The vulnerability of water resources due to climate change and human activities is globally increasing. The phenomenon of hydrological change is complicated because of the combinations and interactions between natural climate fluctuation, global warming and human activities including changes in land utilization. The impact areas of hydrological change are various.

This proceedings book presents contributions to the International Conference on Critical Thinking in the Sustainable Rehabilitation and Risk Management of the Built Environment - held in Bucharest, Romania, November 7-9, 2019. It mirrors outcomes in fundamental and applied research covering a broad palette of competences like observations, analysis, interpretation, evaluation, problem-solving and decision making. The book sets up eight chapters related to rehabilitation and risk in the built environment. Each chapter starts with a broad state-of-the-art presentation comprising the latest ideas and methods in the field assessing and asserting synthesized levels of research, development and novelty through a critical thinking process. The authors of the eight presentations are partners in the E+ Programme for Strategic Partnerships Rehabilitation of the Built Environment in the Context of Smart City and Sustainable Development Concepts for Knowledge Transfer and Lifelong Learning (RE-BUILT).

Urban flooding is an increasing challenge today to the expanding cities and towns of developing countries. This Handbook is a state-of-the-art, user-friendly operational guide that shows decision makers and specialists how to effectively manage the risk of floods in rapidly urbanizing settings—and within the context of a changing climate.

Indonesia’s history of disasters, and particularly the Indian Ocean Tsunami of 2004, triggered numerous changes not only to Indonesian disaster management and its associated legislative frameworks, but also to its community-based initiatives. The citizens face many challenges from diverse, complex and evolving hazards, emanating from geological, terrestrial, hydro-meteorological hazards, and climate change. This book discusses several ways in which strategies utilizing environmental, livelihood, social, and cultural resources can be used to develop effective disaster risk reduction designed to support social, cultural, and economic life in Indonesia. A key focus is understanding the capabilities, processes and relationships of everyday life, and developing them to ensure that disaster reduction strategies can be incorporated into mainstream community life in urban, rural, and island settings. The following topics are featured: disaster reduction and developing an Indonesian perspective; the adaptation by farmers in dealing with climate change; promoting adaptive capacity of coastal communities to climate change; community resilience to the Mount Merapi volcanic disaster; community vulnerability to health and water hazards in Semarang; the mobility and livelihood of small islands; the national climate change perspective into flood management practice; food security, carbon management and climate risk reduction; water management strategy for resilience; cultural heritage to increase community resilience; local wisdom and community resilience; cultural drivers of disaster risk reduction behavior and the case of Pulau Simeulue; rethinking resilience, culture and disasters; community disaster recovery after the 2010 Mount Merapi eruption; seizing opportunities for change towards sustainability during disaster recovery and the case of Aceh, Indonesia; and the overall disaster reduction in Indonesia and moving forward. The purpose of this text is to highlight the importance of strategies that encompass the local, regional, and national levels of analysis which seeks to ensure all stakeholders play important roles in the development and implementation of disaster risk reduction strategies. This book will serve as an outstanding resource for practitioners and academics to adopt an integrative approach to develop the functional beliefs, knowledge, relationships and actions that Indonesia and its citizens need to thrive and prosper in increasingly hazardous times.

Understanding Sea-Level Rise and Variability identifies the major impacts of sea-level rise, presents up-to-date assessments of past sea-level change, thoroughly explores all of the factors contributing to sea-level rise, and explores how sea-level extreme events might change. It identifies what is known in each area and what research and observations are required to reduce the uncertainties in our understanding of sea-level rise so that more reliable future projections can be made. A synthesis of findings provides a concise summary of past, present and future sea-level rise and its impacts on society. Key Features: Book includes contributions from a range of international sea level experts Multidisciplinary Four color throughout Describes the limits of our understanding of this crucial issue as well as pointing to directions for future research The book is for everyone interested in sea-level rise and its impacts, including policy makers, research funders, students, coastal managers and engineers. Additional resources for this book can be found at: http://www.wiley.com/go/church/sealevel.

