despite their derivation from cases that often differ considerably in the types of issues being addressed and the importance that member states accord to those issues.

1. THE NEW SOVEREIGNTY

The first part of our framework for thinking about treaty effectiveness is the existence of a "new sovereignty". Sovereignty is no longer simply the freedom to act autonomously. Especially in the post-Cold War world, sovereignty requires belonging to a range of international agreements, from trade to environment, from security to human rights. Membership in good standing in these regimes, over time, is an important determinant of a nation's ability to achieve its aspirations.

Modern states are part of a tightly woven fabric of international agreements that pervade their relationships with other states and affect their internal economies and politics. Behaviour under one treaty has broad ramifications beyond the four corners of that treaty. Traditional notions of sovereignty are gradually being altered. While the largest and most powerful states can sometimes get their way by sheer exertion of power, they can no longer achieve their principal purposes – security, economic well-being, safety and a decent life for their citizens – without the cooperation of other states. Smaller and poorer states are even more dependent on well functioning international economic and political systems to meet their needs. The sheer density of the interconnections between issue areas, the fact of international interdependence, instils hope regarding the success of international regulation, even though the record of compliance and effectiveness of any particular treaty at a given point in time may appear disappointing.

The success of international regulations depends on compliance, although we need to distinguish compliance from effectiveness. Compliance is neither a necessary nor a sufficient condition for effectiveness. First, a high degree of compliance is not always necessary. Non-compliance with an ambitious goal may still produce considerable positive behavioural changes that may significantly mitigate, if not solve, an environmental problem. Second, even perfect compliance may not be sufficient. Full compliance by all parties with rules that fail to come to grips with the problem (that merely codify existing behaviour or reflect political rather than scientific realities) will prove inadequate to achieve the hoped for environmental improvement. Parties to the International Convention for the Regulation of Whaling, for example, complied quite well with the quotas set by the International Whaling Commission, but the stocks of several species crashed because the quotas had been set too high. Compliance with the Montreal Protocol may prove perfect but too late to avoid irreversible harm from the loss of stratospheric ozone. Having said that, however, we believe that a reasonable level of compliance is essential for a treaty to work as intended. Compliance also provides a valuable proxy for effectiveness: higher levels of compliance will usually produce greater environmental improvement since treaties are generally designed to improve environmental management, even if they do not resolve the environmental problem.

Early on, it may prove difficult to evaluate the effectiveness of a treaty. In the initial stages of a regulatory regime, the lack of consensus about the magnitude of the problem and the best solution to it often constrains agreement to general obligations. This results in the now-typical framework convention. Only after such an agreement has had time to mature do the parties begin to contemplate more specific regulations. Typical examples include the various protocols and amendments that have been negotiated under the Convention on Long-Range Transboundary Air Pollution (LRTAP) and the Vienna Convention for the Protection of the Ozone Layer. Even the numerous proposals to set quantitative goals in the Framework Convention on Climate Change were eventually rejected in favour of far more hortatory commitments.

In assessing the effectiveness of a treaty, we also need to be careful not to restrict our inquiry to whether or not the problem has been eliminated; such a goal may simply not be possible. Rather, the metric often must be whether the problem would have been worse without the treaty. For example, even today no comprehensive set of regimes exists to prevent the spread of nuclear weapons and their means of delivery. But the process, over time, is becoming more effective, if incrementally.

The Non-Proliferation Treaty itself has been quite effective. Far fewer states have acquired nuclear weapons capabilities than had been expected when the treaty was signed in 1968. Voluntary cooperative supplier restraints have begun to identify the most critical suppliers and technologies both in nuclear weapons production and in the production of missile platforms. Although the treaty has been criticized as discriminatory, unilateral or concerted export controls would have been far less effective. Without an international agreement there would not have been a chance of developing a norm against nuclear weapons and suppliers would have been harder to contain.

In many fields, scientific and technical developments change the circumstances of regulatory effectiveness. As the history of the LRTAP regime illustrates, the regime itself provides the enhanced understanding that the environmental problem is even larger and more complex than had been believed when the regime was first formed. Scientific uncertainty often puts the brakes on the willingness of states to submit to specific and costly regulation – note the difference between the Montreal Protocol, accelerating the elimination of chlorofluorocarbons (CFCs) because of increasing knowledge of its impact on the ozone layer; and the Climate Change Convention, where a debate continues about scientific findings.

