[Book] An Introduction To The Environmental Physics Of Soil Water And Watersheds

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Introduction to Environmental Management-Mary K. Theodore 2009-10-08 It is hard to imagine an area of study or a discipline in which a basic knowledge of the issues would not be beneficial, since environmental concerns are very much in the public consciousness. Written at a level that is accessible to students in all disciplines, Introduction to Environmental Management translates complex environmental issues i
An Introduction to Environmental Biophysics-Gaylon S. Campbell 2012-12-06 The study of environmental biophysics probably began earlier in man's history than that of any other science. The study of organism-environment interaction provided a key to survival and progress. Systematic study of the science and recording of experimental results goes back many hundreds of years. Ben jamin Franklin, the early American statesman, inventor, printer, and scientist studied conduction, evaporation, and radiation. One of his observations is as follows: My desk on which I now write, and the lock of my desk, are both exposed to the same temperature of the air, and have therefore the same degree of heat or cold; yet if I lay my hand successively on the wood and on the metal, the latter feels much the coldest, not that it is really so, but being a better conductor, it more readily than the wood takes away and draws into itself the fire that was in my skin. 1 Franklin probably was not the first to discover this principle, and certainly was not the last. Modem researchers rediscover this principle frequently in their own work. It is sometimes surprising how slowly progress is made. Progress in environmental biophysics, since the observa tions of Franklin and others, has been mainly in two areas: use of mathematical models to quantify rates of heat and mass transfer and use of the continuity equation that has led to energy budget analyses.
An Introduction to Environmental Chemistry-Julian E. Andrews 2013-04-25 This introductory text explains the fundamentals of the chemistryof the natural environment and the effects of mankind's activitieson the earth's chemical systems. Retains an emphasis on describing how natural geochemicalprocesses operate over a variety of scales in time and space, andhow the effects of human perturbation can be measured. Topics range from familiar global issues such as atmosphericpollution and its effect on global warming and ozone destruction,to microbiological processes that cause pollution of drinking waterdeltas. Contains sections and information boxes that explain the basicchemistry underpinning the subject covered. Each chapter contains a list of further reading on the subjectarea. Updated case studies. No prior chemistry knowledge required. Suitable for introductory level courses.
Environmental Policy-Barry C. Field 2007 Nations throughout the world are struggling to limit and manage environmental damages stemming from economic production and consumption. In virtually every country, collective action in the form of public policy has been undertaken to rein in these impacts. This text provides an authoritative overview of the dynamic process through which governments make decisions on environmental matters. In clear, reader-friendly language, Field introduces students to the rudiments of the public policy process, the participants and their roles, and the content of the major federal environmental statutes regarding air, water, and land pollution. Throughout the discussion, Field explores the evolving role of the federal government in U.S. environmental policy. He also highlights important ongoing policy issues, both domestic and international, that will confront policy makers well into the future. --Back cover.
Environmental Psychology-Linda Steg 2012-04-30 "Explores the environment's effects on human wellbeing and behaviour, factors influencing environmental behaviour and ways of encouraging pro-environmental action"--
Understanding Our Environment-Roy M. Harrison 1999 This third edition enhances the standing of the title by developing a more international approach. Bridging all the important environmental media such as the atmosphere, fresh waters, oceans and solid earth, it also emphasizes the inter-linkages between these media. The major human and environmental impacts of pollution are summarized, and case studies are included as illustrations of the measures needed for control. Worked examples and questions are included to facilitate both teaching and learning of the subject.
