

Environmental Science And Sustainability

Each new print copy includes Navigate 2 Advantage Access that unlocks a comprehensive and interactive eBook, student practice activities and assessments, a full suite of instructor resources, and learning analytics reporting tools. Designed for the undergraduate, introductory environmental science course, the thoroughly updated and redesigned tenth edition of Environmental Science continues to present a

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comprehensive, student-friendly introduction to contemporary environmental issues with an emphasis on sustainable solutions that meet social, economic, and environmental goals. This acclaimed book is the only text that explores the underlying causes of environmental problems and root-level solutions and presents both sides of many critical issues. Thought-provoking features throughout, including Critical Thinking Exercises, Key Concept and Spotlight on Sustainability boxes, Go Green tips, and Point/Counterpoint debates, along with the

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updated statistics and data of key issues, encourage readers to become much deeper and more critical thinkers. Current and highly relevant, the Tenth Edition discusses the challenges of the growing human population and resource depletion and solutions that address these issues in a sustainable manner. The book also discusses nonrenewable and renewable energy options and their pros and cons, and provides expanded coverage of local, regional, national, and global environmental issues and sustainable solutions. This comprehensive text includes

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updated coverage of environmental economics, ecology, and the application of science and technology to environmental concerns. With a strong focus on sustainability and critical thinking, a topic the author introduced to the environmental science market, Environmental Science, Tenth Edition is an essential resource for students to understand the impact they have on the environment and ways that they can help solve them. With Navigate 2, technology and content combine to expand the reach of your classroom. Whether you teach an online, hybrid, or traditional

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each title, including customized versions for individual schools, and registrations are not transferable. In addition, you may need a Course ID, provided by your instructor, to register for and use Pearson's MyLab & Mastering products. For introductory courses in Environmental Science, Environmental Studies, and Environmental Biology. Equipping Learners to Understand the Roles of Science, Sustainability, and Stewardship The Thirteenth Edition of Environmental Science: Toward a Sustainable Future retains its current

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content and memorable themes of Science, Sustainability and Stewardship while expanding on the student-friendly approach with built-in study tools that make Wright/Boorse a bestseller. Presenting the most current and relevant Environmental Science issues and research along with new Concept Check questions and Understand the Data questions, the text and MasteringEnvironmentalScience work together to help students understand the science behind environmental issues. Also available with MasteringEnvironmentalScience™ MasteringEnvironmentalScience is an

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online homework, tutorial, and assessment system designed to improve results by helping students quickly master concepts. Students benefit from self-paced tutorials that feature personalized wrong-answer feedback and hints that emulate the office-hour experience and help keep students on track. With a wide range of interactive, engaging, and assignable activities, students are encouraged to actively learn and retain tough course concepts. For the Thirteenth Edition, MasteringEnvironmentalScience has been significantly updated to include new video assignments

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that expose students to real environmental issues and new coaching activities that help students build science literacy skills.

Introduction to Sustainability, Second Edition, reviews all the major themes in the cutting-edge field of sustainability.

The book is suitable for introductory interdisciplinary courses on sustainability, as well as those in the fields of geography, geology, sociology, planning, political science, and anthropology. Allowing students to see the world in new ways while also encouraging them to become part of the change needed to

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ensure the long-term sustainability of the planet, this book is an invaluable introduction to this multifaceted and ever-changing subject. Now fully revised and updated, this second edition includes new material on the most recent developments in the field of sustainability; environmental sustainability issues like water, food, and energy; social sustainability themes like environmental justice and transportation; and economic sustainability topics like green businesses and economic development. The book concludes with a chapter on

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sustainability issues in college and universities. Brinkmann intersperses many fascinating case studies and text boxes that encourage students to deeply explore the material. This is a book that not only organizes the complex field of sustainability, but also encourages students to take action to make the world a better place.

