

Guide to Vulnerability and Risk Assessment

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Disaster Management Training Programme (DMTP)

Organisation

DMTP is a UN system wide global learning platform that focuses on the enhancement of national governments and the UN system's capacity to effectively prepare for, respond to and reduce risks from disasters.

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Abstract

This training manual examines the scope for measuring risks from disasters and for estimating losses from such events, outlining options for how to reduce loss within the context of development plans and strategies. The module outlines the concepts and framework of risk and vulnerability assessments, as well as disaster mitigation options in detail.

Intended end users

The end users are **international agency staff** specialized in risk management and development, as well as **government staff** from counterpart agencies, **NGOs** and **donors**.

Language

The manual is available in English, French, Spanish, and Arabic.

Scale of assessment

The scale of assessment is focused on the **national, provincial, municipality** and **community** level.

Type of Material

This is a **training manual** that includes guidelines for conducting vulnerability and risk assessment, including:

- ◆ Conceptualizing the concept of risk: how to understand, measure and determine risk
- ◆ Framework for evaluating hazards, as well as vulnerability
- ◆ Outlines differences between vulnerability and risk
- ◆ Provision of detailed examples and case studies
- ◆ Framework for determining disaster mitigation options

It also provides an overview of how to understand the needs and priorities of communities at risk through the assessment framework. The publication gives a conceptual framework for understanding risk, hazards and vulnerability. The publication also contains case studies and examples illustrating the assessment process. The module also includes a trainer's guide.

Type of assessment

The training manual provides a framework for introducing and understanding Risk and Vulnerability Assessment: including risk mapping, hazard mapping and vulnerability evaluation. It describes in detail 3 essential steps in the quantification of risk: Hazard occurrence probability, elements at risk and vulnerability.

Analytical methods

The core of the publication consists of the conceptual framework for conducting vulnerability and risk assessments.

The training manual provides a limited amount of tools and methods for analysing risk.

Disaster Risk Assessment methods include:

- ◆ **Risk and Vulnerability Assessment**
- ◆ **Disaster Risk Assessment (DRA)**

General Assessment methods include:

- ◆ **Vulnerability analysis**
- ◆ **Cost-benefit analysis**

Tools

Technical tools include:

- ◆ Matrices for: Loss parameters for risk analysis, hazard evaluation, vulnerability evaluation
- ◆ f:N curves
- ◆ Scenario mapping
- ◆ Potential loss study
- ◆ Annualized risk mapping

Participatory tools include:

- ♦ **Hazard mapping**
- ♦ **Risk mapping**

The manual intentionally does not comprehensively cover the analytical methods tools in detail that would be needed to conduct vulnerability and risk assessment at the community level.

Notes on methods

- ♦ The module can be used in two contexts – for developing content for a training workshop or for self-study purposes.
- ♦ It is most useful for people who wish to understand how to conceptualise risk and how to think about undertaking risk assessment as part of relief or development projects and how to appraise various disaster mitigation options.
- ♦ The module is not meant to be a how to guide for risk assessment. Rather it provides a framework for assessing risk and vulnerability and for identifying how to factor risk into development projects.
- ♦ The analytical tools necessary for a thorough and participatory community risk assessment or to assess disaster mitigation options are not provided.

Case studies / practical examples

The training manual contains several practical examples and small cases illustrating how the tools and methods can be applied in practice.

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Author of guidance note

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