

## Transdisciplinary Sustainability Studies A Heuristic Approach Routledge Studies In Sustainability

This book presents the current state of the art in Social Ecology as practiced by the Vienna School of Social Ecology, globally one of the main research groups in this field. As a significant contribution to the growing literature on interdisciplinary sustainability studies, the book introduces the purpose and nature of Social Ecology and then places the "Vienna School" within the broader context of socioecological and other interdisciplinary environmental approaches. The conceptual and methodological foundations of Social Ecology are discussed in detail, allowing the reader to obtain a broad overview of current socioecological thinking. Issues covered include socio-metabolic transitions, socioecological approaches to land use, the relation between actor-centered and system approaches, a socioecological theory of labor and the importance of legacies, as conceived in Environmental History and in Long-Term Socio-Ecological Research. To underpin this overview empirically, the strengths of socioecological research are elucidated in cases of cutting-edge research, introducing a variety of themes the Vienna School has been tackling empirically over the past years. Given how the field is presented – reflecting research carried out on different scales, reaching from local to global as well as from past to present and future – and due to the way the book is structured, it is suitable for classroom use, as a primer, and also as an overview of how Social Ecology evolved, right up to its current research frontiers.

Responsibility for future generations is easily postulated in the abstract but it is much more difficult to set it to work in the concrete. It requires some changes in individual and institutional attitudes that are in opposition to what has been called the "systems variables" of industrial society: individual freedom, consumerism, and equality. The Politics of Sustainability from Philosophical Perspectives seeks to examine the motivational and institutional obstacles standing in the way of a consistent politics of sustainability and to look for strategies to overcome them. It argues that though there have been significant changes in individual and especially collective attitudes to growth, intergenerational solidarity and nature preservation, it is far from certain whether these will be sufficient to encourage politicians into giving sustainable policies priority over other legitimate concerns. Having a philosophical approach as its main focus, the volume is at the same time interdisciplinary in combining political, psychological, ecological and economic analyses. This book will be a contribution to the joint effort to meet the theoretical and practical challenges posed by climate change and other impending global perils and will be of interest to students of environmental studies, applied ethics and environmental psychology.

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Case Studies in Interdisciplinary Research successfully applies the model of the interdisciplinary research process outlined by author Allen F. Repko in Interdisciplinary Research, (SAGE ©2008) to a wide spectrum of challenging research questions. Self-contained case studies, written by leaders in interdisciplinary research, and utilizing best-practice techniques in conducting interdisciplinary research shows students how to apply the interdisciplinary research process to a variety of problems.

This book breaks new ground in the studies of green transition. It frames the ongoing transformation in terms of a "battle of modernities" with the emerging vision of ecomodernity as the final destination. It also offers a systematic exploration of the potential for extensive transformation of carbon-intensive sectors – with a focus on energy and transport – towards a low or post-carbon economy. The book does so in a comparative perspective, by pointing to a diversity of techno-economic and institutional solutions in the mature Western economies, and in the rapidly growing East and developing South. The contributors highlight a broad spectrum of available alternatives as well as illuminate conflicting interests involved. They also demonstrate how solutions to the climate challenge require parallel technological and governance innovation. The book advocates a new, overarching vision and agenda of ecomodernity – based on a synergistic paradigm-shift in industry, politics and culture – to trigger and sustain the ecological innovation necessary to tip development in a green direction. This vision cannot be monolithic; rather, it should reflect the diverse interests and conditions of the global population. This book is aimed at researchers and postgraduate students of energy, transport, environmental and climate policies, as well as development, environment, innovation and sustainability. The importance of small-scale fisheries for sustainable livelihoods and communities, food security, and poverty eradication is indisputable. With the endorsement of the 'Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries', FAO member states recognize that governments, civil society organizations, and research communities all have a role to play in helping small-scale fisheries achieve these goals. This book argues that policies targeting small-scale fisheries need to be based on a solid and holistic knowledge foundation, and support the building of governance capacity at local, national, and global levels. The book provides rich illustrations from around the world of why such knowledge production needs to be transdisciplinary, drawing from multiple disciplinary perspectives and the knowledge that small-scale fisheries actors have, in order to identify problems and explore innovative solutions. Transdisciplinarity for Small-Scale Fisheries Governance: Analysis and Practice, edited by Ratana Chuenpagdee and Svein Jentoft, successfully demonstrates how small-scale fisheries are important and what social and political conditions are conducive to their wellbeing. The volume contributes tremendously to building capacity of fisheries communities and policy-makers to make the ideals of small-scale fisheries a reality. It establishes the ecological, social, and economic sense behind small-scale fisheries. A milestone reference for all those who believe in small-scale fisheries and are keen to defend them with quality evidence! — Sebastian Mathew, Executive Director, International Collective in Support of Fishworkers (ICSF) The Small-Scale Fisheries Guidelines guiding principles call for holistic and integrated approaches for their implementation. This book will help a new generation of scientists, policy-makers, and small-scale fisheries actors make the fundamental connections between different disciplines in science, traditional knowledge, and policy to guide a collective process towards sustainable small-scale fisheries. The book contains an inspiring collection of

