

New Publications

The Environment, Scarcity, and Violence

Thomas F. Homer-Dixon

Princeton, NJ: Princeton University Press, 1999. 253 pp.

Reviewed by David Dessler

This ambitious book is an important contribution to the increasingly sophisticated and wide-ranging debate over environmental change and security. Thomas Homer-Dixon, the author of numerous publications and the director of two large-scale research projects on environmental change and conflict (the Project on Population, Environment and Security, and the Project on Environmental Change and Acute Conflict), has been over the past decade one of the field's most prominent and influential contributors. This book synthesizes work from these earlier projects and develops an integrative framework for grasping the disparate findings they have generated. The result is an impressive work of scholarship that is sure to figure prominently in ongoing debates over environmental change, conflict, and security.

Homer-Dixon's "key finding" is that "scarcity of renewable resources—or what I call *environmental scarcity*—can contribute to civil violence, including insurgencies and ethnic clashes" (p. 177). This conclusion leads the author to predict that "in coming decades the incidence of such violence will probably increase as scarcities of cropland, freshwater, and forests worsen in many parts of the developing world" (*ibid.*). Homer-Dixon is appropriately cautious in advancing these claims. He is careful to note that environmental scarcity is neither a necessary nor sufficient cause of such conflict, that it plays a negligible causal role in many civil conflicts, and that even when environmental scarcity is a cause of conflict, its influence is typically mediated by social, political, and economic factors (chapters 1 and 2). The author systematically describes the sources and trends of environmental scarcity in the world (chapter 4), and identifies their negative social effects (chapter 5). He discusses the types of technical and social ingenuity needed to promote nondisruptive adaptation to scarcity (chapter 6), and finally pulls these various elements together into a general model of how environmental change and its social effects can cause civil violence of various types (chapter 7). The discussion is nicely structured and the writing is clear, straightforward, and accessible throughout.

Homer-Dixon's main contribution may be the framework and vocabulary he develops to transcend traditional debates over the relationship between population growth, resource scarcity, economic prosperity, and conflict. He identifies three traditional positions in this debate: the neo-Malthusians, who emphasize the limits that finite resources place on growth and prosperity; the economic optimists, who see few, if any, such limits; and the distributionalists, who focus not on the stock of resources and the alleged limits to growth they may imply, but on the effects that various distributions of wealth and power can have on economic growth and well-being. Homer-Dixon's strategy is to integrate physical variables (stocks of natural resources, population size and growth, and resource-consumption per capita) and social factors (market dynamics, and social and economic structures) in a single model that emphasizes the importance of thresholds, interdependence, and interactivity within complex environmental systems. For Homer-Dixon, "the metaphors of stability, equilibrium, and balance are not appropriate to describe complex, interdependent systems" like those of environmental change. "Instead, metaphors of anarchy, flux, and constant turmoil are more apt." He argues that "these ecosystem characteristics mean that societies must be able to supply more social and technical ingenuity to adapt to rising scarcity" (p. 41-2).

Another important contribution of the book is Homer-Dixon's focus on the role of knowledge and ideas, or lack thereof, in explaining a society's ability to adapt smoothly to environmental scarcity. Calling this stock of knowledge and ideas "ingenuity," the author argues that "a society must be able to supply enough ingenuity at the right places and times" to cope successfully with scarcity (p. 107). Both technical ingenuity (e.g., agricultural technologies that compensate for environmental loss) and social ingenuity (appropriate policies, institutions and organizations) are required. Homer-Dixon points to an "ingenuity gap" in many societies that leaves them vulnerable to the most pernicious effects of environmental change and degradation. He links his analysis of ingenuity to the general model of ecosystem change, pointing out that the need for ingenuity (particularly of the social variety) is most pressing in complex systems of environmental change that exhibit nonlinearity and interactive responses to human perturbations.

The volume's two main weaknesses are broadly methodological. The first concerns the definition of "environmental scarcity." In Homer-Dixon's framework, "scarcity" does not necessarily represent an insufficient supply of or excess demand for a resource. Scarcity also results from purely "structural" sources that are fundamentally social or political in character (p. 48). For example,

violence in the Senegal River Valley in 1989 between Arabs and blacks, we learn, was sparked when the Mauritanian elite, “which consists primarily of white Moors. . . rewrote legislation governing land ownership, effectively abrogating the rights of black Africans to continue farming, herding, and fishing along the Mauritanian riverbank” (p. 77). But in this episode, it turned out that the resources in question—especially arable land, suitable for intensive farming—were *increasing* in availability. The resource pie was growing, not shrinking. Indeed, the Mauritanian elite meant to take advantage of just this fact in rewriting the relevant land ownership laws. However, Homer-Dixon argues that this episode reveals how environmental *scarcity* can lead to violent conflict. “A powerful elite. . . changed property rights and resource distribution in its own favor, which produced a sudden increase in resource scarcity for an ethnic minority, expulsion of the minority, and ethnic violence” (ibid.).

Including the political determinants of resource shortage into a general definition of “environmental scarcity” is problematic in that it confounds efforts to separate the physical trends contributing to scarcity (population growth, global warming, tropical deforestation, etc.) from the political, economic, and social factors that spark conflict. Homer-Dixon strives to show that environmental scarcity *as distinct from* political and economic factors causes violent conflict (pp. 104-6). Yet he undermines his case by building political factors into his definition of environmental scarcity. More robust conclusions concerning the effects of environmental trends on violent conflict in the developing world are possible only by clearly disentangling the physical sources of such conflict from its political, economic and social determinants.

The other broad methodological problem with Homer-Dixon’s framework is the exclusive focus on testing causal claims against the “null hypothesis,” the claim that environmental scarcity has *no* effect on conflict at all. Homer-Dixon, recognizing that no major conflicts in the world can be directly attributed to the depletion or degradation of renewable resources, is admirably cautious in advancing claims about the causal role of the environment in violent conflict. But in defending against the more extreme claim that environmental scarcity plays no role in bringing about conflict, Homer-Dixon advances a test that is both too weak and too strong. “I adopt a purely pragmatic criterion for judging environmental scarcity’s importance in specific cases of violent conflict,” Homer-Dixon writes. “Can the sources and the nature of the conflict, I ask, be adequately understood without environmental scarcity as part of its causal story?” (p. 7). This test is too weak because even a conflict that has political, economic, and/or social determinants as its sufficient conditions may be visibly shaped by environmental factors that play only a shallow or dispensable role. The South African episode, described below, may be one such case. And at the same time, the test is too strong because

it may eliminate from the causal equation factors that remain important catalysts of a conflict where the underlying “sources and nature of the conflict” have nothing to do with environmental scarcity. The case of the chronic water shortage in the West Bank (pp. 74-6) perhaps best illustrates this type of situation.

A more convincing methodology would pay less attention to eliminating the null hypothesis (which few if any observers wish to defend in any case) and give closer consideration to the study of rival explanatory accounts. For example, to explain observed patterns of civil violence in South Africa in the 1980s,

Homer-Dixon argues that population growth amid a declining resource base led to “resource capture” by powerful warlords who “often tried to maintain power by pointing to resources in neighboring townships and informal settlements and mobilizing their communities to seize them” (p. 98). However, a different study of the same case, by Peter Gastrow, suggests that political violence in South Africa has occurred “not primarily in areas where poverty and deprivation are widespread, but in areas where poverty and poor socio-economic conditions combine with intense political rivalry, particularly between the African National Congress (ANC) and the Inkatha Freedom Party (IFP).” Gastrow argues that in areas where one of these

parties is inactive and the other predominates—in the Port Elizabeth area, for example—violence is negligible, despite pressing environmental scarcity. The point here is not that Homer-Dixon is wrong and Gastrow is right, but that Homer-Dixon fails to eliminate such rival accounts in claiming corroboration for his own.

Despite these weaknesses, Homer-Dixon’s book marks an important advance in the debate over environmental change and security. It pulls together a vast amount of empirical material and through a stimulating analytical framework develops a provocative argument that moves significantly beyond established lines of debate about the relationship between the environment, scarcity, and conflict. Homer-Dixon demonstrates decisively that older paradigmatic disputes, such as the one pitting neo-Malthusians against economic optimists, are no longer adequate to the task of understanding the social and political implications of environmental change in today’s world. The book’s arguments are invariably clear, accessible and illuminating, and the book evinces a coherence of vision that is certain to exert a profound influence on scholarship in the coming years. No serious student of environmental change and security will be able to ignore it.

David Dessler is Associate Professor of Government at the College of William and Mary, Williamsburg, Virginia.

.

Contested Grounds: Security and Conflict in the New Environmental Politics

Daniel H. Deudney and Richard A. Matthew, Editors
New York: State University of New York Press, 1999. 312 pp.

Reviewed by Colin H. Kahl

The long awaited volume *Contested Grounds: Security and Conflict in the New Environmental Politics*, edited by Daniel H. Deudney and Richard A. Matthew, is the first major published work to represent the full range and flavor of the contemporary debate surrounding “environmental security.” It is a thoughtful and multifaceted attempt on the part of leading scholars to “bring nature back in” to the study of international security affairs. Those already familiar with the field will appreciate updated versions of seminal articles in addition to other excellent essays previously unpublished or not widely available. Those unfamiliar with the field will find the volume to be an indispensable introduction to one of the most important emerging branches of security studies.

The book is divided into three parts. Following a brief introduction by Matthew, Part I of the volume, a single chapter by Deudney, provides a fascinating historical and conceptual discussion of the commonalities between contemporary environmental security concerns and classic works of “geopolitics.” Part II contains six mainly theoretical chapters, beginning with an essay by Thomas F. Homer-Dixon reviewing his well-known findings on environmental scarcity as a source of violent conflict. Next follow chapters by Michel Fr  d  rick defending a “realist” conception of environmental security, Kent Hughes Butts making a case for military involvement in environmental protection, and Eric K. Stern arguing for a “comprehensive” conception of environmental security. Part II concludes with two critical chapters by Simon Dalby and Deudney. Dalby emphasizes the North-South clash over the meaning of environmental security and the Northern bias of the current literature, while Deudney provides a comprehensive rebuke of the environmental security research program in an updated version of his seminal *Millennium* article. Part III includes empirical chapters by Miriam Lowi, Jack A. Goldstone, and Ronald J. Deibert. Lowi examines water disputes in the Middle East, Goldstone provides an analysis of demographic

and environmental challenges to political stability in China, and Deibert discusses the utility of using U.S. military satellites to address environmental concerns. Part III is followed by a brief conclusion written by Matthew.

The international relations subfield of security studies has traditionally concerned itself with two related research questions: (1) What are the causes of insecurity? and (2) How do security policies and organizations affect individuals and society? In other words, security is sometimes treated as a dependent variable to be explained, while at other times it is treated as an independent variable doing the explaining. The chapters in *Contested Grounds* mirror this bipartite division. Some focus on environmental degradation and resource scarcity as potential sources of insecurity, while others analyze the impact security policies and organizations have on the environment. This review addresses these two approaches in turn.

Security as a Dependent Variable

Most of the chapters in *Contested Grounds* treat security as a dependent variable, that is, an outcome to be explained. The authors, however, vary considerably in how they conceptualize this variable. The contributors tend to couch this debate as one involving the definition of “environmental security.” In actuality, however, it is a debate over the appropriate conceptualization of “security” and how human-induced environmental change potentially affects that security. All the authors in *Contested Grounds* agree that security implies protection from threat, but they disagree about the precise nature of these threats and the subject(s) supposedly being secured. Based on Matthew’s introductory survey of the literature and the arguments presented in subsequent chapters, it is possible to map the contending definitions along a continuum. As one moves from left to right, the definition becomes narrower. Nevertheless, with the exception of the “national security” definition on the far right, all broaden the concept of security from its traditional usage in the field of security studies.

All the contributors to *Contested Grounds* subscribe to anthropocentric definitions that focus on threats to human subjects at some level of analysis rather than the planet as a whole; none endorse the deep ecological position. Stern and Fr  d  rick both embrace broad definitions that conceptualize security as protection against *all* significant threats (including

definitional label	“Deep Ecological Security”	“Comprehensive Security/ Human Security”	“National Environmental Security”	“National Security”
relevant threats	all significant threats, including environmental ones, to sustainability	all significant threats, including environmental ones, to well-being and/or core values	all significant threats, including environmental ones, to well-being and/or core values	external and internal military threats, including environmental sources of these threats, to political stability and functional integrity
subject being secured	the planet itself	all human beings	nation-states	nation-states
<i>Contested Grounds</i> authors advocating definition	None	Stern	Fr��d��rick	Deudney

military, economic, environmental, and social ones), to well-being and/or core values, but differ on the subjects supposedly being secured. Stern calls for a “comprehensive” definition of security that treats all human beings at all levels of analysis as the relevant subjects, while Frédérick’s more “realist” conceptualization focuses solely on threats to sovereign territorial nation-states. Deudney is critical of such a broad definition, and advocates a narrower, more traditional conceptualization of security that views it as the alleviation of military threats to nation-states.

