

## Chapter 7

# Discussion

**T**he general purpose of this report is to provide inspiration and ideas to implementing organisations to help them understand and identify local knowledge, practices, and contexts in relation to disaster preparedness. For this purpose a case study was undertaken in the Chitral District of Pakistan to document local knowledge on disaster preparedness in 11 villages.

### Lessons learned

The people of Chitral have been able to reduce human losses from flash floods as well as the economic, environmental, social, and psychological impacts of flash floods, based on daily observation of their local surroundings, experience of past and recurrent flash floods, and the internalisation of some practices over generations. Local knowledge and practices on flood preparedness that are particularly vivid in Chitral include the following:

**1. Interpretation of their landscape and the indicators of past flash floods such as the past location of streams or**

**floods by looking at the shape and nature of the slopes and the location of rocks**

- 2. Identification and monitoring of early warning signals of flash floods based on environmental indicators, weather predictions and interpretations, specific smells and sounds, location and types of rain, and the unusual appearance and movement of wildlife**
- 3. Evaluation of time thresholds concerning when to run out (or stay) and move key belongings or take emergency measures during the rainy season such as staying awake, sleeping with shoes on, or having a ‘go-bag’ ready**
- 4. Development of technical, structural, and non-structural strategies to accommodate their lives in the longer term (Such strategies range from traditional techniques of house construction to developing strong social support systems, informal rules for the sustainable use of forests, and various livelihood diversification strategies – most of which are not directly targeted at disaster preparedness but can contribute to it.)**

The potential applications of local knowledge for improved disaster preparedness in Chitral could capitalise particularly on these four key elements. For example, this knowledge could help implementing organisations to improve their understanding of local and regional variability and specificities associated with natural hazards, and local perceptions of natural hazards, and therefore people's response to hazards. It could also help implementing organisations to tailor their project activities, communication strategies, and policies to local cultural perceptions, values and traditions, and strategies. Further, local people can help external organisations to verify and improve their own information for hazard mapping and for the identification of safe locations for construction of buildings, roads, tunnels, and so on. This kind of knowledge is often bought expensively by trained scientists and engineers from outside. But, as highlighted at the beginning of this report, disregarding local knowledge and advice may lead to important human and physical costs for external agencies.

## Why the herder symbol?

There are many challenges to the application of local knowledge to disaster preparedness. One such challenge is the rapid change occurring at the regional, national, and international levels and influencing the relevance and sustainability of local knowledge and practices. In this context, some traditional and local practices are becoming obsolete and irrelevant. For instance, and coming back to the original question

raised by the title of this report, if the herders of Chitral are the lost messengers of traditional and local knowledge, the herder system of Chitral could well symbolise a lost linkage between the traditional and the new knowledge systems. The vanishing herder system is a symbol of the current changes and challenges facing communities in the District of Chitral – as in many other places in the Himalayas. In Chitral, people's priorities, which used to revolve mainly around water harvesting, hunting, grazing land, and fodder, are changing. The herders used to provide early warnings of flash floods. It was one ad hoc, traditional early warning system among others. Nowadays, the district is in a transition period: traditional strategies are disappearing while new strategies are not yet in place or functional. A combination of factors (historical, environmental, socioeconomic, demographic, institutional, technological, and political) influences communities' knowledge and practices in relation to natural hazard preparedness in a complex way. Some factors have contributed to a decrease in people's vulnerability to natural hazards; others have contributed to an increase in their vulnerability. The vanishing herder system symbolises the weakening of local/traditional knowledge and institutions due to changes happening in the region at large and their impacts on local knowledge. The vanishing herders, in particular, mean that changes are occurring in the linkages between the highlands and lowlands, between pastures and villages, between old and new generations, and between traditional and new early warning systems for natural hazards. Can or should the herders try to continue to maintain those linkages?

Probably not because it might not be relevant anymore in the changing context; and yet, what can we learn from the herder system that can be used in today's context? The Chitral case study illustrates the need to understand how changes in the regional context (e.g., role of forest policy, laws, implementation, conflicts between different laws, and so on) influence local knowledge on disaster preparedness. Documenting local knowledge, therefore, means paying attention to the contexts (i.e., understanding the contexts and how processes on different scales influence communities and vice versa), including how external forces weaken and/or strengthen local knowledge and practices. How can local knowledge be strengthened in the face of the current changes?

## Local knowledge as a tool for change

The goal of this report was not to provide an exhaustive list of 'local good practices', and the emphasis was not on describing local knowledge and practices per se because these are context based. Rather, understanding local knowledge and practices

should be used as an entry point to understanding processes of knowledge creation, transmission, and how communities manage to adapt, or not, to a combination of changes to maintain sustainable livelihoods. As such, the herder system also symbolises the nature of local knowledge: it is dynamic and complex, always changing and operating between the loss of traditional knowledge and the creation of new local knowledge. Understanding, accounting for, and respecting local knowledge, practices, and contexts can become a tool for change. Firstly, it can help people to adapt external knowledge to local contexts and integrate the 'users and beneficiaries' into projects (Visser 2006). As Hutton and Haque (2003) put it: *"Little effort has been made to achieve an accurate understanding of how people of different cultures perceive, interpret and respond to natural hazards. [...] Western conceptualisations of natural hazards, human vulnerability and poverty cannot be uniformly imposed on divergent cultures and societies."* Secondly, an understanding of local knowledge can help to assess which local knowledge is still relevant and can be disseminated to others (Visser 2006). We hope that this report will contribute to the promotion of change at the level of individual professional practice or organisational or sectoral levels.