

# The Ebro River Basin The Handbook Of Environmental Chemistry

[River Basin Organizations in Water Diplomacy](#) The Mekong: A Socio-legal Approach to River Basin Development The Nile River Basin [The Ebro River Basin](#) Governing International Watercourses [The Paraná River Basin](#) The Zambezi River Basin Integrated River Basin Management through Decentralization Indus River Basin The Souss-Massa River Basin, Morocco [River Basin Management](#) [Catchment and River Basin Management](#) [Water, Food and Poverty in River Basins](#) Land and Hydropolitics in the Nile River Basin [River Basin Management in the Twenty-First Century](#) The Ganga River Basin: A Hydrometeorological Approach [River Basin Management](#) [The Niger River Basin](#) Drainage Basin Problems and Programs The Seine River Basin Managing Water Resources in Large River Basins [Notes on River Basins](#) [Integrated River Basin Governance](#) [The Ganges River Basin](#) Governing the Nile River Basin Cooperative River Basin Studies [The Yamuna River Basin](#) River Basin Planning Principles The Volta River Basin Strategies for River Basin Management River Basin Management [From Catchment Management to Managing River Basins](#) [Colorado River Basin Water Management](#) Irrigation and River Basin Management [Achievements and Challenges of Integrated River Basin Management](#) Water Management in Industrialised River Basins Multipurpose River Basin Development in China River Basin Modelling for Flood Risk Mitigation Flood Prevention and Drought Relief in Mekong River Basin The Omo-Turkana Basin

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Governing the Nile River Basin Dec 08 2020 The effective and efficient management of water is a major problem, not just for economic growth and development in the Nile River basin, but also for the peaceful coexistence of the millions of people who live in the region. Of critical importance to the people of this part of Africa is the reasonable, equitable and sustainable management of the waters of the Nile River and its tributaries. Written by scholars trained in economics and law, and with significant experience in African political economy, this book explores new ways to deal with conflict over the allocation of the waters of the Nile River and its tributaries. The monograph provides policymakers in the Nile River riparian states and other stakeholders with practical and effective policy options for dealing with what has become a very contentious problem—the effective management of the waters of the Nile River. The analysis is quite rigorous but also extremely accessible.

Water Management in Industrialised River Basins Dec 28 2019

[The Paraná River Basin](#) Jul 27 2022 This book provides insight into the hydrology, ecosystem services and management of water resources in the Paraná River basin, including the importance of water to the socio-economic development of the countries within the watershed. Running through Brazil, Paraguay and Argentina, the Paraná River and its watershed is home to some of South America's major population centers as well as important ecosystems threatened by development. At the same time, the river is a major resource driving the economies of the nations within its boundaries. This volume examines the impacts of environmental degradation, and the tradeoffs between the energy sector and the maintenance of ecosystem services. In particular, it focuses on the threats from development to sensitive ecosystems within the basin and the challenges of transboundary management of water resources. In addition to presenting wider perspectives on water management, the volume specifically covers water infrastructure, aquatic ecosystems, water quality, geomorphological influences and the impact of climate change. Finally, by assessing each country's current status in meeting the Sustainable Development Goals this volume provides a timely analysis as national governments within the basin are becoming increasingly concerned about the sustainability of the freshwater ecosystems within the Paraná River basin. This book will be of great interest to students and scholars of water and natural resource management, environmental policy, sustainable development and Latin American studies. It will also be relevant to water management professionals.

Managing Water Resources in Large River Basins Apr 11 2021 Management of water resources in large rivers basins typically differs in important ways from management in smaller basins. While in smaller basins the focus of water resources

management may be on project implementation, irrigation and drainage management, water use efficiency and flood operations; in larger basins, because of the greater complexity and competing interests, there is often a greater need for long-term strategic river basin planning across sectors and jurisdictions, and considering social, environmental, and economic outcomes. This puts a focus on sustainable development, including consumptive water use and non-consumptive water uses, such as inland navigation and hydropower. It also requires the consideration of hard or technical issues—data, modeling, infrastructure—as well as soft issues of governance, including legal frameworks, policies, institutions, and political economy. Rapidly evolving technologies could play a significant role in managing large basins. This Special Issue of *Water* traverses these hard and soft aspects of managing water resources in large river basins through a series of diverse case studies from across the globe that demonstrate recent advances in both technical and governance innovations in river basin management.

