

WHY IS THERE NO UNIFIED THEORY OF ENVIRONMENTAL GOVERNANCE?¹

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Abstract

Those who work on the role of institutions as determinants of the course of human/environment relations have much in common. They employ compatible perspectives on the nature of institutions, subscribe to the main tenets of the “new institutionalism” in the social sciences, and seek to understand the roles that institutions play both in causing and confronting environmental problems. Yet this common agenda has not led to the emergence of a vibrant and mutually beneficial dialogue among those focusing on smallscale systems and approaching these issues from a bottom-up perspective and those examining macro-level systems and considering the issues from a top-down perspective. In this essay, I seek both to explain the reasons for this failure to engage in a lively dialogue and to offer some suggestions for overcoming this problem. I locate the causes of the problem in divergent research strategies, conceptual fixations, and conflicting methodological practices. Overcoming the resultant disconnect will not be easy. But I advocate a strategy featuring an emphasis on common questions and a commitment to common activities as a promising approach for those who believe that bridging the gap between bottom-up and top-down studies is both feasible and desirable.

As a participant in the US National Research Council's project focusing on institutions for managing the commons and endeavoring both to assess recent advances in knowledge in this field and to set a research agenda for future work, I found myself becoming puzzled, perplexed, and, in the end, frustrated (Ostrom 2002). The growth of scientific understanding regarding the roles that social institutions play as determinants of the course of human/environment relations in smallscale social systems is undoubtedly a major achievement. Yet the rapidly growing literature on smallscale systems is by no means the only significant recent development arising from the study of environmental governance. Equally impressive streams of research focus on environmental regimes at the national level and especially at the international level. Increasingly we are aware as well that there is substantial interplay among institutional arrangements operating at different levels of social organization. An obvious strategy under the circumstances would be to compare and contrast bottom-up perspectives and top-down perspectives in this realm in the interests of developing more powerful or general propositions about the institutional dimensions of human/environment relations and ultimately formulating a unified theory of environmental governance.

Yet even those who ought to be its natural advocates have made little effort to pursue this strategy. Why is this the case, and what can we do to stimulate greater interest in cross-scale comparisons on the part of researchers in the future? In this essay, I address these questions in three steps. In the first section, entitled "Our Common Agenda," I argue that the core concerns of those working on the institutional dimensions of human/environment relations are essentially the same regardless of the level of social organization that constitutes their primary focus. The next section seeks to identify the reasons why serious efforts to compare and contrast major findings across levels of social organization have been few and far between. It concentrates particularly on the sources of parochialism in the thinking of analysts working on smallscale, local systems and analysts concerned with international and especially global regimes. In the final section, I discuss steps that those who feel, as I do, that a unified theory of environmental governance is both desirable and feasible can take to overcome these sources of parochialism. My goal is to propose a research agenda that will encourage researchers to pool their findings in the interests of broadening and deepening our knowledge of the institutional dimensions of human/environment relations.

Our Common Agenda

The common core of the concerns of those who address these issues from the bottom up and from the top down is both easy to identify and substantial. We are all concerned with the roles that institutions play both in causing and

confronting environmental changes (Young 1999a). We all want to formulate, test, and refine propositions about the ways in which institutions shape the content of collective outcomes in the realm of human/environment relations. Most of us are motivated not only by an interest in adding to the stock of scientific knowledge about such matters but also by a desire to contribute to our capacity to design institutional arrangements that can play a role in improving the sustainability of human/environment relations. The fact that we find ourselves today concerned increasingly with human-dominated ecosystems simply reinforces the importance we attach to expanding the stock of usable knowledge in this field (Vitousek et al. 1997).

