

# ICIMOD programmes on mountain disaster management

Mountain disasters and their management have been a core concern of ICIMOD since its inception. Li Tianchi gave a brief overview of the past activities and achievements of ICIMOD in this field followed by a synthesis of the recommendations made by various participants from different countries in past workshops.

## Past Activities (1995-2000)

1. Mountain risk engineering programme, supported by the EU (1995-1998)
  - On-the-job training for junior engineers (1996, 1997)
  - Hands-on training for local farmers in China (1996, 1997)
  - Study tours
    - study tour in European countries for project officers (1996)
    - study tour in China for regional government officers (1996, 1997)
    - study tour in Nepal for China and India project staff (1998)
  - Six workshops for government officers and academics (China, India, and Nepal, 1996-1998)
  - Demonstration sites in China and Nepal (1996-1998)
2. Landslide hazard mitigation and control, supported by the Government of Japan (1995-1999)
  - Regional workshop in Kathmandu (1995)
  - Regional pilot training on landslide hazard mitigation (1996)
  - Regional training workshop for decision-makers on landslide and debris flow hazard mitigation in Kunming and Chengdu, China (1997)
  - Regional training on landslide and debris flow control (1999)
  - Hands-on-training for local farmers in Nepal (1997, 1999)
  - Research activities, case study in China, India, Nepal and Pakistan
3. Application of remote sensing and GIS in hazard mapping and slope stability analysis, supported by the Netherlands Government (1996, 1997, 1998, 1999)
4. Geo-technical training for irrigation engineers in Bhutan, supported by SNV (2000)

5. Monitoring and early warning system in the Hindu Kush-Himalayan region, supported by USEDf (2001)
6. Research activities on large disaster events, in collaboration with national institutions (1996-2001).

## Outputs and Publications

1. Development of a human resource base in the region.  
More than 600 government officers and academics trained. This human resource base provided the foundation for training, disseminating information on hazards, developing programmes, and research activities to mitigate hazards/risks.
2. Documentation of landslide hazard management and control in China, India, Nepal, and Pakistan.
3. Establishment of a Mountain Risk Engineering Unit at Tribhuvan University in Nepal, with post-graduate courses for engineers, scientists, foresters and so on.
4. Establishment of a training team for Mountain Risk Engineering at Chengdu Institute of Mountain Hazard and Environment, China.
5. Training Manuals include
  - Training Manual for Mountain Risk Engineering in China.
  - Geo-technical Training Manual for Irrigation Engineers, Bhutan.
6. Selected recent publications include
  - Landslide Hazard Mitigation in the HKH Region
  - Inventory of Glaciers, Glacial Lakes and Glacial Lake Outburst Floods, Nepal
  - Inventory of Glaciers, Glacial Lakes and Glacial Lake Outburst Floods, Bhutan
  - Climatic Atlas of Nepal

## Summary of Past Recommendations

Over the years, participants in various workshops organised by ICIMOD have made recommendations on different points associated with mountain disasters and their management. These are summarised below.

*In each member country:*

1. Awareness raising at all levels for Landslide and Debris Flow
2. Zonation of landslide and debris flow prone areas
3. Build an information database related to landslide and debris flow
4. Formulate a national programme on landslide and debris flow including poverty alleviation and development activities
5. Design and implement appropriate training courses at various levels

*ICIMOD – national support*

1. Conduct training courses at the following levels: a) policy and decision-makers; b) middle-level professionals; c) technicians and scientists; d) local communities/farmers
2. Identify and/or provide model landslide and debris flow training areas, experts, and institutions at both national and regional levels
3. Interact more with national institutions related to landslide and debris-flow
4. Support national training programmes

5. Provide guidance to formulate national training programmes
6. Conduct post training tracer studies
7. Identify national focal points for landslide and debris flow, help establish national working groups, and help evolve national action plans

*ICIMOD – regional cooperation*

1. Document and disseminate success cases and lessons learned from failures
2. Identify and develop early warning and forecasting systems
3. Act as a resource centre to compile and disseminate information on all aspects of landslide and debris flow using all media
4. Follow up on past recommendations
5. Establish a Regional Working Group on landslides and debris flows



