

# Cultural Reviews

## BOOK REVIEWS

### Whose Environment?

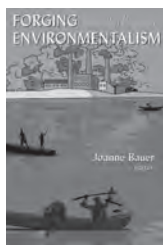
**An introduction to *Forging Environmentalism: Justice, Livelihood and Contested Environments***

**Joanne Bauer, editor**

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*In this abridged introduction to the upcoming book, editor Joanne Bauer examines the similarities and differences between China and other countries in ensuring that all affected groups have a say in official environmental policy.*



In a talk at the Carnegie Council about his book *Red Sky at Morning: America and the Crisis of the Global*

*Environment*,<sup>1</sup>James Gustave Speth, a world-renowned expert on and

leader in combating environmental problems, recited the grave threats facing the planet and lamented the failure of the international community to make progress against them in the past 25 years. He concluded that the solution rests largely with ordinary citizens “because the politicians have let us down,” and warned that “if citizens don’t take the helm, we will lose this fight.”

In order to achieve Speth’s vision of “a new movement of consumers and households committed to sustainable living,” we need to understand what motivates people to act. The aim of this book is to enhance our understanding of the social and cultural values that people bring to bear on environmental problems and how they mobilize those values to forge environmentalism—to create and sustain programs and movements of environmental action in their communities and their countries.

This book presents new case material that links scientific analysis to policy analysis and then goes one step beyond to examine how people in four economically, politically and environmentally important, yet highly disparate, countries—the United

States, China, India and Japan—define environmental goals and objectives, how their values related to the environment are shaped by lived realities, cultural contexts and political struggles, and whose values matter in setting environmental priorities.

In these stories we encounter the lived experiences, perceptions and values that underlie competing claims in human interaction with the natural environment, and the articulation and negotiation of these claims within different political, economic and social contexts. We also gain a clearer picture of how government policy contributes to the creation of environmental values by influencing people to value and protect the environment.

Our studies demonstrate that not all environmental values are accorded equal weight within the public domain, just as not all expressions of environmental value are seen as legitimately or properly “environmental.” As a result, the studies in this volume treat environmental values as dynamic and contingent on specific social, legal, political and economic conditions.

#### THE ORIGINS OF THE BOOK

This book dates back to early 1992, when under the auspices of the Carnegie Council on Ethics and International Affairs and with the support of the then newly formed Japan Foundation Center for Global Partnership, I organized a series of meetings with Japanese and American environmental policy-makers and their close advisers involved with the Earth Summit that was taking place that year in Rio de Janeiro, Brazil. The purpose of this task force was to enhance the efforts of government officials, scientists and civil society to assemble an action program on the environment by exploring the moral assumptions and ethical principles underlying environmental policy decisions in both countries.

But after the Carnegie Council task force reports had been written and sent to the press, questions remained over the extent to which the cultural, social and economic priorities identified for each nation’s team of environmental negotiators accurately represented the priorities of U.S. or Japanese citizens, and what kinds of policies should be adopted at home that could convince publics to embrace the Earth Summit agenda.

Two years after the release of the task

force reports, I initiated the Carnegie Council project upon which this book is based to explore these questions. We were particularly interested in how increasing globalization was affecting the ability of local actors to manage the environmental consequences of growth. In addition, we wanted to better understand the impact upon environmental values of both globalization and the internationalization of environmental standards.

Along with the United States and Japan, we believed it would be valuable to bring into the study India and China—two environmentally, economically and politically significant developing countries that were coming to be viewed as success stories of globalization.

The participants were motivated by the possibility that such a study could prompt new thinking about approaches to environmental protection in their own country. The Americans and Japanese hoped the study’s insights would help promote a new way of looking at assumptions embedded in national policy. The Chinese researchers wanted to demonstrate their particular environmental challenges and thereby improve international trust and cooperation. The Indian participants sought a means to incorporate local people and their values into policy making. As a group, we also wanted to scrutinize the school of thought promoted in both environmental policy and academic circles that says that people—poor people in particular—give economic well-being priority over environmental well-being.<sup>2</sup> And considering the tensions at Rio, we hoped that a comparative study of environmental values could point to ways of better promoting international cooperation.

#### THE STUDY

Our research method relied on country-based teams of researchers to select the cases, choose suitable methods and conduct and analyze the fieldwork. To make the project comparative, we used a two-pronged strategy of approximate standardization and continuous interaction, which kept all the country studies moving in the same direction while enabling us to identify common themes.

Like the project, the book itself is a product of collaboration, with multiple analysts bringing distinctive disciplinary and cultural perspectives to bear. Part 1 is the

product of researchers who selected the cases and carried out the studies; the chapter authors, who in certain cases are the same as the researchers and other cases are writers who drew upon and expanded the original field reports; and experts in the environmental politics of each country. In Part 2, specialists analyze the issues from the perspectives of environmental justice, law and science policy, environmental politics and global environmental governance.

Each case study section contains a historical narrative of the case and an analysis based upon field interviews of people and groups interested in and affected by the environmental problem. The chapter authors frame the studies to develop insights into how values and value change are related to broader trends of environmental policy and political action in each country. Each country chapter is preceded by an introductory essay that situates the cases within the broader national context.

