

Landscape Scale Conservation Planning

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Landscape scale conservation planning is a crucial approach for addressing environmental challenges by considering entire ecosystems and their interconnectedness. This strategy focuses on developing comprehensive plans to protect biodiversity, manage natural resources sustainably, and build resilience across vast geographical areas, moving beyond isolated protected sites to create more effective and durable conservation outcomes.

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Landscape-scale Conservation Planning

Hugh P. Possingham Landscape-scale conservation planning is coming of age. In the last couple of decades, conservation practitioners, working at all levels of governance and all spatial scales, have embraced the CARE principles of conservation planning – Comprehensiveness, Adequacy, Representativeness, and Efficiency. Hundreds of papers have been written on this theme, and several different kinds of software program have been developed and used around the world, making conservation planning based on these principles global in its reach and influence. Does this mean that all the science of conservation planning is over – that the discovery phase has been replaced by an engineering phase as we move from defining the rules to implementing them in the landscape? This book and the continuing growth in the literature suggest that the answer to this question is most definitely ‘no.’ All of applied conservation can be wrapped up into a single sentence: what should be done (the action), in what place, at what time, using what mechanism, and for what outcome (the objective). It all seems pretty simple – what, where, when, how and why. However stating a problem does not mean it is easy to solve.

A Review of the Landscape Conservation Cooperatives

The United States' tradition of conserving fish, wildlife, habitats, and cultural resources dates to the mid-19th century. States have long sought to manage fish and wildlife species within their borders, whereas many early federal conservation efforts focused on setting aside specific places as parks, sanctuaries, or reserves. With advances in landscape ecology over the past quarter-century, conservation planners, scientists, and practitioners began to stress the importance of conservation efforts at the scale of landscapes and seascapes. These larger areas were thought to harbor relatively large numbers of species that are likely to maintain population viability and sustain ecological processes and

natural disturbance regimes - often considered critical factors in conserving biodiversity. By focusing conservation efforts at the level of whole ecosystems and landscape, practitioners can better attempt to conserve the vast majority of species in a particular ecosystem. Successfully addressing the large-scale, interlinked problems associated with landscape degradation will necessitate a planning process that bridges different scientific disciplines and across sectors, as well as an understanding of complexity, uncertainty, and the local context of conservation work. The landscape approach aims to develop shared conservation priorities across jurisdictions and across many resources to create a single, collaborative conservation effort that can meet stakeholder needs. Conservation of habitats, species, ecosystem services, and cultural resources in the face of multiple stressors requires governance structures that can bridge the geographic and jurisdictional boundaries of the complex socio-ecological systems in which landscape-level conservation occurs. The Landscape Conservation Cooperatives (LCC) Network was established to complement and add value to the many ongoing state, tribal, federal, and nongovernmental efforts to address the challenge of conserving species, habitats, ecosystem services, and cultural resources in the face of large-scale and long-term threats, including climate change. A Review of the Landscape Conservation Cooperatives evaluates the purpose, goals, and scientific merits of the LCC program within the context of similar programs, and whether the program has resulted in measurable improvements in the health of fish, wildlife, and their habitats.

Linking Australia's Landscapes

Networks of land managed for conservation across different tenures have rapidly increased in number (and popularity) in Australia over the past two decades. These include iconic large-scale initiatives such as Gondwana Link, the Great Eastern Ranges Initiative, Habitat 141°, and the South Australian NatureLinks, as well as other, landscape-scale approaches such as Biosphere Reserves and Conservation Management Networks. Their aims have been multiple: to protect the integrity and resilience of many Australian ecosystems by maintaining and restoring large-scale natural landscapes and ecosystem processes; to lessen the impacts of fragmentation; to increase the connectivity of habitats to provide for species movement and adaptation as climate changes; and to build community support and involvement in conservation. This book draws out lessons from a variety of established and new connectivity conservation initiatives from around Australia, and is complemented by international examples. Chapters are written by leaders in the field of establishing and operating connectivity networks, as well as key ecological and social scientists and experts in governance. Linking Australia's Landscapes will be an important reference for policy makers, natural resource managers, scientists, and academics and tertiary students dealing with issues in landscape-scale conservation, ecology, conservation biology, environmental policy, planning and management, social sciences, regional development, governance and ecosystem services.

