

NEW PUBLICATIONS

The Security Demographic: Population and Civil Conflict After the Cold War

Richard P. Cincotta, Robert Engelman, & Daniele Anastasion
Washington, D.C.: Population Action International, 2003. 101 pages.

Reviewed by **JACK A. GOLDSTONE**

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The debate over the connection between population and social welfare is centuries old. Analyses of population growth's relationship to civil strife are much newer, but still span several decades.¹ It is therefore striking that Richard Cincotta, Robert Engelman, and Daniele Anastasion have developed a conceptually fresh approach—one with a surprisingly heartening view of the future.

Where most discussions of population and conflict have focused on factors like population size, growth rates, or density, Cincotta et al. argue that a country's vulnerability to conflict depends on its place in the "demographic transition." Countries in the early phases of this transition, they conclude, are most prone to civil violence; in contrast, countries that have completed the transition are more stable.

Populations are stable when birth and death rates (especially childhood death rates) are very

high. These conditions prevailed throughout most of the world before the late 20th century. Populations are also stable when birth and death rates are very low; only the most developed nations have arrived at this stage. The path taken by countries from a high birth/high death rate equilibrium to a low birth/low death rate equilibrium is known as the demographic transition.

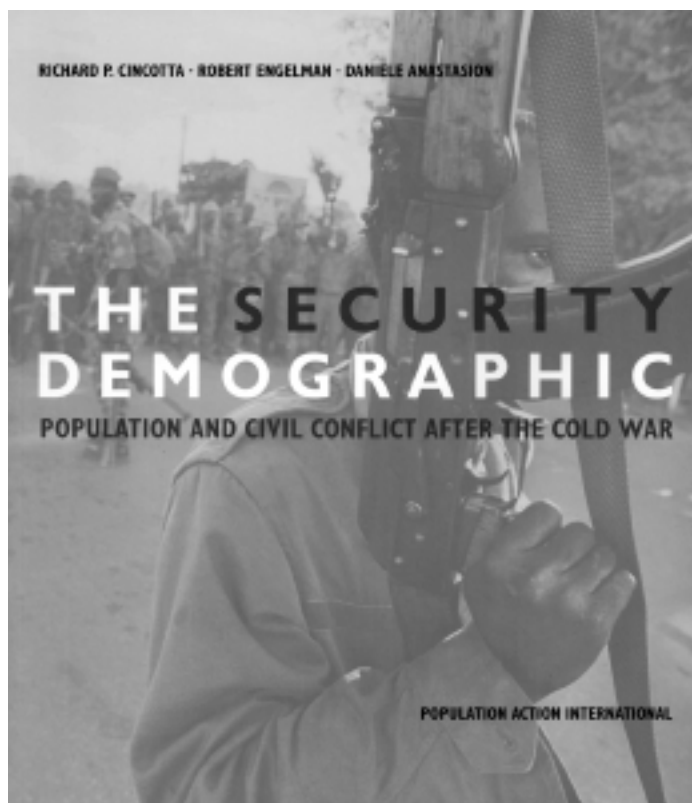
Most of the countries in Europe, North America, and Australia/New Zealand completed this transition by the early 20th century, and many of the countries of East Asia, and a few others like Brazil and Thailand, reached this stage in the last 20 years. However, most of Africa, the Middle East, South and Southeast Asia, and Andean Latin America are still in the early or middle stages of the transition.

As countries move out of the high birth/high death rate equilibrium, the death rate falls first, as improvements in public health, sanitation, and basic medicines sharply reduce child mortality from common diseases. Birth rates tend to fall later and more slowly, as societies gradually realize that children are more likely to survive to adulthood. Toward the end of the transition, families have fewer children, and invest more in each of them; these smaller families generally enjoy higher levels of nutrition, education, and opportunity.

However, in the early stages of the transition—when death rates have fallen but fertili-

ty remains high—the population grows extremely rapidly, sometimes doubling in a single generation. Population growth is concentrated among youth, since the largest component of falling death rates is reduced infant and child mortality. This creates a substantial “youth bulge”—a disproportionate share of men and women in their teens and early twenties compared to mature adults. This baby boom often outpaces society’s ability to establish and staff schools, leading to inadequate education. Job markets also fail to keep up, reducing employment and social mobility of these large and often ill-equipped youth cohorts. Young men and their families, facing shortages of cropland and water, flock to cities seeking employment, leading to an urban explosion. Thus, early transition societies often suffer from a surplus of unemployed youth, chaotic and overgrown cities, and shortages of renewable resources—the conditions, according to Cincotta et al., that make a developing society prone to conflict.

Although this is highly plausible and seems consistent with recent civil conflicts, which have mostly occurred in early and middle-stage countries, it is difficult to prove that demographic factors are really *the* causal determinant of conflict. Other scholars have argued that economic growth, stable currency, and strong investment can absorb labor surpluses and encourage people to invest in education and training; thus, strong economic performance can trump demography. In addition, good governance (e.g., low levels of corruption, stable and secure property rights) can enable societies to cope with rapid population growth, attracting investment and directing it where needed.² More negatively, a strong authoritarian government can contain social tensions and prevent civil conflict, as demonstrated by the long corrupt reigns of Suharto in Indonesia, Mobutu in Zaire, Moi in Kenya, and many others. Since the number of countries in the early or middle stages of the democratic transition with strong economies or good governance is small, it is nearly impossible to disentangle these factors through statistical analysis.



To their credit, Cincotta et al. have chosen a simple method that addresses most of these problems. It is not technically sophisticated—quite the reverse—but there are virtues in its simplicity. The authors rank all the countries by the size of their youth bulge, the rate of urban population growth, and their per capita scarcity of cropland and fresh water. Countries that rank high, medium, and low on these factors are then compared to data from the Uppsala Conflict Data Program to determine the proportion that experienced an outbreak of new civil conflict in the 1990s.³ They find that high-risk countries tend to have 1.5 to 2.3 times as many conflicts as low-risk countries. Rapid urban growth and youth bulge return the strongest correlation, while scarcity of renewable resources is a slightly weaker factor.

Critics may complain that this procedure does not adjust for economic or political institutions or performance, and that by ignoring ongoing conflicts (only *new* outbreaks of conflict in the 1990s count as evidence), the data



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disregard a substantial portion of global civil strife. All true, but Cincotta et al.'s principal finding is too strong to ignore: among 25 countries with rapid urban growth and a large youth bulge in the 1990s, 40 percent developed new conflicts during that decade, compared to only 14 percent of the 57 countries without those factors (page 73). This powerful association suggests that even if other factors play a role in causing civil conflict, they must be strongly associated with the status of the country's demographic transition.

By focusing on the position of countries along the demographic transition, rather than simply on population size, growth rate, or density, Cincotta et al. have made a major contribution to the debate on population and conflict. Their evidence—simple, but stark and stunning—demonstrates the power of the demographic transition to explain a country's vulnerability to civil violence.

As a bonus, *The Security Demographic* includes a valuable chapter on the progress of the HIV/AIDS pandemic and its likely effects on population. Unfortunately, there is not enough data from the 1990s to test the impact of AIDS on conflict (although HIV infection rates are high, mortality has only skyrocketed in the last few years), so this section is somewhat speculative. However, the authors conclude that countries with the highest rates of AIDS will likely experience more conflict, due to the loss of skilled professionals, workers, and military men in the prime of life.

This monograph is remarkably clear and easy to follow, rich in illustrative maps and graphs ideal for teaching or policy briefings. Each section concludes with a summary of key findings and policy prescriptions. It should be widely read and circulated among policymakers, as well as students studying political instability.

The authors' policy prescriptions will be familiar to those who work in the health arena, as they echo prevailing wisdom: improve education, especially for women, and increase access to reproductive health services. The report's evidence, however, gives these old recommendations new strength. The authors do not simply offer prescriptions to halt population growth (as if growth itself were a bogeyman); rather, they recommend helping countries transition to smaller families that can invest more resources in each child. This state appears to offer the greatest stability and least conflict—the “security demographic” of the title.

The Security Demographic brings us good news: as the world moves toward the end of its demographic transition, the rate of civil conflict should decline. That goal seems eminently desirable and worthy of vigorous promotion from the highest levels of government to the smallest villages.

Notes

1. For pioneering work, see Moller (1968) and Choucri (1974, 1984). More recent and detailed analyses were undertaken by Goldstone (1991, 1999) and Homer-Dixon and his collaborators (1998). The connection has also been the subject of many policy papers and briefings cited by Cincotta et al.

2. This is the “new” thinking in development economics; see Collier et al. (2003) and Acemoglu, Robinson, and Johnson (2001).

3. Visit the Uppsala Conflict Data Program at http://www.pcr.uu.se/research/UCDP/UCDP_toplevel.htm

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Cities Transformed: Demographic Change and Its Implications in the Developing World

Panel on Urban Population Dynamics, Mark R. Montgomery, Richard Stren, Barney Cohen, & Holly E. Reed (Eds.)

Washington, D.C.: National Academies Press, 2003. 505 pages.

Reviewed by **BARBARA SELIGMAN**

Prepared by the National Research Council's Panel on Urban Population Dynamics, *Cities Transformed: Demographic Change and Its Implications in the Developing World*¹ is a welcome contribution to a field sorely in need of such a synthesis. Published in 2003 after three and one-half years of deliberation, its principal observations and recommendations are carefully considered, empirically supported, and always compelling.

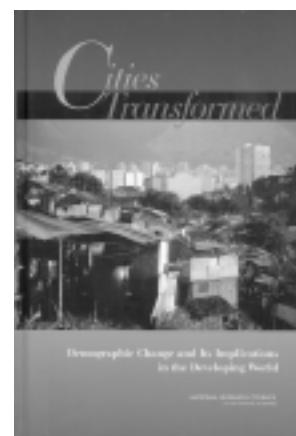
Chaired by Mark R. Montgomery, who holds appointments at both the Population Council and the State University of New York at Stony Brook, and Richard Stren of the University of Toronto, the panel prepared a comprehensive review of existing literature and data on the significance of place (i.e., theories explaining why urban areas differ from rural); the developing world's urban transition; and urban population growth, economic development, and governance. They also addressed the relative health advantages or disadvantages of urban areas, paying particu-

lar attention to reproductive issues and children's health.

