Restoration Of Degraded Land Concepts And Strategies 1st Edition

Although much is known about the processes and effects of land degradation and climate change, little is understood about the links between them. Less still is known about how these processes are likely to interact in different social-ecological systems around the world, or how societies might be able to adapt to this twin challenge. This book identifies key vulnerabilities to the combined effects of climate change and land degradation around the world. It identifies triple-win adaptations that can tackle both climate change and land degradation, whilst supporting biodiversity and ecosystem services. The book discusses methods for monitoring effects of climate change and land degradation, and adaptations to these processes. It argues for better co-operation and knowledge exchange, so that the research, land user and policy communities can work together more effectively to tackle these challenges, harnessing the "wisdom of crowds" to assess vulnerability and adapt to climate change and land degradation, whilst protecting livelihoods and biodiversity.

In a time of uncertainty about our environmental future—an eye-opening global tour of some of the most wounded places on earth, and stories of how a passionate group of eco-restorers is leading the way to their revitalization. Award-winning science journalist Judith D. Schwartz takes us first to China's Loess Plateau, where a landmark project has successfully restored a blighted region the size of Belgium, lifting millions of people out of poverty. She journeys on to Norway, where a young indigenous reindeer herder challenges the most powerful orthodoxies of conservation—and his own government. And in the Middle East, she follows the visionary work of an ambitious young American as he attempts to re-engineer the desert ecosystem, using plants as his most sophisticated technology. Schwartz explores regenerative solutions across a range of landscapes: deserts, grasslands, tropics, tundra, Mediterranean. She also highlights various human landscapes, the legacy of colonialism and industrial agriculture, and the endurance of indigenous knowledge. The Reindeer Chronicles demonstrates how solutions to seemingly intractable problems can come from the unlikeliest of places, and how the restoration of local water, carbon, nutrient, and energy cycles can play a dramatic role in stabilizing the global climate. Ultimately, it reveals how much is in our hands if we can find a way to work together and follow nature's lead.

One third of the world's soils have already been degraded. The burden on the land continues to grow under the combined pressures of demography, urbanization, artificialization and mining, and there are increased demands on agricultural land: changing dietary preferences, land speculation, as well as new demands for agroenergy, fiber, green chemistry, and more. Resulting issues such as soil crusting, water and wind erosion, soil

salinization and soil acidity therefore constitute a major threat. The authors of this book present the main processes and factors of soil degradation, different ways to prevent it and methods of rehabilitation. The book also deals with the origin and processes of metallic and organic soil pollution as well as methods of phytoremediation and restoration. It is one of the few books to explore the issue of soil artificialization and urban soil management and to highlight how agricultural and urban waste can be used to amend and fertilize cultivated soils.

The quality and the strength of an environmental legal system is a reflection of the conceptual foundations upon which it is constructed. The Research Handbook on Fundamental Concepts of Environmental Law illuminates key aspects of environmental governance through the lens of their underlying dimensions: for example, the form, structure and language of international, regional and national instruments; the function of norms, objectives and standards; and the relevance of economic analysis and of integrated policy formulation.

Traditional Forest-Related Knowledge

Sustaining Communities, Ecosystems and Biocultural Diversity

Environment at Crossroads Challenges and Green Solutions

Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development

Land Degradation, Desertification and Climate Change

International Yearbook of Soil Law and Policy 2016

These guidelines target two main groups - policymakers and other decision-makers, and practitioners - because both have the power to bring about positive change.

Organisms and environment have evolved through modifying each other over millions of years. Humans appeared very late in this evolutionary time scale. With their superior brain attributes, humans emerged as the most dominating influence on the earth. Over the millennia, from simple hunter-food gatherers, humans developed the art of agriculture, domestication of animals, identification of medicinal plants, devising hunting and fishing techniques, house building, and making clothes. All these have been for better adjustment, growth, and survival in otherwise harsh and hostile surroundings and climate cycles of winter and summer, and dry and wet seasons. So humankind started experimenting and acting on ecological lines much before the art of reading, writing, or arithmetic had developed. Application of ecological knowledge led to development of agriculture, animal husbandry, medicines, fisheries, and so on. Modem ecology is a relatively young science and, unfortunately, there are so few books on applied ecology. The purpose of ecology is to discover the principles that govern relationships among plants, animals, microbes, and their total living and nonliving environmental components. Ecology, however, had remained mainly rooted in botany and zoology. It did not permeate hard sciences, engineering, or industrial technologies leading to widespread environmental degradation, pollution, and frequent episodes leading to mass deaths and diseases.

