

interest to those seeking to understand the formation, consequences, and evolution of international regimes.

The next three chapters not only illustrate uses of the IRD but also demonstrate the links between the database and certain recurrent research themes. While the database provides excellent materials for a study of regime outputs, outcomes, and impacts, for instance, it does not do full justice to emerging questions relating to the legitimacy of international governance systems or to the interplay of distinct regimes in a social space in which the density of institutional arrangements is increasing. This project demonstrates that the creation of any tool for the systematic study of international regimes requires a major investment of time and energy. But we believe it will also convince students of international institutions, policymakers, funders, and members of the broader public that a systematic study of the contributions regimes make to the pursuit of global governance is worthwhile. The IRD is a tool for examining the causes of both success and failure in efforts to respond to the demand for international and transnational governance. It is already clear that both complete success and complete failure are exceptional. But we need to go beyond this overall conclusion. Using the IRD as a tool for analysis, it is realistic to expect that we can arrive at more specific conclusions about such matters as the roles of monitoring systems, compliance mechanisms, funding arrangements, systems of implementation review, and so forth as determinants of the effectiveness of international regimes.

3

Sources of Compliance with International Regimes

3.1 Introduction

Effective regulation depends on a mutual belief in cooperation.¹ Such a belief requires in turn a high compliance rate for any given regulation. High compliance rates, however, are assumed to depend on two conditions that seldom prevail outside the institutionalized framework of the developed nation-state: an established monopoly of legitimate force and a national identity that produces consent on the part of those who are targets of regulations, even if they consider the rules in question inconvenient. In this sense, it seems fair to ask whether compliance is the Achilles' heel of international regulation (see Werksmann 1996, xvi; Young 1999b, chap. 4).

Those who doubt the effectiveness of international institutions argue that successful regulation requires centralized coercion administered by an agent in possession of superior resources. Otherwise, compliance with inconvenient commitments becomes a question of opportunism—an observation that runs counter to the idea that norms and rules matter. On this account, high compliance rates with international regulations are impossible, as long as they require signatories to a treaty to do things they would otherwise prefer not to do. When high compliance rates do occur, they are attributed to shallow treaties that involve little “depth of cooperation” (Downs, Rocke, and Barsoon 1996).

Those who believe in the effectiveness of international regulations, by contrast, start with the observation that international norms and rules are often complied with to a remarkably high degree. “Almost all nations observe almost all principles of international law and all of their

obligations almost all of the time" is Louis Henkin's (1979, 47) frequently cited conclusion. Scholars who endeavor to understand how international regulations work in the environmental field have revived this observation.² According to their findings, it is not so much coercion by a superior power but good management and institutionalized incentive mechanisms that lead to satisfactory levels of compliance. In the words of Abram Chayes and Antonia Handler Chayes (1993, 205), "Enforcement through these interacting measures of assistance and persuasion is less costly and intrusive and is certainly less dramatic than coercive sanctions, the easy and usual policy elixir for non-compliance."

These observations regarding effective regulation beyond the national state encapsulate two separate processes that can generate adequate levels of compliance (Zürn 2004). One involves a focus on *softer paths* to compliance that are based on rational consent, including capacity building, legitimacy building, and the voluntary internalization of law. The other posits that to the extent that coercive sanctions are used as a legitimate means of generating compliance, they need not be applied only in a hierarchical context but can also be used in an institutionalized *horizontal setting*.³ In this view, compliance with regulations varies with the availability of information, institutionalized horizontal coercion, shaming, and adjudication, among other things.

In this chapter, we explore horizontal mechanisms for inducing compliance, setting forth a range of theoretical arguments and comparing them with the empirical data contained in the International Regimes Database (IRD). Section 2 discusses the dependent variable as treated in the IRD. In section 3, we explore four different approaches to accounting for compliance with international regulations. In each case, we derive explicit hypotheses, compare them with evidence drawn from the IRD, and discuss the significance of our findings. The concluding section addresses the significance of these findings for the debate about compliance described in the preceding paragraphs.

3.2 Compliance in the International Regimes Database

Compliance differs from other topics dealing with the consequences of regulations, including their implementation and effectiveness. Of course,

there are many points of contact, overlaps, and links between these phenomena. But the focus of research on implementation is an analysis of differences between legislative requirements on paper and the forms they take in practice (Victor, Raustiala, and Skolnikoff 1998, 4). The principal target of effectiveness research is the capacity of political institutions to solve commonly perceived problems (Young 1999a).

Compliance research is distinct; it examines the extent to which subjects comply with rules addressed to them. Thus, "compliance can be said to occur when the actual behavior of a given subject conforms to prescribed behavior, and non-compliance or violation occurs when actual behavior departs significantly from prescribed behavior" (Young 1979, 3). Moreover, "compliance is a noun that denotes a particular type of *behavior*, *action* or *policy* within a specific regulatory or situational context." (Simmons 2000, 1; emphasis in original). It does not refer to the *willingness* of the actors to comply. The object of our empirical study, therefore, is the actions or behavior of subjects, rather than their attitudes or motives.

The fact that all rules are more or less ambiguous necessitates application and interpretation and thus makes it hard to assess objectively whether or not compliance is taking place. What is more, laws and norms are not constant over time; they are subject to changing interpretations and, in judicial settings, to new case law that interprets and often changes the meaning of statutory law (Dworkin 1986). Nevertheless, it is possible to assess compliance from an external perspective by making systematic use of indicators of internal estimates of compliance. As Simmons (2000, 24) puts it, "The point is to compile objective evidence of subjective socially-based interpretations of behavior."

In this chapter, we focus on the behavioral aspect of compliance. To be sure, compliance is a two-dimensional phenomenon consisting of a substantive dimension—the relationship between obligations and actual behavior—and a procedural dimension—the treatment of accusations of noncompliance (Weiss and Jacobson 1998, 4). At least at the margins, the concepts of compliance and noncompliance are perpetually contested; their meaning evolves over time once a rule moves from paper to practice. Charges of noncompliance can and often do arise from the ambiguity of rules, even when the subjects have no incentive to cheat or to

challenge the validity of the rules. The assumption, in such cases, is that compliance is not problematic once differences about the correct interpretation of the rule are ironed out. We do not ignore these complexities. Nonetheless, we focus here on the substantive dimension of compliance as our dependent variable.

In the IRD, the questions about compliance in the substantive sense are straightforward. Does the behavior of important actors generally conform to the provisions of the regime? Did the regime exert a causal influence on these developments? Coders were asked to distinguish important nations, all members, and nonstate actors in order to provide a general judgment about compliance as well as to direct attention to the behavior of specific actors deemed important to the success of the regime at hand. The level of compliance for each category of subjects can vary over a five-point scale ranging from "behavior exceeds requirements" to "behavior does not conform at all." Intermediate levels include "behavior meets requirements," "behavior conforms with some requirements but not all," and "behavior conforms some (but not all) of the time and/or to some degree but not completely."

In addition, we asked coders to assess the causal impact of the regime on behavior by differentiating "little or no causal impact," "modest causal influence," and "large causal influence." Coders were able to specify that the causal impact was "positive" or "negative." Of course, they had the option of saying "don't know" when they were unable to make a causal judgment.

As table 3.1 shows, compliance levels recorded in the IRD generally confirm Louis Henkin's hypothesis, especially if it is stated less starkly. In a more modest fashion, we can conclude that the majority of member states comply with the majority of international environmental rules most of the time.⁴ With respect to the variable compliance, the IRD contains 130 elements coded for the degree to which the behavior of all members conformed with the provisions of a regime. These data encompass 22 of the 23 regimes included in the IRD. For 80 of these elements, behavior meets regime requirements (62) or even exceeds them (18). Thus, more than 60 percent of the data collected for these 130 coded elements reflect compliance behavior that lives up to the requirements of regime rules.

