

Session 6

Holistic Disaster Recovery: Creating a More Sustainable Future

Role Analysis

Time: 3 hours

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Objectives:

- 6.1 Analyze how roles change over time (Class Exercise)**
 - 6.2 Discuss the emerging roles of the emergency management professional**
 - 6.3 Exam 1**
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Scope:

The roles of stakeholders described in Sessions 4 and 5 may change across the phases of emergency management (e.g. preparedness, response, mitigation and recovery), within each phase, and historically, over time. This session will discuss changing roles within the context of disaster recovery and over time historically. Specific factors that elicit these changes will be described. Historical changes will be discussed in Objective 6.2, including new roles in emergency management. Finally, the principles discussed to this point in the course will be addressed by the assignment of a written take home exam.

Readings:

Student Readings:

Rubin, Claire. 1991. Chapter 9. "Recovery from Disaster," Pp. 224-259. In *Emergency Management, Principles and Practice for Local Government*. Drabek, Thomas and Gerard Hoetmer, Eds. International City Management Association.

May, Peter. 1985. *Recovering from Catastrophes: Federal Disaster Relief Policy and Politics*. Westport, Connecticut: Greenwood Press. Chapter 5. The Federal-State Disaster Relief Partnership. Pp. 87-103.

Instructor Reading:

Emergency Management Institute, Catalogue of Activities 2002-2003. Federal Emergency Management Agency National Emergency Training Center. Integrated Emergency Management Course All Hazards: Recovery and Mitigation (E9011). The course can be obtained by contacting the Emergency Management Institute Integrated Emergency Management Branch at: (301) 447-1381.

Objective 6.1 Analyze how roles change over time

Remarks and Role Playing Requirements:

The roles adopted among stakeholders may change over time due to a variety of factors. In the context of this course, roles will focus on those that change during the process of recovery. The instructor guide will discuss specific factors affecting changing roles followed by a brief description of the four recovery models introduced in Session 3. The models help to provide a broad contextual understanding of specific factors that more directly affect changing roles. Next, a role playing exercise will be performed that is intended to approximate the actual roles that stakeholders would assume during recovery. Students are encouraged to utilize their understanding of recovery processes revisited prior to the exercise. An alternative class exercise is provided if the class is not large enough to participate in an exercise that necessitates 5 or more people.

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Factors Affecting Changing Roles in Recovery:

- ***New information or training.*** Stakeholders may respond to new information, including that received through training, resulting in the adoption of improved recovery methods, or the adoption of differing techniques and responsibilities (Spangle and Associates 1991).
 - For example, training local officials about how to incorporate hazard mitigation techniques into post-disaster reconstruction may alter the roles of the local emergency manager, who has traditionally focused on preparedness and response activities.
- ***Past disaster experience.*** Stakeholders frequently cite past disaster experience as a primary reason new roles or actions are adopted. Citizens, local, state and federal government officials all learn a great deal as a result of their experiences in past disasters (Tyler, O'Prey and Kristiansson 2002).
 - Citizens, for example, are more likely to become more cognizant of their vulnerability to hazards, and take precautionary steps such as evacuating in advance of an oncoming hurricane.

- Government officials may reassess how existing resources, including personnel and equipment are used post-disaster. More specifically, officials may retrain staff to more effectively address new circumstances recently encountered.
- It should be noted that some individuals, including professionals, who have experienced past events, particularly those of a lesser magnitude, may not take the necessary precautions prior to or after a disaster. Examples may include the failure to evacuate in the face of an oncoming hurricane, refusing to purchase flood insurance or developing a disaster preparedness kit (Kartez and Lindell 1987).
- ***Changes in local, state or federal rules, laws or policy.*** Changes in rules, laws and policy can reshape the roles of stakeholders in recovery.
 - For example, the Disaster Mitigation Act of 2000 has resulted in a number of local, state and federal officials becoming more involved in pre-disaster hazard mitigation planning, who would not have otherwise done so.¹
- ***Short versus long-term perspectives.*** The perspective taken by stakeholders may affect the roles assumed during recovery.
 - For example, a short-term approach that emphasizes the rapid return to normalcy at the expense of stepping back and identifying opportunities to achieve multiple aims, including broader goals such as sustainable redevelopment can alter roles adopted among recovery stakeholders.
- ***Limited resources.*** The lack of access to necessary resources may necessitate stakeholders to assume “non-traditional” roles during recovery. As discussed in Session 2, disasters, by definition, can exceed the capability of local, state and even federal organizations to effectively respond to and recover from disasters.
 - Individuals and organizations may be required to assume multiple duties, some of which are not part of their daily responsibilities.
 - Examples may include a local community planner who is tasked with the administration of disaster recovery grant funding or a citizen who, out of necessity, becomes knowledgeable in disaster assistance and advises neighbors on their best course of action.

