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Strategies, approaches and practices to decrease socio-economic vulnerability and to increase resilience



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See References in ENSURE Deliverable 1.1.3

Strategies, approaches and practices to decrease socio-economic vulnerability and to increase resilience

The literature contains numerous strategy prescriptions mainly targeted at less developed countries. These can, if necessary, be broken down into the four phases of the disaster cycle (mitigation, preparedness, emergency, rehabilitation). Many of the prescribed measures which follow are adaptive in character and the emphasis tends to be on developing strategies at the local, community level to complement those at the national level. What is important is that risk reduction measures for one hazard should be compatible with measures for other hazards. This eliminates the possible substitution of one risk for another e.g. relocating people from a floodplain to higher ground which is then at risk from landslides. Detailed knowledge is required of vulnerability of locations on a wide range of natural hazards.

Early strategies and measures were largely aimed at developing countries, although some of these measures are also relevant in more developed economies. Blaikie et al. (1994) provide a general prescription for managing a reduction of socio-economic vulnerability comprising 12 principles (Appendix VII). Parker (2000) identifies nine 'non-conventional and radical approaches' to reducing flood hazard and disaster vulnerability (Appendix VIII).

Regarding vulnerability reduction, Yodmani (2001) draws a distinction between the 'disaster paradigm' and the 'poverty paradigm', and argues that the disaster management community has been moving towards the latter. In his view the disaster paradigm treated disasters as one-off events, emphasised relief delivery and technocratic/engineering solutions, developed vulnerability analysis and evolved an approach comprising hazard assessment, vulnerability analysis, and enhancement of management capacity.

On the other hand, the ascendant poverty paradigm views reducing poverty as a matter of social spending and social welfare; emphasised external donors, saw poverty as more than income deficit, sought to link poverty reduction to national development programs through targeting inequalities and the empowerment of the poor, and measured human poverty indicators such as lack of access to resources. This has led to the kind of approaches to socio-economic vulnerability reduction set out in Appendix IX (Yodmani, 2001). Further strategies to address socio-economic vulnerability are identified by Moss (2005), Matin (2002) and Lebel (2006), while Osbahr (2007) focuses upon resilience-building strategies based upon adaptation mechanisms in Africa.

With some exceptions (e.g. Parker and Penning-Rowsell, 2005), flood strategies for industrialised nations pay relatively scant attention to socio-economic vulnerability reduction strategies, and focus more on resilience-building, often linking this to the quest for sustainability (e.g. Hunt, 2005). In the context of post-industrialised nations, resilience strategies include designing flood resistant buildings, employing a wide range of spatial-planning measures, introducing sustainable urban drainage systems, improving awareness-raising, preparedness/emergency planning, business continuity planning, and integrated hazard and disaster management (Bosher, 2008; Friesecke, 2004).

More recent approaches are also focusing on identifying more vulnerable groups within communities (e.g. the very elderly, those with disabilities, those on low income and with few

social networks) for more effective targeting of flood warnings and evacuation measures, as well as helping to build social capital, coping capacity and future resilience (e.g. Beaudoin, 2007; Green et al., 2007; Steinführer et al., 2007a; De Marchi et al., 2007).

Disaster resilience is often viewed as the intrinsic capacity of a system, community or society predisposed to a shock or stress to adapt and survive by changing its non-essential attributes and rebuilding itself. However, some people (e.g. Manyena, 2006) see problems with this view. Although social vulnerability reduction strategies are often oriented towards creating a coping environment, people want more than simply to cope. Moreover, interventions are more likely to be successful when the emphasis is on building local knowledge and augmenting existing capacity. This entails the identification of the essential and non-essential elements of communities and building on affirmative action, rather than endless risk assessments and reactions to negatives.

Suggestions could be to consider the choices open to funding agencies to channel their resilience building support, or vulnerability reduction, into education, capacity building, psychosocial programmes and people-centred strategies, or more towards predetermined institutions and infrastructures. Responses to flood risk management following the Carlisle floods of 2005 in England have focused on building such community resilience and integrating this with urban regeneration strategies (Watson et al., 2008). Similar approaches are being used in New Orleans following Hurricane Katrina (Green et al., 2007).

Working with local communities, building up trust and fostering two-way communication regarding the management of flood risk is now being introduced as an approach and was successfully used in the town of Shaldon, UK. Here, a strategy of Engage Deliberate Decide (EDD) was used to involve the local community in decision-making rather than the old Decide Announce Defend (DAD) approach. This has resulted in increased community support for resulting flood risk management measures (C. Brookes, personal comm. Environment Agency, 2007).