Food and water security issues are regarded as inextricably linked to poverty, health, peace and prosperity. People who are well fed are also people with the means to change their situation. However, this is still an immense challenge for Asia especially in the global environment perspective in the 21st century. People around the globe will be facing a combination of problems concerning both environmental as well as social changes; therefore, the policy for future food and water security has to be upgraded in an integrated and holistic way. The need to put into perspective the ever-mounting body of new information on environmental security of food and water issues in Asia beyond the boundaries of separate disciplines provided the impetus for the development of this book. It is a compilation of selected articles from two international symposiums entitled “Food and Water Sustainability in China 2007” and “Food and Water Sustainability in Asia 2008” which were held in Macau, China. Eminent scientists/researchers from different parts of Asia spoke at the symposium on topics such as the challenges in sustainable water resource management; future projection of development strategies for sheries; increased yield of food grains by rainwater management in arid lands; multi-functional role of rice paddy area for food and water sustainability, the impact of biofuel production on food security, reclamation of wastewater for sustainable urban water use, heavy metal removal from contaminated soil and water, and adaptation strategies to cope with the climate change issues for food and water.
Groundwater is an indispensable resource in many parts of the world, where it supports domestic water supply, irrigated agriculture and industry. It increased, and often intensive, use during the last half century has created problems and raised concerns regarding the potential depletion of local aquifers, water quality degradation and various geo...

This book presents a concise summary of advanced groundwater treatment methods, especially 'pump-and-treat' and 'permeable reactive barriers'. The topics include heavy metal removal, with special emphasis on uranium, and sorption, one of the basic mechanisms in groundwater remediation.

This book is a unique, transdisciplinary summary of the state of the art of disaster risk reduction (DRR) in Indonesia. It provides a comprehensive overview of disaster risk governance across all levels and multiple actors including diverse perspectives from practitioners and researchers on the challenges and progress of DRR in Indonesia. The book includes novel and emerging topics such as the role of culture, religion, psychology and the media in DRR. It is essential reading for students, researchers, and policy makers seeking to understand the nature and variety of environmental hazards and risk patterns affecting Indonesia. Following the introduction, the book has four main parts of key discussions. Part I presents disaster risk governance from international to local level and its integration into development sectors. Part II focuses on the roles of different actors for DRR. Part III discusses emerging issues in DRR research and practice, and Part IV puts forward variety of methods and studies to measure hazards, risks, and community resilience.

Groundwater contributes to the sustainable development of many Asian cities by providing water for domestic, industrial and agricultural uses and regulating ecosystem flows. However, groundwater has not always been properly managed, which often has resulted in depletion and degradation of the resource. Groundwater Environment in Asian Cities presents the up-to-date scientific knowledge on groundwater environment in fourteen Asian cities using Driver-Pressure-State-Impact-Response (DPSIR) framework. In detail the book presents the facts and figures of groundwater dependency, problems related to groundwater over exploitation, implementation of various policy instruments and management practices and their results in selected fourteen Asian cities, namely; Bandung (Indonesia), Bangkok (Thailand), Beijing (China), Bishkek (Kyrgyzstan), Chittaranj (Nepal), Delhi (India), Dili (East Timor), Ho Chi Minh (Vietnam), Hyderabad (India), Khulna (Bangladesh), Lahore (Pakistan), Seoul (South Korea), Tokyo (Japan), and Yangon (Myanmar). The book provides the one-stop platform to get sufficient details about groundwater aquifers, hydrogeology, groundwater status, impacts on groundwater environment and responses (technology, policy, institutional, etc.) deployed in the case study cities, and therefore, provides a snapshot of Asian groundwater environments. The theoretical background of the topics discussed along with the case studies help the readers understand the similarities and differences about the status of groundwater development and use in each city. In addition, the information in the book will serve as a baseline for other research such as mitigation of groundwater related problems (e.g., land subsidence), impact of climate change on groundwater, and importance of groundwater for implementing sustainable development goals in future. Presents a framework for evaluating groundwater environment in urban environments includes case studies and local examples from a broad geographical range of urban environments from virtually every region in Asia, including Bandung, Bangkok, Delhi, Bishkek, Beijing and Tokyo. The book will be a valuable resource for groundwater advisories in the scientific, decision-making and end-user communities, particularly for understanding and assessing state of groundwater resources in the region as well as learning from the responses practiced so far (Dr. Linda Anne Stevenson, APN)

The contents in this book are very much useful for informed decision-making for protecting groundwater environment and therefore contributes in making invisible visible (Dr. Neno Kukuric, IGRAC) With concrete examples and lessons for readers, this book responds to the call for comprehensive research and studies, the implementation of new science-based methodologies and endorsement of principles for groundwater resources management and cities (Dr. Aureli Alice, UNESCO-IHP). As a "Regional Hub for Groundwater Management in the Asia Pacific Region", IGES finds this book as a very much useful reference for knowledge hub partners, groundwater managers, academic institutions, research scholars, and international organizations working in the areas of groundwater in Asia and beyond (Dr. Hideyuki Mori, IGES)

This new edition of the Global Casino has been fully updated and redesigned in colour. It is the essential introduction to environmental issues linking the physical environment to the political, social and economic contexts in which these issues occur.