2. SANCTIONS: INEFFECTIVE AND RARE

The process of inducing compliance is also far more subtle and complex than it seems on the surface. If treaties are at the centre of cooperative regimes by which states regulate major common problems, there must be the means for ensuring that parties to the treaty will perform their obligations acceptably. A common call is for "treaties with teeth", i.e. for coercive sanctions. Our research indicates that, in the face of non-compliance, coercive sanctions are rare, ineffective and inherently unsuitable. Efforts to negotiate sanction clauses into treaties and to invoke unilateral sanctions for violations appear to us as largely a waste of time. In the rare cases in which intentional violation invites sanctions, systemic features of international life severely restrict the ability to use them effectively. States rarely use sanctions. In general, they are simply too "costly, slow to take effect and difficult to maintain".[1]

The difficulties of imposing military sanctions have become obvious to almost all of us by now. Formal military and economic sanctions only exist as a possibility in the United Nations and Organization of American States charters. In the case of Bosnia, it took a very long time to gain sufficient consensus among the members of NATO to threaten air strikes against Serbian aggression in Sarajevo, and the Russians questioned whether the previous broad UN Security Council resolution covered this set of circumstances. In another security-related arena, proponents of sanctions for violation of the Chemical Weapons Convention were unable to secure treaty provisions that would have called for automatic economic sanctions on violators. Some security treaties provide that compliance issues can be referred to the UN Security Council, which could impose such sanctions. Yet, as a wide array of

[1]See Abram Chayes and Antonia Chayes, "Regime Architecture", in Janne E. Nolan (ed.), *Global Engagement: Cooperation and Security in the Twenty-first Century* (Brookings Institution, Washington, DC, 1994), pp. 65–130.

cases attests, the need for consensus within the Security Council makes it highly unlikely that sanctions will be imposed. Certainly, military sanctions appear both less likely and less suitable in response to violations of environmental agreements.

Economic sanctions may be less costly to impose since the lives of the citizens of the sanctioning nations are not at stake, but they are rarely invoked and are frequently ineffective. Economic sanctions almost always entail economic harm for the sanctioner as well as for the target of the sanctions, and the effectiveness of an embargo or boycott usually depends on fairly widespread cooperation to prevent the target from acquiring necessary goods and services elsewhere. Frequently, political leaders in a target country can use the sanctions themselves as a means to strengthen domestic support for the very policies the sanctions are seeking to change.

While no environmental treaties authorize military sanctions, and few authorize economic sanctions, most provide for lesser forms of what we refer to as membership sanctions, such as being barred from voting or otherwise being excluded from the rights and privileges of membership. We have found that they have not proved very effective either. They are both rarely used and then, primarily, for broader political and foreign policy purposes.

Powerful states have threatened or used unilateral sanctions – outside a treaty regime – on occasion to change behaviour that the sanctioning country views as contrary to a treaty's provisions or contrary to that country's interests. It is not always a very useful tool for promoting compliance. For example, both recently and in the past, "retaliation" against restrictive Japanese import policies has been threatened, and then moderated by broader foreign policy considerations. The most frequent threat of unilateral sanctions in international environmental affairs has involved US efforts to induce non-member whaling states to sign the Whaling Convention and to induce member whaling states to accept the moratorium agreed to in 1982. These cases, and similar ones under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), have often had their desired effect although they have generally involved behaviours that were not violations of the treaty but were deemed by the United States as diminishing the treaty's effectiveness.

If one cannot rely on "teeth", what then? It is less easy to give a succinct and satisfying description of the alternative to sanctions. But nevertheless we are relatively optimistic that:

(a) there is a general propensity for nations to comply with their obligations;
(b) compliance is not an on/off condition; traditional conceptions of literal compliance need to be broadened to include both the notion of an acceptable level of compliance and an important time dimension; and
(c) there are measures that can be taken to improve performance over time.

3. REASONS FOR COMPLIANCE AND NON-COMPLIANCE

In the vast majority of the cases we have studied, we have found that nations almost always make considerable efforts to comply with their treaty obligations. Wilful violation is the exception, not the rule. Why?

Most states enter into agreements intending to comply. They comply because doing so reduces decision costs and conforms to bureaucratic modalities, serves the state interests that led to the initial negotiation of the treaty, and corresponds with a

presumptive obligation to comply. Norms provide a foundation for much of the compliance with international treaty rules that we see. Treaties themselves reflect either a previously established or a recently created set of norms of the states that negotiated them. Developed through negotiation among countries, the text of a treaty reflects both the relative power and interests of those countries. When a consensus exists among nations about the general norms that should govern an issue area, then much subsequent compliance is likely to be motivated by the pre-existing norm, with the treaty reinforcing constraints that people already feel on their behaviour. If no such consensus exists, a compromise between conflicting views can help establish a new international norm but faces the more demanding task of changing behaviour without the support and reinforcement of wider social structures.