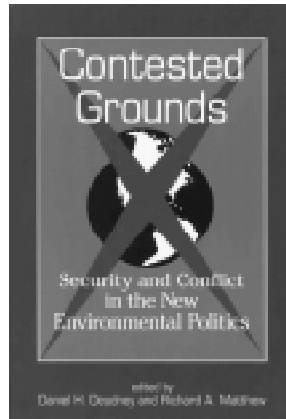
These rival definitional approaches have both epistemological and normative implications. Epistemologically, the definition of “security” used specifies what the academic field called “security studies” is meant to study, just as terms like “American” and “political economy” identify and delimit the fields “American politics” and “international political economy.” By suggesting that security studies includes the study of all significant threats to the well-being of the planet, people, or nation-states, broad definitions imply an incredible expansion of the field’s current parameters. In contrast, the narrow definition endorsed by Deudney leaves current disciplinary firewalls intact. Security studies would remain the study of military affairs and the environmental security component of the field would focus on studying the ways in which human-induced environmental change affects military affairs between and within countries.

Deciding which definitional approach is best on epistemological grounds depends on one’s view of the goal and role of theory in social science. It also depends on how useful one deems a particular definition to be for generating productive empirical and theoretical dialogue and comparison between scholars. Deudney, for example, argues that considering all threats to well-being as threats to security destroys the term’s analytical utility. Instead of redefining security, overly broad conceptualizations *dedefine* it and make security studies the study of everything “bad.” Deudney’s criticism implies that security studies as a field would be better served by limiting environmental security work to research on the environment-violent conflict nexus. Of course, other intersections between the environment and well-being should still be studied, but Deudney’s argument implies that this work should be left to environmentally conscious scholars in economics, sociology, anthropology, history, and other fields better equipped to explore non-military aspects of life. Thus, adjudicating between the broad and narrow definitions of security involves weighing the possible benefits to knowledge gained by expanding the notion of security, and thereby collapsing the disciplinary boundaries between security studies and numerous other natural and social science fields, against the risk that such expansion will gain no unique insights and make security studies incoherent. Unfortunately, the epistemological concerns raised by Deudney are largely ignored by the proponents of a broader (re)conceptualization of security.

One suspects that other authors confront the

epistemological implications of their definitional approaches because they have a different agenda, one driven more by normative concerns than disciplinary ones. Proponents of broadening the definition of security seek to use the connection between “environment” and “security” as a rhetorical device to elevate the perceived importance of environmental degradation to policymakers and the public. Implicit in Frédérick’s chapter, and explicit in Stern’s chapter, is the desire to transform the environment from an issue of “low politics” to one of “high politics” by tying it to security. By raising the perceived stakes, they hope to mobilize support for the kinds of tough measures required to prevent eminent environmental crises.

Both Dalby and Deudney are highly suspicious of this rhetorical move. In advancing what he calls the “Southern” critique, Dalby argues that the term security implies protection from an *external* threat, in this case emanating from environmental degradation. This externalization of environmental threats shifts blame for global environmental problems to developing countries (the South), and, in Dalby’s view, is counterproductive for several reasons. First, it masks the historical responsibility and contemporary involvement of rich Northern countries in the patterns of underdevelopment and resource exploitation prevalent in the South. Second, externalization diverts focus away from internal overconsumption of natural resources



by the North, which, according to Dalby, lies at the heart of most global environmental problems. Third, Dalby notes that the environmental security discourse is dominated and deployed by Northern experts who view external threats as something to be managed and contained. As a result, the rubric of environmental security may only serve to reinforce the North’s tendency to control the global environment and the flow of natural resources at the expense of the interests of Southern nations. Northern “solutions” to these Southern threats may call for developing countries to reduce resource consumption, adopt draconian population measures, and drastically change economic activities, all policies that potentially represent greater threats to Southern security, at least in the short term, than environmental degradation does.

A further criticism advanced by Deudney might be labeled the “nationalism” critique. Deudney contends that conceptualizing the environment as a *national* security issue perpetuates the kind of “us-versus-them,” zero-sum thinking that leads to conflict, not cooperation. It also entrenches notions of sovereignty and the belief that national solutions to environmental problems are possible. That mode of thought, in Deudney’s opinion, is at odds with the type of globalist, non-nationalistic mindset that is ultimately required to address the most pressing environmental challenges.

The “Southern” and “nationalism” critiques are powerful ones. Dalby and Deudney should be applauded for raising issues and perspectives that are often left out of state-centric, Northern-biased environmental security discussions. Nevertheless, the dangers of externalization and non-

cooperation may not be inherent to environmental security discourse. Stern's conceptualization, for example, may skirt these criticisms by defining the appropriate subjects to be secured as all human beings rather than nation-states. This strategy seems to avoid the North-South and cooperation dilemmas involved in attaching the environment to (Northern) national security concerns. In practice, however, Stern's conceptualization is unlikely to be widely adopted by the decisionmakers responsible for addressing environmental concerns. As Frédérick notes, nation-states are likely to remain the central, although certainly not the only, actors on the international stage for the foreseeable future. If nation-states are the central actors in international politics, environmental interests, like most other major policy issues, are likely to be defined in terms of national interests whether or not the environment is tied to security. Moreover, as Dalby himself acknowledges, Northern hegemony is not likely to be dislodged anytime soon. Ultimately, the current "reality" of international politics cuts against arguments advanced by both sides. The unlikely prospects for significant transformation away from the current Northern dominated state-centric system not only makes Stern's definition somewhat utopian, but also makes the North-South and cooperation dilemmas pointed to by Dalby and Deudney inevitable regardless of how scholars deploy the term "environmental security."

Furthermore, limiting the dangers of externalization and non-cooperation could conceivably be done even with a conception of security that both includes an environmental component and takes the nation-state as its main subject. As long as scholars and practitioners recognize that environmental degradation is caused by numerous factors (e.g., overconsumption and exploitation by the North; population growth, poverty, and inequality in the South), justice and equity concerns need not be ignored even if environmental security is the framework for discussion, the nation-state is the unit of analysis, and Northerners do most of the investigating. In terms of the cooperation problems alluded to by Deudney, Frédérick makes the valid point that cooperation is still possible between states. After all, neoliberal institutionalism is an entire school of thought in the field of international relations devoted to the study of cooperation between self-interested nation-states. As regional and international agreements related to such diverse environmental issues as acid rain, stratospheric ozone layer depletion, and access to transboundary water resources suggest, it is sometimes possible for states to avoid conflict over the environment even when the interests at stake are perceived to be national.

A final normative concern raised by Dalby, Deudney, and Deibert could be called the "militarization" critique. These authors note that achieving security has traditionally been the duty and obligation of national armed forces. Thus, they express a concern that connecting the environment to security will logically call for increased military involvement in securing the environment, something they see as a dangerous undertaking.

Beyond the definitional conundrum and its abstract theoretical and normative implications, a number of the contributors to *Contested Grounds* focus on the more narrow empirical question of whether environmental degradation and

resource scarcity represent potential sources of political instability and violent conflict. Throughout the 1990s, Homer-Dixon has been at the forefront of this research. In his contribution to *Contested Grounds*, Homer-Dixon reviews three hypotheses linking environmental scarcity to violence: (1) environmental scarcity causes *simple scarcity conflicts* (resource wars) between states; (2) environmental scarcity causes *group identity conflicts* arising from environmentally induced population displacements; (3) environmental scarcity causes *deprivation conflicts* arising from environmentally induced economic deprivation and disruption of key social institutions. Based largely on the findings of the Project on Environmental Change and Acute Conflict he directed, Homer-Dixon concludes that there is little empirical support for the first hypothesis but considerably more evidence suggesting the viability of the latter two.

The chapters by Lowi and Goldstone, originally written for Homer-Dixon's project, support these conclusions. Lowi examines tensions between Arabs and Israelis over the freshwater resources of the Jordan River Basin. Lowi argues that Israel sees access to water as vital to the country's national survival, but that issues of high politics, namely the future political status of Israel's occupied territories, are more important than environmental concerns in shaping the pattern of conflict and cooperation in the Middle East. Thus, Lowi's study offers little support for the simple scarcity hypothesis. Goldstone's chapter examines the last six hundred years of Chinese history, and concludes that population pressures and the scarcity of arable land have consistently contributed to political instability and civil war. Based on these findings, Goldstone warns that the future stability and unity of China could be challenged by the continuation of current demographic and environmental trends.

To some degree, these conclusions are also echoed in Deudney's critical review essay. Deudney persuasively argues that the robust nature of the international trading system, which usually makes it cheaper to trade for resources than fight for them, the high costs of war imposed by modern weaponry, and the existence of peaceful alternatives provided by numerous international institutions and NGOs all combine to make resource wars between countries unlikely. At the same time, however, Deudney concedes that deprivation conflicts are plausible (he does not address the population displacement scenario). His main problems with the deprivation hypothesis are methodological, not empirical. Although he offers no evidence himself, Deudney is critical of existing studies because they fail to examine the entire range of possible cases of conflict, fail to control for alternative explanations, and ignore instances of peace and cooperation in the context of environmental scarcity.

The discussion of the environment-violent conflict connection in *Contested Grounds* suffers from a number of theoretical and empirical limitations. Theoretically, the arguments advanced in the volume are somewhat underspecified. There is an emerging consensus in the environmental security community that environmental degradation and resource scarcity are neither universally necessary nor wholly sufficient causes of violent conflict.

Environmental pressures are not necessary causes of conflict because there are many examples of international and civil wars caused by non-environmental variables; they are not wholly sufficient causes because not all countries experiencing serious environmental degradation and resource scarcities go to war or descend into civil strife. Rather, as the chapters by Homer-Dixon, Lowi, and Goldstone make clear, the likelihood of environmentally induced violent conflict varies considerably depending on the social and political context. Thus, the environment is a conjunctural variable that “causes” conflict only in combination with other intervening variables. Unfortunately, the contributors to *Contested Grounds* fail to clearly specify which intervening variables are most important. This omission makes the theoretical claims very difficult to evaluate. If every contextual variable is a potentially important intervening variable, then every case in which environmental pressures positively correlate with international or civil violence automatically suggests a causal connection when, in reality, there may not be one.

The chapters devoted to environmentally induced violence also have empirical weaknesses. In particular, they fail to survey or examine the growing body of empirical studies completed in recent years. Homer-Dixon's chapter, for example, stems from a research project completed in 1993. Since then, several other major research endeavors have been conducted, including work by groups at the Swiss Peace Foundation, the International Peace Research Institute in Oslo, Yale University, Columbia University, and two subsequent University of Toronto projects led again by Homer-Dixon. Deudney's chapter also ignores this recent work, much of which addresses his methodological concerns. The empirical chapters by Lowi and Goldstone suffer in a different respect from not being up-to-date. Despite the fact that the status of the Middle East peace process and political conditions in post-Deng China have both changed dramatically in the recent years, neither chapter contains a single reference since 1995. One suspects that these empirical oversights have more to do with how long it took *Contested Grounds* to go to press (the volume began as a conference in Vancouver in 1993) than with any intentional neglect on the part of the authors. Nevertheless, these shortcomings cut somewhat against the volume's ambitions to represent the state of the art in this area of research.

Security as an Independent Variable

The smallest portion of *Contested Grounds* reverses the causal arrow and focuses on the ways in which security policies and organizations affect the quality of the environment. In his contribution, Butts, a professor at the U.S. Army War College, advocates increasing U.S. military involvement in environmental missions at home and abroad. Environmental threats have been a component of the National Security Strategy of the United States, the annual executive statement of America's vital strategic interests, since the Bush administration. Therefore, Butts argues, if it is the role of the Department of Defense (DoD), intelligence agencies, and other traditional military organizations to guarantee national security, then

military involvement in addressing environmental threats should be expected. Indeed, Butts not only sees an expanding military role as inevitable, he welcomes it. Butts suggests that the DoD has made great strides in reducing pollution and waste emanating from military facilities in the United States, and has vast engineering and waste disposal experience that is already being used to address domestic environmental concerns such as coastal species protection. Internationally, Butts contends that the U.S. military has unique technical and operational capabilities, and an extensive global network of military-to-military connections, all of which can be used to integrate, harmonize, monitor, and enforce efforts to protect the global environment. Butts is particularly optimistic about the environmental benefits of foreign military assistance. He argues that military organizations in developing countries enjoy several advantages over other governmental and nongovernmental groups, including better organization, better training, greater reach, better transportation resources, and greater technological sophistication. Thus, by using military-to-military ties and security assistance, the U.S. military can productively provide training and resources to the armed forces of developing countries and encourage them to clean up industrial waste and combat deforestation, poaching, overfishing, and other unsustainable development practices. In short, foreign military assistance is viewed as an effective way to defuse environmental flashpoints. It also helps maintain close ties between the United States and foreign military establishments, thereby providing the side-benefit of facilitating DoD power projection when instability in developing countries threatens American interests.

Other authors in *Contested Grounds* are far less sanguine about the prospect of militarizing environmental protection. Deibert's excellent empirical chapter analyzes the utility of using U.S. military satellites to provide data on environmental degradation and improve responses to natural disasters. This case is interesting and important. Military satellites enjoy certain purely technical advantages compared to commercial satellites, such as better image resolution and processing speed, in addition to huge archives of data. Consequently, if there were any instance in which a greater military role in environmental rescue would be warranted, it would appear to be the case of satellites. In social science parlance, satellites represent an “easy” case for the proponents of military involvement and a “hard” case for opponents. Despite their apparent usefulness, however, Deibert concludes that data from the National Reconnaissance Office (NRO), the agency created to coordinate the satellite programs of U.S. military and intelligence organizations, has only questionable practical utility for protecting the environment. The narrower field of vision captured by military satellites, for example, may offset the usefulness of better image resolution. Deibert also argues that much of the archived data is redundant with currently available commercial data and lacks the necessary image consistency and reliability. Moreover, the thick layers of secrecy and compartmentalization surrounding NRO data tends to smother declassification efforts. This culture of secrecy hinders proper access and analysis, creates sizable information gaps, and provides enormous potential for military manipulation of data access when other national security interests are deemed

more important than environmental concerns. Deudney makes a similar, more general claim when he argues that the very organizational culture and structure of armed forces make them unlikely saviors of the environment. Deudney contends that the secretive, hierarchical, and centralized nature of military organizations mean that they are maladapted to the kinds of open, egalitarian, and decentralized solutions often required to protect nature.

