

**Actors and International Environmental Governance:
Best and Worst Practices for Improving International Climate Change Governance**

By

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“Remember, policy isn’t made on paper, it’s a continually changing mix of people and ideas.” Harold Saunders 2005 Politics is about Relationships Palgrave p 46.

1. Introduction

The study of international environmental governance is now a well established field of study, in political science and across other disciplines. Recent findings in International Environmental Governance (IEG) have emphasized the emergent equivalent of a division of labor amongst actors involved in environmental governance. Elsewhere in IR attention has focused on the prevalence of transnational public-private partnerships.(Keohane and Nye 1971: ; Keohane and Nye 1974: ; Hall and Biersteker 2002: ; Schaferhoff, Campe et al. 2009) In this essay we aim to move beyond a concern with partnerships of non-state actors, and of state and non-state actors, to develop a framework research program that will look at the effects of different configurations of political actors on environmental governance. As a consequence we seek to develop hypotheses about best and worst governance practices, as well as raising some suggestive puzzles that may advance our understanding of the interplay of political actors in environmental governance, and their ability to exercise agency. That is, what kinds of partnerships are most conducive to effective environmental governance, and what kinds are likely to inhibit effective environmental governance? These lessons will then be applied to climate change, currently known for its low effectiveness (Andresen and Skodvin, forthcoming 2010).

Unfortunately most of the findings from IEG provide scant hope for prompt and effective multilateral approaches to reduce GHG emissions by the magnitude which is

commonly regarded as necessary to avert significant earth system damage. (Victor 2006: ; Haas 2008: ; Young 2008) The political process to date offers few glimmers of any significant progress.

This essay seeks to summarize lessons from IEG, and help develop a research protocol for better understanding best and worst practices for global environmental governance. It focuses on the role of different political actors performing a variety of governance components for addressing international environmental issues. It stresses actors, agency, and networks. In conclusion, it asks what can be learned about IEG and whether such lessons can be applied to improve the prospects for effective climate change governance.

2. The contemporary context

Globalization in many of its guises constitutes an ontological transformation of the contemporary international system. In this essay we apply two key aspects of globalization: the proliferation of actors, and the growing international concern about governance for shared and transboundary environmental threats. These features shape the politics of IEG, and to some extent are more clearly visible in IEG than other issues, thus providing a laboratory for understanding IR more generally from studying contemporary IEG.

While ‘globalization’ itself remains contested, the core driving forces which shape choices and understanding within the current setting are widely believed to include the following analytic features:(Grande and Pauly 2005: ; Biermann and Pattberg 2008)

- 1) The nation state has lost a monopoly over the sovereign control of policy
- 2) Most actors believe that transboundary and global threats require cooperation
- 3) There is a large scale diffusion of non-state actors who participate in the decision making process. MNCs, IOs, scientific networks, and NGOs all compete for attention in international diplomacy, as well as seeking to influence states.
- 4) Uncertainty is the dominant systemic condition facing actors
- 5) Decisions are taken through multi-level governance that entails vertical, horizontal, temporal, and networked linkages across and between scales.

Kennette Benedict provides a useful definition of the current application of “global governance” (Governance 1995: 2-3; Benedict 2001: 6232) which is also shared with the Commission on Global Governance:(Governance 1995: 2-3)

...a purposeful order that emerges from institutions, processes, norms, formal agreements, and informal mechanisms that regulate action for a common good.

Global governance encompasses activity at the international, transnational and regional levels, and refers to activities in the public and private sectors that transcend national boundaries.

Two level games have become increasingly common, as the boundaries between international and comparative politics are increasingly blurred (Putnam 1988). There is growing attention to multilevel governance, as evidence mounts of actors operating across scales and scopes. Studies of the EU focus on such phenomena, as does Slaughter's work on legal governance, and recent studies of environmental governance (Haas and Kanie 2004: ; Winter 2006). Analysts have grown more sophisticated in their appreciation of the nature of governance for all international issues, not just the environment. International relations initially focused on descriptive studies of international law. In the 1980s attention turned to studies of international regimes: "sets of implicit or explicit principles, norms, rules, and decision-making procedure around which actors' expectations converge in a given area of international relations." (Krasner 1984). Attention was first on the *formation* of regimes, although neglected pieces also stressed the epistemological opportunities of discussing regimes. (E Haas 1984, see also (Kratochwil and Ruggie 1986) The study of regimes expanded to look at international institutions in general: "persistent and connected sets of rules (formal and informal) that prescribe behavioral roles, constrain activity, and shape expectations." (Keohane 1989: 3)¹ The virtue of this focus is to sharpen the difference in focus between formal arrangements negotiated between states that guide collective behavior – formal organizations – and shared beliefs that guide understanding of interest and expectations of others' behavior – informal institutions. In this way the study of collective action could take account of both the formal administrative arrangements guiding behavior and also the causal and normative beliefs that would guide substantive management of particular issues. Since the mid 1990s several international large-scale studies have been

conducted on the *effectiveness* of these regimes (Victor et al 1998, Young et al 1999, Miles et al 2002, Breitmeier et al 2006). The effects of the effects of *inter-linkages* between international regimes has also flourished more recently (Oberthur and Gehring 2006). As the regimes had reached 'adulthood', it made sense to investigate their effects on the problems at hand.