The good news in this context is that most of us share a broadly compatible understanding of the nature of institutions. For the most part, we share the basic precepts of the new institutionalism in the social sciences (Rutherford 1994; Scott 1995). In my own writing, I generally define institutions as set of rules, decisionmaking procedures, and programs that define social practices, assign roles to participants in these practices, and guide interactions among occupants of those roles (Young 1994a; Young 1999b). This formulation draws a clear distinction between institutions and organizations treated as material entities with offices, personnel, equipment, budgets, and so forth. At the same time, it leaves open the prospect that institutions can vary greatly in terms of formalization and that some institutions may be largely or even wholly informal in nature. The important distinction introduced by Elinor Ostrom between rules in use and rules on paper is highly relevant in this context (Ostrom 1990). There are, of course, numerous other specific definitions of institutions; many of them point to other features or attributes of institutional arrangements that are relevant to the study of human/environment relations. By and large, however, it is fair to say that, those of us who work in this field are not burdened by pressures to devote any sizable fraction of our time and energy to efforts to resolve definitional disagreements.

A prominent category of institutions that loom large in our thinking about human/environment relations encompasses systems of property rights (Manne 1975). But a consideration of systems of property rights also leads directly to the propositions that institutions can and often do become complex structures and that seemingly small differences between or among specific institutional arrangements can have profound consequences in terms of their impacts on the course of human/environment relations. It is easy enough and useful as a point of departure to draw gross distinctions among systems featuring private, public, and common property. But it quickly becomes apparent that systems of property rights encompass bundles of specific arrangements including possessory rights, use rights, exclusion rights, and disposition rights and that there are many different ways to combine these rights into bundles devised to deal with specific

biophysical and socioeconomic circumstances (Hanna et al. 1996). What is more, each of these components of structures of property rights can be subjected to a wide range of restrictions. Use rights can include important restrictions on times and methods of use, for instance, and disposition rights can restrict the liberty of holders to transfer property to others via sale, gift, or inheritance. Small wonder, then, that those who appear to be on the same side as advocates of common property or private property can disagree dramatically among themselves regarding what is required to promote or maintain sustainability in human/environment relations.

That said, most of us who work on matters of environmental governance share an interest in understanding the roles that institutions play both in causing problems and in confronting or solving problems associated with human/environment relations. Many analyses of the sources of environmental problems point to institutional failures or mismatches as major causal factors underlying these problems. The sorts of situations captured in the metaphor of the “tragedy of the commons,” for example, are regularly attributed to the operation of open-to-access common property arrangements that allow all the members of a group to exploit living resources in the absence of any agreed-upon rules imposing restrictions on the behavior of users or, as Elinor Ostrom calls them, appropriators (Ostrom 1990) needed to avoid severe depletion or degradation of the resources in question (Hardin 1968; Hardin and Baden 1977; Baden and Noonan 1998). Conversely, many analysts interpret major forms of pollution as social costs or externalities allowed under the provisions of systems of private property that do not impose restrictions on the actions of owners that cause harm to their neighbors or to the functioning of ecosystems whose importance extends well beyond the interests or concerns of the holder of the private property rights.

It is a short step from these assessments of institutional causes of environmental problems to the development of ideas about the roles that institutions can and sometimes do play in solving or at least ameliorating such problems. If open-to-access common property is the source of actions leading to the depletion or degradation of resources, a natural response is to think in terms of introducing systems featuring some form of limited entry. Similarly, if pollution is correctly understood as an externality of behavior designed to achieve other goals, an obvious response is to consider introducing rules, regulations, or standards that require the relevant actors to internalize social costs or give them incentives to eliminate or minimize these costs. Of course, it is both possible and common for analysts to share the view that institutional arrangements are major determinants of the course of human/environment relations while disagreeing profoundly about how to (re)design institutions in order to solve or alleviate specific problems. While libertarians typically

prescribe some form of private property as a method of avoiding the tragedy of the commons, for instance, many of those who work on smallscale systems are convinced from their reading of the evidence that various forms of restricted common property are effective mechanisms for avoiding environmental depletion or degradation under a variety of circumstances (Anderson and Leal 1991; McCay and Acheson 1987). Whereas some observers prescribe command-and-control regulations as the appropriate means to suppress or minimize environmental externalities, to take another example, others argue that incentive mechanisms featuring tradable permits or charges are likely to prove more effective - not to mention more efficient - in dealing with problems of this sort (Portney 1990).