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If this volume had a dust jacket, its blurb might read: "Newsflash: by 2030 most Americans will not recognize the names of the world's largest cities or of the countries they are in." According to UN population projections (notwithstanding their imperfect quality), almost all of the world's population growth in the foreseeable future will occur in urban areas of less developed countries. While the developing world, including Eastern Europe, had only 3 cities with 5 million people or more in 1950, by 2015 it will have 49—nearly 5 times as many as the industrialized world. India will have no fewer than nine of the world's largest cities. Two will be in Bangladesh, a country





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about the size of Wisconsin, with a per capita GDP of \$1,600 (Population Reference Bureau, 2003), which is unlikely to improve substantially over the projection period.

By 2025, a stunning 50 percent of Africa's population will live in cities, challenging the common wisdom that urbanization is synonymous with industrialization. While urban growth itself should not be a cause for alarm, the high rate of growth, driven by natural increases in the apparent absence of economic growth, is both a "cause and symptom of the economic and social crises that have enveloped the continent" (World Bank, 2003).

It should not be surprising, then, that the panel finds evidence—albeit slim—that the urban advantage in infant and child survival is eroding in some sub-Saharan countries. Although the data considered by the panel do not show an urban health penalty, they successfully dispel the notion that city residents always enjoy better health. In the few cases where data permit, health indicators for the poor in small towns, or other areas of spatially concentrated poverty, look as bad—if not worse—as those for their rural cousins. For example, while infant mortality rates declined in urban Kenya and in the city of Nairobi in the 1990s, they increased in rural Kenya and Nairobi's slums. The panel concludes that the "urban poor suffer from deprivations that can sometimes leave them no better off than rural residents, but generally situate them between rural residents and the urban non-poor" (page 195).

Similarly, living in the city does not significantly improve the reproductive health of poor women in urban Africa, with one notable

exception: urban residents—rich or poor—are much more likely to receive skilled attendance when giving birth. The other reproductive health indicators fail to show a clear advantage; for example, the incidence of mistimed and unwanted pregnancies is not appreciably lower in cities. In addition, data measuring the quality of reproductive health services available to the urban poor indicate that these services are just as inadequate in cities as in rural zones.

Where data allow us to look at interurban differences, they can be illuminating: cities with under 100,000 residents, for example, have the most inadequate reproductive health services. As urban populations swell in the poorest countries, we can expect that more data will challenge the assumption that cities provide better health care. Yet, without data that differentiate urban zones by size, we will not know whether such cases are exceptions or part of a larger phenomenon.

Many of the panel's recommendations concerning data and analysis merit the attention of donors and policymakers. Some appear fairly easy to implement; the panel offers several suggestions, for example, that would allow researchers to use data from the demographic and health surveys (DHS) to examine intra-urban differences. Mindful not to tax an already overburdened survey, the panel points out only a few changes that would greatly enhance the survey's ability to monitor the effects of urban growth on key health indicators. As the next generation of DHS is launched, there are encouraging signs that the panel's recommendations are being seriously considered (Jacob Adetunji, personal communication, June 2004).

The panel also addresses the growing interest in unequal access and use of health services, including reproductive health services. Without information on household income, national measures of relative wealth employ asset indices that almost always weight rural and urban residents equally. This concentrates rural residents in the poorest sections of these wealth indices; such analysis obscures useful and important spatial information.

Similarly, a single asset index does not accurately capture the relative wealth of rural popu-

lations. For example, agricultural land is often negatively weighted in asset indices because it is associated with rural areas, which are disproportionately represented in the poorest quintiles. However, agricultural land in rural areas is a wealth-contributing asset. The negative weighting of agricultural land is prima facie evidence that these asset indices do not accurately rank wealth in rural areas. This poorly understood subject warrants further attention.

As the panel advises us, our tendency to create and rely upon data sources and analytical approaches that minimize spatiality can obscure information about the health effects of the urban dynamics dramatically changing the face of our planet. To improve the health and welfare of the new urbanites in Abidjan, Belo Horizonte, and

Chongqing, we will have to know more than the names of their towns—we will need data that can accurately depict their cities' transformation.

Notes

1. *Cities Transformed* is available online at no cost at <http://books.nap.edu/catalog/10693.html>

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Ecological Security: An Evolutionary Perspective on Globalization

Dennis Clark Pirages & Theresa Manley DeGeest
Lanham: Rowman and Littlefield, 2004. 284 pages.

Reviewed by JON BARNETT

In the aftermath of September 11, security discourse downplayed the “soft” subject of the environment in favor of harder targets. Instead of being a liability, environmental security’s reduced prominence may provide a unique opportunity for scholars to escape the limits imposed by policy imperatives. One of the first substantial works in this field to appear since the terrorist attacks, *Ecological Security: An Evolutionary Perspective on Globalization* by Dennis Pirages and Theresa DeGeest, offers a refreshing new conceptual framework that moves beyond political constraints.

Ecological Security analyzes both globalization and environmental problems from an “eco-evolutionary” perspective, which seeks to understand the changing relationship between people and their environment over time. This historical method is key to understanding environmental security, however it is

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defined, but only Mische (1992) and, to a lesser extent, Dalby (2002) have adopted this approach.

Pirages and DeGeest call for a “totally new security paradigm” that “means moving ecological wisdom and evolutionary processes to the core of strategic thinking in order to provide a more relevant definition of security” (pages 20-21). According to the authors, attaining ecolog-

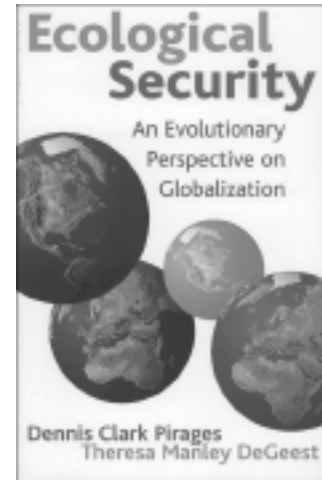
ical security depends on preserving four balances:

- Between human demands for resources and the ability of natural systems to provide these;
- Between the demands of human populations and other animals;
- Between medical care and pathogenic micro-organisms; and
- Among the resource needs of different human populations.

This new—and quite specific—way of understanding security is justifiably deemed “ecological” due to its unique focus on other species and on micro-organisms.

Pirages and DeGeest do not provide a “more relevant definition of security,” however, nor do they offer a cogent definition of ecological security itself. It is not clear whom or what they believe ecological security will secure. They suggest that the security referent is any one (or all) of the following: ecosystems, the animals we compete with for resources, the United States, developing countries, and humanity. These are not mutually exclusive categories, but the book does not fully explain the synergies among their security interests. When the authors claim that “past industrialization clearly has made a substantial contribution to social progress and has had an overall positive impact on ecological security” (page 190), they imply that only some groups of people are secured, rather than all people, other species, or ecosystems.

Chapter 2, “Demographic Change and Ecological Insecurity,” identifies rapid population growth in developing countries as a principal cause of ecological insecurity, and blames this growth on outdated “pro-natalist norms” (page 33). Pirages and DeGeest argue that in the later stages of a country’s demographic transition, birth rates fall because the “beliefs and norms governing reproduction change” (page 34). Yet birth rates fall due to more material processes, like increased wealth and opportunity, and therefore tackling the structural causes of poverty is ultimately the best



way to slow birth rates. The shallow analysis of people’s reasons for having fewer children does not convince the reader that those who favor broad-based poverty reduction approaches over targeted family planning have impeded ecological security.

“An Assault on the Global Commons” continues the polemical tone by opening with an unsubstantiated statement about the environment’s influence on social life:

Environmental conditions have played an important role in shaping the nature of societies. In general, environments of plenty, with temperate climates, abundant food supplies, and mineral wealth, have offered opportunities for civilizations to flourish. Environments of scarcity, by contrast, have often shaped “Spartan” societies, characterized by more authoritarian political rule and frequent conflict with neighbors. (page 55).

It would take more than one book review to list all the counterexamples to this statement; for one, the history of temperate Europe is replete with totalitarianism and conflict. To support this utterly meaningless claim, the authors refer only to Karl Wittfogel’s *Oriental Despotism* (originally published in 1957) and two works by Thomas Homer-Dixon. Very few social scientists would agree that social life is a function of—or can be explained by—the environment in this way. Luckily, this poor scholar-

ship is completely out of character with the rest of the book.

The wide-ranging discussion of energy security in Chapter 4 covers the history of oil production, contemporary energy geopolitics, and supply and demand in energy markets. Pirages and DeGeest sensibly and logically promote renewable energy as the key to achieving energy security. However, except for greenhouse gas emissions, the problems discussed in this chapter are not clearly ecological. The authors state, for example, that “the long-term ecological security problem for the United States, and eventually the rest of the world, is one of an imbalance between future demand for and reserves of petroleum” (page 85). Even though this claim falls under the ambit of the first of the book’s “four balances,” it does not correspond to any recognized definition of *ecological*. But this is a small quibble; energy scarcity is undoubtedly a security problem—even if not ecological—and this chapter cogently outlines its dimensions.

“The Political Economy of Feast and Famine” is also only loosely related to ecological security. Had Pirages and DeGeest argued that overpopulation and environmental degradation cause famine and malnutrition, these problems might fit the definition of ecological problems. Instead, they recognize that poverty, migration, HIV/AIDS, armed conflict, trade, and investment also play critical roles in food insecurity. Indeed, the section titled “Africa: A Malthusian Tragedy” owes little to Malthus; rather than simply grounding Africa’s food problems in overpopulation, the authors acknowledge that political economy processes structure food supply. While entirely correct, this conflicts with Chapter 1, which accepts the notion of “carrying capacity” as a driver of “Malthusian dramas” like famine (page 22).