Models for Planning Wildlife Conservation in Large Landscapes

A single-resource volume of information on the most current and effective techniques of wildlife modeling, *Models for Planning Wildlife Conservation in Large Landscapes* is appropriate for students and researchers alike. The unique blend of conceptual, methodological, and application chapters discusses research, applications and concepts of modeling and presents new ideas and strategies for wildlife habitat models used in conservation planning. The book makes important contributions to wildlife conservation of animals in several ways: (1) it highlights historical and contemporary advancements in the development of wildlife habitat models and their implementation in conservation planning; (2) it provides practical advice for the ecologist conducting such studies; and (3) it supplies directions for future research including new strategies for successful studies. Intended to provide a recipe for successful development of wildlife habitat models and their implementation in conservation planning, the book could be used in studying wildlife habitat models, conservation planning, and management techniques. Additionally it may be a supplemental text in courses dealing with quantitative assessment of wildlife populations. Additionally, the length of the book would be ideal for graduate student seminar course. Using wildlife habitat models in conservation planning is of considerable interest to wildlife biologists. With ever tightening budgets for wildlife research and planning activities, there is a growing need to use computer methods. Use of simulation models represents the single best alternative. However, it is imperative that these techniques be described in a single source. Moreover, biologists should be made aware of alternative modeling techniques. It is also important that practical guidance be provided to biologists along with a demonstration of utility of these procedures. Currently there is little guidance in the wildlife or natural resource planning literature on how best to incorporate wildlife planning activities, particularly community-based approaches. Now is the perfect time for a

synthestic publication that clearly outlines the concepts and available methods, and illustrates them. Only single resource book of information not only on various wildlife modeling techniques, but also with practical guidance on the demonstrated utility of each based on real-world conditions. Provides concepts, methods and applications for wildlife ecologists and others within a GIS context. Written by a team of subject-area experts

Planning at the Landscape Scale

Traditionally, landscape planning has involved the designation and protection of exceptional countryside. However, whilst this still remains important, there is a growing recognition of the multi-functionality of rural areas, and the need to encourage sustainable use of the whole countryside rather than just its 'hotspots'. With an inter-disciplinary assessment of the rural environment, this book draws on theories of landscape values, people-place relationships, sustainable development, and plan implementation. It focuses on the competing influences of globalization and localization, seeing the role of planning as the reconciliation of these conflicting demands, reinforcing character and distinctiveness without museum-izing rural areas. Taking a 'landscape scale' approach to the topic, this book responds to the interest sparked by concern for rural landscapes and by recent local and national policy shifts in this area.

Applying Landscape Ecology in Biological Conservation

This book provides a current synthesis of principles and applications in landscape ecology and conservation biology. Bringing together insights from leaders in landscape ecology and conservation biology, it explains how principles of landscape ecology can help us understand, manage and maintain biodiversity. Gutzwiller also identifies gaps in current knowledge and provides research approaches to fill those voids.

Landscape-scale Conservation in the Congo Basin

In response to increasing conservation activity at the large landscape scale, leaders from the public, private, and nongovernmental sectors participated in two national landscape management policy dialogues and many other informal discussions in 2009. Convened by the Lincoln Institute of Land Policy and the Center for Natural Resources and Environmental Policy at The University of Montana, the intent of the dialogues was to synthesize what we know about large landscape conservation and to identify the most important needs as we move forward.

Large Landscape Conservation

The Landscape Resilience Framework is designed to facilitate application of resilience principles to ecosystem management by detailing the seven dimensions of a landscape that contribute to resilience. It represents a synthesis of thinking across empirical ecological studies and social-ecological resilience theory, and was reviewed by a team of expert advisors. Our goal was to create a concise and comprehensive set of key considerations that could be integrated into identifying on-the-ground actions across urban design, conservation planning, and ecosystem management that would contribute to resilient future landscapes.

