



SPOTLIGHT ON PUBLICATIONS: DISASTER RISK MANAGEMENT IN LATIN AMERICAN CITIES



This selection of publications highlights key resources documenting and analysing some of the main aspects of the Latin American experience with disaster risk management (DRM) in cities: links and relationships between [urban poverty and disasters](#); the importance of [regulatory frameworks, institutions and governance](#); the challenges and opportunities of building [resilient cities](#); the [political economy of DRM](#); DRM [strategies and tools](#); [comparative experiences](#) across countries and regions; and the evolution of conceptual frameworks and methodologies for [risk and vulnerability analysis](#).

URBAN POVERTY AND DISASTERS

► [Climate Change, Disaster Risk, and the Urban Poor: Cities Building Resilience for a Changing World](#)

Poor people living in slums are at particularly high risk from the impacts of climate change and natural hazards. This study analyses the key challenges facing the urban poor with a focus on the risks associated with climate change and disasters, and proposes strategies for addressing these issues. Case studies from Latin America include local climate change strategies in Mexico City and urban development and slum upgrading in Bogota and Caracas.

Full Citation: Baker, J. L. 2012. *Climate Change, Disaster Risk, and the Urban Poor: Cities Building Resilience for a Changing World*. World Bank, Washington, DC.

► [Do Natural Disasters Affect Human Capital? An Assessment Based on Existing Empirical Evidence](#)

This paper provides an assessment of empirical evidence on the microeconomic impacts of natural disasters on the accumulation of human capital, with a focus on consumption, nutrition, education and health. The authors draw on data from disasters in various Latin American countries, including two earthquakes in El Salvador and Hurricane Mitch in Honduras. The authors find that disasters bring substantial damages to human capital, including death and destruction, and produce deleterious consequences on nutrition, education, health and many income-generating processes. They also affirm that the poorest carry the heaviest burden of the effects of disasters and that there is significant room for policy initiatives to better mitigate this situation.

Full Citation: World Bank. 2009. *Do Natural Disasters Affect Human Capital? An Assessment Based On Existing Empirical Evidence*. World Bank, Washington, DC.



► [Linkages Between Population Dynamics, Urbanization Processes and Disaster Risks: A Regional Vision of Latin America](#)

This paper seeks to provide a better understanding of how population dynamics and urbanisation processes intensify disaster risk. It describes tools for planning and developing urban spaces that will be less susceptible to various risks, particularly weather-related hazards. The paper argues that the use of disaggregated population data can greatly contribute to the construction of prospective scenarios that support the design of preventative and mitigation measures, as well as guiding corrective risk interventions and rapid response.

Full Citation: UN-HABITAT, ISDR, UNFPA, 2012. *Linkages Between Population Dynamics, Urbanization Processes and Disaster Risks: A Regional Vision of Latin America*. UNFPA, New York.

► [Urban Poverty and Vulnerability to Climate Change in Latin America](#)

This paper considers which segments of Latin America's urban population are most at risk from the likely impacts of climate change and disasters over the next few decades. It considers how this risk is linked to urban poverty and highlights current weaknesses in city and municipal governments to adequately reduce risk. The paper also discusses measures currently underway to reduce the vulnerability of urban populations to extreme weather events, and how these measures can contribute to building resilience to the impacts of climate change.

Full Citation: Hardoy, J., Pandiella, G. 2009. Urban Poverty and Vulnerability to Climate Change in Latin America. *Environment and Urbanization* 21 203-224.

REGULATORY FRAMEWORKS, INSTITUTIONS AND GOVERNANCE

► [Addressing the Grand Challenges of Disaster Risk: A Systems Approach to Disaster Risk Management](#)

Reforms in DRM systems in Latin America and elsewhere have been implemented via a systemic approach to DRM. Many countries have established national platforms for disaster risk reduction and have started to put in place policy and regulatory frameworks. This paper looks at progress to date in establishing robust enabling environments for disaster risk management. It proposes a model for aligning decision making at national, local, business, and individual/household levels, and outlines a series of areas in which systems-based multi-level approaches have significant potential to unite individual interventions and galvanise broader change.

Full Citation: O'Donnell, I. 2010. *Addressing the Grand Challenges of Disaster Risk: A Systems Approach To Disaster Risk Management*. UNISDR, Geneva.

► [Analysis of Disaster Risk Management in Colombia: A Contribution to the Creation of Public Policy](#)

Colombia has pioneered the development of an integral vision of risk and disaster management, which has resulted in a relative decrease in disaster casualties. This study identifies the legal, institutional and conceptual approaches in use in the country, reviews the state and evolution of investment in risk management, and draws attention to gaps and challenges in



defining responsibilities among the public and private sectors. Finally, the report makes recommendations for improving DRM in government policy and, in particular, highlights the need for revisions to land planning.

