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# Regime Conflicts and Their Management in Global Environmental Governance

Fariborz Zelli

Research on institutional interplay looks beyond the confines of a single institution, seeking to grasp its synergetic or disruptive interactions with other regimes or organizations. Despite the inherent centrality of institutional environments, however, most theoretical approaches stop short of considering the deeper structures in which these interactions are embedded. As Underdal (2006, 9) observes, the focus so far has been “primarily on interaction at the level of specific regimes and less on links to the kind of basic ordering principles or norms highlighted in realist and sociological analyses of institutions.”

In this chapter, I address this research gap by introducing an analytical framework that includes “major determinants of human behavior and social outcomes” (Underdal 2006, 8) in the explanatory model. This framework deals with a particular type of institutional interplay—conflicts among international regimes—and aims to support the analysis of interplay management within institutional complexes. Over the past two decades, regime conflicts have become more frequent in global environmental governance, sometimes including not only environmental regimes but also regimes aimed at regulating other domains, such as international trade. These conflicts can have significant consequences for the functionality and effectiveness of the affected regimes. By bringing in such core determinants as knowledge and power structures, the framework permits a more in-depth analysis of those consequences. Specifically, it should help to elucidate whether one of these regimes prevails—and if so, why.

Building on international relations theories and pioneering studies on institutional interplay (Chambers 2001a; Oberthür and Gehring 2006a; Stokke 2001a), I successively introduce the various building blocks of the analytical framework. First I define the term “international regime conflict” in a broad manner, showing that conflict can emerge not only

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from legal incompatibility but also from related behavioral contradictions. This extensive understanding of regime conflicts provides a basis for including major determinants of social behavior.

I then introduce the framework's dependent variable: the prevalence of one of the involved regimes. For both pragmatic and substantive reasons, prevalence is framed in terms of a regime's output effectiveness, that is, the norms and rules it produces. A regime is considered to prevail if it generates stronger output on the contested issues than does the colliding regime. The development of third institutions may also be relevant if their output concerns these contested issues. This chapter thereby adumbrates one of the core topics of this volume, namely, the forces driving the emergence of institutional complexes.

The framework also attends to the second main research question of this volume, the role of interplay management. I establish the process of conflict management as the major intermediate process through which independent variables may affect the prevalence of a regime. I then introduce two independent variables central to international relations theories, power structure and knowledge structure. Power structure is presented as the constellation of power among countries, whereas knowledge structure is considered to be the basis of knowledge about the contested issues. For each of these determinants, I develop a configurational hypothesis and discuss obstructing or magnifying conditions. The concluding section summarizes the components and causal assumptions of this analytical framework. Throughout the chapter I illustrate the various components of this framework by referring to the conflict between the UN climate regime and the World Trade Organization (WTO).

### Defining the Research Object: Conflicts among International Regimes

A *regime conflict* is here defined as a functional overlap among two or more international regimes (formed for different purposes and largely without reference to one another) that involves a significant contradiction of rules or rule-related behavior. This definition builds on three more generic terms: *international regimes*, *regime interactions*, and *conflict*. I follow Keohane's definition of international regimes as "institutions with explicit rules, agreed upon by governments, that pertain to particular sets of issues in international relations" (Keohane 1993, 28). How do such "institutions with explicit rules" interact? Oran Young (1996, 2–6) distinguishes several types of interaction, including "overlapping institutions," or regimes formed for different purposes and largely without

reference to one another but intersecting “on a de facto basis, producing substantial impacts on each other in the process” (ibid., 6).

Young’s understanding of overlapping regimes is a major building block of my definition of regime conflict, but “overlapping” does not necessarily mean “conflictive.” Impacts flowing from a regime overlap may also prove to be synergetic. That is why I add the element of “contradiction” in both a legal sense (rules) and a behavioral sense (rule-related behavior). This twofold understanding of contradiction follows Dahrendorf’s (1961, 201) broad definition of conflict as any kind of relation between elements that is characterized by “objective” (= latent) or “subjective” (= behavioral or manifest) contradictions.

The most straightforward indication of a conflict between regulatory systems is a contradiction between some of their rules. Such rule incompatibilities, or *latent conflicts*, may appear in the form of an obligation or a permissive rule under one regime and a prohibition of the same conduct under another regime (Vranes 2006, 398–401). A prominent example of such a latent conflict is the contradiction between Article 4 of the 1987 Montreal Protocol and the most-favored nation (MFN) principle of the General Agreement on Tariffs and Trade (GATT). Whereas the MFN principle obliges parties to give equal treatment to trading partners, the Montreal Protocol requires that parties discriminate among different groups of countries. The Montreal Protocol strictly bans the import and export of the controlled ozone-depleting substances from or to “any State not party to this Protocol” unless the non-party is “in full compliance” with the Protocol’s phase-out and control measures (Article 4). Despite the latter qualification and the nearly universal membership in the Montreal Protocol, many observers hold that such import bans might be challenged under WTO law (see, e.g., Palmer, Chaytor, and Werksman 2006, 186; Neumann 2002, 266–267; Werksman 2001, 183). Likewise, the issue of full GATT/WTO compatibility of the Montreal Protocol’s trade provisions has been the subject of several regime-internal debates and attempts at clarification (Chambers 2001b, 102–103).