The growing presence of biomass and waste has caused significant changes to the environment. With the ubiquity of these materials, there is an increasing need for proper disposal and reuse of these resources. Applied

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Environmental Materials Science for Sustainability is a key resource on the latest advancements in environmental materials, including the utilization of biomass and waste for advanced materials. Highlighting innovative studies on renewable resources, green technology, and chemical modification, this book is an ideal reference source for academics, researchers, professionals, and graduate students in the field of environmental and materials sciences and technologies. This book highlights topics ranging from green chemistry

and engineering to bioremediation, smart technologies, and sustainable business practices. The common threads running through this volume are the need for urgent action, a vision for a sustainable future, and the awareness that solutions must be widely accessible and advance the welfare of all nations, especially in the face of climate change. The authors delineate how we can protect and restore natural ecosystem potential to achieve environmental sustainability. They provide a clear idea of today's environmental challenges and solutions, focus

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on energy use patterns and the reduction of energy consumption, advocate for increased environmental awareness, and discuss environmental monitoring systems. The book contains many domestic and international case studies and showcases visionary ideas in action to illustrate sustainability principles. This volume provides an in-depth reference for stakeholders from academia, government, and industry on the latest research in environmental sustainability solutions. Inspired by the common wisdom that we do not inherit

this Earth from our ancestors but instead borrow it from our children, the authors offer solutions to emergent problems. This research comprises an important contribution to the global effort to build a more sustainable tomorrow. With "Sustainability: A Comprehensive Foundation," first and second-year college students are introduced to this expanding new field, comprehensively exploring the essential concepts from every branch of knowledge - including engineering and the applied arts, natural and social sciences, and the humanities.

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As sustainability is a multi-disciplinary area of study, the text is the product of multiple authors drawn from the diverse faculty of the University of Illinois: each chapter is written by a recognized expert in the field. Environmental Technology and Sustainability: Physical, Chemical and Biological Technologies for Clean Environmental Management provides a dependable source of information on the fundamental scientific evidence involved in environmental protection and sustainable development. The book provides the basic

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natural sciences that underpin the understanding, development and application of environment technologies that support a clean inhabitable world that includes environmental technologies and sustainable, renewable energy systems. It considers the science and technology for environmental benefits, including the development of both smarter, cleaner technologies for environmental protection, conservation, and more. Provides methods and processes for CO2 Sequestration Focuses on technologies for reducing greenhouse gases and for

**biofuel production Outlines
issues surrounding
contaminated water and
provides solutions for water
management Describes
problems facing air pollution,
including sources and
mitigation Includes
contaminated soil
management
DIVScientists turn to
metaphors to formulate and
explain scientific concepts, but
an ill-considered metaphor can
lead to social
misunderstandings and
counterproductive policies,
Brendon Larson observes in
this stimulating book. He
explores how metaphors can**

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entangle scientific facts with social values and warns that, particularly in the environmental realm, incautious metaphors can reinforce prevailing values that are inconsistent with desirable sustainability outcomes.

Metaphors for Environmental Sustainability draws on four case studies--two from nineteenth-century evolutionary science, and two from contemporary biodiversity science--to reveal how metaphors may shape the possibility of sustainability. Arguing that scientists must assume greater responsibility for their metaphors, and that

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the rest of us must become more critically aware of them, the author urges more critical reflection on the social dimensions and implications of metaphors while offering practical suggestions for choosing among alternative scientific metaphors./div

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Winner at the 46th Annual New England Book Show (2003) in the "College Books" category! *Environmental Science: Creating a Sustainable Future* introduces students to the root causes of the environmental crisis and ideas for systems reform leading to sustainability. Its balanced, up-to-date coverage, combined with exciting new features and an integrated technology package fosters critical

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thinking about the key principles of environmental science and sustainability. The Sixth Edition provides expanded global coverage, in-depth case studies, and the latest statistics and scientific findings within the field. The focus on the root-level causes and sustainable solutions--Examines the interactions between humans, our social systems, and environmental damage across the globe.-Emphasizes need for fundamental changes in human systems.-Shows how systems can be redesigned to be sustainable. Environmental Science and Sustainability helps students discover their role in the

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environment and the impact of their choices. Authors David Montgomery and Daniel Sherman bring scientific and environmental policy expertise to a modern treatment of environmental science; in addition to teaching climate change, sustainability, and resilience, they reveal how our personal decisions affect our planet and our lives.