Beyond these practical concerns there are a number of normative ones. Deibert fears that the U.S. military will capitalize on new environmental missions to rationalize increased military spending and prevent defense conversion. Deudney worries that militarizing the environment will invite future armed interventions and conflicts designed to prevent other nations from despoiling nature or violating international environmental agreements. Dalby is particularly critical of Butts' assertion that armed forces in developing countries should be more involved in environmental protection. Dalby rightly notes that militaries throughout the developing world have a very poor record of acting in the interests of their national populations. Instead, they are often agents of violence and repression. Thus, greater military involvement may represent a greater threat to the security of marginalized individuals than environmental degradation does. Finally, Dalby and Deibert both express the concern that military co-optation of the environment will trade-off with beneficial activities by private actors. Dalby argues that coercive, top-down military measures may invite conflicts with local groups and preclude the kinds of voluntary, community-based actions required to promote sustainable development and reduce poverty. Similarly, Deibert warns that greater military involvement in environmental monitoring will crowd out the production and use of commercial satellites.

Critics of the military raise important concerns, none of which are explicitly rebutted by Butts. In fairness, however, Butts does provide numerous examples of environmental benefits stemming from military activities. In contrast, neither Dalby nor Deudney provide much empirical support for their objections, and Deibert's analysis does not extend beyond the use of satellites. Furthermore, as Butts notes, the U.S. DoD, NATO, and other European security organizations have already engaged in environmental activities, and the worst fears voiced by Dalby, Deudney, and Deibert have not yet materialized. In short, the jury is still out. Since military involvement in environmental missions is a case in progress, more empirical work is needed before passing final judgement.

Theory and Evidence

In his introduction, Matthew states that the twin goals of *Contested Grounds* are "to introduce students and practitioners to the theoretical debate and empirical evidence available." Overall, the volume is much better as a theoretical survey than an empirical one. In part this stems from a conscious choice to emphasize theoretical breadth over empirical depth. In part it stems from the long gap between the time the volume was conceived and most of the chapters written, and the time it

actually went to press. This being said, no single work published thus far achieves what *Contested Grounds* does. The excellent collection of essays simultaneously identifies the key controversies related to environmental security and moves the debate forward. For this reason, the book is an invaluable introduction to the field and should serve as a wonderful teaching tool.

Colin H. Kahl is the Coordinator of the Columbia University Environment and Security Project, and a Ph.D. Candidate in the Department of Political Science, Columbia University.

.....

Environment, Scarcity and Conflict: A Study of Malthusian Concerns

Leif Ohlsson

Department of Peace and Development Research,
Göteborg University, 1999. 272 pp.

Reviewed by Simon Dalby

The academic and policy discussions of environment and conflict have, it seems, come of age. Or rather they have been going on long enough now to inspire doctoral dissertations delving into the controversies and challenging the methodological assumptions of the first practitioners. Ohlsson's dissertation, which following Swedish practice is published as a scholarly monograph, does both in detail, and does so with considerable intellectual panache in places. It both reviews the literature comprehensively and tackles the methodological debates in detail. Its contribution is to both stretch the bounds of the analysis and add some useful case study material to the research.

The introduction places the post-Cold War debate about environment and scarcity in the long shadow of Malthusian concerns stretching back two centuries. It also shows how this links to the post-Cold War debate about reformulating security. The author follows the line of argument in Thomas Homer-Dixon's research that focusing explicitly on conflict may be more useful given the highly contested nature of the term "security." The second chapter reviews recent research work on environmental scarcity and conflict and particularly the research of the Toronto group led by Thomas Homer-Dixon, the work of the Swiss team under the auspices of ENCOP, and the Scandinavian work lead by the Peace Research Institute in Oslo. One of the many merits of this dissertation is the succinct and accessible style of the writing in this chapter, which provides a synopsis of the material in the field that will be of use to researchers and policymakers wanting an overview of the various approaches.

The third chapter focuses on the methodological matters that have spurred an ongoing debate, and at times, as the pages of earlier editions of this *Report* attest, a pointed argument about

what should be researched, how, and why. The detailed discussions about causality and explanation are beyond the scope of this review, but this chapter offers a useful overview of the debate. For Ohlsson this debate leads to his first case study chapter, a detailed rethinking of the role of environmental scarcity in the genocide in Rwanda in 1994. In particular he offers a critique of the methodology that Valerie Percival and Thomas Homer-Dixon used in their analysis of this theme, although their conclusion that environmental scarcity was a minor part in what transpired is not seriously challenged.¹

Ohlsson extends the discussion by introducing notions of evil, human agency and political responsibility to avoid the difficulties of determinism in the research that focuses on environmental scarcity as a casual variable. There is an obvious connection here to other analyses of Nazi genocide, and Ohlsson focuses on the specific actions of functionaries in the state apparatus in obeying orders that led to the massacres in particular places. Ohlsson wisely makes the important point that Rwanda was not a "state failure," but a deliberate planned massacre by organized state institutions. The elites only miscalculated in that they assumed that they could hold off the insurgent Rwandan Patriotic Front forces in the north while they carried out their "final solution."

The fifth chapter extends his analysis to follow up another theme in Thomas Homer-Dixon's work, the question of social ingenuity in the face of environmental stress. Ohlsson formulates matters in terms of "social resource scarcity" extending the terminology in a way loosely consistent with Malthusian principles and with Homer-Dixon's framework. While determinism is inadequate in Ohlsson's thinking, the assumption that all things are possible in a crisis is also unacceptable. The innovation here is to try linking social resources and environmental resources in terms of sustainability, and then to link the concerns of development workers with social institutions to resource managers' preoccupations with natural phenomena.

The sixth chapter then applies this conceptualization of social resource scarcity to the discussions of water conflicts and questions of increasing shortages of fresh water in many parts of the planet. The Nile basin is discussed once again as an example of potential conflict, and in particular, as a way of developing an index of "social water stress" that can link scarcities together in a useful manner. Vulnerability is linked to the United Nations Human Development Index to attempt to see in which states' water vulnerability is related to a lack of institutional adaptability, and hence potential conflict; and whether the attempts to adapt may not trigger second-order conflicts caused precisely by attempts at adaptation.

Ohlsson finishes his argument with a concluding chapter that raises political considerations about how to react to the Malthusian difficulties that substantial parts of the world face. Among other arguments, he cautions against a realpolitik response to the challenges of sustainable development, suggesting that this may lead to the abandonment of efforts to

help in places not seen as of vital national interests to Northern states. He also pointedly notes that change is the human condition, and that while no doubt numerous mistakes have already been made that will cost future generations heavily, the future is not hopeless but a matter for political discussion and policy engagement.

In his analysis of Rwanda and the stress on the importance of political structures for dealing with resources questions, Ohlsson tries to rescue the discussion of Malthusian themes from the determinist pessimism that often overtakes analyses

of likely future situations. However, in focusing on the literature in political science he does miss out on the potentially useful contributions of other scholarly traditions. These include the longstanding contributions of geographers to resource management institutions, and more recently the feminist critiques of the limits of development discourse in dealing with the social ingenuity and coping skills of informal social networks in many non-Western societies. Questions of cultural innovation and adaptability would also clearly benefit from analysis drawn from history and anthropology, not to mention the literature on disasters and social responses to them, which is nearly entirely

ignored by contemporary discussions of environmental scarcity. If the scarcity and conflict literature is to make further progress, the case can easily be made for greater disciplinary breadth in addressing important matters of conflict and social change in the specific contexts where these are especially pressing.

Despite these limitations to this research effort, this reviewer can only concur with the importance Ohlsson places on thinking carefully about the politics of a future sustainability and what they entail and for whom. We are all going to live in the future, and questions about what is worth sustaining where and by whom in the face of rapid social change and huge inequities among and between human populations on a constrained planet are only beginning to be seriously discussed. Focusing on constraints and limits without falling into determinist reasoning and alarmist analysis allows for thoughtful discussion of the institutional and political innovations needed for the future. On all these themes, Ohlsson's study makes a useful and very readable contribution.

Simon Dalby is Associate Professor of Geography at Carleton University in Ottawa.

¹Thomas Homer-Dixon and Valerie Percival. *Environmental Scarcity and Violent Conflict*. Toronto: University of Toronto, 1996.

.....

**Environmental Change and Security:
A European Perspective**

Alexander Carius and Kurt M. Lietzmann, Editors
Berlin: Springer, 1999. 345 pp.

Reviewed by Stacy D. VanDeveer

Environmental Change and Security is a worthy addition to the growing literature on the linkages between security and environmental degradation and scarcity. These debates, often heavily influenced by North American and Nordic analysts, are well documented, summarized, analyzed, and advanced in the Carius and Lietzmann collection. The volume includes authors from Austria, Germany and Switzerland (the English edition is translated from German), but also includes several authors whose works are familiar to readers of the literature in English. The book's 17 chapters are organized into five parts that focus discussions on the conceptual and theoretical linkages among environment and security, characterization and typologies of environmental conflict, modeling, foreign and security policy, and environmental and development policy.

The first five chapters cover many of the debates in the environment-security literature in recent years: conceptual definition and clarity, case selection, data availability and quality, militarization of the environment, and the compatibility of the various lines of research within the "environment and security" research agenda. In the end, most authors agree that the "environmental cause of violent conflict" hypothesis has not been demonstrated by the overall research program. However, they also agree that environmental quality often plays an important contextual role in potential or existing conflict situations. One unfortunate aspect is that these initial chapters are sometimes repetitive on several points of debate in the literature.

Carius and Kerstin Imbusch organize the links between environmental change and security into four dimensions:

"(1) the impacts of military activities upon the natural environment in times of peace and of conflict; (2) the direct and indirect influence of a) environmental changes upon local, national, regional and international security but also b) their function of delivering causes for cooperation and thus building confidence; (3) the impacts of environmental changes upon social conflicts and their indirect consequences for security and; finally (4) the instrumentation of deliberate environmental changes as a means of warfare."

The authors map the environment and security terrain quite well. However, they are too quick to dismiss concerns about the potential for militarization of environmental issues, and to assert that debates over the environmental impacts of military activities are resolved. For example, the U.S. military continues to oppose international climate change instruments,

and most major international environmental protection treaties exempt military activities altogether. These issues, then, are not settled, contrary to the editors' assertions.

Perhaps the most notable contribution of the volume is its discussions of various typologies of the links between conflict and the environment in conjunction with attempts to unpack the many different phenomena denoted by the terms "environment" and "conflict." Günther Bachler's summary of findings from his extensive empirical research on environmentally-induced conflict is particularly interesting. Furthermore, this collection pushes environment and conflict research more in the direction of connections to development and environmental protection, rather than continuing to focus on links with more traditional military, security and violence issues. These attempts to explore the complex interaction of security, conflict, environment and development offer chapter authors numerous opportunities to discuss policy implications. For example, Bernd Wulffen discusses prospects for integrating environment and security concerns into the Rio process and Volker Quante focuses a similar analysis vis-à-vis NATO. Other chapters cover the existing and potential connections between environment and security debates and international development cooperation,

nongovernmental organizations and the United Nations. In short, those interested in the politics of linking environmental degradation and scarcity concerns to security across multiple international organizations and issue areas will find much of interest in this new book.

Stacy D. VanDeveer is an Assistant Professor of Political Science at the University of New Hampshire and a Post-Doctoral Research Fellow at the Belfer Center for Science and International Affairs at Harvard University's John F. Kennedy School of Government.

.....

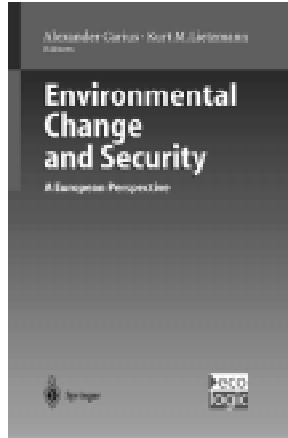
Security: A New Framework for Analysis
Barry Buzan, Ole Wæver and Jaap de Wilde

Boulder, CO: Lynne Rienner Publishers, 1998. 239 pp.

Reviewed by Nina Greger

Security is the latest book published by the so-called Copenhagen School of security studies, a group of scholars at the Conflict and Peace Research Institute, COPRI. This book represents a refined version of earlier works by Barry Buzan, Ole Wæver, Jaap de Wilde and other co-authors over the past decade.

With this book, Buzan et al. continue to pursue a wider security agenda without excluding traditional security studies: "Indeed, we hope it will largely lay to rest the rather scholastic argument between wideners and traditionalists" (p. 195), they



claim. The book starts out by presenting a conceptual apparatus, a method for distinguishing security issues from merely political ones. The following five chapters discuss five different sectors of security, while the last chapter aims at synthesizing these sectors.

