Chapter 9
Lessons Learned

The purpose of this report is to re-affirm the importance of accounting for local knowledge in disaster risk reduction by presenting a general framework through which to understand local knowledge on disaster preparedness based on a literature review. The literature review and related framework revealed the following.

- **Despite evidence since the early 1970s, at least, that local knowledge and practices can help implementing organisations to improve their disaster preparedness activities, local knowledge and practices are marginalised from the mainstream disaster literature and within institutions working in disaster management – and this has been the case in the Himalayas as elsewhere around the world both in developing and developed countries.**

Key factors that have prevented the use of local knowledge include historical factors (e.g., the legacies of colonialism), ideological factors (e.g., the beliefs that conventional or scientific knowledge is 'superior'), institutional factors (e.g., it is difficult to identify and use local knowledge and practices because of their 'invisibility', complexity, diversity, and changeability), political factors (e.g., natural hazards and disasters have been conceived primarily as an issue pertaining to national defence and security), economic factors (e.g., the impact of multiple stresses in a context of rapid change render some local knowledge and practices inappropriate or inaccessible over time), and geographical and temporal factors (e.g., distance management).

Opening the debate – To what extent is the latest work on local knowledge and related participatory disaster management approaches not as vulnerable to marginalisation or co-opting into national and international disaster management strategies? How can we reverse the process of marginalisation of local knowledge and practices from mainstream disaster literature and within institutions working in disaster management?

- **Local knowledge and practices are complex adaptive responses to internal and external change. Combined with conventional knowledge and understood in the wider context of sustainable development, they have a potentially valuable role to play in disaster risk reduction.**

A local knowledge system is not only composed of what people know but also of what people do (practices) and believe in (beliefs, values, and worldviews). Local knowledge and practices are being transformed all the time through the influence of power relations both within and outside the community and the way hazards (in combination with exogenous and endogenous perturbations and responses) are cascading down across different scales. As such local knowledge and practices need to be understood

as adaptive responses to internal and external changes that increase, or not, disaster preparedness at the local level. In order to identify local knowledge on disaster preparedness, one should focus at least on four key aspects of local knowledge: peoples' ability to observe their local surroundings, anticipation of environmental indicators, adaptation strategies, and people's ability to communicate about natural hazards within the community and between generations. Finally, the ability a community has to prepare itself for disaster preparedness should be understood in the broad context of livelihood security and sustainability and building community resilience in the long term. Focusing on local knowledge and practices can help understand local contexts and needs that influence how people perceive and respond to natural hazards, risks, and disasters. Local knowledge can provide information related to local environmental variability and specificities; local perceptions of natural hazards; risk tradeoffs in the context of multiple stresses; vulnerable groups and individuals; the local elite and power relations; and changes in people's vulnerability to natural hazards over time. Examples of potential applications of local knowledge in disaster preparedness include accounting for local advice about safe locations, construction sites (buildings and roads), combining local knowledge with conventional knowledge for hazard mapping, surveys and other inventories in order to verify information, adapting communication strategies to local understanding and perceptions, and integrating local values into decision-making processes.

Opening the debate – How to make use of local knowledge in disaster preparedness? How can local knowledge and practices improve disaster preparedness projects and vice versa? How to strengthen existing coping strategies for disaster preparedness? How to strengthen the role of local government and community-based organisations in disaster risk reduction and improve their ways of communication and active interaction?

- **Recognising and respecting local knowledge and practices empowers local communities. While not all local knowledge, practices, and beliefs are relevant, they always need to be taken into account to ensure project acceptance and sustainability.**

Understanding local knowledge and practices can help identify what can be promoted at local level and how to foster people's participation to ensure the support of local knowledge and practices for external action. Solutions in disaster management need to go beyond the dichotomy between local versus state management levels and to integrate cross-scale institutional linkages. Due to changes in the education system and the growing influence of the west, among other things, communities themselves need to be convinced that some of their local knowledge and practices are of relevance to disaster preparedness. The current systems of education should be reconsidered in order to clearly link local communities with schools so that school curricula are adapted to local needs and realities and incorporate and foster local knowledge and practices. The focus on local knowledge and practices helps to identify and capitalise upon people's existing strengths and local institutions (instead of creating parallel institutions). In the context of rapid change and multiple stresses such as complex,

changing, and growing hazards, the extent to which local knowledge and practices actually contribute to improving disaster preparedness at the local level or not is not white or black. We cannot afford to ignore any knowledge or potential low-cost strategy which might improve survival and mitigate property losses.

Opening the debate – How can communities themselves (re)gain confidence in their own knowledge system and consolidate it as an effective tool? What forms of community-based action are likely to be effective for improved disaster preparedness? How can external organisations help the communities to consolidate their knowledge system on an equal basis and as an effective tool for disaster preparedness? What kinds of structures of governance at the local level can promote local knowledge?

- **There are many challenges to the documentation and use of local knowledge in disaster preparedness, and they can only be resolved through respect, understanding, and reflexivity as well as through creative and innovative solutions. Best practices at the local level in the context of disaster risk reduction that capitalise on local strengths need to be up-scaled.**

Ultimately, the use of local knowledge raises ethical and practical questions about social justice, because local knowledge can be used against the people themselves and because it can be used also as an umbrella to mask what still remains 'business as usual' (the status quo). Innovative initiatives at the local level are happening but they are scattered, fragmented, and often not documented. Lessons learned from such initiatives should be documented and upscaled to foster creative solutions in this field. Based on the assumption that different things can be done better on different scales, depending on the nature and type of natural hazards, for example, partnerships among local government, private sector, non-government organisations, and community groups should be explored.

Opening the debate – How to document and identify local knowledge on disaster preparedness? Who is really going to benefit from the studies on and uses of local knowledge? How do the studies and uses of local knowledge employ and serve the dominant power relationship? Who is going to represent the people who do not have the power? How can we legitimise local knowledge without its being presented in 'conventional' scientific terms? How to foster the cooperation of local communities with external institutions on an equal basis?

Local Knowledge for Disaster Preparedness: A Literature Review