NEW PUBLICATIONS

Development and Security in Southeast Asia, Volume I: The Environment

Edited by David B. Dewitt and Carolina G. Hernandez Aldershot, United Kingdom: Ashgate, 2003. 248 pages.

Reviewed by EVELYN GOH

Development and Security in Southeast Asia is a three-volume series that addresses the complex and difficult—but very important—nexus between "the dynamics of development and the challenges to security" (p. 4). Volume I: The Environment examines the environmental dimensions of these linkages in Southeast Asia, a diverse region underrepresented within the literature on environment and development. Editors David Dewitt and Carolina Hernandez have assembled eight case studies, mainly from Indonesia and the Philippines, that together provide rich and fascinating insights into local and regional issues such as hazardous waste, deforestation, pollution, mining, food security, and climate change.

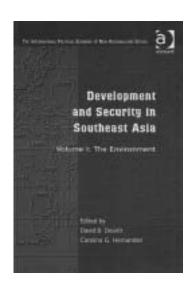
A significant contribution to the literature, the volume adds knowledge through careful onthe-ground research into the key linkages connecting environment, development, and security. It contains two particularly strong chapters: In Chapter 4, Peter Dauvergne explores the links between commercial forest management and community insecurity in the Philippines, Indonesia, and Malaysia. He reveals that the commercial importance of timber, backed by state-business alliances with strong financial interests, so dominate civil society that even in the face of local conflicts and resistance, environmental reforms are unlikely. In Chapter 7, Mary Young looks at the easily politicized issue

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of food production in the context of Indonesia's national development and security, teasing out the complex relationship between notions of food security (national versus local self-sufficiency; rice production versus crop diversification), sustainable agricultural methods, community social capital formation, the impacts of globalization on indigenous crop production, and national food policy.

Overall, authors in the volume use two main concepts to encapsulate the linkages among environment, development, and security:

- Human security—the notion that sources of insecurity extend beyond military conflict to include environmental degradation, economic insecurity, and political persecution, all of which threaten not only states, but also individuals and local and transnational communities; and
- Social capital—"the social glue that binds together networks of community cooperation and creates layers of social trust...crucial to enable...effective action to promote





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economic growth and protect the environment" (p. 24).

The acceptance of the human security concept and the robustness of social capital are the key variables determining the capacity to address environmental security issues. However, the volume's authors appear to assume that the human security concept enjoys widespread acceptance, when we still face the key problem of convincing major actors—such as businesses and local and national governments—that human security deserves the level of consideration and action they advocate.

Ultimately, securitization is a political activity; it can be—and is—used to achieve different ends. Dauvergne finds, for example, that Southeast Asian governments have identified local communities and their agricultural practices as threats to the environment and have used environmental security language to control dissident groups (p. 72-3).

But campaigners and scholars pushing for human security also have a revolutionary agenda. They claim that the state cannot be the only locus of security. However, in their long lists of recommendations and policy suggestions, the authors speak mainly to national governments, asking them to carry out reforms or tighten regulatory capacity. For this to happen, they must make the case more convincing to policymakers.

First, we must establish the criteria for securitization. For instance, politics and economics focus on the contest for allocation of scarce resources,

so why should governments and businesses care about the well-being of people and communities? How many people must be affected, and in what ways, with what far-reaching negative consequences, before the impact of some activity on a community is considered a threat worth an exceptional response? In the majority of the case studies collected in this volume, the authors simply do not provide figures or information—on the number of people affected by pollution, for example. Decisions are made every day by governments, community leaders, and families to address the vulnerability of some and not others. Without a relative measure, securitizing every issue that negatively impacts a community's wellbeing is meaningless. Indeed, calling something a security threat may exacerbate conflicts over allocation, or lend ammunition to justifications for unpopular policies.

Second, we must demonstrate more systematically the links connecting environmental degradation, development, and insecurity. In some of the case studies, too much is assumed or undocumented. For instance, it is not sufficient to state that industrial waste was dumped in an area, leading to local protests; the case should be backed up with research and analysis documenting how many people fell ill with serious diseases linked to pollution in these communities in a time period that correlates to industrial dumping. We also need more detail about the tensions and conflicts that arise from or are exacerbated by environmental degradation and development, which engender significant distributional inequalities and thus friction. At which point do they become conflicts that threaten security?

Overall, this useful volume reveals the wide range of issues in Southeast Asia that pertain to the nexus of development, environmental degradation, and security. It begins to draw out some ways of understanding and coping with the attendant complex dilemmas. It also leads to more questions and provides material for further analysis in a field that is rapidly evolving and remains extremely challenging for scholars who wish to provide fresh thinking and recommendations for policymakers.

Environment and Security: Transforming Risks Into Cooperation, Ferghana/Osh/Khujand Area

By Luigi De Martino, et al.

Geneva: UNEP, UNDP, OSCE, and NATO, 2005. 53 pages.

Reviewed by KEELY LANGE

For quite some time specialists have been trying to "calm the Ferghana Valley" or quell the "conflict incubator" at the geographic heart of Central Asia. The gerrymandered borders that separate the former Soviet states of Uzbekistan, Kyrgyzstan, and Tajikistan combine with ethnic divisions, poverty, religious fervor, corrupt or inept governance, drug and human trafficking, and proximity to Afghanistan to make this particular valley a favorite for predictions of regional conflict. To this list of conflict factors in the Ferghana Valley, the Environment and Security (ENVSEC) Initiative adds environmental issues and resource pressures.

ENVSEC coordinates the efforts of four organizations—the UN Environment Programme (UNEP), UN Development Programme (UNDP), Organisation for Security and Cooperation in Europe (OSCE), and the North Atlantic Treaty Organization (NATO)—to augment local, national, and regional capacity to address potential environmentally based instability and to strengthen environmental cooperation.2 ENVSEC consults with host governments to identify hotspots for environmental conflict and solicits local and regional stakeholder support for cooperative projects. To date, ENVSEC has published case studies on environment and security in the southern Caucasus, southeastern Europe, and Central Asia.

In Environment and Security: Transforming Risks Into Cooperation, Ferghana/Osh/Khujand Area, ENVSEC sets forth a more ambitious agenda than perhaps it realized.³ The report struggles to distinguish itself from myriad other projects on the likelihood for environmental conflict or cooperation in the Aral Sea Basin, the wider region in which the Ferghana Valley is located.⁴ The report

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focuses on the Ferghana Valley's dire political, ecological, and economic situation and offers an exceptional collection of maps highlighting environmental hotspots. However, slick graphics belie a text that is not as consistently polished. *Environment and Security* is weak in theory and structure, but worthwhile for the breadth of information it endeavors to synthesize.

ENVSEC suggests a theoretical framework that blends "environment as a source of conflict" and "environment as a source of cooperation" by enumerating the conditions under which interstate, environmentally based conflict would erupt, or the conditions that would enable environmental cooperation. Unfortunately, the structure lacks coherence and is abandoned for most of the case study. The summary analysis table selects factors from two studies on environmentally induced violent conflict but offers no basis for its choices. The discussion of diminished livelihoods does not include data on local income or standards of living, so it is difficult to determine how the theory applies.

The report follows the school of thought that environmentally induced violent conflicts are more likely to occur within states, but the case study catalogs a host of actual or imminent interstate (transboundary) conflicts. The crux of the report's problem is its general



vagueness—a problem shared by the wider literature—on the exact nature of conflict. Is only violent conflict considered conflict? What constitutes violence? For that matter, what constitutes conflict? Can there be cooperation without first having had some form of conflict that cooperation overcomes?

While ENVSEC does not address these questions, the ENVSEC authors present interesting material that, unfortunately, is not showcased well by the report's format. Two underlying themes are subjects of theoretical debate and beg further investigation: 1) the absence of violent conflict despite persistent, overwhelming transborder environmental problems, broken treaties, and institutional failures; and 2) the role perception plays in defining or identifying security threats.

The Ferghana Valley has witnessed a variety of conflicts and cooperative efforts. Cooperation programs range from grassroots media initiatives to a flurry of regional treaties on water allocation. Conflicts extend from local feuds over land rights, to an upstream state (Kyrgyzstan) flooding its downstream neighbors in retribution for failing to uphold treaties. However, to date, there has been no interstate *violent* conflict despite these facts:

- 1) The situation meets many theoretical criteria for interstate violent conflict;
- 2) Kyrgyzstani troops deployed in 2000 and 2001 to protect water release operations;
- 3) Observers regularly predict violent conflict;⁵ and
- 4) There has been plenty of interstate conflict.

To explain this discrepancy, the authors, some of whom are from the region, suggest cultural factors: strong family and clan structures, an interpretation of Islam that promotes acceptance of suffering, and a societal preference for a strong state, which legitimizes oppression but constrains violent outbreaks. The role these factors play is underdeveloped in the report and warrants further investigation.

Although strong states in the region purportedly restrain violent conflict, most of the Ferghana Valley's environmental problems are a result of poor governance and weak institutions. These states are authoritarian, but not strong. The failure of governments to enforce regional agreements intended to prevent water and energy crises led to winter flooding in 1993, 1998, 2001, and 2004, and consequent irrigation shortages in the following summers. Regional water management institutions such as the Aral Sea Basin Program and the International Fund for Saving the Aral Sea are administered at the presidential or prime ministerial level, but, as the report coyly suggests, "the real ability of ministries to fulfill the task is often overestimated" (p. 24). The much-touted Central Asian water crisis is not a function of absolute scarcity but rather of gross maldistribution and inefficient irrigation. In theory as well in practice, treaties and regional institutions may reflect cooperative intentions, but they indicate actual cooperation only if they are implemented.

The report also explores the manipulation of public perception of security threats from environmental degradation or squandered resources. Governments in the region publicize issues they believe have widespread appeal, such as the impact of pollution on public health, or that elicit public anxiety, like radiation polluting the water that irrigates the breadbasket of Uzbekistan. ENVSEC notes that "although perceptions may not reflect reality the actions taken in response to those perceptions will have real consequences" (p. 31). By calling attention to certain environmental issues for policy reasons, as opposed to the actual danger they pose, governments perform a hollow "speech act" of security; i.e., by politically labeling a problem a threat, they make it so.6 The report does not address whether the actions taken either by the governments or the people in response to these perceptions will lead to conflict, violent or otherwise.

The dearth of credible environmental data enables the region's governments to manipulate public perception. ENVSEC supports environmental journalism, web portals to disseminate regional environmental data, and centers for public access to environmental information. All of these will enable an improved understanding of environmental risks and may help hold local governments more accountable.

Although these local-level projects may mitigate some intrastate concerns, larger-scale projects that address significant interstate threats remain problematic. International donors walk a tightrope between limited investment undermining progress and corrupt governments undermining investment. ENVSEC and its sponsors chose to continue the trend of supporting meetings, conferences, and analytical reports and not invest in "real, physical infrastructure"—such as canals, filters, or sealing for tailing ponds-that could actually remedy some of the hotspots they identify (p. 44). Thus, this project is in danger of becoming like so many of its predecessors. As the joke says, if all the consultants and specialists assessing the Aral Sea had brought a bucket of water with them, the sea would not have dried up. Let us hope that ENVSEC's next phase will bring more to the crises it identifies in the Ferghana Valley than colorful ink.

