

Disaster Risk Reduction Cases From Urban Africa

The uptake of ecosystem-based approaches for disaster risk reduction (DRR) is slow, however, despite some success stories. There are multiple reasons for this reluctance: ecosystem management is rarely considered as part of the portfolio of DRR solutions because the environmental and disaster management communities typically work independently from each other; its contribution to DRR is highly undervalued compared to engineered solutions and therefore not given appropriate budget allocations; and there are poor interactions between policymakers and researchers, leading to unclear and sometimes contradictory scientific information on the role of ecosystems for DRR. The aim of this book is to provide an overview of knowledge and practice in this multidisciplinary field of ecosystems management and DRR. The contributors, professionals from the science and disaster management communities around the world, represent state-of-the-art knowledge, practices, and perspectives on the topic.

This book offers a systematic, empirical examination of the concepts of disasters and sustainable economic development applied to many cases around the world. It presents comprehensive coverage of the complex and dynamic relationship between disaster and development, making a vital contribution to the literature on disaster management, disaster resilience and sustainable development. The book collects twenty-three chapters, examining theoretical issues and investigating practical cases on policy, governance, and lessons learned in dealing with different types of disasters (e.g., earthquakes, floods and hurricanes) in twenty countries and communities around the world.

The prevalence of natural disasters in recent years has highlighted the importance of preparing adequately for disasters and dealing efficiently with their consequences. This book addresses how countries can enhance their resilience against natural disasters and move towards economic growth and sustainable development. Covering a wide range of issues, it shows how well thought-out measures can be applied to minimize the impacts of disasters in a variety of situations. Starting with the need for coping with a rapidly changing global environment, the book goes on to demonstrate ways to strengthen awareness of the effectiveness of preventive measures, including in the reconstruction phase. The book also covers the roles played by different actors as well as tools and technologies for improved disaster risk reduction. It focuses on a variety of case studies from across Asia, Africa and Latin America, drawing out lessons that can be applied internationally. This book will be of great interest to professionals in disaster management, including national governments, donors, communities/citizens, NGOs and private sector. It will also be a highly valuable resource for students and researchers in disaster management and policy, development studies and economics.

As the population is growing and urbanization is progressing, higher numbers of people are exposed to disaster risks, especially in the developing countries. Climate change is further worsening the impacts of existing risks and introducing new ones. It is imperative that countries need to invest more in disaster risk reduction (DRR) as well as climate change

adaptation (CCA) not only to minimize their impacts but also to build resilience. To date, various international arenas have recommended increasing investment in DRR. The Sendai Framework for DRR, adopted by the UN member states in 2015 during the Third UN World Conference on DRR, emphasizes investment as a priority for decreasing disaster risks and losses. The Yangon Declaration set the goal of doubling investment to address water-related disasters. However, most countries are not able to proactively invest enough in DRR. Understanding the current scale and estimate of investment and its effects is crucial for promoting DRR investment, but such information and estimates are rarely available. This book examines the current investment trends and issues in DRR and CCA. Based on specific case studies, field data and evidence, the book identifies challenges in increasing investment and recommends various investment policies and innovative approaches to sustainable progress towards a resilient future. Chapter 12 is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

Financing Investment in Disaster Risk Reduction and Climate Change Adaptation

Four Cases from Developing Countries

Challenges and Potentials

Cases from Urban Africa

Mitigation through Mobilizing Communities and Partnerships

Community Practices for Disaster Risk Reduction in Japan

Proceedings of the 3rd Global Summit of Research Institutes for Disaster Risk Reduction

This book is a pioneering regional work and provides a balanced approach of theory and practice in disaster risk reduction (DRR) in Pakistan. The book analytically discusses the status of DRR and draws examples and lessons from national and community-level programs and projects and events in the country. The book covers different types of disasters facing Pakistan, including geo-physical and hydro-meteorological hazards. This work incorporates and draws some of the key lessons learned from the pre-disaster and disaster phases to the post-disaster phase, providing an effective framework in the form of those lessons. The rich content is based on a selection of available documents, a consultative workshop with academicians from different universities undertaking DRR higher education programs, and the editors' own knowledge and experience in the field. Special emphasis is given to analyzing field experiences from academic perspectives, and pinpointing key issues and the policy relevance of DRR. Disaster Risk Reduction Approaches in Pakistan is organized into three sections with a total of 20 chapters. Section one provides the outline and basics of DRR strategies applied at the national level with supporting examples from a global review. Section two specifically highlights the wide ranges of hazards experienced in Pakistan and presents examples, policy options, institutional set-ups, risk reduction

strategies, and key lessons learned. The third section of the book is given to approaches and issues of DRR practices with examples of disaster responses.