This book aims to come up with views to address the queries of planners, policymakers, and general people for water resources management under uncertainty of climate change, including examples from Asia and Europe with successful adaptive measures to change the challenge of climate change into opportunities. The availability of clean water is a major global challenge for the future due to a rapidly growing population and urbansisation where further stress in water resources is expected due to the impact of climate change. The wide range of impacts includes for example changes in hydrology, moisture availability, spatial and temporal variations in magnitude of streamflow, and dwindling of water levels with adverse effect on wetlands and ecosystem. As a consequence, water management has become a serious issue and was identified as a global societal challenge, and climate change forecasting has become one of the key issues in recent research on sustainable water resources management.

Outlines the concept and principles of water harvesting for groundwater management for an international audience, and looks at the positives and negatives surrounding water harvesting technologies This book is the first to fully outline the concept and principles of water harvesting for groundwater management for a global audience. It offers guidance to academics, students and researchers on effective water harvesting approaches for groundwater recharge, and educates them on the risks associated with managed aquifer recharge, as well as the causes of success or failure of particular management strategies, and demand management strategies and tools. The book is helpful to water managers, administrators, and professionals, to make decisions to allocate resources; developing innovative cost-effective measures and approaches to achieve demand-supply balance. The book provides readers with an overview of the historical evolution of water harvesting for groundwater recharge. It looks at the benefits and gaps in knowledge, their implementation and funding strategies, and public participation. It also assesses the strengths, weaknesses, opportunities, and threats (SWOT) of water harvesting technologies. Water Harvesting for Groundwater Management: ISSk Governance from national to local level and its integration into development sectors. Part II focuses on the roles of different actors for DRR. Part III discusses emerging issues in DRR research and practice, and Part IV puts forward variety of methods and studies to measure hazards, risks, and community resilience.

In Planning Asian Cities: Risks and Resilience, Stephen Hamnett and Dean Forbes have brought together some of the region's most distinguished...
Freshwater scarcity is a critical challenge, with social, economic, political and environmental consequences. Water crises in Australia have already led to severe restrictions being applied in cities, drought ravaging farmlands, and the near-terminal decline of some rivers and wetlands. A Water Story provides an account of Australian water management practices, set against important historical precedents and the contemporary experience of other countries. It describes the nature and distribution of Australia’s natural water resources, management of these resources by Indigenous Australians, the development of urban water supply, and support for pastoral activities and agricultural irrigation, with the aid of case studies and anecdotes. This is followed by discussion of the environmental consequences and current challenges of water management, including food supply, energy and climate change, along with options for ensuring sustainable, adequate high-quality water supplies for a growing population. A Water Story is an important resource for water professionals and those with an interest in water and the environment and related issues, as well as students and the wider community.

This book discusses imaginary future generations and how current decision-making will influence those future generations. Markets and democracies focus on the present and therefore tend to make us forget that we are living in the present, with ancestors preceding and descendants succeeding us. Markets are excellent at focusing on the short term, but not on solving issues that may span across multiple generations. It is a book about the human impact on the environment and the ways in which the natural environment impacts human society. The fifth edition has been fully revised and updated throughout, with new case studies, figures, and online resources such as downloadable figures and tables from the text and multiple choice questions for students, accessible at: www.routledge.com/cw/middleton. New topics covered in extended boxed case studies include payment for environmental services, ocean acidification, biofuels in Brazil, waste reduction through industrial symbiosis, and the long-term impact of natural disasters on vulnerable groups. Other approaches and concepts covered for the first time in this new edition include traditional ecological knowledge, environmental justice, the ‘resource curse’, and urban biodiversity. Eighteen chapters on key issues follow three initial chapters which outline the background contexts of the physical and human environments and the concept of sustainable development. Each chapter provides historical context for key issues, outlines why they have arisen, and highlights areas of controversy and uncertainty to appraise how issues can be resolved both technically and in political and economic frameworks. Each chapter also contains an updated critical guide to further reading and websites, as well as discussion points and essay questions. The text can be read in its entirety or individual chapters adopted as standalone reading. The Global Casino is an essential resource for students of the environment, geography, earth sciences and development studies. It provides comprehensive and inspirational coverage of all the major global environmental issues of the day in a style that is clear and critical.