¹ Prior to its passage, states were required to develop state hazard mitigation plans. However, the plans were generally weak and did not meet an established national standard. The Disaster Mitigation Act of 2000 requires that state and local plans (meeting a more clearly defined and enforced standard) must be completed by November 2004 in order to receive pre and post-disaster mitigation funding. This mandate has stimulated the development of plans across the country.

- ***Post-disaster recovery funding.*** Disaster assistance varies by type and amount following events of differing scale and magnitude. Federally-declared disasters typically result in the large influx of disaster recovery funds.

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- In many cases, local, state and federal officials are not adequately prepared to manage the sums of money triggered by large-scale disasters. **New roles may include:**
 - Learning eligibility requirements;
 - Writing grant applications; and
 - Administering recovery programs as funding becomes available.
- More frequently, however, individuals and communities are impacted by localized events that do not meet federal disaster criteria. **New roles may include:**
 - Seeking familial and community-based assistance;
 - Attempting to solicit state assistance; and
 - Developing an increased level of self-reliance.
- Given the episodic nature of federally declared disasters, local and state agencies may not be able to maintain staff that are experts in the administration of recovery programs. Therefore, when federally-declared disasters do occur and funding becomes available, permanent staff may be shifted from their regular duties, or governments may hire temporary workers to assist.²

² Another major challenge facing states and local governments is the ability to utilize state and local resources when more frequently occurring localized disasters occur.

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- ***Recovery as a social process.*** Disasters are destructive forces that not only injure or kill individuals, damage property, and cause major disruptions to the local economy, they can impact organizational structures, including families, non-profits, governmental agencies and businesses (Cutter 2001).
 - Recovery is a social process, in which groups and organizations, including those formally tasked with recovery, may seek and provide assistance (Tierney, Lindell and Perry 2001). **An important source of aid is often provided via existing social networks including:**
 - The family;
 - Co-workers; and
 - Church groups or charitable organizations.
- ***Scale and scope of disaster.*** Large-scale disasters or those that cause extensive localized damage necessitate undertaking additional tasks and roles that may not occur following smaller events or those that do not cause severe damages.
 - Widespread damages or localized events that destroy the bulk of a community's infrastructure, housing and businesses necessitate figuring out how to reconstruct an entire system of interconnected parts, not just damaged components of a community, city or region.
 - Those in charge of recovery must determine how the community is to be rebuilt. Related tasks include determining what the reconstructed community should look like and who should be involved in deciding its future.

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- ***Emergent organizations and social maps.*** Much of the research tied to emergent organizations has focused on organizational response to disasters. Drabek (1985) has documented how emergency management systems emerge for relatively short periods of time to achieve varied functions.
 - Drabek argues that a central role of emergency planning is to facilitate the rapid emergence of these existing systems. Organizations frequently emerge to address the tasks associated with recovery as discussed in Session 2. Sessions 8 and 12 will further clarify the role of emergent organizations in the context of adaptive planning.

Disaster Recovery Models

The disaster recovery models described in Session 3 provide insight into the broad steps taken during recovery, and can be used to show how the roles held by varying stakeholders can change over time. The instructor should refer to each model and relevant literature to briefly revisit the components of each. The instructor is encouraged to revisit materials discussed in Session 3. The recovery models include:

- ***Haas Model (1977).*** Haas emphasized four primary phases:
 - Emergency;
 - Restoration;
 - Reconstruction I; and
 - Reconstruction II
- ***Klintberg Model (1979).*** Klintberg describes how disasters temporarily reduce “economic and social standards” found in communities pre-disaster. **The three key factors to consider include:**
 - Over time, the recovery process can lead to improvements, achieving desired aims and expanding “**recovery possibilities.**” Following a disaster, the decline in standards reaches its lowest point prior to the initiation of short-term recovery.
 - The “**approximate assistance period**” where state and federal aid is given and received bridges the short term and the beginning of long term recovery, eventually leading to “**early options and outcomes.**” Depending on the nature of the recovery this can lead to outcomes less than, approximating, or exceeding pre-disaster economic and social standards.