The processes of international law reinforce compliance with international treaties. Most countries tend to view the negotiation process itself, despite the obvious inequalities in power between countries, as essentially fair. Given the deep inequities in the distribution of power among states, most countries view negotiations as producing less inequitable results than the available alternatives in the international realm. The international legal tradition of *pacta sunt servanda*, that a "state is bound by its agreements", reinforces this sense of legitimacy. There is no reason to suppose that states are prone ordinarily to disregard the obligation to obey the law. The sense of obligation does not ensure obedience, but in the absence of strong countervailing considerations, it often prevails.

Signature of any treaty is voluntary, but entails a country's public declaration that it will make good-faith efforts to implement it and to comply with its terms. The signature and ratification process legitimizes even agreements that discriminate in favour of powerful states. States tend to take the position that, "If you did not intend to comply, why did you sign?" For example, the Non-Proliferation Treaty is viewed as binding on non-nuclear signatory states even though it allows five major powers to remain nuclear "haves", while prohibiting the "have-nots" from attaining such status. Indeed, even in cases where countries have signed treaties under significant pressure from more powerful countries, such as when US threats of economic sanctions led Peru, Chile and Korea to sign the Whaling Convention, those countries are viewed as being equally bound by the convention.

Treaties can widen the scope of a norm, as is evident in the human rights arena, when nations that initially sign treaties because of public and diplomatic pressures, over time end up internalizing the norms embodied in the treaty. The almost universal signature of the Framework Convention on Climate Change suggests that the public international pressure to sign treaties is quite strong, with the costs of compliance playing little, if any, role in most countries' calculus regarding signature. Despite this, these treaties are likely to establish environmental norms that will constrain future behaviour, norms that otherwise would have developed far more slowly.

Compliance is also reinforced because it is efficient for a nation to avoid the constant recalculation of costs and benefits each time a decision has to be made under a treaty. Government would come to a grinding halt if the compliance–violation choice had to be made and remade every day.

International organizations endlessly discuss the scope and meaning of norms. This process enhances their authoritative character, with states finding it harder to reject the norm after treating it seriously in debate within the organization. The deviant actor must explain and justify alleged deviance from a rule, often appealing to legal norms embedded in the treaty itself. Actors regularly appeal to legal norms

in their justification of behaviour, simultaneously reinforcing those norms that support expectations that will constrain future behaviour. Issues of actual or perceived double standards must be continuously dealt with or the norms will not exert power. In short, norms produce strong forces on countries to comply with treaty rules.

States do, however, fail to comply. Non-compliance can be due to inadvertence, incapacity, or intention. If a treaty requires affirmative action, changes in circumstances may hinder a signatory's ability to take those actions. The assumption in the 1980s that the Soviet Union could destroy nuclear weapons as required by the INF and START agreements was threatened in the 1990s by the devolution of those weapons to several successor states that had less of the technical knowledge and material resources to do the job.

Non-compliance due to incapacity results when the will to comply is frustrated by a lack of financial, administrative or other resources. In regulatory treaties the problem becomes especially acute if the object of regulation is not state but private and individual behaviour. Successfully altering that behaviour depends on a complex series of intermediate steps. Even when the political will is present, constructing an effective domestic regulatory apparatus often proves a complex and difficult task. It entails choices and requires scientific and technical judgments, bureaucratic capacity and fiscal resources. Even developed Western states have not been able to construct such systems with confidence that they will achieve the desired objective. Under a climate change agreement, nations may, in good faith, set a tax to meet the reduction target but fail to do so because of exogenous economic factors.[2] The major changes in socio-economic behaviour patterns required by many environmental agreements take time, as provisions for phase-in periods recognize. "Non-compliance" in an early snapshot may later prove to be the beginnings of a transition to compliance.

Although intentional non-compliance is infrequent, it can occur when a country with the ability to comply explicitly decides not to do so. Iraq's disregard for IAEA provisions provides a recent and striking example of such non-compliance. In most treaties and issue areas, such intentional violations are the dramatic, but rare, exception rather than the rule.