Governance entails a procedural component of administrative activities diplomats frequently perform when designing institutional arrangements. Some of these were initially identified as the 3Cs (cooperative environment, capacity building, and building concern) by Haas, Keohane and Levy in 1993, (Haas, Keohane et al. 1993) but the list has subsequently been extended and elaborated. These are now regarded as administrative activities that are performed in effective international governance, rather than phases of environmental governance, as in practice they overlap and there is no clear linear sequence with which they were performed. (Kingdon 1995: ; The Social Learning Group 2001) These activities include agenda setting, issue framing, rule making, enforcement and assessment. (Haas and Schmitter 1964: ; Haas 2004: ; Kanie and Haas 2004: ; Speth and Haas 2006) Mark Zacher identifies a similar list of activities performed in United Nations governance of economic issues.(Zacher 1999) Subsequently we refer to these activities as governance components.

Governance entails a shift in analytic focus from the policies that may contribute to better management of the environment to the architectural design of collective action processes. While policy analysts argue about the appropriate policies for better

management, the full array of governance components helps to understand the conditions under which integrated management is more likely to be widely applied. The United States National Research Council's Committee on the Human Dimensions of Global Change observes: (Brewer and Stern 2005: 42)

Analyzing environmental governance as a problem of institutional design is useful because it reframes the central governance question from one of selecting a single best governance strategy (e.g. choosing between top-down regulation and market oriented policies) to one that considers a full range of governance options and seeks to match institutional forms to specific governance needs.

In practice, these administrative activities are performed by a number of different groups of actors, including governments (or states), international organizations, MNCs, NGOs, and scientists and scientific networks. Most effective governance in practice utilizes synergies from different groups that utilize institutionalized tensions amongst the parties, such as NGOs and MNCs in joint regulatory arraignments that yield more binding results than MNCs desire and command stronger compliance than NGOs able to achieve through selective political campaigns. As Grande and Pauly observe, the diffusion and influence of non-state actors has grown both in numbers, and in influence. (Pauly and Grande 2005: 286)

To a large extent IEG writings presaged the more general insights about globalization for the rest of IR. Some of the seminal IEG works were published in the

early 1990s, identifying many of the general ontological features of the international political system which were mentioned above. (Hurrell 1992: ; Choucri 1993: ; Choucri 1993: ; Haas 1993: ; Zürn 1998: ; Patterson 1999: ; Mitchell 2002: ; Dauvergne 2005: ; Betsill 2006: ; Haas 2008) Most more recent work in IEG remains focused on aggregate reviews and comparisons of regimes, (Young 1997: ; Breitmeier, Young et al. 2006: ; Young 2009) and does not break the regimes down into more discrete governance components as we propose to do.

UNCED, with its parallel NGO congress, provided the foundations for participation of a variety of actor groups in governance. A key recent finding is the wide array of actors that participate in governance, and the different components that governance entails. In addition, it has been demonstrated that the presence of scientific networks (epistemic communities) and strong international organizations yield distinctive negotiated outcomes and more effective regimes. (Meyer 1997: ; Andresen, Skodvin et al. 2000: ; Miles 2002: ; Haas and Kanie 2004: ; Busch, Jorgens et al. 2005: ; Haas 2007)) Networks have proven to be more effective than formal hierarchical designs in providing compliance with international regimes as well. (Victor, Raustiala et al. 1998: ; Oberthur and Gehring 2006)

In short, over the last thirty years there has been a significant shift in terms of practice and academic attention to the widespread involvement of multiple non-state actors in the activity of global governance.

The significant research question remains, *which actors and combinations of actors are best at performing which governance components, and under what circumstances will they be able to perform those components?*

The proliferation of MEAs and how to study them

Environmental governance has proliferated over the last 30 years. The number of negotiated settlements is many, although analysts differ in whether they count bilateral, multilateral or universal agreements. In the IEA database, 405 agreements and 152 protocols have been identified, modified by 236 amendments bringing the total to 794 MEAs that came into existence between 1875 and 2005; although many of these are now defunct. (<http://www.uoregon.edu/~iea>) The Ecolex project sponsored by UNEP, FAO and IUCN recognizes in total 519 environmental treaties.(Mitchell 2003) and (<http://www.ecolex.org/indexen.php>) Other research identifies more than 500 MEAs registered with the UN, including 61 on atmosphere, 155 on biodiversity, 179 on chemicals, hazardous substances and waste, 46 land conventions, and 197 on water issues. (Knigge 2005: ; Roch and Perrez 2005: ; Najam, Papa et al. 2006)

A striking feature of environmental governance, as compared to the governance of other issues in IPE, is its highly disarticulated nature (Keohane 2001). Unlike the governance of trade and finance, for instance, where there are few centralized and highly legalized arrangements that govern a wide array of activities, environmental governance varies widely by issue. This apparent disjointed approach to the current form of

environmental governance can largely be attributed to two factors. One is the rather recent historical development of environmental institutions. Environmental governance has evolved incrementally over the last 35 years, and the manner in which environmental institutions have developed in response to the problems has largely been *ad hoc* and fragmented. The idea of establishing a centralized World Environmental Organization (WEO) has so far gone nowhere (Andersen 2007). The second is the very nature and complexity of environmental problems. Environmental processes are governed by laws of nature that are not susceptible to conventional bargaining within the domestic or international policy making processes. Environmental policy makers have to struggle with the issue of “scientific uncertainty” as well as the incompatibilities between the ethical and political ramifications of the precautionary principle. (Kanie 2007). Yet, despite the jaundiced views of more traditional IR scholars (Downs, Rocke et al. 1996: ; Downs 2000: ; Downs, Danish et al. 2000: ; Drezner 2007: 12-13) there remains stronger governance than would be expected merely from the application of institutional and power variables associated with transaction costs, verification, and sanctions.