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Notes

- 1. See Nunn, Rubin, & Lubin (1999) and ICG (2001).
- 2. The UN Economic Commission for Europe and the Regional Environmental Centre joined the ENVSEC Initiative in 2006.
- 3. Available on the ENVSEC Initiative's website at http://www.envsec.org/centasia/pub/ferghana-report-engb.pdf
- 4. For examples of other projects, see United Nations Special Programme for the Economies of Central Asia

- (2004); Daene McKinney (2004); Dukhovny & Sokolov (2003); and Erika Weinthal (2002).
- 5. See, e.g., Ibragim Alibekov (2003); ICG (2002); Alisher Khamidov (2001); Leila Saralaeva (2004); and Eric Sievers (2002).
- 6. See sections on "speech act" in Buzan, Waever, and Wilde (1998) and Lipschutz (1995).

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As the joke says, if all the consultants and specialists assessing the Aral Sea had brought a bucket of water with them, the sea would not have dried up.

speca/energy/effuse_en1.pdf Weinthal, Erika. (2002). "The promises and pitfalls of environmental peacemaking in the Aral Sea Basin." In Ken Conca & Geoffrey Dabelko (Eds.), Environmental peacemaking (pp. 86-119). Washington, DC, & Baltimore, MD: Woodrow Wilson Center Press & The Johns Hopkins University Press.

The Enemy Within: Southern African Militaries' Quarter-Century Battle with HIV and AIDS

Edited by Martin Rupiya Pretoria, South Africa: Institute for Security Studies, 2006. 218 pages.

Reviewed by STEFAN ELBE



Knowns and Unknowns About HIV/AIDS and Security

To paraphrase former U.S. Secretary of Defense Donald Rumsfeld, in the debate about the security implications of HIV/AIDS, there are "known knowns," "known unknowns," and "unknown unknowns." 1 We know that HIV/AIDS is a serious threat to human security, and that where it is the leading cause of death it is arguably the greatest human security threat of all. This is certainly true for the estimated 3 million people who continue to lose their lives annually to AIDS-related illnesses, and for many of the roughly 40 million people living with HIV/AIDS. Beyond the direct threat posed by the lethal virus, we also know that HIV/AIDS is a serious human security issue because in high-prevalence areas the disease continues to interact in complex ways with food security, economic security, health security, and personal security (Elbe, 2006a).

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Although social scientists and epidemiologists do not yet know the full extent of the challenge posed by HIV/AIDS, it is a "known known" that it is bigger than the deaths directly attributable to the illness.

When it comes to the links between HIV/AIDS and national security, however, we are dealing with a larger number of "known unknowns." As I showed in Strategic Implications of HIV/AIDS (Elbe, 2003), we know that the armed forces, like other segments of society, are affected by HIV/AIDS, but we do not know the exact magnitude of this impact, nor its wider security implications. There are two reasons: First, we lack reliable, public information on prevalence rates of HIV/AIDS in the armed forces. In the absence of this data, researchers and policymakers have often relied on intelligence estimates—the veracity of which could not be publicly verified—or speculated based on pieces of anecdotal evidence (see, e.g., Barnett & Prins, 2006; McInnes, 2006). Second, the relationship between national security and HIV/AIDS in the military is analytically much more complex than frequently assumed. Just because something affects the armed forces does not automatically make it a national security threat. There is, in other words, an important difference between arguing that HIV/AIDS is an important security



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issue—that it affects the armed forces—and arguing that the disease is additionally also a security threat—that it could catastrophically undermine a country's ability to defend itself and potentially provoke armed conflict. For these two reasons, the argument about HIV/AIDS and national security remains a "known unknown" pending further study.

The Enemy Within: Southern African Militaries' Quarter-Century Battle with HIV and AIDS marks a welcome, unprecedented, and long overdue effort to address the first of these two problems, the lack of information about the impact of HIV/AIDS on the armed forces.² Drawing on researchers with regional experience, and from military as well as civil society backgrounds, the report offers what has long been lacking in the debate—namely, a detailed account of armed forces' experience with HIV/AIDS in Botswana, Swaziland, and Zambia, and to some extent in Tanzania and Zimbabwe. The 13 authors of this report have progressed much closer to the heart of the issue than many who ventured the path before them. These country-based studies help corroborate the long-suspected risk factors that shape the armed forces' experience with the virus, such as geographic mobility and risky behavioral patterns. The report also provides useful information on the impact of HIV/AIDS on the armed forces' illness rates, budgets, military health care facilities, and recruitment. What is more, these authors also present—in perhaps the report's most enduring contribution—a comprehensive account of militaries' responses to the epidemic. Thus, the report helps to make it a "known known" that HIV/AIDS is indeed a security issue by virtue of its effect on the armed forces.

That said, The Enemy Within does not help us determine whether the magnitude of this impact is sufficiently high to merit the designation of a national security threat. Despite the repeated claims by several of its authors that HIV/AIDS constitutes a national security threat, the report contains very little new or hard data to illustrate this. There is little novel information about prevalence rates in the military; some of the figures cited by the authors are now more than a decade old. Nor do the authors address the more complicated analytical question about the relationship between HIV prevalence and national security. As analysts of armed conflict know, the ability of a country to defend itself depends on more than manpower, and the correlation between manpower and military might is not necessarily clear, requiring more sustained reflection. However, in many cases this data does not exist, or is not publicly available; the authors are not alone in struggling to find the hard evidence to make this link (see, e.g., Garrett, 2005).

Even after this unprecedented report, the question of whether HIV/AIDS is a national security threat because of its impact on the armed forces still remains, strictly speaking, a "known unknown" in need of further examination. This distinction is not just an academic one; if HIV/AIDS is a national security threat, then militaries are possibly emboldened in their attempts to exclude people living with HIV/AIDS from joining the ranks and to pursue preferential antiretroviral treatment for the armed forces. If it is primarily a security issue, then the armed forces would be expected to address HIV/AIDS in a wider political framework, including important human rights con-

siderations (usefully picked up on by Jonathan Lwehabura and Jeanne Karamaga Ndyetabura in their chapter on Tanzania).

What, then, of the unknown unknowns? There are at least two: First, what are the political implications of framing HIV/AIDS as a national security threat? Many of those portraying the epidemic as such believe that this frame will provide the field with more resources and leadership, while those skeptical of the link either do not find it credible or challenge the utility of extending the security agenda beyond the traditional, realist domain. Others are concerned with the effect the language of security may have on the social perception of those living with HIV/AIDS. Susan Sontag (1988) made the case for abandoning military metaphors that portray disease as an "invader" in public pronouncements about the "war on AIDS" because they stigmatize the ill. We need, therefore, to know how reframing the disease has not only influenced aggregate levels of funding, but also the relative flow of funding to civilian and military segments of the population, as well as how it has affected grass-roots efforts to respond to HIV/AIDS. I have recently begun to highlight these issues (Elbe 2006b; see also Peterson, 2002), but for the most part this area still remains an "unknown unknown."

The second such "unknown unknown" goes deeper still: We also need to ask why, well into the third decade of this epidemic, and with the availability of life-prolonging medicines, it is even necessary to frame one of the biggest diseases of our time as a threat to security in order to provoke commensurate international efforts to address it. Perhaps this "unknown unknown" about HIV/AIDS and security ought to give us pause for thought most of all.

Notes

- 1. "The message is that there are no 'knowns.' There are things we know that we know. There are known unknowns. That is to say there are things that we now know we don't know. But there are also unknown unknowns. There are things we don't know we don't know." Former Secretary of Defense Donald H. Rumsfeld, Press Conference at NATO Headquarters, Brussels, Belgium, June 6, 2002. Available online at http://www.defenselink.mil/transcripts/2002/t06062002_t0606sd.html
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Global Demographic Change: Economic Impacts and Policy Challenges

Edited by Gordon Sellon, Jr.

Symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming,

August 26 - 28, 2004. 498 pages.

The New Demographic Regime: Population Challenges and Policy Responses

Edited by Miroslav Macura, Alphonse L. MacDonald, and Werner Haug New York & Geneva: UN Economic Commission for Europe and UN Population Fund, 2005. 301 pages.

Reviewed by KYLE ASH

When the Demographic Dividend Comes A-Calling: Fertility Rates and Socio-Economic Health

Since the beginning of recorded history, birthrates have generally subsided in response to economic or geopolitical tragedy. Today, few deny the ecological impacts of the global human population, which is now about 6,000 times greater than during the first 99 percent of our species' existence (Livi-Bacci, 2001). However, the perception remains that abovereplacement fertility is associated with sustained increase in quality of life. The consequent anxiety created by below-replacement fertility rates is illustrated by two recent publications: The New Demographic Regime: Population Challenges and Policy Responses, 1 a collection of articles prepared for the 2004 European Population Forum of the United Nations Economic Commission for Europe (UNECE); and Global Demographic Change: Economic Impacts and Policy Challenges,² a collection of papers from a 2004 Wyoming symposium sponsored by the Federal Reserve Bank of Kansas City (FRB).

Other literature has cited a "population implosion," and called countries with below-replacement fertility rates "barren," raising the

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ire of internationalists and feminists (Douglass, 2005). The debate in the publications reviewed here is arguably more diplomatic, but the variety of specialists participating in it remains limited. The FRB forum in Wyoming was comprised mostly of macroeconomists concerned primarily with the implications of aging populations on fiscal and monetary policies. The UNECE forum was dominated by demographers focusing on socio-economic conditions arising from, and caused by, demographic changes; it was guided by the laudable principles set forth by the 1994 International Conference on Population and Development: "Full respect for human rights, particularly the rights of women, the empowerment of women and genuine gender equity" (UNECE, p. 269). Jörg F. Maas and Christian Resch recall a 1995 European Parliament resolution that averred



Ecological economists must contribute to the discussion of global demographic change to help seek policies that allow a reasonable population decrescendo without intruding on human welfare.

"the interrelationship of population and environmental sustainability," but this interrelationship is mostly ignored in both venues (UNECE, p. 262).

Given the shift in attention in recent years from global population growth to regional declines in fertility rates, the demographic policy vernacular has gained new connotations. "Family planning" in Europe often means promoting fertility, not limiting it. It is well-documented that pro-natal incentive policies have not worked, so some scholars advocate more enthusiastic intervention. Paul Demeny, for example, even calls fertility a public good on par with national defense to ensure national existence (UNECE, p. 2-3). Wary of nationalistic exuberance, others emphasize pro-fertility policies that avoid racism, sexism, or authoritarianism.

