

Conserving the Peace: Resources, Livelihoods and Security

Richard Matthew, Mark Halle, & Jason Switzer (Eds.)

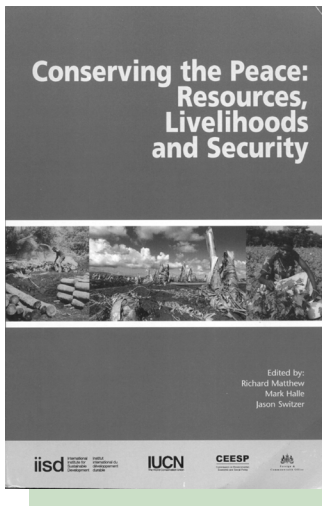
Winnipeg: International Institute for Sustainable Development and IUCN-World Conservation Union, 2002. 428 pages.

Trade, Aid and Security: Elements of a Positive Paradigm: A Working Paper

Mark Halle, Jason Switzer, & Sebastian Winkler

Winnipeg: International Institute for Sustainable Development and IUCN-World Conservation Union, 2002. 24 pages.

Reviewed by Simon Dalby



Conserving the Peace is a collaborative effort involving a multiplicity of agencies and authors (not to mention editors). Billed as the first major publication of the IUCN-World Conservation Union/International Institute for Sustainable Development Initiative (IISD) on Environment and Security, it offers 400 pages and a number of perspectives on the topic of conservation as a potential tool in peacemaking. The project is also supported by the “environmental security team” of the Foreign and Commonwealth office of the United Kingdom government, an office that is involved in environmental aid projects in Asia and Africa. What holds this volume together is the theme of conservation as a tool for peace and various concomitant discussions of environmental management as a way of reducing conflict.

The strength of *Conserving the Peace* is its focus on the ground-level view and the links between livelihoods and security. Unlike more traditional political science perspectives that focus on states, the book’s discussions emphasize the security and vulnerability of people (especially the vulnerability of populations to disasters). The book includes three “overviews,” a number of substantive case study essays, and 14 “environment and security” briefs interspersed throughout the text in odd places.

More specifically, *Conserving the Peace* seeks to answer the question: “Could investment in environmental conservation—more sustainable and equitable management and use of natural resources—offset funds now spent on peacekeeping and humanitarian relief by attacking the roots of conflict and violence, rather than waiting to address their consequences?” (page 5). Not surprisingly

(given the sponsors of this project), the answer is yes—at least to a point.

To make the case for conservation as a catalyst for peacemaking, the editors have assembled a diverse array of case studies that investigate vulnerability and violence and relate them to environmental mismanagement. They have also tried to ensure that many of the experts are from the South—an effort that contrasts with much of the literature on environmental security, in which Northern “experts” pronounce on the fate of the poor and marginal (if not actually constructing the poor and marginal as the problem).

The first overview chapter of *Conserving the Peace*, Jeffrey McNeely’s “Biodiversity, Conflict and Tropical Forests,” suggests that biodiversity has sometimes been richest in boundary areas between peoples with a history of warfare. In areas where war parties are likely to appear, hunting, gathering, and timber cutting is a risky business, and so human activity is minimal. More recent South American conflicts—ones in which states view conservationists and indigenous peoples who straddle borders as threats to national sovereignty and security—have suggested a rather different relationship between ecology, boundaries, and warfare.

War and displacement also directly damage forests in many ways: Vietnam’s forests were denuded by defoliants in the 1960s and 1970s; Myanmar’s forests are suffering from the counterinsurgency campaigns launched against tribal peoples; Central African parks have been damaged by refugees from various conflicts. McNeely includes other examples which all suggest that the relationships between conflict and forests are complex and varied.