Most political actors now encounter a new policy environment. A complex world means more uncertainty about preferences, policies, and the actions of others. Information becomes a vital resource, and those with a reputation for reliable information gain social authority. Information is a key capability for the exercise of soft power. We seek to elaborate these insights. This project seeks to extend those findings to ascertain which combinations of actors are most likely to contribute to effective performance of the major components of environmental governance. Our aim is to identify “good” and “bad”

configurations of actors that correlate with “better” and “worse” performance of governance components. More generally, this is part of a theory building enterprise to better identify the processes which are engendered by different combinations of actors.

Broadly speaking three sets of causal mechanisms or social processes shape the performance of governance components as shown below.

Social Forces in IEG

Principal causal mechanism	Dominant theory elaborating the mechanism	Instruments	Primary actors	Institutional dynamics
Coercion, power	realism	Power	States, MNCs	Leadership within conference diplomacy
Incentives, inducements	Neoliberal institutionalism	Context/ Interests	IOs, states, MNCs	Negotiations/ regime building processes
Persuasion & learning	Soft constructivism for science base persuasion, radical constructivism for discursive based.	Ideas	Epicoms, NGOs	Learning, SOPs, norms

One size doesn't fit all for these social mechanisms. For instance, not all actors are equally susceptible to the same incentives, as capacity building is far more influential for poor developing countries than rich industrialized ones, and the provision of public information plays better in democracies than authoritarian states.

As demonstrated most clearly in Miles et al 2002, all these perspectives explain and shed light on patterns of environmental governance. Each identifies major forces that have shaped patterns of environmental governance. For example, there is hardly any doubt that one important reason for the huge difference in effectiveness between the climate Kyoto regime and the ozone regime is the different role played by the US in these regimes. While it has largely been a consistent laggard in the Kyoto regime it has been an equally persistent pusher within the ozone regime. However, in order to fully understand the difference in effectiveness between them, you also have to apply insights from constructivism as well as institutionalism. Their value and comparative advantage to a large extent depends upon the research questions asked.

3 Governance Components

Research Agenda

The principal research questions in the current research project are as follows:

- Which configurations of actors improve or inhibit governance?
- What are the best and worst architectural designs for organizing actors?
- If actors are organized as a network, does it significantly affect the performance of governance components?
- To what extent does change in the performance of one governance component influence the others?

We will seek to describe governance up and down scales in IEG with hopefully better precision than have so far done by others, and to break down environmental governance more clearly into its component parts.

Overall environmental governance has to do with the development and enforcement of collective obligations to deal with particular problems. As noted, to a large extent this has been approached analytically through studies of effectiveness of international regimes. Various approaches have been developed, but we shall not go into the merits and shortcomings of them here as this is *not* yet another ‘effectiveness project’. We use the insights gained from the many comprehensive studies already done. Although there are nuances in the picture, generally there is agreement in the research community as well as among policy makers on the performance of various regimes. Rather, our approach here is that governance is not a homogeneous activity. Recent studies have clearly demarcated distinct governance components which must be performed in order for environmental governance writ large to be effective (Clark, Eijndhoven et al. 2001: ; Haas and Kanie 2004). Specifically, these governance components include: agenda setting, negotiations, compliance, implementation and resilience. While there is no linear sequence to their performance - they are often concurrent or even cyclical - good environmental outcomes are associated with good performance of each (Kingdon 1995: ; Clark, Eijndhoven et al. 2001) and we remain agnostic about the path dependence or lock-in effects of the performance of each component, or of the larger scale political involvement of actors from any one component to others. These path dependent questions will remain open empirical questions, to be addressed further upon the

completion of more focused studies on the performance of each component by different configurations of actors.

Agenda setting is the process of collectively identifying a set of problems that requires some actions by delimiting (or denoting) the salient features of an environmental threat for collective attention following, or anticipating, a catalyzing crisis. Without a good agenda setting process problems will not be efficiently defined, and governance will probably be ineffective. Key for good agenda setting is an accurate agenda, and a broad enough coalition formed through the conferences to keep political momentum afoot. Technically, an accurate agenda should avoid false positives and false negatives. It requires a means for assessing claims about potential environmental harm, and publicizing the accurate assessments.

Judging whether an agenda is “good” or “bad” can be done in two ways. The determination can be done post-hoc, to see if the warnings were supported by subsequent events.² Secondly judging agenda setting can be done procedurally, whether the putative problems were recognized and presented in a way consistent with the intersubjective consensual habits of the relevant policy community.

Agenda setting is closely related to framing, insofar as each possible agenda entails identifying a set of policies or activities that require attention. The general approach to framing in the literature is more structural than is our focus on agency. Framing is generally associated with the structural application of dominant narratives.