Note, however, that all these analysts, including those who espouse diametrically opposing views regarding solutions to specific problems, are united in assuming that the operation of institutions accounts for a substantial proportion of the variance in human/environment relations. No one is foolish enough to argue that institutions make all the difference or, in other words, that institutions are the only important determinants of human/environment relations. It is easy to see that a variety of biophysical and socioeconomic drivers that operate independently of institutions are important factors in this realm. Yet there is consensus among those who are interested in environmental governance on the proposition that institutions are major drivers. What is more, institutions under most conditions are more malleable than other drivers. We cannot repeal the laws controlling biophysical systems; it is often beyond our capacity to control socioeconomic forces like trends in human population or the development and diffusion of new technologies. But institutions appear to be decision variables or, in other words, arrangements that we can (re)design in the interests of solving specific problems or pursuing specific goals (Ostrom 1990; Koremenos, Lipson, and Snidal 2001; Young 2002a). In fact, it is easy to overestimate our capacity to (re)design institutions in a purposive manner. Even so, there is no mystery in the importance of institutional design as a common denominator among students of environmental governance, regardless of the level of social organization on which they focus.

So What's the Problem?

With so much in common, it seems odd that there is not a rich and vibrant dialogue among those working on issues of environmental governance at different levels of social organization. Given the absence of centralized political institutions in many smallscale, local societies and in international society, it seems especially hard to understand the low level of communication between those working on local arrangements dealing with human/environment relations and those seeking to understand the roles of international or global environmental regimes. Yet the fact remains that there is no dialogue to speak of

between these research communities. Even when participants in one community seek to apply their findings to issues arising at the other level of social organization, they typically do so without serious attention to the work of participants in the other community (Ostrom et al. 1999).

Why is this the case? In this section, I argue that the low level of communication is a function of divergent choices regarding research strategies, conceptual fixations, and conflicting methodological practices. Those working on smallscale systems have focused almost obsessively on the problem of avoiding the tragedy of the commons; become enmeshed in conceptual confusions regarding common-pool resources; emphasized common property to the exclusion of other systems of property rights, and relied excessively on qualitative case studies. By contrast, those analyzing international or global environmental regimes have failed to define the core of their research program crisply and clearly; wasted time and energy in sectarian battles among different approaches to the subject (e.g. disagreements among neo-realists, neo-liberals, and cognitivists); made little effort to integrate the contributions of political scientists and economists, and encountered problems in devising appropriate methods for the pursuit of their research goals. In the following paragraphs, I unpack these summary assertions.

In some respects, the focus on avoiding the tragedy of the commons has been a source of strength for those working on smallscale systems. It provides a central thread tying together the work of a large number of individual analysts. And because it is comparatively easy to show that many - though by no means all - local and especially traditional societies have been quite successful in avoiding the depletion and degradation predicted by the model underlying the tragedy of the commons, research in this field has been able to produce results that are widely seen as important (Ostrom 2002). But this success has come at a price. In many cases, it is a stretch to characterize conditions on the ground as the same as those implicit in the tragedy of the commons model. Many real-world situations are better treated as cases of shared natural resources in which living resources straddle or cross back and forth between areas controlled by different individuals or as cases of environmental externalities in which the actions of individual users in their own areas impact the welfare of their neighbors in significant ways. The result is an effort to force a range of situations that differ from one another in important ways into a single conceptual box. Predictably, this leads to a growing uneasiness among those seeking to evaluate the results. If the universe of cases expands to encompass a range of substantially different situations, simple conclusions about avoiding the malign consequences of the tragedy of the commons become harder and harder to interpret in an unambiguous fashion.