Table 3.1
Conformity with regime provisions and causal influence of regimes

	CONFORMITY_CAUSAL				
	All cases	1	2	3	4
1	18 13.8%	0 0.0%	0 0.0%	17 21.3%	1 10.0%
2	62 47.7%	3 37.5%	20 62.5%	35 43.8%	4 40.0%
3	34 26.2%	3 37.5%	8 25.0%	21 26.3%	2 20.0%
4	13 10.0%	1 12.5%	2 6.3%	7 8.8%	3 30.0%
5	3 2.3%	1 12.5%	2 6.3%	0 0.0%	0 0.0%
Total	130 100.0%	8 100.0%	32 100.0%	80 100.0%	10 100.0%

CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all

CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence

At the same time, the data show that international environmental regimes frequently encounter compliance problems. In almost 40 percent of the records, some rules elicit insufficient compliance, at least some of the time. Complete noncompliance occurs rarely—only in 2.3 percent of the records. Even in cases of insufficient compliance, progress is possible if compliance problems are tackled institutionally. In cases where watersheds occur, levels of compliance generally improve following the watershed. Compliance improved in 15.4 percent of the cases after a watershed; deterioration in compliance occurred only in 2.5 percent of the cases, despite the fact that rules and regulations generally become more demanding or more encompassing in the aftermath of a watershed.

Even more remarkable is the fact that coders ascribed a significant causal role to the regimes included in the IRD. Coders saw a large (61.5 percent) or at least "modest causal influence" (24.5 percent) in most of the cases. They failed to find causal impact in only 6 percent of the cases. Of course, these assessments are interpretative in nature and may reflect a *déformation professionnelle* on the part of regime analysts and regime practitioners. Given the impressive numbers, however, it seems safe to

assume that international environmental regimes do have a causal impact on compliant behavior. This finding challenges the views of Downs, Locke, and Barsoom (1996) and others who argue that high compliance rates are attributable to the shallowness of regimes. Where compliance rates actually exceed regime requirements, all but one of the coders (94.5 percent) pointed to a large causal inference. This finding implies that there are mechanisms at work in this setting that produce overcompliance. Neither the legitimacy of the rules themselves nor formal sanctioning of rule breakers provides an obvious explanation for overcompliance.

Some brief observations about specific regimes can help to flesh out the overall picture. The behavior of relevant actors has exceeded regime requirements over time in a few issue areas. The Antarctic Treaty System, the Baltic Sea Regime, the Great Lakes Water Quality Regime, the regime for the protection of the Rhine River against pollution, and the stratospheric ozone regime are all cases in point. Compliance problems plagued some of these regimes at the outset. But in each case, the development of the regime has overcome them. Regime development over time is thus an important issue for understanding compliance with international regulations. In only one case, the Barents Sea Fisheries Regime, has the regime started out with good compliance and maintained this record across issues and over time.

It is also important to note that in all the cases of good or exceptional compliance, the environmental problem has changed for the better. What is more, the coders judged that the institutional features of the regime played a large causal role in these processes. In short, experts and practitioners in the field do not believe that positive results in these environmental issue areas could have taken place in the absence of these international regimes.

Examples of less successful regimes include the biodiversity regime, the desertification regime, the Ramsar regime for wetlands, and the tropical timber regime. In each of these cases, at least some of the regime's requirements are met only partially. Although compliance problems in these cases are not minor, they need not threaten the existence of a regime or negatively affect the willingness of other members to comply over time. In fact, compliance problems can foster regime development.

From a dynamic perspective, we can see a trend toward launching efforts to tackle compliance problems, a development that often yields positive results in terms of improvements in compliance. At present, for example, the behavior of members of the Ramsar regime on wetlands does not meet regime requirements fully. But there are constant efforts to improve the implementation of the regime at the global level. The parties regularly adopt multiyear strategic plans. And an assessment of national reports received from 106 Contracting Parties pertaining to the implementation of the convention's strategic plan over the three-year period 1996 to 1999 concludes that good progress has been made in the implementation of the convention, despite the existence of continuing problems.⁵

There are as well some regimes where coders disagreed about levels of compliance. The Baltic Sea regime for the period before 1990, for instance, is one of the rare cases in which the academic expert and the practitioner disagreed strongly about the level of overall compliance. In this case, a lack of data regarding national compliance before 1989 may have contributed to the problem of assessing compliance. But this case also makes it clear that external analysts and members of regime secretariats can have different judgments about a regime's achievements. It would be presumptuous of us to treat one assessment as more authoritative than the other. Beyond this, coders observed that individual states encountered problems in implementing HELCOM Recommendations effectively, particularly prior to the early 1990s. But more recent evidence of reductions in the loads of various pollutants indicates that levels of compliance rose during the 1990s (Roginko 1998, 617).

Do states that play particularly important roles regarding environmental problems behave differently than others? Each coder of an IRD case identified four to seven important states for the case at hand. Not surprisingly, the United States is listed as an important state for 119 out of 130 coded elements. A remarkable finding regarding these important states is that their rates of compliance with the provisions of international regimes surpass those of other states. In 84 percent of the records, their behavior meets or exceeds regime requirements, compared to 62 percent for compliance of all members. Moreover, this finding is not due simply to superior capacity on the part of important states or to

the logic of the lowest common denominator, according to which rich and powerful states exceed the behavioral requirements of international regimes in any case. In the majority of the cases included in the IRD, coders have judged that institutional features have a large causal impact on compliance.

What can we say about specific states in this context? The United States performs slightly better than the average for all important nations. The coders assigned a large causal role to the regime in inducing compliance on the part of the United States in 75 percent of the cases. The performance of other important western states is similar and sometimes even more striking. Germany, for instance, exceeds or meets regime requirements in 83 percent of the cases. Similar numbers apply to Denmark and Great Britain.

The performance of Russia/Former Soviet Union is more ambiguous. With the exception of the Barents Sea Fisheries Regime, Russia fulfills regime requirements only partially. In some instances, however, Russian compliance has improved over time. More or less severe problems regarding Russian compliance with the whaling regime during its early period (1946-1982), for instance, have been alleviated more recently. A similar pattern characterizes Russian compliance with the requirements of CCAMLR as a component of the Antarctic Treaty System.

Overall, we can summarize the evidence regarding compliance as the dependent variable as follows. Member states meet or surpass regime requirements in the majority of cases. Important member states do even better than other states regarding compliance with environmental regulations. Nevertheless, compliance is not automatic. It is deficient in a significant number of cases. Yet even in cases of deficient compliance, there is a trend toward improvements over time in rates of compliance.

3.3 Determinants of Compliance

Evidence drawn from the regimes database demonstrates that compliance with rules and regulations does not require the existence of a political hierarchy and a legitimate monopoly on the use of force and thus a national context. Rather, mechanisms like legitimacy, legalization, responsiveness, and the use of horizontal coercion appear to determine

Table 3.2
Sources of noncompliance

	Rule is not challenged	Rule is challenged
Voluntary noncompliance	Cheating	Norm considered wrong
Involuntary noncompliance	Ambiguity/impreciseness of a prescription	Lack of capacity to implement/inadvertent noncompliance

levels of compliance. As a result, we need to learn more about the nature and operation of compliance mechanisms in horizontal contexts. In this section, we categorize these mechanisms by focusing on the *sources of noncompliance* they address. We differentiate four sources of noncompliance, by examining first the extent to which noncompliance is voluntary or involuntary and second whether noncompliance amounts to a substantial challenge to the rule in question or whether it essentially involves a "technical" problem (table 3.2).⁶

Cheating takes place when actors with a clear understanding of a rule choose to violate it to their own advantage. Behavior of this type is generally secret, and the advantage is usually opportunistic in the sense that it depends on the persistence of the relevant obligation as such. The use of hidden subsidies to provide domestic industries with an advantageous position at the international level would constitute cheating. Noncompliance due to the *ambiguity of a rule* is different because it does not require secret activities and does not even necessarily benefit the party charged with noncompliance. Thus, expenditures motivated by the desire to strengthen research and development might be interpreted as rule-breaking subsidies, whether or not they are effective. When a *norm or rule is considered wrong*, parties may voluntarily and openly disregard it, even if it is formulated precisely. In these cases, transgressors point to the wrongness of the rule to justify noncompliance. In the case of the climate regime, for example, some governments have denounced openly the obligation to reduce CO₂ emissions. Civil disobedience is a particularly clearcut example of this type of noncompliance. Open but involuntary violations occur when *rules turn out to be impractical*. In these cases, there is no debate about the correct interpretation or the validity of the

Table 3.3
Theoretical perspectives on compliance

Rule is not challenged		Rule is challenged
Voluntary noncompliance	Incentives	Legitimacy
Involuntary noncompliance	Legalization	Responsiveness

rule, but parties emphasize practical limitations in fulfilling it. Less developed states often encounter such difficulties when they sign ambitious international environmental treaties.

