A Warning of Challenges that Remain

The Russian Far East. A Reference for Conservation and Development. Newell, J. 2004. Daniel & Daniel Publishers, McKinleyville, CA. 486 pp. (466 + xx). $99.95 (hardcover). ISBN 1-880284-76-6.

This second edition of Josh Newell's 1996 book is an appropriate example of why disparate information available on the Web is no substitute for a well-crafted and thorough reference book. The author sets out to provide a guide for people interested in resource economics, geography, and conservation issues in the Russian Far East, hoping that people can pick up the book and connect with different topics of interest. It turns out, however, that the book also delivers some serendipitous additional benefits: it becomes a portrait of an important region in the aftermath of the Soviet era and turns into a reference source about local experts as well as a place. This last bonus for the reader results from the fact that Newell has succeeded in bringing together an impressive team of Russian and western contributing authors. The book reads as a "who's who" of experts on conservation and resources of Russia. Although the original book had 18 contributing authors, this expanded version lists more than 90.

People interested in conservation would do well to pay attention to the list of contributors—a drawback of post-Soviet environmental support from people outside Russia often lies in the fact that local voices are ignored. It is as though environmentalism sprang from a vacuum in the post-Soviet republics, waiting for American or European experts to come in and "discover" the issues. Both in the first edition of *The Russian Far East* and this excellent update, Newell pays homage to the rich knowledge held by Russian scientists. Therefore, this book is a good reference and a model of how western environmentalists might adopt a more helpful attitude toward the community of experts in Russia. This is their book.

Above all, Newell and his coauthors have created a useful text. It is clearly designed to provide maximum value to the reader who seeks data and explanation. Although the 1996 edition is 200 pages with simple maps, no index, and only 26 data tables, the new edition is 466 pages, has a good index, excellent color maps (by Mike Belts and Rankin Holmes, although many others contributed to the database and preparation of the extensive maps) and many photographs (including striking satellite imagery), 45 major tables, and 11 appendices with extensive data. It also redefines the region, breaking out new subregions (e.g., the Chukotsky and Koryak Autonomous Okrugs and Jewish Autonomous Oblast) and dropping Chita Oblast (which was included in the 1996 edition). The lexicon of Russian terms furnished at the beginning is much more extensive in this new book and of great value to readers unfamiliar with Russian terminology for geographic, economic, and environmental expressions or agencies. In fact, this feature alone makes it a useful reference book for anyone studying contemporary Russia.

Although the book is best at giving details about each region of the Russian Far East (an enormous territory, two-thirds the size of the United States and stretching from the Arctic to the border with China), it also gives holistic information that creates a snapshot of a very important area of Russia in terms of biodiversity, resources, and Pacific conservation issues. For example, the summary table of major environmental issues and problem areas could be lifted out of the book and used as a guide for Americans unfamiliar with the region. Newell's overview discussion of factors that influence the outlook for the environment of the Russian Far East is an appropriate critique of policies that have been designed to improve the situation but often fall short. Perhaps a key conclusion of the book, written by Newell, is that "Despite more than a decade of sweeping privatization and radical political restructuring, the aging and inefficient military-industrial complex built by the Soviets remains largely intact" (p. 11). Examples of these challenges abound in the book. The sections on mining and energy, timber, fisheries, protected territories, and certain endangered species (such as the Amur tiger, *Panteria tigris altaica*) are particularly strong, but agriculture is not given much emphasis.

Perhaps the only drawback to *The Russian Far East* is the same as its strength: it provides up-to-date and detailed information. The data will age quickly and the heroic amount of work required to bring together this group of experts may be difficult to repeat for a third edition. Meanwhile, I highly recommend the book to western conservationists, geographers, economists, and even those interested in developing business ties.

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The Russian Far East is littered with corpses of ventures that did not work out from either a profit or environmental perspective. The book serves as a good warning of the challenges that remain for nature and the people of Russia.

