Book Reviews

Reviewed by Luc Hens

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1 A Short Guide to Climate Change Risk
by: Nigel Arnell
Published 2015
by Gower Publishing Limited
Wey Court East, Union Road, Farnham,
Surrey GU9 7PT, England, 206pp
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ISBN: 9781-472408037 (ebk-ePUB)

Energy management, and emissions of CO_2 and other greenhouse gases, are a core part of any environmental management system today. Although climate change is a real and emerging risk to organisations, very few have established a strategy managing these risks and opportunities.

This book anchors on these critical new aspects in risk control. It summarises the science behind climate change, discusses potential impacts, and describes how the related risks and opportunities can be addressed.

An introductory chapter offers a problem situation and indicates how the book provides an answer. Chapters 2 and 3 are about the science of climate changes. They overview the physics on which the problem rests and allow the reader to understand how to respond to climate change. They describe the impacts on economy, society (including organisations), and the environment.

Chapter 4 is on international and selected cases of national climate policy. The text concludes on the need of information for organisations to cope with the risks and opportunities of climate change.

This latter subject is developed in more detail in chapter 5, which introduces management frameworks and describes how the risks posed by climate changes can be assessed by an organisation. Chapter 6 discusses how organisations can cope with these risks and opportunities, given the uncertainties that are inherent to such a complex subject.

Chapter 7 provides an overview and a summary of the main issues in the book. It concludes on eight general principles that an organisation should consider in addressing climate change.

Incompleteness is the almost natural fate of 'short guides'. Nevertheless, it is surprising that 'corporate social responsibility' and examples of good practice on energy management remain unaddressed by this publication.

Professor Arnell, the author of the book, absolutely succeeds in providing an accessible summary of the basics and the effects of the vast and complex climate change

issue. The specific focus of the book is on how business organisations can adapt to climate changes, reducing the risks and taking advantage of the opportunities. They can develop both specific measures, e.g., saving energy, and a tailored strategy, bringing the attention and main target lines on board of the company's behaviour. They should do so, because adapting to climate changes is mandatory and necessitates an approach that differs from mainstream management issues. Next to explaining this specific outlook of the book, the policy chapters are strong. This is not surprising, as the author has long-standing connections with the relevant UK departments and agencies, and the business sector. He has also contributed to all IPCC assessment reports since the second assessment in 1995.

The book is presented in a most didactical format. It provides clear introductory (chapter 1) and concluding (chapter 7) texts. Each chapter ends with a list of the key points. Overviews, examples and specifications are provided in tables and figures. The book is an excellent addition to the Gower 'Short guides to business risks' series, which is particularly useful for business and environmental managers, students and practitioners across a wide range of sectors, public and private. Warmly recommended.

2 Understanding Sustainable Development (2nd edition)

by: John Blewitt
Published 2015
by Routledge
2 Park Square, Milton Park, Abingdon,
Oxon, OX14 4RN, UK, 11 chapters, 394pp
ISBN: 978-0-415-70781-7 (hbk)
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ISBN: 978-0-315-88645-9 (ebk)

Debates on sustainable development change over time. National policy priorities on environmental issues, such as nuclear power and climate changes, are influenced by the Fukushima disaster and the increasing incidence and intensity of extreme weather conditions. Geopolitical agendas alter too: the realisation that we as humans have deeply altered the planet and currently live in the Anthropocene, the economic dominance of China and its environmental impacts, the vulnerability of Russia and its resources, and the instability of the Middle East, resulting in major environmental damage to the Jordan River and the Dead Sea, were unknowns during the previous millennium. This affects our understanding of sustainable development: "…the idea that the future should be a better, healthier place than the present and the past" (p.1). One might add to this a safer, less fanatic and fairer planet. In short, the nucleus of sustainable development is about more humanism and respect for the environment. Reaching these targets is a responsibility for all of us, but for policy-makers and authorities in particular.

This is the context that this book is all about: a comprehensive and clear overview of the current understanding of and the issues in sustainable development. Apart from an introduction, the book entails eleven chapters, each of which can be read as a stand-alone essay. The first one focuses on the emergence and the evolution of the terms 'sustainability' (a goal or condition) and 'sustainable development' (a process). The

chapter illustrates the dynamic nature of these concepts over time. Of interest also is the outlook on sustainable development in the post-2015 agenda.

The second chapter offers an assessment of many worldviews, values and perspectives that have emerged from sustainable development. It relates sustainable development to, among others, eco-feminism, theories on environmental ethics, social ecology, and the Gaia planet vision.

Chapter 3 explores the contested nature of the science underpinning discussions on climate change and genetically modified organisms. This offers interesting views on risk and uncertainty, which feed into other discussions, such as those on biotech, electromagnetic radiation, and nanotechnology.

Chapter 4 is about the social-environmental interface. It deals with environmental sociology, environmental justice, networking, and green culture. It advocates respecting human needs and natural ecologies as prerequisites for a just, long term development.