In “Globalization and Biosecurity,” Pirages revisits some of his earlier work on the balance between human populations and pathogenic micro-organisms, and discusses the competition between human beings and other animal species—both novel and genuinely ecological problems. The strongest and most convincing chapter in the book, it explains not only the



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Chapter 7 examines the interactions between technological change and security. Like Ulrich Beck’s 1999 work *World Risk Society*, Pirages and DeGeest imply that it is more difficult to manage risk when there are global dangers, such as nuclear and biological weapons, and when personal and social welfare depends on complex interlocking technological structures like computer networks and telecommunications systems. This chapter links technology’s advances and its ever-widening influence to increased pollution and resource consumption, reflecting the book’s eco-evolutionary perspective.

Finally, *Ecological Security* offers conclusions and solutions. “Ecologically Secure Development” focuses not on solutions, as the title implies, but on the constraints limiting them. Even so, it provides a good overview of the power of free market processes to prevent sustainable development and support insecurity and inequality. The authors recommend a “fundamental change in definitions of progress and the good life” (page 204), and boldly suggest that “some actual sacrifices by the countries of the Global North” are necessary (page 201).

The last chapter outlines governance changes that would facilitate this transformation, arguing that “distributive justice must become a global public good” (page 218), and that political globalization—“an active process of building governance beyond the state”—is an important step towards ecological security

(page 219). A short epilogue distills these arguments into 10 key steps to enhance ecological security, including: adopting an eco-evolutionary perspective, considering future generations in decision-making, developing new global institutions, creating and financing new public goods as opposed to commodifying all goods and services, and nurturing a cooperative and moral approach to international issues.

If readers begin with the book's fourth chapter, they will encounter a logically argued, well-researched, well-written, and sometimes innovative series of discussions loosely based on the concept of ecological security. Despite some problems in its early chapters, *Ecological Security's* historical perspective and creative

approach offers new insights for even the most jaded student of environmental security.

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One With Nineveh: Politics, Consumption, and the Human Future

By Paul Ehrlich and Anne Ehrlich
Washington, D.C.: Island Press, 2004. 334 pages.

Reviewed by DENNIS PIRAGES

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mented book that ties together and expands upon many of their classic themes.

The book takes its title from Rudyard Kipling's poem "Recessional" about the fallen Assyrian capital of Nineveh, the ruins of which lie near the contemporary Iraqi city of Mosul. The Ehrlichs observe that just as pride and arrogance led to the collapse of ancient Mesopotamian societies, similar hubris could lead to the downfall of today's global civilization. Rulers of these early empires fought wars and built costly monuments while ignoring the environmental decay undermining their societies. In a striking parallel, the U.S. government refuses to ratify the Kyoto Protocol, while pursuing a costly military venture in the Middle East and unveiling war memorials in Washington. The so-called war on terrorism dominates newspaper headlines, while the steady deterioration of humanity's life support systems is given only scant space.

Thirty-six years ago, a young biologist named Paul Ehrlich issued a warning about the dire consequences of rapid population growth in his book, *The Population Bomb* (1968). Over the following decades, Ehrlich (often in collaboration with his wife Anne) authored numerous prescient and authoritative works on the world's mounting demographic, environmental, and resource problems. The Ehrlich's latest effort, *One With Nineveh: Politics, Consumption, and the Human Future*, is a reasoned and well-docu-

One With Nineveh begins with an overview of the elements of the contemporary human predicament, including inadequate fresh water, collapsing world fisheries, loss of biodiversity, increased pollution, the specter of communicable disease, and, more recently, climate change. The authors identify the principal forces battering the global environment: population growth, overconsumption, and dangerous technologies. But then they venture into new territory, turning from the environmental to the political, posing philosophical questions for domestic and international environmental agendas. Since wealth and power are closely connected, and both are linked to overconsumption, the Ehrlichs advocate opening a dialogue on limiting the accumulation of personal wealth and establishing the rights and responsibilities of property owners in a more densely populated world.

Following its impressive and well-reasoned overview of the links between environmental and socio-political problems, *One With Nineveh* concludes with a menu of recommended policy reforms. While all are laudable—and most make sense—many require the wealthy and powerful to permit destruction of the hierarchy upon which their power and privilege depends. In an ideal world, people would be more environmentally aware; global population would fall rapidly to the recommended two billion; power and privilege would be widely shared; and technology would be harnessed to reduce pollution and resource depletion. But the book leaves unanswered the most important question: how do we get there from here?

The book's recommendations beg three questions. First, what are the limits to non-growth? Over the last three decades, Paul and Anne Ehrlich have performed an invaluable service by calling attention to the dangers of rapid population growth and surges in resource consumption. Their solution requires that global population rapidly decline until it levels off around two billion. But just as there are limits to population and consumption growth, rapid decline has its own perils. Whether we like it or not, economic growth is tightly woven into the fabric of capitalist societies. A significant drop



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in population and consumption could have an alarming impact, including a plummeting stock market, a rise in corporate bankruptcies, dwindling tax revenues, reduced social services, less funding for research and development, and—much closer to home for some of us—eroding foundation and university endowments. Not a pleasant future for those caught in the transition to a world one-third of its current size.

The situation in the former Soviet Union may shed some light on the possible consequences of non-growth. Population and consumption began a significant decline soon after the fall of communism, and the Russian people have paid a heavy price during the transition. The population is now declining at 0.7 percent annually; if this trend continues, today's population of 145 million will shrink to 119 million by 2050 (Population Reference Bureau, 2003). The years since the fall of the wall have been marked by high unemployment, a dramatic surge in disease, increased alcoholism and drug use, and a significant drop in life expectancy (Feshbach, 2003). Fortunately, some of the misery has been alleviated by economic aid from the United States and European Union. But if this decline occurred on a global scale, there would be no outside sources of support and the consequences would be much harsher. Despite

this, I am not arguing that a gradual reduction in world population is undesirable. However, abrupt demographic change can have significant consequences: just as rapid population growth detonated a bomb, a sudden decline in population could create a debilitating bust.

Second, the Ehrlichs give shabby treatment to the power of technological innovation to solve some of these problems. While they do refer to technology as a two-edged sword, they cling to the Ehrlich-Holdren $I = PAT$ formula in which environmental impact (I) is a function of population (P) multiplied by affluence (A) and then multiplied again by the impact of technology (T). This implies that technology is responsible for increasing environmental impact. But technology can solve environmental problems as well as create them—the choice is clearly ours. Just as technological innovation in agriculture has averted worldwide famine (at least for the present), technological innovation could solve some of the consumption and pollution problems associated with increasing affluence. The technology to increase automobile mileage and cut pollution is available, but political cowardice and perverted public policy keep driving Hummers and other ugly, overweight gas-guzzlers out of automobile showrooms and onto our crowded highways.

Finally, the book's focus on how the concentration of power and privilege increases consumption and environmental deterioration raises fundamental questions. Since the Depression, three generations of Americans have defined the good life in terms of profligate consumption. Economists continually beat the drums urging us to consume more to ensure a healthy economy. Politicians promise to stimulate economic growth in order to get elected. This does not foster voluntary simplicity. Of course, there is no intrinsic reason to associate happiness with NASCAR and private trips into space. People could learn to appreciate literature, art, plays, hiking, and other low-impact activities. But how do we radically change the course of our socio-cultural evolution?

The current social and economic situation in the United States does not seem conducive to a

reversal. The number of U.S. millionaires (excluding home equity) jumped from 2 million in 2002 to 2.27 million in 2003, while the number of “ultrarich” worth over \$30 million in the United States and Canada grew to 30,000 in 2003 (Frank, 2004). While the Ehrlichs hope that the very rich might use their money to establish philanthropic foundations, they are more likely to spend it on multiple homes and luxury cars. It is hard to imagine how to slow the considerable momentum of global wealth concentration. Just as the Titanic's passengers partied into the night, confident that the ship was unsinkable, the rising tide of millionaires and near-millionaires is caught up in a frenzy of consumption, supremely confident that their wealth and possessions will insulate them from any bad times to come.

In *One With Nineveh*, the Ehrlichs have masterfully tied pressing global environmental problems to their socio-political and economic origins. They also have initiated an important discussion examining the roots of our contemporary human predicament. They make a strong argument for reintroducing population, consumption, and power issues into public discourse. This book is must reading for all those in positions of power and privilege—unfortunately, an unlikely scenario. We should continue to explore the critical question—how can *Homo sapiens* escape the consumption trap while public discourse focuses on a seemingly endless war against terrorism?—or risk suffering the same fate as Nineveh.

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Red Sky at Morning: America and the Crisis of the Global Environment (A Citizen's Agenda for Action)

James Gustave Speth

New Haven, CT: Yale University Press, 2004. 275 pages.

Reviewed by **FREDERICK A.B. MEYERSON**

“With more than two decades of dilatoriness behind us, it is now an understatement to say we are running out of time. For such crucial issues as deforestation, climate change, and loss of biodiversity, we have already run out of time” (page 9). Gus Speth’s readable, carefully written, and often eloquent book, *Red Sky at Morning: America and the Crisis of the Global Environment*, repeats a familiar warning, first issued more than 40 years ago by Rachel Carson in *Silent Spring*.

Both an autobiography by one of the environmental movement’s major players and a collection of the best ideas and observations of his generation, *Red Sky at Morning* is important reading for anyone interested in the history and future of environmental policy. Speth’s first-hand accounts, opinions, and ruminations are real gems. To confront global environmental threats, he relates, “the international community framed and implemented an inadequate, flawed response—weak medicine for a very ill patient” (page 100). “My generation is a generation, I fear, of great talkers, overly fond of conferences. On action, however, we have fallen far short” (page 8). Speth seeks to remedy these historical shortcomings with *Red Sky at Morning*’s call for a “transition to sustainability.”

Weary Warrior

Currently the dean of the Yale School of Forestry and Environmental Studies, Speth co-founded the Natural Resources Defense Council (NRDC) in 1970, fresh from Yale Law School and a Supreme Court clerkship. He went on to chair President Carter’s Council on Environmental Quality (CEQ), found and head the World Resources Institute, run the United Nations Development Programme, and

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advise the Clinton administration. His credentials and opportunities to shape the world of environmental policy could not possibly be more impressive. Speth was—and still is—in a position to make a difference.