Population in the original 15 countries of the European Union is predicted to decrease 0.2 percent per year between 2000 and 2100, a nominal decline (Lutz, O'Neill, & Scherbov, 2003). Most scholars overlook the declining "young-age dependency" in favor of more foreboding prognostics of total dependency (UNECE, p. 24). A few scholars—such as Rakesh Mohan, the deputy governor of the Federal Bank of India—distinguish between the young-age dependency, old-age dependency, and total dependency ratios, but most attention is paid to the ratio of pensioners to workers (FRB, p. 352). None of the authors in either fora notes that the total dependency ratio over time is the same for a population increasing by 1 percent as that of a population decreasing by 1 percent, given, generally, that young dependents are 0-15 years old and that the old-age ratio refers to a retirement age of 65 and longevity of 80 (both spans of 15 years). Thus, the total dependency ratio in the next century actually will be better than in the last.

If policies seek to address the economic burden of dependents on workers, the increasing costs of the elderly must be weighed against the fact that the aggregate cost of young dependents has declined. Ralph C. Bryant, senior fellow at the Brookings Institution and a former Federal Reserve economist, observes that fewer children free resources for saving and consumption (FRB, p. 94). Demographer Jerome Vignon calls for a more "prospective approach" to "acquire a better balance in population structures in the medium to long term," and the final chapter of the UNECE forum compares the average time in retirement to that of a young person in education (UNECE, pp. 45, 286). Finally, retirees are not entirely "dependents" due to wealth transfers (FRB, p. 42). As of 1998, among men aged 65 and older, about 16 percent in the United States and 36 percent in Japan were still in the labor force (Katsumata, 2002). The elderly also contribute a great deal to the informal economy that children do not, for example by maintaining the home and educating youth. In many countries, the human capital of retirees is being squandered by disassociating them from the community and family.

The "demographic dividend," also called "demographic bonus," refers to the eventual effect from a period of high fertility rates. The demographic dividend has been used to explain the "miraculous" economic growth rates in Southeast Asia, which followed a baby boom generation that matured into workers and created a favorable dependency ratio (FRB, p. 22). This explanation of the success of the "Asian Tigers" is undermined by the absence of such an effect from the U.S. baby boom, as well as other data.3 Europe is said to suffer now from a "demographic deficit." Again, these terms dismiss the fact that young dependents are economic liabilities for at least 15 years—possibly greater liabilities than old dependents (Day, 2004). Furthermore, most everyone retires eventually, so-barring incessant population increase and infinite natural capital-a more appropriate term would be "demographic loan."4

Health care and general living costs for the elderly must be compared with the same costs for young dependents, who also incur the costs of pre- and post-natal care, and primary and secondary education. Policymakers must consider the financial burden of public schooling, publicly funded childcare, and pro-natal poli-

cies. Direct need-based payments in 2001 were distributed among 37 percent of American households with children. In 2004 the proportion of private expenditures on one child was 33 percent per parent (USDA, 2004). With a fertility rate of about replacement level, this nonetheless rivals payroll and income tax rates. Only a fraction of this revenue is allocated to public programs for elderly care and retirement benefits.

Concentrating on the old-age dependency ratio facilitates a more positive outlook on immigration as a means of increasing the percentage supply of labor, since immigrants typically have proportionally higher fertility rates. Despite apparent consensus in the literature that, as David Coleman observes, "immigration cannot solve problems in population aging except at rates of immigration so high that they would generate economically and environmentally unsustainable population growth rates and permanently and radically change the cultural and ethnic composition of the host population," a significant proportion of authors in both fora explore strategies to intensify migration (UNECE, p. 22).

The pay-as-you-go (PAYG) pension system is running an imbalance of taxpayers versus retirees, but like any pyramid scheme, PAYG cannot last without an incessantly growing global population. Confusingly, several authors speak of children as tangible forms of human capital. Paul Demeny echoes Julian Simon's circular reasoning that humans are the only "resource" that matters to the long-term economy: "In the long run demography is the most important factor shaping human destiny" (UNECE, p. 4). Simon Kuznets (1960) argues that a growing population augments the stock of useful knowledge, and that increasing the "number of creators of new knowledge" will automatically increase returns per capita. However, such perspectives falsely assume that human capital, or productive knowledge, develops without investment. One exception to this perspective is found in economist Nancy Birdsall's discussion of "poaching" nurses from poorer countries to exploit cheaper wages (FRB, p. 466).

The UNECE forum took a more appropriate perspective on human rights and community issues, since fiscal or monetary policies may be ineffective ways to address demographic concerns, except to aid economic stability. Jacob A. Frenkel, former governor of the Bank of Israel, states that "there is no more dangerous monetary policy than to deal with demography" (FRB, p. 477).

Other policy tools suggested, but not truly explored, include helping communities to develop and maintain social capital. UNECE scholars, such as Ursula Haubner and Anne H. Gauthier, advocate policies that promote "intergenerational solidarity" and aim to increase fertility through so-called "family-oriented" policies that would facilitate generation and maintenance of social and human capital regardless of the demographic circumstances (UNECE, pp. 59, 61, 95).

Neither publication explicitly scrutinizes the role of social capital as the costs of dependents shift from private (children) to public (pensioners), for example by exploring urban development or nuclear family patterns. For much of the human experience, society did not privilege the biological relationship such that parents and children excluded themselves from the community. Anthropologically, today's narrow connotation of family is quite new; many cultures make no linguistic distinction between family and community (Sabean, 1983). Contemporary suburban development sprawl is far more taxing on every type of capital than more community-oriented urban development with fewer roads, shorter commutes, and greater conservation.

Both fora lack discussion of "defensive expenditures," which are resources spent on recovering losses incurred by myopic policies or unneighborly economic activity. This omission is akin to addressing a city's water use without discussing leaky pipes. Most countries' economies have many leaks; reducing these losses through conscientious policy could greatly relieve novel outlays arising from demographic change, as well as reallocate capital toward production rather than recovery.

Behavioral issues affecting health are discussed only as they contribute to increased mortality in the UNECE transition countries of Eastern Europe and the former Soviet Union. In 2000, more than 60 percent of U.S. deaths were from diseases attributable to poor diet, inactivity, or smoking (National Center for Health Statistics, 2004). Disposable income spent on medical care in 2003 represented 12 percent of GNP.5 One assessment of defensive expenditures, plus a monetized assessment of lost natural capital (including the depletion of nonrenewable mineral fuels, topsoil loss, eradication of economically relevant biodiversity, and depletion of freshwater resources), would reduce U.S. income in 2004 by \$7 trillion (Ventetoulis & Cobb, 2004).

Ecological economists must contribute to the discussion of global demographic change to help seek policies that allow a reasonable population decrescendo without intruding on human welfare. These discussions must include issues of scale and distribution, especially as international trade obscures local resource scarcity and global resource decline. The exclusion of natural capital exhaustion, or "base capital," handicaps these and other policy discussions about the effects of demographic change on long-term economic integrity and global human security.

Both publications suggest that we can address below-replacement fertility by augmenting the working population, encouraging immigration, increasing the retirement age, or increasing employment rates of older women and young adults. However, we must explore other options as well, such as policies that protect and augment natural, social, and human capital through urban development, fiscal policy, and economic systems that enhance the labor force through greater equity and empowerment. These two publications move the policy debate forward, but they fall far short of touching on all the complexities of global demographic change. Both could be improved by integrating perspectives that regard humans as individuals, social animals, and subjects of a closed, global ecosystem.

Notes

- 1. Available online at http://www.unece.org/pau/epf/ndr.htm
- 2. Available online at http://www.kansascityfed.org/Publicat/sympos/2004/s ym04prg.htm
- 3. Based on data from the U.S. Bureau of Economic Analysis and the Bureau of Labor Statistics, from 1960 to 2005 formal workers rose from about 38 percent to 51 percent of the population, while the average rate of GDP growth per capita declined slightly. On the other hand, from 1952-1962 the formal support ratio fell from 40.6 percent to 38 percent while per capita GDP nonetheless rose. Average annual GDP growth has ranged between 1.6 and 2.3 percent since 1980 for Canada, Australia, Japan, France, Germany, Italy, the Netherlands, Sweden, the United Kingdom, and the United States, despite huge differences in the growth and size of the workforce relative to the nonworking population.
- 4. I would not advocate using this term, however, since children also come with substantial transaction fees and interest rates (to continue the distasteful metaphor). This includes cash and non-cash benefits like food stamps, Medicaid, rent subsidies, and energy assistance (U.S. Census Bureau, 2005).
- 5. See Table 2.4.4U, "Chain-Type Price Indexes for Personal Consumption Expenditures, Medical Care" and Table 2.4.5U, "Personal Consumption Expenditures by Type of Product, Medical Care" in the Bureau of Economic Analysis, National Economic Accounts' National Income and Product Accounts tables.

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HIV/AIDS and the Threat to National and International Security

Edited by Robert L. Ostergard, Jr. Basingstoke, UK: Palgrave Macmillan, 2007. 256 pages.

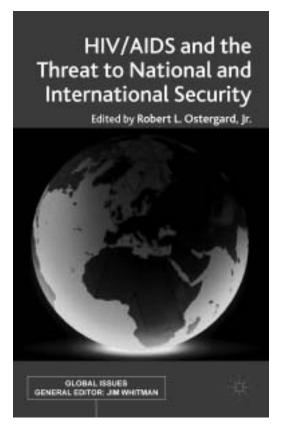
Reviewed by HARLEY FELDBAUM

The study of the relationship between HIV/AIDS and national security is a fast-growing field, and so it is a shame that HIV/AIDS and the Threat to National and International Security spent years in publishing limbo. The majority of the papers in this volume were written before 2003 and therefore do not address recent developments in government responses to the pandemic, increases in the provision of antiretroviral treatment in developing countries, and newer estimates of HIV/AIDS prevalence among armed forces. However, this flaw is not fatal; the book provides a well-organized overview of the linkages between HIV/AIDS and national security, as well as examinations of the likely impact of these links on specific countries. The authors make the case that the HIV/AIDS epidemic is undermining economic growth, state capacity, and national security while simultaneously demanding increased state action and resources to fight the disease.

Edited by Robert L. Ostergard, Jr., the volume is divided into four parts, comprising an introductory framework and sections on the armed forces, political economy, and state capacity. Catherine Boone and Jake Batsell lead off with the claim that political science has

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much to learn by studying HIV/AIDS, and could contribute to our understanding of the pandemic's political and institutional impacts. Structured around five research questions selected to demonstrate the highly political nature of HIV/AIDS in Africa, the article begins with the seminal question: What explains the differences in state responses to the spread of HIV/AIDS in Africa? The authors find that traditional political science explanations, including rational choice theory, regime type, and economic and bureaucratic development, fail to account for the success of Uganda and Senegal, and the relative failure of Zimbabwe and Kenya, in addressing HIV/AIDS. They argue for increased research on the political mechanisms that enabled successful responses, but sadly, they fail to note that viewing HIV/AIDS as a threat to national security was an important component of the strong Ugandan and Thai responses (Putzel, 2004; United Nations Development



Programme, 2004). The authors' other research questions focus on the role of NGOs in fighting HIV/AIDS, and the impact of the disease on the "Washington consensus," North-South tensions, and international regime formation.