The global environment has significantly changed due to a number of factors such as industrial pollution, expansion of agricultural land way beyond the fringe forest zones, destruction of virgin forests, loss of quality agricultural lands due to soil erosion, loss of global wildlife and biodiversity, climate change, global warming, devastating forest fires, floods, draughts, melting of glaciers to mention a few. Human or anthropogenic impacts are in turn devastating the planet with our attention being shifted only to the shinning

aspect of our civilizations. The most alarming fact about this hidden factor is that they are all directly or indirectly impacted by human activities in some way or other. The present work, Environment at Crossroads deals with various environmental problems like climate change, global warming, food security, bioremediation of waste, oil spills, and problems of heavy metal toxicity, control strategies like use of gene therapy, conservation of mangroves, revival of river Vishwamitri and role of plant and animals in biodiversity conservation is discussed.

The discussion of ideas, methods, scientific results, empirical practices and perspectives on the restoration of high diversity tropical and subtropical forest formations is the objective of this book; however, principles here proposed may be used in other less complex forest formations. Special attention is given to the role of the ecological processes on the restoration of functional forest communities, once the composition and structure of these natural or even restored communities change in space and time.

Restoration of Degraded Land

Concept for restoration/rehabilitation of degraded forests in Uzbekistan

Soils as a Key Component of the Critical Zone 5

Drivers, Consequences, and Responses

Global Guidelines for the Restoration of Degraded Forests and Landscapes in Drylands

Diversification of Arid Farming Systems

Over the years, economic considerations have overtaken the sustainability issue. Low and erratic rainfall, frequent droughts, the increasing costs of cultivation, lower compensation of labour and inputs have made farming in the arid regions a challenging enterprise. Employment opportunities in sectors other than agriculture have enticed many to cross the floor. The largest segment of the farming community, however, is constrained to make a living from farm related activities. With the opening of markets for international trade in farm commodities, the competition has toughened for the resource-constrained farmers of the arid regions of the country. On the other hand, useful technologies have been generated by researchers on many alternative systems, which could be adopted. In this scenario, the farmers could benefit greatly by inducing diversification in the farming systems and by strengthening the traditional systems. With this backdrop, a National Symposium on Livelihood Security and Diversified Farming Systems in Arid Region was organized by the Arid Zone Research Association of India at the Central Arid Zone Research Institute, Jodhpur, from January 14-16, 2006. Selected papers presented at the symposium and invited articles have been included in this compendium and are grouped in sections on Diversification, Strengthening the Traditional Farming Systems, Enhancing Resource Use Efficiency, Livestock-based Farming Systems, Value Addition, Socio-economic Issues and Transfer of Technology. Currently, food, water and energy crises are of global concern. The challenge ahead is to strike a balance between basic needs of a large population and to maintain the pace of development. Diversification of farming systems may contribute towards achieving this goal to some extent. It is hoped that the book will provide options for

diversification of the existing farming systems and benefit there from. The purpose of this concept is to establish the guidelines and suggest options to enable reaching the FAO/GEF project "Sustainable management of forests in mountain and valley areas of Uzbekistan" objectives in Component 2, related to carbon sequestration, restoring protective functions of forests, reducing soil, wind and water erosion, with the active engagement of farmers and communities. The restoration/regeneration activities focus on pistachio orchards/agroforestry, mountain juniper-based forests, shelterbelts, small firewood plantations, and reducing degradation rates in mixed forests.