Following this overview is the first substantial case study of the book, Richard Matthew's "People, Scarcity and Violence in Pakistan." This material is familiar to readers of *ECSP Report* because it closely follows Matthew's analysis of Pakistan in that journal's issue 7; however, because the article has little to say about forests, conflict, and conservation, it seems misplaced here. Charles Victor Barber's detailed analysis of Indonesia ("Forests, Fires and Confrontation in Indonesia"), the book's next substantial case study, is very much about forests—specifically, their destruction as a result of the policies of the Suharto government and the failure of the post-Suharto regime to deal with illegal logging and related local conflicts. The scale of the destruction and the viciousness of the conflicts Barber details suggest that drastic change is needed in both government and corporate behavior; this detailed 60-page overview also suggests how necessary and how difficult this change will be to bring about.

David Kaimowitz's chapter ("Resources, Abundance and Competition in the Bosawas Biosphere Reserve, Nicaragua") next shows that managing a conservation reserve is less than easy when at least three armed organizations are operating in its territory. The Bosawas Reserve case reinforces the argument that remote regions are both the easiest to designate as reserves and the most likely to have conflict (because of their sparse settlement, rich resources, and poorly defined property arrangements). James Gasana, a former government minister in Rwanda, then analyzes that troubled country in "Natural Resource Scarcity and Violence in Rwanda." Gasana draws on Homer-Dixon's framework and other material to suggest the unsustainability of the "winner takes all" politics of ethnic conflict there. This chapter also points to the urgent need for a Rwandan development strategy that deals with that country's huge dependency on cropland and its limited supplies of fuel wood. (Discussions of Rwanda's famous gorillas and the possibilities of conservation appear separately in this volume in one of its policy briefs.)

The following case study by Ryan Hill and Yemi Katarere ("Colonialism and Inequity in Zimbabwe") investigates the politics of access to agricultural land in Zimbabwe. It

emphasizes the history of colonial inequities of access to land, a lack of substantial land reform, and the current occupation of Zimbabwean conservation areas by people seeking land for subsistence production. These discussions raise crucial questions about the legitimacy of conservation areas that were designated by a colonial power and that excluded consideration of local peoples' views and livelihoods—a point in need of much further elaboration in many of the chapters in this volume.

Contrary to the assumptions of many economic policymakers, aid and trade do not necessarily support either political stability or human security.

Conserving the Peace's second overview paper, "Environmental Degradation and Regional Vulnerability" by Pascal O. Girot, discusses the vulnerability and damage caused in Central America by Hurricane Mitch in October 1988. Focusing on what he calls the "social construction of risk," Girot emphasizes the important point that the powerless and marginal are the principal victims of supposedly "natural disasters." Military misrule, elite control of land, poverty, and rapid urbanization of the poor leave Central American populations especially vulnerable to floods and other hazards. So far, disaster mitigation efforts have failed to do much about the structural problems in these economies and the need for serious environmental management of the rural areas where deforestation and inappropriate land use perpetuate the likelihood of further floods and casualties. Following this, Elizabeth de Sombre and Samuel Barkin (in "Turbot and Tempers in the North Atlantic") discuss the misnamed "Turbot War" between Spain and Canada in 1995. They suggest that natural-resources disputes are not limited to the South, but can also occur between developed states arguing over resources that are quite marginal to their economies.

Judy Oglethorpe, Rebecca Ham, James Shambaugh, and Harry van der Linde's overview ("Conservation in Times of War")

rounds off the substantive contributions to *Conserving the Peace*. Oglethorpe et al. attempt to summarize current such conservation efforts as well as what governments, nongovernmental organizations, and IUCN can do in such situations as those discussed in these case studies. Monitoring and information provision are important, but it is also clear that IUCN is not a peacekeeping organization. Trying to accomplish such an

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overview in under twenty pages is most ambitious. So, too, is the editors' attempt to provide conclusions, a summary of findings, and recommendations to the whole volume in the last sixteen pages. And why the last policy brief is situated immediately after the book's conclusion but before the conclusion's endnotes is simply puzzling.

