





special emphasis on the erosion of traditional security systems.

As one initial general conclusion of all these empirical studies, we can state that the general distinction between an “external” and an “internal” side of vulnerability as proposed by Chambers (1989) proved to be quite useful, where the “external” perspective refers mainly to the structural dimensions of vulnerability and risk, while the “internal” dimension of vulnerability focuses on coping and action to overcome or at least mitigate the negative effects of economic and ecological change (see Fig. 1). While the “external” side of vulnerability exposure has been discussed elsewhere (Watts and Bohle 1993), the “internal” side of coping has so far been widely neglected, especially in conceptual and theoretical terms. As the findings of the above mentioned studies indicate, coping is a highly complex, contextual and dynamic issue, especially in times of acute crisis, but also in coping with everyday or seasonal risks. Three main strands of conceptual and theoretical discussions seem to be most relevant to grasp the whole range of coping strategies (Fig. 1). Naturally, all three approaches overlap in multiple ways, and they are also closely linked to the external/structural context in which they are embedded.

A first strand of research focuses on action-oriented approaches, especially on the interaction and dialectic relationship between the external and internal side of vulnerability or, to speak in Giddens’ (1996) terms, “structure” and “agency.” It is still an open question and certainly highly contextual to what extent food-insecure people have a bundle of options to cope with food crisis or to what extent their coping strategies are determined by structural constraints.

A second approach which is closely linked to action theory is the concept of access, especially to coping resources or “assets.” The concept of assets distinguishes between economic, socio-political, infrastructural, ecological and personal assets. The starting point of this strand of discussion is the observation that assets which people control contribute to mitigate their vulnerability and strengthen their resilience towards economic and ecological risks. The more assets they control, the less vulnerable they are and the greater are their capacities to successfully cope with risks, stress and shocks. As our studies have clearly shown, the so-called “social assets” play a most important role for the most vulnerable populations who, as a rule, control very few economic, political, infrastructural, ecological and personal assets. For them, the last resort are social assets in the sense of being integrated into social networks of mutual trust, shared norms and reciprocity. The whole question of access to control over assets is closely linked with the political economy of the region under consideration and in which way various groups of people are embedded in the basic structures and dynamics of society, economy, and polity.

This leads, finally, to the third basic conceptual approach, namely conflict and crisis theory. Issues of access to control over resources, assets and coping capacities are, as a rule, highly contested in an arena of risk and criticality, and the capacities to successfully manage crisis situations and solve conflicts will be a basic determinant for successful or less successful coping with change and the accompanied risk.

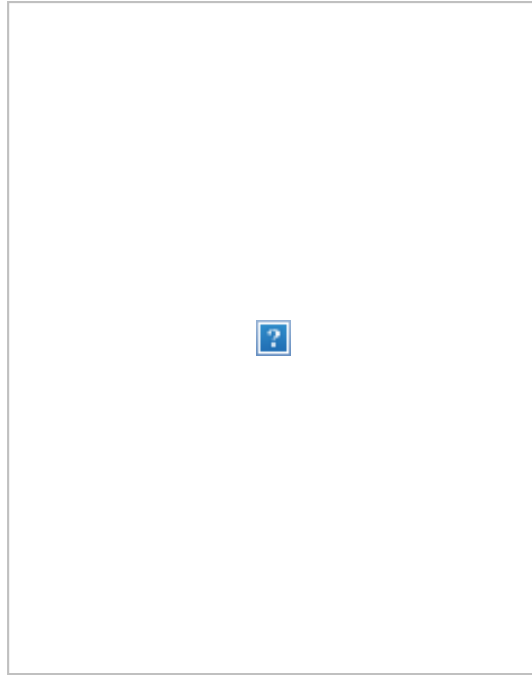
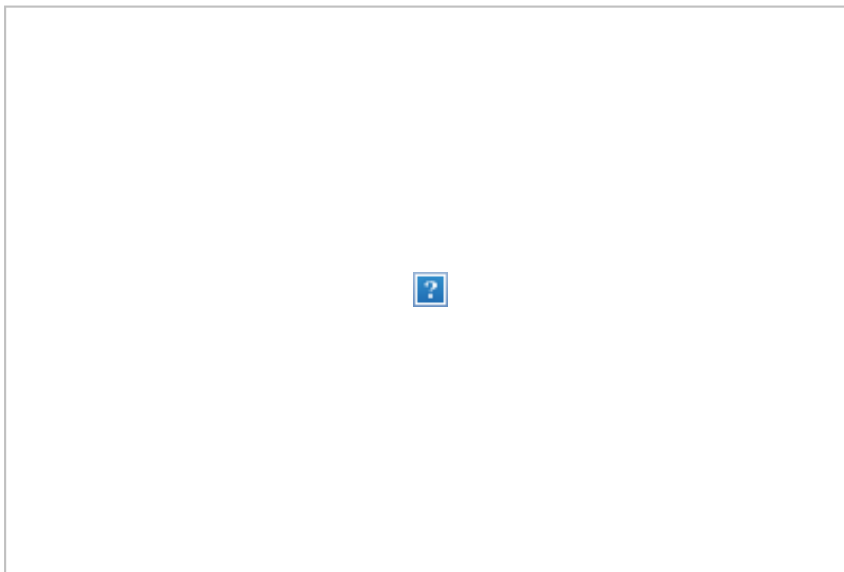


Figure 1: A Conceptual Model for Vulnerability Analysis  
Source: H.-G. Bohle, 04/2001.

Fig. 1 seeks to integrate these concepts into a comprehensive, but simplistic model on the causal structure of vulnerability. This model can not only serve as a framework for vulnerability analysis, but may also provide some insights into the causal structures of vulnerability. When Roger Kasperson states in this newsletter that significant future scientific progress in the field of vulnerability analysis under conditions of global environmental change is unlikely in the absence of greater conceptual progress, our work can hopefully be seen as at least a first step in that direction.



*Herders in the Highlands of Pakistan*  
Photo by Maarit Thiem

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