A new, holistic transdisciplinary endeavour born in the 21st century, Sustainability Science: Managing Risk and Resilience for Sustainable Development aims to provide conceptual and practical approaches to sustainable development that help us to grasp and address uncertainty,

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complexity, ambiguity and dynamic change. Four aspects that permeate our contemporary world and undermine much of our traditional ways of thinking and doing. The concepts of risk and resilience are central in this endeavour to explain, understand and improve core challenges of humankind. Sustainability and sustainable development are increasingly important guiding principles across administrative levels, functional sectors and scientific disciplines. Policymakers, practitioners and academics continue to wrestle with the complexity of risk, resilience and sustainability, but because of the necessary transdisciplinary focus,

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it is difficult to find authoritative content in a single source.

Sustainability Science: Managing Risk and Resilience for Sustainable Development presents the state of the world in relation to major sustainability challenges and their symptomatic effects, such as climate change, environmental degradation, poverty, disease and disasters. It then continues by elaborating on ways to approach and change our world to make it a safer and more sustainable place for current and future generations. The natural, applied and social sciences are woven together throughout the book to provide a more inclusive understanding of relevant processes, changes,

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trends and events. Shows how disturbances, disruptions and disasters have always been intrinsic byproducts of the same human-environment systems that supply us with opportunities, as well as what implications that has for policy and practice towards sustainable development today

Introduces a new approach for grasping and addressing issues of risk and resilience in relation to sustainable development that is firmly rooted in a comprehensive philosophical and theoretical foundation and clearly linking the conceptual with the practical

Presents a holistic agenda for change that includes a more explicit role of science, reinforced

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focus on capacity development and the overall necessity of fundamental social change
Features more than 150 figures, full-color photographs, diagrams, and illustrations to highlight major themes and aid in the retention of key concepts

Environmental Science and Sustainability helps students discover their role in the environment and the impact of their choices. Authors David Montgomery and Daniel Sherman bring scientific and environmental policy expertise to a modern treatment of environmental science. In addition to emphasizing climate change, sustainability and resilience, they

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reveal how our decision-making affects the planet and each other. Interdisciplinary exploration of the best scientific and political strategies to attain global sustainability, from many Nobel Prize-winning and other high-profile authors.

Data, Statistics, and Useful Numbers for Environmental Sustainability: Bringing the Numbers to Life is an accessible reference for researchers working in environmental and sustainability fields who need to communicate the latest data and statistics to reinforce their own research or message. The book compiles the most-needed numbers into one resource and covers a variety of

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relevant topics, including materials, energy, environment, city planning, electronics, and waste. This handbook is clearly indexed and full of comprehensive tables, making it easy to find answers. Researchers in environmental and sustainability-related fields will find it an invaluable resource. Collects and presents important environmental data in one accessible resource Provides key information needed for effectively communicating environmental and sustainability issues Offers a clear index Includes detailed tables throughout for ease of access Updated throughout with the latest data from the field, the new Ninth

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Edition of Environmental Science provides a comprehensive, student-friendly introduction to the environmental issues facing society today and offers numerous solutions for how we can create a more sustainable way of life.

Chiras focuses on the underlying cause of environmental problems and is sure to present both sides of the issue at hand. Each chapter highlights critical analysis to help student determine how to approach these complex topics and determine the merits of the debates for themselves. The Ninth Edition includes updated and expanded coverage of environmental economics, ecology, and the application of

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science and technology as it applies to environmental concerns.

- Updated and revised throughout to keep pace with the changes in the field.
- New and updated Go Green marginal notes provide helpful, inexpensive, and practical tips which will help us all build a sustainable future.
- Chapter 15, Foundations of a Sustainable Energy System, includes new content on energy-conservation options, fuel efficiency standards, electric cars, and 'green buildings'.
- Stresses critical thinking skills by urging students to analyze complex issues and make rational decisions on key topics.
- Spotlight on Sustainable Development boxes give students further insight

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into timely environmental issues. - Point/Counterpoint sections help students examine both sides of popular environmental issues. - Key Concept boxes highlight the crucial concepts that form the foundation of environmental science.

