

international freshwater agreements can help settle water disputes, including a useful set of questions for analyzing freshwater agreements. Together with the basin case study template in Annex 2, these questions will hopefully contribute to an increasing pool of comparable case study analyses.

Preparing a textbook on such an interdisciplinary topic and targeting graduate students from multiple disciplines is ambitious. *Bridges Over Water* must be complemented by a knowledgeable teacher who can give additional explanations and adjust the contents to the students' level. The book would have

benefited from a clearer introduction to the major problems and issues of dispute; moreover, more attention could have been devoted to the actual problems water managers face on the ground—especially in developing countries, where many of the transboundary rivers of the world are located—such as the lack of data, the difficulty of enforcing agreements, and limited institutional capacities to maintain river basin organizations. Overall, however, *Bridges Over Water* is a valuable contribution that helps fill the need for comprehensive textbooks on transboundary water conflict, negotiation, and cooperation.

The Environmental Dimension of Asian Security: Conflict and Cooperation Over Energy, Resources, and Pollution

Edited by In-Taek Hyun and Miranda A. Schreurs
Washington, DC: United States Institute of Peace, 2007. 362 pages.

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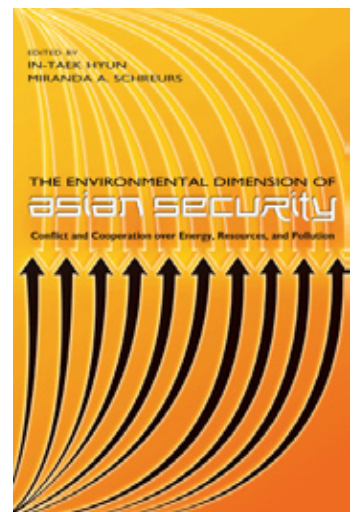
The Environmental Dimension of Asian Security: Conflict and Cooperation Over Energy, Resources, and Pollution describes and analyzes connections among resources, the environment, and security in Northeast Asia. Despite its title, this book is not about all of Asia, but instead focuses on its eastern, and particularly its northeastern, states and regions. Given the number of people living in this part of the world, its prodigious pollution, its unprecedented economic growth—and the dominant “growth-first, clean-up-pollution-later model of development” (p. 254)—as well as the region's growing appetite for natural resources, anyone interested in environmental security should be concerned about the issues addressed in this book.

Broadly speaking, the book examines the practice of and prospects for regional environmental cooperation, and provides readers with detailed descriptions and analyses of sev-

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eral prominent environmental and resource issues. The 12 consistently informative chapters include three devoted to defining environmental security and identifying regional institutions that address environmental and resource problems; three focused on energy security, including one dedicated to radioactive waste; two on the marine environment and water security; and chapters on food security, Korea, and NGOs.

Most chapters are very detailed, well-written, and freestanding, allowing readers to easily skip



to those chapters of greatest interest. Like several other chapters, Mika Mervio's chapter on water and human security in Northeast Asia (pp. 143-164) is one of the best available analyses of the topic; it is worth the price of the book by itself. Similarly, Young-Ja Bae's chapter is one of the best English-language summaries of radioactive waste management in East Asia (pp. 63-88).

The Environmental Dimension of Asian Security is very useful for its detailed—and sobering—discussion of the poor prospects for establishing robust and effective regional regimes to address environmental changes and resource scarcities. A proliferation of weak and overlapping environmental regimes have had little beneficial impact on environmental problems. Despite the region's profound environmental challenges, longstanding animosities and mistrust prevent effective cooperation on environmental and non-environmental threats alike. As Geun Lee argues, "broader identity relations among the countries in Northeast Asia are perhaps the most important factors affecting the formation of environmental security complexes," alongside "legacies of past colonial history and rivalries between Japan and China" (p. 38) and what Miranda Schreurs appropriately refers to as "still considerable mutual suspicion and tension in the region" (p. 256). Alas, the book does not detail how to surmount these obstacles; we need additional work devoted to overcoming historical suspicions as a prelude to ensuring environmental security in the region.

Some issues are largely absent or given minimal attention. For example, climate change garners very little attention, despite possibly posing the greatest threat to environmental security—and even territorial integrity (due, for example, to sea-level rise)—across much of East Asia. Although Anna Brettell devotes five pages (pp. 104-109) of her very informative chapter on energy security to climate change, it could have been featured much more prominently throughout the book. I would have liked a chapter devoted to climate change and its security implications for East Asia, or at least more

discussion of the global security implications of China's escalating greenhouse gas emissions.