Landscape Resilience Framework

The Handbook provides a supporting guide to key aspects and applications of landscape ecology to underpin its research and teaching. A wide range of contributions written by expert researchers in the field summarize the latest knowledge on landscape ecology theory and concepts, landscape processes, methods and tools, and emerging frontiers. Landscape ecology is an interdisciplinary and holistic discipline, and this is reflected in the chapters contained in this Handbook. Authors from varying disciplinary backgrounds tackle key concepts such as landscape structure and function, scale and connectivity; landscape processes such as disturbance, flows, and fragmentation; methods such as remote sensing and mapping, fieldwork, pattern analysis, modelling, and participation and engagement in landscape planning; and emerging frontiers such as ecosystem services, landscape approaches to biodiversity conservation, and climate change. Each chapter provides a blend of the latest scientific understanding of its focal topics along with considerations and examples of their application from around the world. An invaluable guide to the concepts, methods, and applications of landscape ecology,

this book will be an important reference text for a wide range of students and academics in ecology, geography, biology, and interdisciplinary environmental studies.

The Routledge Handbook of Landscape Ecology

Drafting a Conservation Blueprint lays out for the first time in book form a step-by-step planning process for conserving the biological diversity of entire regions. In an engaging and accessible style, the author explains how to develop a regional conservation plan and offers experience-based guidance that brings together relevant information from the fields of ecology, conservation biology, planning, and policy. Individual chapters outline and discuss the main steps of the planning process, including: • an overview of the planning framework • selecting conservation targets and setting goals • assessing existing conservation areas and filling information gaps • assessing population viability and ecological integrity • selecting and designing a portfolio of conservation areas • assessing threats and setting priorities A concluding section offers advice on turning conservation plans into action, along with specific examples from around the world. The book brings together a wide range of information about conservation planning that is grounded in both a strong scientific foundation and in the realities of implementation.

Drafting a Conservation Blueprint

The distinctive relationships between landscape change, habitat fragmentation, and biodiversity conservation are highlighted in this original and useful guide to the theory and practice of ecological landscape design. Using original, ecologically based landscape design principles, the text underscores current thinking in landscape management and conservation. It offers a blend of theoretical and practical information that is illustrated with case studies drawn from across the globe. Key insights by some of the world's leading experts in landscape ecology and conservation biology make *Managing and Designing Landscapes for Conservation* an essential volume for anyone involved in landscape management, natural resource planning, or biodiversity conservation.

Managing and Designing Landscapes for Conservation

Over the last two decades, the topic of forest ecosystem services has attracted the attention of researchers, land managers, and policy makers around the globe. The services rendered by forest ecosystems range from intrinsic to anthropocentric benefits that are typically grouped as provisioning, regulating, supporting, and cultural. The research efforts, assessments, and attempts to manage forest ecosystems for their sustained services are now widely published in scientific literature. This volume focuses on broad-scale aspects of forest ecosystem services, beyond individual stands to large landscapes. In doing so, it illustrates the conceptual and practical opportunities as well as challenges involved with planning for forest ecosystem services across landscapes, regions, and nations. The goal here is to broaden the scope of land use planning through the adoption of a landscape-scale approach. Even though this approach is complex and involves multiple ecological, social, cultural, economic, and political dimensions, the landscape perspective appears to offer the best opportunity for a sustained provision of forest ecosystem services.