#### THE FOUR COUNTRIES

This book covers four of the countries most responsible for industrial pollution and global resource management and whose cooperation is most required for real progress toward environmental sustainability.<sup>3</sup> Together these four countries account for half the world's population and economic output. They are also responsible for half the world's emissions of carbon dioxide. In 2000, all were among the world's top five countries in terms of total carbon emissions, and with GDP real growth rates in China and India continuing to soar, their carbon emissions are expected to rise. Beyond this quintessentially global challenge, which Speth calls "the most serious issue of them all," these countries face serious local resource and pollution concerns that often have cumulative regional and global effects.<sup>4</sup>

For the purpose of comparing and understanding how values are created in different contexts, however, the significance of these four countries lies not in what they have in common but in what makes each distinctive. As Clark Miller notes in his chapter, the four countries were not chosen at random:

Economically, the four span a diversity

of approaches to bridging markets and government planning and the three largest economies in the world. They include the widely regarded icon of Western, laissez-faire, liberal, free trade economics and the intellectual leader of the nonaligned movement. Politically, they are four of the world's current great powers, including the last remaining communist great power, the world's oldest democracy, and two countries whose current forms of governance have been adapted from legacies of occupation by Western countries with noticeably different notions about how to construct a democratic polity. Their inhabitants include some of the world's richest and poorest peoples, not to mention large, influential populations of many of the world's major religions, including Buddhism, Protestant and Catholic Christianity, Islam, Judaism, Hinduism, and Shintoism. Last, but certainly not least, each possesses a highly regarded, well-funded environmental science community.

Thus, these countries present both interesting parallels and important social, cultural, political and economic differences that affect the relationship humans have with nature, the character of environmental action, patterns of political mobilization and responses to post-industrial change.

In selecting the case studies within each country, project researchers sought to include different socioeconomic classes, climates and ethnic groups. They also picked at least one case that involved the environmental impacts of industrial development and at least one case of natural resource protection. We expected that the ways in which conflicts develop and are resolved would differ significantly in the two case types: In resource use cases, the resource is always seen to be a public good; the conflict involves a competition of values over how the resource should be used. Pollution, on the other hand, is almost always a public bad, but value differences emerge and conflict erupts when part of a community ignores pollution and part tries to eliminate it.

The China chapter describes two instances of ostensibly progressive policy initiatives to protect the environment undertaken or backed by China's central

government. Recent studies of Chinese environmental politics document the rise of public concern for the environment in the form of government-sanctioned environmental civic associations.<sup>5</sup> In our two cases the government's green initiatives provoked a quiet backlash—quiet because of the persistent limits on freedom of speech and organization in China.

The pollution study is set in Benxi, Liaoning Province, a city in China's industrial belt known for its steel production. The air in the city became so polluted that by the 1980s Benxi had earned a reputation as "the city that cannot be seen by a satellite." Reactions from the Benxi public to the effort to turn Benxi into a model environmental city underscore the class stratification taking place in China as a result of the transition to a market economy during that same period: whereas the new white-collar class was happy to see blue skies return, the growing number of residents struggling to cope with a transitional market economy betrayed cynicism and contempt for the environmental measures.

Our Chinese resource use case is the Sanjiang Plain wetlands, in the extreme northeastern corner of China, where economic development has been at odds with recent wetlands conservation efforts. Here, public resentment of the environmental campaign has been even greater than in Benxi. For nearly five decades, the central government promoted the Sanjiang Plain as a frontier for agricultural production and lured many migrants to the wilderness region to reclaim and cultivate the land. In the late 1990s a sudden about-face of government priorities led to a moratorium on agricultural development and other restrictions on land use.

The designation of a nature reserve in the Sanjiang Plain, initially by provincial authorities, reflected a growing awareness among both central and local officials of the benefits of wetland preservation, not only to environmental conservation, but also in the improvement of national security that sustained forest cover would provide from neighboring Russia. Nonetheless, local officials and residents alike felt betrayed by the more severe restrictions that came when the wetland was upgraded to a national level wetland and designated a "wetland of international importance." While nature reserve officials were optimistic about pos-

sibilities for ecotourism and other forms of economic activity, the failure to fund the reserve adequately fueled anger among most interviewees, who had already seen their livelihoods and futures damaged by the upgrading.

Still, a contingent of stakeholders at each site were convinced that something needed to be done to clean up Benxi's pollution and preserve China's wetlands, and that doing so would bring other benefits (such as attracting foreign funding) to both locales. The influential political scientist Robert Putnam has coined the term "two-level game" to describe a situation in which international pressure enables government leaders to shift the domestic balance of power in favor of a policy that they privately support but previously felt powerless to undertake.<sup>6</sup> Our cases demonstrate that even an authoritarian regime such as China's may need the legitimacy that international pressure can provide to its policies.

The Japan chapter presents two industrial pollution case studies in Minamata and along the Agano River, and two resource use case studies at Lake Biwa and the Nagara River, that demonstrate how a shift in the terminology used to describe environmental problems from *kogai* (literally, "public nuisance") to *kankyo mondai* (environmental issues) tracks a change in Japanese conceptions of human-nature relationships. The authors trace how, with large-scale and rapid industrial development, marked environmentally by the outbreak of Minamata-like *kogai* crises, most Japanese saw themselves as apart or "abstracted" from nature. Over time, however, each community began to reconnect with nature, thereby approaching what the authors call the "balanced whole" phase, in which the physical environment becomes valued again ("re-embedded") as a fundamental part of human existence. What became lost in the terminology shift from *kogai* to *kankyo mondai*, however, was the claim of victimhood, which is implicit in *kogai* problems. The new terminology thus represents the influence of elites and the obscuring of social injustice in environmental policy decisions and outcomes.

Our India pollution case centers on Delhi, which in 2000 was rated the world's fourth-most-polluted city,<sup>7</sup> and where, as in Benxi, environmental politics is dominated

by a new, politically powerful middle class. Unlike Benxi, where the conflict between environmental policy and livelihood may be more perceived than real, in Delhi the policy solution to industrial pollution—namely, the closure of thousands of factories around the city—directly affected the livelihoods of residents, from industrialists to casual workers, while bringing little if any reduction in air pollution. The study points to the politics surrounding what set of values gets labeled as "environmental" and therefore receives national and international recognition and support. It also demonstrates the interrelationship between the two forms of environmentalism, with the green agenda of the rich leading to greater social and economic marginalization of the poor and their concerns over fair distribution of resources and safe working conditions.