practical cases from around the world, complemented by deep dives into dimensions of small-scale fisheries, like food security, stewardship, climate change, and gender, which all call for transdisciplinary approaches. — Nicole Franz, Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations (FAO) Rome, Italy

The authors in this volume make a case for LTSER's potential in providing insights, knowledge and experience necessary for a sustainability transition. This expertly edited selection of contributions from Europe and North America reviews the development of LTSER since its inception and assesses its current state, which has evolved to recognize the value of formulating solutions to the host of ecological threats we face. Through many case studies, this book gives the reader a greater sense of where we are and what still needs to be done to engage in and make meaning from long-term, place-based and cross-disciplinary engagements with socio-ecological systems.

"Collaborations that integrate diverse perspectives are critical to addressing many of our complex scientific and societal problems. Yet those engaged in cross-disciplinary team science often face institutional barriers and collaborative challenges. *Strategies for Team Science Success* offers readers a comprehensive set of actionable strategies for reducing barriers and overcoming challenges and includes practical guidance for how to implement effective team science practices. More than 100 experts--including scientists, administrators, and funders from a wide range of disciplines and professions-- explain evidence-based principles, highlight state-of-the-art strategies, tools, and resources, and share first-person accounts of how they've applied them in their own successful team science initiatives. While many examples draw from cross-disciplinary team science initiatives in the health domain, the handbook is designed to be useful across all areas of science. *Strategies for Team Science Success* will inspire and enable readers to embrace cross-disciplinary team science, by articulating its value for accelerating scientific progress, and by providing practical strategies for success. Scientists, administrators, funders, and others engaged in team science will also leave equipped to develop new policies and practices needed to keep pace in our rapidly changing scientific landscape. Scholars across the Science of Team Science (SciTS), management, organizational, behavioral and social sciences, public health, philosophy, and information technology, among other areas of scholarship, will find inspiration for new research directions to continue advancing cross-disciplinary team science." -- Prové de l'editor.

Completing a trilogy of works by Jan Cohen-Cruz, *Remapping Performance* focuses on the work of artists and experts who collaborate across fields to address social issues. The book explores work of a range of artists who employ artistic training, methodologies and mind-sets in their work with experts from other sectors such as medicine and healthcare and from other disciplines, to draw an expanded map of performance platforms including university/ community partnerships, neighbourhood-bases, and cultural diplomacy. Case studies include ArtSpot Productions/Mondo Bizarro's *Cry You One* about climate change in southern Louisiana, incorporating theatrics and organizing; Michael Rohd/Sojourn Theatre's social and civic practices; Anne Basting's University of Wisconsin-Milwaukee-based integration of performance and creative aging; and the collaborative cultural diplomacy experiment, smARTpower. Short companion pieces add expertise from Helen Nicholson, Todd London, Julie Thompson Klein, Nancy Cantor, Maria Rosario Jackson, and Penny Von Eschen. Jan Cohen-Cruz ends with suggestions for fully integrating performance in cross-sector initiatives. This latest book by a leading figure in engaged/ applied theatre and performance builds on its predecessors by offering a future-oriented perspective, a vision of art and performance interacting with a range of social sectors and with an emphasis on HE in such partnerships, and will be a 'must-read' for all students and scholars working in this field.

Interdisciplinarity has become as important outside academia as within. Academics, policy makers, and the general public seek insights to help organize the vast amounts of knowledge being produced, both within research and at all levels of education. The second edition of *The Oxford Handbook of Interdisciplinarity* offers a thorough update of this major reference work, summarizing the latest advances within the field of inter- and transdisciplinarity. The collection is distinguished by its breadth of coverage, with chapters written by leading experts from multiple networks and organizations. The volume is edited by respected interdisciplinary scholars and supported by a prestigious advisory board to ensure the highest quality and breadth of coverage. *The Oxford Handbook of Interdisciplinarity* provides a synoptic overview of the current state of interdisciplinary research, education, administration and management, and of problem solving-knowledge that spans the disciplines and interdisciplinary fields. The volume negotiates the space between the academic community and society at large. Offering the most broad-based account of inter- and transdisciplinarity to date, its 47 chapters provide a snapshot of the state of knowledge integration as interdisciplinarity approaches its century mark. This second edition expands its coverage to discuss the emergence of new fields, the increase of interdisciplinary approaches within traditional disciplines and professions, new integrative approaches to education and training, the widening international presence of interdisciplinarity, its increased support in funding agencies and science-policy bodies, and the formation of several new international associations associated with interdisciplinarity. This reference book will be a valuable addition to academic libraries worldwide, important reading for members of the sciences, social sciences, and humanities engaged in interdisciplinary research and education, and helpful for administrators and policy makers seeking to improve the use of knowledge in society.