(Dryzek 1997: ; Jasanoff and Wynne 1998: ; Mitchell 1998: ; Epstein 2008) (Thompson & Rayner) For our purposes we treat discourses as the consequence of agenda setting. Depending on the actors involved in agenda setting different policy frames are likely to occur, because each set of principal actors engaged in IEG bring their own preferred narrative and frame to their agenda setting efforts. Thus variation in framing is a consequence of participation in agenda setting.

Negotiated settlements is the process by which parties create collective arrangements for environmental management, be they hard law, soft law, or voluntary commitments. Although various types of partnerships and other new approaches are becoming increasingly important, the traditional ‘hard-law’ MEAs is still the dominant mode of negotiation. While states usually play a small role in the agenda setting stage, they are the key actors in this stage (Andresen and Agrawala 2002). Focusing on the process of negotiations represents a large branch of international relations studies through *negotiation theory* (Hoppmann 1996, Zartman 19xx). Traditionally these scholars focused on states as ‘crystal balls’ pursuing their national interests as rational unitary actors. This approach is still a large school in international relations, not the least through the use of *game theory*. The rational choice approach may be useful in giving an initial overview of actors’ main interests and positions and thereby predicting whether an agreement will be reached or not. However, in an increasingly globalized and complex world, additional perspectives – in line with those outlined in this chapter – is needed in order to assess how these processes evolve and what will eventually result from them (Hovi/Skodvin/Andresen 2003). Two-level games, state-society relations as well as

leadership all loom large in more recent studies of complex international negotiations. This does not mean that we should underestimate the significance of the role played by the states in this particular phase as they – not the non state actors – are the legitimate (elected) actors representing their respective constituencies.

Good settlements are those that mobilize political commitments of will and resources to dealing with the problems in a successful way. Bad ones are likely to inhibit subsequent progress, or reward opponents of meaningful cooperation. What determines the one or the other? Clearly that is a very complex question and cannot be answered generally as one size does not fit all. However, often the distribution between ‘pushers’ and laggards’ is crucial (Miles et al 2002). While the pusher seeks ambitious solutions, the laggard drags its feet. The more and stronger the (state) pushers the higher the chances are for a successful outcome of the negotiations. If the laggards dominate, we are bound to come closer to the ‘law of the least ambitious program’ (Underdal 1980). The subsequent key question is what decides the distribution of laggards and pushers and by what mechanisms – if any – can it be influenced in a ‘positive’ manner? Here we assume that the influence and inclusion of various non-state actors described above may make a difference in how states perceive their interests and how they choose to deploy their capabilities on behalf of those interests. In short, the involvement of non-state actors in negotiation may itself explain whether individual states become pushers or laggards, or if they change. (Sprinz and Vaahoranta 1994: ; Connolly 1999)

Ascertaining the quality of negotiated settlements will be done through reliance on secondary literature, looking at whether political coalitions were galvanized.

Compliance measures entail a variety of mechanisms to ensure that parties live up to their obligations. To study compliance is important because even seemingly ‘good’ negotiation processes are no guarantee of success unless solid compliance mechanisms are elaborated. Put crudely, there are two sets of approaches to secure compliance, ‘the carrot’ approach and ‘the stick’ approach. The former yields various forms of assistance based on the assumption that this is a necessary condition for weaker parties, mostly in the South, in order to secure compliance. Towards that end technological assistance and/or different funding mechanisms are provided for. The alternative or supplementary approach is based on the premise that some kind of punishment or threat of punishment is needed in order to secure compliance. Based on experiences from most major MEAs, it seems that the former mechanism is more effective than the latter, although threats of trade sanctions sometimes seem to have some effect (Victor et al 1998; Barrett 2003). It may also be that various forms of ‘shaming’ and ‘blaming’ performed by ENGOs may be more effective than the formal sanctions provided by the MEA. (Stokke et al 2005). Our assumption is that some kind of assistance is needed to secure compliance in global agreements. In some instances ENGOs may play an important part in this process. If sanctions are to be used they have to be credible and carefully designed.

Other mechanisms are important to secure compliance as well. These can include information to deter noncompliance, or positive incentives to encourage compliance

through capacity building. Good enforcement is measures that generate compliance, whereas bad ones deter compliance, or have no effect on it. A very practical low key approach to secure good compliance is linked to national reporting and verification. Unless you have reasonably accurate and reliable information on relevant national data, the effectiveness of any measures adopted will be seriously hampered. Especially in the South, there may be difficulties in providing reliable data. Assistance in building national data inventories and capacity building by various types of expertise may therefore be necessary. However, countries in the South may sometimes be cautious in allowing foreign expertise to get access to what they may regard as sensitive data (Victor et al 1998). Independent verification of national reports therefore remains a challenge.

Our work will assess the performance of enforcement efforts empirically through secondary literature. Although high compliance normally points towards higher effectiveness, this is not always the case. The diagnosis of the problem may be wrong, as was the case in the Whaling Commission in the 1950s. Overall most Parties complied, but as long as the quotas set were far too high, the large whales were still depleted (Andresen 2000). Secondly, compliance is often based on self-reporting and is not necessarily reliable.