Worldwide, disasters and climate change pose a serious risk to sustainable urban development, resulting in escalating human and economic costs. Consequently, city authorities and other urban actors face the challenge of integrating risk reduction and adaptation strategies into their work. However, related knowledge and expertise are still scarce and fragmented. Cities, Disaster Risk and Adaptation explores ways in which resilient cities can be 'built' and sustainable urban transformations achieved. The book provides a comprehensive understanding of urban risk reduction and adaptation planning, exploring key theoretical concepts and analysing the complex interrelations between cities, disasters and climate change. Furthermore, it provides an overview of current risk reduction and adaptation approaches taken by both city authorities and city dwellers from diverse contexts in low, middle and high income nations. Finally, the book offers a planning framework for reducing and adapting to risk in urban areas by expanding on pre-existing positive actions and addressing current shortfalls in theory and practice. The importance of a distributed urban governance system, in which institutions' and citizens' adaptive capacities can support and complement each other, is highlighted. This book takes a holistic approach; it integrates perspectives and practice from risk reduction and climate change adaptation based on a specific urban viewpoint. The text is richly supplemented with boxed case studies written by renowned academics and practitioners in the field and 'test yourself' scenarios that integrate theory into practice. Each chapter contains learning objectives, end of chapter questions, suggested further reading and web resources, as well as a wealth of tables and figures. This book is essential reading for undergraduate and postgraduate students of geography, urban studies and planning, architecture, environmental studies, international development, sociology and sustainability studies.

Disaster Risk Reduction Cases from Urban Africa Routledge

Climate Change, Disaster Risk, and the Urban Poor analyzes the key challenges facing the urban poor, given the risks associated with climate change and disasters. Through evidence and case studies from a number of cities--such as Dar es Salaam, Jakarta, Mexico City, and São Paulo--the book identifies key strategies are based on difficult policy decisions that must balance tradeoffs among risk reduction, urban development, and poverty reduction. Policy makers, researchers, practitioners, and students will find the book's analysis robust and comprehensive, and abundant with global examples of policies and programs that have been implemented at the city level--including a review of financing options for local governments.

External Interventions for Disaster Risk Reduction
Disaster Risk Reduction for Resilience
Emerging Technologies for Disaster Resilience
Environmental, Social and Cultural Aspects
Disaster and Development
Incentives for Reducing Disaster Risk in Urban Areas
Resilient Policies in Asian Cities

Technological advances have helped to enhance disaster resilience through better risk reduction, response, mitigation, rehabilitation and reconstruction. In former times, it was local and traditional knowledge that was mainly relied upon for disaster risk reduction. Much of this local knowledge is still valid in today's world, even though possibly in different forms and contexts, and local knowledge remains a shared part of life within the communities. In contrast, with the advent of science and technology, scientists and engineers have become owners of advanced technologies, which have contributed significantly to reducing disaster risks across the globe. This book analyses emerging technologies and their effects in enhancing disaster resilience. It also evaluates the gaps, challenges, capacities required and the way forward for future disaster management. A wide variety of technologies are addressed, focusing specifically on new technologies such as cyber physical systems, geotechnology, drone, and virtual reality (VR)/ augmented reality (AR). Other sets of emerging advanced technologies including an early warning system and a decision support system are also reported on. Moreover, the book provides a variety of discussions regarding information management, communication, and community resilience at the time of a disaster. This book's coverage of different aspects of new technologies makes it a valuable resource for students, researchers, academics, policymakers, and development practitioners. South Asia represents a region highly prone to natural disasters. Disasters not only disrupt the normal life of the affected communities and the countries but also impede developmental efforts. By and large, the approach of the major stakeholders has been 'reactive' rather than 'proactive'. There is indeed, a dire need for concerted and well-planned efforts to achieve risk reduction through risk identification, and sharing and transfer of information. This edited volume explores how the risk of disasters can be reduced by structural and non-structural measures with detailed, comprehensive and participatory strategies. Twenty-seven contributors, both academicians and practitioners, investigate the challenges that the region faces and how changes can be effected at the community, society, government and non-government levels to foster a culture of preparedness. The overall focus is on risk reduction through prevention, preparedness, mitigation, response, recovery, rehabilitation and reconstruction. Some case studies from different settings dealing with various disasters have also been included. Since disaster risk reduction is an area of great concern and there is absolute dearth of literature addressing this issue with regard to South Asia, this volume will be of immense utility and interest to government departments, NGOs, insurance companies, universities, training institutions, professional associates, media, general public, and students pursuing courses in disaster management.