Full Citation: Campos, A. *et al.* (eds). 2012. *Analysis of Disaster Risk Management in Colombia: A Contribution to the Creation of Public Policy*. World Bank/GFDRR, Washington, DC.

► [Desk Review on Trends in the Promotion of Community-based Disaster Risk Reduction Through Legislation](#)

This report examines recently adopted DRM legislation in Latin America, including Bolivia, Costa Rica, Ecuador, El Salvador, Honduras and Nicaragua, as well as in countries from other regions, to examine how new regulations and laws are supporting progress towards the goals of the Hyogo Framework. It focuses in particular on how disaster management legislation may promote tangible results at the community level and why it sometimes fails to do so.

Full Citation: International Federation of Red Cross and Red Crescent Societies (IFRC). 2010. *Desk Review on Trends in the Promotion of Community-based Disaster Risk Reduction Through Legislation*. Background Paper prepared for the 2011 Global Assessment Report on Disaster Risk Reduction. UNISDR, Geneva..

► [Legislation for Mainstreaming Disaster Risk Reduction](#)

The aim of this report is to encourage national and donor governments to develop and improve their disaster risk reduction legislation. Legislating for disaster risk reduction is a crucial step in mainstreaming DRM into development. This report contains four sections covering: an analysis of existing disaster risk reduction legislation; the building blocks of successful legislative reform according to country experience, which draws on case studies from Latin America, Asia and Africa; and recommendations for decision makers undertaking legislative reform.

Full Citation: Pelling, M., Holloway, A. 2005. *Legislation for Mainstreaming Disaster Risk Reduction*. Tearfund. Teddington.

► [Study on Disaster Risk Reduction, Decentralization and Political Economy](#)

This report aims to answer enduring questions about how decentralisation can strengthen disaster risk reduction, including understanding the obstacles that are encountered and how can these be overcome. The evidence in this report is drawn from a global literature review and field research in Colombia, as well as countries from other regions, including Indonesia, Mozambique and South Africa. The research findings will be of interest to countries pursuing disaster risk reduction via extensive governance reforms such as devolution, constitutional reform and federalism.

Full Citation: Scott, Z., Tarazona, M. 2011. *Study on Disaster Risk Reduction, Decentralization and Political Economy*. UNISDR, Geneva.

RESILIENT CITIES

► [Global Report on Human Settlements 2011 – Cities and Climate Change](#)

The effects of urbanisation and climate change are converging in dangerous ways that seriously threaten the world's environmental, economic and social stability. This report seeks to improve knowledge, in particular among governments, on the ways in which cities contribute to global climate change, the impacts of climate change on cities (including more frequent and intense disaster events), and how cities are mitigating and adapting to climate change. More importantly, the report identifies promising mitigation and adaptation measures that are supportive of more sustainable and resilient



urban development. The document highlights the important role of decentralisation processes and state reforms in many Latin American countries as mechanisms for supporting mitigation and adaptation measures.

Full Citation: UNHABITAT. 2011. *Global Report on Human Settlements 2011 – Cities and Climate Change*. UNHABITAT, Washington, DC.

► [Making Cities Resilient Report 2012](#)

This report provides a global snapshot of local-level resilience building activities and identifies trends in the perceptions and approaches of local governments toward disaster risk reduction, based on the Ten Essentials for Making Cities Resilient promoted by the campaign. This report also analyses the factors that enable urban disaster risk reduction activities, provides evidence of the importance of political will and leadership for DRM, and describes key trends in building resilient cities and how local governments are going about it. Progress and lessons are analysed from Latin American cities including Quito (Ecuador), Santa Fe (Argentina), Santa Tecla (El Salvador), Siquirres (Costa Rica) and Valle de Itata (Chile).

Full Citation: UNISDR. 2012. *Making Cities Resilient Report 2012. My City is Getting Ready! A Global Snapshot of How Local Governments Reduce Disaster Risk*. UNISDR Secretariat, Geneva.

► [State of Latin American and Caribbean Cities: Towards a New Urban Transition](#)

With 80% of the population living in cities, Latin America and the Caribbean is the most urbanised region on the planet. This report brings together information about the main cities in the region, including approaches and actions to reduce disaster risk, and presents a public policymaking tool that can contribute to the improvement of monitoring systems for developing appropriate urban policies. From a thematic point of view, it reveals a renewed interest in the region for municipal finance, urban planning and mobility, among others.

