

# Publications

**Social and Economic Benefits of Protected Areas: An Assessment Guide** edited by Marianne Kettunen & Patrick ten Brink (2013), 368 pp., Routledge, Abingdon, UK. ISBN 978-0-415-63283-6 (hbk) GBP 90.00/USD 155.00 ISBN 978-0-415-63284-3 (pbk) GBP 32.00/USD 57.95.

This publication is timely given the increasing interest in putting an economic value on nature. I was initially sceptical about the objectivity of the authors, given the presumption implicit in the title that it is only the positive socio-economic impacts of protected areas that warrant assessment. On delving more deeply, however, there is actually more consideration of costs than the title suggests, despite the overall aim of the editors and lead authors being to facilitate assessment and communication of the benefits of protected areas.

The primary target audience for this guide is those involved in the designation and management of protected areas who wish to explore the socio-economic arguments for conservation. It is effectively both a synthesis of evidence from a wide range of contexts of the benefits of protected areas, as well as a step-by-step practical guide on how to identify, assess and communicate those benefits, focusing on socio-economic values. Crucially it does not deal only with financial valuation. Rather it provides information on the range of different approaches and methods available—qualitative and quantitative as well as monetary. Helpful guidance is provided on which of these are most applicable to different types of benefits, depending on the resources and information available for the assessment.

Structurally the guide is divided into two main parts. A 'contextual guidance' section provides an overview of the benefits (expressed as ecosystem goods and services) and associated socio-economic values of protected areas. This is followed by 'practical guidance' for identifying, assessing and communicating those values and benefits. This second section is divided into three broad steps: a rapid scoping assessment, detailed socio-economic valuation methods, and guidance on interpretation and use of the results. As a non-economist who has recently read many papers on ecosystem service assessment—and who has become increasingly confused by the liberal sprinkling of terms such as hedonic pricing, contingent valuation and value transfer—the simple and concise introduction to monetary valuation methods was a godsend. Similarly, the absence of complex economic models and mathematical formulae

was a blessing; the step-by-step guidance on carbon storage and sequestration assessment being perhaps an inevitable exception.

Other welcome aspects of the book include the inclusion of a wide range of case studies from around the world, the emphasis on the importance of identifying the objectives of any assessment, and the honesty about the challenges and caveats of economic valuation per se as well as of specific methods. The recognition that the benefits (and costs) of protected areas are not evenly distributed between stakeholders at local, national and global scales is also to be applauded. The final section provides useful guidance on how to make sense of the results of the assessment, as well as how to use and communicate them to different audiences. While I don't necessarily feel 100% confident that, with this volume under my arm, I could carry out a robust assessment of the socio-economic benefits of protected areas in practice, reading it has certainly contributed to my understanding of the complexity of the issues involved. Let's hope it does the same for its intended target audience.

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## **Nature's Wealth: The Economics of**

**Ecosystem Services and Poverty** edited by Pieter J.H. van Beukering, Elissaios Papyrakis, Jetske Bouma & Roy Brouwer (2013), xvii+439 pp., Cambridge University Press, Cambridge, UK. ISBN 978-1-107-02715-2 (hbk) GBP 75.00, ISBN 978-1-107-69804-8 (pbk) GBP 35.00.

This volume presents the results of 18 case studies of sites in developing countries, with contributions from 68 authors from 23 nations. Funded by the Dutch Ministry of Development Cooperation, the research provided an opportunity for scientists from Bangladesh, Ethiopia, India, Kenya, Mali, Mongolia, Nepal, Pakistan, the Philippines, South Africa, Sri Lanka, Tanzania, Turkey, Uganda and Viet Nam to collaborate with colleagues from developed countries, including Australia, Canada, Germany, Hong Kong, the Netherlands, Singapore, Sweden, the UK, and the USA. They worked under the umbrella of the University of Amsterdam's Poverty Reduction and Environmental Management Programme ([www.prem-online.org](http://www.prem-online.org)).

The case studies focus on the relationship between ecosystem services and human

well-being, a promising perspective. Three of the cases address biodiversity-related ecosystem services, three cover marine-related ecosystem services, four look at forest-related ecosystem services, four more consider water-related ecosystem services, and the last four are on land-related ecosystem services. Despite some ambiguity of the categories, these divisions provide an opportunity for the editors to introduce the set of cases to come. This is especially helpful because the case studies do not include abstracts and the book has no concluding chapter.

Topics covered by the case studies include human-wildlife conflict (elephants in Sri Lanka, rhinos in Nepal), marine protected areas, fishing rights allocation in South Africa's Western Cape, charcoal in Tanzania, copper and forests in Zambia, environmental and social impacts of flood defences in Bangladesh, pasture management in Mongolia, and many more. All of the cases are strengthened by at least some economics, although the quality of the data is variable. Still, taken as a whole, the case studies will provide useful material to those considering ways to both conserve nature and contribute to poverty alleviation among the people who are living closest to the species and ecosystems that are under threat.

The topic of the book is timely but the approach seems a little out of date. Some of the cases appear to have been written in the 1990s, judging from the dates the data cover and the literature cited. Readers of this journal seeking new insights into the relationships between poverty and ecosystem services may feel disappointed to learn that more research is needed to clarify these relationships, which in any case are seen to depend on many factors. Few will be surprised with the conclusion that many benefits of ecosystem services are felt at landscape or even global scales, whereas the costs of conservation are paid locally (often by the poor). Nor is the call for 'state and social institutions to work in the interests of poor people' likely to raise many eyebrows, especially when the call is not accompanied by recommendations for specific actions.