What makes this problem particularly troublesome is that the literature on smallscale systems rests on confusing practices regarding the concepts of common-pool resources and common-property institutions. Common-pool resources or CPRs are generally defined as resources characterized both by subtractability or rivalness (i.e. use by one member of a group diminishes the availability of the resource or its value to others) and by non-excludability (i.e. there is no way to supply the resource to one member of a group without making it accessible to others) (Ostrom 1990). This is an intuitively appealing notion. But a little thought will suffice to make it clear that these defining features, and especially the characteristic of non-excludability, are socially constructed. The extent to which most resources commonly regarded as CPRs – fish stocks and freshwater at the local level or the planet’s life support systems at the global level – exhibit the characteristic of non-excludability is a matter of the institutional arrangements created to manage human activities affecting them. Systems of rights designed to function as exclusion mechanisms have long been familiar regarding human uses of freshwater (Anderson 1983). In recent years, a great deal of creative energy has gone into the development of limited-entry systems intended to serve as exclusion mechanisms in marine fisheries (National Research Council 1999). The idea of creating tradable permits for emissions of carbon dioxide and other greenhouse gases is driven by the desirability of introducing exclusion mechanisms applying to uses of the Earth’s atmosphere as a repository for industrial wastes or residuals (Oberthür and Ott 1999)..

Nor can we take much comfort from the tendency of those who study smallscale systems to overextend the idea of common property in thinking about the institutional arrangements that have emerged to guide human/environment relations at the local level. Given the propensity of Garrett Hardin and his followers to proclaim that the introduction of public or especially private property arrangements is necessary to overcome the tragedy of the commons (Hardin 1968), it is understandable that analysts of smallscale systems have made much of the fact that many local groups have succeeded in achieving sustainable relations with the environment without resorting to arrangements that are easily recognizable as either public property or private property. But this understandable tendency has had confusing consequences and for two distinct reasons. There are a number of routes that can be followed in efforts to avoid or overcome the tragedy of the commons. So the interesting question becomes: what are the relative merits in terms of criteria like sustainability, efficiency, and equity of alternative mechanisms for limiting the sorts of depletion and degradation associated with open-to-entry access to various natural resources? Beyond this, real-world institutions often take on features that cannot be captured easily with simple distinctions among private, public, and common property. Successful arrangements can and ordinarily do feature the evolution of significant restrictions on the actions of holders of property rights, and they

regularly give rise to complex bundles of property rights that incorporate features of two or even all three of the main categories of systems of property rights. Under the circumstances, insistence on perspectives in which local systems are examined through the conceptual lens of common property can easily become a hindrance to understanding. What is needed is a wider vision in which the focus is on the role of various types of institutions as determinants of the course of human/environment relations.

These difficulties are compounded by the fact that those studying arrangements governing human/environment relations in smallscale settings have exhibited an overwhelming preference for the use of case study methods. The resultant research has yielded a rich collection of in-depth descriptions of discrete institutional arrangements. But these results are not conducive to the formulation and testing of generalizations showing how various combinations of institutional features are associated with well-defined outcomes described in terms of criteria like sustainability, efficiency, and equity. Some participants in this stream of work – Elinor Ostrom is the most prominent example – have sought to extract design principles relating to long-enduring institutional arrangements by seeking to identify conditions necessary for longevity or sustainability from the many case studies compiled by students of smallscale systems (Ostrom 1990). But these efforts have yet to produce a collection of well-tested generalizations spelling out specific relationships between clearly defined dependent variables and systems or combinations of property rights that fall naturally into categories like private, public, and common property. If anything, the conclusions suggest that it makes more sense to cast this exercise more broadly as an effort to understand the role of institutions in human/environment relations in contrast to a study of the capacity of common property systems to prevent serious depletion or degradation of natural resources.

Lest anyone conclude that I am picking unfairly on the work of those who focus on smallscale systems, let me turn to a parallel set of observations about the work of analysts concerned with international or global environmental regimes. Studies of international regimes lack the focus given to studies of smallscale systems by their concentration on the puzzle of explaining why the tragedy of the commons often fails to materialize in situations that seem, at least on the surface, to feature the conditions that Hardin and others identify as giving rise to the tragedy. As many analysts have pointed out, it is a straightforward matter to model the tragedy of the commons as an example of the collective-action problem known as the prisoner's dilemma (Ostrom 1990). Collective-action perspectives are also common among those who work on international regimes (Oye 1986). But there is no presumption that all collective-action problems at the international level can be modeled as instances of the prisoner's dilemma. Analytically, this can be interpreted to mean that the central concerns

of those examining smallscale systems constitute a subset of the range of problems considered in studies of international regimes. Yet this does nothing to alter the fact that there is a certain diffuseness about regime analysis at the international level that contrasts sharply with the crispness characterizing the central thrust of studies of institutional arrangements guiding human/environment relations in smallscale settings.