Susan Peterson's chapter, adapted from an article originally published at the end of 2002, offers a skeptical perspective on the national security implications of HIV/AIDS for the United States, asking whether it is politically useful to present HIV/AIDS as a threat to national security.1 Peterson argues that infectious diseases are most likely to threaten national security by creating economic and political instability in highly affected states and by eroding military readiness. She concludes that while these processes represent a staggering humanitarian problem, they do not directly threaten U.S. national security. Because the empirical links between HIV/AIDS and U.S. national security are weak, Peterson argues that appealing to the national security interests of powerful states to justify increased action on HIV/AIDS

will likely fail. Furthermore, she fears that appealing to the national security interests will relieve powerful states of their moral responsibility to address humanitarian crises and may undermine trust in efforts to control the disease. Her chapter would have benefited from considering the recent history of the President's Emergency Plan for AIDS Relief (PEPFAR), which largely contradicts her conclusion that linking disease to national security offers no benefits and relieves states of their moral obligation. Despite this problem, her presentation of the differences between human and national security, the links between HIV/AIDS and national security, and the question of whether HIV/AIDS should be viewed as a threat to national security are all valuable contributions.

Robert Ostergard concludes the first section with a nuanced discussion of national security threats and the complexity of the security challenge presented by HIV/AIDS. Ostergard argues that immediate threats to territory and government institutions are "hard" security threats that will generate rapid political action, while longer-term threats to populations are "soft" security threats of lower priority. Addressing the security implications of HIV/AIDS is complex because the disease is a "soft" threat that presents an indirect and longer-term threat that varies with the prevalence of the epidemic. Ostergard concludes that HIV/AIDS may induce a "downward spiral" where the disease undermines state capacity at the exact time that strong capacity is needed to curtail the HIV/AIDS epidemic.

The second section looks at the impact of HIV/AIDS on militaries, peacekeepers, and warfare in Africa. Stefan Elbe and Ostergard convincingly argue that the high prevalence of HIV/AIDS among African militaries and use of the disease as a weapon of war through the practice of rape are elevating the social costs of armed conflict in Africa. In the context of widespread HIV/AIDS epidemics, armed conflicts could increase the number of overall casualties by straining medical facilities, creating demographic disruptions that increase vulnerability to HIV/AIDS, spreading the disease into previ-

ously unaffected rural areas, and reducing efforts to prevent and treat the disease. Elbe and Ostergard conclude that addressing these links will require greater participation by African militaries in HIV/AIDS programs, increased focus on HIV/AIDS during conflicts, and security sector support for broader public health efforts to fight HIV/AIDS.

Preeti Patel² and Paolo Tripodi complete this section with a somewhat haphazard review of the links between HIV/AIDS and peacekeepers. They summarize data that suggest that militaries have higher rates of HIV/AIDS and sexually transmitted diseases than civilian populations, which they argue is due to the masculine military culture, long deployments away from home, and the relative wealth of peacekeepers compared to local populations. This section suffers the most from the publishing delays, as it does not incorporate recent downward revisions of HIV-prevalence estimates among armed forces reported by a number of authors (Feldbaum, Lee, & Patel, 2006; Garrett, 2005; Whiteside, De Waal, & Gebre-Tensae, 2006).3

The third section tackles the political economy of HIV/AIDS and security, although none of the three articles in this section draws substantive links to national security. Nana Poku and Bjorg Sandkjaer describe Africa's deadly predicament as HIV/AIDS decreases economic growth and development while demanding new resources and state capacity to provide treatment and prevention programs.4 They strongly argue against structural adjustment programs and for debt cancellation to aid states fighting HIV/AIDS—however, their arguments could have used an update on the recent successes and limitations of debt-canceling agreements. The two chapters by Susan Sell and Christopher May examine intellectual property rights and the Campaign for Access to Essential Medicines as they relate to state efforts to fight the HIV/AIDS pandemic. While these political issues are important, the authors never draw explicit links to national security and the rationale for including these chapters is unclear.

In the final section, Jeremy Youde's well-



The authors make the case that the HIV/AIDS epidemic is undermining economic growth, state capacity, and national security while simultaneously demanding increased state action and resources to fight the disease.

argued article on the insidious impacts of HIV/AIDS on democratic stability and legitimacy in Africa posits that the epidemic may undermine elections: Onerous voter registration requirements could disenfranchise AIDS patients and their caregivers, while governments could manipulate election results by keeping those killed by AIDS on voter rolls. Furthermore, HIV/AIDS threatens to decimate civil society and slow economic growth, thus impeding democratization. However, Youde could have updated his arguments with data drawn from actual elections held since his article was originally published in 2001.

Robert Compton examines HIV/AIDS in China and India due to their growing epidemics and huge populations. These two states are strategically important "second wave" states (along with Russia, Nigeria, and Ethiopia) and subjects of U.S. intelligence reports (Gordon, 2002). Compton identifies risk factors that will increase the spread of HIV/AIDS in both states, but he argues that economic growth and strong state capacity, as

well as lessons learned from Africa and Southeast Asia, will prevent the disease from threatening the national security of either country. To adequately address HIV/AIDS and avoid a decline in political legitimacy, he recommends that China further liberalize its political system while India should work to overcome its decentralized political system.

In the book's concluding chapter, Andrew Price-Smith, Matthew Tubin, and Robert Ostergard argue that the HIV/AIDS epidemic is one of South Africa's greatest humanitarian crises, and therefore a threat to the nation's security. In addition to its massive mortality, the authors identify three ways HIV/AIDS poses an indirect threat to South Africa's political and economic stability: First, HIV/AIDS could undermine the government's ability to provide services, including health care, as the need for services increases due to the impact of HIV/AIDS. Second, South Africa's contribution to regional stability could decrease as the epidemic affects its armed forces and draws resources away from foreign policy. Finally, the macro- and microeconomic impacts of the disease may jeopardize South Africa's economic stability. This "downward spiral" argument provides cause to worry, but would be more convincing if the authors had also considered how increased availability of antiretroviral treatment might limit the disease's worst implications.

In conclusion, most of this book's faults stem from including articles that have not been substantially updated since 2003. HIV/AIDS and the Threat to National and International Security still contributes to our understanding of the ways in which HIV/AIDS undermines state capacity and national security, but the book should be read critically and in conjunction with other recent publications on the links between the pandemic and national security.

Notes

- 1. Elbe (2006) also seeks to address the question of whether HIV/AIDS should be securitized in an excellent follow-up to Peterson (2002).
- 2. Disclosure: I worked closely with Preeti Patel at the London School of Hygiene and Tropical Medicine.
- 3. Whiteside, De Waal, and Gebre-Tensae's (2006) skeptical examination of "accepted wisdoms" about HIV/AIDS, militaries, and security should be consulted for a fuller perspective. Two other articles that provide excellent overviews of the relationship among HIV/AIDS, militaries, and peacekeepers are Elbe (2003) and Bazergan (2004).
- 4. See related article by Nana Poku, "HIV/AIDS and Governance in Africa," in this report (pages 30–36).

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Human and Environmental Security: An Agenda for Change

Edited by Felix Dodds and Tim Pippard London: Earthscan Publications Ltd., November 2005. 320 pages.

Reviewed by KAREN O'BRIEN

Edited books can be deceptive, particularly if one judges them solely on the table of contents or a quick skim of the first and last chapters. I might have deemed Human and Environmental Security: An Agenda for Change as a mainstream, United Nations-focused publication on traditional notions of security, sustainable development, and global governance, had I not randomly opened to Chapter 6 and started to read.

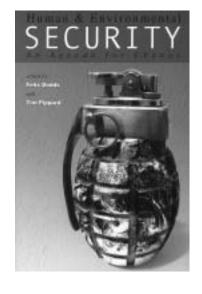
Jan Pronk's chapter, "Globalization, Poverty, and Security," begins with rather ordinary praise for the Millennium Development Goals (MDGs), but evolves into one of the most insightful critiques that I have read. Pronk, the former Dutch minister of environment and special representative of the Secretary-General of the United Nations in Sudan, analyzes the links connecting globalization, poverty, and security and captures some of the pressing issues facing human security in the 21st century. He argues that globalization has changed the nature of capitalism, with more people excluded from the system than exploited by it, which reinforces a system of global apartheid. The excluded are considered dispensable, as neither their labor nor their potential buying power is needed to fuel today's global economy. In other words, some people simply do not matter in the evolving capitalist economy. Pronk criticizes the "US\$1-a-day" benchmark in the MDGs, arguing that poverty is not just a lack of money and income, but a lack of opportunities, which are more dependent upon assets, entitlements, and rights than on dollars. Pronk does not feel the MDGs are theoretically unachievable, but rather that they will not be achieved for practical reasons: Dramatic environmental changes taking place today have a greater impact on the world's poorest people, and, at the same time, **Environmental Change and Human Security** Project. She is an associate professor in the Department of Sociology and Human and a lead author on the adaptation chapter for the Intergovernmental Panel on Climate

environmental risks have lost the competition

for attention to traditional security risks,

including the recent emphasis on terrorism.





Now inspired to read Human and Environmental Security from cover to cover, I was rewarded with many thought-provoking insights. The book's 19 chapters are written primarily by policymakers and practitioners, reflecting the authors' extensive experience with international issues and institutions. It was sometimes difficult to keep track of the many high-level panels and commissions mentioned, as well as almost 150 acronyms used (fortunately listed at the front of the book). Overall, the contributions provided reassuring evidence that critical questions are being discussed and debated in the policy, practitioner,

As with many edited books, some of the chapters are less exciting than others, with some coming across as advocacy pieces and others as descriptive reports. For example, some authors present arguments in support of the UN's Peacebuilding Commission and the UN Environment Organization, without attention to alternatives or critiques. Likewise, other chapters competently summarize important issues such as food security, water security, and climate change, without provoking readers with genuinely new perspectives. However, on the

and academic communities.



The threat agenda is not limited to terrorism or weapons of mass destruction, but instead includes poverty, environmental degradation, pandemic diseases, the spread of organized crime, and failed states.

whole the book provides a good overview of the context for security in the 21st century.

The book is divided into three sections: "Peace and Security," "Sustainable Human Development," and "Global Governance." Despite this broad coverage, the book includes very little discussion of concepts and theories, particularly the distinction between human security and environmental security, and how these both differ from and relate to traditional notions of security. It would have been worthwhile to draw on the analyses of Jon Barnett (2001), Simon Dalby (2002), or Des Gasper (2005), for example, to help place the different perspectives in the book within a theoretical framework.

Chapter 3, "Human Security and the War on Terror," by Oliver Richmond and Jason Franks is a notable exception: The authors discuss the differences between traditional, statecentered security and human security, noting that the latter is rooted in the broad, development-based, human-needs approach (often associated with the UN Development Programme) that views basic welfare as the best indicator of security. Discourses on human security consider individuals the unit of analysis, claim universality, assume global interdependence, and argue that prevention is probably the best course of action. The authors ask how far this human security discourse repre-

sents an attempt by states, willingly aided by international actors, to impose a liberal political agenda on societies, thus making human security a covert partner in the war on terror by their shared emphasis on creating a "safe" world.