Nearly three years ago, world leaders agreed to the United Nations 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) – the central framework for guiding development policies throughout the world. This edition of The State of the World's Forests is aimed at enhancing our understanding of how forests and their sustainable management contribute to achieving several of the SDGs. Time is running out for the world's forests: we need to work across sectors, bring stakeholders together, and take urgent action. The State of the World's Forests 2018 identifies actions that can be taken to increase the contributions of forests and trees that are necessary to accelerate progress towards the SDGs. It is now critical that steps be taken to work more effectively with the private sector, and the informal forest sector must be transformed in order to bring broader economic, social and environmental benefits. Seventy years ago, when FAO completed its first assessment of the world's forest resources, the major concern was whether there would be enough timber to supply global demand; now we recognize the greater global relevance of our forests and trees. For the first time, The State of the World's Forests 2018 provides an assessment of the contribution of forests and trees to our landscapes and livelihoods. The purpose of this publication is to provide a much wider audience with an understanding of why forests and trees matter for people, the planet and posterity.

This 35-chapter book is based on several oral and poster presentations including both invited and contributory chapters. The book is thematically based on four pillars of sustainability, with focus on sub-Saharan Africa (SSA): Environment, Economic, Social and Institutional. The environmental sustainability, which determines economic and social/institutional sustainability, refers to the rate of use of natural resources (soil, water, landscape, vegetation) which can be continued indefinitely without degrading their quality, productivity and ecosystem services for different ecoregions of SSA. This book will help achieve the Sustainable Development Goals of the U.N. in SSA. Therefore, the book is of interest to agriculturalists, economists, social scientists, policy makers, extension

agents, and development/bilateral organizations. Basic principles explained in the book can be pertinent to all development organizations.
Research Handbook on Fundamental Concepts of Environmental Law
An Indian Experience
Livestock in a Changing Landscape, Volume 1
Land Restoration
Integrating Natural and Social Sciences
Degradation and Rehabilitation

As scientific understanding about ecological processes has grown, the idea that ecosystem dynamics are complex, nonlinear, and often unpredictable has gained prominence. Of particular importance is the idea that rather than following an inevitable progression toward an ultimate endpoint, some ecosystems may occur in a number of states depending on past and present ecological conditions. The emerging idea of "restoration thresholds" also enables scientists to recognize when ecological systems are likely to recover on their own and when active restoration efforts are needed. Conceptual models based on alternative stable states and restoration thresholds can help inform restoration efforts. New Models for Ecosystem Dynamics and Restoration brings together leading experts from around the world to explore how conceptual models of ecosystem dynamics can be applied to the recovery of degraded systems and how recent advances in our understanding of ecosystem and landscape dynamics can be translated into conceptual and practical frameworks for restoration. In the first part of the book, background chapters present and discuss the basic concepts and models and explore the implications of new scientific research on restoration practice. The second part considers the dynamics and restoration of different ecosystems, ranging from arid lands to grasslands, woodlands, and savannahs, to forests and wetlands, to production landscapes. A summary chapter by the editors discusses the implications of theory and practice of the ideas described in preceding chapters. New Models for Ecosystem Dynamics and Restoration aims to widen the scope and increase the application of threshold models by critiquing their application in a wide range of ecosystem types. It will also help scientists and restorationists correctly diagnose ecosystem damage, identify restoration thresholds, and develop corrective methodologies that can overcome such thresholds.

This book presents an important discussion on soil and sustainable agriculture from a range of perspectives, addressing key topics such as sustainable intensification, the FAO Voluntary Guidelines, and the crucial role of appropriate tenure rights. This second volume of the International Yearbook of Soil Law and Policy is divided into four parts, the first of which deals with several aspects of the theme "soil and sustainable agriculture." In turn, the second part covers recent international developments, the third part presents regional and national reports, and the fourth discusses cross-cutting issues. Given the range of key topics covered, the book offers an indispensable tool for all academics, legislators and policymakers working in this field. The "International Yearbook of Soil Law and Policy" is a book series that discusses central questions in law and politics with regard to the protection and sustainable management of soil and land – at the international, national and regional level. The Chapter "The Use of Property Law Tools for Soil Protection" by Jessica Owley is available open access under a CC BY 4.0 license at link.springer.com.

Ecological restoration is as essential as sustainable development for the health of the biosphere. Restoration, however, has been a low priority of most countries' environmental laws, which tend to focus narrowly on rehabilitation of small, discrete sites rather than the more ambitious recovery of entire ecosystems and landscapes. Through critical theoretical perspectives and topical case studies, this book's diverse contributors explore a more ambitious agenda for ecological restoration law. Not only do they investigate current laws and other governance mechanisms; they also consider the philosophical and methodological bases for the law to take ecological restoration more seriously. Through exploration of themes relating to time, space, geography, semiotics, social justice, and scientific knowledge, this book offers innovative and critical insights into ecological restoration law.