This problem is exacerbated by the fact there are lingering debates among students of international regimes about definitional matters that lead to complications when it comes to determining the boundaries of the universe of cases in this realm (Hasenclever, Mayer, and Rittberger 1997). There are analysts who argue that a global forestry regime exists despite the absence of explicit or formal agreements in this realm, for instance, and others who argue that there is no global climate regime despite the fact that the UN Framework Convention on Climate Change is now a decade old. Slowly but surely, leaders in this field of study are devising procedures to overcome this difficulty. But it is hard to deny that the prominence of definitional battles in this realm has diverted attention from more substantive matters and given rise to an understandable perception that the field is preoccupied with debates about the location of the starting line in contrast to theoretically interesting debates about the roles that institutional arrangements play in guiding human/environment relations at the international level.

Further complications stem from the fact that studies of international regimes are afflicted by sectarian battles among proponents of divergent interpretive frameworks or paradigms and fragmented by methodological differences that few participants have tried to bridge. As to paradigmatic matters, the field includes neo-realists who point to the role of power and, in the extreme, dismiss institutions as epiphenomena (Strange 1983; Mearsheimer 1994/1995); neo-liberals who emphasize the significance of interests and see institutions as products of processes of bargaining or negotiation, and cognitivists who espouse the perspectives of social constructivism and focus on the role of ideas and discourses as the substrate on which institutions rest (Hasenclever, Mayer, and Rittberger 1997). Epistemological and, in some cases, ontological differences make it hard to find procedures that can succeed in joining the efforts of these groups of researchers into an integrated stream of work on the roles that institutions play in guiding the course of human/environment relations. Although many participants have sought to stake out middle grounds in the resultant battles, others find themselves disagreeing profoundly about such matters as the value of positivistic approaches to knowledge in contrast to hermeneutics or phenomenology as suitable approaches to the study of international regimes. All this contributes to the sense that the members of this community of researchers are more concerned with

conceptual and methodological matters than with advancing understanding of major substantive issues like identifying the conditions under which environmental regimes will produce outcomes that fulfill various criteria of sustainability, efficiency, or equity.

Under the circumstances, it will come as no surprise that studies of international environmental regimes divide into several subsidiary streams that are seldom compared and contrasted in any systematic manner. Broadly speaking, there are three major subsets: studies by social scientists seeking to formulate and test empirical generalizations about international institutions (Haas, Keohane, and Levy 1993; Young 1999c; Miles et al. 2001), studies by economists endeavoring to extract conclusions relevant to international institutions from formal models (Sandler 1997; Barrett 2002), and studies by lawyers addressing the rapid growth of international environmental law (Chayes and Chayes 1995; Sands 1995; Sand 1999). In an ideal world, the existence of these streams could become a strength; pooling insights from the different streams could help to subject creative ideas to constructive criticism and to trigger innovative thinking needed to generate new ideas. But, for the most part, this is not the course that this field of study has taken. Rather, those contributing to one or another of the three streams typically talk to one another, publish in different journals, and make little effort to show how their findings relate to the findings of those associated with the other streams.²

My purpose in setting forth these observations is not to complain about the practices of those who think about environmental governance at one level of social organization or another. Rather, I have sought to explain the following paradox: why is it that analysts who share so much in terms of their basic perspective on the role of institutions as determinants of the course of human/environment relations nevertheless find it so difficult to engage in a mutually beneficial dialogue, much less to work toward the development of a unified theory of environmental governance. The explanation I have offered is a relatively simple one. Those who study the role of institutions in smallscale societies and in international society are divided by the research strategies they have developed, blinded by a number of conceptual and paradigmatic fixations, and separated by their commitments to divergent methodologies. Overcoming these differences in the interests of initiating a productive dialogue that could set us collectively on the road toward the creation of a unified theory of environmental governance will not be easy.