This book presents a case study-based analysis of the consequences of external interventions, critically evaluating them from community perspectives. Communities – from rural to urban, and around the world – that are experiencing disasters and changes in climatic variables can perceive the associated risks and evaluate the impacts of interventions. Accordingly, community perspectives, including their perceptions, concerns, awareness, realizations, reactions and expectations, represent a valuable resource. The case-based analysis of impacts on communities can provide a 'means of learning' from the experiences of others, thus expanding professionals' knowledge base, especially regarding disaster mitigation and climate change adaptation practices in

varied settings. This book offers valuable insights and lessons learned, in an effort to promote and guide innovative changes in the current planning, management and governance of human settlements, helping them face the future challenges of a changing environment.

Climate change is increasingly of great concern to the world community. The earth has witnessed the buildup of greenhouse gases (GHG) in the atmosphere, changes in biodiversity, and more occurrences of natural disasters. Recently, scientists have begun to shift their emphasis away from curbing carbon dioxide emission to adapting to carbon dioxide emission. The increase in natural disasters around the world is unprecedented in earth's history and these disasters are often associated to climate changes. Many nations along the coastal lines are threatened by massive floods and tsunamis. Earthquakes are increasing in intensity and erosion and droughts are problems in many parts of the developing countries. This book is therefore to investigate ways to prepare and effectively manage these disasters and possibly reduce their impacts. The focus is on mitigation strategies and policies that will help to reduce the impacts of natural disasters. The book takes an in-depth look at climate change and its association to socio-economic development and cultures especially in vulnerable communities; and investigates how communities can develop resilience to disasters. A balanced and a multiple perspective approach to manage the risks associated with natural disasters is offered by engaging authors from the entire globe to proffer solutions.

Methodologies, Case Studies, and Prospective Views

International Lessons in Risk Reduction, Response and Recovery

Disaster Risk Reduction in Mexico

Disaster Risk and Vulnerability

The Interplay between Urban Development, Vulnerability, and Risk Management

Case Studies from Asia

An Interdisciplinary Approach for Disaster Resilience and Sustainability

This book presents selected papers from the 3rd Global Summit of Research Institutes for Disaster Risk Reduction – Expanding the Platform for Bridging Science and Policy Making, which was held at the Disaster Prevention Research Institute (DPRI), Kyoto University, Uji Campus from 19 to 21 March 2017. It was organised by the Global Alliance of Disaster Research Institutes (GADRI), which was established soon after the second Global Summit and the UN World Conference on Disaster Risk Reduction in March 2015, and is intended to support the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030. The conference not only provided a platform for discussion and exchange of information on key current and future research projects on disaster risk reduction and management, but promoted active dialogues through group discussion sessions that addressed various disaster research disciplines. In this book, authors from various disciplines working at governmental and international organisations provide guidance to the science and technical community, discuss the current challenges, and evaluate the research needs and gaps in the context of climate change, sustainable development goals and other interlinked global disaster situations. Expert opinions from practitioners and researchers provide valuable insights into how to connect and engage in collaborative research with international science and technical communities and other stakeholders to achieve the goals set out in the agenda of

Sendai Framework for Disaster Risk Reduction 2015–2030. In addition, case studies and other evidence-based research papers highlight ongoing research projects and reflect the challenges encountered in information sharing by various stakeholders in the context of disaster risk reduction and management. Chapter “Science and technology commitment to the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030” is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

The Hindu Kush Himalayan (HKH) region is highly vulnerable to earthquakes and water-induced disasters. This fragile mountain region is under tremendous stress from climate change and land-use degradation that has accelerated flash river-line floods, erosion, and wet mass movements during the monsoon period and drought in the non-monsoon period. Against the backdrop of intensifying disasters and in the absence of a focused documentation of disaster risk reduction in the HKH region, this volume presents a comprehensive body of knowledge. The main purpose and objective of this publication is to connect existing data, research, conceptual work, and practical cases on risk, resilience, and risk reduction from the HKH region under a common analytical umbrella. The result is a contribution to advancing disaster resilience and risk reduction in the HKH region. The book will be of special interest to policy makers, donors, and researchers concerned with the disaster issues in the region.

