

# Beyond Local Knowledge

## **L**ivelihood security and sustainability

The lack of an explicit connection between local knowledge and disaster management in the literature reflects the lack of linkages between poverty reduction and disaster management and the dominance of a sectoral approach to disaster management. Did we forget that disaster risk reduction is also poverty reduction? The issue of local knowledge on disaster preparedness needs to be understood and integrated into the wider context of sustainable development, especially issues of sustainable livelihoods and poverty reduction. This will help to bring a long-term perspective into disaster management rather than considering it to be a matter of emergency aid and humanitarian assistance only. Projects focusing on sustainable livelihoods and natural resource management should have a disaster preparedness component if resilient communities are to be built. The practices in everyday life need to be understood. Wisner and Luce (1993, p 131) point out in regard to women that it is not women per se, but rather what they do in given situations, that has to be understood and the way their responsibilities increase: marginalisation is a long, continual process.

Ultimately, improving the understanding of implementing agencies about local knowledge on disaster preparedness can help them to promote livelihood security and build resilient communities. Local knowledge can be used as a key entry point for this. As such, and in order to provide a more holistic view of disaster management, the framework builds upon the livelihood framework. This is because it is a people-centred approach which is already being used by donor agencies and research and development organisations and it has:

“become standard in the exploration of poverty-environment links and are common in assessments of householder coping strategies following aggregate shocks.” (McSweeney 2005)

Investigating local knowledge about disaster preparedness from a livelihood perspective means that it cannot be isolated from other cross-cutting issues such as poverty, local control of land and material resources, and equitable participation through empowerment (Jigyasu 2002, p xxxii).

## Community resilience building

Most approaches to disaster management tend to focus on people's vulnerabilities and on what people do not know. Heijmans (2001) and Ellemor (2003) criticise the concept of 'vulnerability' and argue that communities do not use the concept and this is because:

"they approach recurrent 'adverse events' as part of 'normal life', while rare or new disasters are dealt with from a perspective of survival." (Heijmans 2001, p 1)

The focus on local knowledge and practices (especially adaptation strategies) provides an entry point for reversing this tendency. It enables internal and external organisations to explore what people's strengths are and what they actually do know, that is to build upon community resilience (Gardner and Dekens 2007). For instance, natural hazards can have profound impacts on social and ecological systems such as the loss of subsistence practices, the breakdown of sharing networks, and the disruption of communal control of native resources among others. However, they may also generate positive, social impacts to some extent, when strengthening social networks, and positive, ecological impacts, when revitalising soil for instance (Smith 2003; Colding et al. 2003). Natural hazard risks and disaster can also offer new opportunities. Swift and Baas (1999) highlight the importance of identifying winners and losers. The rapid changes facing communities are as much a source of new vulnerabilities as of new opportunities and exploring new ways of risk adjustment. Oliver-Smith (1996, p 313) reports for example that:

"reconstruction after the 1970 Peruvian earthquake stimulated certain social changes that produced greater freedom of action for oppressed indigenous people. [...] However, reconstruction generally produced urban and housing patterns that tended to reinforce traditional social hierarchies."

Overall, it is difficult to generalise about whether or not people's ability to cope with natural hazards has been eroded, has remained the same, or has increased. It depends on a combination of factors acting at a particular point in time and space, showing the complexity of the processes influencing people's coping mechanisms.

The process of livelihood diversification can illustrate the above point. Livelihood diversification creates new opportunities for households because access to government jobs, jobs outside the village, or outside the country provides additional financial assets that help the household during crises and/or to be prepared (e.g., savings) and access brings new ideas. At the same time, the diversification process can weaken social cohesion within the community due to absent husbands (McSweeney 2005). Social cohesion is a key asset that prepares people and helps them bounce back following natural disasters. Berg et al. (2001, p 4) in a case study on household flood-coping strategies in Mozambique report that the most vulnerable households were those from which husbands were absent, working in the gold mines of South Africa.

Saxena et al. (2005, p 30) conclude their analysis of livelihood changes in the Himalayas by saying:

“such changes (i.e., emphasis on market economy, ‘maximisation of profit motive’) have benefited local people in economic terms but, at the same time, increased their vulnerability to environmental and economic risks.”

