Land Degradation And Society

Land degradation and desertification are amongst the most severe threats to human welfare and the environment, as they affect the livelihoods of some 2 billion people in the worlds drylands, and they are directly connected to pressing global environmental problems, such as the loss of biological diversity or global climate change. Strategies to co
Why does land management so often fail to prevent soil erosion, deforestation, salination and flooding? How serious are these problems, and for whom? This book, first published in 1987, sets out to answer these questions, which are still some of the most crucial issues in development today, using an approach called ‘regional political ecology’. This approach acknowledges that the reason why land management can fail are extremely varied, and must include a thorough understanding of the changing natural resource base itself, the human response to this, and broader changes in society, of which land managers are a part. Land Degradation and Society is essential reading for all students of geography, agriculture, social sciences, development studies and related subjects.
In many parts of the world, climatic variations are recognized as one of the major factors contributing to land degradation impacting on agricultural systems performance and management. To accurately assess sustainable land management practices, the climate resources and the risk of climate-related or induced natural disasters in a region must be known. Only when climate resources are paired with management or development practices can the land degradation potential be assessed and appropriate mitigation technologies be developed. This book is based on an International Workshop held in Arusha, Tanzania and should be of interest to all organizations and agencies interested in sustainable land management to arrest land degradation.
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.
Land Degradation and Desertification: Assessment, Mitigation, and Remediation reports research results in sustainable land management and land degradation status and mitigation in 36 countries around the world. It includes background papers with continental and international perspectives dealing with land degradation and desertification studies. The book assembles various topics of interest for a large audience. They include carbon sequestration and stocks, modern techniques to trace the trends of land degradation, traditional and modern approaches of resource-base conservation, soil fertility management, reforestation, rangeland rehabilitation, land use planning, GIS techniques in desertification risk cartography, participatory ecosystem management, policy analyses and possible plans for action. Various climatic domains in Africa, Asia, Europe and The Americas are covered. The book will be of interest to a variety of environmental scientists, agronomists, national and international policy makers and a number of organizations dealing with sustainable management of natural resources.
This book presents a broad multi-disciplinary perspective on the challenge of problems of degrading land.
Dirt, soil, call it what you want—it's everywhere we go. It is the root of our existence, supporting our feet, our farms, our cities. This fascinating yet disquieting book finds, however, that we are running out of dirt, and it's no laughing matter. An engaging natural and cultural history of soil that sweeps from ancient civilizations to modern times, Dirt: The Erosion of Civilizations explores the compelling idea that we are—and have long been—using up Earth's soil. Once bare of protective vegetation and exposed to wind and rain, cultivated soils erode bit by bit, slowly enough to be ignored in a single lifetime but fast enough over centuries to limit the lifespan of civilizations. A rich mix of history, archaeology and geology, Dirt traces the role of soil use and abuse in the history of Mesopotamia, Ancient Greece, the Roman Empire, China, European colonialism, Central America, and the American push westward. We see how soil has shaped us and we have shaped soil—as society after society has risen, prospered, and plowed through a natural endowment of fertile dirt. David R. Montgomery sees in the recent rise of organic and no-till farming the hope for a new agricultural revolution that might help us avoid the fate of previous civilizations.
Soil degradation has serious global impacts on agronomic, economic, and sociopolitical conditions, however, statistics regarding the degree of these impacts has been largely unreliable. This book aims to standardize the methodology for obtaining reliable and objective data on soil degradation. It will also identify and develop criteria for assessing the severity of soil degradation, providing a realistic scenario of the problem.
This book was originally published in 1991 when land degradation was becoming recognised as a key issue for world conservation as we approached the end of the twentieth century. The complex relationship between human development and the environment is explored in this book with a particular emphasis on the causes of land degradation processes. Having given a broad overview of what land degradation is and why it is occurring, Dr Barrow goes on to illustrate the problem in the context of different habitat types such as forest, woodland and drylands. The impact of human activities through global pollution and industrial and urban development, as well as conservation efforts, are discussed. Written as an introduction to the topic, this book provides a clear synthesis of ways of understanding the phenomenon of land degradation.
Soil Degradation in the United States: Extent, Severity, and Trends examines the magnitude and severity of soil degradation by different processes in the U.S., including water erosion, wind erosion, C depletion, soil compaction, salt build-up, and soil contamination. In addition, it addresses policy issues with regard to economic and environmental
Violence and insecurity are among the most important issues facing communities in the 21st century. Both family violence and community violence are rapidly rising in the urbanizing nations of the ‘South’, and richer nations are also facing increased conce