This book focuses on exploring the linkages between natural disasters and sustainable development at the global, regional, and national levels. Disasters and development are closely related, yet the disciplinary silos prevail and there is little communication and cooperation between the disaster management, environment, and development communities. One catastrophic event, such as an earthquake, tsunami, or cyclone, can destroy infrastructure, people's lives and livelihoods, and set back development. Similarly, slow onset disasters—often associated with global climate change—pose threats to development, livelihoods, food security, and long-term sustainable development. This book is uniquely aimed at bridging the gaps between the environmental, development, and disaster management communities. It traces the evolution of current practice and highlights the linkages between natural disasters and sustainable development in key sectors, including food security, health, and water. The book includes case studies from the field highlighting the complex issues that challenge sustainable development and disaster risk management in practice. It draws policy conclusions for the global community based on state-of-the-art knowledge from research and practice. The primary target groups for the book are researchers, including graduate students, in the fields of environment and sustainable development, geography, disaster risk reduction, and climate change studies. The second target group comprises practitioners and policymakers working in national and international organizations, the private sector, and civil society.

This book is part of a six-volume series on Disaster Risk Reduction and Resilience. The series aims to fill in gaps in the

and practice in the Sendai Framework, and provides additional resources, methodologies and communication strategies to enhance the plan for action and targets proposed by the Sendai Framework. The series will appeal to a broad range of researchers, academics, students, policy makers and practitioners in engineering, environmental science and geography, geoscience, emergency management, finance, community adaptation, atmospheric science and information technology. This volume discusses how to measure and build disaster resilience at society's capacity, drawing upon individual, institutional and collective resources to cope with and adapt to the demands and challenges of natural disaster occurrences. The series serve as a guide, outlining the key indicators of disaster resilience in urban and rural settings, and the resources and strategies needed to build resilient communities in accordance with the targets of the Sendai Framework. Readers will learn about multi-risk reduction approaches using computational methods, data mining techniques, and System Thinking at various scales, as well as institutional and infrastructure resilience strategies based on several case studies.

Sustainable Development and Disaster Risk Reduction

New Frameworks for Building Resilience to Disasters

Disaster Risk Management Strategies

Impacts on Local Communities

Investing in Resilience and Development

Disaster Risk Reduction Approaches in Pakistan

DISASTER RISK REDUCTION IN SOUTH ASIA

Disaster prevention and the mitigation of climate change effects call for global action. Joint efforts are required among countries, economic sectors, and public and private stakeholders. Not surprisingly, international organizations, such as the United Nations agencies, propose policy frameworks aimed at worldwide influence. The 2015–2030 Sendai Framework seeks to create consensus about the need to act for disaster risk reduction and climate adaptation. A key goal is to promote investments in risk reduction and resilience. But how useful is this policy framework? What does it say, and what does it overlook? How can it be implemented among vulnerable communities, in historic sites, and in other sensitive locations affected by disasters? In this book, prominent scholars and practitioners examine the successes and failures of the Sendai Framework. Their case studies show that, despite its good intentions, the Framework achieves very little. The main reason is that, while avoiding a political engagement, it fails to deal with disasters' root causes and guide the difficult path of effective implementation. The authors bring a fresh look to international policy and design practices, highlighting cross-disciplinary research avenues, and ideas and methods for low-income communities, cities and heritage sites in Portugal, Haiti, the United States, the Philippines, New Zealand, Sri Lanka, Nigeria, among other countries. Global action requires collaboration between heterogeneous stakeholders, but also the recognition of inequalities, power imbalances, and social and environmental injustices. Analyzes outcomes and drawbacks of implementing the third priority of the Sendai Framework for Disaster Risk Reduction Presents real-life attempts to increase risk resilience and

climate-change adaptation, both before and after disasters Addresses design as a means to build resilience in community and heritage interventions Calls for embracing the complexities and dynamic character of DRR and climate-change knowledge, investment, and communication

This book provides a wide range of studies on methods of assessing natural disaster risks and reducing those risks in the context of land use. A major benefit of the book is that it presents extensive research and practices from interdisciplinary perspectives through case studies of land use management against various natural disasters. The natural hazards include earthquakes, tsunami, floods, and other disasters, with case studies ranging from urban areas to areas with natural environments such as mountains, coasts, and river systems. By quantitative and qualitative analysis, this work illustrates how interactions between natural and human environments create natural disasters, and how disaster risks can be managed or reduced through methods related to land use. This book also covers a variety of challenges in land use management with sample cases from Asia as well as the United States and Europe. The main purpose is to provide greater insight into studies of natural disaster risks from the perspective of land use and the possibility of non-engineering methods to reduce those risks. This goal can be achieved through management of land use against various natural hazards in diverse environments.