An Introduction to Environmental Epidemiology-Evelyn Talbott 1995-07-13 An Introduction to Environmental Epidemiology covers the basics of environmental exposure, health, and disease. Written to be easily accessible to readers with no formal training in epidemiology or statistics, this practical introduction is an ideal text/reference for students and professionals in nursing, medicine, industrial hygiene, occupational and environmental health, and general environmental science. It provides a target-organ oriented presentation of environmental hazards, with detailed discussions of selected exposures such as asbestos, lead, radon, and indoor and outdoor air pollutants. Major topics covered include:
An Introduction to Global Environmental Issues-Lewis A. Owen 2006-03-01 An Introduction to Global Environmental Issues presents a comprehensive and stimulating introduction to the key environmental issues presently threatening our global environment. Offering an authoritative introduction to the key topics, a source of latest environmental information, and an innovative stimulus for debate, this is an essential book for all those studying or concerned with global environmental issues. Major global environmental issues are brought into focus. Explanations of the evolution of the earth's natural systems (hydrosphere, biosphere, geosphere, ecosphere) provide an essential understanding of the scientific concepts, processes and historical background to environmental issues. Contemporary socio-economic, cultural and political considerations are explored and important conceptual approaches such as Gaian hypotheses and Chaos Theory are introduced. Human impact and management of the natural environment, and concerns for maintaining biodiversity are emphasised throughout. Specific features include: * Case studies drawn from across the world * Superb illustrations: 4-colour plate sections; a wealth of informative diagrams * Glossary of key terms, with key concepts highlighted throughout the text * Annotated guides to further reading * Chapter summaries and key points A Lecturers' Manual is available to accompany the text This 2nd Edition has been extensively revised and expanded to include many new illustrations, up-to-date data (including the latest IPCC data) and the most recent events including Khobe earthquake, French nuclear testing, the Berlin conference and the Antarctic Treaty. Sections on ecosystems, techniques, pollution, tectonics, risk and hazard mitigation, world populations, and issues of human impact and environmental management, have been particularly expanded in this new edition.
Introduction to Environmental Forensics-Brian L. Murphy 2014-07-30 The third edition of Introduction to Environmental Forensics is a state-of-the-art reference for the practicing environmental forensics consultant, regulator, student, academic, and scientist, with topics including compound-specific isotope analysis (CSIA), advanced multivariate statistical techniques, surrogate approaches for contaminant source identification and age dating, dendroecology, hydrofracking, releases from underground storage tanks and piping, and contaminant-transport modeling for forensic applications. Recognized international forensic scientists were selected to author chapters in their specific areas of expertise and case studies are included to illustrate the application of these methods in actual environmental forensic investigations. This edition provides updates on advances in various techniques and introduces several new topics. Provides a comprehensive review of all aspects of environmental forensics Coverage ranges from emerging statistical methods to state-of-the-art analytical techniques, such as gas chromatography-combustion-isotope ratio mass spectrometry and polytopic vector analysis Numerous examples and case studies are provided to illustrate the application of these forensic techniques in environmental investigations
An Introduction to Environmental Biotechnology-Milton Wainwright 2012-12-06 An Introduction to Environmental Biotechnology provides an introduction to the subject of environmental biotechnology. Environmental biotechnology refers to the use of micro-organisms and other living systems to solve current environmental problems such as the detoxification of pollutants and clean-up of oil tanker spills. Additionally, it refers to the biotechnology of the agricultural environment, as well as the use of biopesticides and the application of microorganisms to the mining, metal recovery and paper industries. This is the only comprehensive introductory account of this subject matter. Beginning with an introduction to microbial growth, An Introduction to Environmental Biotechnology aims to provide the non-specialist with a complete overview of environmental biotechnology. It is presented in an easy to read style with illustrations and includes frequent references to the use of higher plants as well as micro-organisms in environmental biotechnology. An Introduction to Environmental Biotechnology is geared toward a non-specialist audience, including engineers and environmental chemists, and environmental scientists who have limited knowledge of microbiology and biotechnology.
Environmental Philosophy-Simon P. James 2015-06-03 Climate change, habitat loss, rising extinction rates - such problems call for more than just new policies and practices. They raise fundamental questions about the world and our place in it. What, for instance, is the natural world? Do we humans belong to it? Which parts of it are we morally obliged to protect? Drawing on an exceptionally wide range of sources, from virtue ethics to Buddhism, leading environmental philosopher Simon P. James sets out to answer these vitally important questions. The book begins with a discussion of animal minds, before moving on to explore our moral relations with non-human organisms, ecosystems and the earth as a whole. James then considers environmental aesthetics, humanity's place in the natural world and the question of what it means to be wild. In the concluding chapter, he applies his findings to the topic of global climate change, building a strong moral case for urgent action. This accessible, entertainingly written book will be essential reading for students of the environment across the humanities and social sciences. It will, moreover, be an ideal guide for anyone keen to deepen their understanding of environmental issues.
