

BOOK REVIEW

R. E. Hester & R. M. Harrison (eds.): ECOSYSTEM SERVICES. – RSC Publishing, 2010, 176 p., ISBN 978-1-84973-018-1.

Ecosystem functions are threatened by over-exploitation, and ecosystem services are limited in a global context. This fact means it is imperative to evaluate trade-offs between immediate and long-term human needs, and to take action to protect biodiversity and habitat feedback processes, which represent key factors in delivering ecosystem services. Developing anthropogenic alternatives is the key task for decision-makers: economic value is increasingly being associated with many ecosystem services. A significant part of this effort is prescribing economic value to nature and maintaining sustainable ecosystems, through multi-disciplinary shifts in how we recognise the environment should be managed.

The subject of the book is presented within seven chapters, each of them elaborated by a group of distinguished authors.

„An Assessment of Ecosystem Services and Biodiversity in Europe“ written by Alastair Fitter et al., emphasizes the importance of this assessment in the European context. A high degree of land exploitation could reduce the ability to provide a potentially broad range of ecosystem services (see also Romportl 2009). Non-traditional demands in land-use and, simultaneously, its abandonment, imply difficulties in sustaining the long-term value of the landscape.

„Ecosystem Services and Policy: A Review of Coastal Wetland Ecosystem Services and an Efficiency-Based Framework for Implementing the Ecosystem Approach“ is a review from P. C. L. White et al., concerning wetland ecosystem services, the role of coastal habitats in nutrient cycling and the purpose of regulations governing water quality. The ecosystem approach in environmental management and social development is integrated through the subdivision of compartments within the system.

„Ecosystem Services and Food Production“ by Ken Norris et al. reflects on the world's growing population and a recent steep trajectory in rice cultivation; namely, its impact on livestock production, agriculture and harvesting of natural resources, with the resulting environmental effects such as land degradation, habitat and biodiversity loss, and changes in the cycle of geoelements (Kovář 2010). This chapter covers these key topics, offering an explanation of how the food production system depends on the above-mentioned impacts.

„Atmospheric Services“ written by John Thornes, identifies some controversial features of the atmosphere as a life-supporting part of the Earth, and simultaneously, as a source of hazards (Kovář 2011). Cleansing capacity in relation to air pollutant dispersal, protection from meteors, aspects of global warming, maintenance of the hydrological cycle – these are examples bringing considerations about economic costing of related phenomena.

„Natural Capital and Ecosystem Services: The Ecological Foundation of Human Society“ presented by E. G. Baggethun and R. de Groot, works with the terms economic health, maintenance of integrity and resilience of natural ecosystems. Economic valuation is declared in more general context, and illustrates some problems neglected by standard economic theory.

„Protecting Water Resources and Health by Protecting the Environment: A Case Study“ is the first of two last chapters devoted to specifically addressing practical issues of sustainability. It is written by Luke de Vial et al., with the aim being to illustrate the substantial impacts of agricultural practices on water quality and derive measures for water remediation management.

„Life Cycle Assessment as a Tool for Sustainable Management of Ecosystem Services“ includes a chapter where Adisa Azapagic demonstrates the use of the life-cycle

assessment/analysis as a method for determining sustainability of ecosystem services. A description of the theoretical basis of the life-cycle analysis is presented and applied in four illustrative case studies.

This book brings together appropriate topics in environmental science, constituting an excellent source for policy makers and environmental experts. In addition, the text can also serve as a concise reference book for advanced students and researchers of applied ecology and environmental management.

*Pavel Kovář**

REFERENCES

- Kovář P. (2010): Naveh Z.: *TRANSDISCIPLINARY CHALLENGES IN LANDSCAPE ECOLOGY AND RESTORATION ECOLOGY*. Springer, Landscape Series, Volume 7, Dordrecht 2007, 423 p., ISBN-13978-1-4020-4420-5. - Journal of Landscape Ecology, 3(1): 86, 2010.**
- Kovář P. (2011): Lee Hannah: *CLIMATE CHANGE BIOLOGY*.- AP Elsevier, Amsterdam etc., 2011, 402 p., ISBN 978-0-12-374182-0. - Journal of Landscape Ecology, 4(2): 76-77.**
- Romportl D. (2009): Wrbka, T.- Zmelik, K. – Grünweis, F.M. (eds.): *THE EUROPEAN GREEN BELT – BORDERS, WILDERNESS, FUTURE*. – Publisher: Verlag Bibliothek der Provinz, 2009, 343 p. – Journal of Landscape Ecology, 2(1): 78.**

* Charles University in Prague, Faculty of Science, Benátská 2, 128 01 Prague 2, Czech Republic, e-mail: kovar@natur.cuni.cz