This book offers an overview of recent literature on land degradation and its interrelationship with socio-economic development processes in the developing world. It provides an in-depth analysis of land degradation as a physical process, with an emphasis on the local and regional scales. The volume contains a detailed case-study of ravine formation processes in the Chambal valley, a unique but least studied part of the world. Using multi-scale and multi-disciplinary approaches, and combining spatial socio-economic data with remote sensing data, this book provides an in-depth analysis of the causes and implications of land degradation.

The research presented in this book demonstrates how an integrated ‘systems’ approach to farming in the watershed context increases the effectiveness of a production system and improves people’s livelihoods. It takes an integrated approach, using one watershed in Ethiopia as a ‘laboratory’ or model case study to focus on the interaction and interdependence between land, water, crops, soil, water harvesting, supplemental irrigation, forestry, socio-economic aspects, livestock and farm tools. A range of linked studies was conducted with active participation of the farming community and other relevant stakeholders, such as the local offices of agriculture and extension services. The starting point for the work was the premise that previous efforts to solve farming system constraints using a piecemeal approach or discipline-specific focus have not been successful. Thus, addressing agricultural and environmental constraints through a holistic approach enables the generation of comprehensive technologies to sustainably improve the natural resource base and livelihoods of communities. The authors discuss trade-offs and resource allocation, demonstrating how the environment can be protected while also improving productivity. A unique feature is the methodology developed for the selection of suitable fields and farmers to implement new approaches or improved technologies, to achieve production increases while reducing degradation of sensitive agro-ecosystems. It is also shown how the watershed scale is a valuable basis for assessing the protection of fragile lands.

The food problems now facing the world—scarcity and starvation, contamination and illness, overabundance and obesity—are both diverse and complex. What are their causes? How severe are they? Why do they persist? What are the solutions? In three volumes that serve as valuable teaching tools and have been designed to complement the textbook Food Policy for Developing Countries by Per Pinstrup-Andersen and Derrill D. Watson II, they call upon the wisdom of disciplines including economics, nutrition, sociology, anthropology, environmental science, medicine, and geography to create a holistic picture of the state of the world's food systems today. Volume II of the Case Studies addresses the issues of domestic policies for markets, production, and the environment.

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.

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Soil degradation is a widespread problem in Africa resulting in decreased agricultural productivity while demand for food continues to increase. Degradation is caused by accelerated erosion, acidification, contamination, depletion of soil organic matter and plant nutrients, and salinization. The major cause of soil degradation in Africa is uncontrolled and excessive grazing in the savanna regions followed by deforestation and the use of inappropriate and extractive farming practices. Perpetual neglect of the health of soils in Africa can exacerbate the already serious problems of food and nutritional insecurity and environmental degradation. Food and nutritional security of the growing population of Africa can only be achieved if degraded soils are restored and soils of agroecosystems are managed prudently and sustainably. Ignoring soils and taking the fragile, finite and precious soil resources for granted is the principal cause of poverty, hunger, and environmental degradation. The downward spiral must be reversed through soil restoration measures based on translating science into action. This book describes the soils of Africa, processes of soil degradation, extent and severity of soil degradation, and the impacts of degradation processes on food and nutritional security. Features: Explores the extent and severity of soil degradation in Africa Analyzes the cause–effect relationship between anthropogenic activities and soil degradation Reviews processes of soil degradation in Africa including erosion, salinization, nutrient depletion, and decline of soil organic matter Addresses the effect of climate change on soil degradation in Africa. Explains how soil degradation causes food and nutritional insecurity Part of the Advances in Soil Sciences series, this volume is specifically devoted to the processes and factors that cause soil degradation and the challenges and potential for remediation and restoration of soil health in Africa.

