Compliance with Global Environmental Policy

Michael Faure and Jürgen Lefevere

The United Nations Conference on the Human Environment, held in Stockholm in 1972, set off an unprecedented development of new international environmental treaties. Before 1972, only a dozen international treaties with relevance to the environment were in force; twenty-five years later more than a thousand such instruments could be counted.

With the intensified use of international treaties as a means to combat environmental degradation, concerns have arisen regarding the compliance of states with the commitments to which they agreed. Even within relatively strong regional organizations such as the European Union (EU), compliance problems regularly overshadow successes in the adoption of new instruments. In a hearing on the subject conducted in 1992 by the British House of Lords, a member of the European Parliament even warned that “we have now reached the point in the EC where, if we do not tackle implementation and enforcement properly, there seems very little point in producing new environmental law.”

In recent decades international actors have tried new approaches to drafting, implementation, and enforcement in an attempt to improve compliance with international environmental treaties. This activity has been mirrored by advances in the scholarly study of factors that affect state compliance and increased discussion of such factors in both academic and policymaking circles.

This chapter examines the theory and practice of national compliance with international environmental treaties. In doing so, the chapter uses as its primary examples the United Nations Framework Convention on Climate Change (FCCC) and its Kyoto Protocol, the EU environmental regime, and the Montreal Protocol on Substances that Deplete the Ozone Layer. We begin by discussing the theory of compliance as it has been developed in both the academic literature and in practice. We then provide an overview of sources for compliance and noncompliance. Finally, we examine methods developed to date that seek to improve compliance with international environmental treaties.

Theory of Compliance

The term compliance is often not used in a consistent way but is confused with related terminology such as implementation, effectiveness, or even enforcement. To avoid unnecessary confusion, one should be careful in using
these terms. They refer to different aspects of the process of achieving international political and legal cooperation.

Implementation refers to the specific actions (including legislative, organizational, and practical actions) that international actors and states take to make international treaties operative in their national legal system. Implementation by relevant international actors includes, for instance, the provision of financial resources by the Global Environment Facility (GEF) in accordance with the rules adopted under the FCCC. Implementation by states establishes the link between the national legal system and the international obligations. The aim of establishing this link should be compliance.

Compliance is generally defined as the extent to which the behavior of a state—party to an international treaty—actually conforms to the conditions set out in this treaty. Some authors make a distinction between compliance with the treaty's explicit rules and compliance with the treaty's objective. It is, however, difficult to assess compliance with the “spirit” of an agreement, since this evaluation can be quite subjective. The third term, enforcement, indicates the methods that are available to force states not only to implement but also to comply with treaty obligations. Whereas compliance and implementation concern the actions of the states themselves, effectiveness, as the term indicates, is more concerned with the effect of the treaty as a whole. Effectiveness addresses the question of whether a treaty that is correctly complied with actually achieves its stated objectives, or whether the treaty actually helped to reach the environmental goal for which it was designed.

The terms compliance and effectiveness are often used interchangeably but, in fact, have very distinct meanings. Compliance is in most cases a condition for effectiveness, if by effectiveness we mean the reaching of the treaty's goals. If a treaty is complied with, however, this does not automatically signify that it is effective in reaching the environmental goal for which it was originally designed. Effectiveness also depends on the actual treaty design, the instruments and goals contained in the treaty, as well as other external factors, such as a changing political situation or even changing environmental conditions. The Kyoto Protocol is an example: even if states fully comply with the requirements of that treaty, the protocol is still insufficient to stop climate change from occurring. Hence, compliance is only a proxy for effectiveness; greater compliance will usually lead to environmental improvement, but whether this is actually the case will to a large extent depend upon the contents of the treaty. One could even imagine a treaty that is so badly drafted that noncompliance would even contribute to its effectiveness. For example, this ironic result could be reached in a treaty that on paper protects the environment (or potential victims) but that, in fact, protects industrial operators, for example, by introducing financial caps on their liability. One could argue that potential victims would be better off with noncompliance, but this is obviously true only in cases where special interests (not primarily environmental concerns) dictated the contents of the treaty.

