

Chapter 8

Discussion

The 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 eastern Terai of Nepal to document local knowledge on flood preparedness in nine villages. The case study revealed that, over time, local people had generally developed considerable local knowledge and practices on flood preparedness.

Lessons learned

Based on daily observation of their local surroundings, experience of past and recurrent floods, and the internalisation of certain practices over generations, people in the eastern Terai of Nepal have been able to reduce human losses from floods as well as the economic, environmental, social, and psychological impacts. Local knowledge and practices in flood preparedness that are particularly vivid in the area include people's capacity to do the following.

- 1. Describe their experience** of different types of floods, the location of previous floods, the water level of previous floods, changes in water levels, changes of river paths and in river size that occurred in their own locality, and changes in their physical and social vulnerability to floods.
- 2. Identify and interpret early warning signals** of floods based on environmental indicators, weather interpretations, smells, sounds, location and types of rain, and the unusual appearance and movement of wildlife.
- 3. Identify where and when to run (or stay)**, where the safest and fastest escape routes are, when to move key belongings, stay awake, leave the house, and store food and firewood.
- 4. Adopt various technical and structural, and non-structural measures of adjustment** to floods especially those related to house construction (combining different materials, increasing the plinths, consolidating and protecting walls), elevated food stores and multipurpose platforms to keep

food, small livestock, and people themselves away from water; adopting new cropping strategies (e.g., riverbank cropping, tree planting); using social networks; and adjusting to the stress related to recurrent floods through what is often interpreted from a western perspective as ‘fatalism.’

5. Transmit information related to past floods through songs and proverbs.

The potential applications of local knowledge to improving disaster preparedness in the eastern Terai of Nepal could especially capitalise on the five key elements above. This knowledge could help implementing organisations to understand local environmental variations; identify the most vulnerable individuals, households, groups, and key actors that could act as knowledge reinforcers within the community; build upon local technical strategies that are cost efficient and use local materials and skills; and build upon local ways of communicating for awareness building on flood preparedness.

Challenges

This case study reveals the diversity and complexity of local knowledge, practices, and contexts. Different actors, castes, and social groups have different knowledge about flood preparedness. The study also reveals that in general the poorest get poorer while the richest may even benefit from

floods. However, in some cases and under specific conditions, disasters can also offer unexpected opportunities for the poor, as demonstrated in a case study focusing on households’ coping strategies after Hurricane Mitch in Northeastern Honduras (McSweeney 2005). It does not mean that the poorest have less knowledge, but that they have fewer options. This highlights the importance of focusing on socioeconomic dimensions and questions of equity within a community. Challenges emerge from the inherent complexity, diversity (e.g., sociocultural and historical aspects), power relations, and so on hidden behind what is still too often conceived as a homogenous ‘community’. Too often a gap between office and field staff creates barriers for information flow because decision-making is somehow separated from field experience. Both office staff and field staff need to spend more time in the field and to interact more often with one another and with the different (and sometimes conflicting) members of ‘a community’ to be able to respect, understand, and account for the complexity and diversity of local contexts. A communication gap also exists between communities and government officials. Disaster preparedness communication tools formulated at the national or district levels, such as official warning messages or hazard maps, need to incorporate local references so that they are understood and trusted by the community.

Some practices are aimed directly at reducing the impacts of floods while others contribute to building up the general resilience of the household and/or the community and

therefore indirectly contribute to improving community-based flood preparedness. Many practices described in this report have become part of day-to-day life. As such, the people themselves, together with internal organisations, tend to be so familiar with the practices that they often do not connect them to flood preparedness and/or they take the practices for granted. Competition (versus cooperation) between different development organisations and rigid planning schemes also lead to them ignoring local knowledge. Rigid planning means that there is little flexibility within organisations to incorporate learning from the field. Most examples presented in this case study are very context specific; some might be used elsewhere, some might be used as the basis for discussion.

Local knowledge as a tool for change

Most approaches to disaster management tend to focus on people's vulnerabilities and on what people do not know. The

focus on local knowledge and practices provides an entry point to try and reverse this tendency. It enables internal and external organisations to explore what are people's strengths and what they actually do know. As such, understanding, accounting for, and respecting local knowledge, practices, and contexts can become a tool of change. First, it can help to adapt external knowledge to local contexts and integrate the 'users or 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 conceptualizations of natural hazards, human vulnerability and poverty cannot be uniformly imposed on divergent cultures and societies"*. Second, a better understanding of local knowledge can also help to assess which local knowledge can still be relevant and should be disseminated or transmitted to others (Visser 2006). We hope that this report will help to promote change at the level of individual professional practice or at the organisational or sectoral levels.