The authors solve the problem of extending the security concept beyond its analytical usefulness by employing the concept of "securitization." Securitization results from what the Copenhagen group calls a "speech act," the practice of referring to the issue in security discourse. To succeed, a speech act must follow the security form and the grammar of security, and be made by an actor who holds a position of authority. For example, by declaring and later reaffirming the activation orders for air operations against The Former Republic of Yugoslavia unless the atrocities against the Kosovar Albanians came to an end, NATO Secretary General Javier Solana contributed to the securitisation of human rights in the Kosovo conflict.

Buzan et al. undertake a sectoral approach, which divides security into military, political, economic, societal and environmental sectors. The authors see sectors as "distinctive arenas of discourse in which a variety of different values... can be the focus of power struggles" (p. 196). The fruitfulness of this sectoral approach is questionable because security issues tend to cut across or involve several sectors at the same time. The Copenhagen group partly succeeds in solving the problem by stressing that the starting point for any research based on this framework should be to identify processes of securitization as a social practice and not to define security problems according to these five categories independent of the empirical dynamics.

One important value added by the Copenhagen School is the introduction of several new securitizing agents or actors. In the traditional security discourse, the securitizing actors/agents are state representatives. In established states, that is, in coherent states, who may speak security on behalf of the state is defined according to fairly clear rules. In less coherent states, however, who represents the state is not obvious. The alleged state representative(s) may also change over time. Securitizing actors are those who can legitimately speak security—form a speech act—on behalf of others, such as governments or the United Nations. Securitizing actors can securitize an issue, making something into a security concern.

Another valuable contribution the Copenhagen Group refined in *Security* is the introduction of new referent objects of security. Referent objects are defined as an answer to the question of whose security is threatened. Possible referent objects are states (military or political security); large-scale collective identities, which can function independently of the state, such as nations and religions (societal security); companies and the national economy (economic security); or the biosphere and particular species (environmental security). In *Security*, the authors introduce a broader spectrum of referent objects to include the liberal economic order and universal principles (e.g. human rights).

The semantic approach outlined by the Copenhagen group, where the discourse constitutes security, presupposes access to a public sphere and the existence of an audience. However, these conditions are not always present. Furthermore, different

public spheres may imply that some security problems are excluded. Security policy requires channels and/or means for formulating and articulating such a policy. However, a group may have a security problem but no framework for security policy formulation and adoption, such as is the case for the Kosovar Albanians in the former Yugoslavia.

This point is related to another weakness of the book: a lack of empirical focus. Buzan, et al. provide a theoretical framework for analysis, but as opposed to their earlier works, take little interest in empirical realities. One of the roots of the Copenhagen School is the turbulent European security dynamic, especially after the Cold War. *Security* separates the empirical and conceptual dimensions, allegedly to approach the general domain of security detached from the European context. Although understandable and reflected in the title of the book, this perspective excludes the important implications. To make priorities—give some risks priority over others—is at the core of security policy and therefore a precondition for security analysis.

Security represents an explicit theoretical move from a particular Euro-American tradition of international relations towards a more social constructivist approach to security. Briefly, this move implies that security threats, security units, referent objects and security agents may fluctuate. According to this approach, security is being socially constructed through speech acts, often securitising non-security issues. For instance, at some point the protection of human rights in Kosovo was transformed from a humanitarian concern into a security issue, and therefore placed within the realm of political and military decision-makers.

Security provides a richer and more sophisticated analytical framework for security analysis than the politico-military focused security perspective that, to a great extent, still prevails in security studies. The book is a good point of departure for a cultural-historical interpretation of the speech act structure, which may contribute to pushing the Copenhagen School further without breaking with its own conceptual approach.

Nina Græger is researcher and OSCE co-ordinator at the Norwegian Institute of International Affairs (NUPI) in Oslo, Norway.

.....

Water and Population Dynamics: Case Studies and Policy Implications

Alex de Sherbinin and Victoria Dompka, Eds.

World Conservation Union (IUCN), American Association for the Advancement of Science (AAAS), 1998. 322 pp.

Reviewed by Leif Ohlsson

Having read a "first" book on water scarcity (along the lines of, for example, Sandra Postel's *Last Oasis*), the interested reader will find it very difficult to get a book on the next level of complexity. All too often one will plow through a number

of similar basic books, often referring to each other, leaving one with the impression that there is nothing new in the field. Or, one will attempt to take on very specialized hydrological surveys and policy reviews, leading to a distinct feeling of never mastering the field.

Here is a book that will fill the crucial need for a "second" book on the social consequences of water scarcity. It will leave the reader with a much enhanced understanding of both the hydrological complexities and the social challenges stemming from the need to mobilize scarce water resources. At the same time, the volume is completely comprehensible to the non-expert.

The book is the outcome of a collaborative effort of the United States Agency for International Development (USAID), International Union for the Conservation of Nature (IUCN) and Population Reference Bureau (PRB). Nine country teams (each including water resource specialists and a population specialist) contributed to the effort, resulting in a major effort to apply a common framework of population dynamics, hydrological limitations, and policy actions to a number of case studies from developing countries.

The book contains case studies from Tanzania, Guatemala, Jordan, Zambia, Bangladesh, Mali, Southern Africa (the Zambesi), India, Morocco, and Pakistan. Geographically, it covers Southern and East Africa, the Middle East, Central America and Southern Asia. Substantively, it covers the problems of rainfed agriculture, irrigation by groundwater abstraction, shared rivers, and drinking water in rural and urban areas. In addition, the volume includes an overview of the principles of water management, an introduction by IUCN editor Alex de Sherbinin, and a foreword by internationally renowned hydrologist Malin Falkenmark.

The strength of the case studies lies in three factors: the common framework, imposed in an exemplary way by the authors; the expertise of the case-study authors, as demonstrated by their rendering of research projects focused on a specific region within each country; and the way the specific regional problem is placed in the context of water and development challenges on the country level.

The reader thus gets the best of three worlds: examples of water problems encountered in different world regions, valuable country overviews of both population dynamics and hydrological limitations, and a very concrete understanding of how these problems translate into community-level development problems and challenges to be resolved by policy efforts.

The Value of Case Studies

Each of the three aspects—hydrological limitations, population dynamics, and policy efforts—are there in every case study, and they are given reasonably equal space. On the issue of hydrological limitations, highlights with new information cover the long and the short rains in Eastern and Central Africa, the specific geological problems of Central America, the vastly different preconditions for agriculture between distinctly different zones within single countries (such

as, for example, Mali and Jordan), the consequences of urban water demands, the effect of hydropower dams on downstream agriculture in Zambia, the way the monsoon seasons govern life in Southern Asia, and the upstream-downstream problem (generally only encountered in the literature on the issue of international rivers) within a single local system of irrigation canals in Pakistan.

Similarly, one gets a valuable overview of the dynamics of population pressures in each of the countries. The cases shed light on the implicit compound pressures produced by the inevitable population increases during the coming decades, the undeniably just demands for better lives, and the specific role of water in realizing those goals. The sum of these factors presents huge challenges to the policy innovation capability of societies.

Some of the ways people adapt to limitations imposed by water scarcity deserved to be highlighted more clearly in the summaries by the editors. As an example, it is quite clear that the authors were given the explicit task of assessing migratory pressures resulting from water scarcity. In fact, one of the main results that may be read from the case studies is that migration is one of the most important determinants of population growth in villages, between villages, and in towns. It is quite evident from several case studies that people tend to migrate within (and sometimes even between) countries following water availability. Some authors attempt to trace a link between increased availability of potable water and migration to (and between) urban areas. For example, the population density in Tanzania appears much more evenly distributed if it is calculated per amount of water transpired through crops, than if it is calculated per square kilometer.

Another oft-repeated statement in a number of case-studies is that population increases in rural areas are not as large as they would have been, had there not been significant migration to cities. These conclusions are recognized by the editors in their introduction, yet the potential social and water management implications (both positive and negative) are not discussed as important outcomes of the book, which seems a missed opportunity.

One of the most valuable contributions of the volume stems from the discussion of the difficulties of formulating and carrying out appropriate policy responses to deal with the pressures resulting from population dynamics and water scarcity. One gets a very vivid picture of the enormous difficulties involved, as well as an admiration for the efforts undertaken by countless anonymous administrators. The main value added is an enhanced understanding of the difficulties encountered when attempting to carry out what "rationally" (from the point of view of hydrological concerns and the state) appears to be the "correct" policy. These efforts must be conducted in a context of existing social, economic, and (not least) cultural preconditions on the community level.

The final case study from Pakistan is almost epic in its rendering of how the people of six small villages at the far end of an irrigation system were marginalized by more powerful land-owners at the head of the system. The increased economic and social power clearly had come as a result of the upstream

opportunity to capture illegally a larger amount of irrigation water for producing more valuable crops. In the end, three of the villages were left totally empty as a result of forced out-migration. Two of them remained half-empty as canals (important for agriculture and for drinking) ran dry. Only in the last village did people hang on. Those forced to migrate had to sell their land to destructive brick-kiln works, in turn polluting the remaining water. Women, culturally forbidden and afraid to leave their villages alone, were often the only wage earners and had to fetch water twice a day from as far as ten kilometers away.

In the end, the plight of the now dispersed villagers was taken to a human rights court. They won a judgment that guaranteed a minimum amount of water flow, sufficient for them to return and try to rebuild their lives.

Questions Not Raised

It is, of course, not a coincidence that the case study chosen to end the book is a success story of sorts. In a similar vein, the discussion of policy efforts bears a stamp of forced optimism. By common agreement, all of the authors try to incorporate what is “known” to be right and good in the field: population stabilization is vital, as is community involvement; access to water is a human rights issue; environmental conservation also meets human needs; a multidisciplinary approach is beneficial; nonstructural (small-scale) solutions can be effective; water management institutions can avert conflicts over water resources; urban population growth affects demand for water; and public education is necessary.

Yet, sometimes the enormity of the challenge to implement what is known to be right and good shines through rather blatantly. If the doubling time of population growth in the Petén region of Guatemala, due to a combination of natural growth and in-migration, is at present 12 years, and the health situation for people suffering from intestinal infections and respiratory illnesses is such that the proportions of coffins made for children compared to adults is five to one, the picture painted should be one of an ongoing catastrophe, not a management problem.

If the population of Jordan has increased more than seven-fold in the last fifty years, it is a great achievement that the Azraq oasis (depleted by the water needs of Amman and agriculture) has been restored by pumping from other aquifers. But the pressure on water resources from a population with a present doubling time of some 20 years is still stupendous. The reader rather desperately seeks some reflections, in addition to a mere confirmation of this fact, on the nature of the policy efforts required to deal with these challenges.

In order to get a handle on the character of these challenges, a reading of the cases through two complementary conceptual frameworks—those of *environmental scarcity* and *social resource scarcity*, respectively—is helpful.

Two Alternative Readings

A reading of the cases through the conceptual framework of “environmental scarcity” provides increased understanding

of the forces at work behind a perceived scarcity of water. Environmental scarcity should be understood as the outcome of three large processes of change: i) environmental impacts; ii) population increase; and iii) unequal social distribution of resources, also termed “structural scarcity.”

The concept is proposed by Thomas Homer-Dixon of the University of Toronto, whose work on the link between environmental scarcity and violent conflict has been much discussed in previous issues of the *Environmental Change and Security Project Report*. Here I am simply using the concept heuristically.¹

As an example, the case study of Guatemala renders an almost perfect description of how structural scarcity (unequal resource access) is linked to the state of war and general violence that has prevailed there over the last 40 years. It is noted that one result of changing ownership rights (“resource capture” by more powerful segments, one cause of structural scarcity) has been large-scale migration towards urban areas and agriculturally marginal zones prone to severe soil erosion (constituting what in Homer-Dixon’s terms would be “ecological marginalization,” a consequence of structural scarcity). In Zambia, hydropower dams and the Nakambala Sugar Estate have effected a similar resource capture, blocking water demands from local populations and increasing land degradation, leading to ecological marginalization.

In the state of Karnataka, India, the availability of water has declined to a much greater extent than other resources for the small and marginal farmer. The decline results from the de facto ownership of water by large farmers with private boreholes. The collapse of community water management systems has led to the silting of water tanks and the decline in their use. The overall effect of this unequal social resource distribution has been that land area used for irrigated coconut plantations (owned by the wealthy elite) has doubled, resulting in a reduction of irrigated land for annual crops to a mere 15 percent of the amount under irrigation some 25 years ago, a good illustration of structural scarcity resulting from resource capture, and the consequent ecological marginalization.

Furthermore, many of the questions left hanging in the air almost beg to be addressed by a conceptual framework of what I elsewhere have suggested ought to be termed a *social resource scarcity*; that is, a scarcity of a particular kind of resource, namely the adaptive capacity of societies facing the challenge of managing natural resource scarcities. The concept builds on the so called “ingenuity gap” suggested by Homer-Dixon, but stresses the character of the adaptive capacity of societies as a distinct resource, critically prone to scarcity.²

An example from the book under review is the case study of Morocco. It differs markedly from the other cases, in that it both recognizes the difficulties ahead and tries to identify the factor missing in many discourses. Authors Abdelhadi Bennis and Houria Tazi Sadeq raise the crucial question:

Will the population accept high annual costs for participation in investments that were decided without their consent.... Organizational initiatives rarely come from the population under the socioeconomic conditions that exist in rural areas. The government is forced to take the

initiative, hoping the population will follow. On the one hand, there is the government's duty to initiate and maintain basic installations, and on the other hand there is the government's desire to transfer management, within an organized and democratic framework, to a local population that, unfortunately, is not ready to handle it (p. 278-9).