Some of *Conserving the Peace's* individual chapters are strong and useful analyses, even if they do not share much in terms of approach, conceptual frameworks, or assumptions. However, the most obvious weakness of the book is in the design and layout of its material. Some chapters have references at the end; other sources are presented in cumulatively numbered endnotes that are interspersed at various places in the text. The first two notes are actually footnotes at the bottom of the preparatory pages. But note 3 referring to the opening quote on page 4 in the introduction actually turns out to be endnote 3 on page 24.

The Richard Matthew chapter on Pakistan includes a list of references and selected readings as well as endnotes; but then two "briefs"—which have no apparent connections to Pakistan—are interposed between the references and notes for this chapter. If all this sounds confusing, it is. Some chapters use numbered headings; others don't. These inconsistencies—coupled with multiple fonts, highlighted text to emphasize issues, and a too-frequent use of headers—yield a difficult-to-read volume that dilutes its own message.

The use of issue boxes and summary recommendations at the end of *Conserving the Peace* make its conclusion especially awkward to read at a point where clarity is needed most. Given the difficulties presented by the arrangement of material, an index would also have helped—but none is provided. If the book's presentation is intended as some clever postmodern textual trick to offer material in an innovative manner, it fails miserably. If it is instead an attempt to retain the diversity of perspectives and the original "voice" of the contributing authors, then it is at the cost of coherence in the finished product. *Conserving the Peace* is in stark contrast to the normal clarity of lead editor Richard Matthew's scholarly style and obscures the utility of its case studies—those of Indonesia and Hurricane Mitch in particular—as analyses of the relationships between environment and conflict. If, as the book's conclusion suggests, IUCN and IISD plan subsequent volumes to *Conserving the Peace*, these books will need clear editorial direction and consistency of presentation if they are to be effective at either analysis or policy prescription.

While *Conserving the Peace* is disjointed and focused mostly on the local and the specific, *Trade, Aid and Security* is short, succinct, and deals with the large scale of aid and world trade. Adding security into this topical mix demonstrates that conventional discussions of international trade and aid neglect a number of important considerations.

Contrary to the assumptions of many economic policymakers, aid and trade do not necessarily support either political stability or human security. Illegal trade—such as smuggled timber and other natural resources—sometimes directly supports violence and instability. Aid is still frequently tied to the purchase of goods and services from donor countries; it might also be restricted to large-scale infrastructure projects that disrupt environments and their peoples and lead to insecurity. Small-scale projects that provide social services in unspectacular but substantive ways are frequently much more important in improving the security of poor people in the South than either trade or aid. Halle, Switzer, and Winkler's suggestion that the World Trade Organization should grapple with the security implications of its policies is interesting and useful: such a move would

recognize global political matters in terms now unavoidable after the events of September 11.

This working paper—which might well be termed a policy brief—offers a useful challenge to the simplistic assumption that trade is necessarily beneficial. Neither governments nor conventional trade policy analysts might welcome its advocacy for the extension of security themes into the agenda of trade organizations, but *Trade, Aid, and Security* makes the case for such inclusion in a readable, well-referenced discussion. Future IISD/IUCN collaborations should make

more explicit the link among conservation, security, conflict, and international trade. The growing literature on resource wars in particular makes such discussions timely and necessary if the larger contexts of human insecurity are to be effectively woven into the analysis of environmental security. **W**

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Environmental Security

By Simon Dalby

Minneapolis: University of Minnesota Press, 2002. 312 pages.

Reviewed by Keith Krause

Environmental Security, Simon Dalby's most recent book, is an interesting contribution to the ever-expanding debate on the meaning and importance of the environment for contemporary security analysis. However, Dalby's point of departure here is much broader than prominent contributions to the debate by such scholars as Thomas Homer-Dixon (1999) or Jon Barnett (2001), who focus on the links between environmental degradation and conflict or on the way in which state security policies have been reshaped to address environmental concerns.