Regular readers of the *ECSP Report* most likely agree that there are important connections between environmental change and security, but may disagree on the exact definition of environmental security. The editors of *The Environmental Dimension of Asian Security* define "environment" and "environmental security" very broadly, which helps explain the heavy emphasis on energy security, which was a major topic of study well before environmental security gained prominence in the lexicon of international affairs.

As Miranda Schreurs notes in her fine chapter on regional cooperation to protect marine environments, "Environmental security has been defined in different and, at times, competing ways" (p. 11). This book is no exception, but the contributors at least move us closer to finding a common definition. In the introduction by In-Taek Hyun and Sung-han Kim, environmental security is defined "in terms of the source of environmental problems, the scope and impacts of those problems, and the level of threat perceived by states or nations in relation to the problems" (p. 9). In other words, if environmental change is not *perceived* at all, it is not a threat to security—or at least it is unlikely to lead to interstate conflict. However, I wonder about the dangers of *unperceived* environmental changes; this definition would exclude climate change until the perception of its threat spread beyond a few scientists. Hyun and Kim propose one way around this problem: Empower "the community of experts working on the environment" (p. 14). When this community has sufficiently stimulated people's perceptions of environmental risk, "preventive" regional cooperation to avert environmental conflict becomes possible (pp. 13-14).

I question whether all of the issues in this book fall under the rubric of environmental security. For example, Esook Yoon, Seunghwan Lee, and Fengshi Wu's excellent chapter on environmental NGOs and their growing (but still constrained) impact on environmental policy refers to environmental security at the outset, but then assumes

that all environmental issues are problems of environmental security. Some chapters refer to the usual environmental security concerns, such as transboundary pollution and competition for natural resources, while others are dedicated to issues that are not necessarily primarily environmental, such as energy and food security. If states seeking energy security adopt energy sources (e.g., coal, nuclear power) that can have major environmental impacts, energy becomes a matter of environmental security, according to Elizabeth Economy, who addresses energy security in her superb chapter on the reality of and potential for a regional “environmental security complex” (see pp. 242-246). But if conflicts over energy arise due to greater demand for it—as Sangsun Shim and Miranda Schreurs discuss in their chapters on dependence on Middle Eastern oil, the 1970s oil shocks, and the nuclear crisis on the Korean Peninsula—this seems to stretch the term “environmental security” far enough to include everything somehow related to the environment.

Similarly, if food shortages arise not from environmental change but from incompetent government economic policies—as is arguably the case in North Korea, which gets much attention in this book (e.g., pp. 165-184)—to call them environmental security issues again stretches the definition. Just as energy security is not always environmental security (hence references in the book to “environmental and energy security”), food security is not always environmental security.

As Geun Lee points out, definitions of environmental security proliferate, and “[a]ttempts to conceptualize [it] have created considerable conceptual and policy confusion” (p. 23). Lee defines environmental security as “the state’s protection of the people from environmental threats and threats of an environmental origin” (p. 25), and further refines it by explaining that “[e]nvironmental problems become security issues when the state is forced to respond with extraordinary measures” (p. 25). This definition seems to exclude preventive cooperation described in other chapters, and suggests that something is not a threat to security until the problem becomes quite severe. One might

argue that environmental problems are nearly always dealt with through *ordinary* policy means, which would leave most of the issues examined in the book beyond the scope of environmental security. In short, most of the time “environment” and “environmental security” are interchangeable in this book, which explores the environmental dimensions of Northeast Asian international relations and domestic politics just as much as (or more than, in the case of some chapters) security.

The book has a few irksome characteristics: The misleading title suggests that the book is about all of Asia and not just East (and especially Northeast) Asia. Secondly, all of the notes are at the end of the book, but there are no headers to indicate the chapters and page numbers, making reading the notes extraordinarily annoying and time consuming. At first glance, the extremely detailed index—40 pages of small type—is a godsend for those who might use the book for reference. However, it is not reasonably organized; entries for North Korea alone take up two and one-half pages of the index—but not one of these is for “security.” In fact, the general index entry for “security” refers to only three pages of the entire book. Some of the material is out of date, and much of the recent literature on environmental politics and diplomacy in Northeast Asia is not cited. Nevertheless, the book’s selected but extensive bibliography, which provides a substantial sampling of publications on environmental policy in the region up to a few years ago, is still of great benefit.

Despite the omissions, *The Environmental Dimension of Asian Security* is an excellent book that should be part of any institutional or personal library on environmental change. Readers will not find better descriptions of some of the most important environmental challenges facing Northeast Asia, especially those interested in energy, the marine environment, water, food, the role of NGOs, and regional environmental cooperation. However, readers hoping to find a handy, all-encompassing definition of environmental security will be disappointed—though that is a problem that most of the literature has yet to solve.



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