**The Nile River Basin** Oct 30 2022 The Nile is the world's longest river and sustains the livelihoods of millions of people across ten countries in Africa. This book provides unique and up-to-date insights on agriculture, water resources, governance, poverty, productivity, upstream-downstream linkages, innovations, future plans and their implications.

**The Ganga River Basin: A Hydrometeorological Approach** Sep 16 2021 This book presents an overview of the hydrometeorological and hydrological studies and assists in tackling challenges posed by climate and land use land cover changes. The Ganga River is one of the major living streams on the planet earth and very important river system in India. This holy river is a lifeline for approximately five hundred million people. In the last few decades, River Ganges has been subjected to tremendous pressures with respect to both water quantity and water quality. This situation, already one of the alarming magnitudes, has been further provoked by hydrometeorological changes resulting in droughts, floods and reduced groundwater levels and river flows in addition to the poor river health. Thus, it is imperative to assess the various complexities and possible solutions for better management of River Ganges. This book is a valuable addition to the literature and contributes to research on River Ganges which will help better planning and management of Ganga river basin. The hydrological and hydrometeorological aspects covered in this book help practitioners, researchers, policymakers and other stakeholders.

**The Seine River Basin** May 13 2021 This open access book reviews the water-agro-food and socio-eco-system of the Seine River basin (76,000 km<sup>2</sup>), and offers a historical perspective on the river's long-term contamination. The Seine basin is inhabited by circa 17 million people and is impacted by intensive agricultural practices and industrial activities. These pressures have gradually affected its hydrological, chemical and ecological functioning, leading to a maximum chemical degradation between the 1960s and the 1990s. Over the last three decades, while major water-quality improvements have been observed, new issues (e.g. endocrine disruptors, microplastics) have also emerged. The state of the Seine River network, from the headwaters to estuary, is increasingly controlled by the balance between pressures and social responses. This socio-ecosystem provides a unique example of the functioning of a territory under heavy anthropogenic pressure during the Anthropocene era. The achievements made were possible due to the long-term PIREN Seine research program, established in 1989 and today part of the French socio-ecological research network "Zones Ateliers", itself part of the international Long-term Socio-economic and Ecological Research Network (LTSER). Written by experts in the field, the book provides an introduction to the water budget and the territorial metabolism of the Seine basin, and studies the trajectories and impact of various pollutants in the Seine River. It offers insights into the ecological functioning, the integration of agricultural practices, the analysis of aquatic organic matter, and the evolution of fish assemblages in the Seine basin, and also presents research perspectives and approaches to improve the water quality of the Seine River. Given its scope, it will appeal to environmental managers, scientists and policymakers interested in the long-term contamination of the Seine River.

**River Basin Management** Feb 19 2022 Many of the challenges facing farmers and human communities from hydrographical basins are not new. But, due to the fact that the nature and extents of the problems vary from one region to another and from one basin to another, the responses are highly diversified. There is no generally valid solution for all the problems. However, in addressing issues on ensuring the prevention or mitigation of the destructive consequences of flood damage or prolonged drought as for the optimal use of water by consumers, sustainable basin land use, biodiversity conservation, and environment protection as well, fourteen specialists and their colleagues present the state of the art in these important matters and new possible solutions to solve, identified from the scientific investigations undertaken.

**The Yamuna River Basin** Oct 06 2020 This book is designed to provide concepts, methodologies, and approaches for river basin studies with respect to water resources and environment. The book is not limited to the Yamuna River basin, but will help in the study of various other river basins for integrated water resources management. The book covers the essential components of integrated water resources management, including analysis of climatic variables, climate change detection, analysis of natural resources, geology, geomorphology, socio-economics, water budgeting, flood estimation, river pollution, etc. Furthermore, the book addresses recent issues pertaining to water quality, water quality indices, environmental flows, water resources management through cropping pattern change, etc. along with methodologies and application to the Yamuna River system. However, the main objective of this book is to address important issues of water resources management of river basins. Audience: The manuscript has been designed so that it can be used as a reference for river basin studies. The book

will be useful to engineers, agricultural scientists, environmentalists, planners, managers, and administrators who are concerned with water resources.