Kathleen Braden

Department of Geography, Seattle Pacific University, 5815 McKinley Place N., Seattle, WA 98103, U.S.A., email kbraden@spu.edu

A "Must Read" on Ecosystem Services

Ecosystems and Human Well-Being. A Framework for Assessment. Millennium Ecosystem Assessment. 2003. Island Press, Washington, D.C. 261 pp. (245 + xiv). $25.00 (paperback). ISBN 1–55963–403–0.

As many readers of *Conservation Biology* are surely aware, the Millennium Ecosystem Assessment (MA) is well under way and will be issuing its five major synthesis reports in 2005. The MA is an ambitious program with more than 500 contributors from around the globe. Launched in 2001, the MA seeks to provide useful and comprehensive information to policy makers on both the consequences of ecosystem change for human well-being and the options for responding to these changes. Perhaps not surprisingly, the MA drew part of its inspiration from the Intergovernmental Panel on Climate Change (IPCC). Just as the IPCC has given policy makers a scientific and policy consensus on the likely causes and impacts of climate change, the MA seeks to better inform and guide decisions that affect ecosystem management. The immediate audiences for the MA findings are the relevant multilateral ecosystem-related regimes—the secretariat and parties to the Convention on Biological Diversity, Convention to Combat Desertification, and Ramsar Wetlands Convention. Reflecting the importance of this effort, the MA boasts an impressive range of sponsors, from the United Nations Environment Program and The World Bank, to the U.S. Agency for International Development and the government of Norway, among others.

The MA, of course, is not the first global synthesis seeking to influence environmental policy. The Global Biodiversity Assessment, for example, supports the work of the Biodiversity Convention, while the Global Environmental Outlook provides a broad assessment of recent environmental developments and how social, economic, and other factors have contributed to these changes. The MA differs in two important respects from these efforts, however. First, it is explicitly focused on policy. The products of MA research are being written for policy makers, first and foremost. To be sure, the reports will present a comprehensive review of the state of the science, but the name of the game here is influencing policy development and implementation that will lead to changes in the field, not simply gathering relevant information. Second, the MA is explicitly focused on humans. As I explain later, the MA focuses on the provision of ecosystem services—how this affects human well-being, how provision of services is changing, how likely changes will affect human well-being, and response options. This is not, therefore, a review of biodiversity in and of itself or a synthesis of pollution loads and trends around the world.

As described on its Web site, the MA will identify priorities for action; provide tools for planning and management; offer foresight about the consequences of decisions that affect ecosystems; identify response options for achieving human development and sustainability goals; and help build individual and institutional capacity to undertake integrated ecosystem assessments and to act on their findings.

This is a tall order, and the obvious response to such an ambitious agenda is, How are you going to do all that? In this first publication of the MA, a working group of more than 50 authors sets out the framework for the MA's research efforts. The book is worth reading in two respects. For those interested in the details of how the MA conceptualizes the analysis of ecosystem services, it is a must read. Equally important, this book is a superb synthesis for those interested in the current thinking and research on ecosystem services.

The conceptual framework for the MA is premised on a dynamic model. The immediate object of research is ecosystem services—defined broadly to encompass the benefits people obtain from ecosystems through both goods (such as clean water and food) and services (water filtration, soil fertility, and cultural benefits such as spirituality and recreation). But simply listing examples of ecosystem service provision, of course, is of little use to policy makers. The key questions in the policy domain revolve around current levels of service provision and trends and future projections in this area, and the factors influencing these trends.

To furnish this more sophisticated (and useful) analysis, chapter 1 sets out the conceptual framework as a dynamic model with four constituent parts. The fundamental linkage is the effect of (1) ecosystem services on (2) human well-being and poverty reduction (including health, material minimum resources, freedom, and security). Both well-being and services are affected by (3) direct drivers of change. This includes land-use practices, stochastic physical events (e.g., volcanic eruptions), species introductions and removals, and climate change. And all these factors are influenced by (4) indirect drivers of change such as population growth, trade flows, technological developments, and cultural norms. As an example of this complex process, increasing population and trade flows of low-cost agricultural products can lead to changes in land use as marginal farming areas are put into production. This may increase erosion and soil depletion, which