This book presents key lessons from community-based risk-reduction practices in Japan, a country that is often hit by disasters and that also has shown strong resilience in coping with those disasters. Japan has a strong governance system for disaster risk reduction. However, the Kobe earthquake of 1995 showed the importance of community involvement in disaster response as well as recovery. With several examples from different parts of Japan, the book elaborates on the importance of community-based risk reduction and the innovations required for sustaining some of the community approaches. The book has 13 chapters and is divided into three parts: (1) Evolution of community-based risk reduction in Japan; (2) Community-based risk-reduction issues; and (3) Case studies. The primary target groups for this book are students and researchers in the fields of environment, disaster risk reduction, and climate change studies. The book provides them with a good idea of the current research trends in the field and furnishes basic knowledge about these vital topics. Another target group comprises practitioners and policy makers, who will be able to apply the knowledge collected here to policy and decision-making.

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 sustain 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.

Integrating Disaster Risk Reduction, Sustainable Development Goals and Climate Change Adaptation Agendas

Cities Building Resilience for a Changing World

Investing in Disaster Risk Reduction for Resilience

Promoting Public Private Partnership in Disaster Risk Reduction

Disaster Risk Governance

Design, Methods and Knowledge in the face of Climate Change

Reducing Disaster Risk by Managing Urban Land Use

Urban Disasters and Resilience in Asia presents the latest information on the intensity and frequency of disasters. Specifically, the fact that, in urban areas, more than 50% of the world's population is living on just 2% of the land surface, with most of these cities located in Asia and developing countries that have high vulnerability and intensification. The book offers an in-depth and multidisciplinary approach to reducing the impact of disasters by examining specific evidence from events in these areas that can be used to develop best practices and increase urban resilience worldwide. As urban resilience is largely a function of resilient and resourceful citizens, building cities which are more resilient internally and externally can lead to more productive economic returns. In an era of rapid urbanization and increasing disaster risks and vulnerabilities in Asian cities, **Urban Disasters and Resilience in Asia** is an invaluable tool for policy makers, researchers, and practitioners working in both public and private sectors. Explores a broad range of aspects of disaster and urban resiliency, including environmental, economic, architectural, and engineering factors Bridges the gap between urban resilience and rural areas and community building Provides evidence-based data that can lead to improved disaster resiliency in urban Asia Focuses on Asian cities, some of the most densely populated areas on the planet, where disasters are particularly devastating

This book presents a comprehensive framework and indicators that can be used to assess a city's degree of resilience. Based on surveys using bottom-up assessment tools, it proposes the concept, framework and indicators of a resilient policy model (including some participatory approaches). It also presents case studies of this and similar tools applied to Japanese and Asian cities, the highlights including information not previously available in English. Today, the term "resilience" is prevalent in the context of sustainable societies. The IPCC AR5 published in 2014 again stressed the impact

of climate change on natural disasters, while in March 2015 at the World Conference on Disaster Risk Reduction, the United Nations International Strategy of Disaster Reduction (UNISDR) published the Sendai Framework for Disaster Risk Reduction Action 2015-2030 , which serves as a guideline for local governments. Offering transdisciplinary perspectives from fields such as policy science, urban planning, environmental science, social psychology, management development and geography, this book discusses the lessons learned from Asian case studies, explaining the challenges and the effectiveness of the tools, and offering transdisciplinary insights for policymakers.

This book recognizes Mexico's effects and challenges in a natural disaster and offers empirical risk-reduction methods in critical cases. The proposals considered here include real and detailed analysis, a set of models, frameworks, strategies, and findings in the three stages of the disaster (before-during-after). This book: describes the methodology to find secure locations for the Regional Humanitarian Response Depot; offers recommendations for the sites and creation of an Export Logistics Cluster; shows how to use available technology and information to locate volunteers in the right spots describes mathematical models to help to allocate procedure of resources for restoring the affected community and proposes actions to create resilience in the country's main economic sectors, including agriculture and industry. The processes applied at recent disasters such as the 19S earthquake and their results are used as case studies, identifying possibilities for further improvement. The book also describes new trends for Mexico due to climate change and makes suggestions for mitigating future disasters. The proposals are also replicable to other highly populated societies with similar socio-economic structures. Finally, this book is the basis for generating more innovative recommendations by researchers, graduate students, academics, professionals, and practitioners to obtain better planning and better collaboration between all the humanitarian chain actors. This book intends to be of interest as a fundamental tool for decision-makers, governments, non-governmental organizations, and enterprises.