We will concentrate here on the issue of compliance as a requirement for an effective treaty. This issue has received increasing attention in schol-
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early writing and in practice since the mid-1990s. Increased attention has led to the development of a new approach to the compliance issue. The traditional view of compliance was very much connected to the principle of sovereignty of states. According to this principle, states are sovereign actors in the international arena, meaning that they are free to act as they find necessary, unrestricted by any external authority or rules. Based on this principle, one tended to believe that governments therefore accepted only those international treaties that were in their own interest. A breach of these treaties was thus seen as unlikely. If a state was in breach of its treaty obligations, it was usually considered to be intentional. Enforcement measures were thus often limited and were regarded as severe actions. Examples of these enforcement measures are procedures where states can file an official complaint against the violating state or impose trade sanctions. Because of the gravity of these sanctions, however, they are rarely applied in practice. Even in the European context, direct complaints of one state against another are still highly exceptional.4

The traditional view of compliance problems is being abandoned in recent scholarly writings. This change goes hand in hand with the new approach to sovereignty. Some argue that states are no longer seen as completely sovereign entities but are willing to accept limits on their original sovereign rights for the benefit of the environment, future generations, or the international community as a whole.5 The international community is increasingly organized in regimes.6 These regimes consist of a framework with a relatively well-developed set of rules and norms concerning a specific subject. The development of regimes can be placed between the traditional concept of sovereignty, leaving the states unbound, and a comprehensive world order, placing the states within a new world governance. Examples of important regimes are the climate change regime, constructed around the FCCC and its Kyoto Protocol (the latter is not yet in force), and the international trade regime, based on the agreements concluded under the World Trade Organization (WTO). With the development of these regimes, "sovereignty no longer consists in the freedom of states to act independently, in their perceived self-interest, but in membership in reasonably good standing in the regimes that make up the substance of international life."7 States' interests are increasingly determined by their membership in, as well as good reputation under, these regimes.

The new approach tries to place compliance problems in this increasingly complicated international context, with a multitude of regimes, interdependent actors, and different interests and obligations. Within this new context many factors can lead countries to conclude treaties. These factors also affect the states' willingness and, more important, their ability to comply with the obligations. In this more complex perception of compliance, the actors at the international level can no longer be seen as utilitarian decision makers weighing the benefits and costs of compliance. The compliance record of states is influenced by a large number of factors, in which the willful desire to violate rules plays only a minor role. Often it is
practical obstacles, outside the direct will or control of states, that make compliance difficult.

This new concept of compliance also necessitates new solutions to problems. The traditional sanction mechanisms, based on the notion that states intentionally do not comply, have proven largely ineffective. Moreover, some of these are now often unlawful under other international arrangements. The use of military action is strictly regulated under international law, although states obviously observe such regulations unevenly, and force is now allowed in a legal sense in a limited number of situations. Certainly it is not seen as a legally appropriate or practical method of seeking compliance with environmental treaties. Economic sanctions have become more difficult to apply since the development of an increasingly comprehensive international trade regime. It is now necessary to take into account the actual abilities of states to comply, and sanctions for noncompliance need to be developed that fit within the new international regimes. Solutions for compliance problems need to be based more on what is referred to as a "managerial approach" rather than on a more traditional "enforcement approach."  

Sources of Compliance and Noncompliance

The following section will address several factors that may affect compliance with environmental agreements and possible sources of noncompliance.

Regime Rules

The regime rules refer to the actual contents of the treaty that the parties have signed. These rules define the behavior that is required of the participating states under the terms of the treaty. The regime rules are directly related to the activity that the environmental accord is supposed to regulate. Even during the negotiations, when the primary rules are defined, the degree of treaty compliance can be determined to a large extent.

A first important aspect of the design of the regime rule system relates to whether it requires any behavioral change, what the costs of this change will be, and by whom this behavioral change is required. It is easier to achieve compliance if the degree of behavioral change and the costs of this change are low. It is therefore argued, for instance, that it might be harder to achieve compliance with the Kyoto Protocol than with the Montreal Protocol, since more people and industries must make bigger behavioral changes. The Montreal Protocol mainly requires behavioral changes by the producers and corporate users of a limited number of very important but replaceable chemicals. The greenhouse gas emission reduction targets in the Kyoto Protocol, however, require larger-scale behavioral changes, not only by industry but also by individuals, particularly with respect to the production and consumption of energy.

In a number of cases treaty rules require no change in behavior of the industry in a specific country. This is often the case when industry is already
meeting a specific pollution standard (for example, emissions). Those industries may even lobby in favor of treaties that will impose on their foreign competitors the standards that domestic industries already have to comply with at the national level. In those cases the industries already meeting the specific standard will obviously readily comply, since the treaty merely erects a barrier to entry for the foreign competitors.