That is why we need to address actual domestic **implementation** on the ground in order to fully understand the real effects of the regime. There are obvious overlaps between compliance and implementation as both deal with the extent to which rules and regulations adopted are actually followed up in practice. However, while compliance

mostly deal with provisions elaborated at the international level, and is a favorite study of international lawyers, implementation the way we will study it is what is actually done at the domestic level to live up to the international commitments. That is, domestic implementation is essentially the same as *outcome* when measuring regime effectiveness. That is, behavioral change by relevant target groups caused by the regime in question. The extent to which implementation is successful is a function both of the *will* and *ability* of the actors concerned (Victor et al 1998; Skjærseth 2000). If the political will to live up to obligations are lacking - as witnessed in many international regimes - the effectiveness of the relevant regime is bound to be low. More interesting and relevant both politically and analytically is that even though political will is present the ability to deliver on the ground is often hampered by vertical and horizontal disintegration among domestic institutions (Hanf and Underdal 1998; Heggelund et al 2005)

What lessons stand forth from various regimes in terms of performance in terms of implementation; why are some successful while others fail? One obvious explanatory factor that stands forth is that some problems are much more ‘malign’ to deal with than others. Crudely put, if costs are high and up front affecting powerful actors while benefits are spread and diffuse, the chances of effective implementation is strongly reduced (Hanf and Underdal 1998). As climate change is a typically ‘malign’ problem we need to control for *problem structure* when we apply lessons from other regimes in terms of implementation. In short, lessons from a regime regulating a ‘benign’ issue area cannot simply be transposed to the climate regime as the two may simply not be comparable. At the domestic level, in general strong states can be expected to perform better than weak

states – irrespective of issue area. Also, chances of good performance increases if the target groups affected are included early in the decision-making process – preferably also in the negotiation delegation. We will also look at the inter-linkage between implementation and compliance by studying how mechanism to improve compliance can also help improve implementation. For example, measures to improve capacity building in weak states through the assistance of international organizations as well as ENGO may contribute to improve implementation.

Yet problem structure may also be endogenous to the configuration of actors. Varying combinations will shape how states understand the political difficulty of policy coordination, as well as the means to achieve it.

Resilience

Lastly, good governance must be resilient. It must be able to persist over time, past the initial political configurations that gave rise to regime creation. Less attention has been paid to resilience than the performance of other governance components. We define resilience here as the governance institution persisting over time and being able to accurately respond to new challenges. Resilience is akin to adaptive governance. In order for a governance arrangement to be resilient it must be regarded as legitimate by the majority of the significant producers of the environmental problem in question, including states, and who are willingly controlling their own behaviors. In practice this means that the collective procedures and the decision making process of each actor group must be regarded as legitimate to all groups, and to their members.(Cohen and Sable 2006)

Realists of course argue that in the long term legitimacy is desired by hegemony, because it requires a minimum of application of scarce material capabilities on behalf of the accords. (Baumgartner and Burns 1975: ; Ikenberry 2001: ; Ikenberry 2009)

Legitimacy remains a contested and vague concept. (Bodansky 1999: ; Bernstein 2004) Opinions vary on what constitutes legitimacy: varying from a transparent process (Keohane 2001), outcomes that are seen as fair (Young 1991), outcomes informed by socially authoritative actors (Dunlop 2000), if the outcomes are regarded as working (Vibert 2007), if the participatory arrangements are politically acceptable to the dominant states (Keohane 2002) to multidimensional measures of legitimacy that combine elements of each (Fung 2006).

In short, for governance arrangements to be resilient they must be perceived to be legitimate to the major actors involved in performing the governance components. Such perceptions can vary by actor; indeed possibly, even vary over time. Whereas weak states may value legitimacy according to measures of process, stronger states may measure it according to outcome measures. Nonstate actors could value governance arrangements in terms of the underlying norms expressed, the degree to which they gain material benefits from participation, or have their own representative roles reinforced or legitimized through the governance arrangements.

4. Conclusion

Understanding current patterns of multilevel networked governance requires an analysis of the configurations of actors performing environmental governance components. In this piece we have offered a number of hypotheses regarding best and worst practices in the design of governance components to improve overall environmental governance. If these ideas are applied to climate change negotiations we expect to find a call for greater attention to contributions by non-state actors in the design of the post 2012 climate regime.

Multilevel networked governance may also generate emergent properties. The analytic catch 22 of studying emergent properties is how can one theorize about unintended or unpredictable consequences of social interactions? We have laid out some hypotheses about processes that are likely to engender such change, which we will then investigate empirically.

The key political question is to what extent can and will states allow authority to diffuse internationally from the state to non-state actors. Is this widely documented diffusion of authority subject to control by nation states or is it a consequence of the new array of issues on the international agenda and the technological developments which allow non-state actors to exercise meaningful influence internationally?