Full Citation: UN HABITAT, 2012. *State of Latin American and Caribbean Cities: Towards a New Urban Transition*. UN-HABITAT, Nairobi.

POLITICAL ECONOMY OF DRM

► [The Economics of Investing in Disaster Risk Reduction](#)

Using case study examples from across the developing world, this working paper makes important arguments for improving the economic effectiveness of investment decision-making for disaster risk reduction. The study highlights the high and rising economic costs of disasters, explores the challenges of estimating those costs, identifies the economic benefits of disaster risk reduction, specifies the costs of disaster risk reduction activities and reviews the political economy challenges of disaster risk reduction policymaking. The paper presents methodologies for estimating the economic costs of disasters in Latin America, as used by [DesInventar](#), and the 'loss exceedance curve' technique used in Colombia and Mexico.

Full Citation: Vorhies, F. 2012. *The Economics of Investing in Disaster Risk Reduction*. UNISDR, Geneva.

► [Natural Hazards, Unnatural Disasters: The Economics of Effective Prevention](#)

This report showcases a broad selection of case studies to provide an understanding of the relative roles of the market, government intervention, and social institutions in determining and improving both the prevention and the response to disaster hazards. The authors not only ask tough questions, but some unexpected ones as well: Should all disasters be prevented? Do disasters increase or decrease conflict? Does foreign aid help or hinder prevention? Latin American case studies include cities



in Colombia, Costa Rica, Cuba, El Salvador, Honduras and Mexico. Likewise, the Central American Probabilistic Risk Assessment (CAPRA), the Caribbean Catastrophe Risk Insurance Facility (CCRIF) and the use of CAT-bonds in Mexico are also analysed.

Full Citation: World Bank, United Nations. 2010. *Natural Hazards, Unnatural Disasters: The Economics of Effective Prevention*. World Bank, Washington, DC.

► [Tools for Mainstreaming Disaster Risk Reduction: Economic Analysis](#)

This guidance note provides information on methodologies for undertaking economic analysis and evaluations of disaster risk reduction strategies. It is part of a series of 14 different documents, this one is intended to be used by economists in developing countries. It includes a cost–benefit analysis of a flood protection project in Piura, a city in northern Peru, among other examples.

Full Citation: ProVention. 2007. *Tools for Mainstreaming Disaster Risk Reduction: Economic Analysis*. ProVention, Geneva.

DISASTER MANAGEMENT STRATEGIES AND TOOLS

► [Cities and Flooding: A Guide to Integrated Urban Flood Risk Management for the 21st Century](#)

This guide provides comprehensive, forward-looking operational guidance on how to manage the risk of floods in a rapidly transforming urban environment and changing climate scenarios. It outlines and describes the key areas which policymakers need to be knowledgeable about to create an integrated approach to urban flood risk management. The guide highlights the pioneering role played by the Network for Social Studies on Disaster Prevention in Latin America in incorporating local knowledge and capacities into flood risk reduction strategies.

Full Citation: Jha, A., Bloch, R., Lamond, J. 2012. *Cities and Flooding: A Guide to Integrated Urban Flood Risk Management for the 21st Century*. World Bank, GFDR, Washington, DC.

► [Disaster Insurance for the Poor? A Review of Microinsurance for Natural Disaster Risks in Developing Countries](#)

This study reviews microinsurance schemes from a selection of case studies that provide cover for natural disaster risks in developing countries. It is not intended to be exhaustive but to give an overview of the opportunities and challenges of disaster microinsurance for the poor, in particular aiming to offer guidance to policymakers. The study includes: a discussion of the benefits and limitations of risk transfer and risk pooling; the different organisational and institutional forms that microinsurance can take; evidence available on the organisation, scope, and operations of the disaster microinsurance programmes reviewed; and the main findings with regard to the potential of catastrophe microinsurance to protect the poor against the consequences of natural disaster shocks, and to the significant challenges in making this protection viable. The study also analyses microinsurance schemes that offer protection against disaster risk in four Caribbean countries: the Dominican Republic, Grenada, St. Lucia and St. Vincent.

Full Citation: ProVention. 2006. *Disaster Insurance for the Poor? A Review of Microinsurance for Natural Disaster Risks in Developing Countries*. ProVention, Geneva.



► [Establishing and Institutionalizing Disaster Loss Databases in Latin America – Guidelines and Lessons](#)

This document presents the results of a consultancy commissioned by UNDP to document and analyse the development of historical databases on the losses and damage caused by disasters in Latin America. The objectives of the work were to identify and document the processes undertaken by each country to develop their own inventories and to extract lessons learned from those experiences. The publication also aims to analyse such processes within the framework of the formulation of recommendations for the establishment of National Disaster Observatories.