Yet many of the authors consider human security only in its broadest definition of freedom from fear and freedom from wants. While easy and memorable, this definition fails to capture the depth and significance of human security. As freedom from fear and wants, the concept can be easily ignored or disregarded, especially in an age when fears and wants are continually and deliberately produced and reproduced across the globe. Indeed, the contemporary global economic system is designed to breed and feed an unlimited number of wants, while at the same time the political systems, supported by a globalized media, thrive on a culture of fear-whether it is of terrorism, bird flu, or people regarded as "the other."

Fear and wants are not always negative attributes, a perspective frequently ignored. Christine Durbak and Claudia Strauss point out in their chapter, "Securing a Healthier World," that fear is a common human feeling-including the fear of change. They acknowledge that fear may be a useful technique for controlling a population, but at some point it turns into paranoia, and paranoia blocks the abilities of leaders and citizens to differentiate reality from fantasy, and thus prevents them from responding to reality rather than fantasy. In Chapter 14, "Urban Security," Anna Tibaijuka notes that the development of the private security industry in urban areas actually builds a climate of fear and fosters social isolation and fragmentation, which creates more insecurity and fear. Wants often serve as the basis for development, innovation, and creative solutions. Yet unfettered consumerism, even if it is ethical or "green," raises some important questions that are brought out by Hannah Griffiths in her chapter on corporate responsibility, including "whether some of the things we demand as consumers we simply could not have in a fair and equal world" (p. 228). Defined as freedom from fears and freedom from wants,

the concept of human security is not surprisingly often tossed aside as "empty," while traditional, state-centered notions of security are bolstered by the seemingly endless expansion of wants and fears.

Alternatively, we could consider human security achieved when and where individuals and communities have the options necessary to end, mitigate, or adapt to threats to their human, environmental, and social rights; have the capacity and freedom to exercise these options; and actively participate in pursuing these options (Global Environmental Change and Human Security Project, 1999). Such an understanding of human security calls for not only protection from threats, fears, and wants, but also for empowerment, which is a key component of the Commission on Human Security's definition (Commission on Human Security, 2003). Felix Dodds, in the final chapter, "Democracy in an Uncertain World," calls for mobilizing stakeholders and widening the debate among those who influence decisions and those who are affected by them. He emphasizes that the changes needed to enhance both environmental and human security demand opening up-not closing down-societies, which depend on an ever-vigilant and vibrant civil society.

Human and Environmental Security makes a strong case for the link between security and development, citing Kofi Annan's claim that there can be no sustainable security without development, and no sustainable development without security. Chapter 1 by David Hannay focuses on the underlying themes of the 2004 report of the High-Level Panel on Threats, Challenges, and Change, which is part of an ambitious UN reform program. The most important of these themes, which runs throughout the book, is that the threat agenda is not limited to terrorism or weapons of mass destruction, but instead includes poverty, environmental degradation, pandemic diseases, the spread of organized crime, and failed states. While the security industry likes to think in

terms of "soft" and "hard" threats, Hannay points out that these characterizations are misleading and inadequate because most of these threats are interconnected and overlapping. He calls for institutional reform, including a stronger, more professional UN Secretariat, and a secretary-general with more control over human resources and more authority to respond flexibly to urgent priorities. Many of the authors argue that the UN is indispensable to the international community it serves; while this is an important message, if it were the book's only one, it would not be worth reading.

Achieving theoretical and conceptual clarity about human and environmental security is not necessary for understanding the strong need for change. Perhaps one of the most important questions in the book is raised by Jim Garrison in Chapter 15. Although his question focuses on the United States, it is certainly relevant to a much broader audience: "Can it prevent the repetition of the most ancient pattern in human history: that real change never actually comes until after a crisis? Can the human community break out of this chain of cause and effect?" (p. 207). Human & Environmental Security: An Agenda for Change makes it clear that in the 21st century, this may not be an option, but a necessity.

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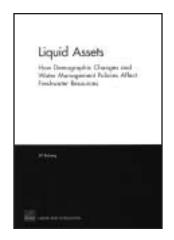
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Liquid Assets: How Demographic Changes and Water Management Policies Affect Freshwater Resources

By Jill Boberg Washington, DC: RAND Corporation, 2005. 124 pages.

Reviewed by RUTH MEINZEN-DICK



Ruth Meinzen-Dick is a senior research fellow at the International Food Policy Research Institute (IFPRI) in Washington, D.C., where she conducts research on water policy, property rights, and collective action. She has published more than 70 journal articles and book chapters, as well as 10 books and monographs, including Negotiating Water Rights (Vistaar and Intermediate Technology Publications, 2000) and Water Rights Reform: Lessons for Institutional Design (IFPRI, 2005).

Water scarcity and "water wars" are increasingly common topics in the popular media and academic discourse. The logic seems straightforward: Freshwater resources are finite; people need water for a variety of productive and consumptive uses, so rising populations will put more pressure on limited water supplies. Liquid Assets by Jill Boberg examines the relationships between demographic change and water scarcity, and finds that the links are somewhat more complex.1 In addition to population growth, urbanization and economic development also affect water demand, and there are a range of options to augment supply and manage demand. The factors Boberg identifies are not new, but she pulls together evidence from a wide range of sources to address different aspects of water supply and demand.

The range of topics and sources in *Liquid Assets* is both an advantage and a disadvantage. The reference list includes many well-known authorities on water and population data, as well as a number of interesting articles. However, Boberg gives each only a passing reference, without delving deeper into important

issues, such as how a particular aspect was measured. She acknowledges that measures of water availability and use are complex, but then mixes figures on quantities of water availability, withdrawals, and use in a way that is often misleading. For example, a discussion of the effect of household size on domestic water use cites a study in Australia that "found that the household water budget (milliliters per capita) decreases with increasing household size... from about 1.1 ml per person for a one-person household to 0.5 ml per person for a seven-person household." A closer look at the source article (Lenzen, 2002) indicates that this has little to do with domestic water use: The water budgets include the water used to produce everything the household consumes. Further, Boberg has converted ML (million liters per capita) to milliliters, which are thousandths of a liter-it would be amazing if people could live on that small amount of water for even a day. Such serious errors raise the question of whether the author understands the source material.

From the fragmentary evidence presented in the book, the reader does not get a sense of the magnitude of the effects of the factors cited. For example, the author emphasizes household size as a factor in water demand, but devotes relatively little attention to the effects of rising income and consumption patters, which are likely to have a much larger impact. Many of the water supply and demand factors cited in *Liquid Assets* are also covered by Rosegrant, Cai, and Cline (2002)—a source that Boberg seems to have missed. But Rosegrant et al. go a step further and build a model to assess which policies would help reduce the impact of water

scarcity, and point to hotspots of water scarcity in the important food-producing basins of China, India, West Asia/North Africa, and the western United States.

Although Liquid Assets aims to go beyond simplistic analysis, it ends up perpetuating a number of water myths. For example, the book discusses the "inefficiency" of irrigation, arguing that reallocating a small percentage of water from irrigation could meet other needs. But it does not refer to the research that demonstrates that water "losses" from one farm form a source of recharge for other water users in the basin, and hence basin-level efficiencies are much higher (Seckler, 1996). Furthermore, meeting growing urban and industrial water demands is rarely a matter of transferring a small portion of water from all irrigation, but rather a large proportion of the water from some farmers and some communities, disrupting livelihoods and provoking social and political repercussions.

Boberg discusses watershed rehabilitation as one response to water scarcity, but focuses on reforestation. But Swallow, Garrity, and van Noordwijk (2001) point out that deforestation does not reduce water flows: Trees use more water than other kinds of vegetation. Thus, South Africa's "Working for Water" program invested considerable effort to remove exotic tree species from the watersheds. It is not, as Boberg states, that "the long-term benefits of nonuse or rehabilitation fare poorly against short-term political or human goals," but that there is a mismatch between those who bear the costs and those who are likely to derive the benefits (p. 67).

The book's discussion of privatization as a demand management response follows the common problem of conflating private *owner-ship* of the water resources with private sector *involvement* in domestic water supply deliveries. Here, as in other places in the book, the lack of attention to the political sensitivities regarding water is a serious shortcoming.

Finally, the book includes a number of interesting tables and graphs of water use data. Unfortunately, a mismatch between the book's Figure 3.1 and the original data in the cited source makes me dubious of any data as pre-



Between the faulty data and misleading interpretations, *Liquid* Assets' greatest value lies in the reference list.

sented in this book. Between the faulty data and misleading interpretations, *Liquid Assets'* greatest value lies in the reference list. But this is hardly a reason to acquire the volume, especially in view of the many other sound sources on water and demographics available for both specialized and general audiences.

Note

1. Available online at http://www.rand.org/pubs/monographs/2005/RAND_MG358.pdf

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The Political Economy of Global Population Change, 1950-2050

(Supplement to Population and Development Review, Volume 32, 2006) Edited by Paul Demeny and Geoffrey McNicoll New York: Population Council, 2006. 288 pages.

Reviewed by JENNIFER DABBS SCIUBBA

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Paul Demeny
Geoffrey McNicoli
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Political Economy
of Global
Population Change,
1950-2050

In a 1950 edition of *The Saturday Evening Post*, Peter Drucker asked: "Are we having too many babies?" According to Drucker, earlier population experts would have been considered mad if they had predicted that there would be 152 million Americans in 1950—and even more foolish for saying that by 2000 there would be 300 million Americans (we now know that this milestone was only six years off these projections). Drucker's article points out that assuming linear population trends in isolation from other factors will inevitably lead to embarrassment. One of the reasons that demographers in the first half of the 20th century incorrectly projected world population in 1950 was that they failed to account for how the political dynamics leading up to the mid-century mark would affect fertility patterns.

Having heeded this warning, Paul Demeny and Geoffrey McNicoll compiled articles from noteworthy social scientists in *The Political Economy of Global Population Change, 1950-2050* to give readers a view of population in the wider political and economic context. By focusing on this theme, rather than on the population projections themselves, the volume is likely to survive scrutiny by Drucker's equivalent should researchers revisit it in 2050.

The central question in Demeny and

McNicoll's book, published as a supplement to the journal *Population and Development Review* (*PDR*), asks: What is the fate of worldwide economic prosperity and how are political scenarios likely to play out? Even though economic and political changes may derive from population changes, the editors recognize that answering this question will require a wider group of scholars than population experts. At heart, the collection argues that demography is not necessarily destiny.

While including the broader context is a noble goal—one that is for the most part achieved—the articles within The Political Economy of Global Population Change do not contain much new information or even new views on old subjects. The supplement mainly reviews the general consensus on specific population issues, including chapters on major trends, like urbanization, and on the most popular (and thus most frequently analyzed) regions in population studies: Europe, Africa, China, and India. By focusing on only these four areas, Demeny and McNicoll miss an opportunity to say something new about regional population. For instance, demographic scholars continue to overlook Latin America, despite its growing ideological and resourcebased power. Its neglect here is unjustified.