**Flood Prevention and Drought Relief in Mekong River Basin** Sep 24 2019 This book provides an overview of flood and drought in the Lower Mekong Basin, reviews the characteristics of flood and drought, and details structural and non-structural measures for flood and drought mitigation employed in the basin countries, as well as their flood and drought mitigation capacity. Given its scope, the book offers a valuable resource for researchers and engineers in the field of transboundary rivers, especially those with an interest in the Lower Mekong River.

**Multipurpose River Basin Development in China** Nov 26 2019 Annotation Examines China's development plans for seven main river basins and discusses the tremendous problems the country faces in scaling down water projects to match reduced funding. This report examines China's development plans for seven main river basins and discusses the tremendous problems the country faces in scaling down water projects to match reduced funding. It also reviews the need to link water development to changes in the macroeconomy and the management of water institutions. Water management specialists describe the benefits of an integrated system for developing river basins and suggest changes in China's water policies. They recommend actions to improve river basin commissions, make management more efficient, create a cost recovery system, enforce higher environmental standards, and provide resettlement and job training.

**The Mekong: A Socio-legal Approach to River Basin Development** Nov 30 2022 An international river basin is an ecological system, an economic thoroughfare, a geographical area, a font of life and livelihoods, a geopolitical network and, often, a cultural icon. It is also a socio-legal phenomenon. This book is the first detailed study of an international river basin from a socio-legal perspective. The Mekong River Basin, which sustains approximately 70 million people across Cambodia, China, Laos, Myanmar, Thailand and Vietnam, provides a prime example of the socio-legal complexities of governing a transboundary river and its tributaries. The book applies its socio-legal analysis to bring a fresh approach to understanding conflicts surrounding water governance in the Mekong River Basin. The authors describe the wide range of uses being made of legal doctrine and legal argument in ongoing disputes surrounding hydropower development in the Basin, putting to rest lingering caricatures of a single, "ASEAN" way of navigating conflict. They call into question some of the common assumptions concerning the relationship between law and development. The book also sheds light on important questions concerning the global hybridization or crossover of public and private power and its ramifications for water governance. With current debates and looming conflicts over water governance globally, and over shared rivers in particular, these issues could not be more pressing.

[Notes on River Basins](#) Mar 11 2021

**The Ebro River Basin** Sep 28 2022 The Ebro is a typical Mediterranean river characterized by seasonal low flows and extreme flush effects, with important agricultural and industrial activity that has caused heavy contamination problems. This volume deals with soil-sediment-groundwater related issues in the Ebro river basin and summarizes the results generated within the European Union-funded project AquaTerra. The following topics are highlighted: Hydrology and sediment transport and their alterations due to climate change, aquatic and riparian biodiversity in the Ebro watershed, occurrence and distribution of a wide range of priority and emerging contaminants, effects of chemical pollution on biota and integration of climate change scenarios with several aspects of the Ebro's hydrology and potential impacts of climate change on pollution. The primary objective of the book is to lay the foundation for a better understanding of the behavior of environmental pollutants and their fluxes with respect to climate and land use changes.

**Governing International Watercourses** Aug 28 2022 In this contribution to the academic and policy debates surrounding the management and governance of shared natural resources, the focus is placed on River Basin Organizations as the key institutions for managing internationally shared water resources. The book includes advice to policy makers based on worldwide analysis, and three detailed case studies from three continents: the Senegal (West Africa), Mekong (South-east Asia) and Danube (Europe) rivers.

**The Ganges River Basin** Jan 09 2021 The Ganges is one of the most complex yet fascinating river systems in the world. The basin is characterized by a high degree of heterogeneity from climatic, hydrological, geomorphological, cultural, environmental and socio-economic perspectives. More than 500 million people are directly or indirectly dependent upon the Ganges River Basin, which spans China, Nepal, India and Bangladesh. While there are many books covering one aspect of the Ganges, ranging from hydrology to cultural significance, this book is unique in presenting a comprehensive interdisciplinary overview of the key issues and challenges facing the region. Contributors from the three main riparian nations assess the status and trends of water resources, including the Himalayas, groundwater, pollution, floods, drought and climate change. They describe livelihood systems in the basin, and the social, economic, geopolitical and institutional constraints, including transboundary disputes, to achieving productive, sustainable and equitable water access. Management of the main water-use sectors and their inter-linkages are reviewed, as well as the sustainability and trade-offs in conservation of natural systems and resource development such as for hydropower or agriculture.