In some cases the treaties are clearly in the interest of industry for other reasons. One example is the treaties relating to liability for nuclear accidents and oil pollution. On paper these treaties serve the interests of victims, but, in fact, the contents are often such that the liability of operators is limited (for example, through financial caps). The nuclear liability conventions that originated in the late 1950s came into being as a reaction to the growing nuclear industry’s fear of unlimited liability. Hence, compliance with the conventions, which included limited liability of nuclear operators, was relatively high. The amount of detail or specificity in a treaty may affect future compliance. States can facilitate their own compliance by negotiating vague and ambiguous rules. Examples include agreeing to provisions that on paper seem to be in the environmental interest but are sufficiently vague to allow business as usual. However, primary rules can often increase compliance through greater specificity. Specific obligations make compliance easier by reducing the uncertainty about what states need to do to comply. Specific treaty language will also remove the possibility of the excuse of inadvertence and misinterpretation in case of noncompliance. Moreover, the advantage of conventions with relatively precise obligations (such as the Montreal Protocol) is that it is easier to judge whether states do, in fact, comply. If the obligations are vaguer, assessing implementation and compliance becomes more difficult.

One obvious remedy for inadvertence as a source of noncompliance is, therefore, to draft specific, detailed obligations. These, together with an information campaign, can at least prevent states from justifying noncompliance on the basis of a lack of information or clarity with respect to their obligations. A general formulation of the obligations may, however, be unavoidable in some cases simply because political consensus may not support more precision. Article 4(2)(a) of the FCCC is an example of diplomatically formulated “obligations.” The article leaves unclear whether there is any specific obligation at all.

One source of noncompliance may be the incapacity of states to fulfill the treaty obligations due to a lack of resources or technological abilities. When these problems are recognized during the drafting stage, noncompliance may be prevented by designing the primary rules in such a manner that the differing capacities of states are taken into account. Treaty obligations can be differentiated, based on the varying capacities of states, or resources or technologies can be transferred. This is, again, an example of a managerial approach; instead of blunt sanctions, instruments are developed in the treaty design stage that take into account the varying capacities and thus prevent noncompliance.
The idea of differentiated standards according to a state's capacities is predominant in the FCCC and its Kyoto Protocol. This treaty regime places its signatory states in different categories, imposing different obligations for each group. All signatory states commit themselves to the general obligations, such as developing national greenhouse gas inventories. Under the FCCC, only the developed states and states in transition that are listed in Annex I of the FCCC are required to stabilize their carbon dioxide emissions. Under the Kyoto Protocol, only the developed states and states in transition that are listed in Annex B of the protocol are required to limit their greenhouse gas emissions in accordance with the targets contained in that Annex. Annex II of the FCCC lists the developed countries that additionally need to provide financial resources to facilitate compliance by developing countries. The transfer of funds from developed to developing states can also be observed in other treaties. The Montreal Protocol, for instance, provides a framework within which financial support as well as technical assistance is provided. The EU uses the instrument of structural funds to promote economic and social development of disadvantaged regions within the EU.

A new concept in the area of climate change, which also takes into account differing abilities of states, is the use of "flexible mechanisms." These mechanisms allow developed countries to meet their emission limitation targets through buying "emission rights" from countries in which the marginal costs of emission reduction are lower, thus reducing the costs of compliance. The Kyoto Protocol's flexible mechanisms are Joint Implementation (JI), the Clean Development Mechanism (CDM), and International Emissions Trading (IET). The CDM is the most interesting of these mechanisms; it allows developed countries to invest in emission reduction projects in a developing country and in return receive emission rights that can be used to comply with their emission limitation obligations. A well-implemented CDM project can thus help provide financial aid and technologies to developing countries and hence also help remedy capacity problems.

The only problem with these various inducements is that they are vulnerable to "moral hazard." Moral hazard refers to the fact that incentives for the prevention of emissions may be diluted if states are subsidized through financial or technological transfers. States may indeed misrepresent their abilities in order to have others pay for their compliance costs. The approach of using differentiated standards and financial and technological transfers is the basis of the more comprehensive noncompliance response systems that we will discuss below (see box on the Montreal Protocol as an example of the managerial approach).

Reporting and Information

The likelihood of compliance will also depend upon informational issues. Information plays an important role at several stages. First, accurate information on the environmental risks increases the chances of adopting a
treaty on the specific subject and also the likelihood of compliance. Second, information, through monitoring or reporting systems, serves to increase the transparency of the implementation and compliance records of states.

With regard to the first factor, it is broadly assumed that the more information there is about an environmental issue, the more effective implementation and compliance will be. This understanding is rather straightforward: the clearer the presentation of the activities and risks that are the subject of the treaty, the easier it will be to build political pressure (through, among others, NGOs) via public opinion to induce compliance. One of the reasons that the swift adoption of the Montreal Protocol came as a surprise to the international community was that it occurred in a time of still important scientific uncertainties about the causes and effects of the changing ozone layer. These uncertainties are still significantly influencing the negotiations concerning climate change. The scientific reports of the Intergovernmental Panel on Climate Change (IPCC) play an important role in forming international consensus about the problem.

