

Chapter Natural Resources Types Classification And Scarcity

This book outlines the transitions between cultured and natural land cover/vegetation types and their implications in the search for alternatives to reverse the trend of anthropogenic environmental degradation. It also elaborates on the proposed “standardized hierarchical Mexican vegetation classification system” and geobotanical mapping, a critical transversal environmental issue. The first chapter consists of an historical review of the common approaches to the study of vegetation both in Mexico and in other regions of the world. The second chapter concisely analyzes the existing schools of thought that have led to the development of vegetation classification systems based on physiognomic, structural and floristic approaches. The focal point of the book is the “standardized hierarchical Mexican vegetation classification system” (SECLAVEMEX – “Sistema jerárquico estandarizado para la clasificación de la vegetación de México”). Chapter 3 describes the system’s organizational levels along with the criteria defining them and the nomenclatural basis for the denomination of each type of vegetation. It also includes a series of tables explaining and precisely defining the meaning of each concept, criterion, character and element used to help readers successfully identify the type of vegetation in a determined area. The fourth chapter highlights SECLAVEMEX's inclusive character as evidenced through its compatibility with other systems currently used around the globe. Three concepts are critically reviewed: land cover, land use and vegetation. These are often the study subject of the contrasting disciplines geography, agronomy and ecology, which all rely upon plant species assemblages. As such, the final chapter focuses on a critical transversal environmental issue – geobotanical mapping. Geobotanical mapping offers a baseline for land cover/use planning and provides critical information on ecological, economic and cultural attributes, which can be used as a basis for environmental-policy decisions. The proposed SECLAVEMEX was applied to Mexico as an example of land cover, land use and vegetation patterns intermingling as the result of a long human influence. SECLAVEMEX, however, can be adapted and hopefully adopted globally as a baseline for consistently comparing geobotanical patterns and their transitions.

This book presents specialised methods and tools built on classical LCA. In the first book-length overview, their importance for the further growth and application of LCA is demonstrated for some of the most prominent species of this emerging trend: Carbon footprinting; Water footprinting; Eco-efficiency assessment; Resource efficiency assessment; Input-output and hybrid LCA; Material flow analysis; Organizational LCA. Carbon footprinting was a huge driver for the market expansion of simplified LCA. The discussions led to an ample proliferation of different guidelines and standards including ISO/TS 14067 on Carbon Footprint of Product. Atsushi Inaba (Kogakuin University, Tokyo, Japan) and his eight co-authors provide an up-to-date status of Carbon Footprint of Products. The increasing relevance of Water Footprinting and the diverse methods were the drivers to develop the ISO 14046 as international water footprint standard. Markus Berger (Technische Universität Berlin, Germany), Stephan Pfister (ETH Zurich, Switzerland) and Masaharu Motoshita (Agency of Industrial Science and Technology, Tsukuba, Japan) present a status of water resources and demands from a global and regional perspective. A core part is the discussion and comparison of the different water footprint methods, databases and tools. Peter Saling from BASF SE in Ludwigshafen, Germany, broadens the perspective towards Eco-efficiency Assessment. He describes the BASF-specific type of eco-efficiency analysis plus adaptations like the so-called SEEBALANCE and AgBalance applications. Laura Schneider, Vanessa Bach and Matthias Finkbeiner (Technische Universität Berlin, Germany) address multi-dimensional LCA perspectives in the form of Resource Efficiency Assessment. Research needs and proposed methodological developments for abiotic resource efficiency assessment, and especially for the less developed area of biotic resources, are discussed. The fundamentals of Input-output and Hybrid LCA are covered by Shinichiro Nakamura (Waseda University, Tokyo, Japan) and Keisuke Nansai (National Institute for Environmental Studies, Tsukuba, Japan). The concepts of environmentally extended IO, different types of hybrid IO-LCA and the waste model are introduced. David Laner and Helmut Rechberger (Vienna University of Technology, Austria) present the basic terms and procedures of Material Flow Analysis methodology. The combination of MFA and LCA is discussed as a promising approach for environmental decision support. Julia Martínez-Blanco (Technische Universität Berlin, Germany; now at Inèdit, Barcelona, Spain), Atsushi Inaba (Kogakuin University, Tokyo, Japan) and Matthias Finkbeiner (Technische Universität Berlin, Germany) introduce a recent development which could develop a new trend, namely the LCA of Organizations. Core values of society, health and wellbeing impact today on all aspects of our lives, and have also increasingly influenced patterns of tourism consumption and production. In this context wellness has developed into a significant dimension of tourism in a number of new and long established destinations. However, although it is consistently referred to as one of the most rapidly growing forms of tourism worldwide there still remains a dearth of academic literature on this topic. This book uniquely focuses on the supply side of wellness tourism from a destination perspective in terms of the generation and delivery of products and services for tourists who seek to maintain and improve their health. This approach provides a better understanding of how wellness tourism destinations develop and explores the specific drivers of that growth in a destination context and how destinations successfully compete against each other in globalised market place. A range of wellness destination development and management issues are examined including the importance of authenticity, an appropriate policy framework, delivery of high quality goods and services, participation of a broad range of stakeholders and the development of networks and clusters as well as collaborative strategies essential for a successful development and management of a wellness tourism destination. International case studies and examples from established and new wellness tourism destinations are integrated throughout. This timely volume written by leaders in this sector will be of interest to tourism and hospitality students and academics internationally.

