
Book Reviews

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- 1 Rediscovering Sustainability. Economics of the Finite Earth**
by: A.R.G. Heesterman and W.H. Heesterman
Published 2013
by Gower Publishing Limited
Wey Court East, Union Road, Farnham,
Surrey, GU9 7PT, England, 316pp
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A core question of sustainability is whether the earth can continue to support human population growth and economic prosperity. Environmental problems dovetail in the overuse of energy and materials. However, over the past few decades decreasing per capita figures of consumption of petroleum, phosphate, agricultural land, fresh water, fish catches from the wild and wood, not only point to increasing efficiency and dematerialisation, but also indicate that the growing human population has surpassed the capacity of the earth to supply enough of these essential resources to sustain even the current population and level of socio-economic development.

This book offers an analysis of this sustainability paradigm in a wider environmental context. Reasons for the apparent discordancy between sustainability and classical Keynesian market economics are known: critical capacities of the earth ('the commons') are not counted as a cost, the continuous economic growth, a price structure which does not reflect (all) environmental costs, and a cost-benefit analysis which identifies the optimal economic option without protecting the critical resources of the earth.

These are the starting points of this book. The general theory is applied to two core themes within the remit of market economies: understated cost of transport and investing in alternative energy technologies. The book summarises the pathways resulting in the present situation and discusses strategies to develop financial and economic systems for a sustainable world.

The 12 chapters of this book are arranged in three parts. The 'stylised market equilibrium' reviews the argument that that market economy forms an efficient social system. Also, the allocation of resources is discussed. The main conclusion of this first section is that economic equilibrium analysis does not provide a complete and reliable picture of the real world.

Section two builds on this conclusion and presents alternative views. It is about economics of scale and concentration, which is only possible by externalising the (environmental transport cost, about 'real' price structures, the utility of funds and savings, and about the environmentally adverse and socially unfair aspects of globalisation. These issues are at the heart of the environmental economics matter.

‘Present affluence versus the future’ is the title of the last section. It offers an overview of the instruments of environmental economics (tradable permits, fiscal interventions) and a critical analysis of the pitfalls of cost-benefit analysis, which is one of the cornerstone methods of public expenditure evaluation. Central in the rationale of the authors is the question whether continued economic growth is possible and advantageous. The concluding chapter is most interesting. Among others, it describes two scenarios as to the possible future of the earth 50 years from now.

The book shows noticeable characteristics:

- It is in line with the growing critical position that one of the basic free market economy theorems that everything can be priced is of limited rationality and false. This applies in particular in dealing with environmental assets.
- The discussion identifies gaps and blind spots when standard economy is applied to its environmental subfield.
- On the other hand continuing growth is advocated, not because an ‘economy of the enough’ is impossible, but primary because economic growth is a necessity for welfare and employment.
- Although the authors have published in the areas of mathematics, econometrics and information science, the book is most descriptive and qualitative. This adds to the accessibility of the text, also for non-economists.

The strength of this book is not in offering new data on climate changes or environmental impacts of energy consumption. Its main contribution is bridging in an original way the gap between environmental science data and economic strategies and systems for a sustainable world. ‘Recovering sustainability’ is compulsory reading for those teaching, studying, analysing, or otherwise involved in the nexus between science and policy of the sustainability debate.

2 Climate Change Adaptation in Practice: From Strategy Development to Implementation

by: Philipp Schmidt-Thomé and Johannes Klein

Published 2013

by Wiley-Blackwell

The Atrium, Southern Gate,

Chichester, West Sussex, PO19 8SQ, UK, 327pp

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Increasing temperatures, melting ice caps, sea level rise, more frequent and more intense heat waves, rains and floods and changes in marine salinity gradients, are the most visible impacts of climate changes today. The installation of these effects resulted in recommendations by the international community (WSSD, 2002; IPCC, 2007; EU, 2009) focussing on strategies and actions which go beyond the reduction of greenhouse gas emissions, and should adapt societies to the consequences of the changes. This is a fundamental switch in environmental policy strategies which, as a rule, are targeted towards alleviating the fundamental causes, and not the results’ of pollution or resource use.

This book is about adaptation to climate changes, merely in the Baltic region of Northern Europe, and about dealing with these changes at the local level. Most interestingly the book not only pays attention to the thematic hard core science and engineering aspects, but also to communication and tourism, which are of paramount importance for cities. Following the introduction on structuring communication on climate change adaptation and the book, are two chapters on methods. One of them is about participatory decision making, with special attention for participatory decision making in Kalundborg (Denmark). The second one is on two assessment methods for adaptation to flood: cost benefit analysis and multi-criteria decision making are shown having the potential to support decision making and increasing the acceptance of the decision by the stakeholders.

The role of climate change in an urban context is discussed using case studies of Helsinki (Finland), Riga (Latvia), Hamburg (Germany), and Bergen (Norway). Of particular interest is the chapter on Hamburg, a city and an area near the Elbe River of which the downstream area faced serious floods in June 2013. The chapter advocates completing engineered constructions to protect the city from water overload, but also addressing social aspects, planning and policy to complement the existing technically driven risk management culture. Also, the next four chapters are on water management in cities (Tampere, Hanko, Klaipeda) in the Baltic area. The subsequent chapters are on sea level rise and the related changes in flood patterns which not only affect cities, but the entire coastal zone. Of particular interest are two chapters linking and assessing the physical effects of climate changes with tourism. The data deals with the views of tourism experts and visitors. The last four chapters provide information on land use planning in Spain, adaptations in agriculture in Indonesia, human migration in Bangladesh, and insurances risks in the Asia-Pacific region.

As compared to the existing literature, this book offers added value. Following the IPCC statement that vulnerability results from the combination of exposure, sensitivity and adaptive capacity, a significant amount of research addresses the theoretical aspects of the equation: risk factors and indices for vulnerability, factors and contexts reducing people's ability to respond to changes, and so on. While paying attention to the methodological aspects, this book mainly offers case studies, field data on changing climates in cities and regions of the Baltic area. It contributes not only to the extension of the research data in the area but it provides at the same time a basis for focussing policy decisions. The interdisciplinary approach of the book combining fundamental meteorological data, with both physical and societal effects, and policy consequences thereof, is a main strength of this publication.

This book is a spin off product of a series of partially EU funded projects on impacts, costs of and adaptation to climate changes. The 22 chapters of the book were contributed by an impressive number of 63 authors, all outstanding scientific and planning experts in the region.

This is an excellent book of which the main weakness is the lack of a concluding, summarising overview which compares the adaptation trends in North-Western Europe with these of other, relevant areas worldwide.

A wide array of researchers, urban planners, students in environmental sciences, and policy makers will take significant advantage of the facts driven approach of this book.