An essential guide to sustainable development for students and practitioners Sustainability is a global imperative and a scientific challenge like no other. This concise guide provides students and practitioners with a strategic framework for linking knowledge with action in the pursuit of sustainable development, and serves as an invaluable companion to more narrowly focused courses

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dealing with sustainability in particular sectors such as energy, food, water, and housing, or in particular regions of the world. Written by leading experts, Pursuing Sustainability shows how more inclusive and interdisciplinary approaches and systems perspectives can help you achieve your sustainability objectives. It stresses the need for understanding how capital assets are linked to sustainability goals through the complex adaptive dynamics of social-environmental systems, how committed people can use governance processes to alter those dynamics, and how successful interventions can be shaped through collaborations

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among researchers and practitioners on the ground. The ideal textbook for undergraduate and graduate students and an invaluable resource for anyone working in this fast-growing field, Pursuing Sustainability also features case studies, a glossary, and suggestions for further reading. Provides a strategic framework for linking knowledge with action Draws on the latest cutting-edge science and practices Serves as the ideal companion text to more narrowly focused courses Utilizes interdisciplinary approaches and systems perspectives Illustrates concepts with a core set of case studies used throughout the book Written

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by world authorities on sustainability An online illustration package is available to professors

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[Water Science and Sustainability with Ebook, InQuizitive, What Would You Do? Activities, Videos and Animations](#)

Textbook surveys key issues of sustainability - energy, nature, agro-food, resources, economics - for advanced undergraduate and graduate level courses. Innovation Strategies in Environmental Science introduces and examines economically viable innovations to optimize performance and sustainability. By exploring short and long-term strategies for the

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development of networks and platform development, along with suggestions for open innovation, chapters discuss sustainable development ideas in key areas such as urban management/eco-design and conclude with case studies of end-user-inclusive strategies for the water supply sector. This book is an important resource for environmental and sustainability scientists interested in introducing innovative practices into their work to minimize environmental impacts.

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Presents problem-oriented research and solutions

Offers strategies for minimizing or avoiding the environmental impacts of industrial production

Includes case studies on topics such as end user-inclusive innovation strategies for the water supply sector

The 13th Edition of Environmental Science: Toward a Sustainable Future retains its current content and memorable themes of Science, Sustainability and Stewardship while

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expanding on the reader-friendly approach with built-in tools that make Wright/Boorse a bestseller. Presenting the most current and relevant Environmental Science issues and research along with new Concept Check questions and Understand the Data questions, the text and Mastering Environmental Science work together to help readers understand the science behind environmental issues -- The growing urgency, complexity and "wickedness" of

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sustainability problems—from climate change and biodiversity loss to ecosystem degradation and persistent poverty and inequality—present fundamental challenges to scientific knowledge production and its use. While there is little doubt that science has a crucial role to play in our ability to pursue sustainability goals, critical questions remain as to how to most effectively organize research and connect it to actions that advance social and natural wellbeing. Drawing on

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interviews with leading sustainability scientists, this book examines how researchers in the emerging, interdisciplinary field of sustainability science are attempting to define sustainability, establish research agendas, and link the knowledge they produce to societal action. Pairing these insights with case studies of innovative sustainability research centres, the book reformulates the sustainability science research agenda and its relationship to decision-

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making and social action. It repositions the field as a "science of design" that aims to enrich public reasoning and deliberation while also working to generate social and technological innovations for a more sustainable future. This timely book gives students, researchers and practitioners a valuable and unique analysis of the emergence of sustainability science, and both the opportunities and barriers faced by scientific efforts to contribute to social action. This book explores the

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challenges of presenting sustainability as a more actionable or practical concept and identifying approaches that might offer useful assistance in addressing the temporal and spatial representation of sustainability. The underlying premise of this book is that sustainability is a state realized in the future. In that future there is a geographic arrangement of society and economy that agrees with its environmental setting. This future perspective introduces a little examined

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subject area that can lend significant content to the sustainability challenge: Futures Research.

Global Environmental Sustainability: Case Studies and Analysis of the United Nations' Journey toward Sustainable Development presents an integrated, interdisciplinary analysis of sustainable development, addressing global environmental problems in the contemporary world. It critically examines current actions being taken on global and local scales, particularly in relation to the

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UN's efforts to promote sustainable development. This approach is supported by empirical analysis, drawing upon a host of interweaving insights spanning economics, politics, ecology, environmental philosophy, and ethics, among others. As a result, it offers a comprehensive and well-balanced assessment of the overall perspective of sustainable development supported by in-depth content analysis, theoretical evaluation, empirical and actual case studies premised

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on solid data, and actual field work. Also, the book marks a milestone in placing the Covid-19 pandemic into a perspective for understanding the universality of human collective environmental behavior and action. By utilizing in-depth analysis, both quantitative and qualitative, and challenging the status quo of what is expected in the global approach to sustainable development, Global Environmental Sustainability provides the theory and methodology of empirical