Each of the four sources of noncompliance corresponds to a specific theoretical perspective on compliance.⁷ In this discussion, we label the four perspectives "incentives," "legalization," "legitimacy," and "responsiveness" (table 3.3).

Each perspective also calls for a certain method of curing noncompliance. They are not full-fledged theories of compliance. But they point to sets of variables that can help us to respond effectively to compliance problems. The four perspectives overlap in some ways. For instance, none of the perspectives denies the importance of monitoring compliance. Even so, they attach different weights to the role of key variables. Although these perspectives do not flow directly from broader theories of international relations, there are clear links to these theories. The theoretical perspective labeled "incentives" connects to the theory of international relations often called rational institutionalism. Other theories of international relations, such as liberalism and social constructivism, contribute to both the legalization perspective and the legitimacy perspective. The responsiveness perspective draws on other theories of international relations such as theories emphasizing discourses and communication. The four perspectives have affinities for distinct theories of law as well. In sum, each of the four theoretical perspectives on compliance involves a problem-driven process of theorizing, drawing on and combining elements of different analytic traditions in an effort to improve our understanding of the performance of international regimes.

3.3.1 Incentives against Cheating

The perspective labeled "incentives" treats cheating as the major problem and calls for the use of positive and negative sanctions (rewards and

punishments) as the solution. It is based on the assumption that we are dealing with rational, unitary actors who comply with rules when and only when comparisons of costs and benefits produce positive results. But note that costs and benefits need not be limited to narrow economic considerations; they can include other factors like power or prestige. Two implications for compliance flow from this perspective. Each of the participating actors has an incentive to enjoy the benefits of cooperation without paying the costs or, in other words, to act as a free rider. In addition, there is a perpetual concern that cheating on the part of some actors will change the cost-benefit calculations of all participants, resulting in a breakdown of cooperation with negative consequences for all concerned.

This perspective, often labeled *rational institutionalism*, treats high levels of compliance with international rules as a possible outcome. It emphasizes that the participants' interests and motives regarding cooperation are mixed in most cases. Quite apart from an interest in the maximization of individual gains in the short run, considerations relating to longer-run consequences may lead actors to exercise caution and to behave in a way that does not endanger cooperative outcomes. In this sense, compliance can arise from a belief on the part of individual actors that cooperative behavior promotes their self-interest (Hurd 1999, 385). On this account, rule implementation is itself a process of bargaining of a type we may call compliance bargaining (Jönsson and Tallberg 1998). The incentive perspective thus differs in two important ways from realist thinking, which restricts effective regulation to systems featuring hierarchical relationships. Coercion in the form of threats and punishments is not necessary to achieve cooperation in all cases. While some successful institutions do require coercion to work, others do not rely on threats and punishments. What are often described as coordination problems in contrast to collaboration problems, for instance, do not produce situations in which individual participants experience an incentive to cheat.⁸

In addition, although all rules and regulations that generate incentives to cheat must be underpinned by threats and punishments to ensure their effectiveness and durability, it is sometimes possible to meet this requirement in the absence of hierarchical arrangements. In some situations, for example, the adoption of a strategy of tit for tat allows for the evolution

of cooperation under anarchy (Axelrod 1984; Keohane 1984). In effect, horizontal coercion can function as a substitute for hierarchy or a legitimate monopoly of force.

In such settings, sustainable cooperation requires additional conditions that can make horizontal coercion effective. Numerous analysts have contributed to the identification of these conditions. Verification procedures need to be reliable and affordable. Verifying emissions of pollutants into a river, for example, is easier than verifying compliance with the rules of a high seas fishery regime. As a number of analysts have noted, institutional design often plays a role in determining how hard it is to verify compliance (Mitchell 1994b; Wettestad 1999). In addition, the sanctioning of violators should not be too costly for the parties imposing sanctions. Military sanctions, for instance, are almost always extremely costly, whereas sanctions in the form of retaliatory tariffs may actually prove beneficial. In most cases, the exercise of care in matching institutional design to the underlying problem structure can minimize the costs of sanctioning. In sum, the perspective labeled "incentives" links compliance to features of the institutional setting and characteristics of the problem structure that facilitate the verification of compliance and allow for the operation of horizontal enforcement mechanisms.

What can we learn about these theoretical expectations from an examination of the data included in the IRD? The most relevant form here is RA (in other words, regime attribute) 45: "Are there reporting procedures requiring the submission of information by individual members pertaining to regime implementation?"

Table 3.4 indicates that institutionalizing the verification of compliance is less important than rational institutionalism anticipates. When regimes include "reporting procedures requiring the submission of information by individual members pertaining to regime implementation," the level of compliance remains unchanged or declines insignificantly. In fact, the cell for "no reporting procedure/excessive compliance" includes a significantly higher share of the records than a normal distribution would predict. At first glance, this result is counterintuitive. The most plausible explanation is that in some cases verification of compliance is so easy and so transparent that there is no need for compliance mechanisms. Overall, the mere presence or absence of institutional reporting

Table 3.4
Compliance reporting

	COMPLIANCE_REPORTING				
	All cases	0 = Not applicable	1 = No	2 = Yes	3 = Don't know
CONFORMITY					
1	16	0	5	11	0
2	60	1	9	48	2
3	34	0	3	31	0
4	13	0	2	11	0
5	3	0	2	1	0
Total	126	1	21	102	2
	100.0%	100.0%	100.0%	100.0%	100.0%
CAUSAL					
1	8	0	2	6	0
2	32	1	4	25	2
3	77	0	14	63	0
4	0	0	0	0	0
5	9	0	1	8	0
Total	126	1	21	102	2
	100.0%	100.0%	100%	100.0%	100.0%

CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all

CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

procedures in international environmental regimes is less important than generally expected.

A closer examination of more specific "procedures for reviewing implementation" (table 3.5) shows that soft forms of institutionalized verification are counterproductive, whereas strong "procedures for reviewing implementation" do increase compliance with regime provisions. While "information gathering for broad assessment" and "information gathering from third parties on implementation by other parties" have no impact—or even a negative impact—on compliance with treaty

provisions, the stronger forms of verification are associated positively with compliance. This is especially true for specific values of this variable, such as "recommendation/implementation of responses to inadequate performance by bodies delegated by parties" and "on-site inspections to verify compliance." The rates of behavior that fulfill or exceed requirements in these cases are 83.3 and 76.4 percent respectively (compared to an overall average of 56.6 percent for this variable).

Findings regarding the causal role institutionalized verification plays in behavioral terms support the thrust of these conclusions about the effects of verification on compliance. With the exception of a few particularly strong mechanisms, the role of verification regarding compliance appears to be less important than rational institutionalism predicts. The implication is clear: if you plan to institutionalize procedures to verify rule compliance, choose strong mechanisms.

The evidence concerning the role of institutionalized forms of horizontal enforcement is more impressive. It is both significant and in line with theoretical expectations (table 3.6).

The IRD asks coders to answer this question: "What formal compliance mechanisms are provided for in the regime's constitutive provisions to achieve compliance?" An examination of the data regarding those compliance mechanisms providing an opportunity for real enforcement (e.g., "suspension of membership rights," "exclusion from membership," "imposition of military punishments," and "imposition of financial and economic punishments") demonstrates that the presence of such mechanisms increases both compliance rates and the causal role regimes play in promoting compliance.

To summarize, the determinants of compliance identified by the theoretical perspective labeled "incentives" are important. Whereas institutionalized enforcement mechanisms have exactly the effects predicted by the theory, however, verification procedures make a difference only when these procedures take a strong form (e.g., on-site inspections). This observation points to the possibility that the problem with verification procedures may be a function of the situation structure in the issue area. This would be compatible with a consideration of incentives. If verification occurs "naturally" so that there is no need for institutionalized procedures, compliance rates are good. But when verification requires the

use of institutionalized procedures, soft mechanisms do not suffice; strong mechanisms lead to improvements in compliance.