Finally, we believe it is necessary to look at compliance and non-compliance in context. Flouting a ceasefire under a peace agreement evokes different responses from failure to meet a reporting requirement under an environmental treaty. Failure to comply encompasses a range of behaviour and reasons. There may be broader tolerance for inability to comply than for failures based on national priorities. But the urgency of the circumstances may affect that tolerance even where there is lack of capacity. Under the Montreal Protocol the Parties were concerned that the problem of damage to the ozone layer was urgent. The treaty tries to deal with the expected problem of lack of capacity facilitatively – by providing financial assistance to developing nations and permitting them a longer timetable. Other treaties either defer targets and timetables, or have other ways of expressing less concern about full compliance. We believe that there are acceptable levels of compliance – not an invariant standard, but one that changes over time with the capacities of the parties and the urgency of the problem.

[2]See Joshua M. Epstein and Raj Gupta, *Controlling the Greenhouse Effect: Five Global Regimes Compared* (Brookings Institution, Washington, DC, 1990), on the uncertainty with respect to emission quantities inherent in environmental taxation schemes.

4. TRANSPARENCY

Enough questions about non-compliance and incomplete compliance remain to cause considerable interest in finding ways of improvement. What measures can be taken to enhance compliance, given the general inability to rely on coercive sanctions? Transparency is probably the most crucial component of any treaty seeking to enhance compliance. This is especially true with respect to issues in which the stakes for parties are high and the failure to comply would undermine treaty objectives or disadvantage a complying state.

Transparency fosters a compliance-inducing dynamic through three different pathways. First, it permits actors making independent decisions to coordinate their behaviour. Second, it reassures actors whose compliance with the norms is contingent on similar action by other participants. Third, it deters actors contemplating non-compliance. Although they are theoretically distinct, in practice these three functions interact with and reinforce each other.

In the simplest cases, treaties facilitate coordination by creating and publicizing an agreed-upon rule. In these cases, the actors care more that a single rule governs the activity than which rule governs it. Some rules are literally rules of the road – as rules established for air transport (ICAO), maritime navigation (IMO), and the allocation of satellite and radio-band slots (ITU). Once the parties understand the rules and how they operate, the structure of the problem itself implies that violation involves consequences costly enough to the violator for the violator to be self-deterred. No further incentives are needed to elicit compliance, because the incentives to defect are so low. In other coordination schemes, transparency helps create collective information that participating states would find it impossible, or prohibitively expensive, to assemble on their own.[3] The joint environmental monitoring undertaken in the LRTAP regime allowed development of data on total emissions and transboundary flows of these emissions that could not have been developed by any member country individually. European cooperation on enforcement of marine pollution agreements has produced a database on compliance and violation that allows enforcement officers to identify the date and results of the most recent inspections of the ships currently in port, even though that inspection was conducted in another country.

Transparency also offers reassurance to parties that others are meeting their obligations, and if they are not, permits mobilization to bring defectors into line. There is a close relationship between coordination and reassurance. As the requirements for coordination become more difficult, the demand for reassurance increases. Reassurance is necessary when actors otherwise inclined to comply are concerned that their compliance will be matched by others' non-compliance, placing them at a disadvantage.

Actors pursuing a "contingent strategy" see compliance as in their self-interest only so long as most similarly situated individuals also comply. But "making a contingent rule-following commitment requires that individuals obtain information about the rates of rule conformance adopted by others".[4] In other words, the success of a cooperative arrangement depends critically on its transparency.

[3]Robert O. Keohane. *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton University Press, Princeton, NJ, 1984).

[4]Keohane, *op. cit.*, note 3, p. 187.

Deterrence is in a sense the obverse of reassurance. Each acts at the opposite end of the transaction. A party disposed to comply needs reassurance. A party contemplating violation needs to be deterred. Transparency supplies both. The probability that conduct departing from treaty requirements will be discovered operates to reassure the first and to deter the second, and that probability increases with the transparency of the treaty regime. In the standard analysis, the prospect of discovery is seen as entailing penalties that increase the costs of defection. Deterrence will be successful if these anticipated costs exceed the expected gains that are its reward. Costs take various forms. The most obvious is the loss of the anticipated benefits of the bargain. Certainly one reason for high compliance with requirements for the installation of expensive oil pollution control equipment involved the fact that government inspectors could easily detect the absence of such equipment and would bar noncompliant tankers from delivering their cargoes. The interdependence of countries and issues can also produce a more diffuse form of response that is none the less effective. For example, Iceland withdrew from the International Whaling Commission to protest against maintenance of the moratorium on commercial whaling, but has not yet resumed whaling because of the fear of international boycotts against its tourism and exports. As the human rights and environmental experience demonstrates, nongovernmental organizations can sanction corporations and governments via publicity campaigns, product boycotts, or direct action such as sinking whaling ships.