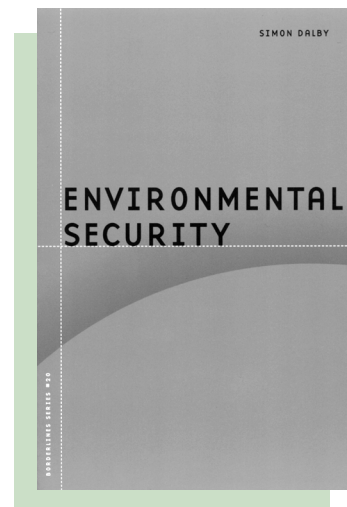
Instead, Dalby's conceptualization of "environment" serves as a device that he uses to interrogate some aspects of the modern condition—specifically, the way humans relate to their natural environment. Dalby also links his reflections on security, identity, environment, and political community to a critique of contemporary security studies as well as international relations in general. As he nicely puts it, the "limitations of international relations thinking are especially acute when matters of global environmental politics and environmental security are addressed" (page xxiii).

Environmental Security tackles these limitations through a series of linked arguments, which include such themes as the impact of imperialism and colonialism on how

indigenous peoples today relate to their environment, the contemporary geopolitical logic underpinning much writing on environment and conflict, or the importance of ideas such as "risk society" for understanding modern productions of threat and danger.

Perhaps the most interesting section of the book deals with the environmentalist's notions of ecological "shadows" and "footprints." The ecological "shadow" cast by a country represents the resources it draws from elsewhere, either from the global commons or other states. The "footprint" refers to the amount of land or resources needed to sustain a given population and its way of life. The Netherlands, for example, needs an area 14 times its size to support its level of consumption—meaning that the country in effect imports its "carrying capacities," including such things as carbon sinks or pollution.

Overall, such analysis leads to the conclusion that the world's current population of more than six billion requires about 3.8 billion more hectares of ecological space than is available on Earth! Moreover, as Dalby points out, any analysis of pressures on the carrying capacity of weak states in the global South (such as in the environment and conflict literature) must take account of the burden



imposed on these states by consumption patterns in the North.

Equally important are Dalby's repeated reminders of the widespread impact of colonialism and "the colonial imagination" on the environment-security nexus. In a quick review of a large literature, he captures under this umbrella of the "colonial imagination" phenomena as diverse as Northern notions of the park and ecotourism, the impact of resource-extraction industries on local political dynamics, and the "colonial

Dalby constantly reminds us that there are not two worlds—a zone of peace and a zone of turmoil—but one world, with its different parts interacting in complex ways.

assumptions" in many environmentalists' vision of indigenous peoples. Dalby's logic is clear and often compelling, although at times one wonders about the adequacy of the idea of "colonialism" as a catch-all for such disparate phenomena.

But in terms of understanding environmental security, Dalby usefully deploys these concepts in order to "globalize" environmental security debates, placing the work of scholars such as Homer-Dixon, for example, within a broader context that links the political economy of African conflicts to Northern lifestyles and choices. "Conflict goods" such as diamonds, coltan, or tropical timber often become the objects of violent contestation in such places as Angola, Sierra Leone, or the Democratic Republic of Congo. "Greed" replaces "grievance" (to use Paul Collier's term) as a motivation for warfare. The greed is linked to specific patterns of global trade, and it also has a destructive environmental consequences. Rampant deforestation in Indonesia—conducted in the name of nation-building—is an excellent example of this dynamic.

Dalby constantly reminds us that there are not two worlds—a zone of peace and a zone of turmoil—but one world, with its different parts interacting in complex ways. Certainly, ecologists and students of globalization would share his view that a state-centric vision of world politics focused on the patterns of conflict and cooperation

between political units (a good description of much of contemporary international relations) misses much of what is important about relations between people and the biosphere, or between societies and the world economy. And what is missed is, according to Dalby, of crucial importance for understanding the more destructive consequences of contemporary patterns of production and consumption.

