



Comprehensive Disaster Risk Management Framework

Module 1: Introduction to Natural Disaster Risk Management

Session 1 – Disaster Risk Management as Global Development Agenda

This introductory presentation explains why disaster risk reduction is considered a development challenge. It reviews the trends in disaster occurrence, its impact, frequency and regional distribution. It also highlights the interrelation between disaster risk reduction and poverty alleviation and Millennium Development Goals. The closing part of the presentation briefly informs about international cooperation and initiatives that aim at reducing disaster risk at global scale.

Session 2 – Building Blocks of Comprehensive Disaster Risk Management: Concepts and Terminology

The presentation focuses on the basic concepts related to disaster management and the key elements of a comprehensive disaster management framework. The objectives of this introductory presentation are twofold: (i) to have a common understanding of principles, terms and processes involved in disaster management, and (ii) to guide through the complexity of issues development practitioners are facing when they deal with natural disasters. The approach described in this presentation will be used throughout this course and the overall Disaster Risk Management Learning Program.

Case Study 1 - [Disaster Impact on Development](#)

Natural calamities/hazards affect the countries all over the world and impact the development. They might be categorized as minor or major, but citizens feel the impetus. This reading gives an overview on a range of natural hazards —earthquakes, volcanic activities, landslides, tsunamis, tropical cyclones and other severe storms, tornadoes and high winds, river floods and coastal flooding, wildfires and associated haze, drought, sand/dust storms—that are effecting the development landscape. The paper also highlights that climate change have resulted in new type of hazards and vulnerabilities. It outlines the vision to reduce vulnerability to disasters and formulates strategies for development policies. Finally, the paper lists specific actions for disaster reduction.

Case Study 2 - [Last Straw: Country Cases](#)

Caribbean is subjected to regularly occurring natural hazards. Although, little can be done to prevent them, it is possible to reduce or eliminate their destructive effects on humans and development. This paper studies three countries—Dominica, the Dominican Republic, and St. Lucia, to assess the importance of the linkages between natural hazard risk and natural resource management and environmental degradation. It also gives an overview on the extent to which these linkages are taken into account in disaster management. The paper highlights the importance of implementing hazard mitigation and environmental protection plan and addresses the challenges faced during the process.

Readings

Module 2: National Disaster Management Systems

Session 1 – Institutional Arrangements and Organizational Structures

This presentation covers the main organizational and institutional issues to be considered when setting up national disaster management systems. It emphasizes that there is no single model that is appropriate for all countries and that institutional structures and legislation have to be designed by taking into account the specific circumstances, historical and cultural characteristics of the given country. At the same time, there are some general guidelines that should be followed to achieve the efficient functioning of national disaster management systems. These principles include the existence of an explicit national disaster strategy, integration of key players into the disaster management process and provision of resources to key players to carry out their responsibilities.

Session 2 – Strategies for Financing the Economic Impacts of Disasters

There are significant advantages to proactive risk management and the incorporation of disaster scenarios into economic planning. Computing technology has made it possible to assess risks and potential impacts of natural hazards before disasters occur and to evaluate government's post-disaster financing options. This session introduces the term "financing gap" or the mismatch between the funds needed to repair damages and to provide relief, and the funds available through traditional financing. The choice of risk financing option should be based on the size of a financing gap and on the costs and benefits of filling that gap. As the presentation demonstrates, insurance and other risk-financing instruments involve a trade-off between economic stability and economic growth, and this trade-off should be reflected in economic planning.

Session 3 – Damage and Reconstruction Needs Assessment

The presentation introduces the UN Economic Commission for Latin America and Caribbean (ECLAC)'s methodology for assessing the impacts of catastrophic events. It reviews basic valuation concepts and terminology, the main components of the assessment, and when and how it should be done. It also gives the list of operational, methodological and policy concerns that have to be taken into consideration when damage and reconstruction needs assessment is undertaken. The session concludes by presenting the different potential uses of damage assessment, from resource mobilization for reconstruction to policy formulation.

