

Studies Association's (ISA) Environmental Studies Section and the Alger Award from ISA's International Organization section is clearly well-deserved. No recent book has more insight to offer on the wide range of institutions available for addressing the many global environmental—and other—problems the world currently faces.

Dimitrov, Radoslav S. 2006. *Science & International Environmental Policy: Regimes and Nonregimes in Global Governance*. Lanham, MD: Rowman & Littlefield.

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The extent to which science influences policy is a vexing question. Typically, scientists lament their lack of access to politicians, decision makers claim that their policies follow scientific advice, nongovernmental organizations deplore research biases, the private sector prefers to keep a low profile, and the public likes to believe in scientific objectivity but proves skeptical about most parties involved. The consequences are acute in global environmental politics, where detailed understanding of ecological phenomena often escapes all but a small group of highly specialized scientists. Since countries nevertheless commit themselves to address many of these problems, Radoslav Dimitrov's *Science & International Environmental Policy* is a contribution to be welcomed by scholars and practitioners alike.

Dimitrov's study of intergovernmental initiatives to address ozone depletion, long range transboundary air pollution (acid rain), deforestation, and coral reef degradation follows a tradition of scholarship on the role of science in knowledge-based accounts of international environmental cooperation. He finds much of this work lacking because theoretical expectations frequently fail to match reality. He especially faults the literature for treating science as a single variable, rather than disaggregating the different types of information it can represent. As one of the two main contributions of his book, the author introduces "sectors of knowledge" as a concept to distinguish shared knowledge about a problem's extent, causes, or transboundary consequences. Dimitrov posits that reliable natural scientific knowledge about transboundary consequences is necessary because it enables utility calculations and establishes transnational interdependence, whereas knowledge about the extent of a problem is not critical and some uncertainty related to human-induced causes is tolerable.

Most existing work on the role of knowledge in global environmental politics has been limited to successful cases. Dimitrov's second key contribution consists in expanding this line of work to nonregimes, suggesting that the crucial question is not why states cooperate, but why they do so on some issues and not on others. Whereas he defines regimes narrowly as legally binding treaties that have entered into force with specific targets and timetables, nonregimes in-

clude failed negotiations or failure to initiate collective action. This approach permits the inclusion of deforestation and coral reef degradation, both previously understudied issue areas.

The empirical part of Dimitrov's study centers on a comparison between two regimes (ozone depletion and acid rain) and two nonregimes (deforestation and coral reef degradation). His research includes evaluation of multilateral scientific assessments, interviews with experts and policy makers, and participant observation in negotiating processes. He demonstrates that the ozone and acid rain regimes were formed with relatively well-established knowledge of transboundary consequences but with significant scientific uncertainty about extent and, to a lesser degree, causes of these problems. On the other hand, efforts to create a global forest treaty have been unsuccessful, and negotiations for a legally binding treaty on coral reef degradation have been purposefully avoided, despite general understanding of extent and, to a lesser degree, relative contribution of human-induced causes. What explains the two nonregimes, Dimitrov concludes, is the lack of knowledge about transboundary consequences, which has made it impossible to convey global interdependence or raise concerns about unintended crossborder effects of domestic activities.

The establishment of multilateral environmental agreements is influenced by a large number of factors, and Dimitrov acknowledges that his argument complements alternative explanations. He addresses some, including the cognitivist view of knowledge as a function of power, and the neo-Marxist contention that corporate actors dominate policy outcomes, but he designates others as outside his carefully specified scope conditions. Most regrettably, his analysis does not cover the growing and increasingly important realm of governance without government, as his narrow regime definition precludes consideration of successful non-legally binding initiatives, including on forest and water management.

Additional questions may be raised about Dimitrov's conceptualization of knowledge. His theoretical model hinges on the separability of knowledge sectors, but if a problem's consequences co-vary with its extent, as might be expected, their relative impact cannot be assessed. The author admits they are hard to disentangle, especially in the case of acid rain. The intellectual stakes are high, for the inability to separate them would mean that existing theories have more to say than Dimitrov claims. For instance, the view that a "veil of uncertainty" facilitates treaty negotiation could explain the failed forest negotiations, where shared knowledge about causes and extent identified villains and victims and produced strong national opposition from those who had the most to lose from agreement. It is also unclear whether scientific knowledge has to be disaggregated in order to establish that global commons or transboundary problems such as ozone and acid rain inherently yield different outcomes than local cumulative problems such as deforestation and coral reef degradation. Biodivers-

ity would be a fruitful case to examine using this framework, since a treaty exists even though the problem's transboundary effects are uncertain.

Dimitrov's findings are further weakened by his case selection. While the examination of negative cases such as nonregimes can strengthen comparative designs, the methodological device he uses to justify their inclusion requires that treaty conclusion is at least a possible outcome. Deforestation meets this requirement, as key actors have persistently attempted to create a legally binding instrument. In the case of coral reef degradation, however, countries have intentionally abstained from negotiating a treaty. Dimitrov includes coral reef degradation because he wants to know when collective action is pursued, not why and when negotiations fail. Shifting the focus from treaty negotiations to collective action, however, would also require the inclusion of collective action that results in something other than legally binding instruments. Another problem with case selection concerns the timing and context of international negotiations. The ozone and acid regimes were negotiated when global instruments to address these problems did not exist, but efforts to address deforestation and coral reef degradation evolved in a context in which existing agreements touch on aspects of these problems, and the increasing number of existing agreements can lead to summit- and treaty-fatigue.

Despite these shortcomings Dimitrov provides a nuanced approach to examining one of the many factors contributing to the success or failure of treaty negotiation. Indeed, the questions his analysis raise should not deter potential readers and future researchers. Dimitrov has created a promising conceptual framework waiting to be refined and expanded to other cases, particularly new forms of governance.

Imura, Hidefumi, and Miranda A. Schreurs. 2005. *Environmental Policy in Japan*. Washington, D.C.: Edward Elgar and the World Bank.

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Japan's rapid industrialization in the post-war period has brought with it a number of positive developments. Though manufacturing activities are often accompanied by the generation of massive amounts of pollutants, Japan, Hidefumi Imura and Miranda Schreurs argue, has nevertheless succeeded in controlling industrial pollution while maintaining economic growth. A number of contributions by various authors seek to demonstrate and explain this relationship. This book is the result of four workshops that resulted in a cohesive and readable volume.

The volume may have been better titled "Environmental Policy for Pollution Control in Japan." As the editors clearly state, the bulk of the book is devoted to tracing the development of environmental policy instruments aimed at