It is therefore very significant that his book has a discouraged and wistful air, with chapter titles like “A World of Wounds” and “Anatomy of Failure.” While he tries to maintain an upbeat tone by concluding with an ambitious agenda for action, Speth is clearly a weary warrior. The first and most revealing half of *Red Sky at Morning* focuses on the failures of the environmental movement and our collective inability to stem global environmental deterioration: “The current system of international efforts to help the environment simply isn’t working. The design makes sure it won’t work, and the statistics keep getting worse” (page xii).

Treading Water

I first met Gus Speth in the summer of 1979, when I was an idealistic college intern at the Environmental Protection Agency and he was chairman of the CEQ. At that moment, both institutions seemed near the center of the American political universe, following the preceding decade’s cavalcade of important environ-



mental legislation. In 1980, Speth released CEQ's *Global 2000 Report to the President*, a seminal work that brought global warming to the public consciousness, part of an apparently rising tide of environmental awareness and action. In hindsight, however, its publication at the end of the Carter administration was the high-water mark of the American environmental era.

In the 1960s and 1970s, as Speth relates, new environmental laws targeted the low-hanging fruit. Since then, there have been a few startling successes, such as the Montreal Protocol, but on most critical issues like biodiversity and climate change, we have been treading water—or worse. Speth reminds us that nearly all of the environmental problems now facing the world have been known for a quarter century. He laments that “little has been done.... If I were a young person being handed this problem by indulgent predecessors, I would be angry” (page 5).

Drivers and Solutions

In the second half of his book, Speth provides a convincing depiction of 10 drivers of environmental destruction (population, affluence, technology, poverty, market failure, policy and political failure, economic growth, the economic system, our culture and values, and globalization). This thorough but daunting list encom-

passes almost the entire human endeavor. However, although Speth spends several pages describing the environmental challenges of continuing global population growth, he curiously omits any mention of U.S. growth, which, at more than three million people per year, surpasses all but China and India (and trumps both of these giants in terms of environmental impact).

To confront these various threats, Speth says, “The principal way to a sustainable world is to apply major resources of time and money to the promotion of eight broad, linked transitions that seek to define and redirect growth” (page 152), such as transitioning to environmentally benign technologies, environmentally honest prices, sustainable consumption, a stable or smaller world population, and a world free of mass poverty.

These utopian ideas are attractive, but the language and suggested means may appeal more to policy wonks than revolutionaries. Freedom from mass poverty, environmentally benign technologies, and environmentally honest prices, for example, can only be actualized (if at all) by big government, large NGOs, top-down policies, and well-connected cognoscenti. These are the same forces that Speth criticizes for failing to get the job done over the last several decades. So when he suggests that citizen activists contribute to hundreds of environmental organizations (listed—but frustratingly unranked—in the book's final section), it is both overwhelming and a little anticlimactic. If that approach has not worked for the last 30 years, why will it work in the future?

Grand Old Men

The Economist (2004) called Speth “one of the grand old men of greenery.” Therein lies his great wisdom and genuine appeal, but also the root of the environmental movement's most serious problem: it has aged, growing from its strident, bold, and energetic youth into a more conservative, cautious, and sometimes resigned middle age. In the 1970s, the scruffy, chaotic, shoestring atmosphere of the World Wildlife

Fund, NRDC, and other enviros fostered scrap- piness, improvisation, and risk taking. Today, if you stroll into the offices of many environmen- tal NGOs, you will encounter marble and glass lobbies, well-coiffed receptionists, and soft ele- vator music—trappings barely distinguishable from those of large corporations and law firms.

Many environmental groups also suffer from the problems plaguing the corporate world, such as CEOs who pay themselves too much, conflicts of interest, and insider deals for wealthy patrons. Boards are populated by titans of industry, wealthy investors, and professors emeriti: environmentalism has grown up and grown comfortable. It is an old-growth forest, ripe for a major disturbance and rebirth.

“The environment is becoming more central to business strategic planning....New partner- ships between corporations and environmental NGOs are being forged,” Speth writes (page 187). This is true, but is it the solution or part of the problem? Much of the environmental movement now suffers from the pragmatic con- servatism bred by financial entanglement. The major NGOs are now successful enough that they test the wind rather than throwing caution to it. When the revolution goes mainstream and corporate, how do you keep the revolution going? Speth’s book doesn’t look inward enough to address this quandary.

Pulling Punches

Speth would like to rally us to action, but there is a cognitive dissonance between *Red Sky at Morning’s* apocalyptic warnings, Speth’s frustra- tion at the movement’s failures, and his calm presentation of proposed solutions. He may have pulled a few punches for political reasons. The book, like the man who wrote it, has a gen- tle touch. In person, you can feel the fire inside him, but on paper, he is more measured. Speth is a reasonable voice among radicals, a synthe- sizer, and a coalition builder. He likely would not have been chosen to lead great institutions if he were a fire-breathing dragon, but his gen- erous qualities are also limitations in a war that

he characterizes as a desperate downhill slide.

In that regard, I wish Speth had subjected the movement to a more critical analysis. Who are the good and bad apples? In retrospect, what would Speth have done differently to avoid pro- ducing what he calls a “toothless legacy of treaties”? What can we do differently in the future? Can his proposed solutions really work, given what we know about human nature? Some of these difficult questions are raised towards the end of *Red Sky at Morning*, but they are largely left unanswered. This may be too much to ask of Speth in this middle chapter of his life. The book is therefore an invaluable and compelling history, but perhaps not an ade- quate blueprint for a troubling future. I look forward to a strong sequel.

Passing the Torch

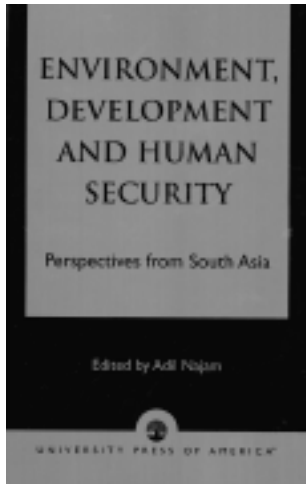
Like other “grand old men” (and women) of his extraordinary generation, Speth has devoted most of his life to environmental causes. Indeed, he recognizes that he is on the verge of passing the torch: “It will soon become a new genera- tion’s struggle. We must help them get prepared for this difficult assignment” (page xiv). His sixth recommendation is “knowledge and learn- ing”: to create what “is needed for the transition to sustainability” and to train a new era of envi- ronmental professionals. He expresses hope for “the spark that can set off a period of rapid change...the Environmental Revolution of the twenty-first century” (page 198). If the next generation questions authority as much as Gus Speth did at the outset of his amazing journey, they might create that spark.

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Environment, Development and Human Security: Perspectives From South Asia

Adil Najam (Ed.)

New York: University Press of America, 2003. 286 pages.

Reviewed by NAVROZ K. DUBASH

Navroz K. Dubash is a senior fellow in governance and public policy at the National Institute of Public Finance and Policy in New Delhi, India. His current work examines the political economy of infrastructure reform, focusing on social and environmental concerns.

Environment, Development and Human Security reproaches the theoretical genuflecting that has characterized recent environmental security literature. “Most of our authors,” notes Najam, “seem to find these ‘hot’ intellectual debates uninteresting if not irrelevant to the problems [with which] they are grappling” (page 250). Instead, the volume asks, what is relevant to South Asia’s on-the-ground practitioners?

Poverty, the authors discover, is a key element linking environmental degradation to insecurity—and to a greater extent than currently recognized. The South Asian experience suggests that poverty may even be *required* for environmental degradation to lead to violent conflict. This finding, and the exploration that informs it, is framed in the language of “human security,” which redefines security as freedom from pervasive threats to people’s rights, safety, or lives.

The book approaches the nexus of environment, development, and human security from two angles: country studies and natural resources. The country studies—on India, Pakistan, Bangladesh, Sri Lanka, and Nepal—contain a store of detailed information. Four of the five (Nepal is the exception) survey the nation’s environmental status and examine its security implications; the Pakistan and Sri Lanka chapters also include case studies. As is too often the case with this genre, the surveys are more informative than illuminating, and therefore a little dry. A sharper analytical edge would have made them more engaging; the Pakistan chapter by Shaheen Rafi Khan, for example, intriguingly deviates from the standard template to examine Pakistan’s environment through the lens of vulnerability.

For the last 15 years, scholars have contested the definition, key explanatory variables, and methodological approaches of environmental security, spanning the distance from traditional interstate security to the broader concept of human security. These fundamental debates have become heated at times; for example, in ECSP’s 2003 report, Thomas Homer-Dixon locked horns with Nancy Peluso and Michael Watts over the nature of violent conflict: should theorists privilege environmental scarcity as an explanatory factor, as Homer-Dixon asserts, or should they begin with the political economy of resource access and control, as Peluso and Watts argue?

Into this theoretical thicket Adil Najam and his colleagues have injected *Environment, Development and Human Security: Perspectives From South Asia*. Avowedly empirical, the book is not preoccupied with untangling theory: it seeks “neither to posit a new conceptual framework...nor to put any of the existing frameworks to the test of empirical evidence emerging from South Asia” (page 245). Instead, it focuses on developing a “better policy sense...of how the twin challenges of environment and human security are intertwined” (page 245).

The book's analyses of environment and security linkages are livelier. The Bangladesh chapter by A. Atiq Rahman, Zahid H. Chowdhury, and Ahsan U. Ahmed establishes four categories of linkages: national sovereignty, livelihoods, health, and ecology. The Pakistan chapter uses a model of direct effects (those based on institutional gaps and failures) and indirect effects (those that operate through poverty). Both of these models are useful organizing tools and yield greater insights than the survey sections. However, given the book's empirical mandate, these models are not fully developed, and the diversity of approaches prevents cross-country comparisons. While Najam praises this analytical eclecticism for producing a broader range of findings, the chapters' empirical material might have benefited from more theoretical cogency.

