

problems of environmental valuation, associated particularly with complexities of individual rationality and preference formation. Yet these issues are at the core of lots of environmental economics thinking today, both within mainstream thinking and in the 'heterodox' schools of thought, such as the various strands of institutional and ecological economics. Institutionalism is not mentioned in the book and ecological economics is mentioned in passing, falsely reduced to a point of view advocating the 'strong' concept of sustainability.

The second omission is perhaps the most problematic one. While the authors rightly argue that economic logic is but one among many to be applied in decision-making, they fail to recognize the unavoidably political role of economics in the broader policy context. By portraying environmental economics as a neutral discipline and arguing that economics simply provides but one logical and rational perspective on complex environmental policymaking, the authors overlook the power of modern mainstream economics in framing the debate and influencing the criteria of 'rationality'. Hence, this otherwise extremely well written book ends up perpetuating the illusion not only of economics as a neutral 'scientific' discipline, but more generally, of the possibility of the expert as a neutral outsider, standing apart from the messy world of politics.

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Wetland Drainage, Restoration, and Repair

BY THOMAS R. BIEBIGHAUSER

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'For centuries the drainage of wetlands has been seen as a progressive, public spirited endeavour, the very antithesis of vandalism' (Baldock 1984). How different is the view today, underpinned by both the increased wealth of evidence of the true value of the services provided by the natural functioning of wetland ecosystems and profiled by an increasing number of influential statements from both scientists and policy-makers.

Key analyses such as the Millennium Ecosystem Assessment (2005) and individual national inventories have emphasized the importance of wetlands, not only for wildlife, but also human welfare and environmental security. There is therefore considerable interest in their restoration and/or creation after a legacy of human modification and destruction.

In the first half of this text, Biebighauser traces the story of wetland drainage for agriculture and, in the second half, provides guidelines for converting dry or previously drained land to wetland. His aim is to help the reader build wetlands, based at least partly on a better understanding of how they were altered in the first place.

This is not a scientific treatise but, many will argue, much more useful. It focuses on the practical, not the academic, and the excellent array of photographs and diagrams provides clear

understanding and guidance on techniques used and proposed. The many examples of early writings describing the rationale and approach to drainage provide insight into the thinking of those early pioneers of agricultural reclamation. The author concludes that 'the drainers of wet land were kind, hardworking, intelligent people who placed a much higher value on fields that could be farmed'. New knowledge has certainly helped to better inform such decisions and Biebighauser's text is a valuable addition to the literature in showing how restoration can be achieved in practice.

The text relies heavily on actual case studies and examples, strengthened by reported conversations with those involved. It provides guidance on the many steps necessary to achieve a successful outcome. All the material comes from the USA and is written within that legislative and regulatory framework, particularly related to the Clean Water Act, permitting and the concept of jurisdictional wetlands. Whilst this emphasis makes the book of greatest interest to the North American reader, it is not without relevance to a wider audience. It manages to capture the real challenges of wetland recovery and how to meet them, using machines, human determination, skilful observation of terrain and the practical need for fund-raising. Wetland scientists, conservation and natural resource managers and water engineers are just some who will find the book a very useful practical guide and reference.

References

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Peace Parks: Conservation and Conflict Resolution

EDITED BY SALEEM H. ALI

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National parks, biosphere reserves and similar protected areas (in the present volume referred to as 'environmental conservation zones') contribute importantly to the preservation of the ever more beleaguered wild plants and animals with which humankind shares this planet. The many thousands of kilometres of national boundaries that separate the 193 or so intensely sovereign nations (with at least half of those boundaries remaining undefined or contested) have become established over the years in large part without consideration of habitat or ecosystem boundaries. Moreover, a state's boundary regions are often comparatively undeveloped, lightly populated and

perhaps ruggedly mountainous. As a result, hundreds of transfrontier (cross-border) sites exist throughout the world that would, but for political obstacles, make suitable bilateral (occasionally trilateral) reserves.

One indispensable component of its conservation is via the establishment of sufficient nature reserves that enjoy the necessary combination of *de jure* and *de facto* protection. With an estimated one-third of the sites worth protecting straddling the currently existing 220 thousand kilometres of national boundaries, it would be especially advantageous if all such established transfrontier reserves were either formally demilitarized (with guidance from the International Committee of the Red Cross), or alternatively recognized in one or more formal manners, for example as a UNESCO Biosphere Reserve, Natural World Heritage Site and/or Wetland of International Importance.