An Introduction to Environmental Toxicology Fourth Edition-Michael Dong 2018-02-18 The core content difference between this Fourth and the Third Edition is minimal. In addition to the correction of the typos found in the Third Edition, this Fourth Edition has made minor refinements but updated substantially the status and the discussion of numerous contemporary issues covered in this book. In particular, this Fourth Edition has highlighted a number of recent public health and regulatory concerns, including the global concerns with the recent pandemics of Zika as well as Ebola and the U.S. Food and Drug Administration's ban on trans fats in all American processed foods by 2018. Moreover, it has updated the five persistent organic pollutants that the Stockholm Convention has added to its action list since the publication of this book's Third Edition in 2014. As three more update examples, this book is now current with the latest estimate data available concerning the annual amounts of pesticide active ingredients used in the United States and worldwide. It is now consistent with the International Agency for Research on Cancer's latest determinations made on the human carcinogenicity potential of the biological, physical, and chemical agents that the agency has analyzed. Furthermore, it is now up to date with the chemical elements included in the current periodic table. As with the earlier editions, this Fourth Edition offers an introductory text on the scope and principles for as well as the relevant topics of environmental toxicology. To this end, the book is organized into 23 chapters under four parts (sections) as listed below. PART I. TOXICOLOGIC CONCEPTS AND ENVIRONMENTAL ISSUES: (1) Scope and Principles for/of Environmental Toxicology; (2) Environmental Changes and Environmental Health; (3) Environmental Pollution and Regulatory Agencies; (4) Occurrence and Types of Environmental Toxicants; and (5) Fate and Transport of Toxicants in the Environment. PART II. BIOACCUMULATION AND BIODISPOSITION OF TOXICANTS: (6) Bioaccumulation of Persistent Environmental Toxicants; (7) Uptake, Distribution, and Excretion of Toxicants; (8) Metabolism/Biotransformation of Xenobiotics; (9) Adverse Action/Toxic Response; and (10) Factors and Conditions Affecting Toxicity. PART III. NATURE AND EFFECTS OF ENVIRONMENTAL TOXICANTS: (11) Air Pollutants - I: Inorganic Gases; (12) Air Pollutants - II: Particulate Matter; (13) Volatile Organic Compounds; (14) Toxic and Radioactive Metals; (15) Pesticides and Pesticide Residues; (16) Persistent Toxic Substances; and (17) Biological and Underrated Physical Toxic Agents. PART IV. SPECIAL TOPICS, ISSUES, CONSIDERATIONS, AND FOCI: (18) Environmental Mutagenesis/Carcinogenesis; (19) Reproductive Toxicity and Endocrine Disruption; (20) Occupational Toxicology/Workplace Hazards; (21) Food Toxicants and Toxic Household Substances; (22) Human Health Aspects of Ecotoxicology; and (23) Environmental Health Risk Assessment.
Green Ink-Michael Frome 1998 Equal parts anecdote, advice, personal testimony, and nuts and bolts instruction, Green Ink will inspire all who care about the environment. Having encountered censorship and dismissal for his unstinting defense of the environment, Michael Frome writes with passion and conviction about advocacy journalism. He reports candidly on the rewards and challenges to be expected in its pursuit, noting the important contributions of such varied voices as Rachel Carson and Bernard DeVoto, John Muir and Edward Abbey, William Cullen Bryant and Walt Whitman, Studs Terkel and Aldo Leopold, as well as many contemporary investigative environmental writers. Green Ink serves as a valuable primer for those who aspire to write about the environmental issues and crises facing us today.