A book with such a wide scope cannot help but suffer from some simplifications or over-generalizations. At times (such as in Dalby's discussion of ecological shadows and footprints), one wishes for a more systematic canvassing of the implications of his argument: more cases, more research, and a more focused attempt to "test" the robustness of some of his claims. For example, in Chapter Four ("Geopolitics and History"), Dalby notes that environmental historians are suggesting that colonial ecological interventions (which have changed patterns of economic and social life) have had a greater impact than the political dimensions of colonial rule—an interesting claim that could give rise to many doctoral theses! I am not calling for a large-scale conventional research project; but Dalby's work does in many places point the way to a research agenda that could complement much of the current environmental security work that focuses on elucidating causal connections between different variables (e.g., population, conflict, environmental scarcity, and poverty).

Another criticism, perhaps less important, is that the book is really accessible only to someone already well versed in the environment and security literature. At times—such as in Dalby's critical dissection of Robert Kaplan's dystopic vision in *The Coming Anarchy* (Kaplan, 2000)—*Environmental Security* reads as an extended literature review. One struggles a bit to imagine a genuine debate or dialogue between Dalby and his opponents—in part because Dalby is somewhat polemical in his presentation, in part because he uses other authors as jumping-off points for his own reflections, making it difficult to be certain that the sense of these original arguments has been well-captured. The writing, too, at times descends into an overly introverted series of observations that are amplified, then

qualified, and then restated in another form.

But taken as a whole, *Environmental Security* is a serious attempt to grapple with the broader issues that arise from any attempt to understand modern society's relationship to the environment, and to the threats and insecurities emerging from the complex (and misleadingly dichotomous) interaction of man and nature. In the end, one is left pessimistic about the prospects for breaking out of many of the ecological traps Dalby identifies. As he puts it, "accelerating attempts to manage planet Earth using technocratic, centralized modes of control...may simply exacerbate existing trends" (page 145). Perhaps the

Western vision that gave birth to the modern political community—liberal, free, and capitalist—inevitably carries the seeds of its own destruction. **W**

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References

Barnett, Jon (2001). *The meaning of environmental security*. London: Zed Books.

Homer-Dixon, Thomas (1999). *Environment, scarcity and violence*. Princeton: Princeton University Press.

Kaplan, Robert. (2000). *The coming anarchy: Shattering the dreams of the cold war*. New York: Random House.

Environmental Security and Global Stability

Max G. Manwaring (Ed.)

Lanham/Boulder/New York/Oxford: Lexington Books, 2002. 191 pages.

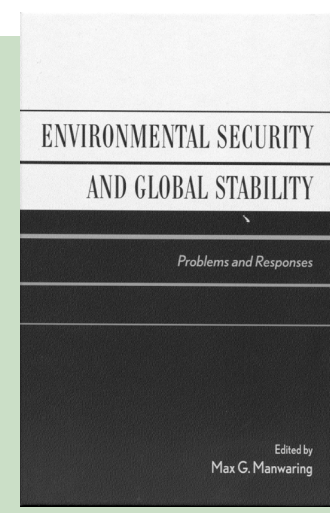
Reviewed by Richard A. Matthew

During the 1990s, the field of environmental security evolved through empirical research that was shaped by a series of discussions about methodological approaches, interpretive strategies, and policy implications. One highly spirited debate developed around concerns over linking environment issues and the military. Would such links—as Daniel Deudney alleged—pose a threat to the open, collaborative, transnational character of the environmental movement (Deudney, 1990)? Would the connection create another justification for intervention by the North into the affairs of the South, as Simon Dalby suggested (Dalby, 1994)? Or might the military, as Kent Butts argued, be greened in its activities and made more sensitive to the changing nature of security in the complex, interdependent world of the late twentieth century (Butts, 1999)?