In fact, a transfrontier reserve was recommended as early as 1924 by a bi-governmental commission in connection with a post-World War I boundary dispute in the Tatra Mountains between the Slovakian sector of the then Czechoslovakia and neighbouring Poland (with a symbolic linking of contiguous reserves eventually coming to pass in 1955). In more recent decades, the United Nations Environment Programme has suggested that transfrontier reserves could under certain conditions serve the dual purpose of biodiversity protection and political rapprochement or confidence-building. And major international environmental non-governmental organizations (NGOs) such as the World Conservation Union and the Worldwide Fund for Nature (these often with support of the World Bank) have shown increasing interest in promoting transfrontier reserves, built primarily upon a foundation of ecological principles, but increasingly also with the welfare of the local population as a necessary corollary consideration.

The present volume is a most welcome addition to the numerous books and articles on transfrontier reserves inasmuch as it offers the experiences and insights of a host of scholars and practitioners largely new to the field. The 18 essays collected here were prepared by various combinations of 31 individuals from 11 countries (North America 19, Africa 6, Europe 4 and Asia 2) and of whom 18 are in academia, six with NGOs, four in government civil or military service, two with protected areas, and one with UNEP. Following an introductory chapter by the editor, the volume includes five chapters emphasizing theory, methodology or history, those followed by 12 that present case studies from around the world, both existing and potential; it then concludes with the editor's vision for transfrontier reserves as 'peace parks' that would serve the dual purpose of environmental conservation and conflict resolution. One of the recurring themes in the various chapters is the often uneasy interplay among the several key actors involved in establishing or maintaining a transfrontier reserve, including government officials, both civil and military, environmental scientists, UN officials, NGO representatives and the local populace.

Among the contributions offering theory, methodology or history, the questions addressed include the connection between ecology and peace (*vide* the Nobel Peace laureates for 2004 and 2007), the connection between ecology and sociology, top-down versus bottom-up approaches and governance issues at both regional and global levels. The ardent hope expressed in 1987 by Gro Harlem Brundtland of the World Commission on Environment and Development that international environmental issues deserve to be elevated from 'low politics' to 'high politics' is independently expressed here. One of the most useful of this set of contributions to both academics and practitioners is the analysis by Anne Hammill and Charles Besançon

on rigorous approaches to measuring the performance of transfrontier reserves.

Among the separate contributions offering case studies with greater or lesser hope for ultimate or long-term success are those for Mozambique/South Africa/Zimbabwe (incidentally noting the pioneering contributions here of the Peace Parks Foundation), Mozambique/Tanzania, Benin/Burkina Faso/Niger, Cambodia/Laos/Thailand, Canada/USA, Mexico/USA, Liberia variously with four of its neighbours, Japan/Russia, India/Pakistan and Afghanistan variously with four of its neighbours. A further contribution on Antarctica seems not only out of place in the present context, but slightly politically naive. Conversely, the following two case studies from the book must be singled out for the important potential contributions they make to the twin ecological and political (or socio-political) functions of a transfrontier reserve.

Ke Chung Kim (one of the few contributors with a long-time involvement in the field) presents a detailed history, prognosis and recommendations for achieving permanent protection for the Korean Demilitarized Zone. If successful, this 'green approach to conflict resolution' would serve the immensely important function of helping to forge and cement cordial relations between the two Koreas, with the ultimate aim of their reunification, while simultaneously contributing substantially to the desperate need for adequate long-term biodiversity protection on that peninsula. Although not mentioned here, the recently established 'US-DPRK [Democratic People's Republic of (North) Korea] Scientific Engagement Consortium', co-sponsored by the prestigious American Association for the Advancement of Science, may at last be the much needed avenue for substantively engaging North Korea in this dream.

Perhaps the most thought provoking possibility for a transfrontier reserve is described by Michelle L. Stevens, with the dramatic suggestion for converting the Mesopotamian marshes shared by Iran and Iraq (recently undergoing some restoration) into a bilateral 'peace park', thus to be jointly managed by those two embattled and battle-scarred states. The author considers this proposal not so far-fetched as it might at first seem owing to the strong support, both local and international, for rehabilitating this key Near Eastern wetland, as well as positive high-level signals from the Government of Iran.

The various contributions gathered in this volume are in general presented clearly, persuasively, and in keeping with current political science theory. But a case study that might have been interesting to include as a productive avenue for rapprochement between the world's two superpowers is the linkage that was bilaterally proposed officially in 1990 between the Russian Federation and the USA for what is now the Russian Chukotskiy Nature Ethnic Beringia Park and the US Bering Land Bridge National Preserve. At a more mundane level, the volume suffers from somewhat incomplete editing by the publisher, including minor orthographical inconsistencies, items in the index not found in the text, occasional spelling errors and several of the citations in the text missing from the reference list (which is combined for all chapters at the end of the book). These minor shortcomings in no way prevent me from commending this book for its wide-ranging coverage and futuristic outlook to the attention of relevant governmental policy makers, NGOs and scholars in the fields of environmental conservation and peace studies.

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