- Klintberg's work serves as the precursor to the more recent analysis of disasters as representative of existing resource and power imbalances or an opportunity to achieve multi-objective post-disaster planning and sustainable redevelopment.
- ***Rocky Mountain Model (1985)*. In the Rock Mountain model of disaster recovery, Claire Rubin describes three broad categories, including:**
 - Minimalist/restoration;
 - Foresight/mitigation; and
 - Visionary/community betterment.

Each category represents a higher level of achievement, the highest representing what we have referred to as sustainable recovery throughout the course.

- **The “disaster recovery continuum” emphasizes the important roles of:**
 - Policy dialogue;
 - Social learning;
 - Negotiation; and
 - Politicized decision making.

Critical factors shaping the roles of stakeholders in disaster recovery over time involve learning from past disaster recovery experiences.

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Disaster Recovery Stakeholders Revisited

Following a discussion of recovery models, and prior to the initiation of either the role playing or alternative class exercise, the instructor should remind students of the primary stakeholders involved in recovery. **They include:**

- Federal, State, and Local Government Agencies and Officials;
- Disaster Victims;
- Media;
- Businesses and Corporations;

- University and Research Institutions;
 - Non-profit Agencies and Emergent Community Organizations;
 - Contractors; and
 - Associations and Collaborative Partnerships.
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Role Playing Exercise:

If the class contains at least 5 students or willing participants (e.g. instructors or other graduate students) the instructor should require students to engage in a role playing exercise, each assuming the role of a stakeholder discussed in Sessions IV and V and noted above.

The role playing exercise is based on FEMA's Emergency Management Institute training course on Disaster Recovery: **Emergency Management Institute, Integrated Emergency Management/All Hazards Recovery and Mitigation E901**).

As part of the exercise, the instructor should ask the team to address commonly occurring problems posed during recovery and develop collaborative methods to solve them based on their understanding of what they would typically do given their assigned role.³

Following the exercise, a debriefing should be used to address what occurred. **Emphasis should be placed on two issues:**

- Did the roles of stakeholders change over the course of the exercise, and
- Did roles assumed during the exercise differ from what has been discussed in class or found in course readings?

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Alternative Class Exercises:

Option #1: Following a discussion of recovery models and stakeholders identified in previous sessions, the instructor should assign teams (not larger than 5) to analyze one of the case studies listed below using one of the three recovery models (Haas, Klintberg, or Rocky Mountain). Students should identify the stakeholders present in their assigned

³ The FEMA training course contains specific instructions, including the identification of stakeholder roles and a specific disaster recovery scenario.

case study and the roles they assumed across the phases of recovery. Students should note if roles changed over time (i.e. from one phase to another).

Possible case studies include⁴:

- Flood Case Study: Arnold Missouri. Jim Schwab. Pp. 217-228. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.
- Hurricane Case Study: Opal in the Florida Panhandle. Richard Smith and Robert Deyle. Pp. 235-259. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.
- Wildfire Case Study: Oakland California. Kenneth Topping. Pp.261-280. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.
- Earthquake Case Study: Loma Prieta in Santa Cruz and Watsonville, California. Pp.281-310. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.

Students should be allowed one hour to complete the exercise. Following the exercise, each team should report their findings to the group. Group presentations should last no longer than 30 minutes.

Two Primary questions should be answered during the reporting process. They include:

- How well did the model explain the issues observed in your case study? Provide specific examples of where the model accurately or inaccurately described recovery processes.
- Did roles change across the phases of recovery described in differing models?

Option # 2: Students should analyze a selected case study in the context of the “federal - state disaster partnership” described by Peter May in *Recovering from Catastrophes: Federal Disaster Relief Policy and Politics*. Chapter 5, The Federal-State Disaster Partnership. Pp. 86-103. **The analysis should answer following questions:**

- Does the federal-state relationship as described by May accurately reflect the relationship described in the case study? Issues to consider include intergovernmental conflict and state capacity.
- Are the recommendations noted to “strengthen the partnership” between state and federal relief agencies applicable to the case study analyzed?

⁴ The same case studies are used in Session 7.