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sustainable development which is especially germane to our advanced society today, which is deeply entrenched in a crisis of environmental morality. More particularly, it serves as a salient source of moral reconstitution of society grounded in empirical reality to liberate man's excessive spirit of individualism and self-aggrandizement to the detriment of the environment. Epistemologically, the book furnishes a remarkable tour de force with a new level of

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analytical insight to help researchers, practitioners, and policymakers in sustainability and environmental science, as well as the many other disciplines involved in sustainable development, to better understand sustainability from a new perspective and provides a methodological direction to pursue solutions going forward. Provides a systematic exposition of sustainable development in all its complexity, with all the chapters complementing each other in an integral

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way Presents extensive empirical evidence of various environmental problems across the world including China, the United States, Canada, Southeast Asia, South America and Africa, and the extent to which the United Nations has succeeded in driving toward global environmental sustainability Provides a cogent examination of the treatment of our global commons by some of the world's most powerful leaders Includes data from field studies and in-depth interviews with indigenous

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people in Borneo's rainforests of the Malaysian state of Sarawak most affected by environmental change

Were you looking for the book with access to MasteringEnvironmentalScience? This product is the book alone and does NOT come with access to MasteringEnvironmentalScience. Buy the book and access card package to save money on this resource. For introductory courses in Environmental Science, Environmental Studies, and Environmental Biology. With

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dramatically revised illustrations, the Twelfth Edition of Environmental Science: Toward a Sustainable Future is even more student-friendly while retaining the currency and accuracy that has made Wright/Boorse a best seller. The text and media program continue to help students understand the science behind environmental issues and what they can do to build a more sustainable future, with further exploration of the hallmark core themes: Science, Sustainability, and

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Stewardship.

In an era when pressing environmental problems make collaboration across the divide between sciences and arts and humanities essential, this book presents the results of a collaborative analysis by an anthropologist and a physicist of four key junctures between science, society, and environment. The first focuses on the systemic bias in science in favour of studying esoteric subjects as distinct from the mundane subjects of everyday life; the second is a

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study of the fire-climax grasslands of Southeast Asia, especially those dominated by Imperata cylindrica (sword grass); the third reworks the idea of 'moral economy', applying it to relations between environment and society; and the fourth focuses on the evolution of the global discourse of the culpability and responsibility of climate change. The volume concludes with the insights of an interdisciplinary perspective for the natural and social science of sustainability. It argues that

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failures of conservation and development must be viewed systemically, and that mundane topics are no less complex than the more esoteric subjects of science. The book addresses a current blind spot within the academic research community to focusing attention on the seemingly common and mundane beliefs and practices that ultimately play the central role in the human interaction with the environment. This book will benefit students and scholars from a number of

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different academic disciplines, including conservation and environment studies, development studies, studies of global environmental change, anthropology, geography, sociology, politics, and science and technology studies.

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International experts provide a comprehensive picture of the principles, concepts and methods that are applicable to problems originating from the interaction between the living/non-living environment and mankind. Both the analysis of such problems and the way solutions to

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environmental problems may work in specific societal contexts are addressed. Disciplinary approaches are discussed but there is a focus on multi- and interdisciplinary methods. A large number of practical examples and case studies are presented. There is special emphasis on modelling and integrated assessment. This book is different because it stresses the societal, cultural and historical dimensions of environmental problems. The main objective is to improve the ability to analyse and conceptualise environmental problems in context and to make readers aware of the value and scope of different methods. Ideal as a course text for students, this book will also be of interest to researchers and consultants in the environmental sciences.

Foundations for Sustainability: A

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Coherent Framework of Life-Environment Relations challenges existing assumptions on environmental issues and lays the groundwork for a new paradigm, bringing a greater understanding of what is needed to help create an environmentally and economically sustainable future, which to date has been an uphill battle and not an obvious choice. The book presents the case for a paradigm based on a multi-model of life as organism, life as ecosystem, and life as biosphere, as opposed to the singular assumption that life can be viewed solely as an organism. All backed with well-cited research from top investigators from around the world, this book is a must-have resource for anyone working in ecology, environmental science or sustainability. Introduces a holistic,

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systemic approach and a synthesis of the systemic root cause that underlies many surface symptoms that are part of individual environmental problems (climate, water, energy, etc.)