With regard to the second factor, information increases the transparency of the implementation and compliance records of states. If it is known that a state does not comply, international and domestic groups can take actions aimed at improving a state’s compliance. Transparency with respect to the compliance record will to a large extent depend upon the complexity of the issue covered by the treaty as well as the democratic character of the complying state. Transparency can lead to public pressure to increase compliance. In this respect, one can cite the actions of NGOs to identify noncompliance, thereby giving incentives for compliance without a need for formal sanctions. Transparency is considered an almost universal element of compliance management strategy. Indeed, transparency in the form of “naming and shaming” is increasingly being used as a sanction for noncompliance, building on the desire of states and companies to satisfy an environmentally aware electorate, consumers, and shareholders.

Transparency can be achieved through an effective compliance information system that is laid down in the treaty. To a large extent, treaties rely on self-reporting by states. As noted above, in a regime system with often delicate political links and pressures, the “status” of a state is often very important. States are generally careful about “losing face” with other states and their own population. This fear of losing face has traditionally been used in many treaties, including those outside the environmental field, by imposing a requirement that the state report on its compliance with the treaty. This report would allow other states and citizens to hold it accountable for its compliance record. Although reporting procedures can be found in most environmental treaties, they are often vaguely formulated, and the reports are poorly drafted. Hence, the reporting procedure is often criticized for its “weak” character and the absence of sanctions in case of noncompliance with the reporting requirements.

Self-reporting is also criticized because it may lead to self-incrimination. If states take this duty seriously, they should report their own noncompliance.
The hesitancy of states to incriminate themselves may be one of the reasons why the reporting requirements of environmental treaties are often violated. Moreover, governments, particularly of smaller states, are sometimes overburdened with administrative tasks, and filing reports is seen as yet another burden. Reporting can also be difficult for developing countries that often lack both financial resources and the capacity to comply with detailed reporting obligations. Reporting by states is, therefore, a first step, but obviously no guarantee of compliance.¹⁰

Compliance can be improved through monitoring by an independent third party. The likelihood of compliance will to a large extent be influenced by the treaty’s provisions for effective monitoring. This in turn depends on the contents of the primary rules. The Montreal Protocol, for instance, regulated the production rather than the consumption of chlorofluorocarbons (CFCs) because it is easier to monitor a few producers rather than thousands of con-

The Montreal Protocol . . .

The approach to international environmental treaty design has changed in the past decades, mainly because of the new, more realistic "managerial" approach. Prime examples of this new approach are the Vienna Convention for the Protection of the Ozone Layer and, more important, its subsequent Montreal Protocol on Substances that Deplete the Ozone Layer, adopted under this Convention.

The Vienna Convention was adopted in 1985. It did not contain any substantive commitments for the states but provided for a general framework, including the possibility of adopting protocols in the Conference of the Parties, the main institution set up under the Convention. Only two years after the adoption of the Convention, the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer was adopted. The Vienna Convention and, more particularly, its Montreal Protocol surprised the international community by their swift adoption, their specific goals, their effectiveness, and the large number of states that have become parties to them (more than 180 as of November 2003). One of the main reasons given for this effectiveness is the design of the treaty system, which has several "modern" characteristics that make it very suitable for dealing with environmental problems in the current international context. In many of the more recent international environmental treaties the Vienna/Montreal system is used as a model, largely because of the flexibility of its primary rule system.

The Vienna Convention establishes the Conference of the Parties (Article 6), which is to meet "at regular intervals," in practice every three to four years. The Montreal Protocol adds a Meeting of the Parties. Montreal protocol meetings are now held annually to discuss implementation of the commitments and possible improvements to or adoption of new commitments. They are organized by the Ozone Secretariat, set up under Article 7 of the Vienna Convention and Article 12 of the Montreal Protocol. The regular convening of the Meeting of the Parties has proven very useful in keeping the treaty objectives on the political agenda and has ensured a continuous updating of its goals and standards. This updating was made possible by the framework structure chosen by the Vienna Convention. Although not a new structure (it was also used in the 1979 UN-ECE Convention on Long-Range
sumers. Some treaties, such as those on nuclear weapons, allow on-site monitoring. This obviously is one of the most effective instruments to control whether states not only formally adopt legislation implementing a treaty but also comply with the contents. On-site monitoring is, however, still heavily debated, since it constitutes an important infringement on state sovereignty.