Presenting Agrodiversity; Diversity within land rotational systems; Paths of transformation; The future of Agrodiversity.

Rather than being a book about ‘development’ per se, this work, first published in 1975, is instead a book about ideas about development, designed for those drawn by a concern over social injustice into the development field. In a selective review of theory, which gives particular emphasis to the spatial dimension in Western, Marxist and neo-Marxist thought, Harold Brookfield traces the evolution of ideas about world inequality and the problem of development from the days before the ‘underdeveloped countries’ were considered to be a major problem, through the years dominated by ‘economic growth’, to the more searching approaches of the contemporary era. The central argument of the book is that development is a ‘totality’, which cannot properly be understood by separation into parts. The ‘developed’ and ‘underdeveloped’ countries constitute one interdependent system, and change in one cannot be understood without consideration of the other.

The primary objective of this study has been to critically examine the dynamics of rapid deforestation and land degradation in Rondônia, Brazil. As previously emphasized, the analytical framework utilized in this essay has drawn primarily from the fields of political economy and human ecology, an approach recently described as "regional political ecology"(Blaikie and Brookfield 1987). Although characteristic of a growing body of literature focusing on the inter-relationships between human society and environmental degradation (Watts 1983, Hecht 1985, Blaikie 1985, Blaikie and Brookfield 1987, de Janvry and Garcia 1988), such an approach has not been typical of most empirical research on small-farmer settlement and land degradation in tropical forest regions. Not surprisingly then, the conclusions of the present study vary considerably with much "conventional wisdom" on similar topics. Following a brief summary of its principal observation, the conclusions of the present study are analyzed in relation to various theoretical and policy-oriented explanations of tropical deforestation and land degradation. Finally, this study concludes with suggestions for alternative policies aimed at the protection and sustainable management