[Achievements and Challenges of Integrated River Basin Management](#) Jan 27 2020 Integrated river basin management is an

approach focusing on the development and management of land and water resources in a coordinated manner with the primary aim to ensure society development, which is well balanced from the environmental, economic, and social points of view. It is a complex approach, including all aspects of water resource management (water and aquatic ecosystem protection, disaster management, and water use) and covering a wide range of disciplines (e.g., hydrology, ecology, environmental management, and economy), cross-cutting issues (climate change, data sharing, and stakeholder involvement), and approaches (river basin management plans preparation, water-food-energy-ecosystems nexus assessment, science-policy integration, and transboundary cooperation). This book provides a comprehensive overview of achievements and challenges associated with the implementation of the approach throughout the world.

River Basin Organizations in Water Diplomacy Jan 01 2023 Will tensions and disputes among states sharing international water courses and lakes turn into active conflicts? Addressing this question, the book shows that these concerns are more prominent due to the locations and underlying political dynamics of some of these large rivers and the strategic interests of major powers. Written by a combination of leading practitioners and academics, this book shows that states are more prone to cooperate and manage their transboundary issues over the use of their common water resources through peaceful means, and the key institutions they employ are international river basin organizations (RBOs). Far from being mere technical institutions, RBOs are key mechanisms of water diplomacy with capacity and effectiveness varying on four key interrelated factors: their legal and institutional development, and the influence of their technical and strategic resources. The basins analyzed span all continents, from both developed and developing basins, including the Columbia, Great Lakes, Colorado, Senegal, Niger, Nile, Congo, Jordan, Helmand, Aral Sea, Mekong, Danube and Rhine. Contributing to the academic discourse on transboundary water management and water conflict and cooperation, the book provides insights to policy-makers on which water diplomacy engagements can be successful, the strengths to build on and the pitfalls to avoid so that shared water resources are managed in a cooperative, sustainable and stable way.

River Basin Management in the Twenty-First Century Oct 18 2021 Worldwide development of agriculture and industry creates burgeoning demands on natural resources. Management of the rivers and the surrounding landscape is one of the important tasks for today and for the foreseeable future. Lessons learned from centuries of management (and mismanagement) have been distilled into principles and practices which form the subject matter for this book. It provides both a global perspective and an entrée to the special problems associated with management of transboundary rivers.

Irrigation and River Basin Management Feb 28 2020 With increasing water scarcity, there is greater pressure to re-allocate water from agriculture to other uses, and to put in place institutional arrangements to promote higher value uses of water. Based on research by the International Water Management Institute, which reviewed developed and developing countries around the world, this book describes and applies functional theory of river basin management, based on the idea that there is a minimum set of functions that must be carried out for successful river basins.

The Volta River Basin Aug 04 2020 Socioeconomic status, trends and drivers of change / Shashidhara Kolavalli and Timothy O. Williams -- Surface water resources of the Volta Basin / Marloes L. Mul, Raymond A. Kasei and Matthew McCartney -- Groundwater resources of the Volta Basin / Emmanuel Obuobie, Boubacar Barry and William Agyekum -- Climate variability and change over the Volta River Basin / Mouhamadou B. Sylla, Frank O. Annor, Raymond A. Kasei and Mamadou L. Mbaye -- Managing floods and droughts / Raymond A. Kasei, Barnabas Amisigo and Marloes L. Mul -- Poverty, vulnerability and livelihoods in the Volta Basin : a gendered analysis / Amy Sullivan, Elsie Odonkor and Noline de Haan -- Water governance in the Volta Basin / Ben Ampomah, Winston Andah and Charles Biney -- Improving agriculture and food security in the Volta Basin / Augustine Ayantunde, Pamela G. Katic, Olufunke Cofie and Edward K. Abban -- Urban and industrial development / Daniel Van Rooijen, Ben Ampomah, Josiane Nikiema, Yacouba Noël Coulibaly and Lydie Yiougo -- Water-food-energy nexus and hydropower development / Emmanuel O. Bekoe, Winston Andah, Frederick Y. Logah and Bedru B. Balana -- Ecosystem services in the Volta Basin / Fred Kizito and Bedru B. Balana -- Environmental flow requirements in the Volta Basin / Marloes L. Mul and Yongxuan Gao -- Water quality and public health / Chris Gordon, Adelina Mensah, Josiane Nikiema and Pay Drechsel -- Sustainable agricultural intensification in the Volta River Basin / Timothy O. Williams, Jennie Barron and Olufunke Cofie -- Simulating current and future Volta Basin water development scenarios / Aditya Sood, Ousmane Seidou, Gerald Forkuor, Frank O. Annor and Matthew McCartney