Environmental Security and Global Stability begins with a preface of bold statements by

retired U.S. Generals Anthony Zinni and Charles Wilhelm that might be used to support any of the above positions. While Zinni states that "when environmental conditions... are destabilizing a region, a country, or have global implications, then there are major security implications" (page x), Wilhelm suggests that "[m]ilitary leaders, planners, and implementers would do well to scrutinize seriously a long list of strategic and operational imperatives that may be derived from the linkages between environmental stressors and violence, conflict, and state failure" (page xi). The work of Thomas Homer-Dixon and the CIA's two task-force reports on state failure have clearly shaped the analyses of these prominent military leaders.

Indeed, the environment-conflict thesis provides much unity to the volume's seven case studies—but it also leaves them open to many of the criticisms that Homer-Dixon has faced over the years. The book's authors



(with one exception) have extensive backgrounds with the U.S. Defense or State Departments. They do not demonstrate much familiarity with the academic literature and make no attempts to respond to familiar methodological concerns about case study selection or competing explanations that emphasize social variables. They cite military leaders such as Zinni and Tommy Franks as authorities, and draw heavily on their own field experiences to make their arguments. As such, the case studies will seem formulaic and uncritical to some readers. But

Manwaring develops a concept of environmental security that reflects the post Cold War perspectives of very senior—albeit now retired—U.S. military personnel.

Environmental Security and Global Stability has another goal than contributing to the academic literature.

In the co-authored introduction to the book, editor Max Manwaring (a retired U.S. Army colonel) and retired ambassador Frank McNeill more or less assume the gist of Homer-Dixon's familiar analysis: that the relationship between environmental stress and conflict is both significant and likely to intensify in the years ahead. As Manwaring puts it in the Preface, "[t]he cumulative political, economic, social, and security costs of environmental degradation...will cancel out the growth from unconstrained exploitation. In the global security arena, the results are tension, instability, violence, and possibly state failure" (page xii).

Manwaring and McNeill do disagree, however, with Homer-Dixon's emphasis on the impending prevalence of diffuse civil conflict, arguing that such a "conclusion, derived from an excess of theory, appears too optimistic. In many places...environmental degradation is in fact applying stress across borders" (page 3). For Manwaring and McNeill, environmental degradation is a source of instability that operates both within and among states. *Environmental Security and Global Stability*, however, is not intended to refine or expand the explanatory power of Homer-Dixon's argument—at least not in an academic sense. Rather, Manwaring's principal objectives are to "move the issue of

the environment from the stage of study and rhetoric to the realm of action" and to "outline a new paradigm...of post-Cold War security... from which policy and strategy might flow" (page 6)

The first case study (Stephen Blank's "Geopolitics, National Security, and the Environment: An Example from the Trans-Caspian Region") examines the prospects for conflict in Central Asia. Blank notes familiar geopolitical arguments about the problems faced by landlocked countries, lists the many sources of instability in the region, and concludes that, "while it would be rash to ascribe pride of place to environmental issues as a factor challenging Central Asian security, their occurrence...heightens the stresses on local governments and peoples" (page 21). McNeill then follows in his chapter ("Security Implications of Asia's Environmental Problems") with a survey of environmental problems in Southeast Asia—based largely on his personal experience—that will be quite familiar to students of this region. He concludes by describing sustainable development as "a political strategy" needed to enhance security in the region.

Aondover Tarhule next offers a survey of West Africa ("A Micro Look at West Africa: Rural Water Resources, Environmental Sustainability, and Security Implications"). Through a series of micro-level mini-cases, Tarhule shifts the book's emphasis back to intrastate conflict—suggesting that a combination of pluralism, "deeply engrained historical ethnic mistrust, and the high dependence on environmental resources" creates a tinderbox for conflict, migration, and violence (page 79). John Warren follows with a case study of Ethiopia ("Environmental Flashpoints in Africa: Ethiopia and the Blue Nile"), a country whose future Warren believes is threatened "by the worsening effects of natural-resource degradation on a massive scale" (page 96). Warren argues that Ethiopians must change their destructive water and agriculture practices—changes, he adds, that need the support of the international aid community.

