

## Chapter 1

# Introduction

**N**atural disasters are caused by rapid and extreme changes in the geophysical system (lithosphere, hydrosphere, biosphere or atmosphere); and they most frequently occur as floods, landslides, debris flows, avalanches, drought, and earthquakes.

With the global population increasing at a rate of 80 million/year, there is an uncontrolled extension of settlements in the regions prone to natural hazards, increasing their vulnerability to disasters. According to Van Westen (2002), weather-related disasters have resulted in an eight times increase in economic losses over the past four decades. Less developed countries, which host two thirds of the world's population, suffer 95% of the losses from disasters.

Adequate and comprehensive disaster management is the only way of dealing with disasters. Disaster management involves policies, administrative decisions, and operational activities related to various stages of disaster. With effective disaster management strategies, it is possible to avoid or reduce the impact of disasters (Montoya 2002). The main objective of disaster management is to increase preparedness, provide early warning, monitor the hazard in real time, assess the damage, and organise relief activities (Ayaz et al. 1997). Prevention of disasters caused by natural phenomena is extremely demanding in terms of expertise, technology, and resources. Montoya (2002) divided disaster management into four phases: mitigation, preparedness, response, and recovery, and each involves a great deal of effort and skills.

Underdeveloped countries are hard pressed to provide basic necessities such as water, food, roads, education, and health to the population with no or few resources left to prepare for disaster control. Pakistan is no exception. Hard pressed for economic resources and rapid population growth combined with political and security issues at domestic, regional, and international level, disaster management has received the least priority in the country. The impact of natural disasters in Pakistan can be judged by the fact that 6,037 people were killed and 8,989,631 affected in the period from 1993-2002 (IFRCRC 2003). Since 2002 more than three earthquakes exceeding magnitude 6 have struck northern Pakistan. Whereas the Astor Earthquake (2002) and Upper Hazara Earthquake (2003) resulted in casualties amounting to 36 and 17 respectively, more than 85,000 people lost their lives in the October 2005 Kashmir

earthquake. Many lives were lost to landslides, debris flows, and floods following the earthquake, with hundreds at risk in the monsoon season of 2006 -2007.

This report assesses Pakistan's preparedness for effective response to disasters caused by natural hazards. Unfortunately, Pakistan's formulated plans for disaster preparedness are virtually negligible: the emphasis is rather on mitigation through structural measures or relief as and when the need arises. Plans, including response through prior evacuation from threatened locations, timely and effective search and rescue, and long-term relief and rehabilitation, are non-existent.

This status report covers disaster preparedness plans and includes information on related aspects in the broad context of disaster management. Since the earthquake in 2005, several disaster management plans have been formulated and institutions established; however, most of them are in their infancy, and their long-term impact and effectiveness are yet to be evaluated. Nevertheless, they do reflect a renewed focus on disaster preparedness in Pakistan and are included in this report.