Even in the EU, on-site monitoring by a European authority of member state violations of environmental directives is still not used. The compliance record will inevitably depend upon the ability to monitor violations. This brought Gro Harlem Brundtland, the Norwegian prime minister and chair of the World Commission on Environment and Development, to recommend the establishment of “an international authority with the power to verify actual emission and to react with legal measures if there are violations of the rules” in order to ensure compliance with carbon dioxide emission targets.\(^\text{20}\)

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A “Managerial” Primary Rule System

Transboundary Air Pollution), it has been particularly effective. Whereas the Vienna Convention does no more than establish the framework for further negotiations, the real commitments are laid down in the Montreal Protocol—the first and, to date, only protocol adopted under this Convention. The provisions of the Montreal Protocol are regularly updated by means of amendments. In its brief existence, the Montreal Protocol has already seen five amendments and adjustments (in 1990, 1992, 1995, 1997, and 1999). This shows how compliance is likely to be influenced in the treaty design stage by creating a primary rule system that can develop over time, responding to evolving science and the capacity to deal with environmental problems.

The Montreal Protocol also provides an example of how the individual capacities of states may determine their willingness to accept treaty obligations in the first place. India and China would not become parties to the Montreal Protocol until the agreement about compensatory financing had been adopted at the London meeting in 1990. This agreement provided for financial support to developing states in order to allow them to become parties to the protocol and be financially capable of complying with its obligations.

Under the Montreal Protocol, various instruments have been developed to remedy financial incapacity. A Multilateral Fund was set up (Article 10) to provide financial assistance. The fund’s implementing agencies—the International Bank for Reconstruction and Development (World Bank), the United Nations Environment Programme, and the United Nations Development Programme—have drawn up “country programmes” and “country studies” that offer financial support, assistance, and training. Furthermore, the Montreal Protocol provides for the transfer of technology under its Article 10A. On the basis of this article, all states party to the protocol “shall take every practicable step” to ensure that “the best available, environmentally safe substitutes and related technologies are expeditiously transferred” to developing countries (as defined in Article 5[1] of the protocol) and that those transfers “occur under fair and most favourable conditions.”
The problems with reporting procedures have led to the development of *compliance information systems.* These systems contain elaborate procedures for the provision of information by member states, the possible review of this information by independent experts, and the availability of this information to the general public. By developing a more elaborate and transparent system for the provision of information on the compliance of member states, their accountability automatically increases.

For example, the FCCC contains, in Articles 4 and 12, elaborate provisions concerning the communication by member states of their implementation of the Convention. Although the word *reporting* is avoided in the context of the Convention—replaced by the word *communicate*—these communications have the character of national reports. The first FCCC Conference of the Parties (COP-1), in 1995, promulgated the first guidelines for preparation of national communications, and, more important, procedures were adopted for the in-depth review of individual reports from developed countries by teams of experts. Between 2001 and 2003, most developed countries submitted their third national communications, all of which have been subjected to an in-depth review. Although written in "non-confrontational language," the in-depth review procedure does provide an important impetus for member states to increase their efforts to comply. All national communications and the in-depth reviews are collected by the FCCC Secretariat in Bonn, Germany. Under Article 12(10) of the FCCC, the Secretariat makes these communications and their in-depth reviews publicly available. The reports may also be accessed at the Secretariat's Web site (http://www.unfccc.int). Under the Kyoto Protocol, this reporting procedure will be further strengthened, with additional reporting requirements and a more rigorous review procedure, the results of which feed into the protocol's noncompliance procedure.

This increased attention to information systems and reporting procedures is part of the transformation from an enforcement approach to a managerial approach to compliance. Traditionally, the incentives for states to report their own noncompliance were low, since such an admission could lead only to "bad news," such as the imposition of sanctions. The situation totally changes, however, when noncompliance is not necessarily considered the intentional act of a sovereign state but may be due, for example, to incapacity. In that case, reporting the problem may lead other partners in the regime to look for remedies to overcome the difficulty, for example, through a transfer of finances or technology. In this managerial approach, reporting noncompliance should not be threatening but may well be in the state's interest. The desired result of this new approach is that in the end a higher compliance record is achieved than with traditional enforcement methods. Thus the reporting of noncompliance under the Montreal Protocol leads the Implementation Committee to investigate the possibilities of financial and technical assistance instead of threatening with sanctions.
Country Characteristics

The characteristics of the parties involved in negotiating and adopting international environmental treaties, that is, the states concerned, will have an impact on the likelihood of treaty adoption; in addition, they will have considerable influence on the probability of compliance.

There may be many reasons why states sign treaties but nevertheless do not comply. States may sign an agreement because of international pressure or to serve domestic interests. Domestic interests, however, may also oppose compliance. Hence, it may well be in the states' interest to sign the agreement but not comply. Moreover, compliance with international environmental agreements is seldom a black or white situation: states may view most provisions of a treaty in their interest, complying with those provisions but violating a few others.