Community-oriented conservation of natural resources and promotion and protection of trees in drylands are examples to deal with climatic adversities. This book provides knowledge on climatic, ecological, social and economic condition of dry areas and lay out approaches and strategies to restore degraded lands. There are 15 chapters and first five deals with physiography of Rajasthan, drylands ecology, problems of land degradation, its economic evaluation and the approaches and strategies of restoration and rehabilitation. Next two chapters describe the problems of sand drift, salinity, water logging and effluent inflicted areas and strategies to control them. Chapters 8-10 deal with seed production, quality planting materials, genetic improvement, propagation and planting techniques. Chapters 11-12 describe methods of rain water harvesting and irrigation, and resources conservation for seed sowing and favouring regeneration and successions. Effective management of pests/diseases in nurseries and plantation, growth and yield prediction equations and models, and people's perception and participation in managing forest resources have been described in last 3 chapters. Purpose of this publication is to strengthen the forest functionaries and readers with wide ranging knowledge on land degradation, desertification and eco-biology of drylands; and methods to restore and rehabilitate degrading forest (lands) to increase forest cover, enhance resilience and people livelihoods and improve environmental conditions. Academician, researchers, forest managers, non-government organizations, extension agents and environmentalists can use it in developing, conserving and managing drylands ecosystems for its long lasting beneficial effects. This book is also useful to policy makers in effective planning of restoring, protecting and conserving dryland's ecological and socioeconomic services.

Reclamation of Mine-impacted Land for Ecosystem Recovery

Comparing Access and Benefit-sharing Regimes in Europe

Climate Change and Sustainability in Agriculture

Problems and Management Options

High Diversity Forest Restoration in Degraded Areas

New Models for Ecosystem Dynamics and Restoration

The rapidly changing nature of animal production systems, especially increasing intensification and globalization, is playing out in complex ways around the world. Over the last century, livestock keeping evolved from a means of harnessing marginal resources to produce items for local consumption to a key component of global food chains. Livestock in a Changing Landscape offers a comprehensive examination of these important and far-reaching trends. The books are an outgrowth of a

collaborative effort involving international nongovernmental organizations including the United Nations Food and Agriculture Organization (UN FAO), the International Livestock Research Institute (ILRI), the Swiss College of Agriculture (SHL), the French Agricultural Research Centre for International Development (CIRAD), and the Scientific Committee for Problems of the Environment (SCOPE). Volume 1 examines the forces shaping change in livestock production and management; the resulting impacts on landscapes, land use, and social systems; and potential policy and management responses. Volume 2 explores needs and draws experience from region-specific contexts and detailed case studies. The case studies describe how drivers and consequences of change play out in specific geographical areas, and how public and private responses are shaped and implemented. Together, the volumes present new, sustainable approaches to the challenges created by fundamental shifts in livestock management and production, and represent an essential resource for policy makers, industry managers, and academics involved with this issue.

In the present scenario, stresses induced due to global environmental change have indeed become a focal point of researches and study programmes worldwide. Stress caused to plant life has an important consequence to both, vegetation as such and all other global cycles which sustain this `living earth'. Unlike other already existing works this volume elucidates the plant-pollutant relationship in a manner that defines not only the drastic effects of pollutants on plants but concomitantly highlights the hitherto less focused areas namely phytoindication, phytoremediation and stress tolerant bioaesthetic development, thus concentrating more on plant than pollutant. The book would help understand the magnitude of environmental stress in the coming years and may play a formative role in defining future research and policy areas along with providing impetus to development of newer eco-technologies. The book shall interest both students and researchers of environmental sciences, ecology, forestry and related disciplines as well as persons and organisations engaged in environmental management and eco-conservation.