From Catchment Management to Managing River Basins May 01 2020 From Catchment Management to Managing River Basins: Science, Technology Choices, Institutions and Policy synthesizes key scientific facts crucial for catchment assessment, planning and river basin water accounting. The book presents extensive reviews of international literature on catchment hydrology, forest hydrology and other hydrological processes, such as groundwater-surface water interactions. It discusses not only the science of catchment assessment and planning, but also the catchment planning process. It documents several of the positive international experiences with integrated catchment management and integrated basin management, distilling key learnings. Case studies from India and other parts of South Asia are also included, along with new pilot studies. Finally, the book discusses the theoretical and operational aspects of integrated catchment management and integrated water management in river basins using international best practices and case studies. Discusses the theoretical nuances of scale

effects in hydrology and land-use hydrology interactions Focuses on managing water in a situation in which water has become scarce Provides a theoretical discussion on water accounting procedures that is followed by an application of the methodology and tools in real-life case studies in two river basins of India Presents applications of the concept of integrated water resources management for developing a WRM plan for an Indian river basin

The Omo-Turkana Basin Aug 23 2019 This book provides a comprehensive examination of water resource management in the Omo-Turkana Basin, linking together biophysical, socioeconomic, policy, institutional and governance issues in a solutions-oriented manner. The Omo-Turkana Basin is one of the most important lake basins in Africa, and despite the likely transboundary impacts associated with the management of dams, it is the largest lake basin in Africa without a cooperative water agreement. This volume provides a foundation for integrated decision-making in the management of development in the Lake Turkana Basin. Chapters cover water-related conditions, hydropower, agriculture, ecosystems, resilience and transboundary governance. The final chapter proposes ways forward in light of the potential benefits that can be achieved through cooperation, and practical realities that cooperation is slow and may take time to achieve. This book will be of great interest to students and scholars of water and natural resource management, environmental policy, sustainable development and African studies. It will also be relevant to water management professionals.

Catchment and River Basin Management Jan 21 2022 The central focus of this volume is a critical comparative analysis of the key drivers for water resource management and the provision of clean water – governance systems and institutional and legal arrangements. The authors present a systematic analysis of case study river systems drawn from Australia, Denmark, Germany, the Netherlands, UK and USA to provide an integrated global assessment of the scale and key features of catchment management. A key premise explored is that despite the diversity of jurisdictions and catchments there are commonalities to a successful approach. The authors show that environmental and public health water quality criteria must be integrated with the economic and social goals of those affected, necessitating a 'twin-track' and holistic (cross-sector and discipline) approach of stakeholder engagement and sound scientific research. A final synthesis presents a set of principles for adaptive catchment management. These principles demonstrate how to integrate the best scientific and technical knowledge with policy, governance and legal provisions. It is shown how decision-making and implementation at the appropriate geographic and governmental scales can resolve conflicts and share best sustainable practices.

Indus River Basin Apr 23 2022 Indus River Basin: Water Security and Sustainability provides a comprehensive treatment of water-related issues within the Indus River basin. Each chapter is written by an expert in the field, hence this book serves as a single, holistic source covering the whole region, not just a single country. Many of the challenges faced by this region are trans-boundary issues, especially within the context of climate change and water scarcity. Topics covered include extreme engineering and water resource management (one of the largest irrigation systems in dry to semi-desert conditions), social sciences (population dynamics linked to water resources) and political sciences. As such, this book is relevant and important to all researchers interested in these issues. Includes detailed chapters provided by specialists in each different field as compiled by well experienced editors Presents work from related fields across the Indus basin and makes them easily accessible on one single place Shows the Indus River as a type case and shares issues relevant to other locations across the world