Issues raised here are the ability and legitimacy of the state to carry out the policy measures which are "known" to be right and good, and the very real likelihood that such measures cannot possibly be realized to the degree necessary, due to the opposition formed by a variety of local coinciding vested interests.

Such difficulties deserve to be the focal point of similar studies in the future. A great strength of this volume is that, in addition to the very real contribution in its own right, it has also opened the way and pointed at the need for such studies.

Leif Ohlsson is a Ph.D. researcher at the Department of Peace and Development Research at the University of Göteborg, Sweden.

¹ Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security* 19 (Summer 1994): 5-40; and *Environment, Scarcity and Violence*, Princeton University Press, 1999.

² Leif Ohlsson, *Environment, Scarcity, and Conflict: A study of Malthusian concerns*, Department of Peace and Development Research, University of Göteborg, Sweden 1999. Thomas Homer-Dixon, "The Ingenuity Gap: Can Poor Countries Adapt to Resource Scarcity?", *Population and Development Review* 3 (September 1995): 587-612.

.....

Resolving Environmental Conflict: Towards Sustainable Community Development

Chris Maser

Boca Raton, FL: St. Lucie Press, 1996. 200 pp.

Reviewed by Carlos F. Lascurain

The title of this book suggests that the main topic is about implementing policies or creating institutions, which can be used to resolve environmental conflicts or at least to confront them. However, on the contrary, Chris Maser writes with the main purpose of showing people that the key to resolving destructive environmental conflicts lies within ourselves. The idea of "us and the choices we make" is developed in the book using simple and understandable language. But more importantly, Maser uses a wide variety of examples, most of them drawn from his experience as a facilitator for the U.S. Department of the Interior, Bureau of Land Management and other U.S. governmental and nongovernmental organizations.

The book is divided into two main parts. The first one, entitled *Resolving Destructive Environmental Conflict*, deals exclusively with the definition and explanation of what he calls

the seven "givens." Maser defines the givens as the basic elements that must be understood, accepted and acted on if a destructive environmental conflict is to be resolved. These seven givens, according to the author, are the mechanism by which transformative facilitation can be implemented. Following, a brief description of each one is presented.

The first given deals with the idea of *conflict is a choice*, which means we can choose peaceful ways of resolving differences as well as understanding that the peaceful way lies in the art of transformative facilitation, where differences are resolved through inner shifts in consciousness. The second given, *environmental principles: the need to know and the fear of knowing*, is concerned with the principles governing nature's dynamic balance. These principles are (1) the law of conservation; (2) the law of conservation of energy; and finally (3) the law of entropy. He also warns of the consequences of not taking them into consideration in our daily life. The third given, *the human equation* refers to the equality in love, trust, respect and environmental justice. In other words, environmental justice asserts that we owe something to other people, both those present and those yet unborn. The fourth given, *communication: the interpersonal element*, is focused on the ability to transfer experiences from one generation to another as well as from one situation to another. The fifth given, *the process is the decision*, is about the faith facilitators must have in order to achieve the outcome they seek. The sixth given, *conflict is a learning partnership*, is concerned with facilitating someone else's ability to reach his or her potential as a human being. In this process, both the facilitator and the combatants learn each other's capacity to expose their human values and their human dignity. The last given, *practicing transformative facilitation* focuses on democracy, compromise and the point of balance that resolves conflict, and on the importance of compassion and justice, which are essential in continuing the facilitation process. At the same time, in almost the whole first section he emphasizes our ability not only to make the right choices for our present environment but also for future generations.

The second part of the book, called *Beyond Destructive Conflict: Social/Environmental Sustainability*, is a separate proposal rather than a continuation of the first section. This section examines the notion of *sustainable community development*. Maser's idea of sustainable community development is a community-directed process of development that is based on six points. The first one is based on transcendent human values of love, respect, wonder, humility, and compassion. The second one is based on sharing, generated through communication, cooperation, and coordination. The third point is based on a capacity to understand and work with the flow of life as a fluid system, recognizing the significance of relationships. The fourth point is about patience in seeking to understand a fundamental issue rather than applying band-aid quick fixes to symptoms of a problem. The fifth point is based on consciously integrating the learning space into the working space within a continual cycle of theory, experimentation, action, and reflection. The last point is about a shared societal vision that is grounded in long-term sustainability, both culturally and environmentally. This is, according to Maser, the best type of

community for which to aim because it gives people the chance to employ the principles of democracy, aesthetics, utility, durability and sustainability in the planning process. He looks at this type of community interacting with local governments and local economic developments. Even though the author does not give any practical example of a sustainable community development, the book gives the right image of the community he is proposing.

The book will be of interest to those who focus on social change as well as social behavior, and also for those concerned with environmental ethics and a sense of environmental balance. Chris Maser's ideas of the "givens" are of special importance for those involved in the environment and facilitators in particular. But whatever our field of study, we must realize that we have to take into consideration that the theme addressed here is simply too important to ignore and that action must be taken sooner rather than later.

Carlos F. Lascurain is a Ph.D. researcher at the Department of Government of the University of Essex.

.....

Ecoviolence: Links Among Environment, Population, and Security

Thomas Homer-Dixon and Jessica Blitt, Editors

New York: Rowman & Littlefield Publishers, 1998. 238 pp.

Reviewed by Dean Caras

Ecoviolence: Links Among Environment, Population, and Security is the product of arguably the best-known research program in the field of environmental security and conflict. Researchers from the University of Toronto and the American Association for the Advancement of Science came together to study the links between "environmental scarcity" and violent or "acute" conflict. Their analysis and conclusions, compiled by the University of Toronto's Thomas Homer-Dixon and Jessica Blitt in this collected volume, provide a very readable and yet detailed research effort. This collection of cases, adapted for broad audiences and classroom use, precedes and accompanies lead researcher Homer-Dixon's 1999 single-authored book, *Environmental, Scarcity, and Violence* [Editor's note: See review on pg. 93-94].

Three key questions guide the research effort: 1) Does environmental scarcity contribute to violence in developing countries?; 2) If it does, how does it contribute?; and 3) What are the critical methodological issues affecting this type of research? Homer-Dixon's Environment, Population, and Security Project (EPS) conducted in-depth case studies to investigate these questions and this volume includes five cases of civil violence: Chiapas, Gaza, South Africa, Pakistan, and Rwanda. *Ecoviolence* focuses on six major types of environmental change that may produce environmental scarcity through degradation or depletion of renewable resources: water

degradation, land degradation, deforestation, a decline in fisheries, global warming, and stratospheric ozone depletion.

Homer-Dixon and Blitt utilize "environmental scarcity" as they are quick to point out that environmental change (supply-induced scarcity) is only one determinant of environmental scarcity. Environmental scarcity is also determined by increased demand for resources caused by population growth or increased per capita resource consumption (demand-induced scarcity). Environmental scarcity may also be determined by the unequal social distribution of resources (structural scarcity). Structural scarcity occurs when a resource is controlled by a small, usually elite, percentage of the population while the majority faces resource shortages. Commonly these three types of scarcities occur in combination (Homer-Dixon and Blitt, 5-7).

The EPS Project specifically concentrates on developing nations to investigate whether environmental scarcity contributes to violent conflict. People in poor countries are more dependent for their daily livelihood on local renewable resources and it is postulated that they are often unable to adapt to environmental scarcity due to inadequate human capital, weak markets, and corrupt governments. The following sections describe each case as viewed through the framework of *Ecoviolence*.

The Case of Chiapas, Mexico, Philip Howard and Thomas Homer-Dixon

In 1994, a revolutionary Zapatista movement, the Zapatista National Liberation Army (EZLN), challenged the ruling Partido Revolucionario Institucional (PRI) and brought world attention to the difficult conditions of the Chiapan peasants. *Ecoviolence* claims that three simultaneous factors brought about this insurgency by the Zapatistas. The three elements include "rising grievances among peasants caused largely by worsening environmental scarcity, a weakening of the Mexican corporatist state by rapid economic liberalization, and efforts by churches and activist peasant groups to change peasants' understandings of their predicament" (Howard and Homer-Dixon, 20).

Although there are only 7.6 million hectares of land in Chiapas from 1970 to 1990, the population doubled from 1,570,000 to 3,200,000. Migrations of poor farmers from other parts of Mexico have contributed to a 3.6 percent annual growth rate. This growth in population has contributed to the consumption of the forest and most of the potential arable land. Thus, the growing population on a limited land base causes what Homer-Dixon calls demand-induced scarcity. The arable land that does exist is unfairly distributed, resulting in structural scarcity. Most of the best land for raising cattle and coffee production is put to commercial use by the politically dominant wealthy elite. Homer-Dixon and Blitt identify this as "resource capture." "Resource capture occurs when powerful elites – partly in response to the pressures of population and resource depletion – shift in their favor the laws and property rights governing local resources, thereby concentrating ecologically valuable resources under their control" (Howard and Homer-Dixon, 39). The average land endowment for subsistence production is only

two hectares. Furthermore, the state's credit access and social spending programs are corrupt, according to the authors (Howard and Homer-Dixon, 26-39).

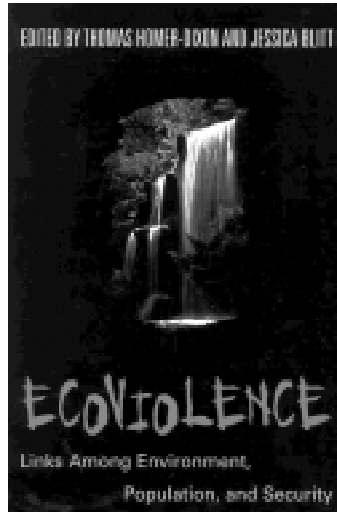
While demand-induced and structural scarcities may be the most severe problems, supply-induced scarcity further worsens the situation. Unsustainable agricultural practices, such as overgrazing and rapid deforestation, lead to the degradation of Chiapas's critical environmental resources. Most of the deforestation and soil erosion has taken place within the last twenty-five years. As a result of deforestation, many local communities face severe firewood shortages. These shortages force communities to travel into cloud forests where they continually exacerbate environmental stresses by endangering unique flora and fauna, thus creating a condition Homer-Dixon calls "ecological marginalization." "Ecological marginalization occurs when population growth and severely unequal resource distribution in resource-rich regions force poor people to migrate to ecologically fragile areas; as the population density of these migrants increase, they damage local environmental resources, which deepens their poverty" (Howard and Homer-Dixon, 39).

Demand-induced, supply-induced, and structural scarcities combine to aggravate economic hardships and the grievances of the Chiapan peasants. Homer-Dixon and Blitt illustrate through statistical tables, historical accounts, and diagrams how they view these scarcities producing the EZLN insurgency.

The Case of Gaza, Kimberly Kelly and Thomas Homer-Dixon

All too often, flashes of violent, fanatical Islamic fundamentalism in the Gaza strip are reported in the news. *Ecoviolence* attempts to clarify these acts of violence by examining their underlying roots. While Homer-Dixon points out that studies of this region are hindered by lack of good data and often contain complex links of scarcity and conflict, there is no question that the Middle East's water scarcity causes deteriorating socioeconomic conditions. In turn, *Ecoviolence* claims, these conditions exacerbate ongoing tensions and grievances between Israelis and Palestinians.

Palestinians appear to be the victims of structural scarcity as Israelis enforce discriminatory water policies. For instance, Military Order 158 prohibits the Arab population from drilling new wells. In some cases, there have been orders to limit Palestinian water consumption by uprooting thousands of Palestinian citrus trees. Many analysts believe that water scarcity is strictly structural, but Gaza's freshwater supply is entirely dependent on groundwater aquifers, which lie only a few meters from the surface. Therefore, the water supply of Gaza is more vulnerable to supply-induced scarcities, such as declining water levels, saltwater intrusion, and contamination. Mining, chemical contamination, and inadequate disposal of waste matter have overexploited Gaza's water supply since the 1970s. Demand-induced scarcities such as Gaza's growing population



density of 1,936 people per square kilometer and limited water resources are inhibiting the per capita water availability. Therefore, population growth alone may outpace a sustainable supply of groundwater (Kelly and Homer-Dixon 73-82).

The social effects of these environmental scarcities are health impacts, agricultural decline, and economic losses. As with the Chiapas study, *Ecoviolence* explains through diagrams how water scarcity leads to social effects, such as health problems and agricultural decline, which in turn lead to economic decline. Economic decline further exacerbates corruption and increases resentment against Palestinian authority. *Ecoviolence* pointedly notes that a solution to water scarcity by itself will not solve the conflict, but is instead, only one of many integral elements that are preconditions for stable peace.

The Case of South Africa, Valerie Percival and Thomas Homer-Dixon

The role of environmental scarcity is possibly one of the most overlooked causal factors of social instability in South Africa. The election of Nelson Mandela and the transition to democracy brought about significant periods of peace, but civil strife continues in the KwaZulu Natal region, where the underlying stress of environmental scarcities is present. *Ecoviolence* specifically examines the region of KwaZulu-Natal, because much of the region is ethnically black and therefore violence cannot be ascribed to black-white differences.