More than half the world's population now lives in cities. Creating sustainable, healthy and aesthetic urban environments is therefore a major policy goal and research agenda. This comprehensive handbook provides a global overview of the state of the art and science of urban forestry. It describes the multiple roles and benefits of urban green areas in general and the specific role of trees, including for issues such as air quality, human well-being and stormwater management. It reviews the various stresses experienced by trees in cities and tolerance mechanisms, as well as cultural techniques for either pre-conditioning or alleviating stress after planting. It sets out sound planning, design, species selection, establishment and management of urban trees. It shows that close interactions with the local urban communities who benefit from trees are key to success. By drawing upon international state-of-art knowledge on arboriculture and urban forestry, the book provides a definitive overview of the field and is an essential reference text for students, researchers and practitioners.

Based on the research of an interdisciplinary team of sociologists, geographers and economists, this book focuses on understanding farming transitions in Europe. The book discusses the importance of understanding transition pathways towards sustainability using case studies from Bulgaria, the Czech Republic, France, Germany, Greece, Portugal and the United Kingdom. Assessing the utility of the multi-level perspective in transition theory for addressing contemporary issues, the book identifies future research needs and possible approaches, making this an essential read for researchers interested in issues of rural and agricultural change.

Change and development are going on all around us. On both an international platform, as well as at the local governmental and community level, governments, decision and policy makers constantly strive to improve the world in which we live, seeking to make it better and to improve quality of life. This book focuses on such development in the context of localism in the UK. It strips the principle of local sustainability down to its constituent parts and considers the extent to which it can be said to be central to local life. As part of this, it presents the case for the importance of accountability and citizen participation in achieving objectives aligned with sustainability, and illustrates the relationships that these principles share. On this foundation, it evaluates local government in the UK, as well as examples of community-led regeneration initiatives and bodies, and seeks to determine both the nature of their pursuit of sustainability and the extent to which accountability and citizen participation play a part in that pursuit. It shows that local sustainability is enhanced by accountability and citizen participation; those principles ensuring that local people can be central to the process. Whilst its evaluations of local democratic systems in the UK reveal certain issues as regards the extent to which this is reflected in practice, it at least demonstrates an enthusiasm and awareness of the important role that accountability and citizen participation can play in the process of local sustainability. The book is aimed at legal academics, with relevance also to students in law, environmental politics and sustainable development, as well as those working in government policy and political practice.

This volume addresses the crucial role of knowledge and innovation in coping with and adapting to socio-economic and political transformation processes in post-Soviet societies. Unique are the bottom up or micro-sociological and ethnographic perspectives offered by the book on the processes of post-Soviet transformations in Central Asia and the Southern Caucasus. Three thematic fields form the structuring frame: cultures of knowledge production and sharing in agriculture; local governance arrangements and knowledge production; and finally, the present situation of agricultural advisory services development. Demonstrating how a university can, in a very practical and pragmatic way, be re-envisioned through a transdisciplinary informed frame, this book shows how through an open and collegiate spirit of inquiry the most pressing and multifaceted issue of contemporary societal (un)sustainability can be addressed and understood in a way that transcends narrow disciplinary work. It also provides a practical exemplar of how far more meaningful deliberation, understandings and options for action in relation to contemporary sustainability-related crises can emerge than could otherwise be achieved. Indeed it helps demonstrate how only through a transdisciplinary ethos and approach can real progress be achieved. The fact that this can be done in parallel to (or perhaps underneath) the day-to-day business of the university serves to highlight how even micro seed initiatives can further the process of breaking down silos and reuniting C.P. Snow's 'two cultures' after some four centuries of the relentless project of modernity. While much has been written and talked about with respect to both sustainability and transdisciplinarity, this book offers a pragmatic example which hopefully will signpost the ways others can, will and indeed must follow in our common quest for real progress.