The first chapter, "World Population 1950-2050: Perception and Response," in which the editors review some of the major developments in population policy in the United Nations and national agendas, is a bit confusing and often redundant. There are better and more succinct reviews of the history of population policy.

More useful is David Coleman's article on Europe's demographic future, which looks at viable measures European states can take to mitigate economic problems commonly associated with population. He argues that demographic challenges are only a piece of Europe's future problem—the continent already faces numerous institutional challenges that are potentially more hazardous to its economic health. He recommends improving the actual support ratio-i.e., reforming labor markets to bring more latent laborers into the workforce (p. 76); moderating the financial burden of the pay-as-you-go system (p. 78); and investing in improving worker productivity (p. 79). Coleman shows that demography is not a trend in isolation—other factors, such as institutions, are also important. He reminds us that looking at population statistics alone gives an incomplete picture of the future. Another strength is Coleman's reserved view on the potential effects of Europe's population decline. While some more alarmist authors write of the "baby bust" or "gray dawn," Coleman logically demonstrates that population aging may not be as crippling to European economies as these authors suggest because European economies have continued to grow despite already declining worker-to-pensioner ratios (p. 76).

While Christopher Clapham's chapter on Africa is fairly routine, he does offer the fresh view that worries over a continued population boom in Africa are unfounded. He says: "The broad conclusion to be drawn from the HIV/AIDS trajectory is that the problems associated with population increase in Africa are likely to be significantly less than has commonly been assumed, whereas the problems associated with population distribution and economic development are likely to be significantly greater" (p. 109). This argument suggests that development strategies that focus on reducing fertility are incomplete. Clapham's argument supports the volume's theme that demography is not destiny and reminds us that politics which in its most basic form is about the distribution of power and resources—has played a leading role in Africa's devastating decline.



What is the fate of worldwide economic prosperity and how are political scenarios likely to play out? Even though economic and political changes may derive from population changes, the editors recognize that answering this question will require a wider group of scholars than population experts. At heart, the collection argues that demography is not necessarily destiny.

Like Clapham's chapter, Eduard B. Vermeer's piece on China is unsurprising, yet thorough. His discussion of gender in China provides a counterpoint to common demographic analyses of the issue, which warn of the likely negative effects of China's gender imbalance (see, e.g., Hudson & den Boer, 2004). Vermeer is more optimistic; he argues that the Communist Party's emphasis on gender equality during its earliest days in power has left a positive legacy in China, where employment is fuller than in other developing (and even developed) states—in 2004, women comprised 45 percent of China's workforce (p. 116).

One of the more unique sections of the collection is Deepak Lal's chapter, which approaches India's demography from a cultural perspective. He argues that India's large population is a blessing, as it is likely to weather the demographic changes of the next 50 years much better than its peers: "[T]he problems of pensions and healthcare for the aged, which are increasingly facing the West and China, are unlikely to be a problem in India, given its shame-based culture and the continuing hold of its traditional cosmological beliefs, which

require the care of the aged within the extended family" (p. 173).

Lal seems to forget that culture changes over time, and much can happen between now and when India begins to age. For centuries, life expectancy in India was low due to diet, climate, and disease, so extended care for the elderly and the costs associated with chronic disease are new challenges. In arguing that India's cultural norms will reduce the burden of caring for the elderly, he neglects to mention that Confucian culture in China, which overtly emphasizes elder care, has not prevented China from facing challenges associated with its soonto-be rapidly aging population. Japan also has a long-standing tradition of elder care—and even a shame-based culture—and yet is still struggling to balance care for its aged with other economic and social goals.

Finally, J.R. McNeill's chapter on the relationship between population and the environment reminds us to be cautious when drawing conclusions about the relationship between these variables in the future. McNeill aptly points out two major uncertainties: technology, which he says is unpredictable in both its timing and effects; and politics, especially in the arenas of energy and the environment (p. 195-196). To this I might add economics, specifically the commodification of the environment and the role of hedge funds, which have recently had destabilizing effects on the price of oil.¹

Overall, *The Political Economy of Global Population Change* is useful for reminding us that we must consider the context within

which demographic trends take place when extrapolating from them. While not essential reading for those well-versed in population studies, this supplement would be useful for policymakers seeking to understand the role of demography in the wider politico-economic sphere, or for scholars new to population studies. Those concerned with development and population policy would benefit most. While the editors do not directly answer the question that framed the book-what is the fate of worldwide economic prosperity and how will political scenarios play out?-they do convince readers to consider the role of social, economic, and political institutions when discussing the demographic future.

Notes

1. The role of hedge funds could have an effect because analysts are already expecting developing countries with large populations to have an effect on markets, and this anticipation is reflected in current investment behavior.

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State of World Population 2005: The Promise of Equality: Gender Equity, Reproductive Health and the Millennium Development Goals

By United Nations Population Fund (UNFPA) New York: UNFPA, 2005. 128 pages.

State of World Population 2006: A Passage to Hope: Women and International Migration

By UNFPA

New York: UNFPA, 2006. 108 pages.

Reviewed by JENNIFER W. KACZOR

At the 2000 Millennium Summit, the largest gathering of world leaders in history adopted the UN Millennium Declaration, setting a series of specific targets now known as the Millennium Development Goals (MDGs). To be met by 2015, the goals include reducing extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria, and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

The 2005 edition of UNFPA's annual State of World Population report, The Promise of Equality: Gender Equity, Reproductive Health and the Millennium Development Goals, argues convincingly for linking increased access to reproductive health to achieving the MDGs.1 When the MDGs were first announced, critics from the reproductive health community decried the lack of an indicator for increasing access to family planning. Given the general environment of "summit fatigue," the political environment in the United States, and attitudes in some developing countries toward contraception, MDG planners did not add a family planning indicator to avoid losing support. In its wake, the family planning community produced a hailstorm of reports demonstrating that investments in family planning were integral to **Jennifer W. Kaczor** was program associate for the Environmental Change and Security Program at the Woodrow Wilson Center from 2001-2005.

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achieving the MDGs.

UNFPA's 2005 report synthesizes this research. In addition to family planning, *State of World Population 2005* explores a wide range of reproductive health issues and their relationship to achieving the MDGs. The report includes material from many sources; little is new, but this synthesis offers a valuable resource for professionals looking to write briefs on the issue.

The nine chapters cover a grab-bag of reproductive health issues, including: human rights and reproductive health; improving maternal health, ending gender-based violence; adolescents and reproductive health; increasing men's involvement in reproductive health; and improving reproductive health care in humanitarian crises. The report's "Overview" succinctly lists the links between each MDG and reproductive health in an easy-to-read chart (pp. 6-7). "Partnering With Men" highlights innovative programs, including HIV prevention and education projects in developing-country militaries and workplaces, as well as leadership programs that encourage both young and old men



The report correctly calls for using a tandem approach of working within gender norms while educating both men and women on the importance of women's equality, especially in the areas of education and economic opportunities.



to educate their families and communities. The report correctly calls for using a tandem approach of working within gender norms while educating both men and women on the importance of women's equality, especially in the areas of education and economic opportunities. "Strategic Investments" provides an excellent synthesis of research demonstrating the importance of investment in increased access to reproductive health care (including family planning), as well as in girls' education and economic opportunities for women. Although not news to the development community, this well-written section is useful for those unfamiliar with the topic.

The importance of economics and strategic investment continues in the 2006 State of World Population report, A Passage to Hope: Women and International Migration.² This edition tackles another politically volatile topic: international

immigration. In five chapters the report lays out global migration patterns and women's participation in these movements, in both developed and developing countries. After providing data illustrating the "feminization of migration" (p. 23), other chapters examine the exploitation of women and girls due to trafficking and domestic work, explore the situation of female refugees and asylum-seekers, and discuss migrants' human rights. To their credit, the authors do not attempt to take sides in the immigration debate, but instead synthesize research showing both the pros and cons of migration. They pay special attention to busting myths by providing evidence, for example, that immigrants do not drain social services at a significantly higher rate than natural-born citizens.

The most interesting part of the report focuses on the differences in remittances—money sent back to home countries by immigrants—by age and gender, finding that women tend to remit the most money to their home communities. As developed countries debate immigration in the domestic arena, remittances are clearly an important part of "development aid." By tightening immigration, developed countries could be undermining an existing development strategy.

While sprinkled with examples of successful programs that improve health, reproductive health, and economic situations for migrant women, the report's density of information makes these success stories hard to find. Thus, *State of World Population* 2006 could benefit from an executive summary to avoid turning off busy policymakers.

Notes

- 1. Available online at http://www.unfpa.org/upload/lib_pub_file/493_filename_en_swp05.pdf
- 2. Available online at http://www.unfpa.org/swp/2006/pdf/en_sowp06.pdf

States, Scarcity, and Civil Strife in the Developing World

By Colin Kahl
Princeton, NJ: Princeton University Press, 2006. 352 pages.

Reviewed by PATRICIA KAMERI-MBOTE

The link between environment and conflict has been largely established. As stated by the UN Secretary-General's High-Level Panel on Threats, Challenges, and Change in its 2004 report A More Secure World: Our Shared Responsibility, "We know all too well that the biggest security threats we face now, and in the decades ahead, go far beyond states waging aggressive war. They extend to poverty, infectious disease and environmental degradation..." (p. 1). But the role of rapid population growth in conflict is not nearly as well-recognized at high levels, despite a growing body of literature that seeks to incorporate population growth into the linkages between environmental degradation and conflict.

Colin Kahl's States, Scarcity, and Civil Strife in the Developing World is an excellent contribution to this literature. Kahl begins by examining existing theoretical perspectives on the connections between demographic and environmental changes in the context of developing countries that have experienced civil strife (most apparently driven by political imperatives). Starting with neo-Malthusian arguments that population growth will lead to deprivation and political upheaval, he examines theories ranging from the "honeypot" hypothesis, where abundant natural resources drives predatory violence; to "Dutch disease" or the "resource curse," which links resource abundance to economic vulnerability and corruption; and "rentier states," where elite control of resources and inequitable distribution of entitlements can engender rebellion.

But Kahl argues that these theories do not incorporate the ways in which the dynamics of state failure and state exploitation mediate the linkages between conflict and population, enviPatricia Kameri-Mbote is a law researcher and teacher based in Nairobi. She is chair of the Department of Private Law at the University of Nairobi, and program director for the International Environmental Law Research Centre in Nairobi. She has also served as director of research at the African Centre for Technology Studies, Nairobi. She was the first chair of the Kenya Nile Discourse Forum, a network of civil society organizations working with other national discourse forums in the Nile River basin to influence development of projects and programs under the Nile Basin Initiative and other Nilerelated programs. She was an Open Society Institute Africa Policy Scholar at the Woodrow Wilson Center in 2006.

ronmental degradation, and unequal resource distribution. He makes a compelling case for analyzing conflicts more incisively, even when demographic pressures and environmental degradation are evident. Indeed, he amply demonstrates that while demographic and environmental stress (DES)—a composite variable encompassing rapid population growth, environmental degradation, and unequal distributions of renewable resources—can be a powerful cause of civil strife in developing countries, it does not occur in a vacuum. Between DES and civil violence lie critical intervening variables, he argues: group identification (dubbed "groupness") and non-inclusive institutions.