Ecosystem Services from Forest Landscapes

Systematic Conservation Planning provides a clear, comprehensive guide to the process of deriving a conservation area network for regions, which will best represent the biodiversity of regions in the most cost-effective way. The measurement of biodiversity, design of field sampling strategies, alongside different data treatment methods are detailed helping to provide a conceptual framework for identifying conservation area networks, underpinned by the concept of complementarity. Setting conservation targets and then multi-criteria analyses, using complementarity but bringing in other criteria reflecting competing uses of land or water, to show how conservation area networks can achieve conservation targets in ways that also allow for the production of food, fiber and shelter are also discussed. Providing a clear procedure for identifying conservation priority areas underpinned by cutting edge science, this book will be of interest to graduate students, academics, planners and decision makers dealing with natural resource use and exploitation, alongside conservation NGOs.

Systematic Conservation Planning

A classic in many planning curricula, this is a 1991 reprint of the 1928 work by the originator of the Appalachian Trail and a founder of The Wilderness Society. The New Yorker in a 1989 series by Tony

Hiss-analyzing attempts to control growth and preserve the environment-called it a long-lost classic. This edition includes the 1962 introduction by legendary social critic Lewis Mumford, a close MacKaye associate, and a foreword by planner David N. Startzell, executive director of the Appalachian Trail Conference since 1986.

The New Exploration

Continental Conservation is an important guidebook that can serve a vital role in helping fashion a radically honest, scientifically rigorous land-use agenda.

Continental Conservation

The loss and fragmentation of natural habitats is one of the major issues in wildlife management and conservation. Habitat "corridors" are sometimes proposed as an important element within a conservation strategy. Examples are given of corridors both as pathways and as habitats in their own right. Includes detailed reviews of principles relevant to the design and management of corridors, their place in regional approaches to conservation planning, and recommendations for research and management.

Linkages in the Landscape

First Published in 2004. Routledge is an imprint of Taylor & Francis, an informa company.

Countryside Planning

This third edition of the standard text Countryside Conservation charts and evaluates those changes which represent a fundamental revolution in the ways in which the countryside is planned and managed. It sets out the principles, policies and practice which underlie the ecology, planning and management of the new countryside, discussing ways in which countryside conservation objectives are evolving and how they can best be achieved.

Countryside Conservation

This book, published in cooperation with WWF International, integrates the restoration of forest functions into landscape conservation plans. The contents represent the collective body of knowledge and experience of WWF and its many partners - collected here for the first time. This guide will serve as a first stop for practitioners and researchers in many organizations and regions, and as a key reference on the subject.

Forest Restoration in Landscapes

This title meets a great demand for training in spatial analysis tools accessible to a wide audience. Landscape ecology continues to grow as an exciting discipline with much to offer for solving pressing and emerging problems in environmental science. Much of the strength of landscape ecology lies in its ability to address challenges over large areas, over spatial and temporal scales at which decision-making often occurs. As the world tackles issues related to sustainability and global change, the need for this broad perspective has only increased. Furthermore, spatial data and spatial analysis (core methods in landscape ecology) are critical for analyzing land-cover changes world-wide. While spatial dynamics have long been fundamental to terrestrial conservation strategies, land management and reserve design, mapping and spatial themes are increasingly recognized as important for ecosystem management in aquatic, coastal and marine systems. This second edition is purposefully more applied and international in its examples, approaches, perspectives and contributors. It includes new advances in quantifying landscape structure and connectivity (such as graph theory), as well as labs that incorporate the latest scientific understanding of ecosystem services, resilience, social-ecological landscapes, and even seascapes. Of course, as before, the exercises emphasize easy-to-use, widely available software. <http://sarahgergel.net/lel/learning-landscape-ecology/>

Learning Landscape Ecology

In a coherent and comprehensive set of chapters, a team of leading scientists describe the present state-of-the-art in spatial conservation planning methodology with a focus on operational definitions and methods, supported by the latest technological details and applications of publicly available software.