Unity of Knowledge in Transdisciplinary Research for Sustainable Development theme is a component of Encyclopedia of Social Sciences and Humanities in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. Today, there is a social need for a comprehensive unity of knowledge that would provide orientation and ensure action in the context of the complex problems of modern civilization. Based on an intellectual need for unity of knowledge, different concepts of unity of knowledge have emerged in the course of the history of ideas. The intellectual need for unity can be directed at the world, science, action or the individual. It can involve the quest for the unity of the world based on a principle that is immanent in it, the unity of science as a theoretical, methodical or epistemological unity, the unity of action as a correlation of scientific, pragmatic and moral knowledge or, finally, unity as the educational task of the individual. The concepts associated with unity of knowledge can go in two directions. The first assumes that there is a unity existing in the world that can be perceived by man. It is thought of as an order of being, i.e. an ontological unity of the plurality of phenomena, that consist in their common nature. The other direction is based on the assumption that unity is a construction of a subject, based on its cognitive principles and structures. Thus it is not something that can be discovered as an existing objective order, and is instead subjective. These two volumes present some aspects of Unity of Knowledge in Transdisciplinary Research for Sustainable Development in three parts. The purpose of the first part is to trace back the core ideas in transdisciplinary thinking in the history of western philosophy and science, to locate socially the concerns of transdisciplinary research and to give an account of the development of transdisciplinary research. The second group of chapters deals with methodological and management problems related to transdisciplinary research with regard to problem identification and structuring of research questions, with knowledge integration in problem investigation as well as with evaluation. An outline of the institutional measures and transformations to enable and support transdisciplinary research is given in the third part. Institutional strategies build on organizational arrangements and links across academic institutions in education and research, on networks between science and society for joint knowledge production in temporally limited settings of research programs or projects, but they also set up new institutions, such as centers for advanced studies, national offices, agencies and networks. These two volumes are aimed at a wide spectrum of audiences: University and College Students, Educators, Research Personnel and all those concerned with sustainable development.

Sustainable Knowledge rethinks the nature of interdisciplinary research and the place of philosophy and the humanities in society and offers a new account of what is at stake in talk about 'interdisciplinarity'. This book, at the crossroads of creativity, design and interdisciplinary studies, offers an overview of these major trends in scientific research, society, culture and economics. It brings together different approaches and communities around a common reflection on interdisciplinary creative design thinking. This collective effort provides a unique dialogical and convergent space that deals with the challenges and opportunities met by researchers and practitioners working on design thinking, creativity and inter- and transdisciplinarity, or at the interface between these areas.

This exciting new state-of-the art book reviews, explores and advocates ways in which collaborative research endeavours can, through a transdisciplinary lens, enhance student, academic and social experiences. Drawing from a wide range of knowledges, contexts, geographical locations and internationally renowned expertise, the book provides a unique look into the world of transdisciplinary thinking, collaborative learning and action. In doing so, the book is action orientated, reflective, theoretical and intriguing and provides a place for all of these to meet and mingle in the spirit of curiosity and imagination. In June 2014, FAO member-states endorsed the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines). These Guidelines are one of the most significant landmarks for small-scale fisheries around the world. They are comprehensive in terms of topics covered, and progressive, with their foundations based on human rights and other key principles. It can be anticipated that implementing the SSF Guidelines, whether at local, national, or regional levels, will be challenging. This book contains in-depth case studies where authors discuss the extent to which the Guidelines can help improve the realities of small-scale fishing men and women globally and make their livelihoods and communities more secure. This will require policy intervention and innovation, along with contributions of civil society organizations and academia. However, most of all it will necessitate the empowerment of fishing people so that they can become active participants in decision making on matters where their well-being and human rights are at stake. By endorsing the SSF Guidelines, states have committed themselves to support and facilitate this development. This book asks whether states can successfully "walk the talk," and provides advice as to how they can do so. The collection of case studies sets the platform for an interactive dialogue space for researchers, policy makers, civil society and small-scale fishing communities to start the conversation about the monitoring and evaluation of the implementation of the SSF Guidelines at local, national, regional and global levels. An added value is that it helps add focus to our work as civil society activists involved in ensuring the application of the SSF Guidelines. Naseegh Jaffer – General Secretary, World Forum of Fisher People (WFFP) This collection offers many ways in

which institutions enabling small-scale fisheries can protect and promote sustainability, food security, customary tenure, self-management, and market access, while fostering such benefits as ecosystem-based management, protected areas, incorporation of local knowledge, and poverty alleviation. You will want to put this book in the hands of policy-makers and practitioners immediately -- and for years to come. Evelyn Pinkerton – Professor, Simon Fraser University, Canada

This textbook provides a comprehensive compilation of conceptual perspectives, methodological approaches and empirical insights of inter- and transdisciplinary sustainability science. Written by an international team of authors from leading sustainability institutions, the textbook covers key perspectives and topics of the scientific discourse on sustainable development. More than two decades after conceptualizing sustainability as societal guiding vision and regulative idea the necessity of concretizing and realizing sustainability in societal praxis is bigger than ever. Sharply improved individual and societal sustainable decision-making and action is necessary for a better future of humankind and the planet. On that account problem- and solution-oriented perspectives and competencies are crucial. The different chapters assemble an encompassing view of essential foundations and specific areas of research and action in sustainability science and practice. The textbook aims at fostering the further establishment of sustainability science in higher education and to enable the next generation of sustainability experts to tackle the challenging and exciting topic of sustainable development.