An Introduction to Global Environmental Issues-Kevin T. Pickering 1997 An Introduction to Global Environmental Issues presents a comprehensive stimulating introduction to the key environmental issues presently threatening our global environment. Offering an authoritative introduction to the key topics, a source of latest environmental information, and an innovative stimulus for debate, this is an essential book for all those studying or concerned with global environmental issues. In this second edition, the most topical global environmental issues are brought more clearly into focus. Explanations of the evolution of the earth's natural systems (hydrosphere, biosphere, geosphere, ecosphere) provide the essential understanding of the scientific concepts, processes and historical background behind key environmental issues. Contemporary socio-economic, cultural and political considerations are explored and important conceptual approaches such as Gaian hypotheses and Chaos Theory are introduced. Human impact and management of the natural environment, and concerns for maintaining biodiversity are emphasised throughout. Specific features include: * Case studies drawn from across the world * Superb illustrations: 4-colour plate sections; a wealth of informative diagrams * Glossary of key terms, with key concepts highlighted throughout the text * Annotated guides to Further Reading * Chapter summaries and key points A new Instructors' Manual is available to accompany the text
The Global Casino-Nick Middleton 2018-09-27 The Global Casino is an introduction to environmental issues which deals both with the workings of the physical environment and with the political, economic and social frameworks in which the issues occur. Using examples from all over the world, the book highlights the underlying causes behind environmental problems, the human actions which have made them issues, and the hopes for solutions. It is a book about the human impact on the environment and the ways in which the natural environment impacts human society. The sixth edition has been fully revised and updated throughout, with new case studies, figures, and online resources including a complete lecture course for tutors and multiple-choice questions for students. New concepts and topics covered for the first time in this edition include the green economy, the forest transition model, marine microplastic pollution, urban disasters, decommissioning of big dams, and the start of the Anthropocene. Recent international initiatives covered include the Paris Agreement on climate change, the Aichi Biodiversity Targets, and the Sendai Framework for managing disaster risk. New case studies include Morocco’s Noor concentrated solar power plant, desert recovery in Kuwait, and river management on the Huang Ho. Eighteen chapters on key issues follow three initial chapters which outline the background contexts of the physical and human environments and the concept of sustainable development. Each chapter provides historical context for key issues, outlines why they have arisen, and highlights areas of controversy and uncertainty to appraise how issues can be resolved both technically and in political and economic frameworks. Each chapter also contains an updated critical guide to further reading – many of them open access – and websites, as well as discussion points and essay questions. The text can be read in its entirety or individual chapters adopted as standalone reading. This book is an essential resource for students of the environment, geography, earth sciences and development studies. It provides comprehensive and inspirational coverage of all the major global environmental issues of the day in a style that is clear and critical.
Introduction to Environmental Impact Assessment-John Glasson 2013-05-13 An introduction to environmental impact assessment, this text is designed to be used by students of planning, environmental studies and geography.
Living with Earth-Travis Hudson 2016-09-17 For many students with no science background, environmental geology may be one of the only science courses they ever take. Living With Earth: An Introduction to Environmental Geology is ideal for those students, fostering a better understanding of how they interact with Earth and how their actions can affect Earth's environmental health. The informal, reader-friendly presentation is organized around a few unifying perspectives: how the various Earth systems interact with one another; how Earth affects people (creating hazards but also providing essential resources); and how people affect Earth. Greater emphasis is placed on environment and sustainability than on geology, unlike other texts on the subject. Essential scientific foundations are presented - but the ultimate goal is to connect students proactively to their role as stakeholders in Earth's future.
Introduction to Environmental Physics-Peter Hughes 2001-05-29 The changing climate and its affect on all of us is becoming increasingly apparent - ozone depletion, hurricanes, floods and extreme weather behaviour. Introduction to Environmental Physics challenges the way we think about how and why environmental change occurs. This authoritative book aims to cover some of the more common and popular topics addressed in "physics of the earth", "physics of the environment" and "environmental physics" courses. It provides an essentially non- mathematical treatment suitable for a first year undergraduate level course. The principle topics covered are the physics of the built environment, the physics of human survival, energy for living, environmental health, revealing the planet, the sun and the atmosphere, the biosphere, the global climate and climate change. With contributions from well-respected experts on the subject, this textbook contains a summary, references and questions at the end of each chapter. This is an ideal textbook for first year undergraduates in a variety of courses, particularly physical geography, physics, environmental and earth science, with worked examples illustrating principles and vignettes from scientists who have made a significant contribution to the field enlightening the student along the way. As the authors say in the preface to this book, "At the outset of the 21st century there are many environmental challenges to be wrestled with, and though the environment is changing, the Physics is not!"