My definition of regime conflicts exceeds a merely legal understanding of incompatibilities. With its inclusion of rule-related behavior, the definition also covers *manifest conflicts*, which can include any positional difference between actors who invoke existing rules of different regimes or seek to establish new regime rules. For instance, a manifest conflict arose when the Canadian Navy in 1995 arrested a Spanish-flag halibut fishing vessel on the high seas, just outside the Canadian 200-mile zone. Canada

justified this action by reference to the rules of the Northwest Atlantic Fisheries Organization (NAFO), claiming that, at the time of the incident, NAFO's annual total allowable catch rates for halibut had already been taken. Spain, on the other hand, considered Canada's behavior as violating the UN Convention on the Law of the Sea, which grants extensive enforcement powers to coastal states for protection of marine resources only within their 200-mile zones (known as "exclusive economic zones") (see Bernauer and Ruloff 1999, 13–14, 36–38; Joyner 2001).

Given my broader sociological understanding of conflict as positional difference, not all manifest conflicts necessarily arise at the level of implementation. Various subtypes of manifest conflicts are possible, depending on *when* in a regime's life cycle they occur (e.g., during the norm-setting stage), *where* the actors conflict (e.g., within or outside regime organs), and *who* these actors are (e.g., parties, non-parties, or bureaucracies). For instance, whereas legal scholars with their focus on divergences and inconsistencies among existing rules may question whether the overlap between the UN climate regime and the WTO is conflictive, I conceive of it as a manifest conflict, owing to the longstanding positional differences among country coalitions on trade-restrictive measures under the climate regime.

The distinction between latent and manifest conflicts does not imply a static understanding, as conflicts are moving targets. They may change in character from latent to manifest or, in the best of cases, may even lose their disruptive implications altogether, thanks to successful conflict management.

## The Concept of Regime Prevalence

### Focusing on Output Effectiveness

Research on international regimes has adopted from the literature on policy analysis (Easton 1965, 351–352) the distinction between output (rules and decisions), outcome (behavioral effects), and impact (effects on the relevant subject matter) (Underdal 2002, 5–6; Wolf 1991, 104–107). Oberthür and Gehring (2006b) use these terms to pinpoint three levels of regime interaction.

Of those three levels, the output level is where we can expect immediate repercussions of contradictions among rules or rule-related behavior. As the next section shows in greater detail, important insights can be derived from a comparative assessment of the rules and decisions that regime members agree on in the further development of the regimes in

question. Concentrating on the output level is helpful for identifying the immediate effects of regime conflicts. An assessment of various interactive processes within these regimes, such as agenda setting or norm building, may clarify to what extent concerns about a regime conflict affect these processes, for instance by hampering the generation of further output. The affected regimes are often the first or central place where actors discuss overlaps and various strategies for managing them. Output-related debates on contested issues are often traceable in the records of regime bodies such as working groups, panels, subsidiary bodies, or committees.

Unfortunately, an equally accurate and tractable causal analysis of changes on the outcome and impact levels would prove far more difficult. As Underdal (2006, 16) observes, the number and range of potentially relevant variables increases the further ‘out’ we move along the causal chain, and most sharply as we go from studying effects on human behavior to examining consequences in terms of change in the biophysical environment itself.” Avoiding these methodological impediments, the framework provided in this chapter is geared to the output level.

### **Indicating Regime Prevalence: Comparative Assessment of Output on Contested Issues**

The analytical framework is based on an extended understanding of regime output. In traditional regime research, scholars have tended to equate output with regime formation and the respective processes (agenda setting, negotiation, and implementation). An extended or evolutionary understanding also takes into account the further growth or decline of a regime after its formation—the “regime development path” (Miles et al. 2002, 484).

Quantitative criteria for comparing the development of the involved regimes are (1) the amounts of subsequent output and (2) changes in membership. The first indicator includes additional agreements between states parties, which may be in the form of protocols, amendments, declarations, or decisions made at conferences of parties. The second yardstick highlights the support received for any such subsequent agreements and the regime as a whole. These two sets of figures may indicate the degree of acceptance of the regime as the (leading) regulative institution for a given issue area.

Alone, these two quantitative indicators (additional output and membership) are inadequate for characterizing and comparing the development of regimes. Additional decisions might be basically repetitions of

existing ones, adding to the complexity rather than to the substance of a regime. For comprehensive assessment and cross-regime comparison of output effectiveness we need qualitative yardsticks as well. Based on Abbott et al. (2000), Underdal (2002, 5–6), and Wettestad (2001, 319–321), I propose three chief qualitative criteria:

*Inclusiveness* The degree to which a regime has brought the targeted system of activities under its jurisdiction

*Stringency* Indicators include:

- Degree of obligation (unconditional, with implicit conditions, contingent, hortatory, merely guidelines, or even explicit negation of legally binding treaty)
- Degree of precision (determinate rules, limited or broad issues of interpretation, or even too vague to determine when conduct complies)

*Collaboration and delegation* The degree to which regime bodies and third parties have been granted authority, resources, and expertise; indicators include the type of dispute resolution, verification, and implementation mechanisms, decision rules, funding mechanisms, as well as available scientific expertise and bodies for the science–policy interface

Of course, it is important to exercise caution in interpreting any such quantitative or qualitative changes in regimes after the emergence of a regime conflict, for various other factors may account for the course of such overall regime developments. To render such causal analysis more tractable, I suggest focusing on the issues on which the regimes overlap, using the following approaches:

- Comparing the output produced by the colliding regimes on the contested issues
- Comparing the output produced by third institutions on the contested issues

A crucial step is hence the careful identification of the contested issues. In the conflict between the UN climate regime and the WTO, one major issue of controversy is trade-restrictive climate policies and measures (PAMs). Some parties, the most important being the EU, have tried to support and incentivize such measures by proposing stricter rules under the climate regime or by extending the scope of general exemptions under the trade regime. Or they already see a legal basis for such measures in

existing rules such as Article 2 of the Kyoto Protocol, which lists the PAMs that industrialized countries may take to meet their commitments. Although specifying that parties shall “minimize adverse effects . . . on international trade,” Article 2 does not rule out approaches that might collide with WTO rules, including fiscal measures (e.g., subsidies granted to firms for research, development, or export of climate-friendly products; border adjustments through tariffs or taxes on energy-intensive imported goods) and regulatory measures (e.g., standards, technical regulations, and labeling reflecting minimum requirements for goods on the basis of their energy or greenhouse gas-intensity). Such measures might collide, for instance, with WTO provisions on subsidies, or with the GATT’s national treatment principle, which prohibits discrimination of imported products compared to like domestic ones (see Cosbey and Tarasofsky 2007; Doelle 2004; McKibbin and Wilcoxon 2009).