Beyond Interdisciplinarity examines the broadening meaning of core concept across academic disciplines and other forms of knowledge. In this book, Associate Editor of The Oxford Handbook of Interdisciplinarity and internationally recognized scholar Julie Thompson Klein depicts the heterogeneity and boundary work of inter- and trans-disciplinarity in a conceptual framework based on an ecology of spatializing practices in transaction spaces, including trading zones and communities of practice. The book includes both "crossdisciplinary" work (encompassing multi-, inter-, and trans-disciplinary forms) as well as "cross-sector" work (spanning disciplines, fields, professions, government and industry, and communities). The first section of the book defines and explains boundary work, discourses of interdisciplinarity, and the nature of interdisciplinary fields. In the second section, Klein examines dynamics of working across disciplines, including communication, collaboration, and learning with concrete examples and lessons from research projects and programs that transcend traditional fields. The closing chapter examines reasons for failure and success then presents gateways to literature and other resources. Throughout the book, Klein emphasizes the roles of contextualization and historical change while factoring in the shifting relationship of disciplinarity and interdisciplinarity, ascendancy of transdisciplinarity, and intersections with other constructs including Mode 2 knowledge production, convergence, team science, and postdisciplinarity. The conceptual framework she provides also includes the role of boundary objects, agents, and organizations in brokering differences and creating for platforms for change. Klein further explains why translation, interlanguage, and a communication boundary space are vital to achieving intersubjectivity and collective identity. They foster not only pragmatics of negotiation and integration but also reflexivity, transactivity, and co-production of knowledge with stakeholders beyond the academy. Rhetorics of holism and synthesis compete with instrumentalities of problem solving and transgressive critiques. However, typical warrants today include complexity, contextualization, collaboration, and socially-robust knowledge. Crossing boundaries remains complex, but this book guides readers through the density of pertinent literature while expanding understandings of crossdisciplinary and cross-sector work.

With its growing recognition in education, the importance of Integral Theory is slowly entering mainstream academia through interdisciplinary and transdisciplinary research. Addressing the theory's complexity is important for researchers to learn how to apply it in their classrooms and promote a more inclusive educational environment. Integral Theory and Transdisciplinary Action Research in Education provides emerging research exploring the theoretical and practical aspects of the Integral Theory model and its applications within educational contexts. With a diverse array of research problems approached through an inclusive theory framework and featuring coverage on a broad range of topics such as graduate student research, inclusion culture, and organizational learning processes, this publication is ideally designed for graduate students, educators, academicians, researchers, scholars, educational administrators, and policymakers seeking current research on the utility and promise of Integral Theory as a meta-framework for methodological pluralism and transdisciplinary research.

In an era of dramatic environmental change, social change is desperately needed to curb burgeoning consumption. Many calls to action have focused on individual behaviour or technological innovation, with relative silence from the social sciences on other modes and methods of intervening in social life. This book shows how we can go beyond behaviour change in the pursuit of sustainability. Inspired by the 'practice turn' in consumption studies, this interdisciplinary book looks through the lens of social practice theory to explore important and timely questions about how to intervene in social life. It discusses a range of applied sustainability topics including energy consumption, housing provision, water demand, transport, climate change, curbside recycling and smart grids, seeking to redefine what intervention is, how it happens, and who or what can intervene to address the growing list of environmental calamities facing contemporary societies. These issues are explored through a range of specific case studies from Australia, the UK and the US, providing theoretical insights that are of international relevance. The book will be of interest to researchers and students in the fields of sociology, consumption studies, environmental studies, geography, and science and technology studies, as well as policy makers and practitioners seeking to intervene in social life for sustainability.

Supply chain management has long been a feature of industry and commerce but, with increasing demands from consumers, producers are spending more time and money investing in ways to make supply chains more sustainable. This exemplary Handbook provides readers with a comprehensive overview of current research on sustainable supply chain management.