The rapid growth of urban areas in Asia has often resulted in poorly designed infrastructure in hazard-prone areas. This has increased the risk of disasters resulting from natural hazards. The intensity and frequency of climate-related hazards are increasing, further exacerbating the risk. Better understanding of disaster risk by urban stakeholders and the use of this information by governments to develop policies, regulations, and financing is needed. This publication summarizes the experiences of three areas that have provided incentives for disaster risk reduction. Case studies are presented from Da Nang in Viet Nam, Kathmandu Valley in Nepal, and Naga City in the Philippines.

Asian Perspectives

A Volume in the Disaster and Emergency Management: Case Studies in Adaptation and Innovation series

Disaster Management and Private Sectors

Land Use Management in Disaster Risk Reduction

Disaster Risk Reduction

The Role of Ecosystems in Disaster Risk Reduction

A Case Study of the Istanbul Metropolitan Area

Published with ProVention Consortium, UNDP and UN-Habitat 'This excellent book is essential reading for those concerned with urban risk and its reduction in Africa, the most rapidly urbanizing region of the world.' Professor Jo Beall, Development Studies Institute, London School of Economics 'At last a book that recognizes the impacts of disasters on Africa's 350 million urban dwellers, including the many disasters that get overlooked and go unrecorded. But also a book that, through careful case studies, shows what creates disaster risk and what local measures can be taken to address it.' David Satterthwaite, International Institute for Environment and Development (IIED). 'This innovative volume combines the latest conceptualisations of urban disaster risk and vulnerability with case studies from across the African continent on how existing and innovative information can inform efforts to address the problems. Coverage ranges from the major catastrophes of news headlines to small, everyday disasters with which poor urban residents have to cope in their survival strategies. Written by international authorities and local specialists, this extremely useful book should find a place in the hands of academics and practitioners alike.' Professor David Simon, Department of Geography, Royal Holloway, University of London This is a one-of-a-kind book packed with original research and offering an innovative way of thinking about the reduction of risk in rapidly urbanizing cities across the globe. It is a must-have for professionals, researchers and policy makers. The book addresses four inter-related themes critical for urban risk reduction: environment; livelihood; urban governance and the generation of urban risks. Its focus is on Africa, the most rapidly urbanizing world region, but it illustrates global processes. Part one reviews development, urbanization and disaster risk in Africa as a whole, identifies state-of-the-art practices and policies for building urban resilience and provides a tool kit for urban risk reduction. It also presents a powerful conceptual framework to analyse and compare disaster risk and resilience in different cities and communities. Part two presents detailed case studies from Algeria, Ghana, Senegal, Kenya, Tanzania and South Africa illustrating vulnerability to hazards ranging from earthquake to shack fire, environmental health hazards, traffic hazards and flooding. Part three looks to the future and outlines a vision for a safer urban Africa based on achieving gains in human security through inclusive governance and investment in the creative capacities of Africa's urban dwellers. With foreword by Anna Tibaijuka, Executive Director, UN-HABITAT

This open access edited volume critically examines a coherence building opportunity between Climate Change Adaptation, the Sustainable Development Goals and Disaster Risk Reduction agendas through presenting best practice approaches, and supporting Irish and international case studies. The Covid-19 pandemic has highlighted existing global inequalities and demonstrated the scope and scale of cascading socio-ecological impacts. The impacts of climate change on our global communities will likely dwarf the disruption brought on by the pandemic, and moreover, these impacts will be more diffuse and pervasive over a longer timeframe. This edited volume considers opportunities to address global challenges in the context of developing resilience as an integrated development continuum instead of through independent and siloed agendas.

This publication provides guidance for urban planners on how to use land use management-related tools they have at their disposal---land use planning, development control instruments, greenfield development, and urban redevelopment---to reduce disaster risk and contribute to strengthening urban resilience and sustainable urban development. The guidance provided in the document is further illustrated through case studies showing examples where urban land use management-related tools have been adopted to reduce disaster risk. It is hoped that this

publication will support urban planners as a professional group to step up and embrace disaster risk reduction.