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Objective 6.2 Discuss emerging roles of the emergency management professional

Remarks:

Most of today's emergency managers are described as working within the compartmentalized four phases of emergency management, discussed in earlier course sessions. While providing a general overview of emergency management, it has led to sub-optimal solutions to broader, cross cutting policy issues that should be framed in a model that goes beyond the strict reliance on distinct and typically disjointed tasks associated with preparedness, response, mitigation and recovery. Instead, the emergency manager of the future should look for common ground across the profession and involve non-traditional partners. **Key skills of the new emergency manager include:**

- Consensus building;
- The use of data management techniques and technology;
- Critical thinking;
- Contingency and adaptive planning;
- Comprehensive land-use planning;
- Marketing; and
- Politically savvy.

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The emergency manager of today and the future

- ***Consensus-building.*** Specific techniques including negotiation and group facilitation are key roles adopted by successful emergency managers. In order to build coalitions and resolve disputes that frequently arise during disasters, emergency managers must develop effective negotiation skills.
 - For example, policy disputes involving program eligibility is frequently subject to intense negotiations following disasters.

- The ability to effectively articulate local needs and provide a meaningful rationale for modifying existing rules can ultimately reshape programs that may significantly alter how a community rebuilds following a disaster.

The broader concept of *coalition-building* is becoming increasingly important as leaders realize that they can do more when they foster relationships with other disciplines that bring unique perspectives, skills and expertise.

- The ability to draw on experts in the fields of grants management, public administration, public health, bio-chemistry, force security, engineering, land use planning, housing construction, epidemiology, veterinary medicine and many other disciplines is vital.
- Building partnerships with land use planners, for example, enable the emergency manager to link the issues of sustainable recovery and redevelopment with hazard mitigation, economic development, social justice and broad quality of life issues that frequently rise to the surface following disasters.
- The ability to capitalize on existing windows of opportunity and link recovery objectives, funding, and pre-existing community aims requires establishing a broad coalition to effectively navigate this complex process.

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- ***The use of data management techniques and technology.*** Those involved in emergency management, including disaster recovery, are constantly attempting to balance the gathering, analysis, and presentation of incomplete and changing information to make decisions that can significantly affect the lives of individuals and shape the future of a community, region or state. The ability to use those tools that can assist in this effort can prove vitally important.
 - **Tools may include:**
 - Loss estimation programs used to approximate the type of damages sustained and the expected repair costs, the amount of debris generated, or the number and type of displaced residents;
 - Databases used to track the deployment of resources, and the administration of disaster grant funds; or
 - Geographic Information Systems to map and analyze geospatial data.

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- ***Critical thinking.*** Critically analyzing complex programs and interrelated aspects of the broader disaster recovery system is frequently undertaken following disasters. The failure to undertake this effort before disasters frequently leads to sub-optimal outcomes, including the inefficient use of resources or the limited incorporation of sustainability into recovery.
- ***Contingency and adaptive planning.*** Disaster recovery planning, as practiced by most local, state and federal agencies, more closely approximates adaptive planning.
 - Stakeholders typically assume reactive roles rather than proactively establishing a well coordinated means to rebuild communities prior to the event.
 - There are examples, however, of where pre-disaster recovery planning has taken place. The results are mixed. In some cases, pre-disaster plans did little to affect an improved recovery as was the case in Florida following Hurricane Opal (Smith and Deyle 1998). In the case of Arnold Missouri, pre-disaster planning has resulted in a more effective and comprehensive level of recovery, and one in which sustainability concepts were implemented (Schwab 1998).
 - However, as will be discussed in Session 12, adaptive planning can lead to a sustainable recovery, if certain factors are present.

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- ***Comprehensive land-use planning.*** Members of the emergency management community are increasingly becoming aware of the importance of land-use planning as part of a comprehensive effort to reduce hazard vulnerability. Guiding development away from known hazard areas before and after disasters as part of community planning and reconstruction, requires building partnerships with local planners, elected officials and development interests (Godschalk, Kaiser and Berke 1998).
- ***Marketing.*** The ability to market programs, ideas, past successes, and lessons learned provides an important benefit for those in the emergency management community.
 - One, sharing lessons learned from experience provides practical guidance for those professionals who are involved in similar events in the future (see Spangle and Associates 1991).
 - Two, emergency managers, like others who rely on federally funded programs, may be called on to demonstrate the effectiveness of existing

programs to skeptical audiences, including members of Congress, for example, who may not support the concept of federal funds being used to implement post-disaster mitigation programs.