The Indian resource use case concerns fisheries in Kerala, where modernization has presented fishers with a fundamental choice of whether to maintain their traditional fishing practices, which are more sustainable, or to adopt mechanized technology at the risk of depleting marine resources.

The two U.S. cases, thematically linked by the country's addiction to cheap energy supplies, represent the principal cleavage within U.S. environmentalism: the environmental justice movement and its concern with fair distribution of resources and toxic burdens, and the mainstream environmentalist agenda of resource preservation. The case of the tiny town of Grand Bois in southern Louisiana, which was sickened by oilfield waste deposited in a nearby pit by a major oil conglomerate, Exxon Corporation, is representative of many instances of environmental injustice in rural areas that depend on natural resource extraction for their economic livelihoods.

The case examining an experiment on sustainable resource use in the affluent desert community of Civano, on the outskirts of Tucson, Arizona, shows that when policymakers create models of sustainable living, they can raise environmental consciousness and promote environment-friendly behavior. Yet the failure of the project to meet many of its original environmental goals and to consider the impact of continued sprawl ultimately limited its impact and support.<sup>8</sup>

## UNDERSTANDING VALUES CROSS-NATIONALLY

In Part 2, commentators provide cross-national analysis that identifies unsurprising yet important similarities across the cases: that environmental degradation and environmental policy have similar impacts on the poor and disenfranchised; that rich and poor people respond differently to environmental problems; and that environmental crises trigger social mobilization and social and value change. Yet they also identify significant differences from country to country in social relations and political culture that affect the ways in which values are articulated and conflicts are resolved or not resolved.

Sheila Jasanoff focuses on the formal and informal uses of the law by citizens and government bodies "in their attempts to navigate the contrary currents of environmental protection and resource appropriation," including resource allocation and planning, victim compensation, environmental standards-setting, the mobilization of science in service to the law, and resistance to unjust environmental actions and policy. Jasanoff's commentary is shaped by the understanding that adherence to the law is itself a value that "structures the expression of environmental values everywhere."

Jasanoff sees convergence across the cases in the ways in which the authority of institutions is undermined by the manipulation of science by government and industry, the demand of courts and policymakers for indisputable scientific proof of harm, and the inadmissibility of "nonscientific" forms of knowledge, even when people's lives are being ravaged by pollution. But she is even more interested in how strikingly different and sometimes conflicting values influence methods of dispute resolution, the emphasis placed on particular types of legal standards, community building strategies and social contracts.

According to Jasanoff, the aspiration to be modern—to attain technology-driven development and to establish democratic societies—motivated many of the people in the studies to accept or reject environmental policies and sometimes to seek to change them.

In "Environmental Transformations and the Values of Modernity," Arun Agrawal identifies three values of modernity that

influence approaches to the environment in all the case studies: the pursuit of progress, reason based on scientific knowledge, and a belief in equality. While Jasanoff identifies a conscious effort by some people in the conservation cases to distance themselves from this trend, Agrawal stresses that these cases are nonetheless driven on both sides by the pursuit of material goods such as economic benefit, flood prevention and diplomatic leverage.

Further, Agrawal observes that all of the studies show people on both sides of the disputes classifying the environment as a distinct policy domain that can be studied in isolation from social processes, which not only explains environmental problems, but may also “constitute our views about [our relationship to] the environment.” Finally, Agrawal notes that the democratic impulses spurred by each environmental crisis are challenged and even “trumped” by political economic realities—that is, by a competing claim about modernity.

Justice constitutes a central theme in this volume. By examining environmental values in the context of specific policy actions, the studies reveal the varying degree to which people and groups have the power to order their lives—in other words, the degree to which their values matter. Robert Melchior Figueroa proposes an “environmental justice paradigm” that includes distributive justice and recognition justice, and he uses the cases in the book to illustrate the various modes of injustice that often characterize environmental controversies. In the case of Benxi’s green campaign, for example, he asserts that city officials did not adequately take into account the needs of the many people left unemployed by the shift to a market economy. Similarly, he argues that the Civano development project failed to account fully for the interests of those harmed by Tucson’s further expansion (the Hopi and Navajo Indian tribes to the north and inner-city Mexican Americans).

Figueroa shows that in every case a particular community is forced to shoulder a disproportionate share of the burden of a harmful industrial practice or an environmental policy, or is unjustly deprived of a resource. Compounding these inequities is a keen awareness within the victim community that their voices are not heard and that

their values, interests and identities are not respected. Communities repeatedly denied a fair hearing in the policy process are often left feeling despair or anger, which they sometimes convert into social action in the form of an environmental justice movement.

Figueroa also stresses the importance of public recognition of the damage to environmental identity—cultural identity as it relates to one’s environmental surroundings—by both environmental assaults and insensitive policies. Damage to environmental identity can be devastating and irreversible, and justice measures that do not account for it are inevitably inadequate. Among our cases, such damage is most severe in Grand Bois, Minamata and Kerala, although Figueroa suspects that the environmental identity of traditional herders and hunters who live in the Sanjiang Plain and the residents of Benxi may also have been harmed in ways that are not fully explored.

Clark Miller concludes by examining the implications of the case studies for global environmental governance. Miller proposes three lenses—framing, styles of reasoning and trust—through which to view environmental values related to governance within their cultural grounding. Framing, Miller writes, is the process by which “people are taught to interpret and value what they see happening around them in new ways.” Styles of reasoning are the ways in which people connect their observations about the world to these broader frameworks. And trust in institutions is the crucial element in establishing standards, or “shared styles of reasoning,” that can achieve public legitimacy.

