

PREFACE

The *Routledge Handbook of Ecological Economics: Nature and Society* brings together an international and diverse group of people to reveal how there is an extensive body of theoretically well-grounded thought about problems with and alternatives to the current political economy. This is a book that substitutes for the missing alternative economics textbook that, if it existed, would combine economics with social and ecological understanding (not use economic concepts to dominate others); a book that would not fall back into some comfort zone of half-hearted reproduction of mainstream formal economics supplemented by apologetic qualifications. Such radically alternative textbooks need to be written and will come, but for now pulling together the diverse community of concerned thinkers addressing the combined social ecological economic crises of our times is a task on its own. Before going further, I would therefore like to thank my secretary, Ursula Grafeneder, for helping me in the considerable job of bringing this volume together, including carefully checking references, reformatting text, compiling the prelims and herding the academic cats.

The authors are a mixture of young and old with more on the younger side. There are a few long-time active ecological economic campaigners, such as Dick Norgaard and Joan Martinez-Alier, followed by a solid group of the not yet retired and then the majority of up and coming. One concern in terms of representation in a patriarchal society is the female voice, and here an active effort achieved a third of authors; women who must typically show more dedication to their work to achieve the same as their male counterparts. This is not then a volume collecting together the good and the great, grey haired, alpha males of ecological economics, and neither are the contributors all card carrying members of the ecological economics community. Rather, this is a work driven by topics and subjects with chapters written by those who have something to contribute to the structure and content of an evolving body of knowledge.

The overall structure of the *Handbook* is built around core ideas in ecological economics combined with political economy and my own preliminary vision for an integrated interdisciplinary social theory. My perspectives are influenced by what I read and those with whom I come into contact and discuss. As a result they are always evolving, but the central focus remains on my objects of study, namely the social economy, the development of human societies and their relationships with Nature. I have also aimed to create a coherent whole that maintains a certain consistency throughout the various topics covered and brings together a

substantive body of work that reveals the common developing alternative agenda and the insights gained from ecological economics over the last 25 years.

As with any handbook, or edited volume, the contributors reflect the editors' own networks. There is a large minority representation from Austria (a fifth by residency), although that is also indicative of the vibrant alternative intellectual community that Vienna has attracted in recent years, including the English, Italian, German and Norwegian nationals contributing to the *Handbook*. In addition, the *Handbook* is largely European (three-quarters by residency) but that should not be taken as implying a narrow internationally uninformed perspective. Most of the authors have worked and lived elsewhere and many are actively engaged internationally in non-European countries and on other continents. This is reflected in both theoretical contributions (e.g. environmentalism of the poor, imperial mode of living, needs, power, resistance, social movements, unequal exchange) and topic coverage (e.g. commons, eco-social development, mining conflicts). Social ecological economics [Chapter 1] is an approach that I identify as a strong theoretical undercurrent in such work and that I believe has the potential to unify it, as well as providing critical analysis of the 'growth' and 'development' agendas. Indeed my personal preference was for a volume entitled *Social Ecological Economics*, but the publishers felt the time was not yet ripe for such a handbook and therefore the subtitle 'Nature and Society' was agreed upon.

Authors were requested to follow some standard elements in formatting and structuring their chapters. This involved requirements for an introduction, main text, future directions concluding remarks, three to five recommended follow-up readings that had been cited in the text and a restricted list of references cited. The structure for the main section was left flexible, with general guidance to authors to cover the definition of their subject area, explain relevant research and key topics, and assess the current challenges. Chapters were restricted to 5,000 words, or less, in order to achieve breadth of coverage in the *Handbook* as a whole. This has also kept each entry succinct but substantial enough to inform the reader. The aim was for authors to provide an overview of their assigned topic area with enough detail to create informed debate and discussion. Within the bounds set there is considerable variety in terms of the length devoted by different authors to different sections and in how far they deviated from the main section guidance to explore topics in their own way. The overall common structure provides consistency across diverse literatures and should aid readers whether pursuing personal or directed study. The chapters were also structured with assignment for teaching purposes in mind. Extensive cross-referencing of the *Handbook* chapters has also been undertaken to aid linking across topics, and such references are given in square brackets enclosing the chapter number [Chapter 1]. The chapters have also been edited for consistency in use of terminology.