- Similarly, emergency managers may be required to advertise and clearly articulate the need for local and/or state-level assistance when events do not meet federal disaster declaration requirements.
 - Therefore, the ability to demonstrate the effectiveness of these programs may determine if they are maintained, significantly modified, or discontinued.

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- ***Politically savvy.*** Obtaining desired ends following a disaster may necessitate using political measures, including the fostering of alliances with powerful interests. Educating elected officials at the local, state and federal level can pay big dividends following a disaster.
 - As noted above, negotiation skills can help achieve desired policy objectives. It is important to note that the strength of an individual's negotiation position can be significantly increased with the help of political leverage. This is certainly true in the example of seeking to alter existing recovery grant program policy interpretations.⁵

Objective 6.3 Exam 1

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The instructor should hand out a take home essay exam addressing topics discussed to this point. **Questions may include:**

- Critique the current emergency management system, including the degree to which existing programs, policies and roles, facilitate sustainable disaster recovery. Your answer should include specific dimensions of disaster recovery discussed in Session 3 and how each may facilitate or hinder the process. Where appropriate, provide suggested improvements that will maximize sustainable recovery.
- Discuss how the new roles being adopted by emergency managers (discussed in Session 6) can be used to encourage sustainable recovery. Provide specific examples. Describe at least one example where new roles may hinder sustainable recovery.

⁵ These skills will be addressed again in Session 13, which addresses facilitators of a sustainable recovery.

- Discuss the major impacts of disasters, including physical, economic, environmental, psychological and social effects. Explain how the factors represent not only negative outcomes but also opportunities for positive change. Your answer should emphasize specific sustainable recovery themes.
- What do you believe to be the primary impediment to sustainable disaster recovery and why? Explain your answer using specific examples discussed in class.

Remarks: Exam questions should be returned by students to the instructor at the beginning of class the following week. Prior to dismissing class Session 6, the instructor should field questions from students regarding the exam. The instructor should discuss the weight of the exam and how it fits into the overall course grade.

Student Instructions: Students should answer question number one and two of the three remaining questions. Answers should emphasize materials covered in the class lectures and assigned readings. Answers should be typed and double spaced, in order to ease the review of each answer and provide space for comments. Time should be allotted in Session 7 to discuss the exam, including how the topics discussed up to this point set the stage for the remainder of the course.

References:

- Cutter, S.L. 2001. *American Hazardscapes: The Regionalization of Hazards and Disasters*. Washington, D.C.: Joseph Henry Press.
- Drabek, Thomas. 1985. Managing the Emergency Response. *Public Administration Review* 45: 85-92.
- Eadie, Charles. 1998. Earthquake Case Study: Loma Prieta in Santa Cruz and Watsonville, California. Pp.281-310. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.
- Godschalk, David, Edward Kaiser and Phillip Berke. 1998. Integrating Hazard Mitigation and Local Land Use Planning. Chapter 4. pp. 85-118. In *Cooperating with Nature: Confronting Natural Hazards with Land-Use Planning for Sustainable Communities*. Raymond Burby, Ed. Washington, D.C.: Joseph Henry Press.
- Kartez, Jack and Michael Lindell. 1987. Planning for Uncertainty: The Case of Local Disaster Planning. *American Planning Association Journal*. 53: 487-498.
- Haas, Eugene, Robert Kates and Martyn Bowden. eds. 1977. *Reconstruction Following Disasters*. Cambridge, Massachusetts: MIT Press.

- Rubin, Claire. 1985. The Community Recovery Process in the United States after a Major Natural Disaster. *International Journal of Mass Emergencies and Disasters* 3, No. 2: 9-28.
- Schwab, Jim. 1998. Flood Case Study: Arnold Missouri. Pp. 217-228. In *Planning for Post Disaster Recovery and Reconstruction*. Schwab, et. al.
- Smith, Richard and Robert Deyle. 1998. Hurricane Case Study: Opal in the Florida Panhandle. Pp. 235-259. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.
- Spangle and Associates. 1991. *Rebuilding After Earthquakes: Lessons from Planners*. Portola Valley, California: William Spangle and Associates.
- Topping, Kenneth. 1998. Wildfire Case Study: Oakland California. Pp.261-280. In *Planning for Post Disaster Recovery and Reconstruction*. 1998. Schwab, et. al.
- Tyler, Martha, Katherine O'Prey and Karen Kristiansson. 2002. *Redevelopment After Earthquakes*. Portola Valley, California: Spangle Associates, Urban Planning and Research. Pp. 1-48.