The case studies shed the burden of comprehensiveness in search of explanatory depth. For example, Rahman et al. recount the remarkable story of a misguided and mismanaged dam on Bangladesh's Karnaphuli River that pushed an indigenous community out of their forest refuge, leading to a quarter century of armed conflict that ultimately threatened Bangladesh's political stability. Similarly, Sarath W. Kotagama's case-rich chapter on Sri Lanka describes a community displaced by a national park, illustrating the occasionally antagonistic relationship between the environment and human security.

Ajaya Dixit and Dipak Gyawali's chapter on Nepal is worthy of separate comment; it eschews the survey approach in favor of a human security argument centered on multiple "securities in conflict," which are tied to perceptions of risk and mechanisms for coping with it. The authors convincingly recommend using institutional pluralism to negotiate these disparate notions of security.

The remaining three chapters discuss natural resources—energy, land, and water—in the context of environment and development. In their tightly structured discourse on energy and security, Najam and Kumudu Gunasekera outline "energy paths" over time and organize them

by efficiency, energy dependence, and environmental security. The graphs illustrating the chapter capture, at a glance, patterns across South Asia.

Khalid Saeed's chapter on land use projects food and land-related trends for 14 countries using a system dynamics model. Even though the model's structure is presented diagrammatically, it is hard to understand. Moreover, even though more recent data are available, the inputs date from 1987. It is hard to believe the author's claim that an additional decade of data would not affect the results. Perhaps most problematically, Saeed does not delve any deeper than country-level data, which is particularly egregious in a human security framework. For example, an analysis of different consumer classes' access to food under conditions of stress would have added to his argument.

Ramaswamy R. Iyer's chapter on water begins intriguingly by warning that applying a security framework to environmental problems could be dangerous. Instead of improving security, he fears, the interaction may damage environmental discourse. In his discussion of flood management, water quality, and water sharing, Iyer limits his use of "security" to interstate relationships. However, when he addresses cooperation, he adopts a wider view, issuing an impassioned and convincing plea to escape the intellectual straitjacket of supply-side thinking that has dominated water management in South Asia for the past decades.

By steering clear of theoretical debates, the volume loses some of its power to convince the reader, as illustrated by two examples drawn from the editor's "five key lessons." First, Najam makes a strong case that these essays demonstrate the value of locating environment and security within the rubric of sustainable development. However, without exploring the literature on security, how can the reader understand why we should retain the language of security, as opposed to subsuming the entire discussion in sustainable development? Second, Najam critiques the mainstream security discourse for over-emphasizing resource abundance at the



Environment, Development and Human Security reproaches the theoretical genuflecting that has characterized recent environmental security literature. Instead, the volume asks, what is relevant to South Asia's on-the-ground practitioners?

expense of institutions and governance. Engaging the substantial literature on political ecology, and its efforts to understand causal mechanisms beyond scarcity and abundance, would have strengthened this argument.

This said, through its diverse disciplinary perspectives, its focus on societies rather than states, and its empirical examples, *Environment, Development and Human Security* is a worthy contribution to what Barnett (2003) calls the “third wave” of environment-security scholarship. The book’s empirical focus on one of the world’s most vulnerable regions reminds academics to stay grounded instead of drifting away from practitioners’ concerns.

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Security and Environment in the Mediterranean: Conceptualizing Security and Environmental Conflicts

Hans Günter Brauch, P.H. Liotta, Antonio Marquina, Paul F. Rogers, & Mohammad El-Sayed Selim (Eds.)
Berlin: Springer, 2003. 1136 pages.

Reviewed by **EVAN VLACHOS**

Evan Vlachos is a professor of sociology and civil engineering at Colorado State University and associate director of the International School for Water Resources.

cal challenges, and political and economic developments in this fascinating and ever-evolving region.

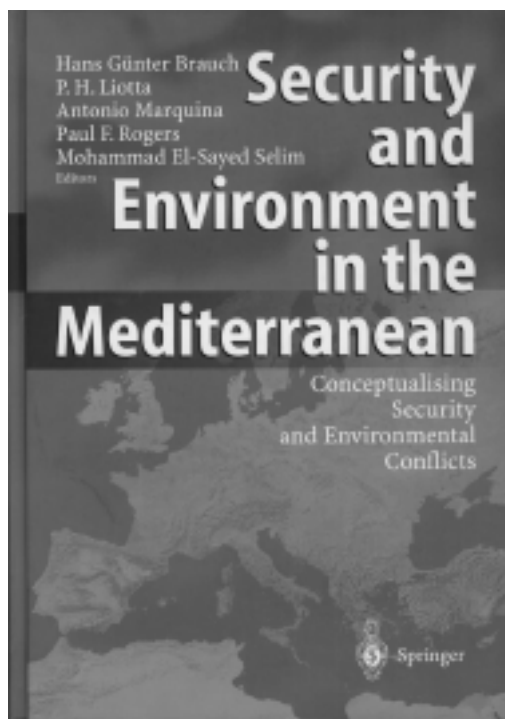
Due to the encyclopedic compilation of topics and its diverse authorial styles, the book is difficult to evaluate. Yet, thanks to the editors’ careful attention to structure and coherence, it is not just a collection of vaguely related papers. Instead, five key themes clearly emerge from the text. First, the book focuses on the dramatic transformation of our complex and interdependent world. The global environment is rapidly changing, due to degradation of natural resources and anthropogenic impacts, such as overpopulation, hyperurbanization, and agricultural innovations. At the same time, the search for peace and security has become a central preoccupation. Second, the book addresses the “fall of paradigms” after the turn of the 21st century and the pivotal

events of September 11, 2001. Throughout the volume, earlier theoretical approaches—namely, Hobbesian/Machiavellian (pessimistic), Kantian (normative), and Grotian (pragmatic or internationalist)—are juxtaposed with more interdependent conceptual models.

Security and Environment in the Mediterranean posits a new understanding of security in the context of social-economic-political-environmental conditions; this theme is closely related to the fourth key theme, which investigates the overlap between development and security. Security is broadly defined to encompass survival, social well-being, and eradication of poverty and exploitation. Finally, the fifth major theme is a normative (teleological) approach that emphasizes goals and visions. I was struck by the association of such terms as “dignity” and “degradation” with the search for security (see Chapter 14, for example). Such visionary thinking is consistent with the pronouncements emerging from recent scientific conferences and United Nations programs, such as the Millennium Development Goals.

A note of caution: when considering these shifting and emerging paradigms, we must carefully separate ideological orientations from visionary aspirations. This is particularly true when discussing confrontations between the Middle East and circum-Mediterranean countries. Long-standing historical grudges have often interfered with dispassionate efforts to encourage negotiation, mediation, or conflict resolution.

Any collection of this size contains a few uneven chapters. The first essay, however, deserves close reading; its detailed introduction to the evolution and interdependence of Mediterranean security makes the essential point that cooperative security concepts emerged to manage the end of the Cold War.¹ The next chapter on the Mediterranean ecoregion’s fragmentation is particularly impressive; its exhaustive and well-footnoted analysis of definitions, schools of thought, and world views includes a valuable introduction to vulnerability and its centrality to ongoing theoretical and methodological efforts. Michael Lund’s



“Prevention of Violent Conflicts” contains a useful policy toolbox for conflict prevention that addresses underlying socio-economic causes, intermediate political and institutional factors, and a range of triggers and events (pages 173-174).

The volume’s look at NATO is mostly pragmatic and descriptive, although Peter Liotta’s “Military and Environmental Security” in Part III includes an insightful analysis of the new emphasis on human and environmental security and the move away from the old *security* dilemma to a new *survival* dilemma. Liotta competently discusses socio-political forces that can lead to either global fragmentation or integration. Similarly, in “From Cooperative Security to Security Partnership in the Mediterranean,” Antonio Marquina describes how alliances like NATO reconceptualize traditional security as human survival. Bechir Chourou’s “Conceptualizations of Security” notes that national security is often confused with a particular regime’s security, using examples drawn from the Maghreb region.

By now, the metamorphosis from traditional security to all-encompassing human survival is quite familiar. Many of the book’s authors



In its desire to be all-inclusive, the volume has ballooned to an almost prohibitive size—I sympathize with the poor undergraduate who has to haul this hefty collection around campus!

introduce environmental concerns and emphasize the multilateral efforts of the European Union, World Bank, and others to avoid a strictly “securitized” view of the environment; see, for example, “Environmental Security: Conceptual Contestation and Empirical Relevance in the Mediterranean” by Stacy D. VanDeveer. This chapter marks the transition from the first half’s overview of security concepts to the second half’s look at environmental viability, including the role of population, climate, desertification, water scarcity, food security, urbanization, and natural disasters. Finally, the last section (“Empirical and Theoretical Results and Conceptual Conclusions”) underlines the need for conceptual clarity, cooperative activities, and case studies, and argues that scholars should continue to search for underlying causes rather than simply discussing symptoms.

In such a large collection of diverse papers—with many semantic and linguistic side trips—it is difficult to separate the interesting from the important. Some chapters are repetitious, and in its desire to be all-inclusive, the volume has ballooned to an almost prohibitive size—I sympathize with the poor undergraduate who has to haul this hefty collection around campus! By the end I was tired of reading text that had appeared in earlier chapters; editing out the overlapping material would have lengthened the reader’s attention span, which is already

taxed by continuous summaries and summaries of summaries.

Despite (or because) of its extensive footnotes, abundant diagrams, and summarizing tables, I would recommend this book as an important addition to any library on environmental security. I am perplexed, however, that such a large and conceptually demanding volume would target an undergraduate audience. This specialized volume is difficult reading; I cannot envision using it in any undergraduate curriculum. On the other hand, scholars and graduate students, if they can afford its significant price (\$159), will find this a great collection of conceptual clarifications, important data, methodological considerations, hard-to-find references, historical trends, and succinct summaries of convoluted international treaties and excruciating international negotiations.