In the environmental area, transparency is achieved in large part by self-reporting of performance and scientific data. In addition, where performance is to be measured against some baseline of activity, as is the case of environmental agreements regulating emissions, national reporting is often the only recourse for establishing the baseline. Reporting on measures taken to implement the treaty is more directly related to the assurance of compliance. Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer must report current consumption of regulated substances.[5] MARPOL (International Convention for the Prevention of Pollution from Ships) requires not only annual reports on enforcement and compliance, but also requires that port states inform flag states (and the International Maritime Organization, IMO) of violations they have detected and that flag states inform port states (and the IMO) of actions taken in response. Such requirements for reporting do not equate to the actuality of reporting and current research is beginning to identify the mechanisms by which treaties induce regular and accurate reporting.

Treaties can also increase transparency by monitoring and verification. While environmental treaties usually only require national self-reporting, ways of skirting the "self-incrimination" problems inherent in such systems have some precedents that are increasingly being recognized and put to use. Both states party to a transaction may be required to report on that transaction. Under CITES, the fact that states must report on imports provides a somewhat independent system for identifying non-compliance, as do requirements under MARPOL for reporting by both flag and port states.[6] The incentives of non-governmental scientific groups and NGOs often

[5]Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 26 *ILM* 1541 (1987); and Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, 29 June 1990, 30 *ILM* 537 (1991).

[6]Mark C. Trexler, *The Convention on International Trade in Endangered Species of Wild Fauna and Flora: Political or Conservation Success?*, PhD Thesis, University of California, Berkeley, 1989; and Ronald Bruce Mitchell, *Intentional Oil Pollution at Sea: Environmental Policy and Treaty Compliance* (MIT Press, Cambridge, MA, 1994).

differ from those of national governments, frequently leading them to collect accurate information about behaviour or environmental quality. Amnesty International and Human Rights Watch, among others, have played a prominent role in verifying compliance with human rights treaties and numerous environmental groups have monitored atmospheric conditions, ozone depletion and species populations. In both arenas, exclusively domestic NGOs can identify information not otherwise available, thereby holding governments accountable for observation of treaty principles and providing the impetus for pressure from other governments as well. The Commission on Sustainable Development, established by the UN to monitor behaviour related to Agenda 21, has provided NGOs with a direct and legitimate channel for providing reports to Secretariats and having those reports considered in evaluating compliance and non-compliance. Industry can also, in some cases, provide independent information on compliance. For example, much CFC production data reflect industry figures passed through governments to the Montreal Protocol Secretariat.

Data from one country can be validated by comparison with data from other countries, or with readily available information on highly correlated independent statistics. The LRTAP Secretariat verifies the accuracy of reports on emissions against fuel consumption statistics converted into sulphur emission estimates.[7] Similar procedures may help verify compliance with the Framework Convention on Climate Change. Scientific monitoring devices are becoming increasingly useful in measuring emissions directly.[8]

Finally, managing compliance requires that collected information is evaluated to determine who is complying and who is not complying and to identify the reasons for any non-compliance. In the age of computers, having a system that requires reporting in electronic formats can greatly facilitate analysis of reported data. The Memorandum of Understanding on Port State Control provides a good example of this: the Member State Coast Guards enter inspection and violation data on a daily basis directly into a centralized computer bank by modem, and the Secretariat conducts extensive analyses of trends in inspections, violations, etc. The quality of these reports owes much to the fact that the Secretariat needs only to analyse and not to enter the data.

Transparency is a matter of degree. No ideal level of transparency exists for all treaties. Indeed, too much transparency may prevent certain nations from signing a treaty. It may need to be traded off against other treaty goals, such as cost-effectiveness, efficiency and equity. However, increased access to relevant information frequently can set up a powerful dynamic that helps make a treaty work as intended.

5. ACTIVE TREATY MANAGEMENT

The final element of our framework is active management. While there are elements that may make parties prone to compliance, we conclude that real improvements are

[7]Marc Levy, "European Acid Rain: The Power of Tote-Board Diplomacy", in Peter Haas, Robert Keohane and Marc Levy (eds.), *Institutions for the Earth: Sources of Effective International Environmental Protection* (MIT Press, Cambridge, MA, 1993), p. 89.

[8]J.H. Ausubel and D.G. Victor, "Verification of International Environmental Agreements", *Annual Review of Energy and Environment*, 17 (1992), pp. 1–43.

most likely to happen if an aggressive management strategy is pursued. We discuss the major elements of such a strategy.