This volume takes a multidisciplinary approach to study and evaluate the global human vulnerability to the exposure of contaminants of emerging concern (CECs) in the natural environment. It provides a comprehensive resource on structurally diverse groups of chemical compounds that have adverse effects on the aquatic environment. It explores the global strength, environmental status, chemical risk assessment and management strategies of CECs with relevant modern techniques. The principle focus is on concurrent emerging water quality issues. It defines the impacts of environmental services, trace concentrations of CECs/and/or their metabolites and discusses possible technological advances to combat the emerging pollutants. It will be useful to researchers, multi-stakeholder expert groups, policymakers, and graduate students.

Approximately 80 per cent of the population of Latin America is concentrated in urban centres. Pressure on water resources and water management in cities therefore provide major challenges. Despite the importance of the issues, there has been little systematic coverage of the topic in book form. This work fills a gap in the literature by providing both thematic overviews and case study chapters. It reviews key aspects of why water matters in cities and presents case studies on topics such as groundwater management, green growth and water services, inequalities in water supply, the financing of water services and flood management. Detailed examples are described from Argentina, Brazil, Colombia, Ecuador, Mexico and Peru, and there is also a chapter comparing lessons which might be learnt from US cities. Contributing authors are drawn from both within and outside the region, including from the Inter-American Development Bank, OECD and World Bank to set the issues in a global context.

Authoritative reviews on the wide-ranging ramifications of climate change, from an international team of eminent researchers. This book presents water insecurity issues in urban areas while developing a water security index and explores the innovative approaches to water development and management with examples from Asian cities. The urban water crisis is a global phenomenon, but it is more obvious in the megacities of the developing world. Urban drought, although not a familiar term, will pose a significant threat to humankind in the near future, especially in the context of increasing population in cities. Many cities are already unable to provide safe, clean water for their citizens. Some of the world’s largest cities depend heavily on groundwater for their water supply. It is unlikely that dependence on aquifers, which take many years to recharge, will be sustainable. As urban populations grow, water use will need to shift from agriculture to municipal and industrial uses, making decisions about allocating between different sectors difficult. Inefficient water-use practices by households and industries, fragmented management of water between sectors and institutions, climate-induced water shortages, environmental degradation of water sources, and inadequate use of alternate sources are also issues of major concern. Despite recent advances in the literature, there exists a considerable gap in attempting an integrated water-resource management approach. Covering all aspects of urban drought and water insecurity, this book is a valuable resource for students, researchers, academics, policy makers, and development practitioners.
Groundwater management and conservation becomes a more and more important issue in the heavily urbanized coastal zones of the Asia-Pacific region. This volume presents a comprehensive overview of the status of coastal groundwater research in this diverse region. It includes latest methodologies and technologies to assess and manage groundwater resources and their associated environmental impacts. The book assesses the legislative, institutional and participatory mechanisms which affect the overall development of coastal groundwater resources, and analyses current issues, concerns and strategies in respect of coastal groundwater use at the local, national, and international levels. The rapid changes in economic, social and political life have had an enormous impact on Asia's ecosystems and resources. Asian countries, in the name of economic development, are following the same environmentally destructive path that their European counterparts followed in the past. The book assesses the legislative, institutional and participatory mechanisms which affect the overall development of coastal groundwater resources, and analyses current issues, concerns and strategies in respect of coastal groundwater use at the local, national, and international levels. The rapid changes in economic, social and political life have had an enormous impact on Asia's ecosystems and resources. Asian countries, in the name of economic development, are following the same environmentally destructive path that their European counterparts followed in the past. The key to the environmental future of these two regions lies in the evolution of the character of governance - the ensemble of social ethics, public policies and institutions which structure how state actors and the civil society interact with the environment. This book will be valuable to scholars and students of environmental politics, EU and Asian studies, public policy, environmental law, and to decision makers and policy analysts.