Severe structural scarcities existed under apartheid; the black population had little political or economic power. Unequal access to land now affects 15 millions blacks working on white land. Demand-induced scarcity is prevalent as well. While the white population will stay constant around five million, the black population is expected to rise to 37.3 million by 2000. This estimated increase will produce still greater differentials in land scarcity per capita. Supply-induced scarcities also arise due to severe soil erosion. The topsoil is not suitable for the unsustainable agricultural practices used to support the high population level. Studies reveal that desertification threatens 55 percent of the land. Forest supplies are in critical scarcity, as wood for fuel is perceived as free. Trees are seen as a threat to space for crops, and thus expected to be nonexistent by 2020. Like Gaza, South Africa is a water-scarce region. The level of industrial pollution hampers South Africa's water supplies, as environmental controls are almost nonexistent according to the authors.

Four main social effects arise from South Africa's environmental scarcity: decreases in agricultural production, economic decline, population movement, and a weakening of institutions. Rural areas, such as the KwaZulu Natal region, are unable to support their growing populations and urban areas cannot adequately provide for the needs of the estimated

750,000 rural-urban migrants. The immense migration rate increases societal demands on both local and state institutions. Meanwhile, rising environmental scarcity causes social segmentation, which in turn further weakens institutional capacity. As the government declines and loses control of the segmented society, powerful groups seize control of resources. Grievances therefore escalate and transform into group divisions, which give rise to opportunities for violence. From 1989 to 1993 in the Natal region alone, there were an estimated 7,000 deaths from political and criminal motivations (Percival and Homer-Dixon, 114-132).

The election of Nelson Mandela enhanced expectations for change, but living conditions remain dismal. *Ecoviolence* suggests that if a successful transition to stable democracy and majority rule is to occur, South Africans must understand the links among environment, population, and security. Without addressing the environmental factors that contribute to violence, South Africa may once again return to pre-democracy levels of conflict and violence.

The Case of Pakistan, Peter Gizewski and Thomas Homer-Dixon

Pakistan is a Muslim state with numerous political clashes between regional, ethnic, and class divisions within society. Identifying causal linkages to violence in the Pakistani case is difficult due to severe data limitations. Nevertheless, *Ecoviolence* claims that the character of the Pakistani state, its political and economic development, historical tensions, and issues of environmental scarcity together trigger resource capture, marginalization of poor groups, a rise in economic hardship, and a weakening of the state.

Pakistan is doubling its population every 22 years and is now the tenth most populous nation in the world. The impacts of this dramatic 3.1 percent population growth rate are exhaustive, as efforts at family planning have met with little success. This causes demand-induced scarcity with further negative side effects, such as subdivision of rural agricultural holdings, the denuding of well-forested hillsides, and the migrations of large numbers of people to cities.

Supply-induced scarcity includes shortage of arable land that is intensifying with poor farming solutions. There is a severe lack of information concerning the use of agricultural inputs, which has left soils deficient in a number of nutrients. With Pakistan's arid ecosystem, water scarcity has always been an issue. The 1960 Indus Water Treaty has enabled Pakistan to gain control over much of its water resources, but inefficient irrigation and insufficient sewage treatment only leads to inadequate water for drinking and maintaining food self-sufficiency. Furthermore, Pakistan's *Economic Survey* reported devastating floods as a chief cause of the 3.9 percent drop in agricultural product. This flooding is exacerbated by the negative externalities of deforestation, such as soil erosion. Structural scarcities have always existed within Pakistan, mainly due to its unaccountable, military-bureaucratic oligarchy, marked by corruption and patronage. Resource capture now leads to the exploitation of forest and land by mafia figures with ties to the government (Gizewski and Homer-Dixon, 159-

177).

While regional, ethnic, and class tensions have long been a feature of Pakistan, *Ecoviolence* suggests that resource scarcities are in the ascendance, contributing to a rise in social grievances. The capacity of the already diminished state is then further weakened. The state's weakness only encourages violent expression of long-standing ethnic, communal, and class-based rivalries. Group rivalries become increasingly urbanized as channels for resolution only weaken. Scarcity may become so severe it becomes self-sustaining. The Kashmir dispute may also become an outlet to divert attention from these internal crises.

The Case of Rwanda, Valerie Percival and Thomas Homer-Dixon

In October 1990, the Rwandan Patriotic Front (RPF) of Tutsi origin attacked northern Rwanda from Uganda, and in 1992 captured a significant portion of territory. The RPF was formed by those who fled Rwanda during the postcolonial establishment of the Hutu-dominated Rwandan government in the 1960s. A brief period of peace followed when a cease-fire was declared on 31 July 1992 and the two sides signed the Arusha Peace Accords in August 1993. But less than a year later on 6 April 1994, the downing of an airplane killing both Tutsi and Hutu leaders returning from peace negotiations unleashed genocidal violence by militant Hutus against Tutsis and moderate Hutus. The ensuing massacre of over 800,000 Tutsis led to a refugee crisis within Rwanda and in surrounding countries. The eventual victory of the RPF in civil war led to a second exodus, this time of Hutu refugees.

Many claim that environmental factors were responsible for this civil violence. *Ecoviolence* argues that this interpretation may indeed be too "simplistic." Rwanda's ecosystem consists of swamps, lakes, great plateaus, steep slopes, and sporadic precipitation. This diversity makes analyzing supply-induced and demand-induced scarcity difficult. Nonetheless, supply-induced scarcities exist, seen for example with peasants substituting manure for firewood, water resources constrained by watershed and wetland loss, and over-cultivation. Demand-induced scarcity also plays a critical role in this area with a population density of 290 inhabitants per square kilometer, one of the highest in Africa. Structural scarcity is not as serious, but the demand-induced and supply-induced scarcities alone have resulted in numerous social effects, such as declining agricultural production, migration, and eventually decreasing government legitimacy. Rwanda, once a top African food producer, had become one of the worst by the late 1980s (Percival and Homer-Dixon, 205-209).

While environmental and demographic stresses in Rwanda were severe, authors Percival and Homer-Dixon argue that other political and economic factors such as insecurity among Hutu elites, declining coffee prices and existing ethnic cleavages were central to the complex causal mix. Hence, despite the appearance of strong environmental scarcity contributions to the conflict, close examination reveals a muted contributory role in causing the violence.

Thomas Homer-Dixon and Jessica Blitt conclude

Ecoviolence with eight key conclusions they draw from the case study research:

1. Under certain circumstances, scarcities of renewable resources such as cropland, freshwater, and forests produce civil violence and instability. However, the role of this “environmental scarcity” is often obscure. Environmental scarcity acts mainly by generating intermediate social effects, such as poverty and migrations, that analysts often interpret as conflict’s immediate causes.
2. Environmental scarcity is caused by the degradation and depletion of renewable resources, the increased demand for these resources, and/or their unequal distribution. These three sources of scarcity often interact and reinforce one another.
3. Environmental scarcity often encourages powerful groups to capture valuable environmental resources and prompts marginal groups to migrate to ecologically sensitive areas. These two processes—called “resource capture” and “ecological marginalization”—in turn reinforce environmental scarcity and raise the potential for social instability.
4. If social and economic adaptation is unsuccessful, environmental scarcity constrains economic development and contributes to migrations.
5. In the absence of adaptation, environmental scarcity sharpens existing distinctions among social groups.
6. In the absence of adaptation, environmental scarcity weakens governmental institutions and states.
7. The above intermediate social effects of environmental scarcity—including constrained economic productivity, population movements, social segmentation, and weakening institutions and states—can in turn cause ethnic conflicts, insurgencies, and coup d’etat.
8. Conflicts generated in part by environmental scarcity can have significant indirect effects on the international community (Homer-Dixon, 224-228).

The key findings of *Ecoviolence* suggest that environmental scarcity will worsen in many developing countries and may become an increasingly important cause of violent rebellions, insurgencies, and ethnic conflicts. Because the effects of environmental scarcity are indirect, acting in combination with other social, political, and economic stresses, policymakers may find the conclusions difficult to operationalize as they respond to unfolding crisis situations. Nevertheless, the empirical data pertaining to environmental scarcity and the causal relationships between the environment and societal unrest provide valuable depth to the field of environmental security.

Dean Caras is a Research Assistant at the Woodrow Wilson Center’s Environmental Change and Security Project. He is an M.A. candidate in the School of International Service at American University.

.....

The World’s Water 1998-1999: The Biennial Report on Freshwater Resources

Peter H. Gleick

Washington, DC: Island Press, 1998. 307 pp.

Reviewed by Michael K. Vaden

The human and ecological consequences of polluting and mismanaging the world’s freshwater resources have come to the forefront of academic research as well as the popular press. However, few works take a holistic approach to examining this complex subject while at the same time keeping it accessible to a broad audience as well as the serious researcher. Even fewer works have traced the links between water supply and international security and conflict. That is until now. Peter Gleick, President of the Pacific Institute for Studies in Development, Environment and Security, offers a comprehensive look at the crucial water problems facing humanity and the natural world with *The World’s Water 1998-1999: The Biennial Report of Freshwater Resources*.

Updated every two years and written for the general reader as well as the expert, this first edition provides a solid foundation of detailed information on the state of the world’s freshwater resources, what is known and what is unknown. After orienting the reader to the basics of hydrology and climatology, the book explores a broad array of subjects essential to understanding the global dynamics of water such as: the changing water paradigm; water and human health; the status of large dams; conflicts over shared water resources; and an update on new water institutions including the World Water Council, the Global Water Partnership, and the World Commission on Dams. Gleick also outlines a “sustainable vision” for the world’s freshwater resources in the year 2050.

This well-received book also offers the serious researcher a single source for over 50 charts, tables and maps that detail up-to-date data including the availability and use of water, numbers of threatened and endangered aquatic species, trends in waterborne diseases, desalination capacity, and global irrigation data, as well as the complete texts of the Convention on Law of Non-Navigational Uses of International Watercourses and the new treaty between India and Bangladesh on the Ganges River. Another very useful tool in the report is a well-rounded list of water-related Internet websites. A website has been created in tandem with the release of this book at <http://www.worldwater.org> which includes links to a vast array of water-related sites and downloadable data sets on global freshwater resources problems. The report can be purchased at <http://www.islandpress.org> or by calling 1-800-828-1302.

Michael K. Vaden is Project Associate at the Environmental Change and Security Project and Coordinator of the Woodrow Wilson Center’s Nonproliferation Forum.

.....

The Corporate Planet: Ecology and Politics in the Age of Globalization

Joshua Karliner

San Francisco: Sierra Club Books, 1997. 298 pp.

Green Backlash: Global Subversion of the Environmental Movement

Andrew Rowell

London: Routledge, 1996. 476 pp.

Reviewed by Kate O'Neill

"I think one has to know that if you are being effective, there will be backlash."

Vandana Shiva, quoted in *Green Backlash*, p. 1.

"[T]ransnationals do 'not represent the universal human interest' but rather 'a particular local and parochial interest which has been globalized through its reach and control.'"

Vandana Shiva, quoted in *Corporate Planet*, p. 6.

Green Backlash and *Corporate Planet* are complementary in many ways: Rowell's *Backlash* documents the spread of anti-environmentalist movements worldwide in their many different guises; Karliner's *Corporate Planet* focuses on the global environmental impact of the spread of multinational corporations. Both are eminently readable, thoroughly researched and offer prescriptions for action for environmental activists. Both authors make extensive use of examples from around the world, and their cases—again complementary, as in Karliner's choice of Chevron versus Rowell's choice of Shell in studying the oil industry—are a goldmine of useful and provocative information. Put together, these books paint a vivid, disturbing and timely picture of the forces working—often but not always intentionally—against environmental protection and activism, and the extent of the political and economic power they wield. In this, Rowell goes one step further, documenting the use of violence and extremist tactics and the role of the state in such actions.

Rowell makes three linked arguments in *Backlash*. First, there has been a paradigm shift away from new social movements back towards movements embracing conservatism and the status quo. Second, he identifies a backlash "blueprint" or template of ideology, rhetoric and tactics, apparent in many countries. Third, backlash groups around the world are often connected, through networking, public relations firms, and similar means. He stops short of crying global conspiracy but draws clear linkages between anti-environmentalists and other conservative and radical (anti-government) groups in the United States and elsewhere. His case material is broad. Sections on the United States cover the Wise Use movement, the radical right, "think tanks," and the work of corporations. Tactics by these organizations consist of "greenwash," channeling funds into politics, seeking to undermine environmental groups and

SLAPPs (Strategic Lawsuits Against Public Participation). Tactics used by both state and non-state actors to silence opponents include surveillance, suppression, and violence. Other chapters cover clear-cutting debates in Canada, the "fight for the forests" in Central and Latin America, and backlash phenomena in Australia, New Zealand, South Asia and the Pacific, and Great Britain. Chapter 11 goes into considerable depth on the plight of the Ogoni people, the death of writer Ken Saro-Wiwa and the political and economic impact of the big oil multinationals in Nigeria. His cast of characters is huge, and he handles them well, using a wide range of sources and some choice quotes to illustrate his arguments (e.g.: one anti-environmental type describes national parks as "scenic gulags" p. 131).