The 50 chapters are organised into 10 major parts of unequal length. The volume starts with the shortest section, Part I: Foundations, consisting of two chapters that aim to lay out some background and theory. The first is my own perspective on the need for an integrated knowledge that, as mentioned, I term social ecological economics. This presents a critical analysis of current economic thought and the operations of the modern economy, while highlighting future directions that are linked to other chapters in the *Handbook*. The second is a chapter explaining the philosophy of science that is required to advance interdisciplinary understanding and achieve integration of knowledge, namely a combination of critical social science and realism. This is not such a popular position in postmodern times, where every opinion is supposedly equally valid and the world is constructed in one's own image with an 'anything goes' attitude. The foundations of ecological economics in both natural and social sciences require integration that cannot indulge in such denialism of reality as postmodernism entertains. The value of

postmodernism has been to deconstruct some aspects of modernist thought that created denial of the role played by social influences in the construction of knowledge. That, however, does not equate to accepting total relativism. A realist stance is present throughout the *Handbook*, but a critical one.

The foundational positions put forward clearly make ecological economics an heterodox approach in terms of economics. In Part II: Heterodox thought on the environment, a selection of authors were asked to write pieces representative of certain fields of knowledge that offer the potential (not yet realised) for a new combined and coherent alternative economics that addresses environmental issues. The mixture presented involves a critical institutional perspective, political ecology, ecofeminism, eco-Marxism, post-Keynesianism and evolutionary economics. The aim here is not to offer an already coherent set of thought but rather reflections upon what each of these various approaches have to offer and how they address environmental issues, or have failed to do so. While ecological economics can be criticised for inadequate coverage of the social and political, a considerable part of the heterodoxy in economics (e.g., post-Keynesians, traditional Marxists, neo-Austrians) has fared no better, and generally much worse, in terms of addressing biophysical reality and the environment. Not least among the challenges for many heterodox economists is the impossibility of sustaining the fossil fuel, capital accumulating, growth economy, recognising the limits to price-making markets. Yet, the chapters in this section also reveal the potential for mutual reflection in search of synthesis and areas where mutual benefits could arise (e.g. eco-Marxism). The section also offers a broader perspective on what economics is and the fields of knowledge that have important contributions to make to its redefinition (e.g. political ecology, ecofeminism). Critical institutional economics has already engaged with ecological economics, and the importance of institutional analysis is key, but there is more to be done in developing a unifying theory.

Part III: Biophysical reality and its implications turns to a primary aspect of the ecological economics approach, namely relating to the natural sciences. That the natural world is a foundation for all human activity might seem rather obvious but typically receives little attention from economists. This section provides an overview of the role of energy and materials in the reproduction of economic activity and social structure. A core understanding of ecological economics is how thermodynamics, especially entropy, materials use and the social metabolism of human systems combine to provide new realisations about the potential and limitations for social and economic activity. In addition, the biological interaction with the physical is the subject of ecosystems, their structure and functioning, with further implications. Chapters are provided covering the understanding of ecosystems, and how human and natural systems change together or coevolve.

From the biophysical world we move to the human in Part IV: Society, power and politics. Here is where ecological economics in Europe has differed from other regions but especially North America. The superficial understanding attributed to the social, as nothing more than a collection of individuals (methodological individualism), is rejected as totally inadequate. The social also cannot be understood without addressing power relationships. That in turn means concern for the poorest is more than the promise of crumbs from an ever bigger monetary cake (trickle down theory) or reducible to the provision of \$1.25 per day. Mainstream economics is a failure in all aspects related to power, politics, distribution, justice, social inequity and the meaning of society. It long ago chose to ignore all these topics in the hopes of becoming a value-free form of science. Social reality includes economic relationships which are inherently constituted of power relationships that raise a series of questions. Who gets to consume what resources and use which aspects of the environment as a waste sink? How is redistribution of resources and wealth institutionalised and why is this accepted? What is the moral basis for

relationships of extraction, production and consumption? The chapters in Part IV bring together insights into the relevance of power and social struggles for understanding the geo-political situation in which resource wars and the environmental crises are being played out. So here we have coverage of social theories of power, the imperial mode of living, environmental justice movements including environmentalism of the poor, and the role of social movements and resistance.