Spatial Conservation Prioritization

The responsible management of natural resources for present-day needs and future generations requires integrated approaches that are place-based, embrace systems thinking, and incorporate the social, economic, and environmental considerations of sustainability. Landscape-scale analysis takes this holistic view by focusing on the spatial scales most appropriate for the resource types and values being managed. Landscape-scale analysis involves assessing landscape features in relation to a group of influencing factors such as land use change, hydrologic changes or other disturbances, topography, and historical vegetation conditions. As such, different types of data and multiple disciplines may be required for landscape analysis, depending on the question of interest and scale of analysis. Multi-resource analysis (MRA) is an approach to landscape-scale analysis that integrates information among multiple natural resources, including ecosystem services, and is designed to evaluate impacts and tradeoffs between development and conservation at landscape scales to inform public resource managers. This approach implicitly addresses social, economic, and ecological functional relationships; for example, actions to realize the benefits of one type of natural resource (e.g., minerals, oil, and gas) may influence behavior and potential benefits related to other types of natural resources (e.g., recreational opportunities). In June 2015, the National Academies of Sciences, Engineering, and Medicine convened a workshop on using landscape-based approaches and MRA to better inform federal decision making for the sustainable management of natural resources. Participants discussed knowledge gaps and priority areas for research and presentations of case studies of approaches that have been used to effectively integrate landscape-based approaches and MRA into practice. This report summarizes the presentations and discussions from the workshop.

Integrating Landscape Approaches and Multi-Resource Analysis into Natural Resource Management

Many people working toward sustainability recognize the important role of conservation but are inadequately prepared to deal with the large spatial, temporal and complexity scales that are involved in large-scale conservation efforts. Problems in large-scale conservation require navigating an intermixture of geophysical, biological and political dimensions. Coming to grips with these many natural and human forces and factors at large scales, much less the myriad details in any single case, is challenging in the extreme and becomes more critical with each day that passes. Large-scale conservation poses many complex challenges that single disciplines, approaches or methods cannot fully address alone. Interdisciplinarity can significantly strengthen large-scale conservation efforts. Throughout *Large-Scale Conservation in the Common Interest* the editors and authors argue that a more holistic and genuinely interdisciplinary approach is required to solve the complex and growing challenges associated with large-scale conservation. The chapters within offer such an approach and define key terms, bring challenges to light and employ case studies to offer concrete practical and strategic recommendations to help those who are engaged in the interactive tasks of promoting sustainability and human dignity. This book is intended for a broad audience, including students and professors new to the field of large-scale conservation, experienced field-based practitioners in science and management and decision and policy makers who set specific and strategic direction for large landscapes. Professors can use this book to introduce students to the challenges of successful large-scale conservation design and implementation and to teach interdisciplinarity as a framework, concept and tool. Professionals will find this book offers a new way of using science, management and policy to make decisions. Finally, this volume can be used as a guide to set up workshops, seminars, or projects involving diverse people and perspectives.

Large-Scale Conservation in the Common Interest

IUCN's Protected Areas Management Categories, which classify protected areas according to their management objectives, are today accepted as the benchmark for defining, recording, and classifying protected areas. They are recognized by international bodies such as the United Nations as well as many national governments. As a result, they are increasingly being incorporated into government legislation. These guidelines provide as much clarity as possible regarding the meaning and application of the Categories. They describe the definition of the Categories and discuss application in particular biomes and management approaches.

Guidelines for Applying Protected Area Management Categories

Poverty, food insecurity, biodiversity and habitat loss are persistent global challenges that are further exacerbated by the impacts of climate change. These challenges are particularly hard felt in the tropical landscapes of the global South where tensions between local socio-economic and international