Indications of a regime’s claim or leverage over such contested issues include willingness among major players to debate the respective subjects under a regime’s umbrella and, ultimately, additional decisions and legal provisions. This focus on contested issues is especially pertinent to the inclusiveness criterion, asking to what extent a regime has managed to bring such issues under its jurisdiction, for instance by extending the list of substances for which trade restrictions apply. But the two other qualitative criteria may also be indicative: do subsequent decisions or provisions alter the degree of stringency and collaboration with regard to the contested issues, for instance by introducing binding targets or control measures and by strengthening the respective appraisal procedures?

Another look at the climate–trade case reveals that the climate regime’s record on contested issues points to stagnation, if not downright deference. As for stringency, provisions on PAMs remain imprecise and non-binding. Unlike in the ozone regime, where trade restrictions on ozone-depleting substances are included, parties to the climate regime have not adopted trade-restrictive measures concerning greenhouse gas-intensive products. Not even detailed agreement on good practices in this respect has been achieved. In terms of inclusiveness, the regime’s compliance mechanism does not cover the trade effects of PAMs. Moreover, there has been no further elaboration of the dispute settlement procedure of the UN Framework Convention on Climate Change (UNFCCC), whereby “issues involving competing claims would be referred to WTO bodies” (Stokke 2004, 339). Since no extension of general exemptions under the world trade regime in favor of multilateral environmental agreements (MEAs) has taken place, the rights of WTO members to



challenge trade-restrictive measures of such agreements remain intact (Eckersley 2004, 36). Likewise, the WTO's Committee on Trade and Environment (CTE) has so far been the only significant international arena where comprehensive conflict management approaches have been discussed.

Apart from an examination of the involved regimes, a second scope of analysis can address the broader institutional context of the regime conflict. Following Raustiala and Victor (2004) and their definition of "regime complexes," this wider context includes other institutions and agreements that also deal with the contested issues and the associated policy fields. These agreements can support one of the involved regimes if they apply a similar approach to the contested issues—that is, if they contain a similar understanding or solution.

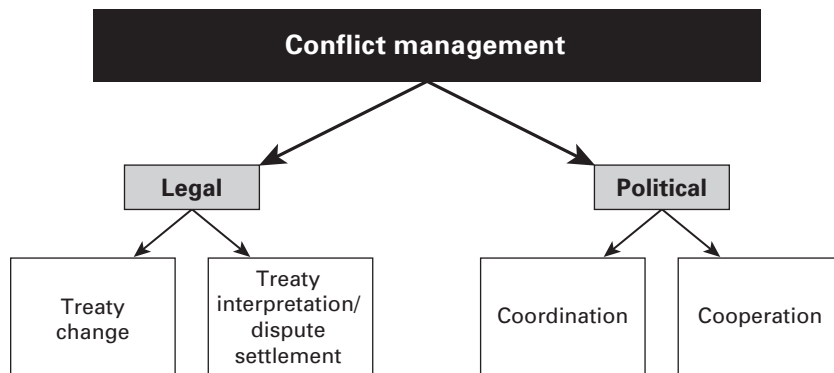
In the case of trade-restrictive climate PAMs, developments outside both regimes hint at least indirectly at WTO prevalence. So far no multilateral system on respective measures—for instance, for coordinating product standards or adjustments at the border—has emerged. Multilateral climate or energy partnerships launched in the early 2000s, such as the Partnership on Clean Development and Climate or the Carbon Sequestration Leadership Forum, focus on market-based instruments while avoiding any trade-restrictive approach. These are voluntary initiatives aimed at the removal of trade barriers, especially with respect to climate-friendly technologies (see van Asselt 2007).

To summarize, we may determine the prevalence of a regime at the output level by answering two core questions:

- Which regime has been more successful in bringing the contested issues under its jurisdiction
  - by serving as the preferred arena for negotiations and decisions on these issues?
  - by producing more inclusive, stringent, and delegating provisions on these issues?
- Which regime's approach and jurisdiction in terms of the contested issues have been echoed or strengthened by third institutions (and their degrees of inclusiveness, stringency, and delegation)?

### **Conflict Management as an Intermediate Process**

As one of the key processes for addressing contested issues, interplay or conflict management deserves special attention when we examine the



**Figure 8.1**  
Approaches to managing international regime conflicts

consequences of a regime conflict. The term refers to any deliberate attempt to address, mitigate, or remove any incompatibility between the regimes in question. Such attempts to manage a regime conflict may occur within one or both of the regimes, or through cooperation between them. Third institutions may also be relevant as mediators or dispute settlers if they directly attend to the relations among the rivaling regimes and the contested issues. Conflict management responds to an already existing conflict and should not be confused with the conflict itself; it is an additional—not a necessary—element of the interaction between two regimes (Gehring and Oberthür 2006, 314; Stokke 2001a, 11; see also Stokke and Oberthür in this volume).

