

## **The Role of Extreme Weather Events, Mass Movements, and Land Use Changes in Increasing Natural Hazards**

*A Report of the Preliminary Field Assessment and Workshop on  
Causes of the Recent Damage Incurred in South-Central Nepal (July 19-20, 1993)*



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E.F. Tucker  
Director General

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# Foreword

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The Steep Slopes, unstable geology, and the intense monsoons combine to make the Hindu Kush Himalayas one of the most hazard-prone areas in the world. As human activities rapidly expand across these mountains, these also become subject to the influence of hazards, often resulting in severe natural disasters. Such an event occurred in Nepal in the Southern parts of the Central Development Region during July 19 and 20, this year.

As an institution focussing on integrated mountain development, ICIMOD's concerns have been directed at identifying alternative methods of hazard mitigation and improving disaster preparedness. In such cases, prevention is always the preferred alternative. With the objective of better understanding the factors and processes involved, ICIMOD organised a discussion of the natural events, bringing together concerned professionals from the Planning Commission, government departments, and the University.

The meeting recommended an immediate reconnaissance study of the affected areas. ICIMOD fielded a reconnaissance study team, consisting of faculty members of Tribhuvan University, to study three of the worst-affected areas. This report contains the findings of the study team and the conclusions and recommendations arrived at from the study team's findings during a workshop held on November 23rd and 24th, 1993.

ICIMOD is grateful to Dr. Binayak Bhadra, Member of the National Planning Commission, for his full support and to Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) for providing the funds for this study and the workshop; to Tribhuvan University for contributing the time of their dedicated professionals; to all the agencies involved from HMG/Nepal for their whole-hearted cooperation; and to the local residents in the areas visited who took the time, in the midst of such a terrible disaster, to provide us with information. To all of these, we owe our heartfelt appreciation.

E.F. Tacke  
Director General

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Megh Raj Dhital  
Narendra Khanal  
Khadga B. Thapa

E.F. Tacke  
Director General

Part I: THE PRELIMINARY RECONNAISSANCE

Part One: The Introduction and Description of Natural Events were written by **Narendra Khanal**, Lecturer, Geography Department, Tribhuvan University, and the Assessment of Climatic Events was prepared by **Khadga B. Thapa**, Reader, Central Department of Meteorology, Tribhuvan University.

Part Two: Part II was the work of **Megh Raj Dhital**, Lecturer, Geology Department, Tribhuvan University.

Part Three: The Assessment of Land Use Changes and Their Impact was prepared by **Narendra Khanal**.

Part Four: The final overall assessment was based on contributions from all three authors and on the Workshop Discussions.

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