

Herders of Chitral The Lost Messengers?

Local Knowledge on Disaster Preparedness
in Chitral District, Pakistan



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International Centre for Integrated Mountain Development

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Herders of Chitral: The Lost Messengers?

Local Knowledge on Disaster Preparedness in Chitral District, Pakistan

Julie Dekens

International Centre for Integrated Mountain Development (ICIMOD)
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Photos

Front cover, page 14: Large boulder deposited during a major flash flood in Reshun Gole, Upper Dhital – *Mats Eriksson*

Page 2: View from Brep showing boulders deposited in a line by a flash floods – *Mats Eriksson*

Page 22: View of the Tirich Mir (7,708m) from Chitral town – *Mats Eriksson*

Page 60: Herders with goats in Upper Chitral – *Mats Eriksson*

Back cover: The old and the new generation, Reshun Gole, Upper Chitral – *Mats Eriksson*

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Foreword

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, the International Centre for Integrated Mountain Development (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).

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.

Dr. Andreas Schild
Director General
ICIMOD

Preface

The cost of disregarding local knowledge

“External agencies, including government officials and technical people, never listen to local advice!”
Workshop participant, Chitral town, October 2006

Flash floods are frequent events in the Chitral District of Pakistan. Most of the time, villagers manage to save their lives. They know how to interpret local environmental signals and where hazardous places are. But on July 14th 2006, a foreign engineer lost his life at a tunnel construction site. That day, an intense rainstorm occurred between 4:00 and 5:30 pm. The extreme rainfall event triggered a flash flood, which rapidly washed away the engineering company’s equipment and residential quarters on the fringe of the river bed. This tragic event, which took the life of one person and damaged a million rupees of equipment, was not a surprise to the locals.

“We told them twice!”, said the leader of a nearby village. “We knew that the retaining walls were too small to channel the water during the rainy season and that they should have been raised.”

The villagers had learned from previous experience: they could remember how two people died in the same place about 40 years ago in a major flash flood. Unfortunately, the engineering company, interested in settling in an easily accessible and cheap area, neglected local advice.

In remote mountainous places like Chitral District, as elsewhere, road construction is associated with development – and short-term employment for the locals. However, it can also be associated with increased vulnerability to natural hazards. In Shainigar, a village in Lower Chitral, greater flood impacts have been experienced since road construction started. The river bed, which used to form a deep channel, has now been filled up to construct a cross-way for a road. The new road has altered the natural channel of the stream and when a flood occurs now,

as was the case on July 30th 2006, the water quickly overflows into the nearby fields. The villagers asked the Government to build a bridge. Unfortunately, their request was ignored. As a result people living next to the river in this village leave their houses when it rains heavily for fear of being washed away.

Many stories like these can be found in Chitral District as in other parts of the Himalayan region. They illustrate the fact that local knowledge, in general, and local knowledge on natural hazards, in particular, is normally ignored by external agencies at both national and international levels. Agencies

tend to favour scientific and specialised knowledge; a great deal of which is not in tune with local contexts and realities. Local people are the first to suffer from the direct impacts of disasters, but they are also the first to respond to them. Most of the time, locals are aware of the nature and history of natural hazards in their localities. Ignoring their knowledge may lead to important human and economic costs, especially in the long term. What local people know should be collected, made more visible, and be included in decision-making processes.

Julie Dekens

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Some Key Terms

Capacity – A combination of all the strengths and resources available within a community, society, or organisation that can reduce the level of risk, or the effects of a disaster.

Disaster – A serious disruption of the functioning of a community or a society causing widespread human, material, economic, or environmental losses which exceed the ability of the affected community or society to cope using its own resources.

Disaster risk reduction (disaster reduction) – The conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.

Hazard – A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

Mitigation – Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.

Preparedness – Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

Resilience/resilient – The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. It is determined by the degree to which the social system is capable of organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.

Risk – The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environmental damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions. Conventionally risk is expressed by the notation $\text{Risk} = \text{Hazards} \times \text{Vulnerability}$. Some disciplines also include the concept of exposure to refer particularly to the physical aspects of vulnerability. A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk.

Risk assessment or analysis – A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to people, property, livelihoods and the environment on which they depend.

Vulnerability – The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

Adapted from UN/ISDR (2004)