Introduction to Environmental Sciences-R S Khoiyangbam 2005-01-01 Environmental sciences is a vast and multidisciplinary science that involves the study of natural resources of land, water, and air. Introduction to Environmental Sciences comprehensively covers numerous aspects of this vast subject. While some chapters focus the causes of environmental problems, others discuss methods and ways of mitigating these causes.
An Introduction to Sustainability-Martin Mulligan 2014-11-20 An Introduction to Sustainability provides students with a comprehensive overview of the key concepts and ideas which are encompassed within the growing field of sustainability. The book teases out the diverse but intersecting domains of sustainability and emphasises strategies for action. Aimed at those studying the subject for the first time, it is unique in giving students from different disciplinary backgrounds a coherent framework and set of core principles for applying broad sustainability principles within their personal and professional lives. These include: working to improve equality within and across generations, moving from consumerism to quality of life goals and respecting diversity in both nature and culture. Areas of emerging importance such as the economics of happiness and wellbeing stand alongside core topics including:

Energy and society Consumption and consumerism Risk and resilience Waste, water and land. Key challenges and applications are explored through international case studies and each chapter includes a thematic essay drawing on diverse literature to provide an integrated introduction to fundamental issues. Launched with the brand-new Routledge Sustainability Hub, the book’s companion website contains a range of features to engage students with the interdisciplinary nature of Sustainability. Together these resources provide a wealth of material for learning, teaching and researching the topic of sustainability. This textbook is an essential companion to any sustainability course.
An Introduction to Environmental Education-Otiende, J.E. 2008-10-11 This book has been written for general readership but more specifically for college and university students studying environmental education in the 8-4-4 education system. In eleven chapters, the following broad topics are comprehensively covered: Environmental Education as an academic and practical discipline; People, their activities, resources, and the environment; Legal aspects of the environment. Each chapter is complete in itself with relevant questions and an exhaustive bibliography. It is hoped that the topical questions in each chapter will enable students to have a clearer understanding of the subject. The bibliographies should be of great help to the reader who is interested in an indepth study of the respective topics discussed in the text.
Environmental Ethics-John Benson 2013-11-26 Presupposing no prior knowledge of philosophy, John Benson introduces the fundamentals of environmental ethics by asking whether a concern with human well-being is an adequate basis for environmental ethics. He encourages the reader to explore this question, considering techniques used to value the environment and critically examining 'light green' to 'deep green' environmentalism. Each chapter is linked to a reading from a key thinker such as J.S. Mill and E.O. Wilson. Key features include activities and exercises, enabling readers to monitor their progress throughout the book, chapter summaries and guides to further reading.
Introduction to Environmental Economics-Nick Hanley 2013-01-31 The book provides an ideal introduction to the subject of environmental economics. Part one explains the fundamental economic concepts, using examples from all over the world. Part two uses these concepts in understanding and developing policy responses to some of the major environmental issues of our time.
Humans in the Landscape-Kai N. Lee 2012-09-05 This is the first textbook to fully synthesize all key disciplines of environmental studies. Humans in the Landscape draws on the biophysical sciences, social sciences, and humanities to explore the interactions between cultures and environments over time, and discusses classic environmental problems in the context of the overarching conflicts and frameworks that motivate them.
Society and Its Environment-Egbert Tellegen 1998 This book looks at the different ways in which social scientists study environmental change and environmental problems. The history and geography of the relationship between environment and society is explored, as well as the social dilemmas and cultural considerations faced when confronting environmental issues. Societies' perception of, and response to, environment and risk are examined in detail. The book also considers the causes of local and global environmental problems, together with the policies implemented to control them and how these affect, and are affected by, the interests of organisations. Society and its Environment: An Introduction is the completely revised, expanded and internationalised edition of Tellegen and Wolsink's renowned Dutch textbook. It will be recommended reading for students and teachers of Environmental Studies and Sociology courses, as well as environmental managers and policy-makers and anyone seeking an understanding of how social attitudes shape our surroundings.