Chapter 5 connects sustainable development with politics and governance. It concludes with interesting considerations on 'The right to the city', which is illustrated by a case study on the green belt movement in Kenya.

Chapter 6 turns to the roots of environmental sustainability: climate change and other aspects of air pollution, freshwater quantity and quality, biogeochemical flows, biodiversity loss, land use changes and the condition of the oceans. How to conserve the planet is the core question of the chapter. Because on these issues there are differences of opinion and conflicts of values and interests, a need for dialogue among a wide variety of stakeholders is recognised.

Chapter 7 explores the arguments that see business and development as both part and solution of the problem. It is about modernity, capitalism, and economic growth. It points to the (relative) value of sustainability entrepreneurship, corporate social responsibility, fair trade, growth and de-growth.

Chapter 8 moves deeper into solutions. It lists methods and approaches envisioning a sustainable society. A particular focus is on urban areas, in which 'new urbanism' and regenerative design are discussed.

Chapter 9 examines tools measuring sustainable development. Indicators (including socio-ecological ones), indexes (footprints), life-cycle and sustainability assessment, and models are overviewed.

Education and learning is the subject of chapter 10. The roles of marketing, public campaigns, internet, cyberspace and the traditional media are illustrated using a wealth of examples. Sustainable development is the subject of both formal and informal education.

The final chapter 11 discusses theory and practice of leadership in organisations and society, applied to sustainable development. The nexus between learning, knowledge management and innovation is dissected. The chapter concludes "…good sustainability leadership requires an ecological intelligence, a respect for non-human others, and understanding of sustainable development that we have yet to achieve" (p.342).

Addressing this wide array of issues, the book illustrates the evolution of the sustainable development discussion in a remarkable way. While sustainable development originally referred to environmental themes, stakeholders and punctual mitigation measures, more recently a move towards fundamental causes of unsustainable development and larger scale solutions (e.g., green cities) is noticed. Chapters on environmental justice, cultural aspects of sustainability and communication have a prominent position in this book, while these drivers and adaptation strategies were hardly addressed in the trendsetting international documents of the past two decades.

The book does exactly what the title promises: providing an overview of and intellectual insight in the current principles, key issues and debates on sustainable development. The number of (interlinked) keywords the book deals with is impressive. What comes out is a kaleidoscope of items of use for all those who want to learn more about the complexity and diversity of sustainable development and its applications. The book is also most interesting from an interdisciplinary point of view as it integrates, in an intellectually lucid and smooth way, environmental sciences, ethics, sociology, culture, communication and policy. Somewhat unfortunately, the book lacks a clear conclusion and a prospective vision.

The author, John Blewitt, is director of the MSc in Social Responsibility and Sustainability at Aston University (UK). He uses a clear and accurate language, making his book accessible for the student, the teacher, the expert in one of the fields dealt with and looking for a wider perspective, and a wide range of people with different educational and professional backgrounds. The theoretical aspects discussed in the chapters are complemented with box texts on illustrative cases (29 in total). Next to a core text, a summary and a description of the aims, each chapter offers a series of 'thinking questions', which might initiate further discussion. The reference list, which is over 40 pages long, is impressive, and combines historical references with recent material. The book as a whole is complemented with a 'companion website', providing additional case studies.

This second edition of *Understanding Sustainable Development* is one of the most comprehensive and synthesising works on the theme to have been published during recent years.

3 Collision Course. Endless Growth on a Finite Planet

by: Kerryn Higgs
Published 2014
by MIT Press
55 Hayward Street, Cambridge MA 02142, USA, 15 chapters, 384pp
ISBN: 978-0-262-02773-1 (hard cover: alk. paper)

More than 40 years ago, Meadows et al. (1972) published *Limits to Growth*. They found that unmodified economic growth was likely to collide with the realities of a finite planet within a century. During the subsequent decades, environmental researchers and economists elaborated these ideas and launched a series of suggestions fundamentally altering the situation. The world, in particular the decision-makers, hardly take notice of this analysis and the proposed measures. The 'whys' behind this position are the core subject of this book.

Its main aim is "to illuminate the reasons of the ideological dominance of growth, and to foster an awareness of the actual realities – human and ecological – that contradict its confident discourse (on a finite earth)" (p.283). Realising this ambitious objective is done in 15 chapters structured in four parts. Part 1 is about the origins of the discussion: the prehistory of the *Limits* including the importance of oil in the economic growth paradigm, and industrial capitalism. It includes sections on the precursors and the beginning of the *Limits*, and an interesting discussion on its critics (the models, the denial, growth as a solution to poverty).

Part 2 discusses drivers of economic growth. It includes chapters on consumerism, free market fundamentalism, development, and globalisation. The chapter on sustainable development provides a short historical overview of what the Brundtland Commission (WCED, 1987) and the UNCED-conference (UN Conference on Environment and Development, 1992) contributed to the discussion. This results in a chapter on 'Growth and its outcomes for the poor'. An important consideration is that in spite of our moral obligation to alleviate poverty and counteract malnutrition, "sustainability now means what the market, not the earth, can bear… Sustainable is what the rich and the powerful can get away with" (Seabrook, 2002).