Forest Management and Planning, Second Edition, addresses contemporary forest management planning issues, providing a concise, focused resource for those in forest management. The book is intermixed with chapters that concentrate on quantitative subjects, such as economics and linear programming, and qualitative chapters that provide discussions of important aspects of natural resource management, such as sustainability. Expanded coverage includes a case study of a closed canopy, uneven-aged forest, new forest plans from South America and Oceania, and a new chapter on scenario planning and climate change adaptation. Helps students and early career forest managers understand the problems facing professionals in the field today Designed to support land managers as they make complex decisions on the ecological, economic, and social impacts of forest and natural resources Presents updated, real-life examples that are illustrated both mathematically and graphically Includes a new chapter on scenario planning and climate change adaptation Incorporates the newest research and forest certification standards Offers access to a companion website with updated solutions, geographic databases, and illustrations

Wetland and Stream Rapid Assessments: Development, Validation, and Application describes the scientific and environmental policy background for rapid wetland and stream assessments, how such assessment methods are developed and statistically verified, and how they can be used in environmental decision-making—including wetland and stream permitting. In addition, it provides several case studies of method development and use in various parts of the world. Readers will find guidance on developing and testing such methods, along with examples of how these methods have been used in various programs across North America. Rapid wetland and stream functional assessments are becoming frequently used methods in federal, state and local environmental permitting programs in North America. Many governments are interested in developing new methods or improving existing methods for their own jurisdictions. This book provides an ideal guide to these initiatives. Offers guidance for the use and evaluation of rapid assessments to developers and users of these methods, as well as students of wetland and stream quality Contains contributions from sources who are successful in academia, industry and government, bringing credibility and relevance to the content Includes a statistically-based approach to testing the validity of the rapid method, which is

very important to the usefulness and defensibility of assessment methods

This book gives a complete overview of the Soils of Slovenia, from soil research history, climate, geology, geomorphology, major soil types, soil maps, soil properties, classification, fertility, land use and vegetation, soil management, soils and humans, soils and industries and future soils issues.

The Cambrian radiation was the explosive evolution of marine life that started 550,000,000 years ago. It ranks as one of the most important episodes in Earth history. This key event in the history of life on our planet changed the marine biosphere and its sedimentary environment forever, requiring a complex interplay of wide-ranging biologic and nonbiologic processes. The Ecology of the Cambrian Radiation offers a comprehensive and surprising picture of the Earth at that ancient time. The book contains contributions from thirty-three authors hailing from ten countries and will be of interest to paleontologists, geologists, biologists, and other researchers interested in the global Earth-life system.