3.3.2 Legalization against Cheating

This perspective sees inconsistencies in rule development and application along with the abuse of ambiguities as the major sources of noncompliance. The solution is a process of legalization that incorporates the regulations in question as deeply as possible into existing rule-of-law systems. In addition, this perspective stresses the "preciseness" of rules and norms together with the importance of secondary rules that help to settle disputes over the content and the application of the rules and norms themselves.⁹

The fundamental assumption embedded in this perspective is that a legal system is more legitimate than a specific rule or regulation, a proposition implying that subjects may comply with a specific, lawlike rule because it is part of a larger legal system regarded as legitimate. This line of reasoning applies not only to national legal systems (Dworkin 1991), but also to the role of law in international society (Hurrell 1993). Subjects may comply with international rules, even when they run counter to self-interest more narrowly defined, because they regard them as part of an encompassing normative structure. Blatant, unjustified transgression of rules and regulations thus implies a general repudiation of the normative basis for international cooperation. In this sense, legal rules possess a compliance pull of their own (Franck 1990). It follows that the more a rule is integral to a legal system or, in other words, the more an international institution is legalized, the more likely compliance becomes.

The question that arises in this context is what makes decision makers perceive a rule as lawful. Here, we treat two sets of features as central to the process of legalization. We call one juridification and the other internationalization (Zürn and Wolf 1999). *Juridification* refers to the processes that ensure that rules and regulations fulfill criteria like clarity, pertinence, stringency, adaptability, and a high degree of consistency both intrinsically and in relation to other laws. Abbott et al. (2000, 401) identify three elements of these processes:¹⁰ "obligation" in the sense that states or other actors are bound by a rule or commitment; "precision" meaning that the rules define the conduct they require, authorize, or

FORMAL COMPLIANCE MECHANISMS														
CONFORMITY														
All cases														
Sum of 0-2; 7-11*														
CONFORMITY CAUSAL														
Total														
1	32	17.2%	29	17.2%	3	42.9%	0	0.0%	0	0.0%	1	100.0%	0	0.0%
2	90	48.4%	79	46.7%	3	42.9%	2	100.0%	1	100.0%	5	71.4%	0	0.0%
3	45	24.2%	43	25.4%	1	14.3%	0	0.0%	0	0.0%	1	14.3%	1	14.3%
4	16	8.6%	15	8.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	14.3%
5	3	1.6%	3	1.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total		186	100.0%	169	100.0%	7	100.0%	2	100.0%	1	100.0%	7	100.0%	
All cases														
Sum of 0-2; 7-11*														
CONFORMITY-CAUSAL														
Total														
1	9	4.8%	9	5.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2	47	25.3%	42	24.9%	5	71.4%	1	50.0%	0	0.0%	2	28.6%	2	28.6%
3	20	10.8%	108	63.9%	2	28.6%	1	50.0%	1	100.0%	5	71.4%	0	0.0%
4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
5	13	7.0%	10	5.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total		89	47.8%	169	100.0%	7	100.0%	2	100.0%	1	100.0%	7	100.0%	

Table 3.6
Compliance mechanisms (RA 47)

FORMAL COMPLIANCE MECHANISMS: 0 = not applicable, 1 = no compliance mechanisms, 2 = issuance of notice of violation, 3 = suspension of membership rights, 4 = exclusion from membership, 5 = imposition of military punishments, 6 = imposition of financial/economic punishments, 7 = support for capacity building to enhance compliance, 8 = granting of a transition period to active compliance, 9 = dissolution of linkages, 10 = additional compliance mechanisms, 11 = don't know

CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all

CONFORMITY-CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

proscribe accurately and unambiguously; and "delegation" in the sense that authority is granted to third parties to take actions to implement the rules, including interpretation, application, dispute settlement, and further rule making. For our purposes, the element of obligation is a little too close to our dependent variable (compliance). But the other two elements point directly to the problem of ambiguity. The major response to the problem of ambiguity in any legal system involves establishing procedures capable of interpreting rules and their application to specific cases on the basis of legal reasoning.

The result is "an effort to gain assent to . . . judgments on reasoned rather than idiosyncratic grounds" (Kratochwil 1989, 119). International governance in this view cannot be justified legally on the basis of "bargaining" alone; it also requires a process of "arguing" against the background of commonly accepted legal norms.¹¹ The major instrument for establishing these argumentative procedures is the delegation of "authority to designated third parties—including courts, arbitrators and administrative organizations—to implement agreements" (Abbott et al. 2000, 415). Such delegation encompasses a number of tasks including fact findings, dispute settlement, and rule refinement in the process of rule application, with each task being restricted by the principles and terms of the agreement. The greater the autonomy of designated authorities regarding each of the three tasks, the greater the extent of juridification.¹²

Internalization constitutes the second component of legalization.¹² Here, we build on the theory of the internalization of law, which asserts that norms operating above and beyond national societies can attain full legal status only when those to whom they are addressed internalize them (Koh 1997, 2645–2658; Raustiala 1995). Legal internalization refers here to the fact that rules and norms of conduct, developed outside of the jurisdiction of individual states, directly affect the behavior of their addressees. This leads to a situation in which "enforcement through domestic courts" becomes the principal means by which compliance with international rules and regulations is attained (O'Connell 1995, 5–7; Alter 2001). In its strongest form, legal internalization is based, above all, on two pillars that are best illustrated by EU practice: the supremacy of European law over the law of individual members and the binding effect of European Court of Justice case law, via the preliminary reference pro-

cedure contained in Article 234 (former Article 177) of the EU treaties. These features ensure that European law possesses an unquestionable and unquestioned validity throughout all the member states, so that community provisions become an inseparable part of the body of laws valid for all EU citizens (Weiler 1993).¹³ The deeper the internalization of international rules and regulations becomes, the more likely it is that individual states will comply with them.

Summing up, legalization encompasses double processes of juridification and internalization. These components of legalization are closely related to one another; interaction is a central feature of their dynamics (Stone, Sweet, and Caporaso 1998).

This brings us again to an examination of the empirical evidence regarding environmental regimes included in the IRD. According to the theory, the core of *juridification* consists of a delegation of the power to develop and interpret rules to bodies possessing some degree of autonomy. Courts or courtlike dispute-settlement bodies operating at the supranational or transnational level are the most important arrangements in this respect. Unfortunately, the IRD contains no direct information about dispute-settlement bodies. When we developed the IRD Data Protocol, dispute-settlement bodies did not figure prominently either in theoretical debates about international institutions or in the practice of international environmental politics. This has changed now. The theoretical debate described above is among the liveliest in the study of international institutions. In the world of international environmental policy, the last decade has witnessed the rise of more sophisticated procedures pertaining to compliance with the provisions of environmental treaties, such as the Montreal Protocol on Substances That Deplete the Ozone Layer, the protocols to the Geneva Convention on Long-Range Transboundary Air Pollution, the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, and the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (see Ehrmann 2002). Additional procedures of this sort are associated with the Cartagena Protocol on Biosafety, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in

ESTABLISHED SECRETARIAT: 0 = not applicable, 1 = no secretariat established, 2 = regime has a secretariat of its own operating independently, 3 = intergovernmental organization performs the secretariat's functions, 4 = nongovernmental organization performs the secretariat's functions, 5 = a nation-state performs the secretariat's functions
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