Figure 8.1 presents a brief overview of management approaches, building on existing taxonomies in international law (Neumann 2002, 317–512; Pauwelyn 2003, 237–439). These approaches may be differentiated according to whether they affect the wording or meaning of rules (legal approaches) or involve the active coordination or cooperation between regime bodies (political approaches) (see also van Asselt in this volume).

Legal approaches include negotiations among parties about treaty changes, for instance concerning the inclusion of priority clauses in favor of one or more regimes. The interpretation of treaty rules by state parties or dispute settlement bodies within the regime can provide another form of legal conflict management. Moreover, if appealed to, third parties such as regime-external dispute settlement agencies (e.g., the International Court of Justice) might provide interpretations of overlapping rules, by

referring to superordinate regulatory systems (e.g., the Vienna Convention on the Law of Treaties).

As for political approaches, coordination refers mostly to ad hoc or temporary consultations between regime organs (especially secretariats or expert working groups), whereas cooperation implies continuous and intensive relations between regimes. Cooperation is often institutionalized by agreement or by establishing special agencies, such as the Liaison Group of the Convention on Biological Diversity, the UNFCCC, and the UN Convention to Combat Desertification (Neumann 2002, 92–108). Such agreements may address a range of different targets, such as the coherence of rules and national implementation, the common support of implementation, joint or coordinated scientific research and assessment, and information exchange (Yamin and Depledge 2004).

What role does conflict management play? In the analytical framework, conflict management is understood as an “intervening process [. . .] through which one variable exerts a causal effect on another variable” (Mahoney 2000, 531). Management approaches such as treaty change or interregime cooperation can influence the prevalence of a regime but do not genuinely cause such prevalence: the choice of one or more management approaches, as well as their course and outcomes, is itself rooted in the independent variables. As the remaining sections illustrate, analyzing the intermediate process of conflict management can help substantiate the causal significance of such independent variables for the prevalence of a regime.<sup>1</sup>

Important insights can be gained also when the management process does not lead to agreement. Whenever a policy response in favor of a certain regime is restricted or stalled, this points to deference on the part of that regime. In the CTE, various attempts to initiate processes for extending the scope of the general exemptions from the WTO’s nondiscrimination principles to clearly cover trade-related measures under MEAs have failed to yield tangible results thus far. Moreover, since the mandate for the Doha round of trade negotiations was narrowed to binding rules under MEAs, the negotiations did not cover PAMs under the UN climate regime. In the absence of an extensive priority clause, some authors have argued that the shadow of WTO law and its strong dispute settlement system can provoke anticipatory conflicts or chilling effects in other regimes (Stilwell and Tuerk 1999; Eckersley 2004; see also Axelrod in this volume; Gehring in this volume). In such cases, negotiators of environmental regimes might prefer regime-internal

autonomous adaptation and refrain from more ambitious policy responses (Gehring and Oberthür 2006, 314–316).

### **Determinants of Regime Prevalence: Power and Knowledge**

This section employs two core independent variables from international relations theories for the study of regime conflicts: the power structure, and the knowledge structure in which the rivaling regimes are embedded. Bringing in these determinants in the following involves two crucial steps:

1. Framing the independent variable as an asymmetry (that is, which regime scores better in terms of this determinant?), then generating a “prime hypothesis” (Van Evera 1997, 11) that conveys the relationship between independent and dependent variables. In case of a conflict among international regimes, the one(s) with a higher score of factor A will prevail.
2. Moving from this prime hypothesis to a configurational one by attending to conditions, causal mechanisms, the role of conflict management, and rival explanations.

#### **Power Structure**

I derive the concept of power structure in regime conflicts in part from traditional power-based regime theories. They offer several structural determinants for the formation and robustness of regimes that can also help to explain regime prevalence. One of these theories is hegemonic stability theory, which “posits that regimes are neither created nor maintained unless there is hegemonic leadership in this issue-area” (Hasenclever, Mayer, and Rittberger 1997, 103). The hegemon may be benevolent (Snidal 1985), that is, willing to provide collective goods all by itself, or coercive (Gilpin 1981; 1987), using its power to impose its own will on others and forcing them to contribute as well. However, the claim that only states privileged by a hegemon are capable of generating international regimes has come under criticism. Snidal himself has shown that, through collective action, a group of states “may effectively substitute for hegemonic unilateral leadership” and succeed in achieving their common good (Hasenclever, Mayer, and Rittberger 1997, 101).

The broader concept of the most powerful coalition of countries—which may include the hegemon, but does not need to—is applicable to

a wider array of cases of regime conflicts. Not every regime conflict takes place among regimes that include a (regional) hegemon. Moreover, the negotiations of major trade or environmental regimes have been dominated not by a single power but by blocs or coalitions of countries. In the case of the climate regime, for example, the EU, the Umbrella Group of non-EU developed countries, and the G-77 and China have formed such groups, with further subgroups such as the least-developed countries and small-island developing states.

The assessment of a coalition's power in a regime conflict may involve various dimensions. It clearly includes issue-specific power, that is, capabilities with respect to the subject matters of the involved regimes in general and the contested issues in particular. In addition, one could also consider classical yardsticks of power-based theories, such as the economic and military resources that may be used for threats or incentives as well as for concessions and side payments in other issue areas (Baldwin 2002, 180).