While ignoring these aspects, mainstream neoclassical economics is supposedly meant to have a core understanding that can explain markets, theory of the firm, consumption and work. However, in Part V: Markets, production and consumption this claim is deconstructed. The chapters reveal how far removed orthodox economics has become from the objects it claims to study and how it misconceptualises all of the above. Each topic is shown to involve a much richer meaning that has little to do with commonly held economic beliefs. When markets are placed in historical context they are easily seen to involve more than price-making arrangements. The real economy involves a rich set of social practices and institutions. Actual firms, not theoretical ones, can be understood using behavioural psychology and critical institutional analysis. In this way, for example, the politically domineering multinational corporation can be brought into focus. The role of consumption as a simple act of utility maximisation bears no relationship to reality. Consumption is redefined as an institutionally framed and psychologically self-defining practice that is pushed by both corporations and government but also bought into by citizens for social and psychological reasons. Work as nothing more than wage slavery ignores its social importance but redefining it raises questions of how we relate to money, time, leisure and the need for playfulness. This section probes some of the most common economic concepts and offers insights for the creation of a new economic theory that relates to social reality.

Part VI: Value and ethics addresses itself to core concerns of social ecological economics that have developed over the last two decades. These include value pluralism and the implications of incommensurability, the meaning of the concept of intrinsic value (exposing failures of environmental economics), the importance of needs and their association with satisfiers, and the moral considerability of future generations. Central to these chapters is the richness of environmental values, the existence of multiple values and the benefits of grounding our understanding of value in philosophy. How needs are to be understood and met remains debated. However, the reality of objective needs, not subject to social redefinition, does not exclude meeting them in many different ways and that is what creates cultural diversity. The means of their fulfilment through culturally specific institutional arrangements refocuses the aims of economic processes and places price-making markets in context as only one institutional arrangement through which a limited range of needs might be satisfied.

Part VII: Science and society: uncertainty and precaution addresses the response required in recognition of limits to human knowledge. The distinction between weak and strong uncertainty is explored; the former leading to risk management and the latter to precaution and safe minimum standards. More fundamentally, the limits to scientific knowledge raise questions as to the ability of normal science practice to inform policy, and here the post-normal science approach is introduced. This is also followed up in the first chapter of the methods section with a chapter on the practical investigation of public policy from a post-normal science perspective.

The largest section of this book is Part VIII: Methods. This is an indication of the availability of alternatives for evaluation and policy analysis, and is not even an attempt to be comprehensive. Here we have nine chapters exploring a range of ways in which ecological economists can scientifically investigate and critically analyse the world. They show ample room for analytical work to be undertaken to address values, institutions and public policy. The methods covered are: multiple criteria analysis and value mapping, Q-sorts, participatory approaches and

modelling, deliberative monetary valuation, input–output analysis, and sustainability indicators. The reviews of these methods aim to explain their main features and how they are conducted, provide critical reflection on their current use, expose problems in application and indicate possibilities for development. They give a sampler of the methods and provide guidance as to further sources for those interested in pursuing their application.

Part IX: Policy challenges introduces a set of specific application areas. These provide critical reflections on a set of topical public policy challenges. They cover the commons, development policy (specifically in South Africa), mining, Peak–Oil, human-induced climate change and ecosystem services. How each issue has been framed is explained along with the problems with ongoing public policy. Authors also make recommendations for changes in how issues are being addressed. The chapters survey institutional policy developments (e.g., extending markets, privatisation, corporatisation) and power relationships, and reveal the conflicts between State, corporations and the public.