Exploring a topic of vital and ongoing importance, Traditional Forest Knowledge examines the history, current status and trends in the development and application of traditional forest knowledge by local and indigenous communities worldwide. It considers the interplay between traditional beliefs and practices and formal forest science and interrogates the often uneasy relationship between these different knowledge systems. The contents also highlight efforts to conserve and promote traditional forest management practices that balance the environmental, economic and social objectives of forest management. It places these efforts in the context of recent trends towards the devolution of forest management authority in many parts of the world. The book includes regional chapters covering North America, South America, Africa, Europe, Asia and the Australia-Pacific region. As well as relating the general factors mentioned above to these specific areas, these chapters cover issues of special regional significance, such as the importance of traditional knowledge and practices for food security,

economic development and cultural identity. Other chapters examine topics ranging from key policy issues to the significant programs of regional and international organisations, and from research ethics and best practices for scientific study of traditional knowledge to the adaptation of traditional forest knowledge to climate change and globalisation.

This book explains to governments, decision makers and disaster professionals the potential uses of recent technologies for disaster monitoring and risk reduction based on the knowledge and experience of prominent experts/researchers in the relevant fields. It discusses the application of recent technological developments for emerging disaster risks in today's societies and deliberates on the various aspects of disaster risk reduction strategies, especially through sustainable community resilience and responses. This book consists of selected invited papers on disaster management, which focus on community resilience and responses towards disaster risk reduction based on experiences, and closely examines the coordinated research activities involving all stakeholders, especially the communities at risk. Many regions of the world and aspects of disaster risk and its management are covered. It is described how recent technologies will support better understanding and action to reduce the number and impact of disasters in future. The principal audience for this book is researchers, urban planners, policy makers, as well as students.

The Reindeer Chronicles

Forest Landscape Restoration

International Yearbook of Soil Law and Policy 2017

Reclaiming Landscapes for a Sustainable Future

Sustainable Development and Rehabilitation of Degraded Village Lands in Himalaya

The Forest Landscape Restoration Handbook

The first volume of the International Yearbook of Soil Law and Policy includes an important discussion on the implementation of the Sustainable Development Goals that are the basis for the post-2015 development agenda up to the year 2030; the Yearbook focuses in particular on Goal 15, which includes achieving a “land degradation-neutral world.” It also provides a comprehensive and highly informative overview of the latest developments at the international level, important cross-disciplinary issues and different approaches in national legislation. The book is divided into four sections. Forewords by internationally renowned academics and politicians are followed by an analysis of the content and structure of the Sustainable Development Goals with regard to soil and land as well as the scientific methods for their implementation. In addition, all relevant international regimes are discussed, including the latest developments, such as the decisions made at the 12th Conference of the Parties to the United Nations Convention to Combat Desertification (UNCCD) and the Paris Agreement on Climate Change. The next section deals with cross-disciplinary issues relevant to the implementation of the Sustainable Development Goals like the right to food, land tenure, migration and the “Economics of Land Degradation” initiative. The last section gathers reports on the development of national legislation from various nations and supra-national entities, including Brazil, China, the European Union, Mongolia, Namibia and the United States. Addressing this broad range of key topics, the book offers an indispensible tool for all academics, legislators and policymakers working in this field.

