

Hazard Mitigation, Disaster Recovery, and Climate Adaptation Planning: The Integrative Results of Three Research Projects

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Abstract

This presentation summarizes the work of three research projects. The studies include: 1) a national evaluation of the quality of state and local hazard mitigation plans; 2) an evaluation of the National Disaster Recovery Framework and the role that planning can play in improving the current system; and 3) a global assessment of climate change adaptation, including lessons that can be drawn from natural hazards planning. The results of all three studies will be discussed in the context of specific policy recommendations that can better integrate these potentially complimentary topical areas that remain largely uncoordinated.

1. Introduction

There is little scientific debate as to whether climate change is occurring and that this will result in more intense and damaging natural hazards and disasters. There is also a wealth of research that has been conducted in the fields of hazard mitigation and disaster recovery that are directly relevant to climate change adaptation. The degree to which these lessons are being used to guide climate change adaptation in the United States and abroad varies significantly. Drawing lessons from natural hazards planning and applying them to climate change adaptation is the purpose of the text titled *Adapting to Climate Change: Drawing Lessons from Natural Hazards Planning* (Glavovic and Smith 2014).

Two studies that are directly relevant to the challenges associated with linking natural hazards planning and climate change adaptation will be discussed, including how their findings can be used to improve a community's ability to adapt to a changing climate. First, a seven-year study funded by the Department of Homeland Security, Science and Technology Directorate's Office of University Programs will describe the empirical documentation of patterns in current state and local hazard mitigation plans, identify specific weak points that could undermine the effectiveness of individual plans, and provide an empirical basis to make recommendations on how plans can be improved (Berke and Smith 2009; Lyles, Berke and Smith 2013; Smith, Lyles and Berke 2013). Next, the text *Planning for Post-Disaster Recovery: A Review of the United States Disaster Assistance Framework* (Smith 2011) will be summarized, emphasizing key weaknesses in the current US system and how planning can help to address them. The presentation will conclude with a series of policy recommendations drawn from the findings of the three studies.

2. Objective

The objective of this presentation is to apply and integrate the findings of three studies to help explore and explain how what we know about hazard mitigation and disaster recovery planning and how this information can be used to inform the still emerging process of planning for climate change adaptation.

3. Analyses

The analytical techniques used to conduct the three studies included: 1) the empirical analysis of Plan Quality Principles, a technique used to assess key components of plans as a measure of their quality; 2) a qualitative review of three key elements of disaster recovery: i) the degree to which resources (funding, policies, and technical assistance) administered across a broad network of providers met local needs, the timing of assistance across the network, and horizontal and vertical integration (e.g., coordination) across the network; and 3) case study research, which drew on a global sample of disaster-stricken areas in which lessons were drawn and applied to climate change adaptation-related issues.

4. Conclusions

Researchers and practitioners have a wealth of knowledge and practical experience surrounding hazard mitigation and disaster recovery. This knowledge and experience, however, has not been effectively conveyed to the still emerging climate change adaptation community. This presentation provides tangible findings that help to bridge this gap.

5. Acknowledgement

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6. References

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