Reference

- Agrawala, S. and S. Andresen (2001).
- Andonova, L. B. and M. A. Levy (2003). Franchising global governance: making sense of the Johannesburg Type II Partnerships. Yearbook of international co-operation on environment and development 2003/2004. O. S. Stokke and Ø. B. Thommessen. London, Earthscan Publications: 19-31.
- Andresen, S., T. Skodvin, et al. (2000). Science and Politics in International Environmental Regimes. Manchester, Manchester University Press.
- Ansell, C. K. and S. Weber (1999). "Organizing International Politics: Sovereignty and Open Systems." International Political Science Review **20**(1): 73-93.
- Auld, G., S. Bernstein, et al. (2008). The New Corporate Responsibility. Annual Review of Environment and Resources.
- Bartelson, J. (2006). "Making Sense of Global Civil Society." European Journal of International Relations **12**(3): 371-396.
- Baumgartner, T. and T. R. Burns (1975). "The Structuring of International Economic Relations." International Studies Quarterly **19**(2): 126-159.
- Benedict, K. (2001). Global Governance. International Encyclopedia of the Social and Behavioral Sciences.
- Bernstein, S. (2004). "Legitimacy in Global Environmental Governance." Journal of International Law & International Relations **1**(1-2): 139-166.
- Betsill, M., Kathryn Hochstetler, Dimitris Stevis, Ed. (2006). Palgrave Advances in International Environmental Politics. London, Palgrave.
- Betsill, M. M. and E. Corell, Eds. (2008). NGO Diplomacy. Cambridge, MIT Press.
- Biermann, F. and P. Pattberg (2008). Global Environmental Governance: Taking Stock, Moving Forward. Annual Review of Environment and Resources. **33**.
- Biermann, F. and B. Siebenhuner, Eds. (2009). Managers of Global Change. Cambridge, MIT Press.
- Bodansky, D. (1999). "The Legitimacy of International Governance." American Journal of International Law **93**(3): 596-624.
- Breitmeier, H., O. R. Young, et al. (2006). Analyzing International Environmental Regimes. Cambridge, MIT Press.
- Brewer, G. and P. C. Stern, Eds. (2005). Decision Making for the Environment. Washington D.C., National Academies Press.
- Busch, P.-O., H. Jorgens, et al. (2005). "The Global Diffusion of Regulatory Instruments: The Making of a New International Environmental Regime." The Annals of the American Academy of Political and Social Science **598**: 146-167.
- Castells, M. (2000). The Rise of the Network Society. Malden, MA, Blackwell Publishing.
- Castells, M. (2005). "Global Governance and Global Politics." PS: 9-16.
- Chasek, P. S. (2007). "U.S. Policy in the UN Environmental Arena." International Environmental Agreements **7**: 363-387.
- Choucri, N. (1993). Environmentalism. The Oxford Companion to Politics of the World. J. Krieger. New York, Oxford University Press: 267-71.
- Choucri, N. (1993). Global Accord. Cambridge, MA, MIT Press.

- Clark, W. C., J. V. Eijndhoven, et al., Eds. (2001). Social Learning and the Management of Global and Transboundary Risks. Cambridge, MA, MIT Press.
- Cohen, J. and C. F. Sable (2006). "Global Democracy?" New York University Journal of Law and Politics **37**: 763-797.
- Connolly, B. (1999). symmetrical Rivalry in Common Pool Resources and European Responses to Acid Rain. Anarchy and the Environment. J. S. a. G. E. S. Barkin. Albany, SUNY.
- Darren G. Hawkins, D. A. L., Daniel L. Nielson, and Michael J. Tierney, Ed. (2006). Delegation and Agency in International Organizations. Cambridge, UK, Cambridge University Press.
- Dauvergne, P., Ed. (2005). Handbook of Global Environmental Politics. Cheltenham, UK, Edward Elgar.
- Della Porta, D. and M. Diani, Eds. (2006). Social Movements. Malden, MA, Blackwell.
- DeSombre, E. R. (1995). "Baptists and Bootleggers for the Environment: The Origins of United States Unilateral Sanctions." Journal of Environment and Development **4**(1): 53-75.
- deSombre, E. R. (2000). Domestic Sources of International Environmental Policy. Cambridge, MA, MIT Press.
- Downs, G. W. (2000). "Constructing Effective Environmental Regimes." Annual Review of Political Science **3**: 25-42.
- Downs, G. W., K. W. Danish, et al. (2000). "The Transformational Model of International Regime Design." Columbia Journal of Environmental Law **38**: 465-514.
- Downs, G. W., D. M. Roche, et al. (1996). "Is the Good News About Compliance Good News about Cooperation?" IO **50**(3): 379-406.
- Drezner, D. W. (2007). All Politics is Global. Princeton, Princeton University Press.
- Dryzek, J. S. (1997). The Politics of the Earth. Oxford, Oxford University Press.
- Dunlop, C. (2000). "Epistemic Communities: A Reply to Toke." Politics **20**(3): 137-144.
- Eilstrup-Sangiovanni, M. and C. Jones (2008). "Assessing the Dangers of Illicit Networks." International Security **33**(2): 7-44.
- Epstein, C. (2008). The Power of Words in International Relations: The Birth of an Anti-Whaling Discourse. Cambridge, MA, MIT Press.
- Falkner, R. (2005). "American Hegemony and the Global Environment." International Studies Review **7**: 585-599.
- Fox, J. A. B., L. David, Ed. (1998). The Struggle for Accountability: The World Bank, NGOs, and Grassroots Movements. Global Environmental Accord: Strategies for Sustainability and Institutional Innovation Cambridge, MIT Press.
- Fung, A. (2006). "Varieties of Participation in Complex Governance." Public Administration Review **66**: 66-76.
- Governance, T. C. o. G. (1995). Our Global Neighborhood.
- Grande, E. and L. W. Pauly, Eds. (2005). Complex Sovereignty: Reconstituting Political Authority in the Twenty-first Century. Toronto, University of Toronto Press.
- Haas, E. B. and P. C. Schmitter (1964). "Economics and Differential Patterns of Political Integration." International Organization **18**(4): 705-737.