The strongest case Rowell makes is that a "backlash template"—a repertoire of tactics which have the effect of marginalizing and scape-goating pro-environmental interests—can indeed be applied to different countries. At the same time, he shows how state-society relations vary across the cases. Nowhere is the state absent. In the United States and the United Kingdom, law enforcement agencies have at a minimum stood by and at maximum much worse. In many other countries, resource conflicts have become a major reason for repression. More discussion of the attitudes of the broad, "non-activist" public towards the green backlash was missing, whether it is support, opposition, ignorance or apathy. With the possible exception of the Wise Use movement, it appears as if these are small (but often powerful) groups for whom a broad base of public support is minimal or absent. Furthermore, examples of how the United States Environmental Protection Agency situates itself would also have been welcome (attacks on several federal officials are mentioned but not discussed).

Karliner's *Corporate Planet* covers the impact of globalization and the spread of transnational corporations on the global environment—the "blue planet...held hostage to the tyranny of the bottom line" (p. 3). His focus is less on explicitly anti-environmentalist tactics than on how the full panoply of corporate activities has a negative impact on the environment and how this can be addressed. He is concerned primarily with the large transnational corporations, the erosion of state sovereignty and the loss of democratic accountability through capitalist expansion. *Corporate Planet* is also more optimistic in its conclusions about the likelihood of a reconciliation between competing interests than is *Backlash*. Karliner's argument is one that has been made before. However, this book is a great introduction for those new to the topic. It is also rich in both historical perspective and interesting detail. His cases—the rise of Chevron, Japan's pollution at home and abroad, the role of free trade and the migration of hazardous industry, the "emerald city" of advertising (after the enchanted city in the *Wizard of Oz* that was not quite what it seemed), public relations and "greenwash" (another parallel with *Backlash*), and the recurring theme of the role of corporations in global environmental diplomacy—are well chosen and detailed. Anecdotes hold the reader's attention, particularly Chevron's "Disney-like" compound in Papua New Guinea, replete with fireworks and larger-than-life celebrations of local

mythology. I found his prioritization of the environment industry ("a group of toxics-hauling, wastewater-cleaning, air pollution-scrubbing corporations," pp. 34-35) as a main villain of the piece interesting but not altogether well founded. After all, these firms would not exist without the bigger corporations.

Finally, both books are explicitly activist in their agendas; therefore both make prescriptions for action throughout and in conclusions. Rowell's prescriptions are aimed primarily at environmental groups; practical, especially given the likely audience for the book, but at the same time limiting. He argues that environmental groups need to re-shape their tactics and go back to their roots by, for example, emphasizing the redistributive elements of environmental politics. With this strategy, they can (re)build their bases of support and counter claims that "people are left out of the equation." He also suggests that they highlight the growth frequency and severity of cases of violence and intimidation against activists and, together, fashion a more coherent vision of a sustainable and just future. He remains firmly opposed to the notion that even large corporations can be won over; admittedly probably true with respect to supplanting the global free market with a more sustainable economic system, but not necessarily so when it comes to forswearing intimidation and fostering more cooperative routes to resolving environmental conflicts. He also downplays the potential for some state actors to act as mediators in resource or pollution-related disputes.

Karliner also favors working towards fashioning a more sustainable, just, and democratic future. He emphasizes forging links between local, national and supranational actors and infrastructures and increasing democratization at all these levels—"thinking and acting both locally and globally at the same time" (p. 199). His concluding chapter provides some success stories where local innovation has led to corporate behavior change—as in the case of "Greenfreeze," an environmentally friendly refrigerator design developed and made popular by Greenpeace in Germany and subsequently picked up by major manufacturers. Others, such as the Zapatista movement, have proven less successful. He is perhaps over-optimistic about the potential for organizations such as the World Trade Organization in becoming truly receptive to societal demands. Furthermore, perhaps more attention could have been paid to the efforts of some firms to reform themselves from within; there is room for a book on Shell Oil alone in this respect. However, in sum, both books make significant and coherent contributions towards understanding environmental conflicts and the actors and stakes involved an area where such work is much needed.

Kate O'Neill is Assistant Professor in the Department of Environmental Science, Policy and Management at the University of California at Berkeley.

.

Plan & Conserve: A Source Book on Linking Population and Environmental Services in Communities

Robert Engelman

Washington, DC: Population Action International, 1998.

112 pp.

Reviewed by David Jacobstein

One of the underlying assumptions of the field of environment studies is that people can cause irreversible damage to their habitat; a prime motivation in family planning work is to prevent overpopulation because it results in poverty or famine as resources are depleted. Hence it seems logical that workers in these two fields would long ago have linked their services towards a common goal. In fact, however, it is only recently that any real headway has been made by organizations attempting to integrate population and environment concerns. Now a new sourcebook bringing together recent developments in community-based population and environment activities is available. *Plan & Conserve*, written by Robert Engelman of Population Action International (PAI), is an attempt to draw together the lessons of population-environment linkages in the past and formulate an agenda for the future. As the director of PAI's Population and Environment Program, Engelman is well situated to attempt such a broad venture. His program has garnered information on the subject, and particularly on the community-based aspect of it, for the last six years.

Clear and direct, but peppered with anecdotes and examples, *Plan & Conserve* does an admirable job of focusing on the importance of integrating population and environmental services before detailing how that task can be accomplished. Engelman prefaces his comments on population-environment integration by presenting the history of attempts to integrate family planning programs with other services—health, development, and environment. He traces the steady growth of understanding and cooperation between population and environmental services from the World Population Conference in Bucharest in 1974 through its "ebb and flow" to the present day. Although some early family planning groups successfully incorporated environmental activities into their programs in order to better connect with their clients, such cases were few and far between. Engelman introduces a few of the important groups involved in integration, such as World Neighbors, CARE, and the University of Michigan Population-Environment Fellows Program. In addition to familiarizing the reader with the important names in the field, this history serves to trace the trial-and-error process that determined the best methods for integrating family planning and other services.

Having taken his reader through the history of population-environment integration, Engelman next focuses on the critical and oft-neglected question of why it is important to find good ways of combining these services. Examining the issue from first the family planning and then the environmental perspectives, he gives clear reasons for each side to support integration. Because environmental projects often succeed

through the support of women, linking environment projects to programs that improve women's reproductive health is practical. Similarly, the coupling of the two services often expands the client base of each one. Finally, lower birth rates generally reduce the strain on sustainable resources, with associated benefits for the environment. He makes persuasive arguments from case studies of 42 projects that efficiency, effectiveness, and expansion of the client base can all be increased through integration. Of course, it is not enough to explain why population-environment integration carries numerous benefits: one must analyze the obstacles interfering with this integration and how these obstacles can be overcome. Engelman therefore next lays out the major hurdles that integration must surmount: fear over the meaning of "population," the inability to reach target groups because of gender inequality, poor connections, cost-benefit drawbacks, the difficulty of finding indicators of success, and potential conflicts of interest among communities, agencies and donors.

Engelman does a relatively good job of presenting these obstacles from an unbiased perspective, neither trivializing them nor painting detractors as obstinate or foolish. However, at times the narrative paints religious opposition to population programs as one-dimensional. He examines a couple of projects undertaken with the support of Catholic officials, but describes them as holes in a wall rather than inroads to further cooperation. Nevertheless, Engelman addresses each concern separately, giving compelling arguments of how to overcome the problem. In one case, he shows how gender inequality problems can be offset by having facilitators talk separately with groups of men and women, and then bringing them back together: "After these discussions, men and women are brought together to communicate with each other about these issues, a rare occurrence in these villages. This 'opens the eyes'" (p. 47). In instances where the objection is valid, he plainly admits it. For example, although integration is his stated ideal, he weighs advantages and disadvantages of integration, collaboration, and referrals in an evenhanded manner. This straightforward approach makes his suggestions very convincing.

Having laid the groundwork for population-environment integration, clearly stating its benefits and analyzing the means to overcome its detractors' objections, Engelman proceeds to offer suggestions of new areas for needed research and scholarship. Some of these areas are theoretical, such as assessing whether the communities and the agencies that work with them are at common or cross purposes and which benchmarks measure success from which perspectives. Other areas are more practical, such as finding the most effective sequence of services that community-based population and environment can offer, ways to attract more donor support, or the best ways to involve indigenous peoples, local governments and local NGOs. Finally, some areas are topics that have been ignored by population-environment workers, such as migration or urban communities. The sourcebook concludes by listing project profiles of the leaders in community-based population and environment activities. This index provides an insight into the specific details of the processes Engelman has outlined, as well as an important resource for anyone thinking of taking up one of his suggestions

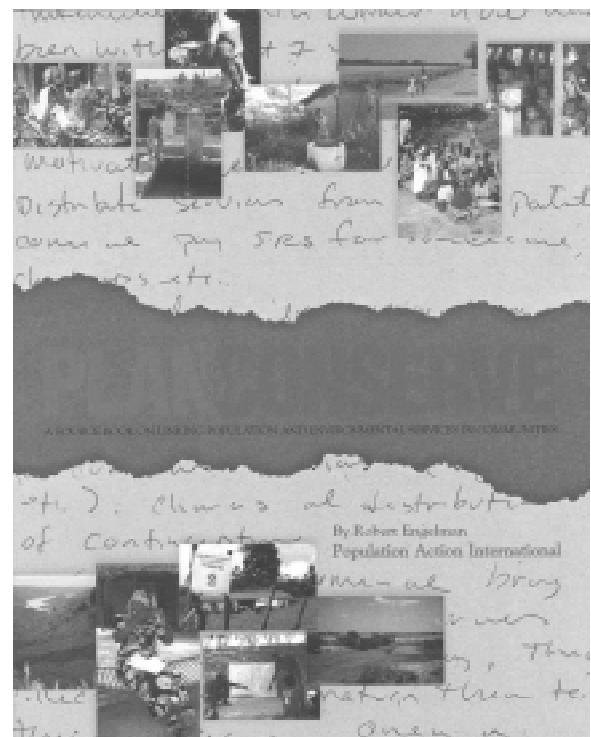
for further research.

Plan & Conserve succeeds as a useful and interesting sourcebook for two reasons which are almost at odds with each other: it presents itself in a clear, concise progression from historical context to future agenda, yet it inserts an almost-dizzying array of anecdotes, evaluations, and transcripts of conversations. The logical simplicity of Engelman's arguments and analysis give the book a focus and direction. Engelman manages to maintain equilibrium in his tone, which keeps his conclusions from sounding prejudiced. In a sourcebook this is critical, since it makes the book approachable to an uninformed or skeptical reader, inviting them to take a fresh look at the issues. At the same time, the evaluations and anecdotes both provide evidence of the trends Engelman is discussing and put a human face on the issues of family planning, environmental protection and women's rights. The inserts also help to keep uninformed readers interested in an otherwise clear but dry narrative. Overall *Plan & Conserve* serves as an intriguing introduction to the field of community-based population and environment activities and an excellent resource for further population-environment integration efforts.

For further information on PAI's Population and Environment Program, or *Plan & Conserve*, visit the web pages: <http://www.populationaction.org> or http://www.populationaction.org/why_pop/pc_index/pc_index.htm.

David Jacobstein is a Research Assistant at the Woodrow Wilson Center's Environmental Change and Security Project.

.....



Population Reports

A series of reports published by the Population Information Program of the Johns Hopkins University School of Public Health.

Reviewed by Karin I. Mueller

The potential ramifications of global population growth on human and ecological systems are staggering. According to *Population Reports*, a quarterly series published by Johns Hopkins University School of Public Health, increases in the world's population carry important implications for natural resources, food and water supplies, and the health and quality of life for people worldwide. The series' topics range from those directly related to family planning, like oral contraceptives and sterilization, to issues such as water scarcity and food supply that are indirectly affected by family planning policies and their implementation. Regardless of the particular topic, the recurring theme throughout the *Reports* is that family planning programs have a direct affect on reducing human population growth and, consequently, on the quality of the world's environment. Three issues of *Population Reports* were reviewed, each focusing on a different topic: food security, water scarcity, and family planning programs.

Winning the Food Race (No. 13, Series M) Don Hinrichsen

"In many developing countries rapid population growth makes it difficult for food production to keep up with demand. Helping couples prevent unintended pregnancies by providing family planning would slow the growth in demand for food. This would buy time to increase food supplies and improve food production technologies while conserving natural resources."

Population Reports (No.13, Series M), p. 1

As defined by the United Nations Food and Agriculture Organization (FAO), food security refers to access by all people to an adequate amount of "safe and nutritious food to maintain a healthy and active life." Yet, despite the fact that the global economy produces enough food to feed the world's population, many people lack access to enough food for a healthy life. Hence, better distribution of food is necessary if food security objectives are to be met. Also, ensuring family planning services would help to lower birth rates, thereby decreasing the demand for food as well.

In poor countries, where population size is usually increasing rapidly, hunger and malnutrition can be critical problems. Overuse of limited natural resources including arable land, freshwater, and fisheries, coupled with world markets unfavorable to developing-country agriculture and a lack of regional trade and cooperation, have raised questions about whether food production and distribution can improve fast enough to match the pace of population growth. Don Hinrichsen asserts that to "win the food race," a coordinated approach is necessary for increasing agricultural production, improving food distribution, managing resources, and providing family planning to slow population growth. He argues that

the ultimate outcome of the effort to achieve food security will depend on answers to the following questions. Will a new Green Revolution increase crop yields so that food supplies can keep up with growth in food demand? Will there be a reduction in resource degradation, waste, and pollution? How soon will reproductivity levels decrease to replacement-level fertility worldwide? The *Report* states that better coordination between population policies and agricultural policies could help improve food security. Also, improving support for family planning services could enable the world to reach replacement level fertility, allowing attention to shift from keeping food production on pace with population growth to improving the quality of life for all.