The aim of this book is to understand and critically appraise science-based transgression dynamics in their whole complexity. It includes contributions from experts with different disciplinary backgrounds, such as philosophy, history and sociology. Thus, it is in itself an example of boundary transgression. Scientific disciplines and their objects have tended to be seen as permanent and distinct. However, science is better conceived as an activity that constantly surpasses, erases and rebuilds all kinds of boundaries, either disciplinary, socio-ethical or ecological. This transgressive capacity, a characteristic trait of science and its applications, defines us as "knowledge societies." However, scientific and technological developments are also sources of serious environmental and social concerns.

This book offers new perspectives of transdisciplinary research, in methodological as well as theoretical respects. It provides insights in the two-fold bio-physical and the socio-cultural global embeddedness of local living conditions on the basis of selected empirical studies from Latin America, Asia, Africa, Australia and Europe. The theoretical foundations of ecological research and sustainability policies were developed at the end of the nineteenth century. They are largely based on investigations of living spaces and the evolution and differentiation of varied life forms. This perspective is embedded in the practical and theoretical European problem situations of the past and lacks social and cultural differentiation. The transformation of spatial and natural relations as a result of the globalization process is so radical that new theories are needed to solve 21st century ecological problems. Moreover, in view of the lack of an ontologically sound and promising strategy for transdisciplinary problem solving, as well as an acceptable consideration of the power of cultural schemas relating to natural living's interpretations, there is a strong need to focus on sustainable social practices, habits and routines, rather than on predominantly living spaces or eco-topes. This book elaborates on the transdisciplinary approach by reflecting on the theoretical heritage and a global perspective of sustainability, by focusing on the primary role of a social approach in sustainability research and by putting emphasis on cultural dimension of sustainability. It postulates that global sustainability is grounded in a global understanding of our everyday activities.

This innovative book is one of the first to conduct a systematic comprehensive analysis of the ideals and practices of the evolving green state. It draws on elements of political theory, feminist theory, post-structuralism, governance and institutional theory to conceptualise the green state and advances thinking on how to understand its emergence in the context of climate and sustainability transitions. Focusing on the state as an actor in environmental, climate and sustainability politics, the book explores different principles guiding the emergence of the green state and examines the performance of states and institutional responses to the sustainable and climate transitions in the European and Nordic context in particular. The book's unique focus on the Nordic countries underlines the important to learn from Nordics, which are perceived to be in the forefront of climate and sustainability governance as well as historically strong welfare states. With chapter contributions from leading international scholars in political science, sociology, economics, energy and environmental systems and climate policy studies, this book will be of great value to postgraduate students and researchers working on sustainability transitions, environmental politics and governance, and those with an area studies focus on the Nordic countries. The Routledge International Handbook of Higher Education for Sustainable Development gives a systematic and comprehensive overview of existing and upcoming research approaches for higher education for sustainable development. It provides a unique resource for researchers engaged in the field of higher education for sustainable development by connecting theoretical aspects of the range of relevant methodologies, showing the interdisciplinary aspects of the research field and illustrating the breadth of research directions. With a team of international authors from leading universities in research and teaching in higher education for sustainable development this Handbook brings together a broad range of research approaches and shows how these approaches are reflected in the research practice in higher education for sustainable development. Key topics include: Research Paradigms and Methodologies Ongoing and Future Directions of Research Meta-Analysis and Reviews Policy and Politics Challenges for Implementation Action Research and Transdisciplinary Perspective Gender, Diversity and Post-Colonial Perspectives Operationalising Competencies Outcome-Oriented Research Curriculum Change Organisational Change and Organisational Learning Community and Partnerships University Appraisal Systems and Indicators Evaluation Approaches Engaging Academic Teachers Good Practice Learning and Teaching Transformative Leadership and Change Strategies This Handbook is an invaluable research and teaching tool for all those working in higher education for sustainable development.

Over the past decade, integrated STEM education research has emerged as an international concern, creating around it an imperative for technological and disciplinary innovation and a global resurgence of interest in teaching and learning to code at the K-16 levels. At the same time, issues of democratization, equity, power and access, including recent decolonizing efforts in public education, are also beginning to be acknowledged as legitimate issues in STEM education. Taking a reflexive approach to the intersection of these concerns, this book presents a collection of papers making new theoretical advances addressing two broad themes: Transdisciplinary Approaches in STEM Education and Bodies, Hegemony and Decolonization in STEM Education. Within each theme, praxis is of central concern including analyses of teaching and learning that re-imagines disciplinary boundaries and domains, the relationship between Art and STEM, and the design of learning technologies, spaces and environments. In addition to graduate research seminars at the Masters and PhD levels in Learning Sciences, Science Education, Educational Technology and STEM education, this book could also serve as a textbook for graduate and pre-service teacher education courses.