The System of Environmental-Economic Accounting for Energy (SEEA-Energy) is a multi-purpose, conceptual framework for organizing energy-related statistical information. It supports analysis of the role of energy within the economy and of the relationship between energy-related activities and the environment.

Stress on natural resources has recently increased due to commercialization and the need to provide livelihoods for locals.

Because they are such core parts of everyday life, ensuring sustainability in resource management is of paramount importance.

Only by integrating the tools of spatial information science can an effective course for preserving and protecting natural resources be created. Spatial Information Science for Natural Resource Management is a pivotal reference source that explores coordinated approaches to sustainable development and management of natural resources to keep a balance of the environment, ecology, and human livelihood. Featuring coverage on a wide range of topics including crop yield estimation, ecosystem services, and land information systems, this book covers interdisciplinary techniques in monitoring and managing natural resources. This publication is ideally designed for urban planners, environmentalists, policymakers, ecologists, researchers, academicians, students, and professionals in the fields of remote sensing, civil engineering, social science, computer science, and information technology.

Sustainable management of natural resources is an urgent need, given the changing climatic conditions of Earth systems. The ability to monitor natural resources precisely and accurately is increasingly important. New and advanced remote sensing tools and techniques are continually being developed to monitor and manage natural resources in an effective way. Remote sensing technology uses electromagnetic sensors to record, measure and monitor even small variations in natural resources. The addition of new remote sensing datasets, processing techniques and software makes remote sensing an exact and cost-effective tool and technology for natural resource monitoring and management. Advances in Remote Sensing for Natural Resources Monitoring provides a detailed overview of the potential applications of advanced satellite data in natural resource monitoring. The book determines how environmental and - ecological knowledge and satellite-based information can be effectively combined to address a wide array of current natural resource management needs. Each chapter covers different aspects of remote sensing approach to monitor the natural resources effectively, to provide a platform for decision and policy. This important work: Provides comprehensive coverage of advances and applications of remote sensing in natural resources monitoring Includes new and emerging approaches for resource monitoring with case studies Covers different aspects of forest, water, soil- land resources, and agriculture Provides exemplary illustration of themes such as glaciers, surface runoff, ground water potential and soil moisture content with temporal analysis Covers blue carbon, seawater intrusion, playa wetlands, and wetland inundation with case studies Showcases disaster studies

This Volume includes Plant Anatomy, Reproduction in Flowering Plants, BioChemistry, Plant Physiology, Biotechnology, Ecology, Economic Botany, Cell Biology, and Genetics, For Degree m Honours and Post Graduate Students.

Nationalization disputes in natural resources development are among the most disputed issues of international investment law.

This book offers a fresh insight into the nature of nationalization disputes in natural resources development and the rules of international investment law governing them by systematically analyzing (1) the content of investment contracts in natural resources development, and (2) the results of nationalization disputes in natural resources development from the perspective of dynamic bargaining theory. Based on the comprehensive and systematic empirical analyses, the book sheds new light on contractual renegotiation and renewal as a hardly known but practically normal solution of nationalization disputes and presents a set of soft law rules governing contractual renegotiation and renewal.

This book focuses on liability for damage to those natural resources that are of interest to the public and are protected by national, European or international law. It provides an overview of the law of the United States and of certain EU Member States on the recovery of damages for injury to natural resources. The international civil liability conventions that cover environmental harm and the recently published European Commission's White Paper on environmental liability are also discussed. The on-going development in various international forums of treaties or protocols dealing with liability for environmental damage are analyzed, as are the principles developed by the UNEP Working Group established in response to the 1990 Gulf War to advise the UNCC on claims for damage to natural resources. The book addresses assessment and valuation issues, the issue of standing in cases of injury to (un)owned natural resources, and the determination of ways to repair, restore and compensate for natural resource injuries and the associated loss of ecological and human services. It also explains why such a difference exists between the US and most European jurisdictions and inter-national liability conventions as to the recovery of damages for injury to natural resources.