The “International Yearbook of Soil Law and Policy” is a book series that discusses the central questions of law and politics with regard to the protection and sustainable management of soil and land – at the international, national and regional level.
Forest loss and degradation have caused a decline in the quality of ecosystem services around the world. But fixing the problem takes more than just planting trees; practitioners increasingly realize that a landscape approach is essential. This handbook, authored and edited by international authorities in the field of forestry, is the first practical guide to using forest landscape restoration (FLR) to repair the damage done to forest lands by poor land management practice. Using research backed by respected institutions such as ITTO and the World Conservation Union (IUCN), it explains how to increase the resilience of landscapes and the communities they support through FLR. The main aim of FLR is not to re-establish pristine forest, even if this were possible; rather, the objective is to make landscapes more resilient and thereby keep future management options open. It also aims to support communities as they strive to increase and sustain the benefits they derive from land management. This book explains the concept of FLR and guides the reader through the steps that must be taken to put it into practice. It is an indispensable aid for practitioners in all aspects of forestry and natural resource management.
Soils and Landscape Restoration provides a multidisciplinary synthesis on the sustainable management and restoration of soils in various landscapes. The book presents applicable knowledge of above- and below-ground interactions and biome specific realizations along with in-depth investigations of particular soil degradation pathways. It focuses on severely degraded soils (e.g., eroded, salinized, mined) as well as the restoration of wetlands, grasslands and forests. The book addresses the need to bring together current perspectives on land degradation and restoration in soil science and restoration ecology to better incorporate soil-based information when restoration plans are formulated. Incudes a chapter on climate change and novel ecosystems, thus collating the perspective of soil scientists and ecologists on this consequential and controversial topic Connects science to international policy and practice Includes summaries at the end of each chapter to elucidate principles and key points
Restoration ecology, as a scientific discipline, developed from practitioners’ efforts to restore degraded land, with interest also coming from applied ecologists attracted by the potential for restoration projects to apply and/or test developing theories on ecosystem development. Since then, forest landscape restoration (FLR) has emerged as a practical approach to forest restoration particularly in developing countries, where an approach which is both large-scale and focuses on meeting human needs is required. Yet despite increased investigation into both the biological and social aspects of FLR, there has so far been little success in systematically integrating these two complementary strands. Bringing experts in landscape studies, natural resource management and forest restoration, together with those experienced in conflict management, environmental economics and urban studies, this book bridges that gap to define the nature and potential of FLR as a truly multidisciplinary approach to a global environmental problem. The book will provide a valuable reference to graduate students and researchers interested in ecological restoration, forest ecology and management, as well as to professionals in environmental restoration, natural resource management, conservation, and environmental policy.
A Manual for Dryland Afforestation and Management
Modern Trends in Applied Aquatic Ecology
Soils and Landscape Restoration
Anticipating, assessing and adapting to future change

Sustainable Community Resilience & Responses
Recent Technologies for Disaster Management and Risk Reduction

Implementing the Nagoya Protocol compares existing ABS regimes in ten European countries, including one non-EU member and one EU candidate country, and critically explores several cross-cutting issues related to the implementation of the Nagoya Protocol in the EU.

"Reclamation of Mine-impacted Land for Ecosystem Recovery covers: methods of rejuvenation of mine wasteland including different practices of physical, chemical and ecological engineering methods"--

Large areas of the world's forests have been lost or degraded and landscapes everywhere are being simplified by current land-use practices. In this publication, Lamb and Gilmour present approaches to restoring and rehabilitating the vast areas of degraded, fragmented and modified forests which cover much of the world. They argue that by applying best practice at the site level it is possible to enhance socio-economic and ecological gains at the landscape level. This book provides an important contribution towards the objectives of the Forest Landscape Restoration approach and is essential reading for practitioners and decision makers involved in forest restoration.

Over the years, the scope of our scientific understanding and technical skills in ecology and environmental science have widened significantly, with increasingly greater emphasis on societal issues. In this book, an attempt has been made to give basic concepts of ecology, environmental science and various aspects of natural resource conservation. The topics covered primarily deal with environmental factors affecting organisms, adaptations, biogeography, ecology of species populations and species interactions, biotic communities and ecosystems, environmental pollution, stresses caused by toxics, global environmental change, exotic species invasion, conservation of biodiversity, ecological restoration, impact assessment, application of remote sensing and geographical information system for analysis and management of natural resources, and approaches of ecological economics. The main issues have been discussed within the framework of sustainability, considering humans as part of ecosystems, and recognising that sustainable development requires integration of ecology with social sciences for policy formulation and implementation.

International Seminar on Coal Science & Technology
Concepts & Strategies
Concepts and Case Studies
Rehabilitation and Restoration of Degraded Forests
Land Utilization in the Central Himalaya
Soil Carbon Sequestration and the Greenhouse Effect

This volume deals with land degradation, which is occurring in almost all terrestrial biomes and agro-ecologies, in both low and high income countries and is stretching to about 30% of the total global land area. About three billion people reside in these degraded lands. However, the impact of land degradation is especially severe on livelihoods of the poor who heavily depend on natural resources. The annual global cost of land degradation due to land use and cover change (LUCC) and lower

