

AN EMERGING PARADIGM

ECOLOGICAL ECONOMICS FOR THE
ANTHROPOCENE

Peter G. Brown and Peter Timmerman, EDITORS

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Ecological Economics for the Anthropocene

An Emerging Paradigm

EDITED BY PETER G. BROWN AND
PETER TIMMERMAN



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FOREWORD

The Unfinished Journey of Ecological Economics

JON D. ERICKSON

Ecological economics began with a rather audacious promise to change the world. It was a promise to ground the study and application of economics within the biophysical realities of a finite world and the moral obligations of a just society; a charge to search for truth across disciplines and begin to erase artificial boundaries between C. P. Snow's "two cultures" of the sciences and humanities; and an agenda for political action emanating from the United Nation's Earth Summit in 1992 that billed ecological economics as the science of sustainable development.

I was in graduate school in 1992 and wholeheartedly bought into the vision and course of ecological economics. I devoted my professional life to the development of this transdisciplinary lens on the study and management of human communities embedded in our social and biophysical environments. In 1997, with Ph.D. in hand, I landed one of the first jobs advertising for an ecological economist at Rensselaer Polytechnic Institute. We set out to build the first doctoral program in ecological economics, and in subsequent years I helped found the U.S. Society for Ecological Economics; served on the board of our international society; authored and

coauthored the requisite number of ecological economic papers and books to get tenure and then a full professorship in the field of ecological economics; worked with some of the pioneers in our field, including Herman Daly, John Gowdy, and Bob Costanza; and went on to manage the Gund Institute for Ecological Economics at the University of Vermont, which is today one of the main hubs of research, application, and education in ecological economics in North America.

I share my journey as an ecological economist to make a point. When the field was formalized in the late 1980s and early 1990s through the creation of a professional society and journal, people like me were supposed to be incubated, indoctrinated, and infiltrated into society. I did not discover ecological economics midcareer, nor did I transform myself into an ecological economist after tenure. I defined myself as an ecological economist in graduate school. For more than twenty years, I have believed that ecological economics would bring about a major paradigm shift in economics and perhaps the social sciences and humanities more broadly.

The premise of this book is that the revolution got a bit sidetracked. I certainly agree. There are scholars, activists, policy makers, professionals, and citizens from all walks of life that identify strongly with ecological economics (and many even call themselves ecological economists as I do). We are all on an unfinished journey, and it is high time that we take stock of where we are, make course corrections, and get on with changing the world.

This will take some soul-searching. For me, it starts with evaluating the field against some core foundational aspects of ecological economics. Ecological economics was initially framed as the study of the economy grounded in the principles of ecology—what Herman Daly called for in his 1968 essay “On Economics as a Life Science.” Today, I would argue, in practice and in perception, ecological economics has largely become the application of mainstream economics (economics as an orthodox social science) to the existing agenda of ecologists and environmentalists, thus in practice facilitating a growth agenda. Much of what gets published in our journal, presented at our conferences, and picked up by the press is what we called in graduate school “environmental economics”—a subdiscipline of economics applied to environmental problems.

This book is first and foremost about re-embedding the study of the economy within the hard-won physical principles of natural science and through a discourse built more on ethical argument than mathematical

formalism. In graduate school, I was convinced that my newfound charge as an ecological economist was to expose the faulty assumptions upon which the house of cards called neoclassical economics was built—particularly the all-too-convenient myths of the rational-actor model and the market-efficiency hypothesis that it was designed to support. Then, with the growing ranks of ecological economists, we were to build an economics that transcended disciplinary boundaries—an economics built on biophysical realities and real human beings (“irrational” emotions and all) as decision makers; an economics that does not always and everywhere assume that more is better; an honest economics built on scientific integrity and democratic discourse.

Instead, I fear at times we practice a hypocritical economics. We too often expose the inconsistencies between our behavioral assumptions and hard-won, testable facts from other disciplines while we kneel at the altar of the market as the one true path to sustainability. This has particularly been the case in the North American expressions of ecological economics, where the discussion has largely focused on market failure, missing the broader critique of the failure of markets, and the role of nonmarket institutions in moving away from what David Korten has called “suicide economics.” Institutions matter, and the European brand of ecological economics seems to distinguish itself on at least this point. For example, we have learned from the first generation of payments for ecosystem-services schemes, largely in the tropics, that the role of institutions is critical to successful conservation. Quantifying the economic benefit of nature means little without the institutions in place to assure sustainable and equitable outcomes.