U.S. Arctic waters north of the Bering Strait and west of the Canadian border encompass a vast area that is usually ice covered for much of the year, but is increasingly experiencing longer periods and larger areas of open water due to climate change. Sparsely inhabited with a wide variety of ecosystems found nowhere else, this region is vulnerable to damage from human activities. As oil and gas, shipping, and tourism activities increase, the possibilities of an oil spill also increase. How can we best prepare to respond to such an event in this challenging environment? Responding to Oil Spills in the U.S. Arctic Marine Environment reviews the current state of the science regarding oil spill response and environmental assessment in the Arctic region north of the Bering Strait, with emphasis on the potential impacts in U.S. waters. This report describes the unique ecosystems and environment of the Arctic and makes recommendations to provide an effective response effort in these challenging conditions. According to Responding to Oil Spills in the U.S. Arctic Marine Environment, a full range of proven oil spill response technologies is needed in order to minimize the impacts on people and sensitive ecosystems. This report identifies key oil spill research priorities, critical data and monitoring needs, mitigation strategies, and important operational and logistical issues. The Arctic acts as an integrating,

regulating, and mediating component of the physical, atmospheric and cryospheric systems that govern life on Earth. Not only does the Arctic serve as regulator of many of the Earth's large-scale systems and processes, but it is also an area where choices made have substantial impact on life and choices everywhere on planet Earth. This report's recommendations will assist environmentalists, industry, state and local policymakers, and anyone interested in the future of this special region to preserve and protect it from damaging oil spills.

The Role of Food, Agriculture, Forestry and Fisheries in Human Nutrition is a component of Encyclopedia of Food and Agricultural Sciences, Engineering and Technology Resources in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. Human health and wellbeing depend strongly on production, quality, and availability of food. Agriculture, or cultivation of the soil, harvesting crops, and raising livestock, which are the main sources of food, has no single origin. At different times and in numerous places, many plants and animals have been domesticated to provide food for humankind. Fishing, like farming, is a form of primary food production. Through food gathering, primitive humans first obtained fish and other aquatic products in the shallow waters of lakes and along the seashore, in areas with ebb tides, and in small streams. The breadth and complexity of the subject matter presented here is vast. This volume traces the extraordinary history of human colonization of the habitable world and is a chronicle of humankind's early communion with the underlying realities of the earth's physical environment, the eventual destruction of this harmonious relationship, and efforts to repair the damage. To make it easier for the reader the volume is divided into 7 sections Food and agriculture and the use of natural resources examines the relationship between food production and the resource base and demonstrate how humans have adapted and exploited Nature to feed the burgeoning populations of humans and their domestic animals. History of forestry from ancient times to the present day is analyzed and shows the linkage between forest clearance for agriculture and the rise of human populations, and current global environmental issues. History of Fishing is a saga explained that spans the full range from traditional fishing for subsistence through to the evolution of modern factory fishing fleets Impact of global change on agriculture outlines the impact of climate change, human demographic trends and the sustainability issues that arise. Economics and policy of food production analyzes the global trade in foodstuffs and the regional specializations and land use complexities. Fundamentals of human health and nutrition explains the complexities of providing a balanced and safe diet for humans throughout their life cycle from birth to old age. It explores some of the linkages between human health and the quality and quantity of food provided. Human nutrition: an overview provides, a wide ranging summary of the issues and imperatives associated with providing humans with food of a quality and standard that will ensure healthy lives. In the history of human development from the time of the earliest agricultural activities humans have cleared the natural forests and woodlands to obtain building materials and fuel wood, and to provide lands for domestic animals and crops. It is this aspect that is the main focus of the volume. The authors in this volume have analyzed and reviewed the interactions between the utilization of natural resources and human nutrition. Much attention focuses on the specific contribution by agriculture (including livestock husbandry), forestry and fisheries in meeting human needs. This synoptic overview assesses the pattern of past change in the relationship between humans and the resource base on which their lives depend. Lessons learned, or still to be learned, are teased out and elaborated. The vast breadth of the subject matter covered in this volume has meant that the work has benefited from the input of many individual contributors from vastly different parts of the globe. I am grateful to the contributors and reviewers for their time and effort and the exchange of ideas and the learning experience that I obtained by working with such a diverse and learned group. We all owe a debt of gratitude to the vast "invisible college" of colleagues whose publications that have shed light on some of the most pertinent problems facing humankind today. These four volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

