

can generate valuable funds to conservation projects while at the same time educating tourists and local people about the value of wildlife and conservation. Conversely, it is often responsible for driving uncontrolled development, increased pollution, the introduction of invasive species and a whole host of associated social ills.

Tourism's Jekyll and Hyde character is also apparent when viewed through the lens of climate change. Huge numbers of Europeans and North Americans fleeing to sunnier climes are clearly a major contributor to greenhouse gases, yet many of the resorts where they end up are heavily reliant on the income that tourism brings. Ironically, many of the tropical 'paradises' that are most dependent on tourism income (such as the Maldives and the Seychelles) are also predicted to suffer the most significant consequences of anthropogenic climate change, such as sea level rise and an increase in the frequency and intensity of tropical storms.

The first three chapters of this timely and thoughtful book explore these issues in a very concise and accessible manner, giving the reader a clear conceptual framework within which to understand the multifaceted relationship between climate change and tourism. Becken and Hay's identification of 'climate-tourism hotspots' (parts of the world that are economically dependent on tourism and which are forecast to have both high tourist arrivals and significant changes in climate in the near future) is particularly useful and a clear step forward in bring about appropriate global tourism planning and prioritizing it. Considerable depth is added to these conceptual bones through the careful use of case studies from alpine Europe and small island states. The following seven chapters expand upon this conceptual framework, discussing in detail the causes of global climate change, the principles of climate change accounting, mitigation measures, adaptation strategies and finally, climate change practices and policy for tourism.

Although the abundant tables and bullet points make the book sometimes read a little like a consultancy report it should be very well received by policy-makers and tourism professionals who are, perhaps, more used to this style than academics. That said, I fully expect this book to become required reading for tourism and ecotourism courses in universities around the world. As an up-to-date summary of a rapidly expanding area of tourism research it deserves a wide readership and, unusually for an academic book, will be genuinely useful to practitioners and planners.

From the perspective of conservation, Becken and Hays acknowledge that the interaction between tourism, climate change and ecosystems is complex. Climate change will certainly result in rapid and dramatic biogeographical and ecological changes and these will undoubtedly influence the desirability of some tourism destinations. However, the precision of our ecological forecasts are still poor, let alone the potential knock-on effects of ecosystem change on tourism.

Action on all fronts is clearly required, and with over 800 million international tourists travelling every year time is of the essence. Given that it is hugely unlikely that the global flow of tourism will be turned off in the near future, it seems there are few choices but to mitigate, adapt and try to assess the risks ever more accurately.

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Markets and the Environment

BY NATHANIEL O. KEOHANE AND SHEILA M. OLMSTEAD

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paperback, US\$ 19.95, Washington, DC, USA: Island Press, 2007

Markets and the Environment is a highly accessible and concise introduction to the mainstream thinking in economics of the environment and natural resource management. The authors target university under-graduate and post-graduate students in economics or interdisciplinary environmental studies as the primary readership, but as they rightly point out, environmental policy professionals would likewise benefit from the book. *Markets and the Environment* is too short to serve as a stand-alone comprehensive textbook, but this is also its major strength. It summarizes in just over 200 pages the fundamental logic of modern mainstream economics applied to environmental problems without expert jargon or excessive mathematical formalism; this is an achievement.

The authors start by defining what is to become the guiding theme throughout the book, namely economic efficiency, understood as the fundamental criterion for 'society's interest'. A brief introduction to the 'marginalist' thinking is followed by a presentation of the foundations of benefit-cost analysis, and explanation of the arguments for the superiority of market-based instruments as means of achieving efficiency. The authors then explain the concept of 'market failure', evoking three types of highly interdependent explanations: externalities, public goods and the 'tragedy of the commons'. These theoretical concepts are subsequently applied to explain the theory of non-renewable and renewable resource management, and the operation of market-based instruments in practice. The book ends with a brief incursion into the macroeconomics of the environment, optimistically concluding that economic growth and environmental protection can indeed be reconciled, as long as environmental costs are internalized in the price mechanism and economic accounting. Numerous real-life examples are used throughout the book, most of which come from the USA and other Anglo-Saxon countries, ensuring the reader never loses touch with the practical environmental problems at stake.

Markets and the Environment deserves its place among elementary reading for anyone interested in understanding the dominant economic thinking on the environment, yet the book should preferably come with a warning label or at least 'user's guide'. The book's main shortcoming may well reside in its greatest virtue; the apparently compelling and logical manner in which the case for modern mainstream economics is made seems like the only reasonable perspective in any given environmental policy situation. Admittedly, on many occasions the authors remind the reader of the complexities of the 'real world' and call for caution in successfully applying the simplified economic theories, yet the overall thrust remains one of 'economic rationality' against the 'irrationality' of considerations other than economic efficiency.

In particular, two crucial points deserved a place even in this short introductory textbook. They should at least have been dealt with in the excellent chapter-by-chapter 'discussion questions' at the end of the book. First, almost all of the key assumptions of modern mainstream economics are highly contestable. Theoretical and policy conclusions change radically once definitions of, for example, economic efficiency, formation of individual preferences and perfect competition are modified. Notable is the very limited attention given to the

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