environmental commitments are pervasive. Due to the apparent failure of sectorial approaches to address such challenges, more holistic strategies are being increasingly promoted. Integrated landscape approaches are one such example; essentially a governance strategy that engages multiple stakeholders to reconcile societal and environmental objectives at the landscape scale to identify trade-offs and potential synergies for more sustainable and equitable land management. Integrated landscape approaches have been widely endorsed in the international and national policy arena, within academia, and in the discourse surrounding conservation and development funding. However, despite strong scientific theories and concepts, the implementation, and particularly evaluation and reporting, of integrated landscape approaches in the tropics remains poorly developed. The COLANDS initiative represents an explicit attempt to contribute towards the evidence base by operationalizing integrated landscape approaches in Ghana, Zambia and Indonesia. In this regard we aim to provide regular, honest reporting of progress. This book details the experiences of researchers engaged in these landscape-scale initiatives across the first two years of implementation. With dedicated chapters on current progress, biodiversity, methods and evaluation the book provides useful tools and resources for research and implementation. Furthermore, we consider the complex socio-political challenges associated with landscape approaches with chapters focussed on how to effectively engaging stakeholders and understanding the national policy environment. We then provide profiles of the sites in each of the three countries and describe the historical context, current status and potential for more integrated landscape governance. This book explores the techniques and strategies that can be deployed to improve the governance and management of land and natural resources and better reconcile conservation and development objectives in tropical landscapes undergoing rapid change.

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Operationalizing integrated landscape approaches in the tropics

Important Bird Areas and Important Plant Areas have already been identified in more than 170 countries. The Key Biodiversity Areas approach builds on the work done to date, in order to provide practical guidance to governments in identifying those sites which must be protected to ensure the future of both biodiversity and humanity.

JSST Conference on Recent Advances in Simulation of Complex Systems

This important and insightful book provides, for the first time, a broad presentation of ongoing research into public participation in landscape conservation, management and planning, following the 2000 European Landscape Convention which came into force in 2004. The book examines both the theory of participation and what lessons can be learnt from specific European examples. It explores in what manner and to what extent the provisions for participation in the European Landscape Convention have been followed up and implemented. It also presents and compares different experiences of participation in selected countries from northern, southern, eastern and western Europe, and provides a critical examination of public participation in practice. However, while the book's focus is necessarily on Europe, many of the conclusions drawn are of global relevance. The book provides a valuable

reference for researchers and advanced students in landscape policies and management, as well as for professionals and others interested in land-use planning and environmental management.

Identification and Gap Analysis of Key Biodiversity Areas

Deforestation is frequently a topic of discussion in the environmental arena, but it is not just the number of trees that matters; the quality of the forest is also important. Even where the forest area is stable or increasing, there are often rapid changes in its character. Natural forests are being replaced by plantations or by intensively managed forests. Around the world, forests are becoming younger and less diverse, in both species and structure; this has important impacts for biodiversity and also affects many human values. In this groundbreaking text, forest quality is discussed as a useful new concept in forest conservation and management. Three main assessment criteria are used: authenticity; environmental benefits; and social and economic benefits. The book describes a methodology and protocol for collecting and analysing data, and outlines in detail the approach required with each indicator. The authors advocate a landscape approach to assessment and demonstrate how assessment works through a series of case studies that show how this approach can be used in many ways to help forest conservation management. This hands-on manual is for professionals involved in forestry, conservation and resource management worldwide, and contains case study material from Europe, Asia, Africa and Latin America that demonstrates practical uses of the new 'landscape' approach to forest conservation. Published with IUCN and WWF

The European Landscape Convention

Conservation Planning: Shaping the Future is a collection of contributed chapters that show how working scientists develop conservation plans using the best available scientific methods, data, and technology. Bringing a conservation focus to land management and planning, the authors show how planners creating human developments can still preserve healthy ecosystems for native wildlife by protecting habitat for key species. The book includes discussions on umbrella species, terrestrial and aquatic habitat suitability, conservation linkages, population viability, site selection, land-use trends, climate-change trends, and decision making for long-term conservation planning. Conservation Planning: Shaping the Future is valuable for those interested in creating balanced and functional landscapes while preserving the natural environment.

Forest Quality

This book presents definitions, key concepts and projects in landscape research and related areas, such as landscape science and landscape ecology, addressing and characterising the international role, status, challenges, future and tools of landscape research in the globalised world of the 21st century. The book brings together views on landscapes from leading international teams and emerging authors from different scientific disciplines and regions of the globe. It describes approaches for achieving sustainability and for handling the multifunctionality of landscapes and includes international case studies demonstrating the great potential of landscape research to provide partial sustainable solutions while developing cultural landscapes and protecting semi-natural landscapes. It is intended for scientists from various disciplines as well as informed readers dealing with landscape policies, planning, evolution, management, stewardship and conservation.