'This book is a very welcome addition to publications on globalisation and natural resources management. It adopts a very broad approach to this important subject – it includes the general issues, such as trade and investment. It deals with very complex questions of permanent sovereignty over natural resources; the right to development; the role of indigenous peoples in resource management. This publication also provides the reader with general underlying principles and approaches to natural resources management, such as sustainable use; the precautionary principle; the principle of common but differentiated responsibilities and the ecosystem approach, regulatory approach etc. The book is very analytical and gives a lot of food for thought for readers.' – Malgosia Fitzmaurice, Queen Mary, University of London, UK 'The book is the first of its kind to deal in depth with complex, cross-cutting issues relating to globalization and natural resources. The authors demonstrate not only a broad range of knowledge but also provides deep insights into what will be needed to make the transition from economic globalization to sustainable globalization, including improved resource efficiency and sustainable development, and inclusive and participatory governance. In particular, the authors consider specific approaches in such sectors as water resources, renewable energy, and biological resources. The book has carefully documented and analyzed numerous international, regional, and national legal frameworks as well as relevant theories and principles. It is a must for every law library as well as for policy makers, administrators, academics, non-governmental bodies, and civil societies. We owe a great debt to the authors for their painstaking, comprehensive research.' – Koh Kheng-Lian, National University of Singapore 'Globalization as a means of aptly capturing political, social, cultural, and above all else economic phenomena has been well-documented and the subject of a multitude of comment. What has perhaps been less well studied is its relationship with natural resource management. Thus this work by Merino-Blanco and Razzaque is to be commended. Moreover, by focusing on globalization, an important truth is revealed. It is neither about the diminution of the role of the State nor the ascendancy of the multinational corporation, but rather a more nuanced and complex interaction, which we are only beginning to appreciate. This book is an important contribution to that debate.' – Duncan French, University of Sheffield, UK 'While sustainable development requires State regulation of the exploitation of natural resources, globalisation, as originally conceived, pushed for "free and unfettered" markets creating a fundamental tension between the two approaches. This book attempts to find a way towards their reconciliation with inspiring results. The book explores many themes, especially how globalisation may contribute to the solution of the problems it has caused by helping to empower non-state actors around the world so that the international decision-making processes become more inclusive, transparent and oriented towards sustainable development.' – Ximena Fuentes, Universidad Alonso Ibanez, Chile and ILA Co-Rapporteur on the Commission on Sustainable Development This book examines the complex relationships between trade, human rights and the environment within natural resources law. It discusses key theories and challenges whilst exploring the concepts and approaches available to manage crucial natural resources in both developed and developing countries. Primarily aimed at undergraduates and postgraduates, it includes

exercises, questions and discussion topics for courses on globalisation and /or natural resources law as well as an ample bibliography for those interested in further research. The book will therefore serve as an invaluable reference tool for academics, researchers and activists alike.

Nonrenewable natural resources – metallic and non-metallic minerals, industrial rocks and energy resources (both organic and inorganic), have been treated in a holistic manner in this book, including two important resources (soil and water), not commonly covered in most books on this topic. For the uninitiated reader, an introductory chapter looks into some basic definitions as well as nature and characteristics of mineral deposits followed by a chapter on the different crustal processes that produce the various ore deposits in the endogenous and exogenous environments. The strength of the book lies in its critical treatment of the genetic processes of the mineral deposits, their classification and the geodynamic context of metallogeny, and coverage of sustainable development of mineral deposits with special reference to various socio-economic as well as regulatory and environmental issues that face the Indian mining industry today. The text is punctuated with examples of Indian deposits, balanced with classical deposits around the world, to cater to the interests of Indian students and the international readership. This is a book for advanced undergraduate and post-graduate students of Geology, Environmental Sciences and Natural Resource Management.