Water, Food and Poverty in River Basins Dec 20 2021 Conventional wisdom says that the world is heading for a major water crisis. By 2050, global population will increase from 7 billion to a staggering 9.5 billion and the demands this will place on food and water systems will inevitably push river basins over the edge. The findings from this book present a different picture. While it is convenient to visualize an inevitable global water and food crisis in which increasing demands result in increasing poverty, food insecurity and conflict, the reality is far more nuanced and revolves around the politics of equitable and sustainable development of resources. The first part of this book provides detailed insight into conditions of water flows within nine river basins. In the second part, authors summarize and re-analyze the outcome of the nine basins, providing a coherent global picture of water, water productivity and development. They assess the impacts of variations of these attributes on development and approaches for poverty alleviation, and explore the institutional factors that support or obstruct change. How people will manage river systems while protecting vital ecosystem functions will make the difference between catastrophe and survival. As Prof Asit Biswas points out, "... the world is facing a water crisis not because of physical scarcity of water but because of poor management practices in nearly all countries of the world." The book is based on the four years (2006-2010) of extensive research into the state of ten of the world's major river basins carried out under the CGIAR Challenge Program for Water and Food's Basin Focal Project. This book was published as a special issue of *Water International*.

Integrated River Basin Governance Feb 07 2021 *Integrated River Basin Governance - Learning from International Experience* is designed to help practitioners implement integrated approaches to river basin management (IRBM). It aims to help the coming generation of senior university students learn how to design IRBM and it provides current researchers and the broader water community with a resource on river basin management. Drawing on both past and present river basin and valley scale catchment management examples from around the world, the book develops an integration framework for river

basin management. Grounded in the theory and literature of natural resources management and planning, the thrust of the book is to assist policy and planning, rather than extend knowledge of hydrology, biophysical modelling or aquatic ecology. Providing a classification of river basin organizations and their use, the book also covers fundamental issues related to implementation: decision-making, institutions and organizations, information management, participation and awareness, legal and economic issues, integration and coordination processes, building human capacity. Integrated River Basin Governance focuses on the social, economic, organizational and institutional arrangements of river basin management. Methods are outlined for implementing strategic and regional approaches to river basin management, noting the importance of context and other key elements which have been shown to impede success. The book includes a range of tools for river basin governance methods, derived from real life experiences in both developed and developing countries. The successes and failures of river basin management are discussed, and lessons learned from both are presented. The ebook for this title is available to download for free on the WaterWiki.

Colorado River Basin Water Management Mar 30 2020 Recent studies of past climate and streamflow conditions have broadened understanding of long-term water availability in the Colorado River, revealing many periods when streamflow was lower than at any time in the past 100 years of recorded flows. That information, along with two important trends—a rapid increase in urban populations in the West and significant climate warming in the region—will require that water managers prepare for possible reductions in water supplies that cannot be fully averted through traditional means. Colorado River Basin Water Management assesses existing scientific information, including temperature and streamflow records, tree-ring based reconstructions, and climate model projections, and how it relates to Colorado River water supplies and demands, water management, and drought preparedness. The book concludes that successful adjustments to new conditions will entail strong and sustained cooperation among the seven Colorado River basin states and recommends conducting a comprehensive basinwide study of urban water practices that can be used to help improve planning for future droughts and water shortages. Cooperative River Basin Studies Nov 06 2020

River Basin Management Jun 01 2020 In recent years there has been growing worldwide concern about a wide range of issues relating to the management of riverine basins. Significant advances have now been made in the development and application of hydroinformatics software tools, integrated within management information systems, to ensure that efficient and cost-effective environmental management and engineering decisions are made. Presenting contributions from the First International Conference on River Basin Management, this book marks the increasing academic and professional interest being shown in this field.

The Zambezi River Basin Jun 25 2022 The Zambezi river is the fourth longest in Africa, crossing or bordering Zambia, Angola, Namibia, Botswana, Zimbabwe and Mozambique. The river basin is widely recognised as one of the most important basins in southern Africa and is the focus of contested development, including water for hydropower and for agriculture and the environment. This book provides a thorough review of water and sustainable development in the Zambezi, in order to identify critical issues and propose constructive ways forward. The book first reviews the availability and use of water resources in the basin, outlines the basin's economic potential and highlights key concerns related to climate vulnerability and risk. Focus is then devoted to hydropower and the water-energy-food (WEF) nexus, sustainable agricultural water management, and threats and opportunities related to provision of ecosystem services. The impact of urbanisation and water quality is also examined, as well as ways to enhance transboundary water cooperation. Last, the book assesses the level of water security in the basin, and provides suggestions for achieving Sustainable Development Goal (SDG) 6. Throughout, emphasis is placed on entry points for basin-level management to foster improved paths forward.