Starting with framing, Miller uses two pairs of contrasting examples—first China and Japan, and then India and the United States—to show how differently people confront similar environmental challenges. In discussing China and Japan, he underscores the distinction between top-down and bottom-up initiatives for environmental improvement. Meanwhile, in the case of the United States, the principal antagonists are corporate interests and activists, whereas in India the sharpest conflicts are drawn in class terms.

Miller goes on to discuss the lenses of styles of reasoning and trust, explaining that “only as specific frames begin to get

taken up and made use of in individual and collective decisions do they begin to have real bite in terms of social and environmental outcomes.” He concludes with a lesson for global governance: we need to build institutions of global environmental governance that are able to acknowledge and legitimize the expression of plurality in the world system.

#### FORGING ENVIRONMENTALISM ACROSS CULTURES

Within the human rights field, there is substantial scholarly debate over whether rights belong to the group or the individual person, and how to reconcile the two sets of rights bearers in the implementation of human rights principles. By contrast, these studies demonstrate that in the case of environmental issues, the line between individual environmental values and community values is blurred. While many social scientists maintain that values do not matter, that individuals may talk about values but act on the basis of interests, these studies show that values are an integral part of a process of identity formation and social mobilization.<sup>9</sup> In all the places we studied, it is by forming attachments to communities that people find ways to confer legitimacy on their values, invoke them and convert them into action that sometimes brings about policy changes on environmental issues.

How and when people recognize environmental degradation to be a problem, and how they respond to the problem and to government efforts to address it, reflects not only values concerning the natural world, but also values concerning work, health, religion, family and community. This does not mean that talk about sustainable development is merely a smoke screen for self-interested politics. To the contrary, it is evident that people hold deep feelings about the physical world they inhabit. One of the most poignant examples in the book is the reluctance of the Minamata fishers to accept the fact that the fish in Minamata Bay were contaminated. Their belief in the beneficence of nature brought a devastating consequence: some went on eating the fish and suffered crippling and often deadly disease as a consequence. Similar feelings underlay the ambivalence of many fishers in Kerala about adopting new fishing technology on

the belief that they have been blessed in the past because they have never disturbed Kadalamma, Mother Sea.

Nobel laureate in economics Amartya Sen lent his weight to the global debate over sustainable development when he argued that the concept should be broadened beyond the narrow “needs” focus given to it back in 1987, when it was first conceived and popularized by the Bruntland Report (also known as *Our Common Future*).<sup>10</sup> Referring to the oft-cited line in the report that defined sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their needs,” Sen wrote:

We are not only patients, whose needs demand attention, but also agents, whose freedom to decide what to value and how to pursue it can extend far beyond the fulfillment of our needs. . . . Should we not be concerned with preserving—and when possible expanding—the substantive freedoms of people today “without compromising the ability of future generations” to have similar, or more, freedoms? Focusing on “sustainable freedoms” may not only be conceptually important. . . . It can also have tangible implications of immediate relevance.<sup>11</sup>

Our cases describe both realized and unrealized attempts by people to exercise their freedom to choose how to value the environment. They each give rise to the question of *who* has the freedom to express their values, and produce remarkably similar conversations regarding fairness, justice and privilege. India, for example, has seen the evolution of two distinct forms of environmentalism: a green agenda for the new middle class and a resource scarcity agenda for the nation’s chronically poor, with the former winning out over the latter. The green demands of the rich increase the marginalization of the poor, defining the poor’s defense of their livelihoods against environmental campaigns as an immoral, as well as illegal, act. Similarly in our China cases, we see widespread middle-class support for the government’s resolve to act upon new scientific evidence of environmental degradation, but cynicism toward the government-led environmental agenda

among the widening ranks of the unemployed and the peasant class.

The phenomenon of divergent environmentalisms cuts across developing and developed countries. In the United States during the 1980s, social justice advocates challenged mainstream environmentalism’s preoccupation with resource preservation at the expense of the serious toxic pollution concerns facing poor, disenfranchised communities.<sup>12</sup> In all of the Japanese cases, lower-class fishers and residents repeatedly lose out to powerful corporate interests.

Across the cases the international environmental movement is a powerful force in conferring legitimacy on a particular set of environmental values. When local groups forge alliances and build networks internationally, they bring about a convergence of values and approaches that can fuel political mobilization and strengthen their movements. Yet international involvement often has the unintentional effect of silencing or radically altering local movements.

In the case of the Nagara River in Japan, for example, as the recreational fishers succeeded in bringing international attention to their cause, they drowned out the local commercial fishers who had first protested the planned dam, losing the opportunity for a robust public debate on environmental justice. Similarly, international environmentalists ignored the plight of the Delhi workers while praising the authorities’ efforts to clean up their city. When thousands of protesters took to the streets for several days in November 2000, the media framed the problem in terms of worker protests *against* environmental measures rather than as an expression of environmental values that promoted a healthy working environment and better living conditions for all.<sup>13</sup> In the Sanjiang Plain case, local farmers and recent migrants to the region hardly stand a chance of having their voices heard in the face of intense international pressure for China to preserve her wetlands.

In reaction, some communities intentionally avoid terminology associated with the international environmental movement. In Grand Bois, Delhi and Kerala, members of the affected community saw “the environment” as carrying an agenda that stood in opposition to their own environmental values. In Kerala, for example, the term

was initially associated with international ecolabeling schemes viewed as a tool of foreign powers to safeguard market access. A mark of the movement’s advancement was its leaders’ ability to articulate their problem with the term as standing in opposition to their goal of defending sustainable livelihoods.