Part 3 discusses the successes of growth and the triumphs of progress that have been internationally propagated. These are considered as 'common sense' values. Apart from the historical considerations, which go back to the early 1900s (and include among others the influence of corporate America), a most interesting chapter is on 'The free market assault on environmental science'. It analyses the questions of why scientific evidence that is widely regarded as an ally in decision-making does not work in the case of the economic growth paradigm and why denial of facts prevails in this discussion.

The concluding chapters overview 40 years of *Limits* discussions and impacts. The overall consideration is that structural changes, and a new kind of steady-state economy, are indispensable. The business universe tales of progress need to be disturbed and replaced by alternative visions and ideals.

Higgs is an Australian geographer and environmental scientist who offers with this book a well-researched document, as is illustrated by the extensive literature list. The book combines facts and figures, historical lines, and stimulating thinking about fundamentals of our society and our culture. Box texts illustrate factual findings, illustrating the frequent mega-analyses of the main text. The focus is on environmental arguments, taking a worldwide scope (with special reference to China and India), with historical considerations going back to Europe's colonial past. It links Malthus with Hardin and the book's main anchor point *Limits to Growth*. Using an excellent analysis, it offers a (renewed) wake-up call for all those showing interest in the sensitive environment-economy discussion.

This most accessible book offers valuable reading material for the non-believers, the ones focusing on uncertainty, and the lobbyists, as well as for those who feel they know the arguments. It offers basic materials and documented thoughts for in-class discussions with environmental master and PhD students. It is compulsory reading for economists and decision-makers on the subject.

This is a great and intellectually stimulating book with far-reaching consequences in practice.

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4 Urban Sustainability in Theory and Practice Circles of Sustainability

by: Paul James
Published 2015
by Routledge
2 Park Square Milton Park, Abingdon, Oxon X14 4RN, UK, 260pp
and
by Routledge
711 Third Avenue, New York, NY 10017, USA, 260pp
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ISBN: 978-1-315-76574-7 (ebk)

As more than half of the human population lives in cities today, not only the advantages but also the threats of (sometimes chaotic) urbanisation processes become obvious. Growth-based productivity and high-technology solutions alone will no longer be the sole keys to the future of cities. A number of attempts, including 'green' and 'low carbon' cities, have emerged and re-surfaced, but the conviction grows that a new paradigm that responds to the general demands of sustainable cities combined with local needs, is increasingly necessary, as advocated by UN-Habitat at the Rio +20 Summit (UN, 2012).

This book contributes to establishing this renewed way of establishing the city for future generations. It is structured in three parts, of which the first one contains, in two chapters, the 'global-local scene'. It describes definitions used in the book and the *Circles of Sustainability Approach*, which is the fundamental approach of this book. It structures the sustainability of a city in four domains: ecology, culture, politics and economics. These can be completed according to a nine-point scale ranging from 'critical' to 'vibrant' sustainability.

Part two is about 'Understanding social life'. It entails three chapters, making the 'Circles of sustainability' method both practically useful and grounded in an interesting analytical foundation. It takes off by defining social domains (ecology, economics, politics, and culture) and their interrelations. This is followed by a section on how to map social life at the individual, community, and larger scale level. The chapter about 'social meaning' addresses the question of how to understand better the subjective dynamics that occur in different social formations.

Most interesting is part three, which offers an analytical and critical approach to developing methods and tools that contribute to moving to urban sustainability. It is about measuring (both top-down and bottom-up approaches are addressed) and assessing sustainability. On this latter subject, the value of (societal) peer reviews is discussed. Moreover, there is a focus on generating sustainability profiles and adaptation to climate changes.

Although systematically organised, this is a book with different layers: a theoretical one next to a practical approach; global insights on sustainable development next to local interpretations; traditional insights in sustainable development next to re-calibrations of the concept and its interpretation. As a whole, this book adopts a broad, interdisciplinary view on sustainable cities. It recognises the (ecological, economic, political, cultural and social) complexity of the issue. It acknowledges the role of communities, organisation, businesses and other stakeholders in organising and setting the holistic scene. It combines global with local views. It provides theory and gentle guidance on best practice for a better urban future.

The leading author, Paul James, is a professor at the Institute of Culture and Society at the University of Western Sydney (Australia). He was Director of the UN Global Compact Cities Programme from 2007 to 2014. The reader feels this experience both in the content, which is a nice combination of academic and practical issues, and in the format. This latter offers not only well illustrated core texts but also most practical appendices and boxed (international) case studies.

The book is a 'must read' for a wide target audience, ranging from students, over administrators, to planners. However, it is in essence about how practitioners can best go about changing cities for the better in the context of rushing global change and intensifying crises of sustainability (p.4). 'Practitioners' should be understood in a broad way: civil society (NGOs, universities), governance organisations (municipalities, provinces, countries), and business. In short, this is a great book for all who are concerned with thinking about and working the urban future.