of Rondônia's endangered tropical forest landscapes.
Originally published in 1988 Deforestation examines deforestation as a major environmental and development problem. It examines the issues of forests being cut in tropical and mountain areas, and how acid rain, pollution and disease wreak havoc in temperate zones. Some of the worst effects of deforestation have been changes in the world’s climate system, erosion and flooding, desertification, wood short-ages and the disappearance of some floral and fauna species. This book challenges the belief that deforestation is due to entirely rapid population growth and agricultural expansion and emphasises the effects of commercial exploitation and poor planning and management. In concludes with a programme for reforestation using agro-forestry, appropriate cottage industries, improved international programmes, local land reforms and community participation.
Land Degradation explores the substantial decrease in an area's biological productivity or usefulness to humans due to human activities. The second edition of Johnson and Lewis's well-received text thoroughly examines this growing area of study using a global perspective, as well as up-to-date information. The various case studies cover the history of land degradation, look at local and regional effects of human interactions with the environment, and compare creative destruction with destructive creation.
Land Degradation and SocietyRoutledge
This work is intended for advanced readers interested in methods of sustainable land management - the prevention and control of land degradation. It offers a coherent view of the situation concerning land degradation and the human response to the problem. It is generally recognized that technological solutions alone cannot solve the problems of land degradation. This book discusses the role of land use and land management policies, programmes, insitutional innovations, and economic incentives for the control and prevention of land degradation. Special attention is given to legal issues at the international level and in individual countries.
The peri-urban interface in poor countries is frequently an area of great dynamism and a focus of competition for basic resources. In Nigeria, peri-urban livelihood strategies have become an increasingly important survival mechanism in the context of rapid urban growth. This book uses an innovative combination of methodologies from both the natural and social sciences to examine recent developments in and around the city of Kano in northern Nigeria, and in doing so, provides insights into the sustainability of these livelihood strategies. Identifying some of the most significant forces that are currently shaping the process of peri-urban change, it argues that, despite the adoption of creative and ingenious strategies by many farmers, urban growth is having a considerable effect on the livelihood resilience of individuals, households and communities. The findings presented in this book have much wider relevance and are transferable to other burgeoning Third World cities where increased pressures on urban hinterlands have intensified contests amongst various actors, made access to resources much more difficult and made traditional smallholder mechanisms of adaptation and resilience increasingly challenging.
This book contains selected contributions from the Sixth Meeting of the International Geographical Union's Commission on Land Degradation and Desertification, held in Perth, Australia, in September 1999. Collectively, these contributions explicitly seek to understand not only the mechanisms responsible for the problem of land degradation but their social and economic implications, the means of overcoming the problems, and the policy instruments whereby remedial measures may be implemented. This breadth of approach is both distinctive and essential if the problems are to be tackled effectively. The authorship comprises of specialists (mostly geographers) from universities, research organizations, and government agencies, who provide a truly international perspective with contributions from Iceland to Australia and from the USA to Japan. Audience: The book presents current research findings which will be of particular benefit to professionals and practitioners, as well as researchers and tertiary-level educationalists who are involved with land degradation.
Time is a central feature of geomorphological research, and is used in this book (first published in 1977) to provide a conceptual framework within which to consider and compare old and new approaches to the field of geomorphology. The emphasis is on providing not merely a manual of current research but an introduction to isolate ideas and concepts, stimulate critical discussion and examine some of the problems that are involved in dealing with data.
The constant growth of the world’s population and the decline of the availability of land and soil resources are global concerns for food security. Other concerns are the decrease in productivity and delivery of essential ecosystems services because of the decline of soil quality and health by a range of degradation processes. Key soil properties like soil bulk density, organic carbon concentration, plant available water capacity, infiltration rate, air porosity at field moisture capacity, and nutrient reserves, are crucial properties for soil functionality which refers to the capacity of soil to perform numerous functions. These functions are difficult to measure directly and are estimated through indices of soil quality and soil health. Soil degradation, its extent and severity, can also be estimated by assessing indices of soil quality and health. "Geospatial Technology for Land Degradation Assessment and Management" uses satellite imagery and remote sensing technologies to measure landscape parameters and terrain attributes. Remote sensing and geospatial technologies are important tools in assessing the extent and the severity of land and soil degradation, their temporal changes, and geospatial distribution in a timely and cost-effective manner. The knowledge presented in the book by Dr. R.S. Dwivedi shows how remote sensing data can be utilized for inventorying, assessing, and monitoring affected ecosystems and how this information can be integrated in the models of different local settings. Through many land degradations studies, land managers, researchers, and policymakers will find practical applications of geospatial technologies and future challenges. The information presented is also relevant to advancing the Sustainable Development Goals of the United Nations towards global food security.
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World Bank Technical Paper No. 280. Addresses the need to improve the administration of justice in Latin America and the Caribbean and provides effective strategies for reform. Judicial reform is a new area of interest for the World Bank. This book addresses the need to improve the administration of justice in Latin America and the Caribbean and provides effective strategies for reform. The report combines the experiences of more than 20 countries in their effort to enhance the quality and efficiency of their judicial systems. The authors highlight the importance of the judiciary in economic development, with a particular focus on court administration, the judicial institutional framework, alternative dispute resolution mechanisms, procedural reforms, access to justice, and the role of the legal profession.
In this report, we test the hypothesis that the primary factors behind the farming system changes in Ban Lak Sip lay not in the village itself but rather in the broader Laotian social, economic and political setting. The study uses an integrated approach that examines both the physical and social dimensions of land use and soil erosion in Ban Lak Sip within this

broader system environment.
Having been under colonial rule for the first half of the century, by 1965 all but a handful of African countries had regained their independence and were poised to take off into an era of development. However, Africa now suffers from the most acute form of underdevelopment anywhere in the world. Bringing together a broad selection of case studies covering a wide range of key issues, this volume provides a multidisciplinary exploration of Africa's development opportunities and challenges into the twenty-first century.