I fear that many who practice ecological economics have taken the road most traveled: to double-down on market efficiency as the primary goal of the economy through an exercise of “getting the prices right.” However, by putting the free market and the overarching goal of efficiency ahead of sustainable scale and just distribution, this bandwagon version of ecological economics has simply become a prescription for fairer, cleaner growth—but *growth nonetheless*. The “unfinished journey” has much to do with reaffirming a vision of economic development that embraces ethics, affirms life, and argues for well-defined limits to human economies. Natural science must help the ecological economist define the boundary conditions of sustainable scale. Ethical debate and public process must negotiate

just distribution. Sustainability and justice then frame the design of well-regulated markets to achieve genuine economic efficiency.

Ecological economics also has some catching up to do with other interdisciplinary pursuits. If Milton Friedman were alive today, my guess is that rather than “Keynesians,” he would say, “We’re all behavioral economists now.” All the analysis in the world about energy return on investment, thermodynamics, and the folly of infinite growth will continue to have a limited effect on policy and planning in absence of a grounding in human nature. The Madison Avenue advertising firms threw out their Economics 101 textbooks many years ago and aligned themselves with the behavioral sciences; so have the political-campaign consultancies, mass media, and news agencies.

The biological underpinnings of our decisions are as much a constraint to sustainability as the energy and ecological limits to growth. Much progress has been made on illuminating the proximate causes of economic choice through the neurosciences, addressing questions about how we make decisions. More work remains to be done on ultimate cause: questions about why we make the decisions we do. Ecological economics as a life science should have much to contribute to investigating the evolutionary roots of our behavior, the relationship between resource scarcity and systems of governance, and the creation of adaptive strategies to get our species through current and future resource bottlenecks. With a few notable exceptions, we have contributed little to this leading edge of science.

Finally, my own soul-searching leads to questions about the status of ecological economics as a social movement. Was I naïve to believe that our charge to reform economics based on principles of sustainability and justice could also reform the economy? What role should the ecological economist play in not just pointing out what is wrong with our current system but also advocating for change? At professional meetings of ecological economists, it is easy to find like-minded people who are asking all the right questions but are perhaps uneasy with the honest answers. We have grown content to talk to one another but are unwilling to step outside our own comfort zone to articulate and lobby for change in policy circles. Do we have an alternative to the mainstream or not? Can we provide the credibility of an academic field of study and still offer the much-needed guidance that is necessary to lead the transformation our economy so desperately needs?

This book provides a roadmap to this unfinished journey of ecological economics. The authors are not afraid to throw away other maps that no longer serve us, differentiating between consumer choice and citizen obligations; cautioning against an economic model that values only what is priced; and searching for the right relationships between humans and all of life on Earth. Ecological economists must return to telling the truth about the economy. We must stick to principles of economics based on biophysical reality. Also, we should catch up to the major influence the behavioral sciences are having on a broader revolution in the social sciences. Then perhaps we can return to challenging the status quo instead of complaining about it in one breath and serving it in the next.

We live in an incredible time, with a responsibility to tell the truth, educate this generation on the ecological realities of our economic decisions, and use our privileged position of scientific knowledge to make a difference. I found my inspiration in the essays of Herman Daly over two decades ago. You might just find yours in these pages and join us in the unfinished journey of ecological economics.

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ECOLOGICAL ECONOMICS FOR THE ANTHROPOCENE



INTRODUCTION

The Unfinished Journey of Ecological Economics

PETER G. BROWN AND PETER TIMMERMAN

1. THE UNFINISHED JOURNEY

A specter is haunting the Earth—the living ghost of an economic theory that, no matter how much it is assaulted or how much damage it causes, refuses to die. The economic order that is based on the premises of this theory is grinding itself into the physical face of the planet. Many indicators suggest that we are witnessing a rapid decline in the richness of life processes, including accelerating climate change, increasing loss of natural diversity, changing and expanding disease vectors, and the spreading of an unsustainable growth and consumption model of what constitutes human well-being and happiness across the globe. The spectral nature of standard economics is reflected in its inability to halt, or even recognize, our seemingly inexorable movement toward some critical boundary conditions necessary for the flourishing of life on Earth.

Why does this economic order hold us so captive? Two important elements of the current economic approach are often overlooked: (1) it not only provides an explanation of how markets, transactions, and so on