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5 A Case for Climate Engineering
by: David Keith
Published 2013
by The MIT Press
55 Hayward Street, Cambridge, MA02142, USA, 6 chapters, 194pp
ISBN: 978-0-262-01982-8 (hard cover: alk. paper)

Climate engineering is a possible third option for addressing climate changes, next to mitigation and adaptation. The basic rationale dovetails in the physics underlying global warming: greenhouse gases, and CO_2 in particular, retain/stock more solar energy than an atmosphere with its normal composition. Hence, making sure the atmosphere will receive less energy from the sun, and/or will contain less CO_2, will (partially) solve the problem. This reasoning also explains there are two major, large scale engineering approaches to climate changes: solar radiation management and carbon dioxide removal.

This book makes a case about solar engineering (or solar radiation management) – an option which, according to the author, should be part of the tools for managing climate

risk. The rationale supporting the discourse is sound, clear and nice, and developed in six steps, each of them a chapter:

- First, the theoretical basis behind geo-engineering, using the atmospheric injection of sulphuric acid, is explained. This strategy should complement mitigation and adaptation to reach the imperative significant CO_2 reductions in the atmosphere.
- Climate change is a particularly dangerous problem resulting from industrial civilisation, and should be mitigated, also for the well-being of the next generation.
- Geo-engineering science is in se not normative, but allows answering questions such as 'How effectively can science counteract climate change?' and 'What are the risks and the uncertainties?'.
- What may one expect from geo-engineering science, and what is the role of an environmental approach?
- Ethical criticisms on geo-engineering dovetail among others in considerations on responsibility, utilities, self-interest, inequality and geo-politics. The central point is: technology (of which geo-engineering is part) has been used to alter our environment for many years: nothing is wrong with that; consequently it is legitimate to use geo-engineering solutions to alleviate the pressing cases of climate change.

What will geo-engineering bring in the future? It is a new and valid tool in dealing with climate change: we should make use of it with the humility of recognising its limits.

In all, this book offers a well-informed case providing the arguments in favour of applying geo-engineering. It is short, easy to read and gives a synoptic view on the subject. The core message is clear: after years of failing emission reduction policies, one should seriously consider preventing the accumulation of solar energy in the atmosphere as a complementary instrument to cope with climate change, alongside mitigation and adaptation. The rationale on which this message is based is well developed, using professional insights, academic arguments, and refined discussions.

The author fails, however, in presenting a balanced case. The arguments used by those pointing to the risks, the uncertainties, the adverse effects, the uncontrollability and irreversibility, are mentioned, but not balanced against the expected positive effects of solar geo-engineering. The text gives, for example, ample attention to the 'romantic embrace of the primitive', referring to the idea that nature and the environment should be kept in their original, hardly disturbed state. Evidently, this is only one of the components of contemporary environmental policy. As far as geo-engineering is concerned, the precautionary principle guides the actions much more than 'embracing the primitive'. However, in the chapter on 'Ethics and politics', the precautionary principle is hardly mentioned. The reader might assume it is set aside with the 'old assumptions environmental advocates need to re-examine'.

This book is written as a novel. It does not show the classical introduction (problem formulation, aims, structure)/core part/discussion and conclusions structure. Rather, it offers six dissertations on solar engineering, which, taken together, provide interesting information and (biased) insight into the 'case for climate engineering'. As a novel, the reader should not expect an alphabetical list of subjects or a systematic list of literature references (instead the main text refers to a series of 59 notes, most of which entail a reference to the scientific and/or policy literature).

The author, David Keith, is a professor at Harvard University. As an academic, he worked on the interface between climate science, energy, technology, and public policy for twenty years. He is vocal in the public environmental discussion in (mainly) North America. This is likely one of the most important keys to this handy booklet: it is a contribution to – but definitely no (intermediate) conclusion of – the debate on the applicability of solar geo-engineering in a human ecology context. In this way, the book provides a valuable addition to the Boston Review series of MIT Press.

6 Forests in Our Changing World. New Principles for Forest Conservation and Management

by: Joe Landsberg and Richard Waring
Published 2014
by Island Press
2000 M Street NW, Suite 650,
Washington DC 20036, USA, 7 chapters, 209pp
ISBN: 978-1-61091-495-6 (cloth: alk. paper)
ISBN: 978-1-61091-495-3 (cloth: alk. paper)
ISBN: 978-1-61091-495-3 (pbk: alk. paper)
ISBN: 978-1-61091-495-1 (pbk: alk. paper)

Visions on forests change over time. Previously, forests figured as landscape elements and providers of wood and non-timber forest resources, but during recent years science has increasingly pointed to their ecological values and services. Forests are guardians of biodiversity, carbon sequestration and storage, stable water supplies, land protection and recreation. Moreover, the environmental stress to which forests are subjected changes. This applies to the increasing deforestation, and also to the climate changes and the ways we recognise forests as economic assets. As a consequence, the way to deal with these changes and how to manage forests is subject to new insights on their conservation and sustainability.