		ESTABLISHED SECRETARIAT									
		All cases					No entry				
CONFORMITY	Total	1	2	3	4	5	1	2	3	4	5
		18	72	38	13	5	18	72	38	13	5
CONFORMITY - CAUSAL	Total	1	2	3	4	5	1	2	3	4	5
		8	39	87	10	5	8	39	87	10	5
		12.5%	50.0%	26.4%	9.0%	2.1%	12.5%	50.0%	26.4%	9.0%	2.1%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	20.0%	40.0%	20.0%	1.0%	0.0%	20.0%	40.0%	20.0%	1.0%
		0.0%	8.0%	14.0%	2.0%	14.0%	0.0%	8.0%	14.0%	2.0%	14.0%
		35.7%	57.2%	71.1%	17.0%	22.7%	35.7%	57.2%	71.1%	17.0%	22.7%
		9	39	17	10	0	9	39	17	10	0
		12.0%	52.0%	44.4%	13.3%	0.0%	12.0%	52.0%	44.4%	13.3%	0.0%
		4	8	24	2	1	4	8	24	2	1
		12.5%	25.0%	75.0%	0.0%	0.0%	12.5%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	20.0%	60.0%	0.0%	0.0%	0.0%	20.0%	60.0%	0.0%	0.0%
		0.0%	27%	27%	60%	7%	0.0%	27%	27%	60%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0%	86.0%	0.0%	0.0%	14.0%	0.0%	86.0%	0.0%	0.0%
		2	19	44	0	10	2	19	44	0	10
		3.0%	25.0%	59.0%	0.0%	13.0%	3.0%	25.0%	59.0%	0.0%	13.0%
		0	8	24	0	0	0	8	24	0	0
		0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		6%	27%	60%	0.0%	7%	6%	27%	60%	0.0%	7%
		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
		0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%
		14.0%	0.0								

International Trade, the International Treaty on Plant Genetic Resources for Food and Agriculture, and the Stockholm Convention on Persistent Organic Pollutants (see also Lefebvre 2002).

Since these recent developments are not considered in the IRD, we turn to data on secretariats and decision-making bodies in order to assess the compliance effects of delegating authority to interpret and develop rules to agents possessing some degree of autonomy (table 3.7). On a general level, these data demonstrate that the presence of autonomous bodies does increase compliance.

The presence of a secretariat or similar organization with some autonomy is conducive to compliance but not a major force. The coders responded to the question: "Did the members of the regime establish a secretariat for the regime as a whole or any of its elements?" In 107 cases, the regime has a secretariat of its own (75) or an arrangement under which secretariat functions are performed by an intergovernmental organization (32).¹⁴ On the other hand, the coders found 29 cases with no secretariat or with a member state performing the secretariat functions. As table 3.7 indicates, the contribution of secretariats or international organizations with some autonomy to compliance rates is negligible. Cases without secretariats produced high scores in terms of behavior exceeding the regime prescriptions as well.

The secretariat's level of independence also seems unimportant. Secretariats with high or strong levels of independence are not associated with better compliance rates than secretariats with little or no independence. The best compliance scores occur in cases where secretariats have *no* independence (71.4 percent had good or excessive compliance). But asked to assess the causal impact of secretariats, the coders did not identify any causal connection between the absence of a secretariat and excessive compliance. On the contrary, they found a causal connection between the existence of a secretariat and high rates of compliance. In 78.2 percent of the cases in which coders gave this variable a large causal-impact score, a secretariat was established (50.6 percent) or the relevant functions were performed by an intergovernmental organization (27.6 percent). The corresponding score for "modest causal influence" is 69.2 percent, while the coders found little or no causal impact in only 25 percent of those cases where an independent agent performed the secretariat

Table 3.8
Causal impact of secretariats

	No secretariat	With secretariat function
No, little or negative causal influence	2	2
At least modest influence	12	97

Note: Contingency coefficient $C = 0.21$

function.¹⁵ Collapsing the data into only two values for each dimension (table 3.8) makes the correlation even clearer.

We conclude that successful regimes do not always require a body that can perform some regime functions autonomously. Some regimes succeed in the absence of a secretariat. But the creation of an independent secretariat does help to overcome some problems that limit compliance. Evidently, member states are able to judge whether or not an independent secretariat is needed.

The evidence relating to *autonomous decision-making bodies*—in contrast to secretariats—is stronger (table 3.9). The data in the IRD indicate clearly that the presence of a standing decision-making body rather than an ad hoc body or regular meetings of a Conference of the Parties increases compliance. The share of cases where behavior meets or exceeds requirements is 69.3 percent when such a decision-making body is present, compared to 55.2 percent when the Conference of the Parties is the only decision-making body. Again, collapsing the data into two binary variables highlights this association (table 3.10). The qualitative statements of the coders about these issues substantiate this conclusion.¹⁶

To some extent, we can treat the precision with which rules are formulated as a substitute for the delegation of the authority to interpret and refine rules to agents possessing a degree of autonomy. As rules become more precise, the probability of divergent interpretations resulting from ambiguity declines along with the need for dispute-settlement procedures. In fact, Abbott et al. (2000, 401) treat the precision of rules as a defining feature of legalization. The question in the IRD addressing this subject is: "Are the regime's substantive rules generally precise and easy to interpret in the sense that they call for well-defined actions, or are they

DECISION-MAKING BODY: 0 = not applicable, 1 = regular meeting of conference of parties, 2 = ad hoc meetings of conference of parties, 3 = standing subsidiary body, 4 = ad hoc subsidiary body, 5 = don't know
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all
 CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

		DECISION-MAKING BODY															
		All cases					No entry										
		1	2	3	4	5	1	2	3	4	5						
CONFORMITY	1	85	21.5%	14	15.9%	0	0.0%	13	13.7%	5	12.8%	44	30.1%	9	45.0%	0	0.0%
	2	174	43.9%	48	54.5%	4	100%	44	46.3%	12	30.8%	52	35.6%	10	50.0%	4	100.0%
	3	84	21.2%	18	20.5%	0	0.0%	25	26.3%	19	48.7%	21	14.4%	1	5.0%	0	0.0%
	4	45	11.4%	5	5.7%	0	0.0%	12	12.6%	1	2.6%	27	18.5%	0	0.0%	0	0.0%
	5	8	2.0%	3	3.4%	0	0.0%	1	1.1%	2	5.1%	2	1.4%	0	0.0%	0	0.0%
	Total		396	100.0%	88	100.0%	4	100.0%	17	100.0%	39	100.0%	146	100.0%	20	100.0%	4
CONFORMITY - CAUSAL	1	23	5.8%	9	10.2%	0	0.0%	5	5.3%	4	10.3%	5	3.4%	0	0.0%	0	0.0%
	2	84	34.4%	21	23.9%	4	100.0%	21	22.1%	5	12.8%	33	22.6%	0	0.0%	0	0.0%
	3	244	61.6%	50	56.8%	0	0.0%	63	66.3%	29	74.4%	81	55.5%	17	85.0%	4	100.0%
	4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	5	45	11.4%	8	9.1%	0	0.0%	6	6.3%	1	2.6%	27	18.5%	3	15.0%	0	0.0%
	Total		396	100%	88	100.0%	4	100.0%	95	100.0%	39	100.0%	146	100.0%	20	100.0%	4

Table 3.9
Decision-making bodies (RA 33)

Table 3.10
Autonomy and compliance rates

	Conference of the Parties	Subsidiary Body
Bad compliance 3-5	60	49
Good compliance	74	115

Note: Contingency coefficient $C = 0.15$

ambiguous and indeterminate?" (RA 12). The scale associated with this variable ranges from 1 to 5, with 1 being the most precise.

The association between the precision of rules and compliance rates is positive but not strong (table 3.11). The overall effect is attributable mainly to the existence of rules that are very precise and easy to interpret. Precise rules (i.e., those that score 1) produce good or excessive compliance in 62.6 percent of the cases, compared to the overall average of 53.3 percent. But note that there is no positive effect for rules that score 2 on the scale (48.8 percent), and there is a distinct negative effect for rules scoring 3 (30.7 percent). What is more, although precise rules increase compliance, they do not enhance behavior that exceeds compliance. Rule precision reduces deviations from the prescribed behavior in both directions (i.e., overcompliance as well as noncompliance). The judgments of the coders regarding causality confirm these conclusions regarding the relationship between the precision of rules and compliance rates.

Overall, this assessment is compatible with the hypothesis that juridification improves compliance rates. Both the delegation of authority to interpret and refine rules to agents with some degree of autonomy and the formulation of precise rules are conducive to compliance. But the evidence from the IRD is not particularly strong regarding these links.

