

ANNALS OF THE NEW YORK ACADEMY OF SCIENCES

Issue: *Ecological Economics Reviews****Ecological Economics Reviews: An introduction to the inaugural volume***

This inaugural volume of the *Ecological Economics Reviews* (EER) is the response to a growing need for authoritative syntheses of key topics in this rapidly expanding transdisciplinary field. EER provides in-depth reviews on the theory, policy, and implementation of sustainability and sustainable development, with a focus on the economic, social, and environmental challenges facing the world today. This first volume contains 16 papers by leading international experts in ecological economics: the science and management of sustainability.

While interest in creating an ecological economics dates back at least to the 1960s in the work of Kenneth Boulding and Herman Daly, the first formal efforts to bring ecologists and economists together occurred in the 1980s. The International Society for Ecological Economics (ISEE) and the journal *Ecological Economics* started in 1989. The journal has been a huge success, progressing from an initial 4 to 12 issues per year by 1992, with an impact factor now ranking it in the top quarter of all academic journals. The journal now publishes a large number of articles across a broad range of transdisciplinary topics. In 2007, it published 277 articles, ranking it number one among 191 economics journals in this category and number 12 in terms of total citations. Among 52 environmental studies journals, it ranked second in total articles and first in total citations. Among 116 ecology journals, it ranked 10th in total articles and 33rd in total citations, reflecting the generally higher publication and citation rates in the natural versus the social sciences.

This indicates the large and growing interest in ecological economics and the increasing amount of research and number of ideas being generated in this growing field. But the journal is devoted to new research and is not a proper venue for longer review articles—thus, the need for EER.

The idea to start EER arose at the U.S. Society for Ecological Economics (USSEE) meeting in New York City in the summer of 2007. At a reception during the meeting, we were discussing the status of ecological economics with a representative of the New York Academy of Sciences, who pointed out the Academy's interest in expanding their line of review volumes. The rest is history. We engaged a distinguished Editorial Advisory Board and convinced Ida Kubiszewski to take on the managing editor role. EER would not exist had Ida not agreed to do this. She has handled the complex task of getting EER off the ground with amazing grace and skill. She found appropriate reviewers, coaxed authors and reviewers to keep to their deadlines, and managed all the other details of getting the papers into print. We owe her a continuing debt of gratitude.

EER aims to be a trusted venue for comprehensive, authoritative reviews and syntheses of major topics in ecological economics. The 16 reviews in this volume present a broad sweep of ecological economics, from examining how the field “self-defines” through its journal (Luzadis *et al.*) to conceptual approaches, to case studies and emerging issues and perspectives. Glucina and Mayumi review thermodynamics and its application to ecological economics. Bruce Hannon reviews the history of input–output analysis, one of the key analytical tools in the field, and Heckbert *et al.* examine one of the newer modeling approaches: agent-based models. Liu *et al.* and Turner *et al.* tackle two of the specialties of the field, namely valuing ecosystems and their goods and services, but from different perspectives. Murphy and Hall take up the concept of

energy return on invested energy and examine the effectiveness of various energy alternatives and their economic impacts. Barry D. Solomon looks at biofuels from the sustainability perspective. Equitability and fairness, important aspects of ecological economics and governance, are addressed by Jack P. Manno in his essay on commoditization and oppression and by Söderbaum and Brown in their call for pluralistic approaches. Joppa and Pfaff's case study of forest protection approaches suggests that not all protection is equal, and that normalization methods can be helpful to parse out differences; Jesper Stage reviews how developing countries may (or may not) be ready to adapt to climate change. Marjan van den Belt *et al.* describe mediated modeling as a useful tool in public sector administration. Three perspectives papers round out the volume: Turaga *et al.* examine the convergence of social psychology and rational choice into a new approach for ecological economics; Aronson *et al.* argue that the disconnect between knowledge and active movement toward sustainability is due to "great divides" of ideology, economic development, and information access; and Peter A. Victor concludes the volume with an essay exploring the relationship between ecological economics and economic growth.

There have been over 3000 papers published in the *Ecological Economics* journal since its inception in 1989. Important articles in the field have also been published in a wide range of other journals. This mass of literature now cries out for review and synthesis; that is the niche that EER hopes to fill. The reviews that appear in these pages will be the first stop for scholars wishing to get quickly up to speed on the history and status of various topics within the field, and to read about future directions. We hope you will enjoy and profit from the journey.

ROBERT COSTANZA
The University of Vermont
Burlington, Vermont

KARIN LIMBURG
SUNY College of Environmental Science and Forestry
Syracuse, New York