This book summarises the main concepts and principles backing these actions. In seven chapters, the authors provide an overview of the evolution of forests during human history (chapter 2), and a review of the main forest types and ecosystems around the world. They describe how weather influences the eco-physiology of forests (chapter 3) and the most likely effects of climate changes on these ecosystems and their growth (chapter 4). Chapter 5 considers how natural and plantation forests and their products and services are valued today. This section also pays attention to abuses of forests, including tropical destruction and fragmentation. As a result of worldwide urbanisation. Chapter 6 deals with forest management. Its scope covers topics ranging from international protection policies, over the shortcomings of conventional economies including the natural capital in country accounts, to wildfires. The last chapter of the book discusses the future of forests. It outlines the management practices that will be needed to ensure the survival of the still-existing forests. The text puts emphasis on the role of plantations fulfilling the wood demand in the future.

This book documents and discusses in an accessible way core subjects on forest functioning and management, including a historical overview of the evolving ideas and attitudes on the value of forests, resilience, weather impacts including these of extreme

events, and forest growth and yield forecasts. This list illustrates the wide scientific scope of the book, which is targeted to a wider audience beyond the research experts. The sections and chapters are described and discussed in a most accessible way.

It is nevertheless remarkable that some essential underpinnings of contemporary forest management are missing, such as the use of models assessing the future of ecosystem services (although econometric models are introduced). In spite of a vast literature on the effects of climate change also on forests, the overview in chapter 4 is based on a far-going selection of these papers.

In conclusion, this is an excellent book introducing new trends and aspects of the forest discussion to a wider audience. It has a strong introductory, summarising and guidance potential. On the other hand, it lacks a systematic approach to the problem and does not attempt completeness. Neither does it discuss the most advanced trends in forest management research. It really contributes to the understanding of how forests work. It provides a well-documented look into a series of aspects about the status of these ecosystems in a rapidly changing world.

The book is a most valuable addition to introductory classes at college level. It is a most welcome support for a wide series of forest management stakeholders, including NGOs, policy advisors and decision-makers and consultants.

7 Renewable Energy Systems. A Smart Energy Systems Approach to the Choice and Modelling of 100% Renewable Solutions (2nd edition)

by: Henrik Lund
Published 2014
by Academic Press 225 Wyman Street,
Waltham, MA 02451, USA, 9 chapters, 362pp
ISBN: 978-0-12-410423-5

Renewable energy systems are about wind (onshore and offshore), ocean, wave and tidal, geothermal, biomass and solar energy. They are about smart grid connected renewables, energy conversion, and sustainable energy management.

This book is an aid in comparing different energy systems and assesses how well they can be integrated. It does so by referring to a freely available software device. It provides the results of the analysis of a series of international energy systems.

The book is structured in nine chapters. The introduction entails a discussion on the difference between sustainable and renewable energy. Chapter 2 introduces the choice awareness theory. This offers a framework to implement complex changes as a transition from a classical to a renewable energy system. Chapter 3 is about the methods of implementing the drastic changes that are required by renewable energy systems. Chapter 4 discusses EnergyPLAN, a tool to simulate the implementation of renewable energy systems. Denmark has today a high share of renewable energy, therefore, its experience on transition strategies is important; this is referred to in Chapter 5. Smart grids and energy systems are essential components of renewable energy situations; they are discussed in chapter 6. Chapter 7 describes reaching the final goal: the composition and assessment of 100% renewable energy systems. Chapter 8 presents 12 case studies on experiences with the implementation of renewable energy systems in countries as diverse as Germany, Thailand, and North Carolina (USA). Among others matters, these

cases allow identifying (social and policy) barriers to the implementation of energy transition strategies. The book concludes with a chapter entailing a discussion and recommendations. It puts particular emphasis on the importance of local ownership in energy transition strategies. Politicians are advised to establish favourable conditions for this support and to implement the institutional changes that will make this possible.

This book is different from the mainstream literature on renewable energy. It provides a systematically structured overview on the subject, while combining background theory and practice on the feasibility and efficiency of implementing large-scale societal changes. It also addresses the geo-political challenges that these changes require. The attention given to the socio-political realities is a strength of the second edition of this book. The application of this context is extensively discussed using Danish and worldwide experience. It advocates and offers an IT tool which allows experts to simulate transition scenarios. The device can equally be used for training.

This is a book for all those involved in realising complex energy transitions: energy professionals and decision makers alike. In particular, the training software tool makes it useful for engineering and environmental sciences students. The book offers an intellectually honest antidote in a world which continues to be dominated by pro-carbon dependent energy lobbies.

8 Corporate Strategy in the Age of Responsibility

by: Peter McManners
Published 2014
by Gower Publishing Ltd.
Wey Court East, Union Road, Farnham, Surrey,
GU9 7PT, UK, 20 chapters, 180pp
ISBN: 9781472423603 (hbk)
ISBN: 9781472423610 (ebk-PDF)
ISBN: 9781472423603 (ebk-ePUB)

Corporate social responsibility (CSR) is one of the main responses of business and industry to the challenge of sustainable development. CSR refers to a management system combining the environmental, social and ethical responsibilities of companies on a par with their economic imperatives. It is a management system for times of energy savings and transitions to a low-carbon economy and limited natural resources, limiting risks and pollution, during which CSR offers a strategy increasing the resilience of corporations in this 21st century.