Asia's 48 countries have an estimated 1.75 billion urban population and 2.4 billion people in rural areas (or approximately 60 per cent of the global population). Divided into central, eastern, southern, south-eastern and western regions, the continent is also extremely heterogeneous in terms of water quality conditions. The policies and management practices vary significantly from one country to another, and even within one country, depending on specific economic, political, social, environmental, legal and institutional factors. In order to appreciate the complexities associated with water quality policy and management, it is important to acknowledge the multiplicity of interrelated and often conflicting events, issues, actors and interests, both within and outside the water sector that impact them. This complexity, alongside institutional inability for systematic and coordinated collaboration, are potent reasons as to why, in the second decade of the 21st century, formulation and implementation of efficient water management policies benefitting humankind and the environment have still not been achieved. The book was originally published as a special issue of the International Journal of Water Resources Development.

The United Nations World Water Assessment Programme (WWAP) is hosted and led by UNESCO. WWAP brings together the work of 31 UN-Water Members as well as 37 Partners to publish the United Nations World Water Development Report (WWDR) series. Under the theme Water for Sustainable Development, the WWDR 2015 has been prepared as a contribution from UN-Water to the discussions surrounding the post-2015 framework for global sustainable development, and the global goals and objectives for sustainable development outlined in the United Nations Resolution that established the 2030 Agenda for Sustainable Development. The book assesses the legislative, institutional and participatory mechanisms which affect the overall development of coastal groundwater resources, and analyses current issues, concerns and strategies in respect of coastal groundwater use at the local, national, and international levels. The rapid changes in economic, social and political life have had an enormous impact on Asia's ecosystems and resources. Asian countries, in the name of economic development, are following the same environmentally destructive path that their European counterparts followed in the past. The key to the environmental future of these two regions lies in the evolution of the character of governance - the ensemble of social ethics, public policies and institutions which structure how state actors and the civil society interact with the environment. This book will be valuable to scholars and students of environmental politics, EU and Asian studies, public policy, environmental law, and to decision makers and policy analysts.

Climate change is expected to modify the hydrological cycle and affect freshwater resources. Groundwater is a critical source of fresh drinking water for almost half of the world's population and it also supplies irrigated agriculture. Groundwater is also important in sustaining streams, lakes, wetlands, and associated ecosystems. But despite this, knowledge about the impact of climate change on groundwater quantity and quality is limited. Direct impacts of climate change on natural processes (groundwater recharge, discharge, storage, saltwater intrusion, biogeochemical reactions, chemical fate and transport) may be exacerbated by human activities (indirect impacts). Increased groundwater abstraction, for example, may be needed in areas with unsustainable or contaminated surface water resources caused by droughts and floods. Climate change effects on groundwater resources are, therefore, closely linked to other global change drivers, including population growth, urbanization and land-use change, coupled with other socio-economic and political trends. Groundwater response to global changes is a complex function that depends on climate change and variability, topography, aquifer characteristics, vegetation dynamics, and human activities. This volume contains case studies from different aquifers systems, scientific domains, and climatic settings that have been conducted globally under the framework of the UNESCO-IHP project Groundwater Resources Assessment under the Pressures of Humanity and Climate Change (GRAPHIC). This book presents a current and global synthesis of scientific findings and policy recommendations for scientists, water managers and decision makers as it illustrates the human and environmental impacts on coastal groundwater resources and the relationship to coastal zone management strategies and the development of sustainable management approaches.

In 2007, the world's urban population surpassed the number of people living in rural areas and is still growing. The number of city dwellers who do not have access to piped water and rely on groundwater is also increasing. In many Asian cities, groundwater is not only the source of domestic water but also an important resource for industrial development, making better management of groundwater resources essential for sustainable development. Because groundwater is easier to access and costs less than water from piped systems, groundwater abstraction cannot be easily regulated. Policies for groundwater management adopted in Japan and other Asian countries are compared, and technologies for efficient use of groundwater are elucidated. Groundwater contamination is also a serious problem that exacerbates water scarcity in Asian cities. Case studies illustrate the main causes and consequences of natural contaminants such as arsenic and fluoride, and groundwater contamination due to anthropogenic contaminants is described. Also discussed are technologies for treating contaminated groundwater to reduce the health risks of drinking contaminated groundwater.