In the climate-trade case, power could be assessed in terms of capabilities or potentials in relation to climate change (using indicators such as the generation of greenhouse gas emissions and vulnerabilities to climate change impacts), general economic and trading capabilities (e.g., GDP and export figures), as well as military capabilities (e.g., military spending or troop strength). On all three counts, over an observation period from the establishment of the two regimes in the 1990s until the present, the various U.S.-led coalitions operating in these regimes can be considered the most powerful groups of countries. However, this dominance has been shrinking in recent years, especially for economic- and climate-related capabilities. In line with neorealist tenets, we could therefore expect other countries to have a growing incentive to balance against the United States and its allies. Another qualifying aspect is the relatively low degree of concurrence of these coalitions, a result of their heterogeneous membership and voting behavior. For instance, the Umbrella Group includes chief producers of fossil fuels, such as the United States, Australia, and Russia, but also Japan, which lacks significant domestic fossil fuel resources (Oberthür and Ott 1999, 17–21).

In addition to identifying the agents of power, it is also important to define more precisely the concept of power. Underdal (2002, 29–33) ascribes the poor performance of power-based propositions in regime research to rather inappropriate concepts that highlight the concentration of capabilities or overall structural power while neglecting the

“distribution of power over the configuration of interests [in] the system of activities to be regulated” (ibid., 32). Unlike traditional understandings, the latter concept relates directly to the control over outcomes in collective problem solving and may hence prove more suitable for researching regime formation: “the probability that a particular solution will be adopted and successfully implemented is a function of *the extent to which it is perceived to serve the interests of powerful actors*” (ibid., 30; emphasis in original). In a regime conflict, such a “solution” might imply the prevalence of one regime over another concerning the contested issues. Accordingly, a prime hypothesis that forms the point of departure for the following configurations reads as follows: in case of a conflict among international regimes, the regime(s) supported by the more powerful coalition of countries will prevail.

To flesh out this assumption, I now turn to two major structural conditions for its validity: problem structure and decision structure. Like the independent variable, these structural conditions emerge from the literature on the formation and effectiveness of single regimes.

As Underdal (2002, 15–23, 30–31) points out, the structure of the problem constitutes an important condition for the influence of a powerful coalition in a regime. For a “benign problem” (one characterized by similar or slightly differing preferences among countries), it is relatively easy for the powerful group to generate support for a regime. But in case of a severe asymmetry of preferences (“malign problem”), the governments of less powerful countries will think twice: “concentration of power in the hands of *pushers* might generate fear among *laggards* and possibly also other prospective parties that *their* interests will not be accommodated within the regime” (ibid., 31).

According to Rittberger and Zürn (1990), the degree of problem malignancy (i.e., of asymmetry of preferences) depends on the object of contention. For instance, governments might differ about core values and goals, in which case they might be hardly willing to compromise despite the incentives that more powerful countries might offer. The chances for building or maintaining a regime that would contradict the core values of some members are hence very low. On the other hand, the prospects for regime formation and maintenance are better if governments disagree only on the means to achieve shared values and goals. Apart from values and means, Rittberger and Zürn distinguish two further types of conflict objects. These are absolutely assessed goods (where only one’s own shares and gains in these goods matter; in short, How much do I get?) and relatively assessed goods (where relative shares and gains matter:

How much more than the others do I get?). Altogether, prospects for regime formation are best in conflicts about absolutely assessed goods, then decrease through conflicts about means and relatively assessed goods, to conflicts about values (ibid., 31–32).

Translating these insights from single-regime research to the study of regime conflicts, we could speak of benign and malign conflicts. A regime conflict brings together the problem structures underlying the separate regimes, thereby creating an overall problem structure on the contested issue. For instance, we could ask, do regimes collide on certain core values or goals? In such a case, it would be highly difficult for delegates of a powerful group of countries to achieve the prevalence of their favored regime. Or do regimes clash only concerning the means (fiscal instruments, binding targets, etc.) they prescribe in order to attain their objectives? (See Young 2002, 125–129; Rosendal 2001, 96–102.)

To illustrate, the climate and ozone regimes share the same general value, protection of the atmosphere, but differ with regard to the phase-out of certain dangerous greenhouse gases (Rosendal 2001, 99). Likewise, for the conflict between the climate and trade regimes, the objects of contention are the means (trade-related PAMs) considered appropriate for reaching the chief objective of the UN climate regime: “to prevent dangerous anthropogenic interference with the climate system” (UNFCCC Article 2).

Apart from the problem structure, a second condition affecting the influence of the powerful coalition is the decision structure, or the distribution of votes in the regimes’ decision-making bodies (Underdal 2002, 31). If the size of their coalition in a one country, one vote procedure is too small, delegates of powerful countries might not be able to generate more inclusive and stringent output in favor of *their* regime. By the same token, this condition can affect the process of conflict management within or between the affected regimes. If representatives of powerful countries are not able to mobilize a sufficient majority during the management process, they may seek to influence the regime conflict through other channels, outside the affected regimes, in arenas where they can better exert their power.

In light of these qualifications, a modified and configurational hypothesis on the consequences of regime conflicts would read as follows:

In case of a conflict among international regimes, the regime(s) supported by the more powerful coalition of countries will prevail.

These countries will be successful in influencing the output generation on the contested issues

- if the conflict structure is benign;
- if the decision structure of the affected regimes does not disadvantage the powerful coalition.

Otherwise, the more powerful coalition will try to support the approach of its preferred regime to the contested issue through third institutions and agreements.

An in-depth examination of the causal mechanisms that power-based theories invoke can substantiate this hypothesis. Neorealists assume that countries try to maximize their interests through extended influence and relative gains, whereas interactions with other countries are characterized by a mutual lack of confidence and fear of cheating (Brooks 1997; Grieco 1988). Guided by these assumptions, we can explore whether the dominant coalition of states has indeed used its power to maximize its interests in the affected regimes—and whether lack of confidence has led them to seek solutions in alternative arenas—thereby leading to the observed consequences on the output level.