Strategies for River Basin Management Jul 03 2020

The Souss-Massa River Basin, Morocco Mar 23 2022 This volume offers a comprehensive analysis of the water resources in the Souss-Massa river basin in southwestern Morocco and provides novel water-management approaches to narrow the gap between supply and demand for water. It evaluates conventional water resources—surface water and groundwater—and discusses in detail rainfall harvesting into dams along the Souss and Massa wadis. Further, it explores topics including the geology of the aquifer; the risk of over exploitation; alternative water resources, such as desalinated seawater and treated domestic wastewater, as well as management approaches like Data Development Analysis and the SALTMED model. With a focus on linking scientific research to practical applications and the demands of agriculture and associated agro-industry, urbanization and tourism, which compete for the limited water resources, the book appeals to environmental scientists, geologists, engineers and environmental managers.

River Basin Management Aug 16 2021 This book addresses recent advances in the field of river systems. Chapters cover a wide range of topics including artificialization of rivers and banks, technical aspects of flood and sediment dynamics, physical processes and institutional vulnerabilities, watershed management and collaborative governance, water quality analysis and protection measures, acquisition and measurement of data, statistical and econometric procedures, adaptation and restoration measures, rehabilitation and sustainability of riparian ecosystems, and strategies to improve the ecological functions of riparian areas. All chapters contribute relevant information and useful content for scientists and other readers

interested or concerned about the lack of adequate management actions and implementation of appropriate measures and protections, or their ineffectiveness in containing vulnerabilities and ecological sustainability of river systems.

The Niger River Basin Jul 15 2021 The Niger River Basin, home to 100 million people, is a vital yet complex asset for West and Central Africa. It is the continent's third largest river basin, traversing nine countries -Benin, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Guinea, Mali, Niger, and Nigeria. The River embodies both these nations' livelihoods and their geopolitics. It is not simply water but rather an origin of identity, a route for migration and commerce, a source of conflict, and a catalyst for cooperation. Cooperation among decision-makers and users is crucial to address the threats to water resources. The Niger.

Integrated River Basin Management through Decentralization May 25 2022 Drawing upon a worldwide survey of river basin organizations and in-depth studies of eight river basins in a variety of locations around the globe, this book examines how institutional arrangements for managing water resources at the river-basin level have been designed and implemented, the impetus for these arrangements, and what institutional features appear to be associated with greater or lesser success in river basin management.

Drainage Basin Problems and Programs Jun 13 2021

River Basin Planning Principles Sep 04 2020

River Basin Modelling for Flood Risk Mitigation Oct 25 2019 Flooding accounts for one-third of natural disasters worldwide and for over half the deaths which occur as a result of natural disasters. As the frequency and volume of flooding increases, as a result of climate change, there is a new urgency amongst researchers and professionals working in flood risk management. River Basin Modelling for Flood Risk Mitigation brings together thirty edited papers by leading experts who gathered for the European Union's Advanced Study Course at the University of Birmingham, UK. The scope of the course ranged from issues concerning the protection of life, to river restoration and wetland management. A variety of topics is covered in the book including climate change, hydro-informatics, hydro-meteorology, river flow forecasting systems and dam-break modelling. The approach is broad, but integrated, providing an attractive and informative package that will satisfy researchers and professionals, while offering a sound introduction to students in Engineering and Geography.

Land and Hydropolitics in the Nile River Basin Nov 18 2021 The Nile River Basin supports the livelihoods of millions of people in Egypt, Ethiopia, Sudan and Uganda, principally as water for agriculture and hydropower. The resource is the focus of much contested development, not only between upstream and downstream neighbours, but also from countries outside the region. This book investigates the water, land and energy nexus in the Nile Basin. It explains how the current surge in land and energy investments, both by foreign actors as well as domestic investors, affects already strained transboundary relations in the region and how investments are intertwined within wider contexts of Nile Basin history, politics and economy. Overall, the book presents a range of perspectives, drawing on political science, international relations theory, sociology, history and political ecology.