A case study of a village in Darjeeling District, India, (Dekens 2005) similarly shows how the process of livelihood diversification over a 50-year period and following an economic crisis contributed to new socioeconomic disparities within the village and new dependencies between the village and outside markets and organisations. For example, villagers had better access to markets than before and had developed a wider range of income sources. At the same time, some villagers were neglecting their land to earn quick, short-term cash incomes. The case study shows that further research is required to understand if and how much livelihood diversification invested in production enables villagers to move beyond survival strategies, and to what extent the short-term benefits of livelihood diversification can be transferred into long-term benefits.

In a literature review on livelihood diversification in sub-Saharan Africa and in Asia, Hussein and Nelson (1998) confirm that the effects of diversification are complex and do not necessarily lead to more sustainable livelihoods. As such the process of livelihood diversification illustrates that the impacts of change on people’s capacity to adapt to natural hazards is neither white nor black, rather it includes a mixture of positive and negative factors that require careful analysis in time and space.

Ultimately, one should not underestimate people’s capacity to adapt even in the context of rapid change. Linkenbach-Fuchs (2002, p 6) found that the influence of modernity led people to devise new solutions and strategies and led them to discover themselves as citizens with rights vis a vis welfare and development. She (2002, p 11) adds that people have started to establish new methods to cope with change, partly by reconsidering or revising old practices such as migration, wage labour, illegal felling of trees, producing and selling alcohol, and converting forests into fields for cash crops. Examples indicate that some households within communities manage to explore new ways of adjusting to risks especially in a context in which:

“the growth of risk factors (population and development) (...) is occurring more rapidly than the capacity of national and international programmes designed to deal with the problem.” (Van Aalst and Burton 2002, p 18)

Swift and Baas (1999, p 6) in a study on pastoral systems in central and inner Asia describe how herders respond to risk through moving livestock away from a threat or towards assistance, labour and food sharing within small social groups, and using extended forms of urban-rural exchange of food and other commodities. These local responses to risk became less important, but did not disappear, during the socialist period and have now been revived since liberalisation as state responses have

decreased (this echoes what was highlighted earlier in this report about the effects of development that can simultaneously, or not, increase as well as reduce the impacts of disasters). This demonstrates how local responses can adapt to changes in state involvement.

### **Did you know? Not all the poor are vulnerable**

Poverty is often associated with vulnerability, including increased vulnerability to natural hazards, because of the related lack of assets associated with poverty (e.g., financial, migration, and social networks). Research shows that the relationships between hazards, poverty, and vulnerability are complex and that not all the poor are vulnerable (Kasperson and Kasperson 2001; Blaikie et al. 1994; Wisner and Luce 1993; Brouwer and Nhassengo 2006). As Wisner and Luce (1993, p 127) put it:

“persons at the same level of income do not suffer equally in disaster situations nor do they encounter the same handicaps during the period of recovery. [...] It is necessary [...] to ‘deconstruct’ poverty, [...] to disaggregate the structure of poverty itself.”

Jigyasu (2002, p 316) states that poverty is the result of processes (historical) of resource deprivation, whereas vulnerability is deprivation of the means to cope, which in turn marginalises and impoverishes people physically and mentally. For example, McSweeney (2005), in a case study on community response to Hurricane Mitch in Honduras, shows how the poor can also be enriched by natural hazards:

“we find in Krausirpi that whether a household had recapitalised or not two and a half years after the flood had more to do with pre-Mitch endowments. In effect, the Krausirpi case suggests that under specific conditions, disasters can also offer unexpected opportunities for the poor.” (McSweeney 2005, p 1468)

– and this is also described elsewhere in a case study on short-term effects of large-scale flood disasters (Brouwer and Nhassengo 2006)

### **Did you know? Risk screening tool**

Tools are being developed to integrate local, coping strategies into development projects. One example is the CRYSTAL tool being developed by the International Union for the Conservation of Nature (IUCN), Stockholm Environmental Institute (SEI), and Intercooperation. This tool is a community-level, risk screening tool to gather information on the current climate and the livelihood contexts in a systematic way. It also generates information on the impacts of development activities on key assets. Information gathered relates to the vulnerability to climate variability experienced by communities, the main impacts of climate variability at the livelihood level (i.e., impacts on all key assets), the current coping strategies, how a specific development activity and/or a local initiative affects or will affect the key assets of a specific livelihood, how a specific development activity and/or a local initiative affects or will affect livelihood vulnerability (and vice versa), and what kinds of adjustment are necessary so that a specific development activity can increase the resilience of a community to climate variability. The tool has already been tested in Africa, Latin America, and Asia.