In the case of trade-related PAMs, the United States and its allies have indeed been “highly influential in establishing a market approach to managing climate change” (Boyd, Corbera, and Estrada 2008, 106). The Umbrella Group successfully rejected proposals tabled by the EU at Kyoto for a binding list and mandatory coordination of PAMs. Members of the group also ensured that the issue of taxing aviation or marine bunker fuels was delegated to other organizations (Oberthür 2006, 63; UNFCCC 2000, 17–29). On most occasions, the decision structure did not impede the interests of the United States and its allies on any of these contested issues. The consensus principle in both regimes equipped them with a de facto veto power against the EU proposals, and developing countries largely seconded the Umbrella Group’s opposition to them.

Nevertheless, out of dissatisfaction with the overall course of the UN climate regime, in particular the differentiation of emission reduction responsibilities, the United States withdrew from the Kyoto Process in 2001. It relaunched new multilateral forums with better voice opportunities, including the Asia-Pacific Partnership and the Major Economies Process on Energy Security and Climate Change, where voluntary and WTO-consistent climate strategies have since been pursued (van Asselt 2007; McGee and Taplin 2009).<sup>2</sup>



The climate–trade example further illustrates how regime conflicts are moving targets. New developments may alter the interests of country coalitions and, given the shrinking power of the United States, also the drivers underlying the observed regime prevalence. Discussions on bunker fuels have continued to resurface in the UN climate regime. Moreover, recent years have witnessed a shift of interests in U.S. domestic politics toward more trade-restrictive approaches. In June 2009, the House of Representatives adopted a legislative proposal that contains a provision that would oblige the president to impose tariffs or offsetting requirements on goods from countries that do not take comparable action to limit greenhouse gas emissions. At the Copenhagen climate summit in December 2009, some of the potentially affected importing countries such as China threatened to invoke the world trade regime’s Dispute Settlement Body in such a case.

In examining the relevance of causal mechanisms, a focus on the intermediate process of conflict management can be particularly instructive. Have members of the more powerful coalition of countries successfully initiated or supported a certain type of conflict management? To what extent have such attempts favored the regime(s) backed by this powerful coalition? For instance, in terms of legal conflict management, such countries might have pushed for a treaty change, such as a priority clause favoring one or more regimes. Moreover, they might have appealed to a dispute settlement body (e.g., the International Court of Justice), arguing for the jurisdiction of a certain regime over a contested issue. Likewise, we could analyze whether the more powerful coalition has agitated for stronger interregime coordination or cooperation, for instance by calling directly on secretariats to take action, or by sponsoring a decision of the conference of the parties.

Such analysis could also try to show whether coalition members have successfully prevented or obstructed certain conflict management approaches favored by a competing group of countries. For instance, the continuous opposition by a U.S.-led coalition, along with most developing countries, stalled an initiative by the EU, Switzerland, and other countries for an “environmental window”—a priority clause for certain environmental regimes—in relevant WTO agreements (Sampson 2001, 74; Zelli 2006, 204–206). This opposition also led to the abovementioned restriction of the Doha mandate to existing and binding MEA rules, thereby excluding the issue of climate-related PAMs from the negotiations.

### Knowledge Structure

Constructivists suggest an alternative organizing principle in international relations: they argue that actors, actions, and institutions are embedded in the profoundly normative structure of international society rather than in an international state of anarchy. The formation of regimes indicates that their underlying core norms have met the consent of a critical mass of key governments (Finnemore and Sikkink 1998, 897). However, applying this theoretical approach in empirical analysis proves rather difficult. Measuring the independent variable requires profound insight into the fundamental beliefs, values, and expectations that drive actors in their behavior. Moreover, the entire constructivist ontology and concept of causation are different from rationalist, unidirectional cause-and-effect approaches (Kratochwil and Ruggie 1986, 767).

In light of these challenges, “weak cognitivism” might offer a welcome refuge (Hasenclever, Mayer, and Rittberger 1997, 139–154). This camp of knowledge-based regime theories does not problematize the overall normative environment of regimes but focuses instead on the knowledge structure: the cognitive factors that shape actors’ preferences and their understandings of available options. Weak cognitivism is even compatible with a rationalist ontology, by assuming that actors pursue and maximize their (knowledge-based) interests and preferences. According to this approach, the independent variable may be framed as the consensual basis of knowledge. The more negotiators agree on the nature of a problem and suitable solutions, and the firmer such common knowledge becomes due to better evidence and reasoning, the better the chances are for the formation and maintenance of a cooperative regime (Haas 1992, 29).

A focus on the contested issues can help tailor this theory to the subject of regime conflicts. In a regime conflict, the colliding regimes will obviously approach these issues differently. Either they conceive of them in a dissimilar manner (e.g., as harmful substances or as tradable commodities) or they devise different solutions for them. Weak cognitivism would indicate that such disparate approaches could result from different bases of knowledge. A prime hypothesis could read as follows: In case of a conflict among international regimes, the regime(s) whose approach to the contested issue is backed up by the stronger and more widespread basis of knowledge will prevail.

The relevance of the bases of knowledge might depend on several conditions, two of which I discuss here: the problem structure and the influence of knowledge brokers. The previous section introduced the

concept of problem structure in terms of the malignancy of the regime conflict. I expect the relevance of the knowledge bases to decrease the more malign a conflict is: the more governments' preferences differ on the contested issue, the less susceptible will they be to new knowledge that supports positions other than their own. This assumption rests on research on institutional interplay. As Stokke (2001b, 22–23) observes, cognitive interaction across regimes is more likely in synergetic relations. Yet the more controversial a setting becomes, the harder it is to facilitate the prevalence, let alone the successful diffusion, of certain regime features or problem-solving policies.