Complements current piecemeal approaches in order to solve many interconnected environmental problems which share root causes
Provides tests and thought experiments to challenge current views on sustainability, leveraging the power of critical thinking to find new solutions
Gives insights on how to find solutions by blending interdisciplinary and transdisciplinary focuses with disciplinary specialization in ecology and ecosystem science
Bridges concepts and methods from math to ecology to human development
Data Science Applied to Sustainability
Analysis focuses on the

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methodological considerations associated with applying this tool in analysis techniques such as lifecycle assessment and materials flow analysis. As sustainability analysts need examples of applications of big data techniques that are defensible and practical in sustainability analyses and that yield actionable results that can inform policy development, corporate supply chain management strategy, or non-governmental organization positions, this book helps answer underlying questions. In addition, it addresses the need of data science experts looking for routes to apply their skills and knowledge to domain areas. Presents data sources that are available for application in sustainability analyses, such as market information, environmental monitoring data, social media data and

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satellite imagery Includes considerations sustainability analysts must evaluate when applying big data Features case studies illustrating the application of data science in sustainability analyses

This book uses the concept of sustainability in science to address problems afflicting the environment, and to devise measures for improving economies, societies, behaviors, and people. The book pursues a scientific approach, and uses scientific evidence as the basis for achieving sustainability. The key topics addressed include: unemployment, health and disease, unsustainable production, our common future, renewable energies, waste management, environmental ethics, and harmful anthropogenic activities. Whereas past literature has mainly

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examined sustainability as an environmental issue, this book expands the conversation into various sciences, including mathematics, biology, agriculture, computer science, engineering, and physics, and shows how sustainability could be achieved by uniting these fields. It offers a wealth of information across various disciplines, making it not only an intriguing read but also informative and insightful.

Environments around the globe are undergoing human-induced change. Human population growth, rapid urbanization, expanding global economy, and the diffusion of western consumer lifestyles are placing increasing pressure on natural and social systems. Global institutions, nation-states, and local communities are seeking to identify and employ

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sustainable solutions to these environmental and socio-economic challenges. Sustainability has emerged as a policy discourse that seeks to balance the desire and need for economic growth with the protection of the environment, and the promotion of social and environmental justice. This book contributes to the study and search for sustainable responses to global environmental change. The authors of this volume explore environmental change in different places around the world and the diverse responses to such changes. The chapters demonstrate the need for place-specific sustainable development; the authors suggest the need to see sustainable responses to environmental change as a negotiated outcome between various social actors living and working in diverse spatial,

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environmental and socio-economic contexts. Environmental Change and Sustainability is a timely international examination of the relationship between environmental change and sustainability. As an InTech open source volume, current and cutting edge research methodologies and research results are quickly published for the academic policy-making communities. Dimensions of environmental change and sustainability explored in this volume include: Natural science approaches to study of environmental change Importance of perception in human understanding of environmental change Role of external events and institutions in shaping sustainable responses to environmental change Importance of bottom-up sustainable development as key to reducing

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environmental risk and community vulnerability The need for place-based sustainable development that combines local conditions with global processes Creation of a sustainable development model that synthesizes local, traditional knowledge of the environment and environmental management with the techniques and understandings generated by modern environmental science

Sustainability Science: Key Issues is a comprehensive textbook for undergraduates, postgraduates, and participants in executive trainings from any disciplinary background studying the theory and practice of sustainability science. Each chapter takes a critical and reflective stance on a key issue or method of sustainability science. Contributing authors offer perspectives from diverse disciplines,

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including physics, philosophy of science, agronomy, geography, and the learning sciences. This book equips readers with a better understanding of how one might actively design, engage in, and guide collaborative processes for transforming human-environment-technology interactions, whilst embracing complexity, contingency, uncertainties, and contradictions emerging from diverse values and world views. Each reader of this book will thus have guidance on how to create and/or engage in similar initiatives or courses in their own context. Sustainability Science: Key Issues is the ideal book for students and researchers engaged in problem and project based learning in sustainability science.