Thus, we find that in many instances local vocabularies do not reflect the international discourse, and vice versa. Such a schism also occurs between local and national levels, creating a roadblock to public recognition of certain environmental problems. The national and international attention the Kerala fish workers and Nagara dam protesters gained through NGO networking was absent in the oilfield waste contamination case in Grand Bois, Louisiana, for example, because oilfield waste is “nonhazardous” by law, and even the American environmental justice movement did not at first notice the problem.

Much has been written about globalization’s homogenizing effects and the damage it does to local cultures. For many individuals and communities at the local level, loss of control has paradoxically bred a greater attachment to place, a quest for cultural belonging and a greater desire for cultural identity.<sup>14</sup> Following the national and international expansion of the fishworkers movement in Kerala, local fishworkers returned to an appreciation of their roots and a reevaluation of anything foreign. Calls for local autonomy and a say in the policies that affect one’s community also accompanied growing environmental awareness in Delhi, Minamata, Nagara, Lake Biwa, Civano and Grand Bois. As time passes, we may well hear similar calls in Benxi and the Sanjiang Plain.

The environmental advocate William Shutkin underscored the intimate connection between values, community and environment and the imperative of sustainable freedoms when he wrote:

The environment is the sum of all those places in cities, suburbs and rural areas that play an essential part in constituting our sense of ourselves as individuals and members of a community that demand our care and attention if they are to enhance, rather than diminish, that sense. To ensure the production and protection of a healthy

environment requires the participation of those whose quality of life ultimately depends on it: ordinary citizens.<sup>15</sup>

One way to call attention to the global environmental crisis and build a movement that can lead to the large-scale citizen environmental activism sought by Speth is to acknowledge the various ways that people make sense of their world by publicly recognizing environmental and cultural identity. A lesson of all these studies is that we cannot adjudicate resource use and pollution conflicts solely on a scientific and technological basis or through “one world” approaches to environmental problems.

The India study underscores the need to resist a single narrative in our quest for a solution to the crisis. Rather, we need a “fusion of horizons,” where “the moral universe of the other becomes less strange,” to borrow the words of the philosopher Charles Taylor.<sup>16</sup>

A principal ethical concern of environmental policy should be to devise systems of governance that hear the voices of all affected citizens and provide room for communities to forge environmentalism consistent with what they value in their lives. Some political systems give people greater freedom to express their values, yet even in the most open systems the right of free expression is circumscribed for certain groups. The convergence of environmental discourses across nations and locales and the silencing of discourses remind us that the multiple causes and effects of even a seemingly local problem complicate existing ethical questions regarding, for example, who sets the environmental agenda, whose voice counts, who bears the risk, who decides and who pays. Conflicts between value frames will inevitably surround such questions locally as well as internationally.

Our hope is that this book’s focus on grounded understandings of the interplay between values and knowledge might help guide us toward ways to resolve those conflicts justly, improve global environmental governance and ultimately protect our cherished earth.

## NOTES

1. A transcript of the talk is available at [www.carnegiecouncil.org/viewMedia.php/prmTemplateID/8/prmID/4469/](http://www.carnegiecouncil.org/viewMedia.php/prmTemplateID/8/prmID/4469/), accessed

- December 15, 2004. See also James Gustave Speth, *Red Sky at Morning: America and the Crisis of the Global Environment* (New Haven: Yale University Press, 2004), ch. 9.
2. See Ragnar E. Lofstedt, “Why Are Public Perception Studies on the Environment Ignored,” *Global Environmental Change* 5, no. 2 (1995): 83–85; Raymond M. Duch and Michael A. Taylor, “Postmaterialism and the Economic Condition,” *American Journal of Political Science* 37, no. 3 (August 1993): 747–79; and Ronald Inglehart and Paul R. Abramson, “Economic Security and Value Change,” *American Political Science Review* 88, no. 2 (June 1994): 336–54.
3. Steven Gardiner argues that it is wrong to think that climate change can ever be successfully addressed without the full cooperation of China, India and the United States. See Steven Gardiner, “The Global Warming Tragedy and the Dangerous Illusion of the Kyoto Protocol,” *Ethics & International Affairs* 18, no. 1 (2004): 28.
4. For example, according to the United Nations Environment Program, the air in Asia’s cities, including Beijing, Shanghai and Delhi, is among the worst in the world. In China, contaminated drinking water is arguably the country’s most serious environmental problem, with as much as 25 percent of the population lacking access to an “improved water source.” India is doing only a little better than China, with 16 percent of the population lacking such access. In the United States, the Environmental Protection Agency found that “forty percent of surveyed rivers, lakes and estuaries are not clean enough to meet basic uses such as fishing or swimming because of non-point specific pollution.” And in Japan the quality of lake water in a number of areas is deteriorating. For documentation on carbon emissions and all of these statistics, see [www.carnegiecouncil.org/forgingenvironmentalism/](http://www.carnegiecouncil.org/forgingenvironmentalism/).
5. The China Environment Forum at the Woodrow Wilson Center for Scholars has done extensive documentation of the development and work of environmental civic organizations in China. See especially, Elizabeth Knup, “Environmental NGOs in China: An Overview,” China Environment Series (Washington, DC: Woodrow Wilson Center, 1997), 9–15; Jennifer Turner and Wu Fengshi, eds., *Green NGO and Environmental Journalist Forum* (Washington, DC: Woodrow Wilson Center, 2002), available at [www.wilsoncenter.org/cef/](http://www.wilsoncenter.org/cef/). See also Elizabeth Economy, *The River Runs Black: The Environmental Challenge to China’s Future* (Ithaca: Cornell University Press, 2004), ch. 5; and Nick Young, “Searching for Civil Society,” *Civil Society in the Making: 250 Chinese NGOs* (Beijing: China Development Brief, 2001), 9–19.
6. Robert Putnam, “Diplomacy and Domestic Politics: The Logic of Two-Level Games,” *International Organization* 42, no. 3 (Summer 1998): 427–60.
7. This statistic has been cited widely and attributed variously to the World Health Organization and the World Bank.
8. Advocates of Civano are quick to point out that the Civano experience did pave the way for future, more successful sustainable development projects in Tucson. For example, Wayne Moody, the city planning director during the development of Civano, built on the experience to develop Milagro, a similar, albeit much smaller, demonstration project in inner-city Tucson. Not only does this project directly serve the less well off, but also it was more successful at incorporating environment-friendly features than was Civano (Moody, e-mail communication, July 14, 2004).
9. Of course many social scientists agree with this. See, for example, Sidney Tarrow, *Power in Movement: Social Movements and Contentious Politics* (New York: Cambridge University Press, 1998); and Charles Tilly, Marco Giugni, and Doug McAdam, *How Social Movements Matter* (Minneapolis: University of Minnesota Press, 1999).
10. The Bruntland Report, published as *Our Common Future* (New York: Oxford University Press, 1987), is the report of the World Commission on Environment and Development, led by Gro Harlem Bruntland, then prime minister of Norway. Barbara Rose Johnston, *Life and Death Matters: Human Rights and the Environment at the End of the Millennium* (Walnut Creek, CA: Altimira Press, 1997), 9–12, 330–39.
11. Amartya Sen, “Why We Should Preserve the Spotted Owl,” *London Review of Books* 26, no. 3 (February 2004).
12. Environmental justice advocates and scholars disagree on the role of race and class in the victimization. See for example, United Church of Christ Commission for Racial Justice, *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites, 1987; Environmental Justice: Hearings before the Subcommittee on Civil and Constitutional Rights of the Committee on the Judiciary, House of Representatives, 103rd Congress* (Washington, D.C.: Government Printing Office, 1994); Bunyan Bryant and Paul Mohai, “Environmental Injustice: Weighing Race and Class as Factors in the Distribution of Environmental Hazards,” *University of Colorado Law Review* 63, no. 4 (1992): 921;