American Environmental History-Carolyn Merchant 2007 By studying the many ways diverse peoples have changed, shaped, and conserved the natural world over time, environmental historians provide insight into humanity's unique relationship with nature and, more importantly, are better able to understand the origins of our current environmental crisis. Beginning with the precolonial land-use practice of Native Americans and concluding with our twenty-first century concerns over our global ecological crisis, American Environmental History addresses contentious issues such as the preservation of the wilderness, the expulsion of native peoples from national parks, and population growth, and considers the formative forces of gender, race, and class. Entries address a range of topics, from the impact of rice cultivation, slavery, and the growth of the automobile suburb to the effects of the Russian sea otter trade, Columbia River salmon fisheries, the environmental justice movement, and globalization. This illustrated reference is an essential companion for students interested in the ongoing transformation of the American landscape and the conflicts over its resources and conservation. It makes rich use of the tools and resources (climatic and geological data, court records, archaeological digs, and the writings of naturalists) that environmental historians rely on to conduct their research. The volume also includes a compendium of significant people, concepts, events, agencies, and legislation, and an extensive bibliography of critical films, books, and Web sites.
Environmental Security-Peter Hough 2014-02-03 This student-friendly textbook offers a survey of the competing conceptions and applications of the increasingly prominent notion of environmental security. The book is divided into three sections. In the first, the key theoretical and practical arguments for and against bringing together environmental and security issues are set out. The book then goes on to present how and why environmental issues have come to be framed in some quarters as ‘national security‘ concerns in the context of the effects of overpopulation, resource depletion, climate change and the role of the military as both a cause and a solution to problems of pollution and natural disasters. Finally, the third section explores the case for treating the key issues of environmental change as matters of human security. Overall, the book will provide a clear, systematic and thorough overview of all dimensions of an area of great academic and ‘real-world’ political interest but one that has rarely been set out in an accessible textbook format hitherto. This book will be essential reading for students of environmental studies, critical and human security, global governance, development studies, and IR in general.
Environmental Modelling-Jo Smith 2007-01-18 The global environment is a complex mix of interlinked processes, about which observation can tell us a great deal. This book shows how modelling can be used to explain experimental observations, and how these observations - and data gathered - can be extrapolated to explain novel situations. It also illustrates how models are actively applied.
Introduction to Environmental Toxicology-Wayne Landis 2017-09-29 The fifth edition includes new sections on the use of adverse outcome pathways, how climate change changes how we think about toxicology, and a new chapter on contaminants of emerging concern. Additional information is provided on the derivation of exposure-response curves to describe toxicity and they are compared to the use of hypothesis testing. The text is unified around the theme of describing the entire cause-effect pathway from the importance of chemical structure in determining exposure and interaction with receptors to the use of complex systems and hierarchical patch dynamic theory to describe effects to landscapes.
The Human Environment-Draper L. Kauffman 1978
Introduction to Environmental Technology-Ann Boyce 1996-10-09 Here is the first and only text that helps beginning students master the foundation topics in the dynamic field of environmental technology, from basic toxicology concepts and principles to comprehensive hazardous waste management strategies. Introduction to Environmental Technology organizes a wealth of current need-to-know information into a reader-friendly format that maximizes learning. Throughout, it features case studies that apply the text information to real-world environmental challenges, and highlights numerous career options through profiles of actual people working in various aspects of this broad field. This comprehensive, easy-to-understand text provides: An awareness of how the many facets of science, technology, and public policy are involved in environmental management protection. An understanding of the sources of pollution and the primary processes that control the fate of pollutants in air, water, and soil. Practical insights into the use of land, the benefits of wetlands, and the complex factors influencing land-use decisions. Comprehensive coverage of the main requirements of federal laws and regulations pertaining to hazardous waste, pollution prevention, and occupational health and safety. The basic principles needed to operate the latest pollution control and pollution monitoring equipment. Complete with a comprehensive glossary, Introduction to Environmental Technology provides you with the foundation concepts and vocabulary you need to succeed in this exciting, fast-changing field.