- Haas, P. (2004). "Addressing the Global Governance Deficit." Global Environmental Politics **11**(4): 1-19.
- Haas, P. (2004). "When Does Power Listen to Truth? A Constructivist Approach to the Policy Process." Journal of European Public Policy **11**(4): 569-592.
- Haas, P. M. (2003). "The US' Mixed Record in Green Causes." Down to Earth **12**(5): 54-55.
- Haas, P. M. (2007). Epistemic Communities. The Oxford Handbook of International Environmental Law D. Bodansky, J. Brunnee and E. Hey. New York, Oxford University Press: 791-806.
- Haas, P. M. (2008). "Climate Change Governance After Bali." Global Environmental Politics **8**(3): 1-7.
- Haas, P. M., Ed. (2008). International Environmental Governance. Aldershot, Ashgate.
- Haas, P. M. and E. B. Haas (1995). "Learning to Learn." Global Governance **1**(3).
- Haas, P. M. and N. Kanie, Eds. (2004). Dynamics of Multilateral Environmental Governance. Tokyo, United Nations University Press.
- Haas, P. M., R. O. Keohane, et al., Eds. (1993). Institutions for the Earth. Cambridge, MIT Press.
- Haas, P. M. K., Robert O.; Levy, Marc A., Ed. (1993). Institutions for the Earth: Sources of Effective International Environmental Protection. Global Environmental Accords Series. Cambridge, The MIT Press.
- Haffner-Burton, E. M., M. Kahler, et al. (2008). Network Analysis for International Relations. American Political Science Association Annual Meeting. Boston.
- Hall, R. B. and T. J. Biersteker, Eds. (2002). The Emergence of Private Authority in Global Governance. Cambridge, Cambridge University Press.
- Harris, P. G., Ed. (2001). The Environment, International Relations, and U.S. Foreign Policy. Washington D.C., Georgetown University Press.
- Hawkins, D. G., D. A. Lake, et al., Eds. (2006). Delegation and Agency in International Organizations. Cambridge, UK, Cambridge University Press.
- Hurrell, A. K., Benedict, Ed. (1992). The International Politics of the Environment: Actors, Interests, and Institutions. Oxford, Clarendon Press.
- Ikenberry, G. J. (2001). After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order after Major Wars. Princeton, Princeton University Press.
- Ikenberry, G. J. (2009). "Liberal Internationalism 3.0: America and the Dilemmas of Liberal World Order." Perspectives on Politics **7**(1): 71-87.
- Jasanoff, S. and B. Wynne (1998). Science and Decisionmaking. Human Choice & Climate Change. S. Rayner and E. L. Malone. Columbus, OH, Batelle Press. **1**: 1-87.
- Kanie, N. and P. M. Haas, Eds. (2004). Emerging Forces in Environmental Governance. Tokyo, UNU Press.
- Keck, M. E. and K. Sikkink (1998). Activists Beyond Borders. Ithaca, Cornell University Press.
- Keohane, R. O. (1989). International Institutions and State Power: Essays in International Relations Theory. Boulder, Westview Press.
- Keohane, R. O. (2001). "Governance in a Partially Globalized World." American Political Science Review **95**(1): 1-13.

- Keohane, R. O. (2002). *Global Governance and Democratic Accountability*, Miliband Lecture London School of Economics: 35.
- Keohane, R. O. and L. L. Martin (1995). "The Promise of Institutional Theory." *International Security* **20**(1): 39-51.
- Keohane, R. O. and J. S. Nye (1974). "Transgovernmental Relations and International Organizations." *World Politics* **27**(1).
- Keohane, R. O. N., Joseph S. and J. S. Nye, Eds. (1971). *Transnational Relations and World Politics*. Cambridge, Harvard University Press.
- Kingdon, J. (1995). *Agendas, Alternatives and Public Policy*. Boston, Addison Wesley.
- Knigge (2005).
- Koremonos, B., C. Lipson, et al. (2001). "The Rational Design of International Organizations." *International Organization* **55**(4): 761-99.
- Kratochwil, F. V. and J. G. Ruggie (1986). "International Organization: A State of the Art on the Art of the State." *International Organization* **40**(4): 753-775.
- Levy, D. L. and P. J. Newell, Eds. (2005). *The Business of Global Environmental Governance*. Cambridge, MIT Press.
- Levy, D. L. and A. Prakash (2003). "Bargains Old and New: Multinational Corporations in Global Governance." *Business and Politics* **5**(2): 131-150.
- Meyer, J. W. (1997). "The Structuring of a World Environmental Regime." *IO* **51**(4): 623-651.
- Miles, E. L. (2002). *Environmental regime effectiveness : confronting theory with evidence*. Cambridge, Mass., MIT Press.
- Mitchell, R. (2002). International Environment. *Handbook of International Relations*. T. Risse, B. Simmons and W. Carlsnaes. Sage Publications: 500-516.
- Mitchell, R. B. (1998). "Discourse and Sovereignty: Interests, Science and Morality in the Regulation of Whaling." *Global Governance* **4**(3): 275-293.
- Mitchell, R. B. (2003). "International Environmental Agreements: A Survey of their Features, Formation, and Effects." *Annual Review of Environment and Resources* **28**: 429-461.
- Nadelmann, E. A. (1990). "Global Prohibition Regimes." *International Organization* **44**(4): 479-526.
- Najam, A., M. Papa, et al. (2006). *Global Environmental Governance: A Reform Agenda*. Winnipeg, CA, International Institute for Sustainable Development.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge, Cambridge University Press.
- Oberthur, S. and T. Gehring (2006). *Institutional Interaction in Global Environmental Governance*. Cambridge, MIT Press.
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge, Cambridge University Press.
- Paarlberg, R. (1992). Ecodiplomacy: U.S. environmental policy goes abroad. *Eagle in a new world: American grand strategy in the post-Cold War era*. K. A. Oye, R. J. Lieber and D. Rothchild. New York, Harper Collins Publishers: Chapter 7, 207-231.
- Paarlberg, R. (1999). Lagged Leadership. *The Global Environment: Institutions, Law, and Policy*. N. A. Vig, Regina. Washington, D.C., CQ Press.