A second condition for the relevance of a basis of knowledge in a regime conflict is the entrepreneurial leadership provided by “knowledge brokers.” The list of potential knowledge brokers is quite extensive and includes members of regime secretariats, working groups, and subsidiary bodies, as well as private actors, transnational organizations, and informal networks (Underdal 2002, 35–36). Informal networks include epistemic communities, which have played a prominent role in the cognitivist regime literature. According to Haas (1992), the influence of epistemic communities depends on several conditions: the degree of uncertainty among policymakers on core aspects of the subject matter, the degree of consensus among scholars on these aspects, and the degree of institutionalization of scientific advice—that is, institutional openness to the advice.

To sum up these conditions, a configurational hypothesis on the relevance of the basis of knowledge would read as follows:

In case of a conflict among international regimes, the regime(s) whose approach to the contested issue is backed up by the stronger and more widespread basis of knowledge will prevail.

This stronger knowledge basis will have a high influence on the output generation on the contested issues

- if the conflict structure is benign;
- if the knowledge basis is shaped and supported by influential knowledge brokers such as epistemic communities.

Epistemic communities will be able to shape and support the knowledge basis on the contested issues

- if they feature a high degree of consensus on the contested issues;
- if the involved regimes feature a high degree of institutional openness to their advice.

Coming back to the climate-trade case, the role that the global climate regime assigns to the Intergovernmental Panel on Climate Change (IPCC)

is one of the best examples of institutional openness. The panel's four assessment reports have induced social learning processes among policy-makers, thereby supporting and shaping the formation and evolution of the global climate regime (Siebenhüner 2006). Regarding the contested issue of trade-restrictive measures, the reports stress that the suitability of subsidies, subsidy removals, standards, regulations, energy taxes, and other instruments depends on a country's energy market, economic and political structures, and societal receptiveness. The Third and Fourth Assessment Reports refer explicitly to potential overlaps with WTO rules, discussing the controversial issues of border adjustments and product-related process and production methods. They suggest a multilateral agreement on trade-restrictive measures that would guarantee comparable actions across member countries, with a view to avoiding a direct collision with WTO rules (IPCC 2001, 430–437, 2007, 781–783). The IPCC's discussion of such measures has drawn criticism, including from the United States and Saudi Arabia, which would prefer a stronger focus on market-based mechanisms and less concentration on government activities such as border adjustments (IISD 2007, 8).

With respect to other knowledge brokers, various research institutes and think tanks providing expertise on trade–environment overlaps in general or trade–climate overlaps in particular have so far failed to establish an umbrella organization that can embody, identify, and regularly review consensual knowledge *among* them.<sup>3</sup> This state of affairs makes it difficult to identify alternative knowledge bases that might adhere to “a common vision about economic growth [and] trade liberalization” (Goldstein 1998, 146) and thereby compete with the IPCC's preference for a multilateral solution on trade-restrictive PAMs.

For epistemic communities to achieve a strong entrepreneurial role in a regime conflict, institutional openness must characterize all regimes involved. In the case of the global climate and trade regimes, however, such openness varies considerably across arenas. The WTO has no permanent “interface body” comparable to the climate regime's Subsidiary Body for Scientific and Technological Advice as a forum for regular interaction with major knowledge brokers. The possibilities for larger epistemic communities to interact with WTO representatives are confined to a few expert groups on specific topics, as well as conferences, seminars, and courses organized by the WTO Secretariat's Economic Research and Statistics Division. Otherwise, knowledge brokers must rely on the few channels of information exchange provided for NGOs, such as the annual WTO Public Forum. Ultimately, given its mandate,

the External Relations Division has some influence on filtering which types of information enter the organization from the NGO community and which ones do not.

With respect to conflict management, the analysis may further examine the impact of the stronger knowledge basis on the process and the results of such management. Have knowledge brokers favored or opposed a certain form of conflict management, and have they been directly involved in it? While doing so, have they supported one regime's approach to the contested issues over others'? And have their recommendations been incorporated into the results of the management process? For instance, with regard to legal management approaches, we could examine whether epistemic communities or other knowledge brokers who advise governments or regime bodies have advocated a treaty amendment in favor of one regime. Epistemic communities may also inform the process of treaty interpretation and provide expertise or submit *amicus curiae* briefs to dispute settlement bodies (Neumann 2002, 619–622).

Regarding trade-restrictive PAMs, however, there has been no possibility for regular input by epistemic communities to the main venue for conflict management. The CTE does not provide for any direct contribution from outside experts or other non-state actors, not to mention any permanent observer status for them (Eckersley 2004, 34). Scientific experts can influence CTE discussions only *ad hoc* and indirectly, by briefing governmental representatives. In summary, unfavorable context conditions—the low institutional openness of the WTO in general and of the main conflict management venue in particular—might be one explanation for why the recommendations of the IPCC (presumably representing the strongest knowledge basis on the contested issues) were not pursued, and why no multilateral accord on trade-restrictive climate policies could be reached within or outside the involved regimes.

### Rival Explanations

Considering the variety of theories on international regimes, several other factors are capable of shaping the generation of regime output on the contested issues. Presenting an exhaustive list of such further factors, let alone thoroughly deriving them from their respective theories, is beyond the scope of this chapter. Suffice it here to sketch some of them in the form of prime hypotheses, thus illustrating the scope of potential control factors to be examined when analyzing regime conflicts.