The IRD does not contain direct measures of internalization, the second component of legalization. So far, international environmental regimes have not empowered individuals to direct complaints against their own states. The only question in the IRD that we can construe as an indirect indicator of legal internalization is RA 11, which asks: "Are the regime's substantive rules legally binding on the members, or do they

have the character of soft law (e.g. ministerial declarations, codes of conduct)?"

Interestingly, this variable seems to have no effect on compliance rates at all (table 3.12). Levels of compliance mirror the general distribution between legally binding and soft-law rules—about 80 to 20 percent—with remarkably little variation.

To sum up, although the evidence in the IRD is not ideal for testing this theoretical perspective, reducing the ambiguity of rules through legalization does raise compliance rates. For international environmental regimes, at least, juridification is more effective than legal internalization. Both the presence of implementing agencies with some autonomy and the precision of the rules improve compliance.

3.3.3 Legitimacy against Nonacceptance

This perspective treats reservations about the normative validity of a rule as the most significant source of noncompliance, a view that points to the search for legitimacy as the key to solving compliance problems. The assumption here is that general precepts regarding justice and fairness must play a recognizable part in making and applying rules in order for them to be accepted as legitimate. The *manier* in which norms are generated and applied distinguishes legitimate rules from those that lack legitimacy. To be legitimate, rules and regulations should emerge from legitimate norm-forming processes *and* be applied in a way that demonstrates a rational linkage to their goals and to certain general principles of fairness or justice (Dworkin 1986; Habermas 1994). This perspective highlights the importance of a clear link between legitimacy and compliance, even more than the legalization perspective does.

On this account, the discourses used to justify rules must conform to the principles of rational discourse and apply to all the addressees; those who apply the rules must embrace these discourses. Thus, the legitimacy of a rule is a function of the extent to which decision making regarding the rule is judged to be fair. Subjects are likely to regard a rule as fair when they have an opportunity to participate in decision making relating to the rule and when the rule is not systematically biased in favor of certain interests or interest groups. Although participation and impartiality

RULE_PRECISE: 0 = not applicable, 1 = precise and easy to interpret, 2 = between 1 and 3 on the scale, 3 = medium, 4 = between 3 and 5 on the scale, 5 = ambiguous and indeterminate
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all
 CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

RULE GENERALLY PRECISE AND EASY TO INTERPRET (RULE_PRECISE)																
CONFORMITY																
All cases																
No entry																
0																
1																
2																
3																
4																
5																
Total																
CONFORMITY CAUSAL																
All cases																
No entry																
0																
1																
2																
3																
4																
5																
Total																
1	121	12.6%	10	41.7%	0	0.0%	42	11.1%	38	14.2%	11	7.2%	12	13.5%	8	24.2%
2	391	40.7%	14	58.3%	6	42.9%	196	51.6%	92	34.5%	36	23.5%	37	41.6%	10	30.3%
3	332	34.6%	0	0.0%	6	42.9%	110	28.9%	107	40.1%	62	40.5%	35	39.3%	12	36.4%
4	86	9.0%	0	0.0%	1	7.1%	28	7.4%	24	9.0%	28	18.3%	3	3.4%	2	6.1%
5	30	3.1%	0	0.0%	1	7.1%	4	1.1%	6	2.2%	16	10.5%	2	2.2%	1	3.0%
Total	960	100.0%	24	100.0%	14	100.0%	380	100.0%	267	100.0%	153	100.0%	89	100.0%	33	100.0%

Table 3.11 Precision (RA 12)

RULES LEGALLY BINDING OR SOFT LAW (RULE BINDING)													
		All cases		No entry		0		1		2		3	
CONFORMITY	1	124	12.3%	0	0.0%	4	26.7%	104	13.5%	16	8.2%	0	0.0%
	2	433	43.0%	1	50.0%	7	46.7%	310	40.2%	92	47.2%	23	100.0%
	3	335	33.3%	0	0.0%	2	13.3%	258	33.4%	75	38.5%	0	0.0%
	4	86	8.5%	1	50.0%	1	6.7%	77	10.0%	7	3.6%	0	0.0%
	5	29	2.9%	0	0.0%	1	6.7%	23	3.0%	5	2.6%	0	0.0%
	Total	1007	100.0%	2	100.0%	15	100.0%	772	100.0%	195	100.0%	23	100.0%
CONFORMITY CAUSAL	1	44	4.4%	0	0.0%	2	13.3%	35	4.5%	7	3.6%	0	0.0%
	2	246	24.4%	1	50.0%	3	20.0%	192	24.9%	50	25.6%	0	0.0%
	3	677	67.2%	0	0.0%	8	53.3%	524	67.9%	122	62.6%	23	100.0%
	4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	5	40	4.0%	1	50.0%	2	13.3%	21	2.7%	16	8.2%	0	0.0%
	Total	1007	100.0%	2	100.0%	15	100.0%	772	100.0%	195	100.0%	23	100.0%

Table 3.12
Legally binding rules or soft law (RA 11)

RULE BINDING: 0 = not applicable, 1 = rule is legally binding, 2 = rule is soft law/not legally binding, 3 = don't know
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all know
 CONFORMITY CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

are not the only ingredients of a procedural theory of justice, they enjoy broad popular support (Tyler 1990).

At a minimum, participation and impartiality must apply to all those who are immediate *addressees* of a rule or regulation. Ideally, the final *targets* of rules should be able to participate directly or indirectly in making and applying rules, and all others who are *affected* should partake of the relevant discourses. Public participation reduces the danger that social power will be transformed into administrative power. Thus, the legitimacy perspective emphasizes two determinants of compliance: the inclusion of all subjects of rules and regulations in the decision-making process and the involvement of all associated regulatory targets and those affected by rules and regulations in the decision-making process.

With regard to the inclusion of relevant actors, the most pertinent question in the IRD (RF 46) asks: "Were there states not participating in the negotiation process that other actors believed should have participated?" (See table 3.13a.)

The absence of important states in the decision-making process does affect compliance rates negatively (table 3.13b). When no important states are missing, the likelihood of good compliance or behavior exceeding compliance increases to 66.7 percent from an average of 60.8 percent. Equally important is the observation that it is more important in these terms to include all those states treated as contributors to the problem than to include those deemed important in terms of problem solving.

At the same time, asymmetries in power, which may indicate the existence of a highly uneven pattern of decision making, have no significant impact on compliance rates. Approximately even distributions correlate only weakly with higher rates of compliance; the coders generally judged this factor to be irrelevant to compliance (table 3.14). Nor did different forms of domination occurring during regime formation affect compliance.

The IRD does not differentiate explicitly among subjects, targets, and affected parties with regard to decision-making processes. We therefore sought an indirect measure of affected parties. Specifically, we considered the IRD question (RD 49) that asks: "What roles did non-state actors play in the negotiations?"

Table 3.13a
Missing states (RF 46)

		STATES NOT PARTICIPATING IN NEGOTIATION PROCESS THAT OTHER ACTORS BELIEVED SHOULD HAVE PARTICIPATED (NEGOTIATE_NOT_PARTICIPATE)									
		All cases	0 = Not applicable	1 = No	2 = Yes	3 = Don't know					
CONFORMITY	1	15	12.0%	12	15.4%	3	12.0%	0	0.0%		
	2	61	48.8%	40	51.3%	12	48.0%	2	13.3%		
	3	33	26.4%	0	0.0%	18	23.1%	6	24.0%		
	4	13	10.4%	0	0.0%	7	9.0%	3	12.0%		
	5	3	2.4%	0	0.0%	1	1.3%	1	4.0%		
Total		125	100.0%	7	100.0%	78	100.0%	25	100.0%	15	100.0%
		NEGOTIATE_NOT_PARTICIPATE: 0 = not applicable, 1 = no, 2 = yes, 3 = don't know									
CONFORMITY CAUSAL	1	8	6.40%	0	0.0%	4	5.1%	2	8.0%	2	13.3%
	2	31	24.80%	2	28.6%	20	25.6%	7	28.0%	2	13.3%
	3	77	61.60%	5	71.4%	48	61.5%	16	64.0%	8	53.3%
	4	0	0.00%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	5	9	7.20%	0	0.0%	6	7.7%	0	0.0%	3	20.0%
Total		125	100.00%	7	100.0%	78	100.0%	25	100.0%	15	100.0%
		NEGOTIATE_NOT_PARTICIPATE: 0 = not applicable, 1 = no, 2 = yes, 3 = don't know									
		CONFORMITY CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know									