Diagnosing Wild Species Harvest bridges gaps of knowledge fragmented among scientific disciplines as it addresses this multifaceted phenomenon that is simultaneously global and local. The authors emphasize the interwoven nature of issues specific to the ecological, economic, and socio-cultural realms of wild species harvest. The book presents the diagnosing wild species harvest procedure as a universal approach that integrates seven thematic perspectives to harvest systems: resource dynamics, costs and benefits, management, governance, knowledge, spatiality, and legacies. When analyzed, these themes help to build a holistic understanding of this globally important phenomenon. Scholars, professionals and students in various fields related to natural resources will find the book a valuable resource. Wild species form important resources for people worldwide, and their harvest is a major driver of ecosystem change. Tropical forests regions, including Amazonia, are among those parts of the world where wild species are particularly important for people's livelihoods and larger economies. This book draws on tangible experiences from Amazonia, presented in lively narratives intermingling scientific information with stories of the people engaged in harvest and management of wild species. These stories are linked to relevant theory of wild species harvest and wider discussions on conservation, development, and the global quest of sustainability. Includes research and report-style narratives describing a wide variety of concrete cases Addresses wild species harvest from a holistic perspective including ecological, economic and socio-cultural issues, not limiting the scope to a single type of resources Provides theoretical treatment of wild species harvest worldwide, with special emphasis in the most recent scientific understanding on the biodiversity of the Amazonian lowland region Presents an objective viewpoint, noting problems the harvest may cause as well as its potential to contribute both to biodiversity conservation and to local livelihoods and national economies Coherent, easily followed structure and abundant illustrations help the reader absorb central messages

The series, Inquisitive Social Sciences for classes VI, VII & VIII, meets the requirements of the new NCERT Upper Primary syllabus and the guidelines of the New National Curriculum Framework (NCF). The books are suitable for all schools affiliated to CBSE, emphasising the role played by Social Sciences in helping children to understand the world in which they live.

Fundamentals of Environmental Studies is taught as a compulsory paper to first-year undergraduate students across major technical universities in India. This book introduces the fundamental principles and concepts of environmental science, ecology and related interdisciplinary subjects, such as policy, law, pollution control, economics and natural resource management. It covers a wide range of topics and issues including biodiversity, global warming, acid rain, ozone layer depletion, nuclear accidents, nuclear holocaust, disaster management, manipulation of various natural resources including water, land, forests, food and mineral resources, and the problems associated with natural resource management. It also analyzes different types of ecosystems, biochemical cycles and laws of thermodynamics and provides easy-to-understand examples. In addition, the book offers separate chapters on various types of environmental pollution and waste management, including waste water treatment, solid waste management and green management.

Environmental management involves making decisions about the governance of natural resources such as water, minerals or land, which are inherently decisions about what is just or fair. Yet, there is little emphasis on justice in environmental management research or practical guidance on how to achieve fairness and equity in environmental governance and public policy. This results in social dilemmas that are significant issues for government, business and community agendas, causing conflict between different community interests. Natural Resources and Environmental Justice provides the first comprehensive, interdisciplinary examination of justice research in Australian environmental management, identifying best practice and current knowledge gaps. With chapters written by experts in environmental and social sciences, law and economics, this book covers topical issues, including coal seam gas, desalination plants, community relations in mining, forestry negotiations, sea-level rise and animal rights. It also proposes a social justice framework and an agenda for future justice research in environmental management. These important environmental issues are covered from an Australian perspective and the book will be of broad use to policy makers, researchers and managers in natural resource management and governance, environmental law, social impact and related fields both in Australia and abroad.

