

links between goals, objectives, actions, and outcomes.

The book seems to be a collection of stand-alone chapters sandwiched between two summaries. The bibliographies at the end of each chapter contain many of the same readings, and could have been combined into a single bibliography at the end of the book. Granted, this book is not intended to read like a novel, but better integration among chapters may have helped to break away from the disciplinary myopia that besets watershed management.

The highly respected NRC committee members accomplished the large task of reviewing and evaluating watershed management, and this book is their result. Planning practitioners, researchers, and educators will want to add it to their collections.

Anne Steinemann

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The Economic Value of Landscape Change: Theory and Policies for Land Use and Conservation

José Manuel L. Santos. Edward Elgar Publishing, Northampton, MA, 1998. 286 pp. \$90.

In *The Economic Value of Landscape Change*, José Santos combines theoretical grounding with case studies in England and Portugal to conduct a cost-benefit analysis (CBA) of rural landscape preservation. This new book in the series *New Horizons in Environmental Economics* is the product of the author's doctoral research. It is addressed to economists and other quantitatively oriented academics.

Santos uses the contingent valuation method (CVM) for surveying public willingness to pay (WTP) for alternative landscapes. He extends the existing CVM literature by focusing on two issues. First, he addresses the problem of comparing different mixes of policy responses to threats to rural landscapes. Second, he examines the fallacy of aggregating independent valuations of alternative landscapes. His case for the superiority of

CVM over expert opinion rests on the need for attaching relative prices to preferred alternatives. Expert opinions produce ordinal rankings of "landscape quality," but only citizen surveys generate the cardinal "landscape value" measures needed for cost-benefit analysis. The reader needs knowledge of calculus to follow the details of Part Two, "Valuation and the Cost-Benefit Analysis of Landscape Change." However, this part also includes useful nonmathematical discussions of valuation logic, rationales for pricing landscape features, additivity problems, the appropriateness of CVM as a measurement tool, and construction of CVM scenarios.

Part Three contains Santos' two case studies of WTP for ongoing landscape management by the public sector. The first case involves the Peneda-Gerês National Park in Portugal, a scenic destination with small terraced farms. Farm dereliction has been addressed through a subsidy for which WTP is estimated through two surveys administered by the author.

The second case is the Pennine Dales of northern England, a scenic area in which the landscape characteristics of traditional agriculture are threatened by farming modernization. The same CVM survey is used by the author to address visitor WTP for payments to farmers to maintain traditional practices under the Pennine Dales Environmentally Sensitive Area program. Santos details empirical results but glosses over his actual survey instrument. He does not present any of his scenarios, despite the fact that CVM relies on respondents valuing alternative scenarios to derive WTP.

The author uses these case study findings to test theoretical propositions from Part Two and to derive aggregate WTP figures. He then applies CBA to compare aggregate WTP to preservation costs. The section entitled "Specification Tests and Third-Order-Interaction Valuation Functions" exemplifies his attention to methodological detail. Given the book's theoretical focus on CVM and WTP, the extensive presentation of CBA is a distraction; Part Two would have benefited from more attention to CVM technique than from the ungeneralizable CBA.

In Part Four, Santos examines the variation in household annual WTP across 63 WTP estimates from 19 different CVM

landscape valuations. Log-linear regressions include as predictors the variables reflecting the landscape preserved, respondent characteristics, and nuances in the CVM surveys. They produce interesting findings:

- The regression models explained 92% of the variation in WTP, suggesting high transferability of findings;
- WTP is higher for major preserves than for small recreational areas, and higher for national than for local programs, suggesting that WTP responds to projects of larger scale and higher profile;
- The WTP of tourist visitors to an area is lower than that of local residents;
- Surprisingly, WTP for preservation does not rise significantly with extent of landscape degradation, suggesting it does not respond proportionately to the severity of threat; but,
- WTP is positively associated with respondents' ability to pay, as expected.

The sensitivity of the WTP findings to the CVM techniques, however, is extremely high, with differences in method alone capable of accounting for 41% of variation in WTP.

This last result underscores the weakness of the volume as a contribution to the planning literature. With WTP so dependent on the construction of the CVM instrument, the minimal description of the survey techniques weakens the credibility of Santos' findings. It would have been useful to include discussions of applicability of the results to other changing land uses (such as those associated with urban sprawl), and of the source of funds for preservation payments. Santos has advanced the underlying theory and conceptualization of CVM for landscape valuation. Application of his findings to other contexts and their elaboration in a form useful to practicing planners awaits another author.