This book is a blueprint and a guide on introducing and refining CSR strategies in organisations. The book is structured in four parts of five chapters each. Part 1 is about the changing context of the macroeconomic policies during the first decades of the new millennium. It is about post-globalisation, the changing priorities and the opportunities of new business landscape. It sets the context and points to the necessity of embracing CSR. It deals with the fundamental whys behind these complex responsibilities to which companies and other organisations increasingly respond.

Parts 2 and 3 describe and explain the core strategic processes backing CSR. Part 2 examines the capabilities of the macro-business environment, building on a CSR strategy. It discusses these aspects from external, industry, internal and stakeholder points of view. Part 3 is about choices in key questions while dealing with CSR: the corporate footprint,

strategic options, markets and locations, and resourcing. It documents how innovative CSR strategies are in the interest of the organisation and its stakeholders.

Part 4 is about implementation, about measuring success and engaging diverse groups of stakeholders for CSR. The result should be a sustainable and profitable corporation deeply rooted in society and achieving for a sound environmental performance.

The book combines insight into fundamental drivers with hands-on guidance on strategic options, and practical hints for implementation. It has an original structure dealing with the issue in a systematic way, but going beyond the 'sausage cutting' approach which characterises most certification and assessment texts. All this results in a refreshing perspective that provides added value to the existing literature. Its attention to the increasingly pressing problems of resources, social, and ethical corporate responsibility provides the book with a motivating dynamism. The language and the rationale in this book is that of the business manager; the environmental scientist will not find the factual data driving CSR in this publication.

This is a very well presented and didactical book. Each part is introduced by a text explaining the coherence of its chapters. Each chapter is provided with a conclusion and a summary. The main text refers to functionally supporting figures, few tables (only two for the whole book), and a series of most illustrative box texts on specific examples. The book as a whole is most complete, including a (relative limited) list of references and a useful index. It is written in a way which is easily accessible also for the non-managerial expert.

This book is a must-read for practitioners and theorists alike. It encourages practitioners to include novel strategic options in the management of their organisation. It contributes to theoretical insight on the (business) road to sustainable development. It offers a major help for consultants, unions, and consumers, and it is a most interesting supporting text for business school teaching. It will help all these potential readers in defining and specifying transition strategies and embracing new sustainable development challenges. The book is a valuable addition to the authoritative Gower series on applied business research and sustainable business development.

9 Integral Green Zimbabwe. An African Phoenix Rising

by: Elizabeth Namakwa, Ronnie Lessen and Alexander Schieffer (Eds.)
Published 2014
by Gower Publishing Ltd.
Wey Court East, Union Road, Farnham,
Surrey GU9 7PT, UK, 16 chapters, 267pp
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We hardly know Zimbabwe. As a travel destination it attracts a negative advice. This country of agriculture and asbestos, located in the middle of the richest precious and semi-precious minerals and stone area of the world, was after its independence seriously harmed. Our students from that part of the world tell that the country will not change as long as Robert Mugabe and his (para-)military backing is in power.

This book shows a different picture of Zimbabwe. It provides an overview of 30 years of scientific research in the country. It shows how the post-independence period supported alternative ways of development and innovation.

The book is structured in five main parts and a conclusion. Part 1 is about what has been reached during independence. A core concept is defining 'African-ness'. Part 2 deals with activating nature and communities. The focus is on self-sufficiency, community building and community activation. Part 3 deals with culture and spirituality. The chapters illustrate how theatre, dance, and choreography might motivate young people, both artistic and entrepreneurial. Part 4 entails three chapters about integral leadership, knowledge creation and promoting industrial ecology. Together they show the way how business can be transformed in Zimbabwe. Part 5 entails two chapters showing the road to sustainable development: one illustrating how desertification can be reversed, while increasing the number of large, grazing animals. The other is about greening schools, making a contribution to lifelong learning. The concluding chapter summarises the impact of the integral research and development approach which was described in the previous chapters. It echoes the call for integral research to move society ahead, which is the red wire through this book.

As a whole the book provides a holistic view on research related to sustainable development. It shows how intertwining environmental, social and business matters on 'real world' problems not only leads to interesting research results, but also has direct impacts on the community.

The book is edited by Liz Mamukwa of the Africa Leadership and Management Academy, and Ronnie Lessem and Alexander Schieffer, the co-founders of the Trans4m Center for Integral Development. The book reads both as their intellectual legacy and a starting point for innovative pathways of development. The chapters are contributed by mainly Zimbabwean researchers, which provides the book with a unique position in the international literature.

This is a book for experts in African development issues. Although the arguments and the examples are insufficiently strong, making the subtitle (An African Phoenix rising) hard, it provides a revealing view on Zimbabwe, which still today is an isolated country in Southern Africa. It is of particular interest for all those looking for new, complementary and alternative pathways of development.