This book presents an earth science-

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based overview of the challenges to sustainability. It provides a detailed study of climate change, as well as energy, food, and water security across different regions. The author uncovers the problems caused by current social and environmental practices, and offers potential solutions. Focusing on systems theory, footprint analysis, risk, and resilience, many examples are given of how to use resources sustainably, especially common pool resources such as the atmosphere, oceans, and groundwater. The book develops its ideas from an array of practical case studies, centering on communal objectives and shared responsibilities. This book describes the importance of water resources for socio-economic and ecological development including geomorphic and ecological

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environments. Hence, conservation, management and development of water resources have become necessary for the all-around development of global populations and the environment. It is the outcome of valuable contributions made by eminent scientists and research scholars who have developed alternative strategies, solutions and models for sustainable water resources through research, monitoring and experiments varying from regional to global scale. This book is of immense use to the policymakers, environmentalists, ecologists, academician, research scholars and people in general concerned with water resources management.

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Social-ecological challenges call for a far better integration of the social sciences into conservation training and practice.

Environmental problems are, first

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and foremost, people problems. Without better understandings of the people involved, solutions are often hard to come by, regardless of expertise in biology, ecology, or other traditional conservation sciences. This novel book provides an accessible survey of a broad range of theories widely applicable to environmental problems that students and practitioners can apply to their work. It serves as a simple reference guide to illuminate the value and utility of social science theories for the practice of environmental conservation. As part of the Techniques in

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Ecology and Conservation Series, it will be a vital resource for conservation scientists, students, and practitioners to better navigate the social complexities of applying their work to real-world problem-solving.

Environmental Sustainability and Economy contains the latest practical and theoretical concepts of sustainability science and economic growth. It includes the latest research on sustainable development, the impact of pollution due to economic activities, energy policies and consumption influencing growth and

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environment, waste management and recycling, circular economy, and climate change impacts on both the environment and the economy. The 21st century has seen the rise of complex and multi-dimensional pathways between different aspects of sustainability. Due to globalization, these relationships now work at varying spatiotemporal scales resulting in global and regional dynamics. This book explores the complex relationship between sustainable development and economic growth, linking the environmental and social aspects with the economic pillar of sustainable

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development. Utilizing global case studies and interdisciplinary perspectives, *Environmental Sustainability and Economy* provides a comprehensive account of sustainable development and the economics of environmental protection studies with a focus on the environmental, geographical, economic, anthropogenic and social-ecological environment. Includes extensive interdisciplinary coverage, including intersectional topics such as environmental pollution and economic growth, resource utilization and circular economy, climate change and emissions,

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and sustainable solutions and green behavior Discusses market innovations and strategies through the lens of global case studies in sustainability and economic growth Bridges the gap between environmental studies and economics to reflect sustainable practices for enhancing environmental protection in response to climate change

Methods in Sustainability Science: Assessment, Prioritization, Improvement, Design and Optimization presents cutting edge, detailed methodologies needed to create sustainable growth in any field or

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industry, including life cycle assessments, building design, and energy systems. The book utilized a systematic structured approach to each of the methodologies described in an interdisciplinary way to ensure the methodologies are applicable in the real world, including case studies to demonstrate the methods. The chapters are written by a global team of authors in a variety of sustainability related fields. Methods in Sustainability Science: Assessment, Prioritization, Improvement, Design and Optimization will provide academics, researchers

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and practitioners in sustainability, especially environmental science and environmental engineering, with the most recent methodologies needed to maintain a sustainable future. It is also a necessary read for postgraduates in sustainability, as well as academics and researchers in energy and chemical engineering who need to ensure their industrial methodologies are sustainable. Provides a comprehensive overview of the most recent methodologies in sustainability assessment, prioritization, improvement, design and optimization Sections are

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organized in a systematic and logical way to clearly present the most recent methodologies for sustainability and the chapters utilize an interdisciplinary approach that covers all considerations of sustainability Includes detailed case studies demonstrating the efficacies of the described methods Environmental Social Science offers a new synthesis of environmental studies, defining the nature of human-environment interactions and providing the foundation for a new cross-disciplinary enterprise that will make critical theories and research methods

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accessible across the natural and social sciences. Makes key theories and methods of the social sciences available to biologists and other environmental scientists Explains biological theories and concepts for the social sciences community working on the environment Helps bridge one of the difficult divides in collaborative work in human-environment research Includes much-needed descriptions of how to carry out research that is multinational, multiscale, multitemporal, and multidisciplinary within a complex systems theory context

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