Full Citation: Global Risk Identification Programme. 2010. *Establishing and Institutionalizing Disaster Loss Databases in Latin America - Guidelines and Lessons*. GRIP, UNDP, Geneva.

► [FONDEN: Mexico's Natural Disaster Fund - A Review](#)

This report shares Mexico's considerable achievements in financial management of natural disasters with other governments, with the aim of contributing to dialogue on financial disaster risk management and inspiring innovation elsewhere. The report outlines the evolution of FONDEN to date and highlights aspects that may be particularly applicable to other disaster-prone countries. Though the report is of particular relevance to middle-income countries, it also contains important messages for both high- and low-income countries.

Full Citation: World Bank. 2012. *FONDEN: Mexico's Natural Disaster Fund - A Review*. World Bank, Washington, DC.

► [Handbook for Estimating the Socio-economic and Environmental Effects of Disasters](#)

This handbook from the [Economic Commission for Latin America and the Caribbean \(ECLAC\)](#) describes a methodology for assessing the social, economic and environmental impacts of disasters, by breaking them down into direct and indirect damages and losses, and then converting this information to produce an estimation of total macroeconomic impacts. The handbook focuses on the conceptual and methodological aspects of measuring or estimating the damage to capital stocks and losses in the production flows of goods and services, as well as any temporary effects on the main macroeconomic variables. This methodology has benefited greatly from the cooperation and contributions of distinguished experts and consultants from Latin America, the Caribbean and other parts of the world, and is the result of the conceptual analyses of many disasters that have occurred in Latin America over the past three decades.

Full Citation: ECLAC. 2003. *Handbook for Estimating the Socio-economic and Environmental Effects of Disasters*. ECLAC, Santiago de Chile.

► [Improving the Assessment of Disaster Risks to Strengthen Financial Resilience](#)

Mexico and many other countries are making progress on strengthening financial resilience to natural disasters. This publication highlights their experiences, providing examples of the steps governments are taking to protect people and assets. These include improving land use management and building standards, developing insurance markets and enhancing social safety nets. These experiences demonstrate that it is possible to reduce the risks of natural disasters, and that – if done right – prevention pays off.

Full Citation: Government of Mexico, World Bank. 2012. *Improving the Assessment of Disaster Risks to Strengthen Financial Resilience*. World Bank, Washington, DC.



► [Preventive Resettlement of Populations at Risk of Disaster: Experiences from Latin America](#)

In Latin America, preventive resettlement of populations vulnerable to disasters is now producing successful results as a strategy for reducing urban risk. This publication presents case studies illustrating how various countries have incorporated this measure in innovative ways. Through examples included in this book, practitioners can compare the advantages and disadvantages of various resettlement alternatives, as well as learn how institutions have been organised and community awareness raised, the types and sources of financing obtained, and how reclaimed areas have been controlled, providing important lessons for future interventions.

Full Citation: Correa, E. (ed). 2011. *Preventive Resettlement of Populations at Risk of Disaster: Experiences from Latin America*. GFDRR, World Bank, Washington, DC.

► [Slum Upgrading: Lessons Learned from Brazil](#)

The main aim of this book is to disseminate useful lessons learned from urban development and *favela* (slum) urbanisation programmes in Brazil financed by the Inter-American Development Bank and the Brazilian government. The book draws attention to the critical aspects of design that must be addressed in the preparation of future projects, as well as in the execution and monitoring of investments. It also makes policy recommendations for this sector. The book is written mainly for urban development professionals and decision makers involved in the design of urban development and slum upgrading initiatives.

Full Citation: Inter-American Development Bank (IDB). 2012. *Slum Upgrading: Lessons Learned from Brazil*. IDB, Washington, DC.

COMPARATIVE STUDIES OF DRM

The following publications all compare case studies from cities across Africa, Asia and Latin America, thereby providing useful insight into the contextual factors that might be impacting DRM efforts.

► [Global Assessment Report on Disaster Risk Reduction 2011: Revealing Risk, Redefining Development](#)

This report explores trends in disaster risk reduction for each region and for countries with different socio-economic development pathways. In doing so, it presents the most complete global overview of national efforts to reduce disaster risk. The report stresses the political and economic imperative to reduce disaster risks, and the benefits to be gained from doing so. Findings from the Latin America region show that accounting for disaster losses is a first step towards assessing and taking responsibility for disaster risk. Adapting existing development instruments such as national public investment planning, conditional cash transfers and temporary employment programmes can help to scale up DRM efforts to reach millions of risk-prone citizens. Such strategies reduce disaster risk and strive towards the objectives of the HFA, while at the same time are important for adapting to climate change and achieving the Millennium Development Goals.

