

## Plates



Plate 1: Strongly developed gully erosion in Hungung Village, Arun Valley, eastern Nepal, gradually destroying the agricultural land and threatening the stability of the village.



Plate 2: Rockslide in the highly crushed zone near Jhakri Danda, Kanti Rajpath, Central Nepal.

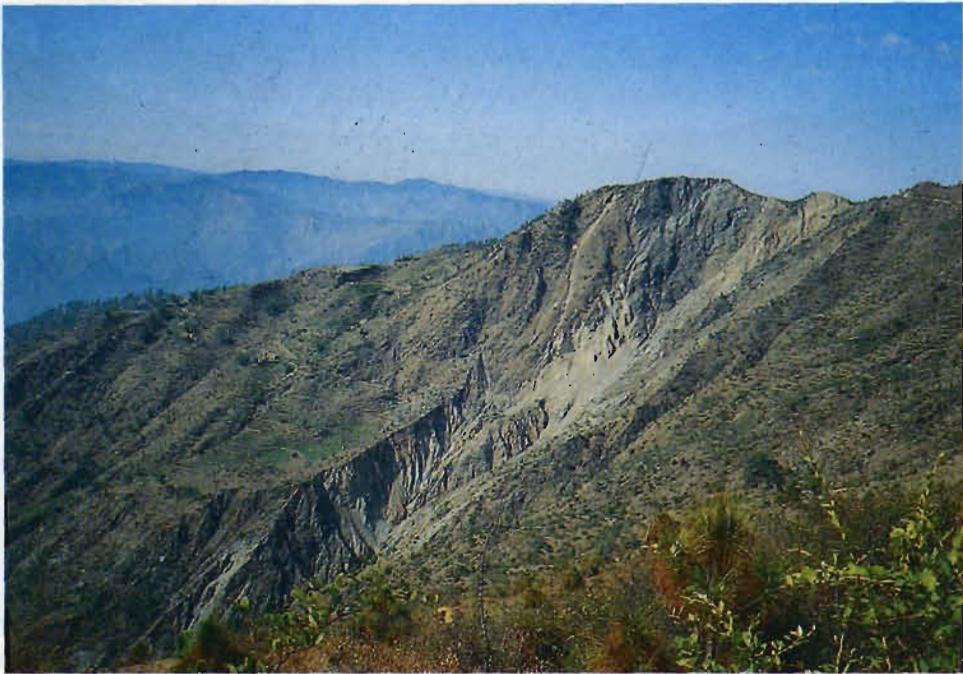


Plate 3: A large landslide formed by wedge failure in quartzites and phyllites (location: Far-western Nepal).



Plate 4: Phedigaun devastated by the disaster of July 19-21, 1993. Notice an island in the middle of the fan with a few houses. The previous river channel was confined to the west of the island, but, during the disaster, it shifted to the right (north) and swept away many houses - view towards the west.

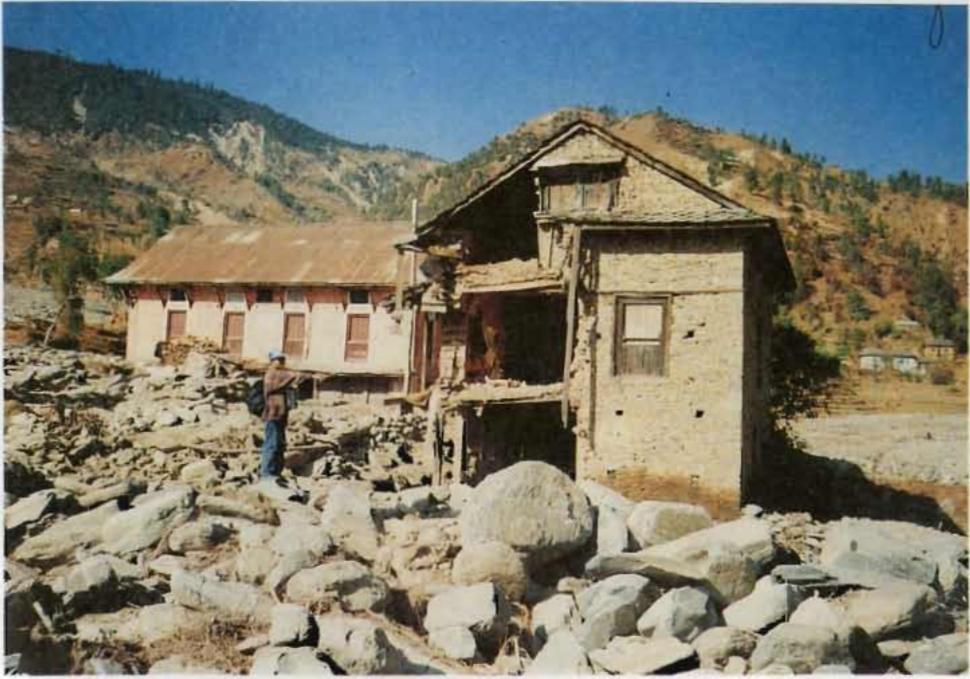


Plate 5: A closer view of the houses at Phedigaun damaged by the disaster of July 19-21, 1993 - view towards the west.