What Is To Be Done?

² . For an exception that seeks to compare and contrast the works of international regime theory and economic theories of international cooperation, see Neumayer 2001.

One response to the story I have unfolded in the preceding section is to conclude that the obstacles to launching a productive dialogue between those who approach environmental governance from the bottom up and those who examine the same subject from the top down are simply too great to overcome. It is certainly possible that we may find ourselves forced to accept this conclusion at the end of the day. But I believe it would be undesirable to accept this outcome before making a concerted effort to explore methods for overcoming the obstacles. The issues are too important and the potential gains from a constructive dialogue among the groups of researchers in question are too great to give up on this prospect without a struggle.

What, then, can we do to foster a richer and more effective dialogue between those who think about “governing the commons” in smallscale settings and those who think about international and even global environmental regimes in international society?³ In my judgment, two distinct but reinforcing strategies are likely to prove useful in this context. We can focus on questions that can only be answered by pooling the insights drawn from bottom up and top down analyses or that constitute major puzzles in the work of both groups of analysts. In addition, we can organize common activities that bring leading representatives of the two groups together in settings that are conducive to the development of a productive and mutually beneficial dialogue.

Common questions. An obvious point of departure in this realm is to direct attention to what is becoming known as the problem of scale in human/environment relations. Although the problem of scale is a prominent concern throughout the natural sciences, social scientists are just beginning to recognize the relevance of this concern in the study of human systems. In the present context, the central question concerns the extent to which we can scale up findings derived from the study of smallscale or micro-level systems to apply to macro-level systems and, conversely, scale down findings resulting from the study of international institutions to apply to smallscale systems (Young 1994b). There are some obvious differences between micro-level and macro-level systems that should instill in us a healthy sense of skepticism about facile generalizations in this realm. Whereas community - and culture more generally - looms large in many accounts of resource management at the local level, there is little evidence that community in any ordinary sense of the term is a major factor in the creation and operation of international environmental regimes (Agrawal and Gibson 2001). For their part, international environmental regimes typically involve a two-step process in which states serve as the formal members and assume responsibility for eliciting compliance on the part of individuals, corporations, and nongovernmental organizations operating within their

³ . “Governing the Commons” is the title of Ostrom 1990.

jurisdiction, a process that has no clearcut counterpart in smallscale systems. Significant as they are, these differences should not be taken to mean that the prospects for scaling up/down in this context are poor. What is needed is a cooperative effort on the part of members of the two groups of researchers to engage in a systematic effort to compare and contrast their findings regarding the roles that institutions play in guiding the course of human/environment relations.

Another area in which dialogue may generate important insights involves what has become known as institutional interplay. Given the complexity of most institutional arrangements, it is perhaps understandable that analysts looking at both micro-level and macro-level arrangements have exhibited a pronounced tendency to examine specific institutions as though they were self-contained or stand-alone arrangements. Yet it has become apparent that distinct institutions interact with other arrangements not only horizontally or at the same level of social organization but also vertically or across levels of social organization. In the context of this discussion, the growing realization of the importance of vertical interplay is the relevant point of departure (Berkes 2002; Young 2002b). As the impacts of globalization spread, the performance of local institutions is affected by institutional arrangements operating at the national level and increasingly at the international level. There is no way to understand local occurrences affecting biological diversity in the Amazon Basin, for instance, without understanding international and even global forces affecting rates of deforestation in the region. Similar remarks are in order regarding the effects of local practices on the performance of international environmental regimes. Thus, it is hard to understand trends in emissions of carbon dioxide without taking into account local forces that influence patterns of land use and developments relating to the burning of fossil fuels.