Review and Assessment

The first crucial element of active treaty management is regular and systematic review of performance of treaty obligations. Review and assessment involves evaluating the performance of the parties with an eye to improving compliance with the existing regime rules and structure. This may begin with an evaluation of data from self-reporting; assessment of information collected from various sources, and an analysis of member performance with respect to treaty requirements. In a well-managed treaty, steps to improve performance can range from technical and administrative assistance to public exposure and "blacklisting". As in other managerial or administrative settings, this process is not adversarial. The assumption is that all are engaged in a common enterprise and that the objective of the assessment is to indicate ongoing concern about how individual and system performance can be improved. The assessment goes beyond analysis of data that illuminates performance problems to exploration of the reasons, and facilitation of improvement. Yet, the process can become more confrontational if resistance persists. We see it best performed in ILO reviews and IMF surveillance of monetary policies and enforcement of conditions. More recently, it has been undertaken by the GATT Trade Policy Review Mechanism and in monitoring procedures developed under an international convention for the protection of wetlands. Review and assessment narrow and illuminate the reasons for non-compliance and permit appropriate responses – technical assistance or pressures. Together they comprise a powerful set of management tools.

Dispute Settlement

Settling disputes is characteristically regarded as lawyers' business, but it is critically important for establishing and supporting solid treaty norms and rules. Most disputes involve interpretation or application of a treaty – to what situations do the regulatory requirements apply? A treaty cannot, and should not try to, anticipate all possible situations. While disputes may be handled by formal adjudicatory mechanisms, this is the exception. Authoritative interpretation can prevent disputes from developing and informal mediative processes can resolve most of them. But from experience it does not seem to matter whether resort to a formal dispute settlement procedure is legally required, actually used, or if the decision is binding, so long as the outcome is treated as authoritative.

The overwhelming majority of treaty disputes are settled by negotiation without the help of more formal processes. The question is what happens if negotiation fails. Most treaty regimes turn to a variety of relatively informal mediative processes if the disputants are unable to resolve the issues among themselves. In multilateral regimes outside the security context, institutionalized processes provide scope for the secretariat or uninvolved parties to play a mediative role. The experience of the International Civil Aviation Organization (ICAO) is typical. Both the Chicago Convention and many bilateral air traffic agreements provide for dispute settlement by the ICAO Council. However, the difficulty in getting the thirty-three-member Council to carry out judicial functions means that the predominant mode of

settlement is informal conciliation. Whether the dispute settlement procedure is legally required or not, what matters is whether the outcome is treated as authoritative. Experience with dispute settlement in environmental issues appears rather rare. It is unclear whether this is because of the more limited history with environmental agreements or the lower concern accorded to violations. The Implementation Committee under the Montreal Protocol is an innovation that merits closer consideration.

Developments in some areas indicate an effort to provide for dispositive solutions, particularly when a dispute arises between identifiable parties, rather than a broader interpretative issue affecting party behaviour under the regime. The GATT has developed and refined the most active system of formal dispute settlement. Its dispute settlement process provided for a panel of experts, judicial in tone, if negotiation and consultation failed. Unlike a judicial decision, the panel (whose membership was often a cause of contention and delay) issued a non-binding report. Although it carried great weight, the process required consensus adoption, permitting veto, or more practically, the ability of losers to delay implementation, requiring further pressures to resolve the issues. This process has involved both successes and frustrations. The changes adopted in the Uruguay Round of the GATT provided for a highly legalized process with automatic adoption of reports, unless a consensus objects. Similar frustrations account for binding adjudication in some disputes under the US–Canada Free Trade Agreement and NAFTA.

In many regimes, the preferred alternative to actual dispute settlement is authoritative interpretation by a designated body of the relevant international organization. Not only is this a far less contentious method for dealing with disputes about the meaning of treaty provisions, but it may help to prevent disputes, and in some situations stem potentially non-compliant behaviour before a party has committed itself to engage in such an action. A state is not likely to ignore the answer to a question it has itself submitted. The non-adversarial context also is conducive to working out differences or misunderstandings that led to the request. At the extreme, such interpretations can be a way of adapting the norms and rules of a treaty to radically changed circumstances without having to resort to the more contentious process of amendment.

Capacity-building

Increasing the ability of actors to fulfil their treaty obligations may be the most important part of active management, but is quite hard to achieve because it requires real resources. We have learned how much more subtle and complex is this issue of "lack of capacity". The most obvious aspect of the problem is the lack of resources and bureaucratic capability of many developing nations. But many other elements exist – an existing bureaucracy that lacks expertise in the issues covered by the treaty, the large numbers of actors targeted by the regulations, governments in transition, governments in chaos, overloaded bureaucratic systems, decentralization and preoccupation with more pressing priorities. All of these factors create challenges to treaty management to induce compliance.