Other factors that may play a role include the cultural traditions, political system, administrative capacities of the country concerned, and economic factors. Compliance may also be influenced by the strength of nongovernmental organizations (NGOs), an issue that will be discussed below.

An important factor is whether a country has a democratic form of government. Many features of democratic governments contribute to improved implementation and compliance. There may be more transparency and hence easier monitoring by citizens who can exert pressure to improve the implementation record. Also, NGOs generally have more freedom to operate in democratic countries. A considerable role can also be played by individuals, such as the heads of state. In many cases the personal enthusiasm of a particular head of state has facilitated compliance, usually during the treaty negotiating process.22

As was indicated above, compliance may also fail because of incapacity. This could be due to the country's lack of administrative capacity to implement the treaty, which in turn may have to do, for example, with the level of education and training of the bureaucrats. The level of administrative capacity is also dependent upon economic resources. In addition, compliance with treaties sometimes requires investment in technologies that countries with fewer resources simply lack.

Number of States and the "International Environment"

The greater the number of countries that have ratified an accord, and the greater the extent of their implementation and compliance, the greater is the probability of compliance by any individual country. Noncompliance would then run counter to international public opinion.23 There is also a relationship between the area to be regulated in the environmental treaty and the number of countries that can be expected to comply. For example, the international whaling commission faces a trade-off between, on the one hand, maintaining a moratorium on commercial whaling in a treaty that
fewer countries have been willing to sign, or, on the other hand, allowing some commercial whaling in order to keep a larger number of countries within the scope of the treaty and thus achieve a higher compliance record.\( ^{24} \) Having a large number of countries accept the contents of a treaty comes at a price, and it may lead to a lowering of the standard to be achieved.

The general "international environment" will have an influence on the willingness of a country to engage in the treaty obligations and on the subsequent compliance record as well. This can be analyzed in terms of the problems of "free riding" and "prisoners' dilemma." \( ^{25} \) Free riding refers to the fact that individual states may hope that others will take the necessary measures to reduce the sources of a transboundary pollution problem, thus "free riding" on their efforts. The game-theoretical "prisoners' dilemma" in this context refers to the fact that although mutual compliance may be in the interest of all states in order, for example, to reduce transboundary industrial pollution, the absence of enforcement may lead all parties to believe that they can violate. Because of these problems, enforcement was traditionally advocated to guarantee compliance.

Compliance also depends on the distribution of power among nations, which can influence individual states' compliance strategies. A dominant state, perceiving sufficient benefits from complying, may force compliance by other, weaker states.\( ^{26} \) In those cases compliance does not even require explicit enforcement. Obviously, the division of power between states may change, which will also produce changes in the incentives to comply.\( ^{27} \)

States sign numerous international treaties. Negotiations on treaties and compliance often involve situations in which states will encounter each other repeatedly in the context of various treaties (often referred to as "repeat player games"); such multiple encounters may have a beneficial influence on compliance. Thus the fear of free riding can be overcome if the record of compliance is related to potential benefits for states in existing and future international agreements.\( ^{28} \) In other words, states may comply because future agreements with the same partner states will be possible if they have an acceptable compliance record.

This "international environment" perspective underscores the point made in the "Theory of Compliance" section above that states increasingly belong to various regimes, which engage them in a repeat player game. Hence, the incentives to comply may emerge from these regimes, reducing the need for formal enforcement of one particular treaty.

Role of NGOs

NGO activity can beneficially influence the compliance record of a country in various ways.\( ^{29} \) International environmental NGOs may influence international public opinion, shaping the agenda that determines the issues to be dealt with in a treaty. For instance, activities of environmental NGOs contributed, through increasing pressure on the international community, to the agreement on the Framework Convention on Climate
Change, leading to the adoption of the Kyoto Protocol in December 1997. Once a treaty has come into being, NGOs can play a crucial role in ensuring compliance. As watchdogs, they can pressure their governments to uphold the key provisions of specific regimes. This so-called bottom-up approach to compliance is increasingly stressed in the literature. The role of NGOs here also illustrates that their actions can lead to what is referred to as "compliance as self-interest," or at least not treaty-induced. Through pressure by environmental groups, public opinion may be influenced in such a manner that the country views the costs of a potential violation of treaty provisions as prohibitively high.

Finally, NGOs can also provide information about activities that are addressed in international environmental treaties. Greenpeace, for instance, is an important source of information about ocean dumping. Hence, NGO activity may foster transparency both at the negotiating and at the implementation and compliance stages.