NEGOTIATE_NOT_PARTICIPATE: 0 = not applicable, 1 = no, 2 = yes, 3 = don't know

CONFORMITY CAUSAL: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all

NEGOTIATE_NOT_STATE_TYPE: 0 = not applicable, 1 = important contributor to problem, 2 = important in problem solving, 3 = important contributor to problem and important in terms of problem solving, 4 = don't know
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all
 CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

STATES IMPORTANT AS CONTRIBUTORS OR IMPORTANT IN TERMS OF PROBLEM SOLVING (NEGOTIATE NOT STATE TYPE)														
All cases		No entry		0		1		2		3		4		
CONFORMITY		1	7	12.5%	0	0.0%	3	50.0%	0	0.0%	4	66.7%	0	0.0%
		2	27	48.2%	2	50.0%	3	50.0%	14	48.3%	2	33.3%	6	75.0%
		3	15	26.8%	1	25.0%	0	0.0%	12	41.4%	0	0.0%	1	12.5%
		4	5	8.9%	0	0.0%	0	0.0%	3	10.3%	0	0.0%	1	12.5%
		5	2	3.6%	1	25.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total		56	56	100.0%	4	100.0%	6	100.0%	29	100.0%	6	100.0%	8	100.0%
CONFORMITY_CAUSAL		1	4	7.10%	2	50.0%	0	0.0%	2	6.9%	0	0.0%	0	0.0%
		2	11	19.60%	1	25.0%	1	16.7%	3	10.3%	2	33.3%	3	37.5%
		3	41	73.20%	1	25.0%	5	83.3%	24	82.8%	4	66.7%	5	62.5%
		4	0	0.00%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
		5	0	0.00%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total		56	56	100.0%	4	100.0%	6	100.0%	29	100.0%	6	100.0%	8	100.0%

Table 3.13b
 Missing states: Problem makers and problem solvers (RF 46)

NEGOTIATE_NON_STATE_ROLE: 0 = not applicable, 1 = observer role, 2 = member of national delegation, 3 = member of negotiation body, 4 = exerted pressure inside the negotiation, 5 = exerted pressure outside the negotiation
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all
 CONFORMITY_CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

		ROLE OF NON-STATE ACTORS IN NEGOTIATIONS (NEGOTIATE_NON_STATE_ROLE)																	
		All cases					No entry												
		1	2	3	4	5	1	2	3	4	5								
CONFORMITY	1	129	12.0%	1	0.9%	29	10.7%	7	10.3%	0	0.0%	44	17.6%	48	15.9%	0	0.0%	23	60.5%
	2	503	46.9%	56	50.5%	116	42.6%	45	66.2%	20	62.5%	99	39.6%	144	47.8%	23	31.6%	12	7.9%
	3	292	27.2%	35	31.5%	80	29.4%	9	13.2%	11	34.4%	77	30.8%	68	22.6%	12	3.7%	30	10.0%
	4	110	10.3%	18	16.2%	32	11.8%	5	7.4%	1	3.1%	21	8.4%	30	10.0%	3	0.9%	110	33.6%
	5	38	3.5%	1	0.9%	15	5.5%	2	2.9%	0	0.0%	9	3.6%	11	3.7%	0	0.0%	38	100.0%
	Total		1072	100.0%	111	100.0%	272	100.0%	68	100.0%	32	100.0%	250	100.0%	301	100.0%	38	100.0%	
CONFORMITY_CAUSAL	1	48	4.5%	3	2.7%	16	5.9%	2	2.9%	3	9.4%	11	4.4%	11	3.7%	2	5.3%		
	2	296	27.6%	49	44.1%	79	29.0%	12	17.7%	3	9.4%	58	23.2%	73	24.3%	22	57.9%		
	3	656	61.2%	49	44.1%	157	57.7%	51	75.0%	26	81.3%	169	67.6%	190	63.1%	14	36.8%		
	4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%		
	5	72	6.7%	10	9.0%	20	7.4%	3	4.4%	0	0.0%	12	4.8%	27	9.0%	0	0.0%		
	Total		1072	100.0%	111	100.0%	272	100.0%	68	100.0%	32	100.0%	250	100.0%	301	100.0%	38	100.0%	

Table 3.15 Role of nonstate actors (RF 49)

The responses of coders to this question suggest that the inclusion of NGOs as members of national delegations or as members of negotiating bodies (i.e., not just as observers) has a positive impact on compliance rates (table 3.15). Behavior meets or exceeds requirements in 53.3 percent of the cases when NGOs are observers. But this number rises to 73 percent when NGOs participate directly in the negotiation process. The data suggest that it makes no difference whether NGOs exert pressure inside or outside the formal negotiations.

From these findings, we can conclude that the absence of important states does reduce compliance and that the participation of NGOs (which we treat as a surrogate for participation by targets of regulations and those affected by regulations) increases compliance rates. Both these conclusions are compatible with hypotheses derived from the legitimacy perspective. Power asymmetries and patterns of domination, on the other hand, do not affect compliance rates negatively.

3.3.4 Responsiveness against Unintentional Noncompliance

This perspective treats problems of implementation as a major threat to compliance and proposes a solution featuring regulatory deliberations among experts.¹⁷ Thus, effective rule making and rule application emerge as elements of a permanent process of interactive adjudication (Joerges 2000; Selznick 1985).

This line of analysis challenges perspectives emphasizing coercion by highlighting two empirical observations. At the international level, "Sanctioning authority is rarely granted by treaty, rarely used when granted, and likely to be ineffective when used" (Chayes and Chayes 1995, 32). What is more, proponents of this view even challenge the proposition that outside observers can easily identify cases of noncompliance. They regard regulation and compliance as a continuous process in which rules are applied and modified through a process of permanent adaptation designed to meet the requirements of effective regulation. The formation, implementation, and modification of rules constitute a continuous process that does not take the form of a linear temporal sequence.¹⁸

This is akin to the view that foreign-policy practitioners operate on the assumption of a general propensity of states to comply with international

obligations (Chayes and Chayes 1995, 3). Proponents of this view draw particular attention to the fact that noncompliance is often unintentional. Any of a number of factors can lead to unintentional noncompliance. Ambiguity and the indeterminacy of rules is one source of unintentional noncompliance. But equally if not more important are the inability of member states to fulfill their obligations and the failure of treaties to adapt to changing conditions. Under the circumstances, this perspective expects compliance management to be successful when the parties have sufficient resources to implement rules and regulations and when the compliance-management system displays sufficient flexibility to adapt or adjust to new problems.

There are two basic ways to ensure that all regime members have sufficient capacity to implement rules. One approach is to draft rules in a manner that takes into account differences in capacity. In this vein, the IRD asks (RA 13): "Does the regime have substantive rules that differentiate among its members in terms of requirements, prohibitions, or permissions?"

The evidence in this case runs counter to our expectation. When rules differentiate among members, behavior that is fully compliant or exceeds compliance targets declines (table 3.16). While subjects comply or exceed compliance with undifferentiated rules in 54 percent of the cases, the comparable figure for cases involving differentiated rules is only 41 percent.

The other way to maximize the implementation of rules is to create mechanisms designed to build capacity for actors that have specific needs. Although 16 percent of the cases in the IRD make use of this mechanism, the effects on compliance differ from those that the responsiveness perspective projects (table 3.17). Compliance mechanisms featuring some sort of negative sanctions produce compliance or behavior exceeding compliance in over 74 percent of the cases. But performance in these terms declines to 46.7 percent in cases relying on capacity building as a compliance mechanism. The results of granting some subjects a transition period with regard to compliance are even worse. Behavior meets or exceeds compliance targets in only 21.4 percent of these cases.