This is the first publication in a new Gower series on applied research: the Integral Green Society and Economy Series. An important aim is blending elements of nature and community, culture and spirituality, science and technology, enterprise, economics and politics. This inter- and trans-disciplinary approach is present in a pronounced way in this revealing book on Zimbabwe. An intelligent, revealing and ground-breaking start of a promising series.

10 The Arctic in the Anthropocene. Emerging Research Questions
by: National Research Council of the National Academies
Published 2014
by The National Academies Press
500 Fifth Street NW, Washington DC 20001, USA, 5 chapters, 210pp
ISBN: 978-0-309-30183-1
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The Arctic continent is changing. As the environment warms up, there are shifts in its physical and biological organisation, local communities are increasingly affected, and the Arctic countries launch revised plans on how to use the area. In this context, it is important to make an inventory of the scientific questions on the Arctic that we need to answer during the years to come.

This is the core aim of this report. It assesses in a methodological way what can/should be done in Arctic research that is new and identifies questions we shall regret having ignored if we do not invest in answering them soon. The report is structured in five sections. The first one introduces the problem and documents the study approach and its methodology (literature review, questionnaire, and workshop).

Chapter 2 lays out the rationale for continued Arctic research, situating this report's emphasis on emerging questions in the wider context of Arctic research accomplishments, needs, and support. It summarises and overviews (recent) research developments in the region, paying specific attention to the impact of climate changes.

Chapter 3 lists emerging research questions. This is the core part of the publication. For each of the five main identified themes five to seven questions have been identified. The themes cover the 'evolving (social, environmental) Arctic', the 'hidden (beneath the ice) Arctic', the 'connected (regionally, globally) Arctic', the 'managed (urbanisation, geo-engineering) Arctic', and the 'undetermined (strategic assessments, uncertainty, unexpected) Arctic'. The issues are not only listed, but they are also framed in a priority scheme. The chapter is concluded by a discussion on what is likely to happen in case of failing to address these aspects timely.

Chapter 4 describes 'Meeting the challenges'. International and interdisciplinary collaboration is addressed, next to long term observations and their implications for funding, information management, operational capacity, and the need for investing in research (among others, through innovative funding schemes).

A short concluding chapter is entitled 'Building knowledge and solving problems'. It highlights the importance of connecting (remote) Arctic research with 'real world' issues such as oil and natural gas, and highlights the importance of 'action research'.

This is a book on issues. The reader should not expect extended theories on mechanisms driving the human ecology of the Arctic. The report identifies (emerging) questions that are important for understanding how environmental and societal transitions will affect the Arctic continent and the planet. It prioritises these questions and puts them in context. It points to the need for converting research findings into practical information, which offers a guide for research management and policy decisions.

This is a special publication, holding the middle between a report and a book. The issues are illustrated with original photographs, figures, tables, and box texts. An impressive list of (mainly recent) references on this specific scientific research niche is

added. All this illustrates the professionalism with which the co-workers of the US National Research Council edited this publication.

The text advocates international cooperation, among researchers, between agencies, across disciplines, between Arctic residents and visiting scientists, and with the private sector. It is targeted to policy-makers and all those aiming at catching the new Arctic opportunities. These are at the same time the stakeholders and the priority audience, not only of the Arctic research, but also of this important, trend-defining publication.

11 Project Planning and Management for Ecological Restoration

by: John Rieger, John Stanley and Ray Traynor
Published 2014
by Island Press
2000 M street, NW, Suite 650,
Washington DC 20036, USA, 15 chapters, 10 appendices, 300pp
ISBN: 978-1-61091-363-8 (cloth: alk. paper)
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ISBN: 978-1-61091-362-0 (cloth: alk. paper)

Ecological restoration is 'assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed'. Degraded or destroyed ecosystems often need in-depth restoration. Although this is often done by volunteers and driven more by enthusiasm than by knowledge, ecological restoration is a complex event with multiple facets.

This book analyses, unravels and decomposes the restoration process of degraded ecosystems. It is structured according the four steps that are advocated for a methodologically sound approach to ecosystem and landscape recovery:

1 planning

2 design

3 implementation

4 aftercare.

This logical framework takes the reader from the initial conceptualisation to the management of a completed project.

Part 1 describes the 'decision governor'. It provides the fundamentals of guiding the planning of a restoration project. It entails three chapters with checklists, tables, and questionnaires as tools for project management. All this should lead to an informed definition of a restoration project.

Part 2 guides the reader through the project design phase. The chapters deal with the analysis of the biotic and abiotic components of the project site and a variety of factors affecting the project design. A SWOT analysis of the project site is advocated. Specific attention is given to the availability of water, the quality and vulnerability of the soil, and choosing the most indicated plants for the restoration.

Part 3 takes the project plans towards implementation. The two chapters are about the careful documentation of what is to be done about the construction, earth moving, planting, and sowing on the site.