La recherche transdisciplinaire peut prendre plusieurs formes et s'inviter à l'insu du chercheur. Mais depuis les années soixante-dix, dans la foulée d'un rapport de l'Organisation de coopération et de développement économiques (OCDE), plusieurs recherches s'inscrivent à son enseigne de manière explicite. Ce livre s'intéresse aux enjeux épistémologiques, méthodologiques et organisationnels de ce type de recherche. Si la transdisciplinarité n'est pas toujours associée à la présence d'acteurs non académiques pour la coconstruction de savoirs, la présence de plusieurs disciplines est largement reconnue. Aussi, les concepts de multi-inter-pluri-circumdisciplinarité sont utilisés de manière interchangeable. Des enjeux de reconnaissance institutionnelle et de modalités d'interaction (temporelle et spatiale) se posent à la fois pour les chercheurs et pour les acteurs non académiques. D'une part, le livre comprend des textes théoriques provenant de chercheurs d'une grande variété de disciplines et, d'autre part, il présente des études de cas relatant l'expérimentation de la recherche partenariale impliquant des organismes de recherche, des organismes d'intervention sociale ou des regroupements stratégiques. Ce livre se distingue en abordant la vision idéaliste et la vision critique de la transdisciplinarité. Il intéressera les chercheurs, acteurs de terrain et étudiants oeuvrant dans le domaine du développement durable, de la santé, de l'économie sociale ou de la sociologie des sciences.

Cities are the most likely actors to design and bring about lasting sustainability. An agreement among the world's larger cities is possible, and likely a necessary but insufficient condition to achieve sustainable development. Cities and Sustainability explores the ways in which cities are both the biggest threat to sustainability, and the most powerful tool to get us to sustainable development. Employing an innovative methodology to a complex issue, the book proposes new metrics and approaches that assume cities as fundamental in the search for sustainability. Providing population projections for the world's larger cities and a hierarchy of sustainable cities, the author develops two new tools: (i) a cities approach to physical and socio-economic boundaries, and (ii) sustainability costs curves. These tools are designed to be implemented in a multi-stakeholder, integrated partnership that truly maximizes the benefits of cities in the quest for sustainability. Applying the tools outlined in the book to case studies from Dakar, Mumbai, Sao Paulo, Shanghai and Toronto, this volume will be of great relevance to students, scholars and practitioners with an interest in urban and city management, climate change, and environment and sustainability more broadly.

Many men are bewildered, put off or just plain scared by the idea of childbirth. Birth is one area of life where husbands and male partners do not have much control of what is going on. They may be left feeling helpless in their ability to assist their partner in one of the most significant moment of both their lives. All these factors can leave men feeling very out of place, awkward and sometimes downright useless. However, these beautifully written stories about birth dispel many of the fears men have around birth and encourage and guide men in ways they can be of most assistance, both practically and emotionally during the big event.

Provides a rigorous analysis of sustainable development that includes practical, policy-relevant, global case studies, explained concisely and clearly.

The research and debates surrounding curriculum, pedagogy and assessment are ever-growing and are of constant importance around the globe. With two volumes - containing chapters from highly respected researchers, whose work has been critical to understanding and building expertise in the field – The SAGE Handbook of Curriculum, Pedagogy and Assessment focuses on

examining how curriculum is treated and developed, and its impact on pedagogy and assessment worldwide. The Handbook is organised into five thematic sections, considering: · The epistemology and methodology of curriculum · Curriculum and pedagogy · Curriculum subjects · Areas of the curriculum · Assessment and the curriculum · The curriculum and educational policy The SAGE Handbook of Curriculum, Pedagogy and Assessment's breadth and rigour will make it essential reading for researchers and postgraduate students around the world. Sustainable consumption is a central research topic in academic discourses of sustainable development and global environmental change. Informed by a number of disciplinary perspectives, this book is structured around four key themes in sustainable consumption research: Living, Moving, Dwelling and Futures. The collection successfully balances theoretical insights with grounded case studies, on mobility, heating, washing and eating practices, and concludes by exploring future sustainable consumption research pathways and policy recommendations. Theoretical frameworks are advanced throughout the volume, especially in relation to social practice theory, theories of behavioural change and innovative visioning and backcasting methodologies. This groundbreaking book draws on some conceptual approaches which move beyond the responsibility of the individual consumer to take into account wider social, economic and political structures and processes in order to highlight both possibilities for and challenges to sustainable consumption. This approach enables students and policy-makers alike to easily recognise the applicability of social science theories.