In the traditional conception, a treaty governs the actions of states. Treaty compliance involves making state behaviour conform with treaty rules. However, environmental treaties seek to change the actions of private actors. The problem of

lack of capacity presents itself at several steps in the compliance process.[9] Some states, particularly those in transition to democracy, may find it difficult even to enact legislation that regulates the conduct of its corporate and private citizens in accordance with the stipulations of the treaty. Many governments have difficulty mobilizing the administrative and political resources needed to translate legislation into actual reductions in emissions, preservation of species, etc.

Developed as well as developing countries can face problems with inadequate capacity that can lead to non-compliance. Even on the highly salient issue of nuclear proliferation, the United States, Germany, France and the United Kingdom tried but failed to control the actions of private actors selling nuclear materials to Pakistan and Iraq. Many advanced industrialized countries fail to secure full compliance with domestic pollution regulations, and the adoption of a treaty seems unlikely to cure such problems. Economic instruments – such as taxes and charges – pose new problems since their impacts on behaviour often cannot be accurately forecast: a well planned tax may fail to achieve an emissions target.[10] Compliance with CITES requires customs officers to make fine distinctions among species, while simultaneously preventing imports of drugs and other prohibited goods, as well as moving legitimate shipments rapidly through the customs process. Even customs officials in countries strongly committed to CITES, such as the United States, may lack the necessary talents and training.

In environmental areas, diplomats are increasingly negotiating clauses that explicitly link assistance to remedying non-compliance with treaty provisions. In June 1991, an *ad hoc* Group of Experts on Reporting under the Montreal Protocol concluded that most developing countries failed to report required consumption data because they lacked the necessary technical and financial resources. The Protocol's Multilateral Fund is mandated to defray the "agreed incremental costs" of compliance, including reporting, for developing countries. This fund and the Global Environment Facility (GEF) could finance capacity-building projects, for reporting as well as other aspects of implementation. Unfortunately, the supply of project funding to remedy non-compliance is subject to classic "public goods" problems: while each treaty party wants other parties to comply, none is eager to pay for another party's compliance.

Treaty Adaptation

A less frequent part of treaty maintenance involves an often non-analytic and long-term evaluation by the majority of parties that the rules need adjustment in light of the level of observed compliance. Treaties do not remain static. In order to last, they must adapt to inevitable economic, technological, social and political changes. Treaties may be formally amended or modified by the adoption of a protocol. Environmental agreements with increasing frequency have adopted a "framework and protocol" approach. The LRTAP regime has adopted protocols on sulphur dioxide, nitrogen oxides and volatile organic compounds. The Vienna Convention for the Protection of the Ozone Layer provides only that the Parties will cooperate in research and legal, technical and scientific information exchange on matters concerning

[9]On the importance of capacity-building in improving the effectiveness of environmental treaties, see Haas *et al.*, *op. cit.*, note 7.

[10]Epstein and Gupta, *op. cit.*, note 2.

the ozone layer.[11] Not until two years later, in 1987, did the Montreal Protocol provide for cutbacks in consumption of CFCs. In 1990, nations amended the Protocol to extend the list of controlled substances and to speed up the phase-out.

Since protocols are subject to the same ratification process as the original treaty, they can be blocked or avoided by a dissatisfied party. Several treaties allow adoption of technical regulations by vote of the parties (usually by a special majority), which are then binding on all, although usually with the right to opt out. The ICAO has such power with respect to operational and safety matters in international air transport.[12] IMO treaties contain "tacit acceptance" provisions whereby certain amendments adopted by the relevant committee enter into force automatically in sixteen months for all parties that do not explicitly object. In many regulatory treaties, "technical" matters may be relegated to an annex that can be altered by vote of the parties.[13] The 1946 International Convention for the Regulation of Whaling placed annual whale quotas in an appendix precisely to ensure that they could be changed and adopted without long ratification delays.

The Role of International Organizations

International organizations are arenas for almost continuous interactions among treaty members, their representatives and the staff. This process involves persuasion and an important element of exchange. Besides direct linkage, they generate a continuous stream of transactions that serve as chips in an unending game of political bargaining and diffuse reciprocity. Even within a single environmental issue, considerable horse-trading may go on because of differences in the intensity of preferences of different states. The bargaining to make trade-offs between these issues depends considerably on having a forum for regular interaction between the parties.