Conservation Planning

This unique book is about landscape, sustainability and the practices of the professions which plan, design and manage landscapes at many scales and in many locations; urban, suburban and rural. Despite the ubiquity of 'sustainability' as a concept, this is the first book to address the relationship between landscape architecture and sustainability in a comprehensive way. Much in the book is underpinned by landscape ecology, in contrast to the idea of landscape as only appealing to the eye or aspiring cerebrally to be fine art. As this book argues, landscape is and must be much more than this; landscape architecture is about making places which are biologically wholesome, socially just and spiritually rewarding.

Current Trends in Landscape Research

This open access book traces the development of landscapes along the 414-kilometer China-Laos Railway, one of the first infrastructure projects implemented under China's Belt and Road Initiative

(BRI) and which is due for completion at the end of 2021. Written from the perspective of landscape architecture and intended for planners and related professionals engaged in the development and conservation of these landscapes, this book provides history, planning pedagogy and interdisciplinary framing for working alongside the often-opaque planning, design and implementation processes of large-scale infrastructure. It complicates simplistic notions of development and urbanization frequently reproduced in the Laos-China frontier region. Many of the projects and sites investigated in this book are recent "firsts" in Laos: Laos's first wildlife sanctuary for trafficked endangered species, its first botanical garden and its first planting plan for a community forest. Most often the agents and accomplices of neoliberal development, the planning and design professions, including landscape architecture, have little dialogue with either the mainstream natural sciences or critical social sciences that form the discourse of projects in Laos and comparable contexts. Covering diverse conceptions and issues of development, including cultural and scientific knowledge exchanges between Laos and China, nature tourism, connectivity and new town planning, this book also features nine planning proposals for Laos generated through this research initiative since the railway's groundbreaking in 2016. Each proposal promotes a wider "landscape approach" to development and deploys landscape architecture's spatial and ecological acumen to synthesize critical development studies with the planner's capacity, if not naive predilection, to intervene on the ground. Ultimately, this book advocates the cautious engagement of the professionally oriented built-environment disciplines, such as regional planning, civil engineering and landscape architecture, with the landscapes of development institutions and environmental NGOs.

Landscape and Sustainability

The establishment of ecological networks in Europe and greenways in America has required some of the most advanced applications of the principles of landscape ecology to land use planning. This book provides a thorough overview of recent developments in this emerging field, combining theoretical concepts of landscape ecology with the actual practice of landscape planning and management. In addition to biological and physical considerations important to biodiversity protection and restoration, equal weight is given to cultural and aesthetic issues to illustrate how sympathetic, sustainable land use policies can be implemented. Examples are given for large scale areas (Estonia and Florida) as well as regional areas such as Milano, Chicago and the Argentinian Yungas. This invaluable book will provide a wealth of information for all those concerned with biodiversity conservation through networks and greenways and their relevance to the planning process, whether researcher, land manager or policy maker.

Critical Landscape Planning During the Belt and Road Initiative

The book, showing virtuous examples of urban planning in Italy and Europe, exposes certain doubts and open questions: what is the new role of urban planning? What actions / rules are now achievable for the protection, planning and management of local-scale landscapes? The overall reflections gathered in the book contribute to suggest innovative visions about landscape planning at local scale, seen as first steps towards a more functional change of perspective. New landscapes are the result of local planning practices that no longer seem able to "understand" the current society through urban design. Public space and new urban centralities interact with the increasingly complex functions of social life and mark the distance from territorial values, relying less and less on physical relationships (economic and functional) and increasingly on symbolic and intangible relationships, as 'cultural identity'. Landscape is essential for the sustainable future of the urban and rural territory: the landscape quality is a factor of economic competitiveness and acts also as a factor of social cohesion and integration.