Plate 6: Landslides in the Agra *Kholā* Watershed (Central Nepal) triggered by the cloudburst of July 19-21, 1993 - view towards the southwest.

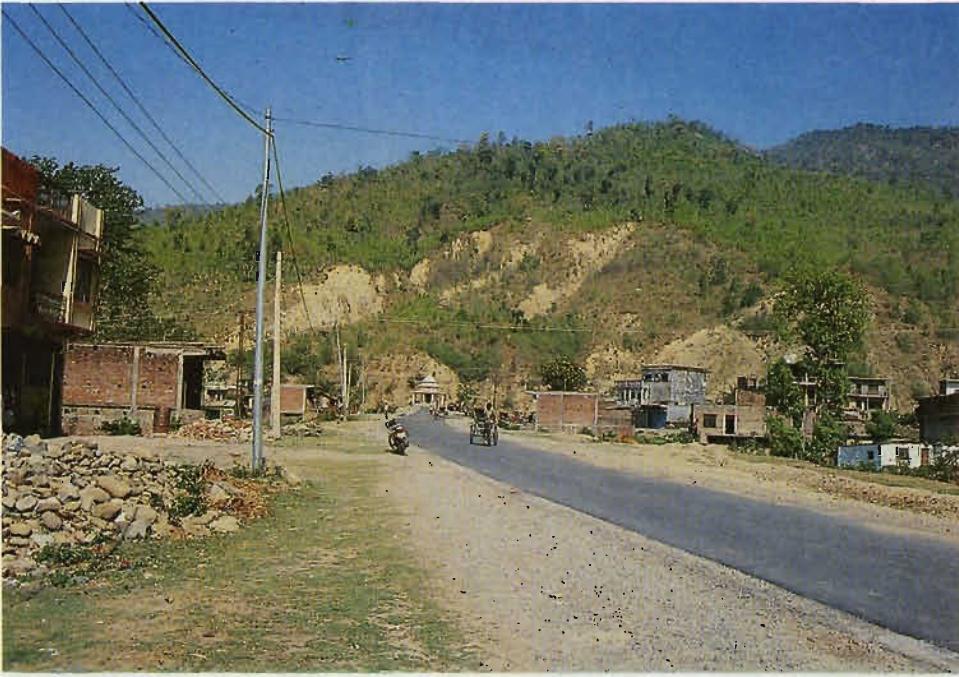


Plate 7: The Butwal landslide on the right bank of the Tinau River near Butwal Bazaar. Note the large rockslide block (Siwalik sandstone and mudstone) in the middle of the landslide (Photo by Rabindra Thanju).



Plate 8: Soil slides at Daklang (about 2km north of Chaku Khola) along the Arniko Highway).



**Plate 9:** Gully erosion protection work in the Charnawati Valley using concrete lining on the stream floor, to make cascades, concrete retaining structures along the banks, and large tetrapods along the streambed and the banks



**Plate 10:** Landslide stabilisation measures (retaining walls, rock anchoring, surface and subsurface drains, and bioengineering works) applied at the Khatripauwa Landslide along the Thankot-Naubise road, Central Nepal - view towards the southwest.

## ICIMOD

ICIMOD is the first international centre in the field of mountain development. Founded out of widespread recognition of environmental degradation of mountain habitats and the increasing poverty of mountain communities, ICIMOD is concerned with the search for more effective development responses to promote the sustained well-being of mountain people.

The Centre was established in 1983 and commenced professional activities in 1984. Though international in its concerns, ICIMOD focusses on the specific complex and practical problems of the Hindu Kush-Himalayan Region which covers all or part of eight Sovereign States.

ICIMOD serves as a multidisciplinary documentation centre on integrated mountain development; a focal point for the mobilisation, conduct, and coordination of applied and problem-solving research activities; a focal point for training on integrated mountain development, with special emphasis on the assessment of training needs and the development of relevant training materials based directly on field case studies; and a consultative centre providing expert services on mountain development and resource management.

### MOUNTAIN NATURAL RESOURCES' DIVISION

Mountain Natural Resources constitutes one of the thematic research and development programmes at ICIMOD. The main goals of the programme include i) Participatory Management of Mountain Natural Resources; ii) Rehabilitation of Degraded Lands; iii) Regional Collaboration in Biodiversity Management; iv) Management of Pastures and Grasslands; v) Mountain Risks and Hazards; and vi) Mountain Hydrology, including Climate Change.

Other publications on natural hazards are:

- Landslide Hazard Management and Control in Pakistan
- Landslide Hazard Mapping and Management in China
- Landslide Hazard Management and Control in India
- Climatic Atlas of Nepal

## **Participating Countries of the Hindu Kush-Himalayan Region**

\* **Afghanistan**  
\* **Bhutan**  
\* **India**  
\* **Nepal**

\* **Bangladesh**  
\* **China**  
\* **Myanmar**  
\* **Pakistan**

**INTERNATIONAL CENTRE FOR INTEGRATED  
MOUNTAIN DEVELOPMENT (ICIMOD)  
4/80 Jawalakhel, G.P.O. Box 3226, Kathmandu, Nepal**

**Telephone: (977-1) 525313  
Facsimile: (977-1) 524509  
(977-1) 524317**

**Telex: 2439 ICIMOD NP  
Cable: ICIMOD NEPAL**