## Recovery after Disaster: Achieving Sustainable Development, Mitigation and Equity

PHILIP R. BERKE, JACK KARTEZ and DENNIS WENGER

This paper reviews key findings and raises issues that are not fully addressed by the predominant disaster recovery literature. Achievement of equity, mitigation and sustainable development, particularly through local participation in redevelopment planning and institutional cooperation, is the central issue of the review. Previous research and past assumptions about the process by which communities rebuild after a disaster are reviewed. A conceptual model for understanding local disaster recovery efforts is then presented. The conceptual and practical significance of this model is then demonstrated by presenting case studies of local recovery experiences. Finally, conclusions on the current understanding of disaster redevelopment planning, as well as implications for public policy and future research are offered.

The aftermath of a natural disaster poses a monumental challenge to local officials. Homeless citizens need replacement housing. Water, sewer and other public services must be restored to maintain public health and to support other recovery activities. Local businesses need to be reestablished to restore the local economy.

The recovery period offers an opportunity to strengthen local organizational capacity to facilitate economic, social, and physical development long after the disaster. Tentative evidence suggests that what we term a developmental approach for recovery can have multiple benefits including reducing the costs and increasing the effectiveness of recovery aid policies. External aid can be used to build and support local organizations to be more effective in undertaking self-directed sustainable development initiatives. The community

can assume the role of active participants, rather than helpless victims. Local people can define goals, control resources, and direct redevelopment initiatives with long term economic and social benefits.

Another opportunity is to alter physical development patterns to reduce future hazard vulnerability. Support for hazard mitigation is typically strongest immediately following a disaster (Rubin et al., 1985). With appropriate construction, repair, and land use standards, a rebuilt community can be at lower risk to future disasters, compared to pre-disaster conditions Moreover, long standing community problems can be resolved through reconstruction. For example, increasing the affordable housing stock for the poor, improving traffic circulation, expanding open space for parks and recreation, modernizing public facilities, and stimulating the local economy