These factors generally merit the conclusion that stronger and more active NGOs help increase the probability of compliance.

Responses to Noncompliance

As we have discussed, traditional treaty mechanisms for noncompliance were restricted to adversarial dispute settlement procedures (DSPs). These procedures, used generally under international environmental law, mostly involve a sequence of diplomatic and legal means of dispute settlement. Diplomatic settlement procedures usually involve negotiation and consultation in a first instance. If negotiation and consultation do not lead to a solution, some form of mediation or conciliation is often prescribed. This involves third parties or international institutions. In case of deeper conflicts, parties often can have recourse to legal means of dispute settlement, either arbitration or the International Court of Justice. In July 1993 the International Court of Justice set up a special chamber for environmental matters.

This standard sequence of dispute resolution—negotiation, mediation, and finally arbitration or submission to the International Court of Justice—can still be found in more recent treaties, such as the Vienna Convention for the Protection of the Ozone Layer and the FCCC. Article 11 of the Vienna Convention prescribes negotiation as the first means of dispute resolution (paragraph 1). If this fails, parties must seek mediation by a third party (paragraph 2). As an ultimate remedy, arbitration or submission to the International Court of Justice, or in absence of agreement over this remedy a conciliation committee, is prescribed (paragraphs 3–5). Article 14 of the FCCC and Article 19 of the Kyoto Protocol contain similar wording.

The number of cases brought under dispute settlement proceedings is still very limited, especially considering the compliance problems with most environmental treaties. The International Court of Justice has so far never dealt with a purely environmental conflict. Conflicts under dispute
settlement proceedings mostly involve either trade relationships or territorial disputes. One of the reasons for the limited use of dispute settlement instruments is that these procedures are characterized by an adversarial relationship between the parties, so they are only used as a last resort. States are rarely willing to risk their relationship with other sovereign international actors by openly challenging them. As stated above, even in a close community of states such as the EU, the state complaints procedure under Article 227 of the treaty establishing the European Community (EC Treaty) has rarely been used. Not only are traditional dispute settlement procedures rarely used, they are also considered less effective and appropriate in environmental treaties. The result of noncompliance with environmental treaties is often damage to the global commons in general, affecting all states rather than one or several well-identified parties.

The ineffectiveness of dispute settlement proceedings in international environmental agreements has led to the development of a new system for responding to noncompliance, called noncompliance procedures (NCPs). Such procedures, rather than "punishing" noncompliance, are aimed at finding ways to facilitate compliance by the state that is in breach of its obligations. They provide a political framework for "amicable" responses to noncompliance that cannot be considered "wrongful." This tendency to use NCPs reflects the new managerial approach, which no longer assumes that noncompliance is the result of a willful desire to violate.

One of the consequences of shifting from an adversarial approach to a more managerial approach is that sanctions play only a minor role in the noncompliance response system. Three categories of sanctions can be distinguished: treaty-based sanctions, membership sanctions, and unilateral sanctions. The latter category of unilateral sanctions is now severely restricted under international law. As discussed above, resort to the use of military force is exceptional. Trade sanctions are increasingly difficult to invoke under the rapidly developing international trade regimes. Treaty-based sanctions have not proven very popular, which can be explained by the political difficulties involved in the use of such a system. The European Union may, however, be an exception to this. Since November 1993, the European Commission (which supervises the application of the EC Treaty) has had the competence to ask for the imposition of a financial penalty upon a member state that is in breach of its obligations (Article 228 of the EC Treaty). The commission has initiated a number of cases in which it has asked that a penalty be imposed on a member state. Although such a penalty has been imposed in only one instance, this provision has had an important preventive effect, as member states now remedy their violation before the final court decision.

Sanctions against states party to an international treaty, including expulsion or suspension of rights and privileges, are also not considered an effective response in the case of noncompliance with an environmental treaty, since one of the aims of these treaties is to achieve global membership. (See the box on noncompliance procedures of the Montreal Protocol.)
Toward Comprehensive Noncompliance Response Systems

In this chapter we have given an overview of the new approaches to compliance with international environmental treaties that have been developed since the beginning of the 1990s. We have observed a clear shift from the "old" approach, including dispute settlement proceedings and sanctions in treaties, to the "managerial" approach, which tries to use a more comprehensive system of different methods for solving compliance problems. Increasingly, more recent treaties have included a comprehensive combination of different instruments for responding to noncompliance. These systems, also referred to as comprehensive

Noncompliance Procedures: The Montreal Protocol and the Kyoto Protocol

The more recent environmental treaties have new noncompliance procedures, often side by side with the traditional dispute settlement procedures. A prime example of a well-functioning noncompliance procedure is the one set up under Article 8 of the Montreal Protocol. This article states that the parties to the protocol "shall consider and approve procedures and institutional mechanisms for determining noncompliance with the provisions of this Protocol and for treatment of Parties found to be in noncompliance."