- Patterson, M. (1999). "Interpreting Trends in Global Environmental Governance." International Affairs **75**(4): 793-802.
- Pauly, L. W. and E. Grande (2005). Reconstituting Political Authority: Sovereignty, Effectiveness and Legitimacy in a Transnational Order. L. W. Pauly and E. Grande. Toronto, University of Toronto Press.
- Prakash, A. and M. Potoski (2006). "Racing to the Bottom? Trade, Environmental Governance, and ISO 14001." American Journal of Political Science **50**(2): 350-364.
- Prakash, A. and M. Potoski (2006). The Voluntary Environmentalists. Cambridge, Cambridge University Press.
- Roch, P. and F. X. Perrez (2005). "International Environmental Governance." Colorado Journal of International Law and Policy **16**(1).
- Rohrschneider, R. and R. J. Dalton (2002). "A Global Network? Transnational Cooperation among Environmental Groups." The Journal of Politics **64**(2): 510-533.
- Schaferhoff, M., S. Campe, et al. (2009). "Transnational Public-Private Partnerships in International Relations." International Studies Review **11**: 451-474.
- Siebenhuner, B. (2008). "Learning in International Organizations in Global Environmental Governance." Global Environmental Politics **8**(4): 92-116.
- Slaughter, A.-M. (2004). A New World Order. Princeton, Princeton University Press.
- Speth, J. G. and P. M. Haas (2006). Global Environmental Governance. Washington, DC, Island Press.
- Sprinz, D. and T. Vaahoranta (1994). "The interest-based explanation of international environmental policy." International Organization **48**(1): 77-105.
- Tarrow, S. (1994). Power in Movement. Cambridge, Cambridge University Press.
- The Social Learning Group (2001). Social Learning and the Management of Global Environmental Risks. Cambridge, MIT Press.
- Vibert, F. (2007). The Rise of the Unelected. Cambridge, Cambridge University Press.
- Victor, D. (2006). "Toward Effective International Cooperation on Climate Change." Global Environmental Politics: 90-103.
- Victor, D. G., K. Raustiala, et al. (1998). The implementation and effectiveness of international environmental commitments : theory and practice. Laxenburg, Austria
Cambridge, Mass., International Institute for Applied Systems Analysis ;
MIT Press.
- Weber, S., N. Barma, et al. (2007). "How Globalization Went Bad." Foreign Policy(January/February): 48-54.
- Weiss, T. G. G., Leon, Ed. (1996). NGOs, The UN, and Global Governance. Boulder, Lynne Rienner Publishers.
- Winter, G., Ed. (2006). Multilevel Governance of Global Environmental Change. Cambridge, Cambridge University Press.
- Young, O. R. (1991). "Political Leadership and Regime Formation." IO **45**(3): 281-308.
- Young, O. R., Ed. (1997). Global Governance: Drawing Insights from the Environmental Experience. Global Environmental Accord: Strategies for Sustainability. Cambridge, Cambridge University Press.

- Young, O. R. (1997). Global governance: toward a theory of decentralized world order. Global governance: drawing insights from the environmental experience. O. R. Young. Cambridge, MA, MIT Press: 273-299.
- Young, O. R. (2008). Reflections on Energy, Sustainability and Societal Change. Series. International Human Dimensions Programme on Global Environmental Change
- Young, O. R., Ed. (2009). Institutions and Environmental Change. Cambridge, MA, MIT Press.
- Zacher, M. (1999). The United Nations and Global Commerce. New York, United Nations.
- Zürn, M. (1998). "The rise of international environmental politics: a review of current research." World Politics 50(4): 617-649.

¹ Similar definitions and approaches are offered by North, D. C. (1990). Institutions, Institutional Change and Economic Performance. Cambridge, Cambridge University Press, Ostrom, E. (1990). Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge, Cambridge University Press, Young, O. R. (1997). Global governance: toward a theory of decentralized world order. Global governance: drawing insights from the environmental experience. O. R. Young. Cambridge, MA, MIT Press: 273-299.

² For this class of cases a Cassandra effect is unlikely to influence the judgement of agenda setting. Because environmental harm is almost certainly likely to occur after early warning signs are observed, and because protecting the environment requires behavioral change, merely announcing the likelihood of a threat is unlikely to lead directly to behavioral change and thus one would not observe bad agenda setting.