In all, *Security and Environment in the Mediterranean* will reward the patient reader. Bechir Chourou closes his careful analysis in Chapter 47 with a definition of security in the context of different cultures and backgrounds:

No nation can insure its survival alone. The Europeans understood this back in 1957 and acted upon it. The Arabs understood the need for concerted action even earlier (1948) but did little about it....[The] Euro-Mediterranean dialogue should henceforth focus on creating a new mentality, which recognizes that the future hinges not on short-term security but on long-term survival, and that survival can no longer be considered as the exclusive or preordained right of the fittest. (page 841).

A great summary for this challenging volume.

Notes

1. More recently, the security community has turned its attention to the rising North-South asymmetric interdependencies (page 317).

The Global Threat of New and Reemerging Infectious Diseases: Reconciling U.S. National Security and Public Health Policy

Jennifer Brower & Peter Chalk

Santa Monica: RAND, 2003. 146 pages.

Reviewed by **ANDREW PRICE-SMITH**

The emergence, re-emergence, and proliferation of infectious diseases in the modern era have given rise to a growing body of literature examining the effects of contagion upon nations. The earliest pioneers, historians such as William McNeil and Alfred Crosby, argued that human history has been significantly influenced by biological parameters, including the effects of pathogenic micro-organisms. These bio-historians were later joined by political scientists like Dennis Pirages, Robert Ostergard, Stefan Elbe, David Fidler, Mark Zacher, and Yanzhong Huang, and by intelligence analysts such as David Gordon and Don Noah. Collectively, their works form the basis for the growing field of health security. Microbiologist Jennifer Brower and political scientist Peter Chalk throw their hats into the ring with *The Global Threat of New and Reemerging Infectious Diseases*, a timely look at the United States' public health policy and its effects on national security.

Despite the wealth of research to draw upon, Brower and Chalk strangely ignore prior literature in the field. They claim, rather grandiosely, that theirs is the first book to comprehensively link disease to national security. By failing to give credit where it is due, they undermine sections of the book that are derivative of other work—notably, David Gordon's reports on behalf of the National Intelligence Council (Gordon, 2000).

The book is conceptually muddled. At first, the authors proclaim that they intend to adopt a human security focus on the individual. However, the rest of the book analyzes the effects of disease upon *national* security, thus employing explicitly state-centric concepts. In addition, it suffers from some serious omissions. For example, the authors ignore the role

Andrew Price-Smith is assistant professor of environmental science and policy at the University of South Florida. Recent works include *The Health of Nations: Infectious Disease, Environmental Change, and Their Effects on National Security and Development* (MIT Press, 2002) and *Downward Spiral: HIV/AIDS, State Capacity, and Political Conflict in Zimbabwe* (United States Institute of Peace Press, 2004).

of war and poverty in amplifying disease, and their discussion of climate change neglects the effects of temperature on microbial incubation and insect biting rates.

Even with its analytical shortcomings, *The Global Threat of New and Reemerging Infectious Diseases* is a decent health security primer, which may be useful for students, policymakers, and laymen. The authors used solid data and conducted some enlightening on-site interviews with political figures in regions seriously affected by epidemic disease (such as sub-Saharan Africa). Their timely analysis of South Africa's HIV/AIDS epidemic examines how disease demoralizes citizens and undercuts civil society. While their prediction that South Africa will become unstable by 2010 may seem pessimistic, growing evidence supports the hypothesis that high rates of HIV/AIDS can undermine state capacity and social cohesion, particularly when accompanied by poor governance. (This argument might have been enhanced by a breakdown of HIV/AIDS' effect on the economy and foreign investment.)



While the prediction that South Africa will become unstable by 2010 may seem pessimistic, growing evidence supports the hypothesis that high rates of HIV/AIDS can undermine state capacity and social cohesion, particularly when accompanied by poor governance.

The authors assert that HIV-induced declines will reduce South Africa's influence in the region, and thereby exacerbate conflict. However, given that Botswana, Zimbabwe, Zambia, and Swaziland all have relatively higher HIV prevalence rates than South Africa, the latter's power may actually increase relative to its neighbors. Regardless, South Africa's capacity to mount effective peacekeeping operations will certainly decline.

Chapter 4 warns that the United States is increasingly vulnerable to the ravages of emerging infections, resistant strains of disease, and bioterrorism. However, U.S. capacity for dealing with these problems is higher than that of most other nations on the planet, so U.S. vulnerability must be put into proper context. Nations with lower levels of capacity (e.g., Haiti, Rwanda, and Bangladesh) are far more vulnerable to destabilization from epidemic infection. Nonetheless, the authors provide an enlightening discussion of the negative economic and psycho-social impact of bioterror during the 2001 anthrax attacks, and they highlight the inadequacies of the United States' current public health care infrastructure.

In Chapter 5, Brower and Chalk issue another warning: the United States' greatest vulnerability lies at the state level. Individual states are responsible for monitoring and responding to disease outbreaks, coordinating their data and responses through the federal Centers for Disease Control, but states' capacity to diagnose patterns of illness and respond to outbreaks varies widely. Indeed, there is no comprehensive national laboratory system for surveillance.

The book's exhaustive treatment of federal programs and initiatives designed to respond to major health emergencies does turn up some highlights, such as the efforts of the U.S. Department of Defense to develop global pathogen surveillance systems. The U.S. government is developing novel capabilities to respond to bioterrorist attacks or naturally occurring large-scale outbreaks. New legislation, such as the Model Emergency Health Powers Act, gives state officials vastly expanded powers during a major health emergency.

Notwithstanding these efforts, systemic vulnerabilities undermine the United States' ability to respond effectively to mass contagion. Specifically, Brower and Chalk cite inadequate national surveillance mechanisms, fiscal neglect, lack of personnel, diminishing capacity to produce vaccines and therapeutic agents, and a lack of coordination. The authors also discuss persistent problems in communication between the federal, state, and local health bureaucracies that effectively hinder response, as demonstrated during the 2001 anthrax attacks.

Further, the authors note that U.S. health care aid to developing countries across the globe is insufficient. The developing world is the breeding ground for many new pathogens that could be quickly transported to the United States via tourism or trade. Therefore, investing in global public health should be a greater priority for federal legislators and bureaucracies. In the concluding chapter, the authors recommend streamlining domestic pathogen surveillance and response systems, creating an effective public health reserve response system, establishing analytical capacity within U.S. intelligence structures, and integrating disease into national security calculations.

Despite its minor problems, *The Global Threat of New and Reemerging Infectious Disease* provides a constructive analysis of the United States' capability to detect and respond to pathogens during outbreaks. The chapter on South Africa offers a valuable illustration of the impact of infectious disease on social stability in the developing world. The book would have benefited from another case study, perhaps on the deleterious effects of another pathogen (e.g., malaria) on a country's political economy. All told, the book is a solid primer for students, lawmakers, and laymen, and would be useful supplementary reading for undergraduate courses addressing health and security.

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Sparing Nature: The Conflict Between Human Population Growth and Earth's Biodiversity

By Jeffrey McKee

Piscataway: Rutgers University Press, 2003. 210 pages.

Reviewed by **ECKHARD KLEINAU**

Does population growth pose a threat to the survival of the human race, or will man's ingenuity always outsmart nature and our finite resources? Should we heed the warnings that we are exceeding earth's carrying capacity, like those in William Catton's 1980 book *Overshoot: The Ecological Basis for Revolutionary Change*, or instead listen to those, like Donald G. McNeil (2004), who say that Malthus' dire predictions have been discredited by reality? Jeffrey McKee's new book, *Sparing Nature: The Conflict Between Human Population Growth and Earth's Biodiversity*, invites the reader to follow the trail of evidence, from the prehistoric era to the present, that reveals the impact of population on priceless ecosystems. Based on this evidence, McKee finds that population growth must be curbed by "responsible reproduction" or we risk losing nature's ability to support human life.


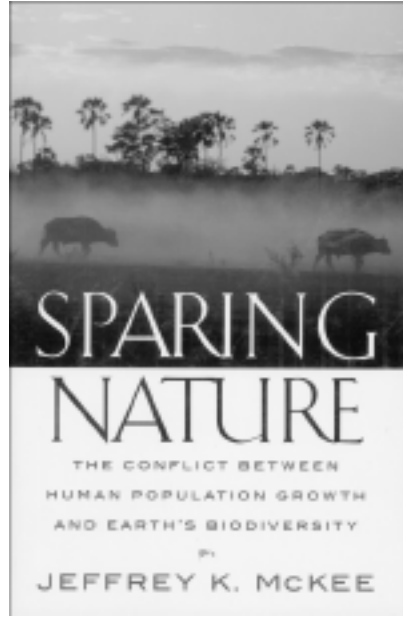
Is nature "sparing" or must we "spare" nature? Both, argues McKee, outlining his three theses: first, nature's resources are finite, limiting the number of species that will not suffer excess mortality and social disruption. Second, McKee postulates that we must "spare nature" by slowing or halting human population growth. Finally, he stresses that these problems are urgent, because the health of our planet, and therefore our own survival, depends on conserving biological diversity.

Sparing Nature proves its three theses using clues left in the fossil record over hundreds of thousands of years. Like a detective, McKee gathers circumstantial evidence by following man's ecological footprint through the centuries, preparing a convincing case that links the loss of wild plants and animals and the increase in unsafe water and polluted air to the rapidly increasing population.

Eckhard Kleinau has 25 years of experience in medicine, public health, and environmental health, with an extensive background in quality management, operations research, monitoring and evaluation, most recently as the senior technical director of the USAID-funded Environmental Health Project. In addition to degrees in medicine from the Eberhard-Karls University in Tübingen, Germany, he holds master's degrees in epidemiology and health policy and management and a doctoral degree in public health from the Harvard School of Public Health.

According to Charles Darwin, the earth has experienced five episodes of concentrated extinctions since life began 540 million years ago. *Sparing Nature* argues that we are facing a sixth period with a dramatically faster rate of extinction. According to fossil finds, species extinction increased considerably with the advent of *Homo erectus* some 1.8 million years ago. The appearance of *Homo sapiens* similarly accelerated the impact on nature; for example, *Homo sapiens'* arrival in North America about 15,000 years ago was followed closely by the rapid extinction of other continental species.