The *Handbook* closes with Part X: Future post-growth society. The subtitle reflects the needed end of the growth paradigm, but also that it will end regardless of what we do because it is unsustainable. The question is how do we reorganise the social economy before it collapses? The section starts with three chapters reflecting on three theories aiming to offer alternatives to the growth society: namely degrowth, steady state and post-growth. The degrowth chapter raises issues around the link of democracy to the growth economy and what this implies once that economy is no more. The steady state and post-growth chapters advocate specific approaches that have been popularised in the USA and Germany respectively. The former is heavily associated with Herman Daly and is primarily concerned to restrict the scale of the economy, while leaving its operation as a capitalist system untouched. The latter is a more fundamental challenge to the whole structure, calling upon individual action in a bottom-up radical reform of Western lifestyles. Then we turn to more specific ideas relating to potential future societal organisation with coverage of bioregionalism, sustainable cities and eco-social enterprises. The first two are discussed in theoretical terms, while the last combines theory with analysis of international case studies. The book closes with a discussion of the potential for a democratic, participatory society that accepts the need for social planning. Planning is, in reality, involved in all economies in different ways and undertaken by different institutions, e.g. the centrally planned multinational corporation. The chapters in this section are indicative of the work needed to formulate scientific utopian visions for the future and begin the necessary reflection on their implications and the gap between where we are and where we might like to go.

The *Routledge Handbook of Ecological Economics* achieves several things. It provides a guide to the literature in an informative and easily accessible form. It is a valuable source of information for those interested in exploring and understanding the interactions between the social, ecological and economic. This includes guidance as to the state of the art and further readings across a diverse set of interdisciplinary knowledge. It is a key for reference, an aid for teaching and a means of self-education.

The *Handbook* also fulfils its own social aim. There are many people working across the social, ecological and economic crises that modernity creates, but who do not unite or even know about one another. They go to different conferences, have different colleagues, live in different countries, read different literatures, speak different languages and so on. As a result there is a failure of unity amongst the deep Green, socially concerned and politically active, who seek a radical social ecological transformation, which is where this book lies. So one aim is achieved merely by bringing a diverse range of authors together.

The book also signifies a change in academic and political thought away from the separation of the social, ecological and economic. This is a synthesis that requires much more work, but

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the *Handbook* indicates the potential and key areas for debate. The failures of current economic theory relates to the entire body of orthodox economics, but also elements of the heterodoxy (e.g. post-Keynesians, traditional Marxists). Particular concerns are ignoring biophysical reality, dismissing plural and incommensurable values and maintaining a narrow view of human institutional arrangements. These are not matters for specialist sub-disciplinary fields, but fundamental to our understanding of real economic systems.

A key concern of this handbook is to explain how the economy exists within the context of the social and ecological. Ecological economics must therefore address the social to make a meaningful contribution. The content makes clear that the interdisciplinarity of ecological economics must consistently and seriously include the social sciences and social issues. This volume is more than a step in that direction; it is a challenge to those who would prefer ecological economics to be a sterile subject area that had no political or emancipatory message. It is also a statement of commitment by a diverse group of authors to a common project of social ecological transformation away from the current system and towards a better future for humans and non-humans alike.

This is also an exercise in empowerment. Maintaining academic communities that dare to express a critical voice against those in power is always subject to the threat of discrimination, censorship and political oppression. Encouraging an atmosphere of fear over lost promotion and potential dismissal has long been employed as a means for enforcing conformity and self-censorship. International solidarity is required, especially in times when the politics of hate and fear is on the rise. We should not forget the period still just within living memory. The Austro-fascist Nazi era that destroyed Austria from within during the 1920s and 1930s, removed the progressive and socially inclusive red Vienna government in a coup, and drove critical intellectuals into exile, before uniting with German Nazis to conduct the Holocaust and start a world war. Austria today is something of a political backwater and just one amongst many in the throes of a resurgent extreme right nationalism. Other supposed democracies have already advanced the political suppression of academic free voice and radical ideas using as means and excuses managerialism, financial control, austerity measures and securitisation. We live in dangerous times.

Last but not least, the *Handbook* addresses the simple task of destroying a dominant rhetorical claim made when mainstream economists, neoliberals and apologists for orthodox growth and consumerism lose an argument. That is, that there are no alternatives to the existing structures and system. This is extended to claims that there are no alternative theories as rigorous as mainstream macro and neoclassical micro economics. Going even further, the assertion is made that there are no alternative methods for social science research than quantification, the econometrics of orthodox economics and government statistical agencies. Then we are told there is no other future than a growth society, the ultimate utopian dream. The *Routledge Handbook of Ecological Economics* shows there are alternatives to everything. So read on, find out and join in.

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