Kahl uses case studies of the instability in the Philippines (1970s/80s) and Kenya (1990s) to illustrate the role of groupness and institutions in shaping the nature, direction, and magnitude of conflicts. He argues that allegiance to ethnic,





While demographic and environmental stress (DES)—a composite variable encompassing rapid population growth, environmental degradation, and unequal distributions of renewable resources—can be a powerful cause of civil strife in developing countries, it does not occur in a vacuum.

religious, and class groupings is critical in the formation of conflict groups, and that non-inclusive institutions—especially in weak states—shorten the conflict continuum by limiting decision-making power to elites. According to Kahl, Kenya was an exclusionary state with a high degree of uneven groupness, creating incentives and opportunities for state elites to exploit the country's natural resource scarcities, thus engendering civil strife.

The dynamism of civil strife situations in developing countries is perhaps the biggest

challenge for Kahl's work. DES may only lead to localized violence; explaining sporadic violence in different parts of a country requires the identification of other intervening variables. While the conceptual value of this book is clear, the temporal context of the chosen case studies limits the application of his arguments to the specific periods under examination. For instance, Kenya has experienced violence in diverse parts of the country attributable to both DES and poverty since this work was completed, including conflicts over water in Mai Mahiu; over pasture in northeastern Kenya; and over land in parts of the Rift Valley. In Nairobi, militias have been fighting to control the slums outside of the formal government structures, instituting their own forms of government and exacting taxes on residents ("Thousands flee," 2006). In these cases the intervening variable of group identification is less compelling because want and deprivation overpower the allegiance to ethnic groupings and political party affiliations that were more evident in the clashes in the 1990s.

Despite this limitation, States, Scarcity, and Civil Strife in the Developing World is an important step toward improving our understanding of the demographic and environmental linkages to conflict, and is of great conceptual value to academics, policymakers, and researchers interested in raising the level of this growing field.

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http://www.un.org/secureworld/report2.pdf "Thousands flee their homes as slum death toll goes up." (2006, November 9). *Daily Nation*, p.1.

Trans-boundary Water Co-operation as a Tool for Conflict Prevention and Broader Benefit Sharing

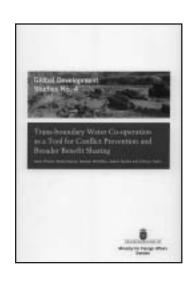
By David Phillips, Marwa Daoudy, Joakim Öjendal, Stephen McCaffrey, and Anthony Turton Stockholm, Sweden: Ministry for Foreign Affairs, Sweden, 2006. 250 pages.

Reviewed by SHLOMI DINAR

While Trans-boundary Water Co-operation as a Tool for Conflict Prevention and Broader Benefit Sharing considers several issues, including the link between international water law and water and security, it investigates two main points: (1) the role of benefit-sharing in transboundary water cooperation; and (2) the use of such cooperation as a tool for broader conflict prevention.1 These two important pillars in the study of transboundary water help us understand conflict and cooperation over freshwater and promote better international policies such as mediation and financial assistance. The report focuses on three basins: the Jordan River, the Kagera River (along with the Nile River), and the Mekong River. In these case studies the authors consider not only some of the basin-related affairs but also joint water management scenarios as regional development efforts. To assist academics and policymakers in analyzing benefit-sharing opportunities, the authors propose a model that includes environment, economic development, and security parameters, which is dubbed Inter-SEDE for its three drivers.

Inter-SEDE is perhaps the authors' principal contribution to the literature. The model provides an interesting method for examining the potential for development—and hence prospects for benefit-sharing—in the basins under investigation. The model can be used to compare basins according to security, economic, and environmental indicators. In addition, the model can shed light on intrabasin opportunities for trade-offs. For example, particular indicators might be more important to some riparian states (nations bordering a river) than others, providing

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prospects for linking issues when negotiating a water regime. From this, analysts, donor agencies, and governments can glean the severity of the region's security-related problems, the degree of poverty and development potential in the basin, and current and future ecosystem conditions. International agencies and states can likewise use the model to tailor their aid programs in a given basin.

The model deserves some scrutiny. About 40 percent of the authors' indicators and their associated rankings (bands) are qualitatively derived, even though quantitative data is available for a number of these indicators, such as governmental stability and water quality. Since they are based on interpretation, rather than actual measures, these indicators may be problematic or inaccurate. Similarly, the statistical justification and thresholds used to rank both qualitative and quantitative indicators are not clear. The model's design provokes other questions. For example, did the authors use specific time periods when deriving the quantitative and qualitative valuations for each country? Did they then calculate averages? How were the qualitative indicators developed and subsequently divided into bands?



Benefit-sharing epitomizes the interdependencies that characterize river basins. Cooperation can be sustained if all parties have incentives.

The Case Studies

In their discussion of the Jordan River basin, the authors correctly assert that the broader political conflict has retarded greater regional cooperation on water. However, they overlook Israel's recognition of Palestinian water rights and the principle of equitable allocation in the 1995 Taba Agreement (likewise, the Palestinians recognized Israel's water rights in 1995). In addition, both parties agreed that final water allocations would be part of a comprehensive settlement.

Israel's current desalination projects are directly related to its negotiating stance. Israel has long realized that to reach an equitable and reasonable solution to the water dispute with the Palestinians, it would have to transfer additional water supplies to the Palestinians from the Mountain Aquifer and Jordan River. Israel sees desalinated water as a way to compensate its water supply. The Palestinian negotiating position has likewise evolved. The Palestinians realize that desalination will be necessary to augment any of their future water needs. While the 2000 Camp David talks did not reach a final agreement, the negotiations reveal a framework and specific details for a permanent solution to the water dispute, which will likely be the basis for future negotiations.²

The understanding reached in 2000 included benefit-sharing arrangements, such as water importation by Israel and the use of recycled wastewater and water quality protection measures. The parties agreed that the United States and the international community would lead efforts to secure funds to carry out the water augmentation and wastewater projects for the parties' mutual benefit (Dinar, 2003, pp. 212, 224).3 Other items included a joint mechanism for coordinating cooperation, joint monitoring mechanisms, and water and wastewater infrastructure that crosses through the territory of the other party. In light of these arrangements, the authors' proposal for the allocation of the regional water resources in the basin is especially relevant.

The authors correctly observe that the Kagera River basin has a history of regime creation and institutional development that could form a valuable foundation for future benefitsharing scenarios, especially in the larger Nile River basin. However, despite efforts by the Nile Basin Initiative, the issue of water allocation and its equitable utilization has hindered productive discussions of benefit-sharing. Nonetheless, there are several opportunities not only to increase the amount of water available in the greater Nile basin—and perhaps pave the way for some sort of a water allocation agreement—but also to create additional benefits for the basin's members. In this case, as in the Jordan River, third parties may need to offer sufficient inducements for the riparian states to consider the advantages of a more equitable water allocation agreement and to help sponsor benefit-sharing projects.

Compared to the other river basins explored by the authors, benefit-sharing schemes in the Mekong basin are well-developed. While they hail the negotiations of the 1995 Mekong River Committee Agreement as an example of successful coordination among the Lower Mekong basin states, the authors caution that this agreement is incomplete without the involvement of upstream China—which is already making demands on the river that may alter original arrangements—and

Burma (Myanmar). The participation of these two countries is crucial for optimizing flow allocations, creating broader benefits such as hydropower, and maintaining the natural flow regime (which may affect fisheries and agriculture downstream). The authors' emphasis on trade-offs and issue-linkages to promote coordination and compromise among upstream and downstream states is, therefore, particularly germane.

As the authors rightly indicate, the concept of benefit-sharing is not novel (p. 139). While scholarship only recently began to investigate issues other than water allocation (such as hydropower generation, flood prevention, pollution control, environmental stewardship, and sustainable development), states have long been cooperating on these issues. The authors correctly call for additional investigation into benefit-sharing, especially as it relates to cooperation over water and broader conflict prevention. Benefit-sharing epitomizes the interdependencies that characterize river basins. Cooperation can be sustained if all parties have incentives. While some factors may make cooperation difficult (e.g., a broader protracted conflict or heavily securitized regional hydropolitics), as the report's examples of actual benefit-sharing agreements indicate, the concept creates a good focal point for facilitating negotiations (p. 138).

The authors' Inter-SEDE model clearly demonstrates that each river basin has distinct characteristics and that benefit-sharing plans should take these differences into account. While it is true that each river basin is unique, we can garner general lessons from panaceas already in place and apply them to other basins. In general, resolutions to particular disputes have been codified in the form of international freshwater agreements, many of which confirm benefit-sharing schemes.⁴ Specifically, benefitsharing agreements between upstream and downstream states have often awarded compensation for benefits created downstream due to upstream projects or actions (Dinar, 2006, 2007). Such a solution could be applied in other similar situations.



Any solution to the water dispute that ignores the core issue of water allocation or availability will hinder any viable solution to the water conflict, in particular, and the overall dispute, in general.

The Spillover Effect

The report investigates water cooperation as a tool for broader conflict prevention (the "spillover effect"), claiming that it is a "two-way street" (p. 209). Cooperation in the water arena enhances cooperation in other interstate arenas. If successful, cooperation through benefit-sharing not only creates trust that may be elevated to the broader political arena but, more importantly, can be used as a tool for economic development and subsequent regional integration (as in the Kagera and Mekong basins). Similarly, cooperation in the larger political arena (i.e., "high politics") enhances cooperation in the water arena ("low politics").

On the other hand, the authors' examples seem to confirm Miriam Lowi's (1993) claim that when a water dispute unfolds within a more comprehensive political conflict (e.g., one fought over identity, territory, or religion) the former cannot be effectively isolated from the latter. This dichotomy is especially salient in the Jordan River basin. Despite attempts to increase water availability and de-securitize the relationship among riparians, the water issue is often held hostage to broader, more sensitive issues. As the draft water agreement of the failed Camp David negotiations reveals, the parties were able to agree on several important items and would have most likely continued to negotiate on more touchy issues related to the water dispute. In comparison to the more protracted issues (e.g., Jerusalem,

territory, and refugees), the negotiations pertaining to water were noteworthy but nonetheless hampered by the larger conflict.

In general, where a protracted dispute characterizes a relationship, spillover from the low-politics to the high-politics arena is hindered. However, any solution to the water dispute that ignores the core issue of water allocation or availability will hinder any viable solution to the water conflict, in particular, and the overall dispute, in general. As such, the authors' emphasis on augmenting water availability is significant. International financial institutions and interested governments can play a vital role in helping to finance these water supply projects.