McKee explores other reasons for species extinction, such as rapid climate change, but no other cause proves to be as convincing as population growth. Biodiversity took a major hit when humans transitioned from foraging to agriculture between 10,000-4,000 years ago. Archeological artifacts indicate that population



Unfortunately, science does not tell us the “right” population size or the “right” level of biodiversity. McKee argues convincingly, however, that we cannot afford to double the world’s population within this century.

pressure led to poor agricultural practices that depleted the soil, increased monocultures, and reduced biodiversity. The impact of large and fast-growing populations now extends far beyond local environments. More and more arable land is required to satisfy human needs; for example, worldwide demand for soybeans now threatens the Amazon.

Despite the claims that current growth rates have slowed enough to ease worries, population continues to increase because of the law of exponential growth. Even if growth rates could be slowed to a small fraction, more people would compete for ever scarcer resources. The demographic transition may provide one answer. As societies move from high birth and death rates to low birth and death rates, populations first grow, as the decline in birth rates lags behind the drop in death rates, and then stabilize, as birth rates decline to equal the death rates. But there is no guarantee that the world’s population will stabilize on its own. The consequences of being wrong would be disastrous, McKee argues, advocating proactive measures such as better education, especially for girls and women, and greater access to contraceptives.

To make his point, McKee employs an effective cumulative style, hammering the reader with ever-increasing data from a wealth of

sources. *Sparing Nature* is easy to read and largely avoids academic language. The book’s simple illustrations are helpful, such as a drawing that compares species diversity in a neighborhood and a nature park. McKee’s real-life examples demystify some technical subjects; for example, he explains exponential population growth using the number of Elvis Presley impersonators. *National Geographic* or *Nature* subscribers will enjoy this book as much as readers of academic journals.

While *Sparing Nature* provides informative and pleasant reading, a few sections are repetitive, and could have been replaced with more information on the links among population growth, social unrest, and violent conflict. McKee’s arguments are well-made, but he does not mention the social problems that might accompany a reduction in population growth, such as insufficient funds to provide social security to an aging society.

Finally, making a case based largely on circumstantial evidence has its drawbacks. While McKee’s estimates of the rate of species loss are plausible, they rest on many assumptions and unknowns, such as the number of existing and extinct species. This leaves room for many other scenarios, a flaw that McKee acknowledges. In addition, estimates of a “sustainable” population vary greatly. There is no way to know whether a smaller population may develop less important technological advances, but they are likely to educate more children, improve families’ livelihoods, and prevent the starvation, misery, and death of millions.

Unfortunately, science does not tell us the “right” population size or the “right” level of biodiversity. McKee argues convincingly, however, that we cannot afford to double the world’s population within this century. Reliable models that link population density and biodiversity, such as the ones cited in *Sparing Nature*, predict a high rate of species loss unless effective measures are taken now. Unlike other species, humans have a choice. We can, and must, adopt responsible reproduction.

The international community should heed these important arguments. While the

Declaration on Environment and Development at Rio de Janeiro in 1992 and 1994's International Conference on Population and Development in Cairo encouraged curbing population growth, the United Nations Millennium Declaration in 2000 did not include demographic trends and family planning in the Millennium Development Goals. Similarly, the 2002 World Summit on Sustainable Development in Johannesburg did not focus on the relationship among population, unsustainable consumption, and environmental degradation.

Sparing Nature is the right book at the right time. It reminds us that there is no safety in numbers. Even if international declarations do not address the issue directly, we must put it on the agenda. The book provides ample reasons for programs to integrate population, health,

and environment issues, rather than focusing on one or the other. It strengthens the arguments of those who believe that family planning should be a choice for everybody, and it may provoke conversation with those who feel that the threat of population growth is overblown. The debate will certainly continue, but thanks to Jeffrey McKee, it may be conducted with better information.

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Human Security Now: Protecting and Empowering People

New York: Commission on Human Security, 2003. 159 pages.

Reviewed by **WILLIAM H. MANSFIELD III**

Robert Browning argued, "Ah, but a man's reach should exceed his grasp, / Or what's a heaven for?" ("Andrea del Sarto"). But will humanity embrace a radical vision of security, even as we face new and frightening threats?

Current concepts of security—largely dominated by the traditional state-centered view—are inadequate to meet the needs of our rapidly changing world, according to the independent Commission on Human Security in its creative and succinct report, *Human Security Now: Protecting and Empowering People*. What is required, the commission says, is a broader security framework that focuses not on states but on people. Security should shield people from critical and pervasive threats while empowering them to take charge of their lives. It should create genuine opportunities to live in safety and to earn a livelihood with dignity. To

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that end, the commission outlines a broad array of recommendations for buttressing and implementing the human security framework.

Launched at the 2000 UN Millennium Summit, the Commission on Human Security was co-chaired by former UN High Commissioner for Refugees Sadako Ogata and Nobel Prize-winning economist Amartya Sen.





Human Security Now calls for a new “people-centered” human security framework to address the conditions and threats humanity faces at the start of the 21st century. While the intent is admirable, the report’s recommendations are general exhortations, rather than specific actions for governments or organizations to perform.

Commissioners included Lakhdar Brahimi, the UN secretary-general’s special representative to Afghanistan (and later, Iraq), and former U.S. Secretary of Health and Human Services Donna Shalala.

Dramatic world changes formed the backdrop for the commission’s work. In the previous 50 years, the world’s population exploded from 2.5 billion to 6.2 billion, mostly in developing countries, and the world’s economy grew sevenfold. The turn of the millennium witnessed terrorist attacks, ethnic violence, an economic downturn, virulent epidemics, weakening multilateralism, increasing human rights violations, eroding commitments to poverty, outdated educational systems, and the international community’s failure to effectively address many of the root causes of human insecurity at the national and international levels.

Assessing these changes and threats, *Human Security Now* claims that state security, which emphasizes the integrity and robustness of the state, is outdated and no longer meets people’s needs. Urgently calling for a new consensus, the commission concludes that achieving human security requires twin efforts: protecting human rights and empowering people. Protection shields people from dangers of all kinds and empowerment enables them to develop their potential and support themselves with dignity.

The commission finds ample opportunities to promote this new concept in the globalizing economy, the rising support for democratic principles, the increasing power of civil society, and the adoption of the Millennium Development Goals. It applies the human security framework to six of today’s most difficult problems: violent conflict, migration, post-conflict reconstruction, economic insecurity, health threats, and poor education. For each of these, the commission recommends policies that, through wide-ranging collaborations, consultations, and outreach, could push the concept of human security to the top of the global agenda:

- *Protect people in violent conflict:* promote stronger mechanisms to protect civilians by providing humanitarian assistance and

affording special protection to women, children, the elderly, and other vulnerable groups victimized by war and civil strife;

- *Protect people on the move:* aid refugees and internally-displaced persons (the newest and most common victims) by developing a normative framework and practical measures to align state interests with protecting immigrants;
- *Aid people in post-conflict situations:* provide security and public services, help people rebuild, and find new and innovative fundraising strategies for reconstruction (a suggestion that U.S. planners might have found valuable in Iraq);
- *Relieve economic insecurity:* recognize the important role of markets and free trade, but balance economic growth with efforts to address chronic poverty, ensure minimal living standards, and provide social safety nets, land, credit, and housing;
- *Provide health:* commit to universal health care, community-based health initiatives, primary health services, and national disease surveillance systems; and
- *Furnish knowledge, skills, and values for human security:* achieve universal primary education and focus on educating girls, protecting women from sexual violence, equipping people for democratic engagement, and teaching mutual respect.

The commission features environmental sources of insecurity in the “Special issues in human security” section. It cites environmental degradation as a source of food insecurity, and describes how increasing freshwater scarcity escalates tensions among countries, rural and urban populations, upper and lower river basin occupants, and agricultural, industrial, and domestic users. The section calls for protecting the planet’s natural resources, effectively implementing sustainable development, and improving the management and use of natural resources. But these important steps do not make the commission’s final list of recommended actions.

Human Security Now calls for a new “people-centered” human security framework to address

the conditions and threats humanity faces at the start of the 21st century. While the intent is admirable, the report's recommendations are general exhortations, rather than specific actions for governments or organizations to perform. Nor do they directly address many of the principal roots of today's human insecurity: continuing population growth, massive rural-to-urban migration, degradation of the natural resource base, and the increasing gap between the world's rich and poor.

The commission's proposals to develop appropriate institutions and provide financial resources do not provide much assurance that its recommendations will be carried out successfully. It does not propose that an existing or new international body implement its work. Rather, it recommends establishing a vague core group of involved states, international organizations, and civil society, including the 13-government Human Security

Network, the Canadian Consortium of Human Security, and other national, regional, and global alliances. To raise funds, it encourages broadening the donor base of the UN Trust Fund for Human Security and the bilateral Grassroots Human Security Grants, both established by the Japanese government—not a reassuring long-term international funding source for this ambitious program.

Overall, the commission's embrace of the human security concept and effort to re-characterize it are laudable. By seeking to adapt our ideas about security to our rapidly changing and globalizing world, it has delineated a worthy, more encompassing, and certainly more individual (albeit Western) dimension to augment the traditional concept. But whether its vision and recommendations can be successfully implemented—whether its reach exceeds mankind's grasp—is still an open question.

Water Security and Peace: A Synthesis of Studies Prepared Under the PCCP-Water for Peace Process

Compiled by William J. Cosgrove

*Paris: United Nations Educational, Scientific, and Cultural Organization (UNESCO), 2003.
108 pages.*

Reviewed by **ANNIKA KRAMER**

I was thrilled when I received the set of more than 20 publications produced by UNESCO's "From Potential Conflict to Cooperation Potential" (PCCP) project.¹ Finally, everything you need to know about conflict and cooperation in international river basins in one package! The series includes volumes on the history of water cooperation, international water law, systems analysis, alternative dispute resolution, and indicators of water conflict, along with eight case studies of river basins (the Aral Sea, Columbia, Incomati, Jordan, Mekong, Nile, Rhine, and the Upper Lempa) and a training manual on participation, consensus building, and conflict management. Until now, the grow-

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ing literature on water, conflict, and cooperation has been dispersed among a wide range of journals, discussion papers, and books. A comprehensive overview of the broad range of issues surrounding such an intriguing topic would be an extremely valuable addition to the field. Ultimately, however, the structure of this series

is quite confusing, and instead of being a virtue, the breadth of the series diminishes the value of its contents.