Dealing with time is intimately linked to sustainability, because sustainability, at its core, involves long-term ethical claims. To live up to them, decision and policy-making has to consider long-term development of society, economy, and nature. However, dealing with time and such long-term development is a notoriously difficult subject, both in science and, in particular, in practical decision and policy making. Rooted in philosophical and scientific reasoning, this book explores how the concept of time can be incorporated into effective practical action. The book describes a system and uses case studies to help sustainability practitioners and researchers consider the long-term consequences of our actions in a methodical way. The system integrates scientific and practical knowledge about time and temporal developments to help break down the sometimes overwhelming complexity of sustainability issues. Combining theoretical conceptual thinking and practical applications, this book will be of great interest to students and researchers of sustainability science, environmental sciences, sustainable development, environmental economics, political sciences and practical philosophy.

The history of human rights suggests that individuals should be empowered in their natural, political, political, social and economic vulnerabilities. States within the international arena hold each other responsible for doing just that and support or interfere where necessary. States are to protect these essential human vulnerabilities, even when this is not a matter of self-interest. This function of human rights is recognized in contexts of intervention, genocide, humanitarian aid and development. This book develops the idea of environmental obligations as long-term responsibilities in the context of human rights. It proposes that human rights require recognition that, in the face of unsustainable conduct, future human persons are exposed and vulnerable. It explores the obstacles for long-term responsibilities that human rights law provides at the level of international and national law and challenges the question of whether lifestyle restrictions are enforceable in view of liberties and levels of wellbeing typically seen as protected by human rights. The book will be of interest to postgraduates studying Human Rights, Sustainability, Law and Philosophy.

Arising out of human-environment interaction, sustainability problems resist disciplinary categories and simple solutions. This book offers a fresh approach to practical and methodological concerns in transdisciplinary environmental and sustainability studies. It illustrates methodological means by which researchers, professionals, and decision-makers can address complex environmental issues. While scientific reasoning is mostly guided by disciplinary traditions, transdisciplinary research rests on other cognitive strategies. As it does not have a ready-made stance toward problems, figuring out what the puzzle is and what the answer might look like are crucial aspects of transdisciplinary inquiry. Through examples from environment and sustainability studies, the volume discusses heuristic schemes that can give structure to this exploration. By focusing on heuristics, rather than on methods, concepts, or general guidelines, the book argues that a problem-centered approach often resists the rigor of methodology. Learning from experience provides valuable "rules of thumb", checklists, and other cognitive schemes for making ill-defined problems more tangible. Written by an international team of authors, the chapters draw examples from dealing with issues in environmental protection, transport and climate policy, ecosystem services and disservices, environmental beliefs and attitudes, and more. Together with more theoretically oriented chapters, they show that the intellectual processes needed to tackle complex sustainability problems are as much about heuristic problem solving as they are about methodical work.

To increasing numbers of people, sustainability is the key challenge of the twenty-first century. In the many fields where it is a goal, persistent problems obstruct the efforts of those trying to make a difference. The task of this book is to provide an overview of the current state of philosophy in the context of what philosophy is, could be or should be – in relation to sustainability and the human future on Earth. The book is conceived as a contribution to the UN Decade of Education for Sustainable Development, helping to link work on philosophy and sustainability.

Critiquing Sustainability, Changing Philosophy focusses on the importance of philosophical work to the formation and effectiveness of global civil society and social movements for sustainability in the context of the Anthropocene age of the Earth. It takes a transdisciplinary systems approach that challenges philosophy and concludes by proposing a greatly enhanced role for philosophy in contributing to global public reason for sustainability. This book will be of interest to philosophers, sustainability practitioners and thinkers, policy makers and all those engaged in the global movement for sustainability.

'Transdisciplinarity' is a form of research and practice that synthesises knowledge from a range of academic disciplines and from the community. There is now global interest and a significant body of work on transdisciplinarity and its potential to address the apparently intractable problems of society. This creates the opportunity for a specific focus on its practical application to sustainability issues. Transdisciplinary Research and Practice for Sustainability Outcomes examines the role of transdisciplinarity in the transformations needed for a sustainable world. After an historical overview of transdisciplinarity, Part I focuses on tools and frameworks to achieve sustainability outcomes in practice and Part II consolidates work by a number of scholars on supporting transdisciplinary researchers and practitioners. Part III is a series of case studies including several international examples that demonstrate the challenges and rewards of transdisciplinary work. The concluding chapter proposes a future research pathway for understanding the human factors that underpin successful transdisciplinary research. As Emeritus

Professor Valerie Brown AO notes in her Preface, this book moves transdisciplinary inquiry into the academic and social mainstream. It will be of great interest to researchers and practitioners in the fields of sustainability, qualitative research methods, environmental impact assessment and development studies.

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