A somewhat different but equally interesting focus for dialogue centers on the relative merits of what are often called collective-action models and social-practice models as approaches to understanding the role of institutions as determinants of the course of human/environment relations (Young 2001). The central issue here concerns the nature of the actors in such situations and the forces that guide their behavior. Thus, collective-action models assume that actors are rational utility maximizers, focus on the logic of consequences (March and Olsen 1998), and endeavor to explain the attractions of institutions to those who approach situations in terms of benefit/cost calculations. Social-practice models, by contrast, focus on the logic of appropriateness (March and Olsen 1998), assume that actors respond to feelings of legitimacy or propriety, and emphasize the links between knowledge and institutions. Although it has not been widely discussed, the literature on smallscale systems – produced by a mix of anthropologists, economists, and political scientists – has long featured a deep

division between those whose work is rooted in one or the other of these approaches. With the rise of social constructivism, research on international environmental regimes has come to feature a similar division between mainstream collective-action perspectives and increasingly influential social-practice perspectives. The goal here is not to demonstrate which of the two types of models is likely to give rise to the most substantial additions to knowledge regarding the institutional dimensions of human/environment relations. Rather, the existence of the same basic analytic division in studies of both micro-level and macro-level systems creates an opportunity for constructive dialogue between those who work on smallscale systems and those who study international environmental regimes.

Common activities. To promote the sort of dialogue described in the preceding paragraphs and to ensure the widest possible dissemination of the results, it would help to organize some common activities that would bring together leading individuals approaching the institutional dimensions of human/environment relations from the bottom up and from the top down. The organization of one or more workshops could play a major role in this connection. The National Research Council, which organized the project I referred to at the beginning of this essay, could take the lead in this connection. Alternatively, a leading university-based research center, such as the Center for the Study of Institutions, Population, and Environmental Change (CIPEC) at Indiana University, could serve as the initiator and coordinator of such an endeavor. Yet another possibility is to make this endeavor a priority activity for the international project on the Institutional Dimensions of Global Environmental Change (IDGEC), a core project of the International Human Dimensions Programme on Global Environmental Change. IDGEC, which has identified both scale and institutional interplay as major analytic concerns and which has a worldwide network of individuals interested in this research agenda, could easily collaborate with organizations like the National Research Council or CIPEC in an activity of this kind.

Beyond this lies the option of interesting key scientific organizations in the prospect of developing a unified theory of environmental governance. Without doubt, the International Association for the Study of Common Property (IASCP) constitutes the principal arena for reporting and debating new work on the role of institutional arrangements in smallscale systems. Although the situation is less clearcut with regard to international environmental regimes, it is fair to say that the International Studies Association (ISA) provides the most important arena for the presentation and discussion of new work on institutional arrangements at the international level. Ideally, it would be desirable to persuade the IASCP and the ISA to co-sponsor efforts to compare notes across the divide between bottom up and top down approaches to the institutional dimensions of

human/environment relations. It is not immediately obvious how two organizations of this sort can collaborate to address such a problem. Encouraging individual members to participate in each other's meetings is comparatively easy and may make a difference. Finding a way for IASCP and ISA to act as joint sponsors of one or more workshops designed explicitly to foster communication between bottom up and top down approaches might prove more effective. But the central issue is clear. There is a need for the major scientific organizations in this field to join forces to encourage key players in the two research communities to move beyond tokenism to a fully-fledged effort to evaluate the relevance of each other's findings for their own work and to identify ways to make common cause in developing new studies of interest to those working at different spatial scales.

Conclusion

Although analysts working on the institutional dimensions of human/environment relations have much in common with regard to the content of their research agendas, they have made little effort to compare notes concerning their findings. The result is that we have made little progress as a community toward the development of a unified theory of environmental governance. In this essay, I locate the causes of this situation in divergent research strategies, conceptual fixations, and conflicting methodological practices. These are not easy barriers to overcome. Yet there is no reason to throw up our hands and conclude that there is no way to bridge this gap. For starters, I recommend a conscious effort on the part of leading members of the two communities to formulate common questions and engage in common activities. There is no way to guarantee the success of such efforts. Yet I believe that the potential benefits arising from the development of a unified theory of environmental governance are sufficiently large to justify a strategy of taking calculated risks in this realm.

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