The message of Part 4 is to keep watch over the project once it is implemented and to deal with a maintenance and monitoring program assessing the progress and evolution of

the site. The three chapters in this section deal with stewardship, and the management of weeds and invasive species. The changing environmental conditions in these times of climate changes and other biodiversity stressors necessitate conducting targeted routine monitoring.

The concluding and synthesising part lists and reviews the important planning and management principles pertaining to ecological restoration. It shows how exchanging experiences and learning from others are most important in this area of expertise.

Ten appendices with worksheets, checklists, an example of a site analysis, and review aids add to the practical character of the book. Compared with the references mentioned in the text, the literature list is incomplete. References are not ranked in perfect alphabetical order. This haphazard character of the literature lists is in contrast with the carefully organised information of the main text.

This is a book by and for practitioners. It will be most helpful for young people entering the area, who are incompletely aware of the complexity of the multi-faceted (biology, ecology, chemo-physics, economics, risk assessment, to list just these aspects) character of restoration projects. Also, the experienced expert in ecological restoration will take advantage of the well-structured overview of tools and mind-sets reviewed in this book, which publishes a wealth of tables, schemes, flow-charts, photographs, figures, box texts, cartoons and other illustration materials. Issues are as a rule discussed in a systematic and analytical way, which is illustrated by the ample use of text bullets.

This results in a book that offers an excellent addition to existing academic texts on the restoration of ecosystems. It provides added value to the existing books on ecological restoration that Island Press has published before.

12 Sustainability. Principles and Practice

by: Margaret Robertson
Published 2014
by Routledge
2 Park Square, Milton Park, Abingdon,
Oxon, OX14 4RN, UK, 18 chapters, 370pp
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ISBN: 978-0-415-84018-7 (pbk)
ISBN: 978-0-203-76874-7 (ebk)

Sustainable development as an academic field is still in a formative stage. Since the explicit call of *Agenda 21* to scientists, researchers and professors on the need for research, service and training on the issue, a lot changed. As in many other scientific disciplines the work took off from a descriptive analysis of the building blocks which were listed in *Our Common Future* (WCED, 1987) and *Agenda 21* (UN, 1992). The emerging result showed a heterogeneous and complex field of environmental, social, economic and governance aspects, in need of clarifying the interconnections and synthesis. This allowed the field to move into new areas of understanding and trans-disciplinarity.

This book is an outstanding contribution to this process of moving from multi-, and inter-, to transdisciplinary transitions, which characterise the genesis of each new discipline in science. Here, the subject of the application concerns sustainable

development. The book summarises an impressive set of mainly environmental building blocks and puts them in a keen way in a cultural, social, institutional, and policy context.

The 18 chapters of the book are organised in three parts. Part 1 provides a context for understanding sustainable development. The chapters define sustainability (of particular interest is the discussion on 'sustainability as a discipline' pp.7–8), a brief history spanning 200 years, key themes linking natural (biosphere, energy balances, systems approaches) and human (demography, economics) sciences. The section equally introduces the approaches and tools of the sustainability practitioner (indicators, footprints).

The extended part 2 entails ten chapters linking the physical environment and its problems with sustainability: climate, energy, biodiversity, pollution, buildings, cities, food, products and waste. Each of the chapters on these subjects defines the problem, lists aspects and effects, and offers a short discussion on solutions.

Part 3 is about putting sustainability into practice. It provides original discussions about how to be effective in an organisation (governance, people, and planning), how to organise education for sustainable development (formal and informal), and how to maximise the effects of contributions (group works, sustainable behaviour). This final part provides the book with aspects largely unaddressed by most other textbooks.

Each chapter is systematically organised. Apart from a core text, which is illustrated with boxed case studies, it provides suggestions for further reading, a 'Chapter review', and a list of issues stimulating critical thinking and discussion. The book as a whole provides a comprehensive list of mainly recent (up to 2012) references. It is a very well presented Earthscan publication. Moreover, the book is complemented with a 'Companion website' including an online glossary, additional reading materials, links to relevant websites, more questions, activities and projects, complementary to the printed information.

This systematic and integrative approach makes the book most useful for students in both undergraduate and postgraduate programs and their teachers, across a variety of disciplines. It is less targeted to students who want to deepen their knowledge in one of the specialised subfields in sustainable development. The book provides the wider picture, interlinks and integration and inclusiveness.

While covering a broad and diverse range of topics, principles and concepts, the author – Margaret Robertson, who coordinates the Sustainability Coordinator Degree Program at Lane Community College at Eugene, Oregon – succeeds in distilling the essentials that students and an increasing number of professionally and otherwise interested readers need to know about sustainable development. The book provides a systematic and comprehensive overview of mainly the physical-environmental aspects of sustainable development, which are anchored in convincing examples. This is a most valuable addition to textbooks on the emerging science field which supports sustainable development.

References

United Nations (UN) (1992) *Agenda 21: The United Nations Programme of Action from Rio, New York: United Nations* [online] http://www.un.org/esa/dsd/agenda21/res_agenda21_00.shtm 1 (accessed 8 September 2015).