Solutions for a Water-Short World (No. 14, Series M) Don Hinrichsen, Bryant Robey, and Ushma D. Upadhyay

"As populations grow and water use per person rises, demand for freshwater is soaring. Yet, the supply of freshwater is finite and threatened by pollution. To avoid a crisis, many countries must conserve water, pollute less, manage supply and demand, and slow population growth."

Population Reports (No.14, Series M), p. 1

The demand for freshwater is growing rapidly worldwide. In discussing ways to address water scarcity, Don Hinrichsen, Bryant Robey, and Ushma D. Upadhyay, project that it may already be too late to avoid a crisis in some areas, particularly the Middle East. According to the *Report*, a water-short world is an unstable world, and therefore finding solutions to water scarcity and pollution should be a high priority. Unless drastic steps are taken quickly, water crises will increasingly present formidable obstacles to better living standards and better health, and to maintaining peace both within and between nations. Over the long-term, continuing and expanding family planning programs can help slow population growth and therefore decrease demand for freshwater. Hinrichsen, Robey, and Upadhyay contend that a "Blue Revolution" in water management is needed to conserve and manage freshwater supplies. Reaching solutions to current and potential water shortages will require coordinated responses to population growth, industrial and municipal use of water, and irrigated agriculture, at the local, national, and international levels.

Family Planning Programs: Improving Quality (No. 47, Series J) Adrienne J. Kols and Jill E. Sherman

"At its most basic, providing good quality means 'doing the right things right,' according to W. Edwards Deming, a pioneer of the quality movement in industry. In health care and family planning this means offering a range of services that are safe and effective and that satisfy clients' needs and wants."

Population Reports (No.47, Series J), p. 3

According to Adrienne Kols and Jill Sherman, improving the quality of family planning programs and reproductive health care in developing countries offers many benefits to family planning clients. These benefits include: safer and more effective

contraceptive use; more accessible and more widely used information services; more informed decision-making by clients; and improvements to a program's reputation. Better quality helps ensure that clients are more satisfied and more likely to continue using planning services (which ultimately contributes to decreasing global population growth).

The *Report* points out that there are three basic elements of quality in family planning. By addressing these elements family planning programs can achieve and maintain quality services. The elements include: 1) providing client-centered care; 2) focusing on a set of management principles that include strengthening systems and processes, encouraging team work, empowering staff, basing decisions on reliable information, and establishing a leadership that is committed to good quality; and 3) maintaining a methodology to achieving quality service by addressing all three points of the "quality assurance triangle" – quality design, quality control, and quality improvement.

As Kols and Sherman point out, achieving quality assurance in family planning and related health care programs is a long-term process, necessitating changes in organizational culture, goals, guidelines, and daily operations. Most developing country initiatives are too recent to show which approaches are the most effective. However, quality assurance has been shown to be helpful to family planning programs when it leads to utilizing resources more efficiently, solving service-related problems, and increasing customer satisfaction. As quality assurance methods continue to evolve and as researchers and program managers test different approaches, health care and family planning programs will continue to improve their quality of service, and ultimately achieve their goals of increasing client satisfaction and slowing global population growth.

Taken together, the *Population Reports* series informs readers of important research and policy developments in areas directly and indirectly related to family planning. Because of the diversity of topics covered as well as the depth with which they are addressed (particularly the extensive bibliographies), *Population Reports* should prove to be a useful resource to practitioners, scholars, and educators.

Karin I. Mueller is an Editorial Assistant at the Woodrow Wilson Center's Environmental Change and Security Project and the Production Editor of the Environmental Change and Security Project Report.

.....

Which World? Scenarios for the 21st Century

Allen Hammond

Washington: Island Press, 1998. 306 pp.

Reviewed by Jessica Powers

How will the world look in 2050? Are we to continue in the current vein, which will lead to global "prosperity, peace, and stability" according to some economists? Will we head into a new and far more environmentally detrimental world, an ominous world where the gap between the rich and poor only widens? Or alternatively, will we have to overcome the phenomenon of least common denominator policies and rise to new heights of development both economically and socially? Allen Hammond, senior scientist at the World Resources Institute (WRI), presents these three scenarios in his latest book. He explores the opportunities for and consequences of choosing one scenario over the others. The decisions are key to whether we will turn back environmental deterioration and poverty and head towards greater sustainability.

Which World? is an outgrowth of the 2050 Project at WRI, an attempt to illustrate what choices are available to policymakers and encourage trend analysis in making policy decisions. Hammond utilizes two tools: scenarios and trends analysis. This work offers three idealized scenarios of what the future could look like depending on

which choices leaders make over the next 50 years. He outlines the economic, environmental, security, and social trends that would play into each scenario's outcome. The book concludes with a region-by-region analysis of current trends.

Hammond offers as his first scenario the Market World, where free market forces lead to economic and human progress. Technological innovation and market reform will incorporate developing countries into the global economy. Those who favor this scenario point to examples of successful economic development as proof that the market will fix everything. Yet, Hammond points out that this approach to achieving human development and reducing poverty may have some notable drawbacks. Numerous examples find the prevailing market forces aggravating regional troubles. Russian health indicators are plummeting and the gap between the rich and poor is growing, not shrinking, as the country transitions to a market economy. Hammond cites cases where the laissez-faire economy is, on balance, proving more detrimental than beneficial to already economically and socially depressed regions.

In his second scenario, Fortress World, Hammond suggests a much more portentous future. He quotes Madhav Gadgil when he describes the world as "islands of prosperity, oceans of poverty." As in the first scenario, no social or individual behavioral changes are made and the market is left to guide the global economy. Instead of market forces leading to

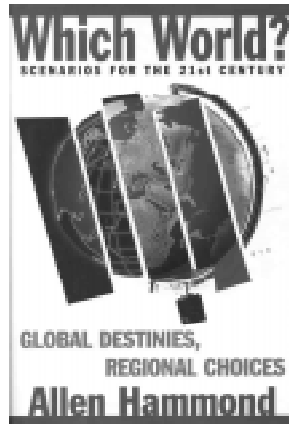


technological progress and social and economic wealth, the inaction | political transitions since the end of the Cold War. The former of the policymakers only exacerbates prevailing trends, leading to far worse economic, social, and environmental consequences.

The third scenario, what Hammond has termed Transformed World, has forces of the market and technological advances combining with sound and equitable policymaking to achieve a more stable and prosperous future for many segments of the population, not just a few elites. Regions make conscientious decisions to reverse ecological damage; institute policies and laws that benefit all of society; and work together to maintain peace and stability. Hammond cites current trends that could anticipate the plausibility of such a vision. These examples include 1) increasing family-planning assistance, thereby allowing families to make their own decisions regarding the number and spacing of children; 2) technology transfers that allow more people to engage in the global economy; 3) the growing number of companies that voluntarily conduct environmental impact assessments; 4) rising literacy rates; and 5) urban renewal projects that target sustainable use of resources.

Hammond recognizes these scenarios as idealized types; likely futures will be some combination of the three. He uses them to highlight alternative paths and lay the basis for his discussion of current trends. To facilitate dialogue and encourage informed decision making, Hammond analyzes current economic, environmental, social, and security trends. The first set of trends includes demographic, economic, and technological trends while the second includes environmental trends such as ecosystem destruction, pollution, and rural impoverishment. Thirdly, Hammond looks at critical security trends consisting of crime, arms proliferation, unemployment and migration, and urban unrest. Finally, he examines different political and social trends comprised of the rise of women's empowerment, human and social development, marginalized cultures, and democratization efforts.

The final part of the book is a more comprehensive analysis of the above-listed trends from region to region. In each region Hammond highlights the more critical issues facing those countries and addresses how choices made today to deal with those issues will irrevocably change future development. Despite being the most prosperous of the developing regions, Latin America has the widest gap between rich and poor that is continuing to grow, rather than abate. China and Southeast Asia also suffer from inequitable growth and corruption, but in addition have even more restrictive governance structures where political freedoms are few. India is faltering under endemic poverty and its unchecked population growth and will eventually surpass China as the country with the largest population. Sub-Saharan Africa is the most economically depressed region in the world with AIDS and other diseases killing a population already decimated by civil strife and decolonization. The Middle East and North Africa are experiencing rapid population growth that continues to stress already limited water supplies. Russia and Eastern Europe have stumbled through economic and



Eastern Bloc has some of the worst toxic contamination from nuclear facilities. Finally, North America, Europe, and Japan, although the most democratically secure and economically viable regions, also have problems associated with urbanization and growing economic disparities.

Overall, this book represents an excellent tool for identifying current trends and analyzing them within regional contexts. The scenarios should be a wake-up call to policymakers. As a scientist, Hammond presents a balanced perspective that highlights constructive alternatives to address negative trends. He

focuses needed attention to the numerous disturbing trends for the 21st century without the common usage of scare tactics.

Jessica Powers is an Editorial Assistant at the Woodrow Wilson Center's Environmental Change and Security Project and Managing Editor of the Environmental Change and Security Project Report.

.....

Economic Globalization and Political Stability in Developing Countries

Nicolas van de Walle

The New Security Thinking: A Review of the North American Literature

Ann M. Florini and P.J. Simmons

Poverty, Inequality, and Conflict in Developing Countries

Joan M. Nelson

Publications by the Project on World Security, Rockefeller Brothers Fund, 1998.

Reviewed by Moushumi Chaudhury

Economic Globalization and Political Stability in Developing Countries, *Nicolas van de Walle*

This report by Nicolas van de Walle describes the debate over whether economic globalization and the integration of national economies have the potential to promote political stability without any significant increase in present inequalities. First of all, he presents the various perceptions and the extent of "economic globalization" through the increase of foreign direct investment, technological advancements and global commodity changes. However, despite such progress of integration into the global economy, van de Walle claims that there are critics who believe that such a process is detrimental because firms choose to invest in countries with low wages to

further advocate the “leveling down” of already low wages. Such a situation creates the potential to increase political tension and economic inequality. Yet, on the other hand, Gini coefficients that measure inequality seem to be decreasing in many developing countries. The second set of arguments presents whether economic globalization creates a “volatile” atmosphere due to the “speed” of integration that does not allow governments time to adjust to an international setting. The third argument introduces the vulnerability of state sovereignty. Many critics claim that governments are slowly becoming incapable of controlling capital mobility, but this may be because Third World governments do not have choices and are powerless to fight the international financial world. Even though this allows states to have access to international markets, which could itself be a solution to ethnic conflict, this situation has the potential for disrupting the state’s ability to mediate ethnic conflict by eradicating the potential to strengthen the national economy. Ultimately, van de Walle comes to the conclusion that changes in the economic system are not sufficient in themselves for explaining the reasons behind ethnic conflict. It is also important to understand ethnic conflict within the context of the way political institutions and individual political actors function.

The New Security Thinking: A Review of the North American Literature, Ann M. Florini and P.J. Simmons

The term “security” has in the past been understood under the context of military action and in the light of the realist and neo-realist perspectives where maintenance or increase of military power is the key to protecting state sovereignty. However, in this report and through the review of pertinent literature, Ann Florini and P.J. Simmons analyze the importance of understanding “security” in a non-military fashion. Apart from military threats, there is reason to be wary of the instability caused by overpopulation, economic inequalities, resource depletion, and environmental degradation.

The combination of economic and resource scarcity itself can culminate to inter and intra-state violence, especially when states fail to provide resources. Furthermore, as security risks become more global due to the sharing of natural resources, the role of the state must also change to accommodate the increasing interdependence of non-military threats to prevent “fragmentation” of societies. In other words, Florini and Simmons have shown that the question of “human security” is contested: should it be more nation-based or provided collectively? Such concepts are finally explored by examining how Canada and the United States have pursued “security.”

Poverty, Inequality, and Conflict in Developing Countries, Joan M. Nelson

Understanding the definitions of poverty and inequality has been a process filled with ambiguity. This report by Joan Nelson, a Senior Associate at the Overseas Development Council, not only helps the reader to comprehend the various

definitions of “poverty,” but it also demonstrates how poverty is linked with issues of economic globalization and civil conflict. In order to analyze this connection, Nelson first explains the differing definitions of poverty by discussing the role of the Gini coefficient that measures the extent of inequality and economic classes. With such definitions in mind, the report next discusses Kuznets’ U-shaped relation between income and equality. In addition to providing the debate on whether the Kuznets model is valid, Nelson suggests that the pace of economic growth, political economy, and access to credit markets could be alternative indicators of the relationship between poverty, inequality, and economic growth. Furthermore, economic policies such as structural adjustment and their effects on inflation, price controls, the poor, and employment are also discussed in this report.

The final, analytical chapter demonstrates the relationship between civil violence and economic trends. Among the host of theories as to why civil violence in collectives occur in relation to economic trends, Nelson states that one possible factor could be a state of “absolute deprivation” where the lack of basic needs could lead to anger and finally to violence. Another theory could be based on “relative deprivation,” where not being able to achieve can lead to frustration and violence. Furthermore, Nelson states that ethnic conflict is likely to occur when an ethnic group is faced with either competition with other groups or economic discrimination. Ultimately, this report suggests that globalization of the economy will affect the level of poverty and inequality, as well as the level of security among ethnic rivalries, with the extent of change still being ambiguous.

Moushumi Chaudhury is a Research Assistant at the Woodrow Wilson Center’s Environmental Change and Security Project.

.....