The secretariats of international organizations wield power through their control of the agenda. In the international context, Dr Mustapha Tolba, Executive Director of UNEP, defined much of the environmental treaty-making agenda in the 1970s and 1980s, despite his small budget and the absence of any formal power. IAEA Director-General Hans Blix took the disclosures of Iraqi nuclear sites as an opportunity to strengthen the IAEA safeguards system. Simply proposing such strengthening to the Board of Governors forced some kind of action. The bureaucrats of the European Commission play this role regularly in the politics of the European Union.

International organizations can also influence the policies of their members. WHO officials staved off dissension by mobilizing the organization's formidable constituency of health ministries, medical groups and NGOs to persuade governments and the international community to keep family planning and population issues under the control of the health sector.[14] The bureaucratic alliances between international organizations and the relevant ministries can provide the former with considerable influence in domestic governmental policies. The IMF and WHO take advantage of extensive contacts and allegiances to promote their policies and to provide information and support to those actors pushing for greater compliance.

[11]Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, 26 *ILM* 1529 (1985), Arts. 2, 3, 4 and 5.

[12]Convention on International Civil Aviation, 7 December 1944, 15 *UNTS* 295 (1944), Art. 90.

[13]See Montreal Protocol, Art. 2(9); and London Amendments.

[14]Jason L. Finkle and Barbara B. Crane, "The World Health Organization and the Population Issue: Organizational Values in the United Nations", 2 *Population and Development Review* (1976), 381–4.

We face a legacy of resistance to swollen international organization bureaucracies. If this stance is not modified, the prospects are poor for fulfilment of the increasingly complicated and complex tasks facing organizations in many international issue areas. Active treaty management requires resources and people. Secretariats in the environmental area are skeletal. Parties cannot keep up with the demands of the management. Involvement of the parties is crucial to establishing the domestic priorities of each, but a robust secretariat is also needed to carry out a strategy of active management, especially in providing the assistance needed to build capacity. The bureaucratic relationships among members and the treaty organization reinforce the propensity to comply. If there is a robust organization, it can focus and apply the pressures of exposure and shaming on a member to comply where lack of capacity is not the reason for non-compliance. That may not be a treaty with teeth, but it can be a treaty with muscle.

6. AN INTEGRATED MANAGEMENT STRATEGY

We have found that behaviour that departs from treaty norms is usually maintained at an acceptable level in relation to treaty norms by an iterative process of discourse among the parties, the treaty organization and the wider public. States, like other actors, call on each other to justify behaviour that departs from agreed-upon norms. The ensuing discourse progressively elaborates the meaning of relevant obligations and the action required in particular circumstances. This process is more management than enforcement. As in other managerial settings, actors address problems of unsatisfactory behaviour through cooperative mutual consultation, analysis, persuasion, and argument rather than punishment. The deep economic and political interdependence of modern states causes them to seek to preserve the integrity and reliability of the system, most of the time. Skilful and imaginative treaty organizations and institutions devise and refine *ex ante* and *ex post* measures for building on this foundation to enhance compliance.

These elements of management, we argue, are powerful, although few are developed across the board in regulatory agreements. Some are developed quite fully in particular treaties or even treaty areas, but others, such as capacity-building, are rudimentary altogether. Notably, the elements of management are not generally perceived as part of a coherent strategy for managing compliance. Comprehensive strategies of active compliance management are rare to non-existent. This is partly due to the failure to give secretariats the authority and resources needed for effective management. More important, the notion that compliance can be actively managed through a comprehensive strategy is not widely understood. Agreements on regulation by an international regime have not often been accompanied by consent to delegate authority to a central body with adequate staff and resources to manage the implementation of treaty obligations.

7. CONCLUSIONS

The foregoing discussion reflects a view of non-compliance as deviant rather than expected, and inadvertent rather than deliberate. This in turn leads to a de-emphasis on formal enforcement measures and coercive informal sanctions, except

in egregious cases. It brings attention to the fact that many sources of non-compliance can be managed by routine international political processes. Thus, the improved dispute resolution procedures address problems of ambiguity; technical and financial assistance can mitigate, if not eliminate capacity problems; and transparency and review processes increase the likelihood that national policies are brought progressively into line with agreed international standards.

Our analysis leads away from the search for better enforcement measures – "a treaty with teeth" – to better management of compliance problems. This requires focusing on and improving the mundane, day-to-day interactions and discussions that persuade actors to comply rather than the dramatic episodes of sanctions as responses to clear violations. Treaties will elicit greater compliance by looking for ways to improve the former processes than by demanding the latter.