

## group work and presentations

Group work was intended to enable discussion among participants and help them develop a shared understanding on water-induced disasters and a consensus on regional cooperation. The forum also helped in sharing information about the technologies applied by different countries in dealing with disasters. Since many disasters prevailing in the HKH region are transboundary in nature, joint responses will be more effective. To help ensure continuity in the process of disaster management in the region, Li Tianchi first provided the synopsis given in the preceding section of past achievements and outputs of ICIMOD and the recommendations made at various workshops by participants from HKH countries. Man Bahadur Thapa, of the Participatory Disaster Management Programme of UNDP Nepal, also shared information on the ongoing activities of UNDP and Unicef.

### Guidelines for Group Discussion

Participants were divided randomly into three groups for the discussions, but they all worked on the same themes. The results from all three groups have been summarised together in the following under the major thematic headings.

#### *Question 1*

The first task was to identify the types of regional level (water-induced) hazards and their potential effects/impacts in the Hindu Kush Himalayan region and list them in order of intensity of damage, and suggest methods to cooperate at a regional level.

#### Types of regional level water-induced disasters

The types of water-induced/related disasters identified that can have a regional or transboundary impact are:

- Floods
- Flash floods, including GLOFs and breaching of landslide dams
- Landslides/debris flows
- Changes in river course
- Soil erosion
- Avalanches (snow)

and the types of damage:

- Loss of life
- Loss of livelihoods
- Loss of property (agriculture/infrastructure)
- Environmental degradation
- Long term negative impact on overall development of the countries

#### Methods for regional level cooperation.

The main needs and methods suggested for regional level cooperation were

- Both bilateral and regional cooperation
- Data sharing (real time hydro-meteorological data)
- Early warning systems
- Highland/lowland interactions
- Research and information dissemination
- Regular interaction among regional countries, with technical support and direct financial support from countries like Japan and China to countries which need to come ahead
- Better information sharing
- Monitoring
- Working groups at the regional level for coping with each type of hazard

#### *Question 2*

The second question was: How did your country and communities deal with the hazards in the past? What new techniques emerged in the presentations that could be replicated in other situations/sites.

#### Country response: local level management system

Generally both the forecasting and disaster management systems were thought to be poor in all the countries represented at the meeting except Japan and to some extent in China. It was felt that post disaster management was improving in Nepal, Pakistan, Bangladesh, China, and Thailand. The main responses were classed as being mostly

- Reactive – crisis management
- Rescue and relief
- Top down activities
- Isolated efforts

#### Techniques which could be replicated

A number of the techniques and approaches described in the presentations were potentially useful for replication elsewhere. They included

- Community-based awareness approach: community-based warning systems (the Philippines approach) and community-based disaster management systems; methods should promote self reliance (affordable, sustainable, & poverty alleviation)
- Well coordinated multi-sectoral approaches to reduce impacts of disasters
- Hazard/risk mapping (GIS, RS); the accuracy and resolution of each layer in GIS systems should be examined
- Regional hydro-meteorological real-time data sharing
- Disaster forecasting; dissemination of early warning information through the media
- Cost-benefit sharing mechanisms
- Technology transfer

- Inventory of success cases
- Integration with development programmes
- Gender sensitive database
- Monitoring and evaluation (models & indigenous mitigation activities)
- Efficient information flow in every direction
- Equal opportunities to women in planning, design and implementation, training, skills development, and so on; actively include women in local level disaster management as they are repositories of much valuable information
- Blending of new techniques with indigenous knowledge
- Developing social maps/resource maps through local participation before taking up high cost and sophisticated techniques like GIS
- Analysis of technical reports for all major events, and sharing with the community and stakeholders working on the same issues
- Develop a database on trans-boundary disasters and share through a website as well as at institutional level, possibly coordinated by the hazard working groups mentioned above
- Enhance fundamental research and establish domestic academic interdisciplinary societies for water-induced disasters
- Involve different agencies in assessments and studies of the effects of disasters

### *Question 3*

Participants were asked for ideas that would promote working together, and for establishing a network to exchange information at the local and regional levels. What factors will contribute to keeping the networks alive? What I will do on my return? Most of the ideas for working together were already covered under the preceding heading, and the need for a network was taken as given, so participants focused on the second parts of the question.

#### Factors that could contribute to keeping the network alive

- Equal participation of senior and younger professionals in the networking group
- Aim for equal participation of both genders
- Performance award for active participation
- Establish an email mailing list about HKH water-induced disasters to facilitate information sharing

#### What I will do on my return?

- Share and disseminate the knowledge acquired with concerned stakeholders

### *Question 4*

Participants were asked to make recommendations to ICIMOD and the PDM programme (and the region) on disaster management, including coordination and collaboration at the national and regional levels, with specific recommendations for action by ICIMOD.

#### Recommendations for ICIMOD, PDMP/UNDP and the region

- Projects should be extended for at least the next five years; there should be continuation in the same area, extension in other areas, and expansion in the regional countries of the HKH; basin-wise selection of areas
- Formulate a regional working group for each hazard under the MNR Division of ICIMOD. Each group should have a national working group from each country with participation on a voluntary basis by both administrators and scientists/engineers. The national working groups (NWG) should be responsible for sharing the database and providing feedback. Programmes for ICIMOD should be developed in consultation with these NWGs. The Board Member of the respective countries should coordinate the activities of the national groups.
- Contact between ICIMOD Board Members and the personnel associated with ICIMOD should be enhanced.
- Interact and coordinate with similar agencies
- Exchange information with international professional organisations
- Ensure that the data that is collected is standardised for effective use in the region
- Establish a satellite for collecting data about disasters in the HKH region
- Strengthen VDCs in their disaster management activities
- Establish a national group of senior citizens (men and women) to act as a resource body to advise government bodies

Specifically ICIMOD should

- Prepare an inventory of success stories
- Assess past disasters and vulnerability
- Promote coordination among regional countries
- Organise regular training/workshops/conferences, these should include training of people at risk through sharing experiences of those who have coped successfully
- Strengthen the capability of regional countries
- Prepare an inventory of experts in the region
- Pilot a community-based early warning system
- Pilot a hydrological (raingauge and discharge instruments) system

One group stated that ICIMOD would take an active role in fund-raising activities to realise or implement recommendations.