The main recommendations are to promote opportunity and enhance capacity, strengthen ownership and facilitate empowerment, and enhance security—little controversy here. Readers will also learn that income poor and food insecure households consider products from nature more important than do those living in wealthy households; that communities need to trust protected area managers and perceive the sites to be legitimate before they can be expected to

be supportive; that public revenues are needed to fund targeted poverty alleviation projects; that well-defined property rights and clarity about who is going to pay for what are essential foundations of any project aimed at improving the plight of the poor; that water is essential to sustaining life; that individuals often fail to favour the interests of distant communities at cost to themselves; that wealth can cause more damage to ecosystems than poverty. Many good points, long known.

The book would have benefited from a biologist to help with fact checking, thereby avoiding calling elephants ‘keynote species’; naming Costa Rica and South Africa as ‘the two countries best known for their biodiversity’ (this will come as a surprise to Brazil and Indonesia, for example); or claiming that a wetland in Costa Rica was declared a Ramsar Site in 1951, a few decades before the Convention on Wetlands of International Importance came into force. Small problems, easily fixed.

While the conclusions may be familiar, it is useful to have some specific examples, backed up by economics, to give them greater currency and broader application. Who knows, if enough people can recognize that poverty alleviation is likely to be beneficial to conservation when these two enterprises are undertaken appropriately and in recognition of relative costs and benefits, then maybe loss of biodiversity can be slowed and eventually stopped. This book helps clarify the challenges that need to be faced before this happy state can be reached.

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**Exotic Aliens: The Lion and the Cheetah in India** by Valmik Thapar, Romila Thapar & Yusuf Ansari (2013), 304 pp., Aleph Book Company, New Delhi, India. ISBN 978-9-382-27755-2 (hbk) GBP 26.50.

When I was young the conservation world was much simpler and nature seemed to be easy to identify, if not to save. It is getting harder and harder to even figure out what we’re supposed to save—we just don’t seem to know what nature is any more. Novel ecosystems, alien species, forest composition altered by long absent humans, overabundant species, native

species expanding their range, and changing ecosystems—the list goes on and on.

*Exotic Aliens* has made the task even harder. Perhaps you already know about the Gir lions, that small population of lions found in the western Indian state of Gujarat—the only lions currently occurring outside Africa. There have been lots of explanations for how the distribution of lions had to have collapsed, leaving only this remnant population. But no one that I read ever contemplated that these lions may not in fact be native to India but were in fact established by humans with animals shipped in from Africa. The same argument holds for Indian cheetahs.

The book makes this bold argument, but in humble fashion. The lead author says that what he wants is for the book to create a stir in the natural history world and inspire people to do more detailed research. I hope he gets his wish. The principal author, Valmik Thapar, is a self-styled naturalist who has done much to publicize the natural history of Indian tigers and who stumbled on this topic while researching 500 years of recorded tiger sightings. He observed that for every thousand tigers recorded as killed per year there were fewer than a handful of lions and cheetahs. This finding diverted him from his tiger research and on to the path that produced *Exotic Aliens*. To help him build his argument he enlisted two historians, Romila Thapar and Yusuf Ansari, who contributed three chapters reviewing what is known about the pre-history and history of cheetahs and lions in India.

The major conclusion of the book is that lions were imported from Africa and Persia, starting 2,500 years ago, to meet the demands of the Indian royalty, who bred and propagated them as court symbols and for hunting. The desire for lions was also an import, coming from the Greeks and Persians, for whom the lion was the symbol of power and the killing of a lion the ultimate sign of personal (royal) strength. The cheetah’s story was both similar and different. It was imported as a pet and as a domesticated hunter that at times escaped and created small, feral populations.

The Indian royals were great hunters, both in the wild and in hunting gardens. These walled enclosures were stocked with game that was killed at leisure and with the occasional aid of opium to drug the prey. If you needed to kill a lion and there were no wild lions at hand then lions had to be bred to be released for the hunt. So there was apparently active lion husbandry going on. And some escaped

or were released when the the hunting garden tradition was abandoned. And thus we got the Gir lions. Cheetahs were imported and trained to hunt antelope and it was not uncommon to see cheetahs and their trainers in many parts of India.

The major point that Thapar makes is not a new one, and he acknowledges on the first page of the prologue that: ‘the debate about the origins and prevalence of lions and cheetahs in India must have been vigorous in the eighteenth century’. But that debate sank beneath the waves and left us with the puzzle of how to use our high-powered genetics and biogeography to explain this distributional anomaly. As an example, a recent paper by Bertola et al. (2011, *Journal of Biogeography*, 38, 1356–1367) on African lion genetics concluded: ‘West and Central African lions are more closely related to Asiatic lions than to the southern and East African lions. This can be explained by a Pleistocene extinction and subsequent recolonization of West Africa from refugia in the Middle East’. Or, by the Thapar thesis!

Why do I think this is more than a historical curiosity to recount to young graduate students or impressionable dates? My training in ecology (in the late 1970s and 1980s) was curiously a-historical and treated humans as being outside ecology. That is no longer the case but we have still not reconciled ourselves to the important role history has played in determining what we think of as natural, and therefore worth saving. Books such as this flush us out of our scientific cover and force us to confront the values and relativistic nature of our science and how they both inform what we choose to conserve. So what if lions are not native to India? They’ve been there for hundreds of years, are functional components of a (deeply human-altered) ecosystem and firmly imbedded in Indian culture. India wants more lions—witness the recent Indian Supreme Court case in which the state of Gujarat was forced to share a few of its lions with the state of Madhya Pradesh, to create a new population. Or are they alien species that should be returned to zoos? So who decides and on what basis? This is a great book to use as part of what I hope will be a new graduate training seminar—historical ecology, humans, and the conservation of the future.

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