

Flash Floods in the Himalaya – Challenges and Opportunities for Regional Cooperation

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The physical landscape of Himalaya with extremely rugged terrain, tall mountains, narrow valleys and steep slopes makes the region inherently vulnerable to natural disasters. In addition, the concentration of about 80% of the annual precipitation to the summer monsoon on the southern side of the Himalaya causes numerous of problems of floods, flash floods, debris flows and landslides. Furthermore, the human landscape in terms of thousands of isolated mountain communities, lack of roads, bridges, electricity and other infrastructure facilities further aggravates the vulnerability of the mountain people to natural hazards.

In the Himalaya, flash floods are triggered by extreme cloudbursts, glacial lake outbursts, or the failure of man-made dams or dams caused by landslides, debris, ice, or snow. Flash floods can have an impact hundreds of kilometres downstream; yet the warning time available is counted in minutes or, at the most, hours.

Thousands of people, their lives, livelihoods, and homes, along with expensive infrastructure investments are at great risk from flash floods in the Himalayan region every year. Despite this severe exposure to flash flood risks, in most of Asia there are still no forecasting, warning, and management systems in operation to prevent or mitigate flash flood disasters.

In the Himalayan region, there is an urgent need for new and improved mechanisms for forecasting and real time warning, both nationally as well as across country borders. There is an urgent need to strengthen preparedness with all government and private stakeholders, with a special emphasis on community preparedness and response. Of particular importance is the need to increase regional cooperation and transboundary dialogues for more efficient mitigation of flash floods and similar hazards.

In October 2005, experts from international organisations and representatives from the ICIMOD member countries: Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan met in Lhasa at the 'International Workshop on Flash Flood Management and Sustainable Development in the Himalayan region' to discuss the preparedness, mitigation, and management of flash flood events in the context of sustainable development in the Himalayan region. The workshop was supported financially by the Government of Norway and the USAID Office of US Foreign Disaster Assistance (OFDA).

The workshop participants agreed on a document – The Lhasa Declaration on Flash Flood Management – spelling out conclusions, recommendations as well as an outreach process on how to further support a process to reduce flash flood vulnerability in the region.

Three outreach process points were put forward:

- a) To improve national capabilities including the regional exchange of data, information technologies, and know-how;
- b) To promote and implement national and transboundary projects to reduce flash flood disasters;
- c) To facilitate partnerships between key national agencies and non-government organisations region-wide and to reach out to the general public to create and increase awareness for flash flood challenges and mitigation options.