Introduction to Environmental Geotechnology, Second Edition-Hsai-Yang Fang 2016-11-03 This new edition of a bestseller presents updated technology advances that have occurred since publication of the first edition. It increases the utility and scope of the content through numerous case studies and examples and an entirely new set of problems and solutions. The book also has an accompanying instructor's guide and presents rubrics by which instructors can increase student learning and evaluate student outcomes, chapter by chapter. The book focuses on the increasing importance of water resources and energy in the broader context of environmental sustainability. It’s interdisciplinary coverage includes soil science, physical chemistry, mineralogy, geology, ground pollution, and more.
Introduction to Environmental Modeling-William G. Gray 2016-12-28 This textbook presents the timeless basic physical and mathematical principles and philosophy of environmental modeling to students who need to be taught how to think in a different way than they would for more narrowly-defined engineering or physics problems. Examples come from a range of hydrologic, atmospheric, and geophysical problems.
Introduction to Environmental Engineering-Stefan Fränzle 2012-01-24 Building on the first principles of environmental chemistry, engineering, and ecology, this volume fills the need for an advanced textbook introducing the modern, integrated environmental management approach, with a view towards long-term sustainability and within the framework of international regulations. As such, it presents the classic technologies alongside innovative ones that are just now coming into widespread use, such as photochemical technologies and carbon dioxide sequestration. Numerous case studies from the fields of air, water and soil engineering describe real-life solutions to problems in pollution prevention and remediation, as an aid to practicing professional skills. With its tabulated data, comprehensive list of further reading, and a glossary of terms, this book doubles as a reference for environmental engineers and consultants.
Introduction to Environmental Management-Brian Waters 2020 This book is directly aligned to the NEBOSH Certificate in Environmental Management, which is a qualification aimed primarily at those in business who influence the environmental performance of their organisation by the decisions that they make as managers or the actions that they take as operators. This book aims to provide an introduction to the main areas of concern and how the challenges can be addressed. This new edition takes account of recent changes in international guidance and legislation and the recent update of the International Standard in Environmental Management ISO 14001. The contents are important for businesses that wish to stay within the law and avoid adverse publicity. It explains how the concept of sustainability can be achieved in practice and what benefits - especially financial - that can accrue. Recent developments in the definitions of sustainability and the growing interest in the circular economy are introduced. It pays to be ahead of the game because decisions made now need to reflect an awareness of the coming pressures and there are opportunities available that can bring other benefits. This book is intended for candidates for the NEBOSH qualification, but it will also be useful to anyone who wishes to understand the problems and how they can be tackled within their own organisations, be they industry, public service, voluntary bodies, or even as individuals.
Environmental Ethics-Kees Vromans 2017-09-08 As the destructive consequences of environmental problems such as global warming, water scarcity and resource and biodiversity destruction have been felt ever more heavily, people are becoming more aware of the importance of and their responsibilities towards environmental protection. The causes of our problems are anthropogenic. The number of people working in what might be termed "environmental industries" or with environmental responsibilities in their day-to-day work has mushroomed. In many cases, however, individuals charged with protecting the environment have a set of empirical priorities: what *is* done, rather than moral priorities which consider what *should* be done. The need to harmonize environmental knowledge with ethical behaviour and thus achieve behavioural change and the internalization of environmentally ethical values has never been more urgent. This book, developed as part of an EU programme to diffuse the application of environmental ethics to decision-making on pollution control, is a response to the need for a restatement of environmental ethics and for a code of behaviour and set of values that can be internalised and adopted to guide the actions by individuals at the sharp end of protecting the environment: decision-makers and environmental experts/executives/staff working in municipalities and public/government organisations throughout the EU and Turkey. It is nothing short of an ethical training manual that will guide environmental experts/decision-makers in making sound judgements and decisions and will act as a bridge between environmental knowledge and environmental behaviour. The book will be essential reading for decision-makers and experts working in local authorities and governmental organisations with responsibility for environmental protection: for both graduate and postgraduate students in environment-related disciplines and for vocational education teachers with a focus on the environment.