as well as Bryant and Mohai's edited volume *Race and the Incidence of Environmental Hazards: A Time for Discourse* (Boulder: Westview Press, 1992); Robert D. Bullard, "A New 'Chicken-or-Egg' Debate: Which Came First—The Neighborhood, or the Toxic Dump?" *The Workbook* 19, no. 2 (Summer 1994): 60.

13. For example, see "Delhi Pollution Protest Spreads," BBC News, 21 November 2000, [http://news.bbc.co.uk/1/hi/world/south\\_asia/1032513.stm](http://news.bbc.co.uk/1/hi/world/south_asia/1032513.stm), accessed 3 January 2005.
14. See John Tomlinson, "Globalization and Cultural Identity," in *Global Transformations Reader: An Introduction to the Globalization Debate*, ed. David Held and Andrew G. McGrew (Cambridge, UK: Polity Press, 2003), 269–77.
15. William A. Shutkin, *The Land That Could Be: Environmentalism and Democracy in the Twenty-First Century* (Cambridge, MA: MIT Press, 2001), xv.
16. Charles Taylor, "Conditions of an Unforced Consensus on Human Rights," in *The East Asian Challenge for Human Rights*, ed. Joanne R. Bauer and Daniel A. Bell (New York: Cambridge University Press, 1999), 136. The phrase "fusion of horizons" is originally that of the philosopher, Hans-Georg Gadamer, whom Taylor credits.

## Final Warning

### A Review of *China's Ecological Winter*

[*Zhongguo zhi huimie*]

Zheng Yi

Mirror Books (New York), January 2002  
610 pages, \$24

BY HU PING



Zheng Yi

Over the past twenty years, high-speed development of China's economy has been accompanied by the rapid deterioration of China's ecological environment. Zheng Yi, a well-known Chinese writer now living in the U.S., spent three and a half years composing an urgent 500,000-word report on China's ecological crisis. Published in 2002, the book has only increased in relevance over the past four years.

*China's Ecological Winter* is made up of two parts. The first describes China's ecological crises, which include deforestation,

soil erosion, desertification, the sharp increase in geological catastrophes, the overuse and loss of arable land, the exhaustion of water resources, climatic disasters, horrendous water pollution, cancer resulting from air pollution, the deplorable state of urban sanitation, moribund coastal waters, the extinction of species and the exhaustion of mineral resources. It concludes with the Three Gorges Dam controversy as a case study.

The book's second part is a systematic analysis of China's ecological situation, with the final two chapters offering predictions for the country's future. Drawing from a wide variety of resources, the author calmly and analytically concludes that China is rapidly descending into ecological ruin and social disintegration.

Remarking on this prospective disaster, Liu Binyan observes in the book's preface, "In human history, perhaps only the bubonic plague, which killed a third to a half of Europe's population in the fifteen century, can compare to it." Even without agreeing entirely with this dire prediction, it is impossible to deny that China's environmental problems have reached a very dangerous level.

Zheng observes that 38.2 percent of China's soil has been affected by erosion, and 27.3 percent by desertification, and 94.5 percent of this degradation is attributable to human activity. With China's population continuing to grow on the remaining land, "In the span of less than half a century, our average living space per person has been reduced into one-fifth of its original level."