This book looks at environmental governance in both Asia and Europe and offers a comparative analysis of the two regions in order to provide a better understanding of the concept of 'environmental governance' and its status in Europe and Asia. The book assesses the legislative, institutional and participatory mechanisms which affect the overall development of environmental governance, and analyses current issues, concerns and strategies in respect of environmental governance at the local, national, and international levels. The rapid changes in economic, social and political life have had an enormous impact on Asia's ecosystems and resources. Asian countries, in the name of economic development, are following the same environmentally destructive path that their European counterparts followed in the past. The key to the environmental future of these two regions lies in the evolution of the character of governance - the ensemble of social ethics, public policies and institutions which structure how state actors and the civil society interact with the environment. This book will be valuable to scholars and students of environmental politics, EU and Asian studies, public policy, environmental law, and to decision makers and policy analysts.

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been made on a yearly basis for seven cities for a century (1900-2000). Using these indicators it is now possible to manage groundwater resources in a sustainable fashion. This volume is indispensable to researchers in hydrology, coastal oceanography, civil engineering, urban geography, social economy, climatology, geothermics, and urban management.

This book presents recent findings from the South Asian region (SA), broadly including groundwater studies on (a) quantity, (b) exploration, (c) quality and pollution, (d) economics, management and policies, (e) groundwater and society, and (f) sustainable sources. It offers a compilation of compelling, authentic insights into groundwater scenarios throughout the water-stressed South Asia region. Comprising Afghanistan, Bangladesh, Bhutan, India, Myanmar, Nepal, Pakistan, and Sri Lanka, it is the most densely populated region in the world: It occupies approximately 4% of the global land area but supports more than 25% of the global population. The SA region now faces an acute shortage of fresh water due to a rapid rise in water demand and changes in societal water-use patterns. Combining essential advances and perspectives, this book offers a valuable resource for all scientists, planners and policymakers who are interested in understanding and developing the SA and other related areas.

Recognizing that safe and adequate water supplies are an essential component of fighting poverty and disease, the ADB Water for All Publication series focuses on understanding the water issues facing poor people in developing countries in Asia and the Pacific region. This document summarizes both a comprehensive study on water in 18 Asian cities and a regional workshop held to present the findings of the study to representatives of civil society and the media and examine the role these groups play in finding solutions to improve access and quality of water for the urban poor.

A good understanding of the status quo is necessary for the success of efforts to develop and maintain nature in built space. Accordingly, this book conducts an environmental scan of the context of these efforts in global perspective. In particular, it develops and employs a novel environmental scanning model (ESM) designed to rigorously analyze the political, economic, social, technological, ecological, cultural and historical (PESTECH) contexts of initiatives to promote biodiversity in the built environment. The focus is on four specific substantive areas of environmental policy, namely forestry, water, food, and energy. The units of analysis roughly correspond with the major United Nations Environmental Programme (UNEP) regions of the world, including sub-Saharan Africa, Middle-East and North Africa, Asia and the Pacific, Western Europe, North America, and Latin America and the Caribbean.

Water use efficiency within the context of sustainable water balance in the urban and domestic sector means optimising safe and sufficient supply and water demand while also closing the life cycle. As environmentally sound technologies play a crucial role in this process technologies and best practices for storage, supply and distribution as well as water related policies need to be identified. The source book provides a comprehensive overview about Environmentally Sound Technologies (ESTs) for water use efficiency in the urban and domestic environment.

This book intends to bring together and integrate the subject matter of water quality. The book covers aspects of water related to climate change, emerging aspects of engineering sciences, bio-geochemical sciences, hydro geochemistry, river management and morphology, social sciences, and public policy. The book covers the role of disruptive innovations in water management, policy formation and impact mitigation strategies. The book includes lab results as well as case studies. It provides recommendations and solutions for policy making and sustainable water management. The chapters in this book deal cohesively with many aspects of the water environment during the Anthropocene era. The contents cover myriad issues, such as land degradation, water scarcity, urbanization, climate change, and disruptive innovation. The book also discusses issues highly pertinent to society and sustainability, such as the prevalence of enteric viruses and pharmaceutical residues as a possible anthropogenic markers in the aquatic environment. The book will prove useful for students, professionals, and researchers working on various aspects of water related concerns.

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