Strands of neoliberal institutionalism elaborate various output-related assumptions, including the assumption that the formation and design

of a regime result from the collective action problem or strategic situation that the regime is trying to regulate.<sup>4</sup> Proponents of this situation-structural approach also establish secondary factors that may influence regime output, such as the number of actors in the issue area, the shadow of the future, or the salience of solutions (Hasenclever, Mayer, and Rittberger 1997, 44–59). These theories suggest that the regime regulating the more favorable strategic situation or scoring better on such secondary factors will prevail in a regime conflict.

With respect to constructivist factors other than knowledge structure, Müller (1994) and Risse (2000) apply the theory of communicative action to international relations research. They argue that wherever parties are open to persuasion and have high confidence in the authenticity of each other's statements, the strength and acceptance of arguments may significantly shape agreements. Accordingly, under such conditions, a regime based on the better argument would stand a greater chance of prevailing in a regime conflict.

Another strand of regime analysis focuses on the role of lead bureaucracies (secretariats) in the effectiveness of international institutions (Barnett and Finnemore 2004; Biermann and Siebenhüner 2009). This research agenda crosses the lines separating classic regime theories. On the one hand, in accordance with the tenets of sociological institutionalism, it conceives of international organizations as independent actors serving specific social purposes or values; on the other hand, secretariats might do so by following a rather rationalist logic of action, that is, with the intent of maximizing their interests by promoting their own autonomy and the effectiveness of the regime they serve. On the basis of this literature, it could be hypothesized that the prevalence of a regime is also a function of certain features of its secretariat, such as autonomy, coherence, and goal orientation (Biermann and Siebenhüner 2009).

Finally, liberal international relations theories scrutinize the emerging influence of business or civil society actors on regime output through various domestic and international channels (Putnam 1988; Wapner 1996). These theories might lead us to expect that the regime backed by more influential domestic and transnational actors will prevail.

## Conclusions

The analytical framework advanced here relates the core themes of this book, institutional complexes and interplay management, to certain causal factors that loom large in the broader analysis of international regimes. Specifically, the framework draws attention to causal factors

and processes that can explain which regimes prevail in conflictive institutional complexes and why, and it supports analysis of how interinstitutional conflicts influence the effectiveness of the regimes involved:

- Two independent variables adopted from regime theories: the power structure and the knowledge structure in which the competing regimes are embedded
- The dependent variable: regime prevalence, framed in terms of output strength within the colliding regimes as well as the wider regime complexes regarding the contested issues
- The intervening process of conflict management through which the independent variables may cause regime prevalence
- Cross-references and causal links between the different variables—in order to sustain the coherence of the proposed framework, instead of presenting a mere “toolbox” of loosely connected factors

Figure 8.2 summarizes the assumed causal relations among the three types of variables. According to this framework, analyzing the emergence and management of institutional complexes requires attention to power and knowledge structures that are partly independent of the international institutions in question.

The framework advanced in this chapter certainly does not provide a universal solution capable of dealing with the full range and depth of interaction effects, not least because of its focus on output effectiveness and its inherent cause-and-effect epistemology. It occupies a middle

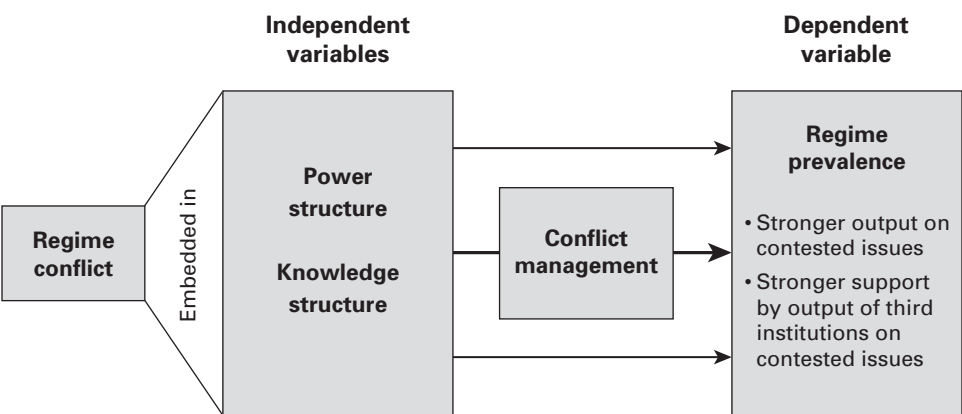


Figure 8.2  
Overview of analytical framework

ground that attends to fundamental determinants while keeping research manageable.

The limited validity scope of the framework leaves theoretical ground for further research. Such research should relate not only to the explanation of regime prevalence but also to other aspects of regime conflicts, such as the causes of their emergence or the conditions for successful interplay management. These challenges should not deter but rather attract scholars, since the theoretical and empirical rewards are equally tempting. Insights from conflict analyses can help identify strategies to strengthen environmental regimes or to enhance synergies among free trade and global environmental protection. Explicit consideration of core determinants from social theories, as this chapter suggests, is an important prerequisite for developing such successful strategies.

## Notes

1. This is not to say that the process analysis should focus solely on conflict management. Decisions on contested issues can also be made in other contexts and forums (including third institutions). Nevertheless, conflict management should be given specific attention, since of all output-related processes, it is most explicitly geared to addressing a regime conflict.
2. The process was continued by the new U.S. administration under President Obama as the Major Economies Forum on Energy and Climate.
3. These institutes include, to name a few, the Center for International Environmental Law, the International Centre for Trade and Sustainable Development, the International Institute for Sustainable Development, the International Development Research Centre, the South Centre, and the World Trade Institute.
4. To some extent, the preceding sections incorporate such interest-based assumptions by pinpointing the constellation of preferences and problem structure as major conditions for the impact of power and knowledge structures.

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