These findings are surprising. They run counter not only to the responsiveness perspective regarding international regimes but also to more

RULE DIFFERENTIATE: 0 = not applicable, 1 = rule does not differentiate among members, 2 = rule differentiates among members, 3 = don't know
 CONFORMITY: 1 = behavior exceeds regime requirements, 2 = behavior meets regime requirements, 3 = behavior conforms with some requirements but not all, 4 = behavior conforms some (but not all) of the time and/or to some degree but not completely, 5 = behavior does not conform at all
 CONFORMITY CAUSAL: 1 = little or no causal impact, 2 = modest causal influence, 3 = large causal influence, 4 = negative causal influence, 5 = don't know

REGIME RULES THAT DIFFERENTIATE AMONG ITS MEMBERS (RULE DIFFERENTIATE)												
Rule differentiation (RA 13)												
CONFORMITY												
Total												
All cases												
No entry												
0												
1												
2												
3												
CONFORMITY CAUSAL												
Total												
All cases												
No entry												
0												
1												
2												
3												
4												
5												
1	121	12.7%	10	29.4%	0	0.0%	105	13.0%	6	7.1%	0	0.0%
2	387	40.7%	24	70.6%	16	69.6%	318	39.3%	28	32.9%	1	100.0%
3	331	34.8%	0	0.0%	1	4.3%	297	36.7%	33	38.8%	0	0.0%
4	83	8.7%	0	0.0%	5	21.7%	63	7.8%	15	17.6%	0	0.0%
5	30	3.2%	0	0.0%	1	4.3%	26	3.2%	3	3.5%	0	0.0%
1	44	4.6%	0	0.0%	2	8.7%	37	4.6%	5	5.9%	0	0.0%
2	232	24.4%	1	2.9%	3	13.0%	192	23.7%	36	42.4%	0	0.0%
3	636	66.8%	28	82.4%	16	69.6%	554	68.5%	37	43.5%	1	100.0%
4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
5	40	4.2%	5	14.7%	2	8.7%	26	3.2%	7	8.2%	0	0.0%
Total	952	100.0%	34	100.0%	23	100.0%	809	100.0%	85	100.0%	1	100.0%

general findings in the social sciences maintaining that positive incentives are more effective than negative incentives. It is certainly possible that efforts to build capacity and to grant transition periods occur only in the most difficult cases, so that our results are attributable to selection bias. Even so, we need to explore more systematically the sources of the conclusion that the data in the IRD offer no support for expectations derived from the responsiveness perspective on compliance. One of the reasons may well be that these two variables cover only part of this theoretical perspective. Our results therefore should not lead us to a general rejection of this perspective.

3.4 Conclusion—Compliance Strategies

We cannot explain compliance with international environmental rules and regulations purely in terms of the depth or shallowness of treaty obligations. Experts clearly acknowledge the causal impacts of institutional features; variations in the character of institutions clearly affect compliance rates. Over time, environmental regimes can become both more demanding and more effective in eliciting compliance. On the other hand, efforts to promote compliance through negotiations and various forms of capacity building are not sufficient to induce compliance with international rules and regulations. Most successful regimes rely on compliance mechanisms involving horizontal sanctioning and institutionalized verification procedures. More specifically, evidence drawn from the IRD indicates clearly that international environmental regimes that establish mechanisms of horizontal sanctioning and strong verification procedures do better than average with regard to compliance.

The variables emphasized by the theoretical perspective labeled *incentives* play an important role in the generation of compliance at the international level. Taken together, our findings suggest that neither the shallowness argument of Downs, Rocke, and Barsoom (1996) nor the management approach of Chayes and Chayes (1995) can explain patterns of compliance with international environmental regimes. In our view, a composite perspective that integrates "incentives," "institutional design," "the rule of law," and "the power of legitimacy" is needed.

Although rational institutionalism's emphasis on incentives is justified, *legalization* can add stability to compliance rates. Legalization as a concept encompasses juridification and internalization. Of the two, however, evidence from the IRD indicates that juridification is more important with regard to international environmental regimes. As the *legitimacy* perspective suggests, drawing transnational NGOs into the decision-making process helps as well. When the addressees and (possibly) those affected by rules and regulations are involved in the rule making, compliance with international environmental regimes improves.

A striking conclusion of this analysis is that *responsive* mechanisms for eliciting compliance are much less important than mechanisms associated with the other theoretical perspectives, at least with regard to international environmental regimes. The data included in the IRD do not confirm expectations about the role of capacity building. The IRD provides only indirect evidence that responsiveness plays a role in responding to specific violations, and the results indicate only moderate success.

The role that legitimacy plays in increasing compliance with international rules and regulations is especially interesting. A closer examination of this perspective suggests that legitimacy is more than an incremental determinant of compliance. A related study has shown that the influence of legitimacy is especially important when other compliance mechanisms are also strong and effective (Zürn and Neyer 2005). Combined with mechanisms based on rational institutionalism, juridification often works well and explains high rates of compliance with specific rules and regulations. The combination of these mechanisms may run into trouble, however, when an issue reaches a broader public *agenda* and when different national public discourses are both *fragmented* in the sense that they do not relate to each other and *polarized* in the sense that they lead to different outcomes. The BSE crises in the European Union and the conflicts about growth hormones in the WTO are prominent examples (Neyer 2004). Despite the occurrence of good overall compliance rates, these regulations experienced compliance crises. National politicians who were willing in principle to comply with the rules came under intense pressure from domestic interests backed by more or less homogeneous public opinion.

As long as structurally similar issues do not become a focus of public debate (as in the case of subsidy controls—Wolf 2005), by contrast, compliance is not a problem. At worst, some initial cases of noncompliance may occur. But even well-designed mechanisms for attaining compliance with intergovernmental agreements can engender compliance crises when there is no supportive public discourse among those affected by the rules. In general, the links between *legitimacy* and compliance become most important when heavily legalized rules and regulations come under stress.

The same study also concludes that the formulation of capacity-sensitive rules is relatively unimportant as a source of compliance. But this study does find evidence that the second aspect of the management approach (i.e., the degree to which the application of rules features flexibility) does make a difference. An important reason for the emergence of compliance problems is a perception on the part of subjects that they are not given sufficient opportunities to inject their concerns into the formulation of rules in such a way as to clarify their changing needs and wants. This finding—coupled with the evidence presented in this chapter that compliance improves over time—points to the operation of a form of responsiveness. This is not responsiveness treated as a matter of dealing with specific breaches in a flexible manner. Rather, it is responsiveness in the form of an ongoing discourse about compliance and the development of mechanisms to improve compliance. When regimes allow for easy adjustments to accommodate new developments, compliance improves.

Adding up all these findings yields the following conclusion. Adequate and even impressive rates of compliance with international environmental rules occur when appropriate incentive mechanisms are coupled with juridification, participation on the part of transnational NGOs in the rule-making process, and a responsive approach to the development of compliance mechanisms over time. In short, the formula for achieving compliance is: horizontal enforcement + strong verification mechanisms + juridification + NGO participation + institutional development = high rates of compliance.

4

Decision Rules, Compliance Mechanisms, and the Effectiveness of Regimes

4.1 Introduction

Among the concerns most often articulated by those who are skeptical about the capacity of regimes to meet the demand for governance in international society, two stand out as particularly worthy of consideration: (1) limitations arising from the pressure to arrive at collective decisions by consensus, and (2) constraints attributable to the lack of capacity to enforce collective decisions once made and accepted in principle. These concerns raise fundamental questions about the effectiveness of international regimes. But should they lead us to conclude that regimes are largely epiphenomena incapable of operating effectively as sources of governance under any but the most limited of circumstances (Strange 1983; Mearsheimer 1994–1995)? In this chapter, we seek to answer this question, first by describing current practice regarding these matters and then by examining theoretical arguments pertaining to decision rules and compliance mechanisms and by making use of the International Regimes Database (IRD) to explore the empirical evidence pertaining to our theoretical expectations.

We proceed as follows. The first substantive section of the chapter focuses on the links between decision rules and regime effectiveness. Individual subsections describe current practice, explore theoretical expectations about these links, and compare these expectations to empirical evidence drawn from the IRD. The next substantive section presents a similar analysis regarding compliance mechanisms, with individual subsections again characterizing current practice, presenting theoretical arguments, and evaluating empirical evidence contained in the IRD. We