Conclusion

In summary, two points in the report merit mention. First, the authors stress that recent work on benefit-sharing has "axiomatically accepted the concept of equitable use" and "fails to take account of relative power in the international sphere" (p. 53). This observation is important, since a benefit-sharing agreement may embody a cooperative breakthrough between riparian states (implicitly affirming the equitable utilization principle) but at the same time provoke criticism by some members that the basin's dominant state has overwhelmingly benefited. For example, while many of the water agreements between India and Nepal have promoted benefit-sharing, they have been heavily criticized by Nepal for favoring India. That being said, a large number of agreements between asymmetric riparians have provided substantial benefits to the weaker/poorer state (Dinar, 2006, 2007).

Second, the authors admit that while benefit-sharing and equitable allocations of water (which are the main subjects of dispute in two of the three case studies) are not mutually exclusive, the basin members must agree on water allocation to provide an appropriate basis for sharing benefits. However, we must remember that benefit-sharing often requires coordinated action among all the concerned parties.

Therefore, riparian states not receiving an equitable share of water from the river will have little desire to engage in benefit-sharing projects that would benefit the basin's most powerful state, which is presumably in the best position to sanction a more equitable water allocation agreement. In essence, if the benefits are relatively lucrative, the powerful state will not be able to attain them without a more equitable water allocation agreement. Hence, the role of international financial organizations and governments as mediators is crucial, and the authors' focus on these intermediaries, and prescription for action, is a welcome contribution.

Notes

- 1. Available online at
- http://www.egdi.gov.se/pdf/44699_om_web.pdf
- 2. The text of the agreement is available in Sher (2001, pp. 433-435) and was translated in Dinar (2003, pp. 224-225).
 - 3. See also Reidel (2002).
- 4. See, for example, the highly authoritative *Atlas of International Freshwater Agreements*, available online from Oregon State University at http://www.transboundarywaters.orst.edu/publications/atlas/

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The Winds of Change: Climate, Weather, and the Destruction of Civilizations

By Eugene Linden

New York: Simon & Schuster, 2006. 320 pages.

Security and Climate Change: International Relations and the Limits of Realism

By Mark Lacy

London: Routledge, 2005. 164 pages.

Reviewed by JOSHUA BUSBY

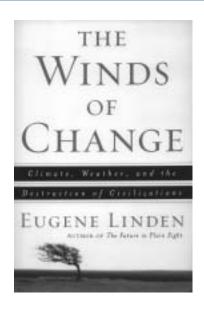
Eugene Linden's *The Winds of Change* provides a nuanced rendering of the complexities of climate science for non-experts. Linden, an experienced environmental writer who contributed to *Time* for many years, deftly synthesizes and summarizes the findings of the scientific community to build a convincing case that abrupt changes in climate have historically been one of the major causes of the decline of civilizations. In so doing, Linden shows a flair for popular science writing on par with Malcolm Gladwell and the late Stephen Jay Gould.

Readers familiar with Jared Diamond's work may find more than a passing similarity between this book and *Collapse* (2005). Linden's chapters on Greenland and the Mayans pursue similar substantive terrain, though Diamond's culprit is environmental degradation rather than variations in temperature and rainfall. It was thus surprising that Linden barely mentions Diamond's work. Given that both books deal with some of the same subjects, yet derive fairly different interpretations of why, for example, the Norse disappeared from Greenland in the 14th century, Linden could have addressed Diamond's thesis more directly.

Drawing on foundational research from numerous disciplines, Linden's book describes the tortuous process by which new scientific ideas overturn conventional wisdom. He portrays the scientists who recognized that natural variations in weather patterns had caused civiJoshua Busby is a postdoctoral fellow and lecturer at the University of Texas-Austin's LBJ School of Public Affairs. He is currently working on a book manuscript titled States of Grace: Moral Movements and Foreign Policy. Busby was previously a postdoctoral research fellow at Princeton's Woodrow Wilson School and at Harvard's Belfer Center for Science and International Affairs. In 2003-2004, he served as a research fellow at the Brookings Institution in the Foreign Policy Studies program.

lizations to collapse as fighting an uphill battle against an entrenched multidisciplinary antipathy to environmental determinism. It is thus somewhat ironic that Gladwell (2005), in his *New Yorker* review of *Collapse*, writes that "the disappearance of the Norse settlements is usually blamed on the Little Ice Age...what one archeologist called the 'It got too cold, and they died' argument." Linden's thesis, while significantly more nuanced, ultimately attributes the Norse disappearance to the Little Ice Age. Will the true conventional wisdom please stand up?

Given the complexity of weather systems, Linden makes a powerful case that we toy with them at our peril. However, the historical cases he describes turn local populations into largely passive victims of natural phenomena. He wants to demonstrate that these forces can be so large and sudden that they swamp human ability to adapt. At the same time, he wants us to





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believe we possess sufficient agency to stave off climatic changes wrought by greenhouse gas emissions. While we may be capable of unintentionally altering natural climate patterns, Linden's book left me less sanguine about our ability to deal with the climatic changes we have unwittingly brought upon ourselves—although the history of human ingenuity gives me some cause for optimism.

Linden's book also raises other questions. Suppose climate scientists could say with conviction that the Little Ice Age would return as a result of natural cycles. Would Linden encourage us to inject more greenhouse gases into the atmosphere to stave off this existential threat? Should we care only about warding off human-induced climate change or also natural climate variation?

In the book's later chapters on climate policy and politics, Linden begins to shed the even-handed approach that characterizes the more persuasive earlier arguments. He launches a sweeping broadside against industry and government and suggests that dealing with climate change is not as hard as climate skeptics make it out to be. In one of his less inspired passages, Linden writes:

While there is resistance to taking action to reduce greenhouse emissions, both industry and government are both more open to programs to either extract carbon from the atmosphere or adapt to climate change once it comes. On the surface, this makes no sense; it is the same as arguing that the best way to deal with someone ingesting arsenic would be to continue to give them arsenic but try to provide them with an antidote as well. From the logic of greed, however, the approach makes perfect sense. (p. 264)

Both carbon capture and adaptation make sense when you look at the projections for energy demand, greenhouse gas emissions, and the growth of renewable energy sources. Given China's construction boom in new coal-fired power plants, carbon capture will be necessary to mitigate climate change. Moreover, with the amount of CO₂ in the atmosphere, some warming is going to happen, and adaptation will be needed to avert human and economic costs. While much of industry probably deserves the caricature Linden draws, I was disappointed that he abandoned the subtlety of his earlier chapters. Fortunately, this is but one chapter of an otherwise very good book.

I had some other minor quibbles. The book labors a bit in the middle where Linden retreads earlier material on Greenland and Syria to discuss the difficulty of finding reliable proxies in mud and ice for tracking historical temperature and precipitation trends. While the charts and graphs that open each chapter are helpful, I wanted more illustrations, particularly in later sections that describe yet another complex clockwork mechanism of underwater currents and wind patterns. I was particularly intrigued by one illustration: Linden's chapter on the "Tide of Public Opinion" opens with a chart tracking the rising scientific certainty about climate change amid more indifferent public opinion from the 1980s to 2005 (p. 219). This chart may have some foundation in reality, but as a social scientist, I worry that he generated it out of thin air. Finally, the chronology that appends the book gives the false impression that all of the major weather events of the past 20 years are linked to the same phenomenon namely, anthropogenic climate change.

Security and Climate Change

If Linden's book is a well-written, largely thoughtful treatment of the complexities of climate science, Mark Lacy's book *Security and Climate Change* is its antithesis. It poses as postmodern critical theory, attempting to insert the author as a revolutionary in a grand narrative of scholar-activists arrayed against the forces of darkness. In this world, the "Realist" school of international relations theory is the enemy.

Realists (and I am not one) are pessimistic about the possibilities for progress on the world stage. Contemporary realists believe that the absence of an overarching world government creates powerful incentives for states to be

preoccupied with their own security. Lacy sees this narrow-minded view as a major limitation on our ability to imagine a more humane and just world. He not only thinks realists are wrong, but also that they dangerously legitimize the exercise of state power in ways that support war. I find this perspective to be a tired recycling of 1960s radical chic, the text adorned with numerous references to Zygmunt Bauman, Paul Virilio, and other theorists.

Lacy's discussion of climate change is almost an afterthought. At times, the topic is a prop in his larger project to dethrone realism and attack John Mearsheimer, whom Lacy takes to be the apotheosis of realism. Lacy links realists, and Mearsheimer in particular, to "a broader network of free-market think tanks, industry 'front groups' and conservative commentators" (p. 26). He suggests he is not creating a conspiracy theory but showing how these groups are mutually reinforcing. This Chomskyesque oversimplification is the most egregious demonstration of intellectual sloppiness in Lacy's book—and similar to the problem that plagued Mearsheimer himself in a co-authored piece on "The Israel Lobby" (2006).

Lacy suggests that Mearsheimer's brand of realism, which views the Iraq war as contrary to the national interest, is part and parcel of the military-industrial-complex, war-machine mentality that keeps people in a state of fear and issues like climate change off the table. He then concludes that Mearsheimer's opposition to the Iraq War is not a "significant disagreement" with the George W. Bush administration (p. 26). In this, Lacy is utterly wrong and has manufactured a seamless intellectual thread where there is actually discontinuity and difference.

Lacy chastises realists like Mearsheimer for failing to cite important critical theorists in what he calls the "underworld" of international relations. While I agree that realists are close-minded in their conceptions of security, the main reason critical theorists are slighted, in my opinion, is that their work is simply not very good.

Lacy groups all opponents of action of climate change into part of a broader "network of

Realism" that doubts climate science (pp. 35, 36). Thus, Mearsheimer gets unceremoniously lumped in with ExxonMobil and other climate naysayers. I am not sure if realists like Mearsheimer or Walt would deny that climate change is real. Knowing a number of them, I suspect that they would not argue with the science; they would argue that it is not an existential threat to great powers (and they may be right) and therefore not a security problem, at least for the great powers. Still, they might agree that it is a very important problem, as Robert Art (2003) does in his book on grand strategy.

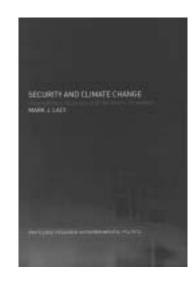
To be fair, Security and Climate Change though dressed up in rhetorical hyperbole and critical-theory speak-does make a couple of legitimate points. Lacy identifies (rather inelegantly) a contradiction in realist thought. Realism pretends to be a "descriptive" theory of how the world works but many realists also use it prescriptively to guide policymakers' behavior. Realists have also typically underplayed the importance of new security threats, in part because they are wedded to the notion that security problems come only from external armed attacks by states against other states. The terrorist attacks of 9/11 have already made this thesis more difficult to defend, as have other problems like pandemic flu. However, the task is to identify (1) what security means; and (2) the ways in which these new problems constitute security problems. A book on this topic would be worth reading, but Security and Climate Change is not that book.

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