McNeill's subsequent survey of Latin America ("Security Implications of Latin America's Environmental Problems") is somewhat anecdotal and speculative. McNeill predicts that the region's environmental

degradation will worsen during the next decade; he also suggests that multilateral cooperation will be required to meet the challenges this degradation will create. The very general character of these claims makes them difficult to dispute, but also of little interest to the environmental security community. Darci Glass-Royal and Ray Simmons then add a case study of the Panama Canal watershed (“A Micro Look at Latin America: Security Implications of Panama’s Environmental Problems”) in which they argue that canal expansion is taking a toll on the watershed, which could cause conflict in the future. Glass-Royal and Simmons do not discuss the mechanism for this outcome, however, and hence their conclusion must also be regarded as very speculative.

The final case study (Stephen Kiser’s “Water: The Hydraulic Parameter of Conflict in the Jordan River Basin”) tackles the well-known problem of the Jordan River basin. Kiser is guarded in his analysis, suggesting that “water use is simply one of many tensions between the peoples of the Jordan River basin” (page 149). His analysis tends to confirm the findings of Miriam Lowi, Aaron Wolf, and others who contend that Middle East instability and conflict is largely grounded in historical, political, and social factors. Water problems may complicate matters, or be addressed cooperatively behind the scenes; in either case, however, they are not at the root of the region’s security concerns.

While the case studies do not add to the theoretical framework of the field, Manwaring’s conclusion to the book (“The Environment as a Global Stability-Security Issue”) develops a concept of environmental security that is interesting insofar as it reflects the post Cold War perspectives of very senior—albeit now retired—U.S. military personnel. Manwaring argues that many parts of the world face high levels of instability—a condition, he asserts, that is affected by environmental degradation. And as local, state, and regional instability escalate, Manwaring adds, stability will become a global issue with security implications for every country (especially, given its preeminence on the world stage, for the United States).

In other words, Manwaring moves away from the focus on very localized

manifestations of environmental stress and conflict that are typical of the field, and worries about the environmental dimension of instability at the global level. It is by virtue of its destabilizing *planetary* impact that environmental stress becomes a national security issue for the United States.

At the root of the problem, Manwaring argues, lie the difficulties many states have faced in establishing adequate governance institutions. The absence of these institutions, he asserts, enables environmental degradation and a host of other destabilizing forces to grow. The ultimate solution “is to construct stability and a sustainable peace on the foundation of a carefully thought-out, holistic, long-term, phased planning and implementation process”—which must include addressing environmental problems (page 179).

In short, a world of well-governed, environmentally sustainable states will also be a stable and safe world. But unless the United States leads on this issue, Manwaring concludes, existing problems are likely to persist and increase, leading to even greater instability and conflict than we are experiencing today.

Overall, *Environmental Change and Global Stability* is an interesting window into how the concept of environmental security is being used by some influential U.S. military thinkers. But how central the concept is to the U.S. drive to maintain military predominance in a complex, dynamic, fast-paced world is not clear. At the very least, the spirit of this book—“let’s build a better world”—is at odds with the current U.S. military move towards greater reliance on covert operations and special forces. In any case, the volume will be of interest to anyone concerned with these tensions. As it does not make a significant theoretical contribution to the field and for the most part covers familiar ground, it will be of less interest to a broader readership. **W**

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References

- Butts, Kent. (1999). "The case for DOD involvement in environmental security." In Daniel Deudney & Richard Matthew (Eds.), *Contested grounds: Security and conflict in the new environmental politics* (pages 109-126). Albany: SUNY Press.
- Dalby, Simon. (1994). "The politics of environmental security." In Jyrki Kakonen (Ed.), *Green security or militarized environment* (pages 25-54). Brookfield: Dartmouth Publishing.
- Deudney, Daniel. (1990). "The case against linking environmental degradation and national security." *Millennium* 19, 461-76.