Case Study 1 – Malawi: Climatic Variability and the Economy

This study of a small land-locked country in Southern Africa analyzes the impact of climatic variability, especially drought, on agricultural performance and the overall economy. The authors use graphical and regression analyses and conventional evaluation techniques to assess the costs of major natural disaster shocks. The analyses reveal the relationship between the country's vulnerability to climatic events and the existing economic structures and policy environment. The paper attempts to quantify the economic and financial costs of extreme events that could be anticipated by climatic forecasting.

Case Study 2 – National Disaster Management Systems in Select Countries

The short paper reviews national disaster risk management systems in different regions. The selected countries are the Latin American states of Argentina, Brazil, Chile, Dominican Republic, El Salvador, Honduras, Mexico and the Caribbean, the European states of Hungary, France and United Kingdom, USA, and the Asian countries of Japan, India and Fiji. It shows the historical evaluation of different systems, the role of traditional social values and culture in their design and philosophy, and identifies the main challenges and institutional impediments to establishing efficient national systems. The paper ends with the lessons learned from disaster risk management systems worldwide.

Case Study 3 – Turkey: Mandatory Earthquake Insurance

Historically, insurance coverage for earthquake exposure has been very low in Turkey. As in other developing countries, the local insurance industry is relatively underdeveloped. Moreover, inadequate construction and building standards, combined with weak enforcement of building codes, have increased earthquake exposure. As a result, the insurance industry has not been motivated to penetrate the market. Prospects for expanding earthquake insurance coverage in Turkey have also been hampered by government policies that provide replacement of dwellings

almost free of charge. Recent earthquakes revealed these inherent market weaknesses and prompted the establishment of a government-backed insurance pool to cover uninsurable risks. Legislation establishing the Turkish Catastrophe Insurance Pool makes specific earthquake insurance policies compulsory. It also requires the enforcement of building codes and standards that reduce risk and eliminate government-subsidized loans to homeowners.

Readings

Module 3: The Role of Local Actors

Session 1 – Safer Cities

This session provides an introductory overview of “sound practice” in disaster risk management for local government policymakers, urban managers, planners and disaster management professionals. It discusses the impediments to disaster risk reduction in urban environments and presents the key concepts of disaster risk management and the role of local institutions. It emphasizes that disaster risk management only takes place when it is integrated within local government functions and proposes a model for such integration based on the development of a city-wide disaster risk management master plan. Finally, it establishes that disaster risk reduction stems from coherent policies that are based on a comprehensive understanding of risk, that promote preparedness and mitigation and incorporate the participation of active agents of the community.

Session 2 – Community-based Disaster Risk Management

The session focuses on the specifics of community-based disaster risk management. It begins by identifying the factors that exacerbate the vulnerability of the poor and the preconditions for improving communities’ coping capacity to natural hazards. It emphasizes assets and access to resources as factors of resilience for communities, and the role of participatory methods in designing and implementing mitigation measures and policies. The session concludes that there is no unified methodology in community-based disaster risk mitigation; each community must follow the rules and methods that best suit its character. However, the responsibility to create an enabling environment for community initiatives in risk mitigation, and to design mechanisms that foster community involvement, lies with national and local authorities.

Case Study 1 - [Empowered Individual: Caring Neighbors Make the Best Disaster Managers](#)

The main message of the Indian case study is that empowering individuals in communities threatened by disaster is key to successful mitigation. The paper describes the Patanka New Life Project which was part of the reconstruction efforts after the 2001 Gujarat earthquake. The project focused on disaster mitigation at the community level. The project’s success proves that investing in people’s knowledge, improving livelihood options, empowering individuals, strengthening local institutions and partnering with local governments are the most important components of successful disaster mitigation.

Case Study 2 - [Housing Reconstruction in Mexico City](#)

The case study examines one component of the complex rehabilitation and reconstruction program that followed the 1985 earthquake in Mexico City. The Popular Housing Reconstruction agency or RHP was set up to rebuild urban areas damaged by the disaster. RHP had rebuilt 48,000 dwelling units benefiting 260,000 people in one and a half years. More than 1200 companies participated in the program, and almost all federal and city development and management agencies contributed to reconstruction. But most importantly, the victims themselves were involved in the decision making and reconstruction process on a daily basis. The case study presents this success story in emergency reconstruction as a model for community involvement.

Readings