At the Copenhagen meeting in November 1992 the Meeting of the Parties adopted the procedure under this article. An Implementation Committee was set up, consisting of ten representatives elected by the Meeting of the Parties, based on equitable geographical distribution. Although under the noncompliance procedure parties can also submit reservations regarding another party's implementation of its obligations under the protocol, this adversarial action has in practice not become the main function of the procedure. The focus has instead been on the nonadversarial functions. The procedure allows states, when they believe they are unable to comply with their obligations, to report this inability to the Secretariat and the Implementation Committee. The Implementation Committee also discusses the general quality and reliability of the data contained in the member states' reports. The Implementation Committee, meeting three to four times a year, has, in fact, assumed a very active role in improving the quality and reliability of the data reported by the member states and, in a cooperative sphere, has sought solutions for parties with administrative, structural, and financial difficulties.

The noncompliance procedure under the Montreal Protocol has served as an important source of inspiration for the development of the compliance regime under the Kyoto Protocol. This regime, which was finalized at the FCCC meeting in Marrakesh in 2001 (COP-7), will have both a facilitative and an enforcement branch. The enforcement branch will determine whether a country has met its emissions target and as a result of this determination apply the consequences for non-compliance that were agreed between countries at COP-7 if this is not the case. The mandate of the facilitative branch is based on the nonadversarial role that the Compliance Committee of the Montreal Protocol has assumed in practice. The facilitative branch will have the task of assisting all countries in their implementation of the protocol.

noncompliance response systems, contain not only methods to sanction violations but also, and perhaps more importantly, methods to facilitate compliance, improve transparency and reporting procedures, and prevent violations.\footnote{M. Faure and J. Lefèvre.}

The various capacities of states can be taken into account in the design of the primary rule system by allowing financial or technology transfer mechanisms. These differing capacities can also be taken into account in the noncompliance response system. The fact that self-reporting of noncompliance should not immediately result in "negative" sanctions but can lead to actual support to remedy incapacity can, in turn, also increase the reporting record. Although the managerial approach is proving very successful in treaties such as the Vienna Convention and the Montreal Protocol, one should not forget that we are only at the beginning of new efforts to find solutions to compliance problems. The flexible mechanisms under the Kyoto Protocol, for instance, are still to be tested. In many other areas it remains difficult to reach any international consensus at all on the protection of our global environment.

International environmental law is increasingly moving from a phase in which the emphasis was on the adoption of standards to one in which the focus is on the implementation of and actual compliance with these standards. One should not forget, however, that it is especially in the phase of adoption that a well-designed noncompliance response system can prove decisive in getting states to agree to new commitments.

Notes


4. Article 227 of the treaty establishing the European Community, one of the treaties forming the basis of the EU, contains the possibility of one or more member states bringing another member state before the European Court of Justice. Since the founding of the European Community in 1958, this procedure has been used only four times. One example is the Court's judgment in the fisheries conflict between France and the United Kingdom (Case 141/78). In this case the UK was held to have breached EC law when searching a French trawler and convicting its master.

5. This new idea is probably best formulated by Abraham Chayes and Antonia Handler-Chayes, The New Sovereignty: Compliance with International Regulatory Agreements (Cambridge: Harvard University Press, 1995); see especially chap. 1.


8. Articles 2 (3) and 2 (4), in combination with Articles 42 and 51 of the UN Treaty.


10. For a comparison of these two cases, see David Downie, "Road Map or False Trail: Evaluating the Precedence of the Ozone Regime as Model and Strategy for Global Climate Change," *International Environmental Affairs*, 7, no. 4 (fall 1995): 321–345.


13. "The developed country Parties and other Parties included in Annex I commit themselves specifically as provided for in the following: (a) Each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification, and taking into account the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort regarding that objective. These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention."


22. Jacobson and Brown Weiss, "Strengthening Compliance," cite the important role of the Brazilian president Fernando Collor in the UNCED conference (142). President Bill Clinton played an important role in Kyoto in December 1997, contributing to the adoption of the Kyoto Protocol.

23. Ibid., 129.


28. Ibid., 11.


32. For further details, see Jacobson and Brown Weiss, "Strengthening Compliance," 129 and 140–142.


34. A recent example of a case that does not explicitly deal with environmental issues, but one in which the environment plays an important role, is the one concerning the Gabcikovo-Nagymaros Dam on the Danube River, on which the International Court of Justice pronounced judgment on September 25, 1997.

