

## Local knowledge for disaster preparedness: A literature review

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### Preface

Inhabitants in the Himalayan region are exposed to many natural hazards. The mountain ranges are young with an unstable geology, steep slopes, and a climate that is difficult to predict. As a result, the region is highly susceptible to natural hazards such as floods and flash floods, landslides, and earthquakes. In populated areas, these can lead to disaster. Vulnerable groups – the poor, women, and children – are often hit hardest.

Since its establishment in 1983, ICIMOD has dedicated much of its work to examining ways to reduce the risk of disasters from natural hazards, thereby working towards the decreased physical vulnerability of the people in the Hindu Kush-Himalayas. This work has encompassed training courses, hazard mapping, landslide mitigation and control, mountain risk engineering, watershed management, vulnerability assessment, and much more. ICIMOD has also fostered regional and transboundary dialogue for improved management of both the resources provided and the risks threatened by the big rivers in the Himalayan region; sharing of hydro-meteorological data and information among the countries in the region is of particular importance for mitigating the risk of riverine and flash floods in the major river basins.

This publication is one of a series produced under the project 'Living with risk – sharing knowledge on disaster preparedness in the Himalayan region', implemented by ICIMOD during a 15-month period in 2006 and 2007. The project was funded by the European Commission through their Humanitarian Aid department (DG ECHO) as part of the Disaster Preparedness ECHO programme (DIPECHO) in South Asia, and by ICIMOD. Through this project, ICIMOD has endeavoured to encourage knowledge sharing and to strengthen capacity among key practitioners in the field of disaster preparedness and management. This has been done through training courses, workshops, knowledge compilation and dissemination, and the establishment of a website ([www.disasterpreparedness.icimod.org](http://www.disasterpreparedness.icimod.org)).

The publications resulting from this project include baseline assessments of the disaster preparedness status in the four target countries (Bangladesh, India, Nepal, and Pakistan); case studies and a framework on local knowledge for disaster preparedness; and gender and vulnerability aspects in disaster risk reduction. The publications, training sessions, and workshops were undertaken in the context of the 'Hyogo Framework for Action 2005-2015' which recommends that regional organisations should promote sharing of information; undertake and publish baseline assessments of disaster risk reduction status; and undertake research, training, education, and capacity building in the field of disaster risk reduction.

The long-term mission to bring the Himalayan region to an acceptable level of disaster risk has only just begun. The countries in the region are among the most disaster prone in the world in terms of number and severity of disasters, casualties, and impact on national economies. Only by strong commitment, hard work, and joint efforts can this situation be improved. It is ICIMOD's hope that our collective endeavours will help improve disaster risk reduction in the mountain region we are committed to serve.

### Summary

This publication is based on a review of literature about local knowledge and practices and attempts to give an overview and framework of local knowledge in disaster preparedness, an

understanding of its usefulness in disaster management, and the benefits and problems involved.

Since the 1970s, evidence that local knowledge and practices can help implementing organisations to improve disaster preparedness activities has grown; notwithstanding this evidence, the marginalisation of local knowledge and practices by mainstream literature and institutions involved with disaster management continues.

A local knowledge system is composed of different knowledge types, practices and beliefs, values, and worldviews. Such systems change constantly under the influence of power relations and cross-scale linkages both within and outside the community. As such, local knowledge and practices need to be understood as adaptive responses to internal and external changes which result (or not) in disaster preparedness at local level. In order to identify local knowledge on disaster preparedness, one should focus on four key aspects: people's ability to observe their local surroundings, people's anticipation of environmental indicators, people's adaptation strategies, and people's ability to communicate about natural hazards within the community and between generations. Overall, the ability a community has to prepare itself for disaster preparedness needs to be understood within the broader context of livelihood security and sustainability and building up community resilience in the long term.

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