

Publications

The Law and Policy of Ecosystem Services

by J.B. Ruhl, Steven E. Kraft and Christopher L. Lant (2007), x + 345 pp., Island Press, Washington, DC, USA. ISBN 9781559630955 (pbk), USD 35.00; 9781559630948 (hbk), USD 70.00.

Research on ecosystem services, the end products of nature that benefit humans, is a growth industry. Each month sees the publication of more papers, many published in top-tier journals, on the geography, ecology and economics of ecosystem services. Much of the research is smart and sophisticated. However, almost without exception, it is not embedded in a social process designed to ensure effective on-the-ground management of areas that deliver ecosystem services. In other words, there is no real-world, implementation context.

Consequently, the growth in our knowledge of ecosystem services is not paralleled by an increase in our ability to safeguard them. There is a good reason for this: safeguarding ecosystem services is difficult. Each and every day many of us are exposed to the destruction, for short-term gain, of natural capital that is critical for the persistence of species, including our own. We are frustrated, even outraged, by the primacy of selfish, short-sighted policies that posit economic growth and wealth creation as the solution to complex problems that the world faces today. We have known for a very long time that draining wetlands for golf estates, converting mangrove swamps to shrimp farms, trapping beach dunes under holiday homes, and overgrazing watersheds will generate feedbacks that will be shocking in their intensity and tragic in their consequences. Some day, someone will pay; but whom and when? This then is the 'tragedy of ecosystem services', a concept described in this extremely timely and useful book. There are no incentives for rational people to safeguard something they own that will deliver, in uncertain ways and perhaps only some time in the future, benefits to others who live somewhere else.

But if we are going to have a reasonable chance of sustaining human societies on this Earth, we are going to need to overcome the tragedy of ecosystem services. This will require us to bridge the gap between knowing about these services on the one hand, and doing something about saving them on the other. This book is an admirable step in this direction: a first of its kind.

Ruhl *et al.* have delved deeply into policy and law as they pertain to natural capital and ecosystem services. With a few exceptions, they find the larder bare. It's worth quoting them, if only to re-enforce the point: 'Although a consensus is building that ecosystem services hold tremendous values that we should seek to understand and incorporate into decision making about the environment, regulatory frameworks and social norms for efficiently managing ecosystem services have not materialized. The status of ecosystem services in law and society, in other words, is that they have none' (p. 10).

This is a dense, scholarly book; it is not an easy read. But it is well structured and potentially very useful as a reference for, and guide to, an extremely wide-ranging literature on issues not normally read by the natural scientists and economists who dominate contemporary ecosystem service research. The book is coherently divided into four substantive sections. Part I (The context of ecosystem services) provides a comprehensive and up-to-date review of the ecological, geographical and economic aspects of ecosystem services. I appreciated in particular the focus on scale, both spatial and temporal, in all three contexts, and the fact that authors do not shy away from the often overwhelming complexity of the topic. Natural scientists will find the cogent treatment of economic aspects especially useful.

Part II (The status of ecosystem services in law and policy) is, from an information perspective, the heart of the book, as it comprises an investigation of the policy sources for managing and safeguarding ecosystem services. These sources, each occupying a chapter, are property rights, regulation and social norms. The chapters makes depressing reading. For example, property rights have evolved to facilitate the transformation of natural capital, historically in surplus, into manufactured capital. But much natural capital is now in short supply, yet legal frameworks are not yet responding to this reality. The authors are equally pessimistic about the potential of contemporary regulatory and normative institutions to provide for the effective management of ecosystem services.

Part III (Empirical case studies in ecosystem services law and policy) provides nine case studies that demonstrate real-world application of the issues discussed in Parts I and II. Thus, one is able to see just how this complexity plays out in relation to actual

pieces of land and water. Given the current economic paradigm, the chapters are an assessment of the successes and failures of market-based instruments for safeguarding ecosystem services. This is a very useful section indeed.

In the final section of the book (Part IV; Designing a new law and policy for ecosystem services), the authors provide useful and detailed pointers for the kinds of legal and other institutional frameworks required to ensure that ecosystem services are effectively safeguarded. These boil down to (1) changes in common law policy, (2) accounting for the economic value of ecosystem services, and (3) the development of 'geographically defined institutions for the regulation of natural capital and the provision of ecosystem services as public goods' (p. 295). None of these recommendations is new or even revolutionary. But getting them in place will not be easy. The book provides detailed lists of steps that need to be followed to manage the transitional phases, deal with the inevitable trade-offs, and establish the institutions and organizations required to implement the new policies.

This is a very useful book that I strongly recommend to anyone interested in ecosystem services research, policy and implementation. But don't expect an easy read; I sweated through Parts II and IV. Also, other than a brief mention of a case study from Europe in Part III, the book is entirely focused on the USA. So don't expect any insights from legal and policy frameworks elsewhere in the world. An engaging and global treatment of the topic remains to be written.

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Systematic Conservation Planning by

Chris Margules and Sahotra Sarkar (2007), vii + 270 pp., Cambridge University Press, Cambridge, UK. ISBN 9780521703444 (pbk), GBP 35.00/USD 65.00; 9780521878753 (hbk) GBP 75.00/USD 145.00.

Systematic conservation planning is a target-driven process for designing protected area systems and other ecological networks. This important topic has been written about extensively in the scientific literature by everyone from data-mining academics to