Launched by UNESCO in 2001, the PCCP program—together with the case studies on the Danube, Okavango, La Plata, Volga, and Volta river basins produced by Green Cross International’s “Water for Peace” project—examines and promotes the potential of shared water resources to catalyze regional peace and development.² The joint program follows a three-track approach:

- A disciplinary track examines historical experiences and reviews legal, negotiation, and system analysis tools for solving water-related conflicts;
- A case study track draws lessons from the roots of transboundary water conflicts and from examples of successful water cooperation; and
- An educational track develops negotiation skills and management techniques for shared water resources.

In *Water Security and Peace*, World Water Council President William J. Cosgrove synthesizes the 28 volumes produced by the project. Summarizing the broad spectrum of PCCP studies is a difficult undertaking, so it may not be the author’s fault that the report lacks a common thread. Beginning with an overview of the history of water management, from the first hunter-gatherers to Roman cities to today’s industries, *Water Security and Peace* clearly shows that water has always engendered competition, and sometimes conflict. It also demonstrates that human civilization has developed solutions to address water shortages, but the increased speed at which they emerge, due to ever-rising water demands or pollution levels, gives people less time to adapt to new situations.

Drawing on Fekri A. Hassan’s contribution to the PCCP series, “Water Management and Early Civilizations: From Cooperation to Conflict,” Cosgrove suggests that “only a return to fundamental human values of justice and equity will provide a sustainable solution to the

world’s accelerating water crisis” (page 11) and that ethics is the “ideal and only long-term solution” (page 19). While this approach would certainly be desirable, generating “a national discourse on water for peace and prosperity” and teaching “our children a system of moral principles...based on shared fundamental human values of justice and equity that will build this world of Water Peace” (page 23) is not a very practical solution.

While the legal principles of international water law are sometimes difficult to apply, they do offer a framework for negotiations. Chapter 4, “Legal Approaches: A Sound Framework,” draws on PCCP papers by Vinogradov, Wouters, and Jones (2003) and Shamir (2003) to provide a useful introduction to international water law and alternative dispute resolution mechanisms such as negotiation, mediation, arbitration, and fact-finding. According to the chapter, whether international law and multilateral agreements support sustainable water management and avoid water-related conflicts depends on local and national implementation.

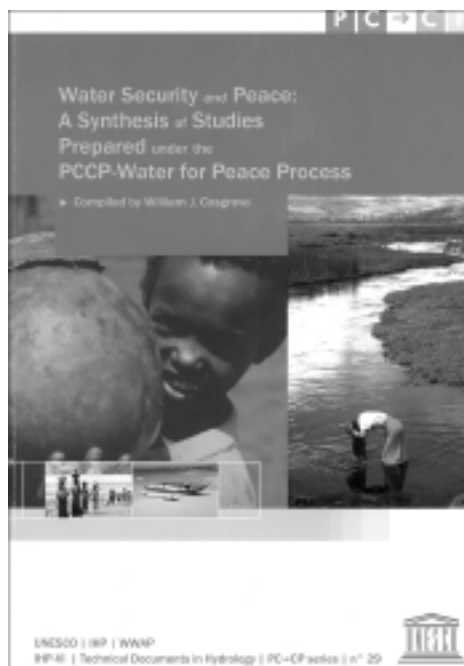
In their persuasive contribution to the series, “Untying the ‘Knot of Silence’: Making Water Policy and Law Responsive to Local Normative Systems,” Pieter van der Zaag and Jennifer Mohamed-Katerere question the efficiency of using the law to change water management in defined ways. Based on their analysis of Zimbabwe’s newly reformed water law and other African case studies, the authors point out that “the impact of law—how it is lived and experienced—is determined by its strength vis-à-vis other value and rule systems, including social, cultural, economic, and implementation systems, as well as its relationship to other institutions” (van der Zaag & Mohamed-Katerere, 2003, page 3). Policymakers and legislators, therefore, should take into account the “nexus between law and practice” and thus consider customary law (“the vibrant body of rules and principles that are flexible and constantly growing in response to a changing world”) when developing effective water law (pages 2-3).

Water for Peace’s seventh chapter, “Obstacles to Cooperation,” lists challenges that can

impede sustainable solutions to water management problems, including socio-economic political disturbances; poverty and socio-economic underdevelopment; insufficient information; and inequities in water allocation, knowledge, and military force. The water sector is plagued by weak institutions, which often lack democracy, political will, trained human capacity, and sufficient financial support.

Although some of these obstacles, such as poor governance and changing social values, are widely recognized, Cosgrove argues that developing adequate responses will require further thought and debate. The fifth chapter, “Trends: Emerging Issues and Opportunities for Cooperation,” includes Aaron T. Wolf’s observations that the shift to less traditional sources of water (e.g., deep fossil aquifers, wastewater reclamation, and interbasin transfers) and the increase in internally-driven conflicts might require developing new responses to transboundary water conflict. Cosgrove considers increased public participation to be one of the most important emerging trends; Chapter 6 collects examples drawn from Green Cross International’s experiences to illustrate how NGOs foster cooperation and help reach sustainable solutions to water management problems.

When can obstacles to cooperation lead to conflict? “Indicators of Potential for Cooperation” builds on *International Waters: Indicators for Identifying Basins at Risk* (Wolf, Yoffe, & Giardano, 2003), which finds no evidence that the parameters typically named as indicators of conflict (e.g., water scarcity, high population density, low per capita GDP) actually lead to violence. Instead, Wolf et al. identify a combination of factors that together establish a greater chance of hostility: “The likelihood and intensity of dispute rises as the rate of change within a basin exceeds the institutional capacity to absorb that change” (page 10). They find two situations that significantly increase the risk of a water dispute: (1) the sudden “internationalization” of a basin, or its division between nations, such as followed the dissolution of empires like the Soviet Union, and (2)



“unilateral basin development in the absence of a cooperative transboundary institution,” which produces rapid physical change without adequate institutional capacity (page 11). Using these indicators, Wolf and his co-authors identify 17 international basins with the potential to develop disputes in the next 5 to 10 years, basing their assumptions on news reports, water-related treaties, and literature research. While this approach can locate basins in trouble, a more detailed on-site analysis could determine the actual risk of conflict and the most effective way to foster cooperation in a specific basin.

Pal Tamas’s volume *Water Resources Scarcity and Conflict: Review of Applicable Indicators and Systems of Reference* (2003) stresses the relationship between intrastate water tensions and interstate conflicts, and emphasizes the importance of developing conflict resolution capabilities and making incremental advances in cooperation. Reviewing existing approaches to predicting conflict, like Clingendael’s Conflict and Policy Assessment Framework³ and the Forum on Early Warning and Early Response (FEWER),⁴ Tamas proposes compiling water conflict indicators. His proposal, although not fully described, identifies some



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important components of water-related peace and conflict assessments.

The final three chapters of *Water Security and Peace* provide a rather unorganized collection of lessons learned and recommendations. While they include some important points—for example, implementing transboundary cooperation requires coherent national water policies—the chapters awkwardly jump from one issue to the next, making for a difficult read. They do, however, reiterate the collection's main point: institutions are critical.

But what do effective institutions look like? The third volume in the PCCP series, *Institutions for International Freshwater Management*, systematically describes 19 institutions managing international river basins, lakes, and aquifers (Burchi & Spreij, 2003). Although it provides a valuable overview of different institutional designs, it does not draw any conclusions about the actual functioning of these institutions, as it is based mainly on treaties, conventions, and agreements, and therefore has very little information on whether the institutions have enough funds, human resources, and technical capacity to be effective.

Recognizing these limitations, Eric Mostert's well-structured desk study *Conflict and Co-operation in the Management of International Freshwater Resources: A Global Review* (2003) examines 23 international freshwater resources and concludes that “well-designed institutions deliver positive effects” and intergovernmental commissions can promote cooperation. His list of 54 lessons includes recommendations for effective institutional design and appropriate negotiation processes. He acknowledges that some of these lessons lack supporting case study evidence and recommends that further research examine the effectiveness of individual institutions.

I hoped that the PCCP case studies would provide this empirical evidence, but unfortunately, each focuses on a different aspect of cooperation, thus preventing cross-basin comparisons. The PCCP series could have contributed greatly to the field if it had used a common organizing principle like Mostert's theoretical framework for the case studies (interestingly, Mostert uses only two of the PCCP case

studies—the Rhine and the Aral Sea—to draw his conclusions). Another quibble: although it does include a few familiar basins like the Incomati, the series mostly covers the usual suspects, such as the often-studied Rhine, Jordan, Nile, Danube, Aral Sea, and Mekong basins.

The entire series could have offered more insights into “the intricate and interdependent links between water, security, and peace,” as stated in a PCCP brochure (UNESCO & GCI, 2003, page 15), if it were better organized. A more clearly arranged table of contents, for example, would have made it easier to understand the topics covered in each volume. Due to these shortcomings, I believe the PCCP series ultimately fails to fully achieve its noble objective: to provide people from different disciplines with a concise collection of background information, lessons learned, and tools to understand and enhance transboundary water cooperation.

Notes

1. See <http://www.unesco.org/water/wwap/pccp/index.shtml> for more information.
2. See http://webworld.unesco.org/water/wwap/pccp/cd/case_studies.html to download the PCCP and the Green Cross International case studies.
3. Clingendael is the Netherlands Institute of International Relations; see <http://www.clingendael.nl/> for more information.
4. The FEWER network, now defunct, was an independent global network of organizations committed to preventing conflict by providing early warning.

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