Among the 26 countries in the world with a population over 50 million, China's cultivated land per person ranks third from last; in recent years, the loss of cultivated land has exceeded 79 million *mu* (1 *mu* = 1.44 acre) each year. Without doubt, China's total land area is huge, but available living space is constantly shrinking, and the conditions in this space are deteriorating. Zheng Yi points to the drying up of China's rivers and lakes, and the severe pollution of those that remain. The pollution load per square kilometer of China's waterways is 16.5 times higher than the world average, and three-quarters of the 50,000 kilometers of China's major rivers cannot sustain aquatic life. All coastal waters are polluted, and the Bohai Sea has

become a virtual dead sea. China's urban air pollution is the worst in the world, mountains of garbage lay waste to some ten million *mu* of land per year, and indiscriminate hunting and killing of wildlife has led to the endangerment or extinction of many species. Energy consumption per unit of output is three times the world average, and Zheng Yi calculates that China is moving towards exhaustion of its domestic energy resources at a rate six times that of other countries.

Zheng Yi reminds us that environmental costs should be taken into account when calculating gross national product (GNP). According to Zheng Yi's statistics, "Behind the 'high-speed growth' of recent years, the cost of waste and damage of resources and environment exceeds 21 trillion *yuan* per year," compared with a GNP in 1997 of 7.48 trillion *yuan*. These figures suggest that the basic long-term welfare of China is being sacrificed to the short-term interests of rapid economic growth.

Zheng Yi also analyzes China's ecological crisis in view of the political system. "My most important discovery," he writes, "is that China's current system of 'public ownership and private operation' is a major contributor to environmental destruction. The separation of ownership rights from management rights initiated in the reform and openness period has caused unprecedented damage to environment and resources that is leading a hopeful China to ruin." Short-term activities and predatory operations became rampant as soon as the "land contract system" was implemented in rural areas at the beginning of the reforms.

Of course, it is too easy to demonize modernization as the chief culprit of the current global environmental crisis. High technology and big industry are double-edged swords: while they greatly enhance human ability to destroy the environment, they can also provide potent tools for protecting and improving the environment.

Likewise, it is true that capitalism encourages people to expand production and stimulates material consumption, easily resulting in over-exploitation and degradation of the environment. However, it is also true that the capitalist system rewards property owners for taking a long-term view in protecting and preserving their property, including environmental resources. Of

course, the capitalism referred to here is a free and democratic capitalism under which various principles and interests are represented and allowed to exert and improve their influence. It is in this way that the ideology of environmental protection has rooted itself in people's hearts in the West, making a great impact on society and raising defenses against environmental damage. The ideological trend of environmental protection and the establishment of powerful environment organizations (such as Germany's Green Party) became a force to reckon with in the West—not because environmental problems are worse there, but because western societies are the most free and democratic.

In the Mao Zedong era, China instituted public ownership. Already in ancient Greece, the philosopher Aristotle observed that the care devoted to an object is inversely proportionate to the number of its owners. Likewise, public ownership tends to be detrimental to environmental protection as well as to economic development. On the surface, it may seem that weaker economic development under public ownership may actually benefit the environment by leaving natural resources relatively unexploited. But this has not proven true in China. The rulers of the public ownership system have tended toward grandiose measures and quick fixes: they aim to reach the sky in a single bound, creating fake miracles to indulge the wildest fantasy. In their pursuit of high yield, these rulers lack the capacity for sound calculation of cost, and as a result, they are poor stewards of natural resources. Mao's disastrous campaign of backyard iron and steel mills in 1958 destroyed China's vast mountain forests in an instant. Now, under openness and reform, China has managed to maximize the disadvantages of both planned economy under public ownership and private market-directed economy.

As Zheng Yi says, the "public-ownership and private-operation" system is the chief culprit in China's environmental crisis, and the Chinese government continues to add fuel to the fire. Well aware of its lack of legitimacy and with no confidence for the future, the Chinese Communist Party preserves its rule through political repression and the bread and circuses of rapid economic growth. The result of this policy of maintaining fast growth above all is a vir-

tual killing of the goose that lays the golden eggs, draining the pond to catch the fish, or eating corn while it is still on the stalk. Everything is aimed at instant gratification. *Après moi le déluge!*

Citing abundant data and information as well as offering profound case analyses, *China's Ecological Winter* should be considered one of the most important works to date on China's ecological situation and environment protection. Anyone concerned with China must read it.

Translated by Wang Ai

## A Roundup of Recent Books on China's Environment

BY LI MIAO LOVETT

The recent outcrop of books on China's environment provides insight into the deeper causes of social unrest in the country. Resource constraints, pollution and degraded landscapes are threats to China's stability, and the solutions must necessarily be systemic. Below are selected works published since 2001.



***China's Environment and the Challenge of Sustainable Development*** (ed. Kristen A. Day, M. E. Sharpe, 2005) provides a scholarly yet engaging survey of the political, legal and social opportunities and impediments to ecologically sensitive growth. Individual articles by leading experts cover the spectrum from emissions trading and energy development to the challenges of managing hazardous waste and loss of land through desertification. Promising areas of development include aquaculture and wind power, but significant barriers also exist: conflicting policies, competing interests and lack of support on various levels. Among the surveys of public opinion, it is interesting to find that rural dwellers consistently showed greater awareness of global environmental problems, including global warming and acid rain, than urbanites. China has the infrastructure in place for carrying out a pro-environment agenda, yet the prospects for increasing the power of the State Envi-

ronmental Protection Administration (SEPA), as well as grassroots organizations, must pass the test of political time.

***The Greening of China*** (China Intercontinental Press, 2004) offers a balanced assessment of the country's environmental challenges along with progress made. Authors Geoffrey Murray and Dr. Ian G. Cook describe the goal of governments on all levels to reduce air pollution and traffic gridlock, address water shortages and pollution, decrease land loss to desertification, restore sensitive areas and develop a clean energy portfolio. These problems are interconnected, and China's reliance on coal and its thirst for energy are primary contributors. In 2003, environmental inspectors conducted a massive crusade across the country, shutting down thousands of polluting enterprises or halting production. In spite of such initiatives, however, progress is being made incrementally along numerous fronts. While citing the efforts of academic researchers and local leaders, this book neglects the impact of NGO and grassroots action, as does Day's anthology. Still, the authors provide a succinct roundup of key environmental problems, along with broad-spectrum solutions that involve business, government and the public.