Ecological Networks and Greenways

Approach; Major ecosystem types, major habitat types, and ecoregions of LAC; Conservation status of terrestrial ecoregions of LAC; Biological distinctiveness of territorial ecoregions of LAC at different biogeographic scales results; Integrating biological distinctiveness and conservation status; Conservation assessment of mangrove ecosystems.

Landscape Planning at the Local Level

Currently considered a bridge between basic and applied ecology, landscape ecology occupies an important new niche in ecology, representing a good educational framework in the galaxy of the ecological sciences. Two possibilities exist to expand landscape ecology work. Both are important and not in conflict. In this

However, the broad spectrum of conceptual and spirit I have prepared this book, with the aim of methodological approaches has created a non summarizing the best theories, concepts, principles focused science strongly influenced by the more and methods in landscape ecology. It is an attempt dominant disciplines, such as landscape planning to reinforce the ecological research perspective, to and restoration, forest management, landscape consolidate principles and methods, validate proce architecture etc. dures and reconcile different positions, including The uncertain position of landscape ecology the geobotanic, animal and human perspectives. among the ecological disciplines is in contradiction The concept is very simple. I have no ambition with the general recognition that landscape is a spa to present new ideas and theories: I have worked to tial dimension in which important ecological create a tool mainly for classroom use but also processes occur, and landscape is becoming very appealing to a broad range of scientists and practi popular in many ecology-related fields, from plant tioners dealing with landscape ecology and its disease to animal behaviour. problems.

A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean

NEW YORK TIMES BESTSELLER For the first time ever, an international coalition of leading researchers, scientists and policymakers has come together to offer a set of realistic and bold solutions to climate change. All of the techniques described here - some well-known, some you may have never heard of - are economically viable, and communities throughout the world are already enacting them. From revolutionizing how we produce and consume food to educating girls in lower-income countries, these are all solutions which, if deployed collectively on a global scale over the next thirty years, could not just slow the earth's warming, but reach drawdown: the point when greenhouse gasses in the atmosphere peak and begin to decline. So what are we waiting for?

Principles and Methods in Landscape Ecology

Evidence is mounting that redwood forests, like many other ecosystems, cannot survive as small, isolated fragments in human-altered landscapes. Such fragments lose their diversity over time and, in the case of redwoods, may even lose the ability to grow new, giant trees. The Redwood Forest, written in support of Save-the-Redwood League's master plan, provides scientific guidance for saving the redwood forest by bringing together in a single volume the latest insights from conservation biology along with new information from data-gathering techniques such as GIS and remote sensing. It presents the most current findings on the geologic and cultural history, natural history, ecology, management, and conservation of the flora and fauna of the redwood ecosystem. Leading experts -- including Todd Dawson, Bill Libby, John Sawyer, Steve Sillett, Dale Thornburgh, Hartwell Welch, and many others -- offer a comprehensive account of the redwoods ecosystem, with specific chapters examining: the history of the redwood lineage, from the Triassic Period to the present, along with the recent history of redwoods conservation life history, architecture, genetics, environmental relations, and disturbance regimes of redwoods terrestrial flora and fauna, communities, and ecosystems aquatic ecosystems landscape-scale conservation planning management alternatives relating to forestry, restoration, and recreation. The Redwood Forest offers a case study for ecosystem-level conservation and gives conservation organizations the information, technical tools, and broad perspective they need to evaluate redwood sites and landscapes for conservation. It contains the latest information from ground-breaking research on such topics as redwood canopy communities, the role of fog in sustaining redwood forests, and the function of redwood burls. It also presents sobering lessons from current research on the effects of forestry activities on the sensitive faunas of redwood forests and streams. The key to perpetuating the redwood forest is understanding how it functions; this book represents an important step in establishing such an understanding. It presents a significant body of knowledge in a single volume, and will be a vital resource for conservation scientists, land use planners, policymakers, and anyone involved with conservation of redwoods and other forests.

Drawdown

The Redwood Forest