cropland and rangeland productivity is estimated to be about 300 billion USD. Sub-Saharan Africa (SSA) accounts for the largest share (22%) of the total global cost of land degradation. Only about 38% of the cost of land degradation due to LUCC - which accounts for 78% of the US$300 billion loss – is borne by land users and the remaining share (62%) is borne by consumers of ecosystem services off the farm. The results in this volume indicate that reversing land degradation trends makes both economic sense, and has multiple social and environmental benefits. On average, one US dollar investment into restoration of degraded land returns five US dollars. The findings of the country case studies call for increased investments into the rehabilitation and restoration of degraded lands, including through such institutional and policy measures as strengthening community participation for sustainable land management, enhancing government effectiveness and rule of law, improving access to markets and rural services, and securing land tenure. The assessment in this volume has been conducted at a time when there is an elevated interest in private land investments and when global efforts to achieve sustainable development objectives have intensified. In this regard, the results of this volume can contribute significantly to the ongoing policy debate and efforts to design strategies for achieving sustainable development goals and related efforts to address land degradation and halt biodiversity loss.

A companion to Forest History: International Studies on Socioeconomic and Forest Ecosystem Change which includes over 20 papers from the same conference held in Florence in 1998. This volume focuses on the different approaches and methods adopted in the study of forest history. The interdisciplinary nature of these studies is emphasized, bringing in the different perspectives of anthropologists, botanists, ecologists, foresters, historians, geneticists and geographers. This volume demonstrates the rich diversity of approaches and methods to forest history.

This book presents an important discussion on land tenure rights for the effective implementation of sustainable soil management provisions. It investigates a variety of aspects, such as the clash of modern and traditional tenure concepts, forms of illegal or illegitimate land acquisition, and the preconditions for legal and legitimate investments. In addition, the book analyses the challenges to ensuring secure land tenure rights in Africa and in Germany. Lastly, it provides information on the role of women in this context. This fifth volume of the International Yearbook of Soil Law and Policy is divided into four parts, the first of which deals with various aspects of the theme "Land Tenure Rights and Sustainable Soil Management". The second part covers recent international developments, the third part presents regional and national reports, and the fourth discusses overarching issues. Given the range of key topics covered, the book offers an indispensable tool for all academics, legislators and policymakers working in this field. The "International Yearbook of Soil Law and Policy" series discusses central questions in law and politics with regard to the protection and sustainable management of soil and land – at the international, national, and regional level.

Papers presented at the International Symposium on Land Degradation: New Trends towards Sustainable Agriculture and the Commonwealth Geographical Bureau Food Security Workshop organized by Dept. of Geography, M.M.H. College, Ghaziabad, India, on 7-12 April, 2002.

Implementing the Nagoya Protocol

Resource Conservation and Food Security

Environmental Stress: Indication, Mitigation and Eco-conservation

Methods and Approaches in Forest History

Elements of Biotechnology

Climate Change and Multi-Dimensional Sustainability in African Agriculture

This book is about the concept of the Greenhouse Effect is more than a century old, but today the observed and predicted climate changes. This second edition of Soil Carbon Sequestration and the Greenhouse Effect is essential reading for understandingthe processes, properties, and practices affecting the soil carbon pool and its dynamics.

Land Restoration: Reclaiming Landscapes for a Sustainable Future provides a holistic overview of

land degradation and restoration in that it addresses the issue of land restoration from the scientific and practical development points of view. Furthermore, the breadth of chapter topics and contributors cover the topic and a wealth of connected issues, such as security, development, and environmental issues. The use of graphics and extensive references to case studies also make the work accessible and encourage it to be used for reference, but also in active field-work planning. Land Restoration: Reclaiming Landscapes for a Sustainable Future brings together practitioners from NGOs, academia, governments, and the United Nations Convention to Combat Desertification (UNCCD) to exchange lessons to enrich the academic understanding of these issues and the solution sets available. Provides accessible information about the science behind land degradation and restoration for those who do not directly engage with the science allowing full access to the issue at hand. Includes practical on-the-ground examples garnered from diverse areas, such as the Sahel, Southeast Asia, and the U.S.A. Provides practical tools for designing and implementing restoration/re-greening processes.

Restoration of Degraded LandConcepts & StrategiesLand RestorationReclaiming Landscapes for a Sustainable FutureAcademic Press

International Yearbook of Soil Law and Policy 2020/2021

And Other Inspiring Stories of Working with Nature to Heal the Earth

Forest Pathways to Sustainable Development

Building Resilience and Benefiting Livelihoods

2018 The State of the World's Forests

Ecological Restoration Law