This book includes selected papers presented at the international expert forum on “Mainstreaming Resilience and Disaster Risk Reduction in Education,” held at the Asian Institute of Technology, Thailand on 1–2 December 2017. The journey towards disaster risk reduction and resilience requires the participation of a wide array of stakeholders ranging from academics to policymakers, to disaster managers. Given the multifaceted and interdependent nature of disasters, disaster risk reduction and resilience require a multidisciplinary problem-solving approach and evidence-based techniques from the natural, social, engineering, and other relevant sciences. Traditionally, hazard and disaster-related studies have been dominated by the engineering and social science fields. In this regard, the main purpose of this book is to capture the multidisciplinary and multisectoral nature of disaster risk reduction, and to gather existing data, research, conceptual work, and practical cases regarding risk reduction and its ties to sustainable development under a single “umbrella.” Along with the sustainability aspect, the book also links disaster risk reduction with development, technology, governance, education, and climate change, and includes discussions on challenges, solutions, and best practices in the mainstreaming of disaster risk reduction.

Climate Change, Disaster Risk, and the Urban Poor

Disaster Risk Reduction in Indonesia

Japanese Cases

Handbook of Disaster Risk Reduction for Resilience

Practice and Cases from a Global Perspective

Cities, Disaster Risk and Adaptation

The urban poor living in slums are at particularly high risk from the impacts of climate change and natural hazards. This study analyzes key issues affecting their vulnerability, with evidence from a number of cities in the developing world.

There is a perennial gap between theory and practice, between academia and active professionals in the field of disaster management. This gap means that valuable lessons are not learned and people die or suffer as a result. This book opens a dialogue between theory and practice. It offers vital lessons to practitioners from scholarship on natural hazards, disaster risk management and reduction and developments studies, opening up new insights in accessible language with practical applications. It also offers to academics the insight of the enormous experience practitioners have accumulated, highlighting gaps in research and challenging assumptions and theories against the reality of experience. Disaster Management covers issues in all phases of the disaster cycle: preparedness, prevention, response and recovery. It also addresses cross-cutting issues including political, economic and social factors that influence differential vulnerability, and areas of practice such as vulnerability mapping, early warning, infrastructure protection, emergency management, reconstruction, health and education, and gender issues. The team of international authors combine their years of experience in research and the field to offer lessons for practitioners, academics and students alike.

Disaster Risk Reduction for the Built Environment provides a multi-faceted introduction to how a wide range of risk reduction options can be mainstreamed into formal and informal construction decision making processes, so that Disaster Risk Reduction (DRR) can become part

the 'developmental DNA'. The contents highlight the positive roles that practitioners such as civil and structural engineers, urban planners and designers, and architects (to name just a few) can undertake to ensure that disaster risk is addressed when (re)developing the built environment. The book does not set out prescriptive ('context blind') solutions to complex problems because such solutions can invariably generate new problems. Instead it raises awareness, and in doing so, inspires a broad range of people to consider DRR in their work or everyday practices. This highly-illustrated text book provides a broad range of examples, case studies and thinking points that can help the reader to consider how DRR approaches might be adapted for differing contexts.

Case Studies in Disaster Mitigation and Prevention: A Volume in the Disaster and Emergency Management: Case Studies in Adaptation and Innovation series presents cases illustrating efforts to reduce human and material losses associated with disasters. This volume demonstrates that mitigation is an ongoing phase in which communities continually pursue long-term hazard resistance and reduction. Cases illustrate the importance of risk assessment in the development of mitigation strategies through hazard mapping and multi-hazard mitigation planning. Cases also illustrate approaches to reduction risk through structural and non-structural means, giving consideration to benefits and limitations of these strategies in different contexts. The contributions of different mitigation activities to disaster risk reduction efforts are examined using the Sendai Framework for Disaster Risk Reduction. Presents in-depth cases studies in disaster mitigation, one of the phases of disaster management Unites practice and research from multiple disciplines to highlight the complexity of disaster mitigation, including environmental and earth sciences, engineering, public health, geography, sociology, and anthropology Examines policy and ethical dilemmas faced by decision makers in disaster situations