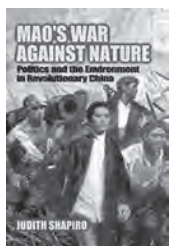
In ***China's Water Crisis*** (EastBridge, 2004), Ma Jun details the floods, water scarcity and pollution problems that have afflicted China's seven major drainage basins over time. The root causes include deforestation and agricultural practices that have robbed the landscape of its self-sustaining capacities while exacerbating the cycles of flooding and drought. The Yellow River, which flowed abundantly in ages past, has its very existence threatened by man-made problems, while the Yangtze is targeted for numerous dam construction projects. China's smaller rivers are also afflicted with soil erosion and agricultural runoff, while faulty reservoirs and falling water tables make it increasingly difficult to meet the demands of a growing urban population. Ma contends that human efforts to engineer these rivers, through dam building and water diversion schemes, are inadequate solutions that fur-

ther upset the balance between man and nature. By addressing the inefficiencies of irrigation and water utility systems, a conservation approach offers the most promise — if not prestige—in dealing with China’s water challenges.



**The River Runs Black** (Cornell University Press, 2004) begins with a revealing case study of repeated pollution disasters and political cover-ups that have plagued the Huai River

Valley. Elizabeth Economy then moves on to provide a thorough analysis of China’s environmental concerns in the reform period. Economy does a good job of covering the social problems arising as a consequence of rampant growth, including protests by peasants whose very lives and livelihoods are endangered by degradation of the land. To stem this destructive tide, central institutions chartered to protect the environment must be strengthened, although political self-interest and corruption continue to undermine the enforcement of laws. The book provides excellent coverage of the growth of civil society in China, where activists and NGOs have become key players in defending the environment, but must nevertheless walk a thin line in voicing opposition to current policies.



In **Mao’s War Against Nature** (Cambridge University Press, 2001), Judith Shapiro takes a critical look at the politics of revolution that eroded China’s environment during Mao

Zedong’s rule. Dam development, water diversion schemes, ill-guided methods to increase agricultural productivity and the destruction of forests to fuel backyard steel production have led to large-scale degradation of the environment. Critics such as Huang Wanli, an engineer who voiced concern over siltation and other ecological problems caused by dams, were simply silenced. The early Communist rhetoric kept rallying citizens to “Prepare for War,” and military-industrial development funneled natural resources into projects that made little economic or environmental

sense. The legacies of this era are not only ideological but also legal, especially in terms of land rights; this helps to explain the prevalence of disputes and peasant riots today over land seizures. Nevertheless, in criticizing Maoist policies, Shapiro also romanticizes a pre-Communist China whose traditions rested on harmony with the environment.



**Retreat of the Elephants** (Yale University Press, 2004) reveals environmental practices in ancient China that show that deforestation and water control schemes were part of

China’s landscape long before the Communist era. Mark Elvin’s thesis is that the active exploitation of nature has given certain cultures a military and political advantage. His work weaves together lyrical passages from ancient texts with scholarly information into a hefty tome that retains the reader’s interest. The title alludes to the impacts of reduced tree cover on the habitat of elephants, which roamed most of China 4,000 years ago, and now reside in small, protected pockets in the southwest. Elvin identifies major phases in China’s history where economic development and resource constraints took a toll on the environment. His case studies provide insight into specific dynamics, such as hegemony over minority groups to control land and resources, which have led to abandonment of Chinese philosophical, scientific and superstitious traditions that encouraged wise use. In the end, Elvin concludes that the landscape of China has been shaped by more universal beliefs and perceptions than by ideologies ascribed specifically to the Chinese.



**Before the Deluge** (Palgrave Macmillan, 2002) provides a vivid anthropological view of life along the Yangtze River as well as the political history behind construction of the Three Gorges

Dam. Drawing from personal experience and diverse historical texts, Deirdre Chetham describes river towns where lives and livelihoods had remained unchanged for hundreds of years. From early chapters

that portray the region’s colorful history and folklore, the book moves into a twentieth century account of numerous failed attempts to construct the massive Three Gorges Dam. Japanese invaders, Nationalist leaders and even the U.S. Bureau of Reclamation had a hand in early schemes to construct a great dam that would control flooding along the middle reaches of the Yangtze. Mao’s oft-quoted poem, “Swimming,” paints a vision of “walls of stone” that will create a “smooth lake” in the gorges, but even his clout could not stem the political complications that delayed the Three Gorges project for decades. Chetham covers not only the ecological consequences of the dam, but the cultural and economic impacts as well. Since the founding of the People’s Republic, more than 10 million people have been displaced by dams, and reports indicate that many of the displaced still live in poverty.



In **Outgrowing the Earth** (W.W. Norton & Company, 2004), Lester Brown examines the challenge of food security in the world, with numerous references to China. His chapters

bear affirmative headings such as “Raising the Earth’s Productivity,” and “Stabilizing Climate,” yet each describes the woes of an over-exploited earth. Brown notes that China is beginning to experience the “Japan syndrome” of an earlier era, where rapid industrialization puts pressure on its farmers and citizens, who must rely increasingly on grain imports. In China, this is compounded by the problems of desertification, falling water tables in the north, and land leasing policies that benefit developers at the expense of farmers. Brown, who is founder and president of the Earth Policy Institute, has also written several articles that tie China’s hunger for development to global impacts on natural resources.