Energy projects in Latin America are a major contributor to economic growth worldwide. This book is the first to offer a comprehensive, in-depth analysis of specific issues arising from energy and natural resources contracts and disputes in the region, covering a wide range of procedural, substantive, and socio-legal issues. The book also includes how states have shifted from passive business partners to more active controlling players. The book contains an extensive treatment and examination of the particularities of arbitration practice in Latin America, including arbitrability, public order, enforcement, and the complex public-private nature of energy transactions. Specialists experienced in resolving international energy and natural disputes throughout the region provide detailed analysis of such issues and topics, including: state-owned entities as co-investors or contracting parties; role of environmental law, indigenous rights and public participation; issues related to political changes, corruption, and quantification of damages; climate change, renewable energy, and the energy transition; force majeure, hardship, and price reopeners; arbitration in the electricity sector; take-or-pay contracts; recognition and enforcement of awards; tension between stabilization clauses and human rights; mediation as a method for dispute settlement in the energy and natural resources sector; and different comparative approaches taken by national courts in key Latin American jurisdictions. The book also delivers a clear explanation on the impact made to the arbitration process by Covid-19, emerging laws, changes of political circumstances, the economic global trends in the oil & gas market, the energy transition, and the rise of new technologies. This invaluable book will be

welcomed by in-house lawyers, government officials, as well as academics and rest of the arbitration community involved in international arbitration with particular interest in the energy and natural resources sector.

For Degree students of B.Sc. Third year as per UGC Model Curriculum. This course is being divided into Course -I Plant Physiology, Biochemistry and Biotechnology' where subject matter has been divided four units and expanded into nine chapters; while course II contains 'Ecology and Utilization of Plants' (Economic Botany), having two units and sixteen chapters.

Fundamentals of Environmental Studies Cambridge University Press

This book is a printed edition of the Special Issue "Understanding and Managing Emerald Ash Borer Impacts on Ash Forests" that was published in Forests

Highlighting new technologies, Remote Sensing of Natural Resources explores advanced remote sensing systems and algorithms for image processing, enhancement, feature extraction, data fusion, image classification, image-based modeling, image-based sampling design, map accuracy assessment and quality control. It also discusses their applications for evaluation of natural resources, including sampling design, land use and land cover classification, natural landscape and ecosystem assessment, forestry, agriculture, biomass and carbon-cycle modeling, wetland classification and dynamics monitoring, and soils and minerals mapping. The book combines review articles with case studies that demonstrate recent advances and developments of methods, techniques, and applications of remote sensing, with each chapter on a specific area of natural resources. Through a comprehensive examination of the wide range of applications of remote sensing technologies to natural resources, the book provides insight into advanced remote sensing systems, technologies, and algorithms for researchers, scientists, engineers, and decision makers.

Ecology and economics have Greek roots in oikos for "household", logos for "study", and nomics for "management". Thus, ecology and economics should have complemented one another for a proper growth and development without destruction, but, unfortunately, rapid industrialization, lure for fast financial gains, and commercialization activities have led to a widespread surge in pollution load, environmental degradation, habitat destruction, rapid loss of biodiversity, sudden rise in rate of extinction of many wildlife and wild relatives of domesticated animals and cultivated cereals and other plants, global climate changes creating global rise in temperature, and CO levels and increased ultraviolet B at ground 2 level. Although these threats to human health have led us to look to ecology for their solutions and guidance for sustainable development without destruction, the industrial and technology houses are looking for alternative methods of development and resource use methods. The two global conferences of the United Nations in 1972 and 1992, and international programs of Man and the Biosphere (MAB), International Biological Program (IBP), International Geosphere, Biosphere program (IGBP), and World Conservation Union (IUCN), of different commissions, United Nations Environmental Program (UNEP) efforts, Ramsar Conventions (for wetlands), and World Wide fund for Nature (WWF) (for nature in general and wildlife in particular) have focused attention of ecologists, naturalists, governments and Non-governmental organizations (NGOs) toward better conservation.

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