Case Studies in Disaster Mitigation and Prevention

Mountain Hazards and Disaster Risk Reduction

Disaster Risk Reduction for Economic Growth and Livelihood

Handbook of Disaster Risk Reduction & Management

Creating Resilient Futures

Disaster Management

Disaster Risk Reduction for the Built Environment

This book draws upon case studies and practices of different types of DRR involvement by the private sector from all over the world. The book comprises two parts, Part I: Overview and Regional Cases; and Part II: Country Cases. The regional cases include those from Africa, Asia, Europe, and Central America, and the country cases include ones from India, Japan, the United States, Vietnam, Thailand, Bangladesh, Malaysia, and Nepal. DRR at the international level is discussed from the perspective of the United Nations International Strategy for Disaster Reduction (UNISDR). The perspective of the Asia-Pacific Economic Cooperation (APEC) is presented in the discussion of DRR at the societal level. The private sector is becoming more active in disaster management and plays an important role in distributing relief items and sending search and rescue teams in the response phase. However, once the response stage is over, private sector involvement tends to fade. While a number of disaster risk reduction (DRR) initiatives by the private sector are documented, they remain limited. The private sector can contribute enormously to DRR by developing business continuity plans, innovating technology for early warning systems, and providing and sharing technical knowledge, skills, and resources in the field of disaster preparedness. To strengthen DRR capacity, it is crucial to involve the private sector as major actors in DRR. The primary target groups for this book are students and researchers in the fields of

disaster management and DRR studies. Another target group comprises practitioners and policy makers, who will be able to apply the collective knowledge from this work to policy and decision making. The book provides an overview of the current research trends and furnishes basic knowledge on this important topic.

From the Asian tsunami of 2004 to hurricane Katrina in 2005 and the Tohoku earthquake of 2011, our century has been fraught with catastrophic natural disasters. Disaster Risk and Vulnerability assesses the human toll and economic losses of natural disasters and reasserts the importance of human collaboration and organization in disaster management. In most cases, policy makers, planners, managers, and regulators who implement disaster risk reduction response planning and management strategies remain detached from local conditions, failing to address them effectively. Presenting case studies from Asia and North America, as well as a broad range of approaches to community mobilization and partnership development, contributors show that local communities, all levels of government, and non-governmental organizations must work collectively in order to reduce the harm caused by disasters. Despite unprecedented progress in science and technology and governments' continued efforts in disaster risk reduction, socioeconomic losses due to environmental disasters continue to rise. Disaster Risk and Vulnerability provides knowledge and information that will benefit anyone working in the fields of environment, disasters, and community mobilization in an effort to reverse this trend.

Natural disasters are increasingly affecting the world, taking lives unexpectedly and leaving many others injured and homeless. Moreover, disasters disrupt local, national and even global economies, instantly changing the direction of development. In the first half of 2011 alone, 108 natural disasters occurred, killing over 23 thousand people, affecting nearly 44 million others and causing more than 253 billion US dollars of economic damages (CRED 2011,1). Large urban settlements have become increasingly vulnerable to the impacts of natural disasters. The concentration of substandard infrastructure and housing, material assets, and inherent socio-economic inequalities increase vulnerability to disasters in large urban areas, especially in developing countries. The size, number, functions, and geographical distribution of large- and megacities create a special concern for disaster risk. Good urban management practices can be a powerful catalyst for reducing losses from natural disasters, while simultaneously helping to develop a sustainable environment. Yet, the existing situation indicates that sustainable planning and risk management measures are not taken into consideration or may not be put into practice for a variety of financial, political, and social reasons. This book argues that, on one hand, socio-economic disparities resulting from unsustainable urban development can increase vulnerability to natural hazards, and on the other hand, when paired with natural hazards this increased vulnerability can negatively affect urban areas, resulting in further inequality. This book will showcase this argument with theoretical reviews and quantitative analyses on the interplay between sustainable development and disaster vulnerability as well as an in-depth case study of the role of urban planning and risk management practices in creating the socio-economic and spatial vulnerabilities and predicted earthquake risk in the megacity of Istanbul.

Disaster Risk Governance offers the first extensive engagement with disaster risk governance in the Caribbean and Sub-Saharan Africa. In the last decade and a half Kenya, Jamaica, Dominica, and Zanzibar have all suffered massive destruction from disasters caused by natural hazards. Despite the tremendous investments in disaster risk reduction (DRR), disasters have wiped out the developmental gains of these countries. In this book, Denise Thompson argues that disaster risk governance (DRG) as a practical and academic matter has not been given the attention it deserves, and as a result, this neglect has undermined the time, money and resources invested in DRR in developing countries since the late 1970s and early 1980s. Thompson proposes that properly conceptualizing DRG based on context will help to address

some of the deficiencies. Consequently, DRG needs to become a central focus, particularly for developing countries. Written with real-life implications for developing countries, Disaster Risk Governance is perfectly suited for practitioners and researchers in area studies, disaster risk reduction and disaster governance, as well as students of disaster studies.

Examining Global Issues and Cases

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