

# Chapter 1

# Introduction

In mountainous countries, vulnerability, hazard, and risk are everywhere. Nepal is such a country, characterised as it is by a rugged topography with high relief, complex geological features, concentrated rainfall, and a dense population. A larger part of the country is vulnerable to natural hazards such as earthquakes, landslides, debris flows, floods, drought, and other associated phenomena. A variety of physiographic, geological, ecological, and meteorological factors contribute to these hazards; whereas demographic factors such as rapid population growth, improper land use, economic underdevelopment, and the resulting dire poverty and widespread ignorance of the possibilities and means of mitigation exacerbate them (Sharma 1990).

Dense seasonal rainfall triggers hazard events on steep mountain slopes, and at high altitude heavy snows result in avalanches and glacial lake outburst floods. The most frequent events occurring are landslides and debris flows on cultivated, steep terraces, as well as flash floods. All these can lead to disasters.

Disasters are not only caused by natural phenomena, but can also be created by people. Any event that threatens human life, livestock and property, that disrupts economic life and communities and damages infrastructure is a disaster. Disasters affect not only the status quo, but the future well-being of communities living in hazard-prone areas.

Every disaster has a temporal dimension and relative to that is its predictability or unpredictability. Famines are slow in gathering pace; floods are predictable but quick, whereas earthquakes and landslides are unpredictable and sudden. The length of time a disaster takes to occur governs the amount of time people have to respond efficaciously. The time factor ranges from a fairly long time for a famine to no time at all for an earthquake or landslide. The one thing all disasters have in common is that they all affect normal life, health and well-being, and livelihoods negatively.

Human-created disasters can be prevented. We hear much about this in relation to global warming and environmental protection. Natural hazards cannot be prevented, but the disasters they cause can be mitigated so that their impacts are reduced. That is what disaster preparedness means.

Preparedness requires the ability to forecast or assess when a disaster is likely to occur; it also involves assessment of scale. To be prepared, people need the communication facilities to inform communities about disasters, physical and material assets, and the means of monitoring the advent of a disaster, as well as the alertness to know what to do when it occurs. All these involve planning.

The success of response and relief efforts when disaster does occur depends upon the degree of preparedness. Were medical supplies, food, and shelter arranged in safe places; was management of casualties efficient and hygienic; and how quickly were essential services restored? These are crucial questions, and the answers to them following each disaster help a community evaluate and improve its efforts the next time around.

To prepare for disasters is hard work, and it takes meticulous planning and drilling. For these to be successful, careful strategies have to be drawn up and key institutions made responsible and accountable for crucial tasks. It goes without saying that successful disaster planning needs devolution of authority from the top government levels to those coping with the problems on the ground. Hence, key institutions need the means and organisation to respond effectively. In this day and age, the means involve technologies such as early warning systems, remote sensing, and information technology. In the context of private property and government infrastructure, particularly where earthquake preparedness is concerned, building codes should be strictly enforced.

The media can play a positive role in disasters. People need to be informed; and that means not only people in disaster-stricken areas – where portable radios may well be the only medium left in operation – but people in other areas who may well be affected next. In addition, the media can arouse public compassion to help not only compatriots but also people from other nations in times of disaster. A critical role for the media needs to be defined in disaster preparedness because, through popular entertainment, people can learn what to do when disasters strike.

Above all, communities at risk need to be involved in preparedness from the very inception, and this takes training, particularly to convince people that, although natural disasters will continue to occur, the worst impacts are not always inevitable.

In Nepal, natural disasters take place year after year causing immense damage to public property and loss of human life and livestock. Sometimes, the damage is enormous, as experienced during the earthquakes of 1980 and 1988, floods of July 1993 and August 2006, and landslides of August 2006. Apart from these events, natural calamities have occurred time and again in the past, and the 1934 earthquake was one of the most serious disasters the country has ever faced.

Prior to 1982, relief and rescue work was carried out on a voluntary basis. It was only after the advent of the Natural Disaster Relief Act in 1982 that a structured disaster policy came into existence. In 1996, on the occasion of the International Decade for Natural Disaster Reduction (IDNDR), Nepal formulated a National Action Plan for Disaster Preparedness, Disaster Response, Disaster Rehabilitation and Reconstruction, and Disaster Mitigation. This was the first time the government had taken concerted action on disaster management. Even a decade after the introduction of the National Action Plan of 1996, most of the activities undertaken by both government and non-government agencies focus on post-disaster activities: much work remains to be done in the field of disaster preparedness. In an effort to follow-up on disaster preparedness, the 1996 National Action Plan was updated and revised in a National Report of Nepal prepared for the World Conference on Disaster Risk Reduction in Kobe, Japan in 2005.

## Objective

The objective of this report is to provide a state-of-the-art account of the National Disaster Preparedness Plan (NDPP) of Nepal by giving as complete an account as possible of existing plans, policies, and strategies in the field of disaster management. The terms of reference are given in Annex 1.

## Scope

The report describes the current status of planning for natural disasters in Nepal. It is divided into eight chapters. Chapter 1 introduces the subject of report, and covers the aspects of planning and organisation for three major types of natural hazard: floods and flash floods, landslides, and earthquakes, which are covered in Chapter 2.

Chapter 3 provides comprehensive briefs on the most prominent among the institutions working in the field. Chapter 4 covers planning and legal instruments introduced to promote disaster mitigation, preparedness, and response. District preparedness is the subject of Chapter 5. Chapter 6 examines the lacunae in planning and implementation.

The importance of communicating and sharing knowledge adequately is covered in Chapter 7, and overall conclusions and recommendations in Chapter 8.

There are ten annexes giving additional information that clarifies references made in the text and the organisation of disaster preparedness in Nepal. Annex 1 provides the terms of reference for the consultancy to write this report. Annex 2 is the Kathmandu Valley Earthquake Risk Management Action Plan 1983-2004, Annex 3 lists the projects and programmes carried out by the National Society for Earthquake Technology (NSET) Nepal for earthquake preparedness, Annex 4 is the Natural Disaster Relief Act 1982

and its second amendment, Annex 5 the National Action Plan on Disaster Management in Nepal, 1996. Annex 6 is the document 'Disaster Reduction and Management in Nepal, Issues and Prospects, a national report presented to the World Conference on Disaster Reduction held in Kobe, Japan, in 2005. Annex 7 provides the draft versions of the Disaster Management Policy in English (Annex 7a) and Nepali (Annex 7b), Annex 8 the draft Disaster Management Act, 2063 (in Nepali), and Annex 9 the Chitwan District Disaster Management Action Plan. Annex 10 gives the list of people visited by the author in the course of preparing this report. These annexes, apart from Annexes 1, 7, and 10, have already been published by government offices, and have been reproduced as published with no additional editing. All Annexes are include on a CD-ROM in the pocket at the back of this publication.