Environmental Economics: A Very Short Introduction-Stephen Smith 2011-09-22 If environmental protection is costly, how much should we spend on pollution control? Is it worth reducing pollution to zero, or should we accept some level of pollution because of the economic benefits associated with it? How can we assess the benefits that people get from a less-polluted atmosphere? In broad terms, environmental economics looks at how economic activity and policy affect the environment in which we live. Some production generates pollution, such as power station emissions causing acid rain and contributing to global warming, but household consumption decisions also affect the environment, where more consumption can mean more waste sent to polluting incinerators. However, pollution is not an inevitable consequence of economic activity - environmental policies can require polluting firms to clean up their emissions, and can encourage people to change their behaviour, through environmental taxes on polluting goods, for example. Generally, though, these measures will involve some costs, such as installing pollution control equipment. So there's a trade-off: a cleaner environment, but economic costs. In recent years, many economists have argued for greater use of incentive in the form of pollution charges and emissions trading rather than more traditional direct regulation of polluters. In this Very Short Introduction, Stephen Smith discusses environmental issues including pollution control, reducing environmental damage, and global climate change policies, answering questions about how we should balance environmental and economic considerations, and what form government policies should take. Including many illustrative case studies and examples he shows that this is an exciting field of economics, and one that is at the heart of many public debates and controversies. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.
Urban and Environmental Economics-Graham Squires 2012-08-01 The importance of the built environment to environmental protection is well established, with strict environmental regulations now a feature of the working lives of planners, contractors, building designers, and quantity surveyors alike. Those new to, or preparing to join this industry must have an understanding of how their environmental responsibilities relate to their professional responsibilities in economic terms. Designed as an introductory textbook, Urban and Environmental Economics: An Introduction provides the background information from these disciplines to understand crucial tools and economic techniques. A broad range of theories of the natural and built environments and economics are explained, helping the reader develop a real understanding of the topics that influence this subject, such as: the history of economic thought on the built environment the economics of shared space in the built environment cost-benefit analysis and discounting macro-economic tools, measures, and policy sustainable development resource valuation. Illustrated throughout, and with lists of further reading in every chapter, this book is ideal for students at all levels who need to get to grips with the economics of the environment within a built environment context. Particularly useful to those studying planning, land economy, environmental management, or housing development.
The Global Casino, Fifth Edition-Nick Middleton 2013-07-18 The Global Casino is an introduction to environmental issues which deals both with the workings of the physical environment and the political, economic and social frameworks in which the issues occur. Using examples from all over the world, the book highlights the underlying causes behind environmental problems, the human actions which have made them issues, and the hopes for solutions. It is a book about the human impact on the environment and the ways in which the natural environment impacts human society. The fifth edition has been fully revised and updated throughout, with new case studies, figures, and online resources such as downloadable figures and tables from the text and multiple choice questions for students, accessible at: www.routledge.com/cw/middleton. New topics covered in extended boxed case studies include payment for environmental services, ocean acidification, biofuels in Brazil, waste reduction through industrial symbiosis, and the long-term impact of natural disasters on vulnerable groups. Other approaches and concepts covered for the first time in this new edition include traditional ecological knowledge, environmental justice, the ‘resource curse’, and urban biodiversity. Eighteen chapters on key issues follow three initial chapters which outline the background contexts of the physical and human environments and the concept of sustainable development. Each chapter provides historical context for key issues, outlines why they have arisen, and highlights areas of controversy and uncertainty to appraise how issues can be resolved both technically and in political and economic frameworks. Each chapter also contains an updated critical guide to further reading and websites, as well as discussion points and essay questions. The text can be read in its entirety or individual chapters adopted as standalone reading. The Global Casino is an essential resource for students of the environment, geography, earth sciences and development studies. It provides comprehensive and inspirational coverage of all the major global environmental issues of the day in a style that is clear and critical.
Environmental Ethics-Joseph R. DesJardins 1997 Serving as an introduction to ethical theory as it applies to environmental issues, this work can also be used as a casebook on contemporary problems of science, industry, and individual decision-making

