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# Assessing the Disaster Recovery Planning Capacity of the State of North Carolina

## Project Leads

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## Statement of Problem

Disaster recovery remains the least understood aspect of hazards management, when assessed relative to preparedness, response, and hazard mitigation (Berke, Kartez, & Wenger, 1993; Smith & Wenger, 2006). Furthermore, while states are critical stakeholders in this process, their role remains less understood than the roles of federal and local governments (Waugh & Sylves, 1996; Smith & Wenger, 2006). This reality is manifest in the lack of sound recovery policy and often poor recovery outcomes following disasters. State governments do provide numerous recovery-related services, including the formulation of state policy, the coordination of assistance, and the provision of training, education, and outreach programs (Durham & Suiter, 1991). In practice, however, state involvement in disaster recovery varies widely due to differing levels of capability and commitment among emergency management organizations and other state agencies tasked with recovery activities (National Governor's Association, 1998).

The importance of assessing the recovery capabilities of states is gaining greater recognition. Much of this increased level of attention is a direct result of widespread problems

following Hurricane Katrina (GAO, 2008; Smith & Wenger, 2006). A number of pertinent questions are worthy of study:

1. How can states more effectively manage the resources that arrive following a major disaster, including federal financial aid, private sector reinvestment, nonprofit assistance, and foundation grants?
2. How can a post-disaster surge in assistance be better coordinated to ensure that a state's recovery administrators are not overwhelmed with tasks that diminish the attainment of higher order goals?
3. What process should be used to balance often competing recovery priorities such as housing, economic development, health care, and environmental clean-up as well as the different needs and priorities of various groups, business sectors, and communities?
4. What is the best division of labor and authority for a long-term disaster recovery effort? Should an existing state agency be given the responsibility for leading such a recovery effort, or is another organization or network of organizations better suited to the task?
5. How should a long-term recovery effort be staffed? Is there a need to cross-train employees in state government and other organizations before the disaster to develop a "ready reserve" of recovery administrators?

Each of the questions posed is closely associated with the power of pre-event planning for post-disaster recovery. The literature shows that such planning improves outcomes at the local level (Oliver-Smith, 1990; Berke, Kartez, & Wenger, 1993; Berke & Beatley, 1997; Schwab, Topping, Eadie, Deyle, & Smith, 1998). Much less is known about the value of pre-event planning for post-disaster recovery at the state level, including the role of state recovery plans in advancing the concepts of sustainable development and disaster resilience.

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## Background

The capacity of a state to engage in pre-event planning and the implementation of post-event recovery strategies is uncertain because there has been no known study of this capability. A state's disaster recovery capabilities can be assessed in a number of ways; specific examples include the analysis of the state's legal and regulatory authority to engage in disaster recovery-related activities, the number of experienced state personnel dedicated to long-term recovery tasks, the degree to which the state delivers quality pre- and post-event training programs, the level of financial support provided by the legislature to fund state recovery initiatives, the political standing of emergency management within the governor's office and other supporting state agencies, and the development of a strong state disaster recovery plan that involves the larger network of those providing disaster recovery assistance (Smith, 2004; Smith & Wenger, 2006; Smith, forthcoming).

In the field of land use planning, the emergence of plan evaluation techniques provides a tested means to evaluate plan quality. The use of plan evaluation concepts can be traced to

the search for the content and the process used to create a good plan as defined by accepted standards of practice (Baer, 1997; Berke & Godschalk, 2009). The use of plan quality principles, an analysis of state legal and regulatory authority to engage in pre-event planning for post-disaster recovery, observations derived from the literature, best practices from other state plans, and input from practitioners can help to describe what makes a good recovery plan. Since plan quality principles have yet to be applied to assess recovery plans, the use of this technique provides an opportunity to advance our understanding of the potential nexus between plan quality and disaster recovery readiness. Further, the state recovery plan quality evaluation protocol, once developed and tested, could be used to analyze the quality of other state recovery plans as part of a nationwide research project.

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## Synthesis: Recovery Planning and Disaster Resilience

In the aftermath of a disaster, elected officials face tremendous pressure to rebuild communities to their pre-event condition. At the same time, residents begin to construct their own vision of how a community should be redeveloped. The lack of pre-event planning for post-disaster recovery often limits the incorporation of disaster resilience measures into the physical reconstruction of communities, the reconstitution of social networks, the preservation of environmental systems, and the rebuilding of local economies.