Peter B. Meyer

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"smart growth," and financial and public policy aspects of brownfield regeneration.

Green Development: Integrating Ecology and Real Estate

Alex Wilson, Jenifer L. Uncaphter, Lisa McManigal, L. Hunter Lovins, Maureen Cureton, and William D. Browning. John Wiley & Sons, New York, 1998. 522 pp. \$60.

Do you think "green development"—environmentally responsive development—is an oxymoron? You won't after reading the comprehensive work, *Green Development: Integrating Ecology and Real Estate*, written by several authors who are all associated with the Rocky Mountain Institute.

The goal of this book is deceptively simple: describe how development can incorporate environmentally responsive principles and be more economically efficient. It is commonly believed and consistently demonstrated that "green development" creates additional design, construction, and operations costs. The authors work through case studies to explain in detail the approaches for overcoming the costs and other obstacles. It may come as a surprise to many planners that one of these obstacles is the approval process, which is often reticent to recognize the new and unfamiliar.

Today, many communities continue to rely on a legislative framework that was created for a very different pre-World War II America. As a result, the planning and growth management mechanisms in force in most states in the 1990s are woefully out of step with the times. They frustrate nearly everyone—developers and business people, conservationists and preservationists, community and regional planners, design professionals, housing advocates, environmentalists, and citizens. (American Planning Association, 1992, p. 192)

The case studies illustrate how various developers were successful in overcoming this impediment along with countless others.

The structure of the book generally corresponds to the main elements in the

urban development process: land use, market research, site planning and design, building design, approvals, financing, construction, and marketing. These chapters are supplemented with ones outlining the background of the green development concept, approaches to green development, sustainability issues, and "what's ahead" for environmentally sensitive urban development. All sections are supported with specific examples of green development projects from around the world. The case study format of the book includes an appendix with "Project Profiles and Contacts." Researchers are provided a "Further Reading" appendix and extensive bibliography. Practitioners are given a directory of "Organizations, Resources, and Web Sites." Perhaps even more important is an appendix detailing "Strategies and Checklists." Finally, the book offers a glossary relevant to the various included disciplines.

The book's ambitious scope targets "real estate developers, architects, planners, contractors, lenders, city officials, and all those who are concerned with the impacts of the built environment on the surrounding natural environment and larger community" (p. xvii). Indeed, in the ideal context, the book would be addressing all of these groups simultaneously. The reader is reminded that successful green development demands an integrated systems approach, in which all groups participate in all phases of the project. Green development, it turns out, is holistic development. The conventional linear process—from developer to tenant—is replaced by *teamwork*. The authors state, "Harnessing the ideas and influence of local government and citizens will foster development that is better suited to, and better accepted by, an existing community" (p. 63). In addition to creating "sense of place," green development fosters "sense of community."

Why isn't green development more prevalent? The authors identify perceived and actual constraints to environmentally responsive development. Ultimately they recognize that:

Achieving the ultimate green development will require support at many levels. It will require developers who are willing to risk money on the expectation that such pro-

jects can succeed. It will require a public that understands what is different about green development and asks for it. And it will require municipalities that are willing to put in place incentives to encourage this sort of innovation. This will happen as city and town planners and elected officials begin to recognize that a development reaches far beyond its immediate boundaries, affecting surrounding communities, economies, and ecosystems. (p. 399)

The Rocky Mountain Institute shows that the "ultimate green development" has the potential to be the ultimate economic and community model for cities as well.

Richard B. Stephens

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More About Sustainability

From The Earth Summit to Local Agenda 21: Working Towards Sustainable Development

William Lafferty and Katrina Eckerberg, editors. Earthscan Publications, London, 1998. 280 pp. \$15.95.

Since the United Nations Conference on Environment and Development (Earth Summit) held in Rio de Janeiro in 1992, national governments have started to realize that the participation of local authorities is critical to the solution of global environmental problems. Global problems such as climate change, ozone depletion, biodiversity loss, and deforestation originate at the local level. Thus, Chapter 28 of *Agenda 21: Programme of Action for Sustainable Development* (United Nations, 1993), the global action plan adopted at Rio, recognized the important role of local authorities in implementing its objectives. It stated: "Local authorities