Full Citation: UN. 2011. *Global Assessment Report on Disaster Risk Reduction 2011: Revealing Risk, Redefining Development*. UN, New York.



► [Information on Disaster Risk Management: Case Studies of Five Countries](#)

This report compares the institutional structures and disaster risk management systems operating in Colombia, Chile, Jamaica, Mexico and Nicaragua. In particular, this report contributes to a better understanding of how risk is being managed in different contexts via information systems. Based on a multi-country assessment, the report makes proposals for a more systematic handling of information to make it more accessible and available for decision making.

Full Citation: ECLAC. 2007. *Information on Disaster Risk Management: Case Studies of Five Countries*. ECLAC, Santiago de Chile.

► [World Disasters Report 2010: Focus on Urban Risk](#)

This IFRC report focuses on risk in the context of rapid urban growth, stating that the root cause of so many people being affected by urban disasters is that a billion people live in poor-quality homes on dangerous sites with no hazard-reducing infrastructure or basic services. The report covers urban disaster trends, strategies for avoiding the urbanisation of disaster risk, community rights and post-disaster response, urbanisation and climate change risk, and urban governance and disaster risk reduction. The report also analyses experiences of community-driven 'upgrading' of informal settlements in Latin American cities and shows how they are proving to be effective strategies to improve housing conditions and reduce urban risk.

Full Citation: The International Federation of Red Cross and Red Crescent Societies. 2010. *World Disasters Report 2010: Focus on Urban Risk*. IFRC, Geneva.

CONCEPTUAL FRAMEWORKS, RISK ANALYSIS AND VULNERABILITY

► [Climate Change 2007: Impacts, Adaptation and Vulnerability](#)

Latin America is highly heterogeneous in terms of climate, ecosystems, human population distribution and cultural traditions. Climatic variability and extreme events have been severely affecting the Latin America region over recent years. Though from 2007, this report is useful as it provides a comprehensive scientific assessment of the impacts of climate change and the vulnerability of natural and human environments in Latin America.

Full Citation: IPCC. 2007. *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Cambridge University Press, Cambridge.

► [Local Level Risk Management: Concepts and Experience in Central America](#)

The main objective of this paper is to consider the fundamental conceptual premises of local-level risk reduction and management, such as have been developed in Latin America, and analyse examples of the implementation of local management schemes in Central America. In particular, it describes the challenges encountered and the actual or potential results in terms of disaster reduction.

Full Citation: Lavell, A. 2002. *Local Level Risk Management: Concepts and Experience in Central America*. Paper presented at the Disaster Preparedness and Mitigation Summit, 21-23 November, 2002, New Delhi.



► [The Need for Rethinking the Concepts of Vulnerability and Risk from a Holistic Perspective](#)

The key to understanding the causes of disasters and mitigating their impacts is the concept of 'vulnerability'. This work analyses 'vulnerability' as a central concept to the way we understand disasters, their magnitude and impact and is a counterbalance to those technocratic approaches that limit themselves to simply looking at disasters as natural phenomena. The author stresses the importance of social processes and human-environmental interactions as causal agents in the making of disasters. The work looks at vulnerability in terms of its relationship to development and its impact on policy and on people's lives through consideration of selected case studies drawn from Africa, Asia and Latin America.

Full Citation: Cardona, O. 2004. The Need for Rethinking the Concepts of Vulnerability and Risk from a Holistic Perspective: A Necessary Review and Criticism for Effective Risk Management. In: Bankoff, G. Frerks, G., Hilhorst, D. (eds). *Mapping Vulnerability: Disasters, Development and People*. Earthscan Publishers, London.

► [Risk in Urban Contexts: Conceptual Framework](#)

This document is the result of an inventory, analysis and conceptual debate on approaches to urban risk in Latin America and the Caribbean. The basic questions it covers are: What is urban risk and why is it necessary to differentiate this type of risk from risk in general? Which specific objectives should become the foundation of the development of strategies, methodologies and action tools? Overall, the document highlights the importance of the close and complementary relationship between urban and rural areas; territorial zoning and construction codes as regulating and prevention mechanisms; and the creation of strategies, instruments and actions to improve local government capabilities to integrate risk reduction into their planning processes.

Full Citation: International Federation of Red Cross and Red Crescent (IFRC). 2012. *Risk in Urban Contexts: Conceptual Framework*. IFRC, Geneva.

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