Sustainable development and disaster resilience have emerged over the past several decades as important concepts linking social, economic, and environmental dimensions to improved disaster recovery outcomes (Beatley, 1998; National Science and Technology Council, 1996; National Research Council, 2006). Initially framed as a means to help encourage sound international development practices, the Brundtland Commission (1987, p. 188) defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” Hazard scholars and a limited but growing number of practitioners have begun to apply these ideas and other key dimensions of sustainability to the study and practice of disaster recovery planning (Burby, 1998; Mileti, 1999; Eadie et al., 2001; Vale & Campanella, 2005; Smith & Wenger, 2006).

The concept of disaster resilience, which has been described as an ability to “bounce back” following disasters, has more recently gained widespread acceptance among researchers as a worthwhile goal (Chang & Miles, 2003; Bruneau et al., 2003; Bruneau & Reinhorn, 2006; Paton & Johnston, 2006; National Research Council, 2006). Resilience, however, should not be defined exclusively by the speed of recovery or an ability to respond to a shock to the system. The “quality” of recovery is also inextricably linked to this concept. While the incorporation of hazard mitigation measures into the reconstruction of damaged communities is the most cited example (Godschalk, 2003), resilience can be described using a broader construct by adding the underlying notion of planning. Understood in this context, resilience implies the adoption of pre-event measures that prepare a community for a

disruption and pre-position the community—and other members of a larger disaster assistance network—to act in a coordinated manner when a disaster strikes. Indeed, Godschalk (2003) argues that resilience should include developing strong social networks that are armed with current information about a community’s vulnerability, lessons derived from past events, and the resources to confront the challenges associated with disaster recovery.

Taking action in advance of a disaster can help to balance what Olshansky (2006) refers to as “speed versus deliberation” in recovery. The adoption of pre-event disaster recovery plans is an important means to address this dilemma while improving community resilience and thereby speeding recovery, improving coordination across the network of assistance providers, identifying local needs, equitably distributing resources, and building the capacity of individuals, groups, institutions, and multiorganizational networks to deal with the challenges associated with a disaster.

Scholars have described resilience using physical (Bruneau et al., 2003; Bruneau & Reinhorn, 2006), social (Paton, McClure, & Burgelt, 2006), environmental (Holling, 1973), and economic (Rose, 2004) dimensions, while others have described the concept as an inherently interdependent system (Godschalk, 2003; Walker & Salt, 2006; Paton & Johnston, 2006; Beatley, 2009). Viewing disaster recovery through the lens of pre-event planning and post-event actions provides another way to frame the concepts of sustainability and disaster resilience. This approach also enables researchers to measure these elusive concepts through the use of recognized planning principles and to provide practical guidance for those seeking more resilient communities.

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## Future Directions: The Relevance of this Study to Emerging Federal Recovery Policy

At the federal level, several important initiatives suggest that the importance of long-term recovery planning is gaining greater recognition: (1) FEMA has developed a team responsible for assisting local governments to develop post-disaster recovery plans; (2) the Government Accountability Office has written a number of reports noting the importance of disaster recovery planning and the need for the federal government to do more to promote pre-event planning for post-disaster recovery; (3) Congress has passed the Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA), requiring the creation of a National Disaster Recovery Framework; and (4) the White House has created the Long-term Disaster Recovery Working Group, composed of 20 federal departments, agencies, and organizations tasked with the collection of information needed to help identify necessary changes in federal disaster recovery policy (Smith, forthcoming).

Given the increasing level of disaster-related losses, the recent national exposure of a largely ineffective disaster recovery assistance policy following Hurricane Katrina, and an

emerging attempt to remedy some of these problems, the study of state recovery planning is timely. State plans serve as a potential linchpin between this emerging national recovery policy and local disaster recovery planning. Future research should include the national evaluation of state plans, followed by the evaluation of local recovery plans using plan quality evaluation techniques. Once the findings are available, they should be framed as policy recommendations and shared with policymakers and national professional associations to help operationalize what is a growing interest in pre-event planning for post-disaster recovery.

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