

Session No. 9

Course Title: Breaking the Disaster Cycle: Future Directions in Natural Hazard Mitigation

**Session Title: State Planning Assistance for Mitigation at the Local Level;
Assessing Local Hazard Mitigation Plans**

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Time: 150 minutes + 15 minute break

Objectives:

- 9.1 Understand the context for statewide hazard mitigation planning assistance to local governments
 - 9.2 Discuss the issues encountered in mandating local hazard mitigation plans
 - 9.3 Identify the problems of developing local hazard mitigation commitment and capacity
 - 9.4 Understand the nature of local hazard mitigation plans
 - 9.5 Discuss best practice criteria for evaluating local hazard mitigation plans
 - 9.6 Participate in an exercise to assess a local hazard mitigation plan in terms of its ability to bring about effective hazard mitigation
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Scope:

The first part of the session is a lecture on the context for and issues involved in state hazard mitigation planning assistance to local governments. The instructor identifies the problems of developing local hazard mitigation commitment and capacity, in terms of using state mandates and incentives to achieve local actions. Then the nature of local hazard mitigation plans is discussed, along with best practice criteria for evaluating local hazard mitigation plans.

The second part of the session is an exercise in which teams of students assess a local hazard mitigation plan and evaluate its ability to implement an effective hazard mitigation program.

Reading:

Instructor and student reading:

NC Division of Emergency Management, 1998. *Local Hazard Mitigation Planning Manual*. Raleigh, NC. (Read pp. 1-47.)

Burby and May. 1998. Intergovernmental Environmental Planning: Addressing the Commitment Conundrum, *Journal of Environmental Planning and Management* 41:1, January, pp. 95-110.

FEMA. DMA Plan Review Criteria. Part 3. Local Mitigation Plans.
(http://www.fema.gov/fima/planning_toc4.shtm)

North Carolina Division of Emergency Management. *North Carolina Hazards Mitigation Plan*. See sections on Mitigation Planning and Local Mitigation Plans.
(<http://www.ncem.org/mitigation/322plan.htm>)

Oregon Office of Emergency Management. 2000. *State of Oregon Natural Hazards Mitigation Plan*. Salem, Oregon. (<http://osp.state.or.us/oem/>) (Read pp. 22-23 on Local Governments and Intergovernmental Organizations.)

Pitt County, NC. 2000. *Pitt County Hazard Mitigation Plan*. (Read Sections 1 and 2, pp. 1-1 to 1-4 and 2-1 to 2-15, for exercise. Skim rest of plan.)
(http://www.ncem.org/mitigation/example_plans.htm)

Additional instructor reading:

Mileti, Dennis S. 1999. Ch. 5. Influences on the Adoption and Implementation of Mitigation, pp. 135-154. *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Washington, D.C.: Joseph Henry Press.

Handouts:

Exercise Instructions

Overheads:

- 9.1 Context for State Hazard Mitigation Planning Assistance to Local Governments
 - 9.2 Challenges in Mandating Local Government Hazard Mitigation Plans
 - 9.3 Overcoming the Commitment Conundrum
 - 9.4 Local Hazard Mitigation Plan Elements
 - 9.5 Best Practice Criteria for Evaluating Local Hazard Mitigation Plans
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General Requirements:

The instructor presents a lecture on local hazard mitigation planning during the first part of the session. The second part of the session is an exercise in which teams of students assess a local hazard mitigation plan and evaluate its ability to implement an effective hazard mitigation program.

Remarks:

During the previous class, students are formed into small (two to three person) teams whose assignment is to assess a local hazard mitigation plan. A potential plan is the Pitt County, NC *Hazard Mitigation Plan*; or the instructor may opt to select a local plan from his/her state to increase the relevance of the exercise to the students. Students present their evaluations and discuss their recommendations during the class period.

9.1 Understand the context for statewide hazard mitigation planning assistance to local governments

According to the *National Mitigation Strategy* (FEMA 1995, p. 10), “all mitigation is local:”

At all levels, governments and constituencies play critical roles in advancing mitigation by articulating the vision and developing the programs and incentives that encourage and support community-based implementation. They also advance the cause by adopting and holding themselves to the land use, construction, and enforcement standards they advocate for others. Success or failure depends, however, on decisions made by individuals. Mitigation takes place when a business or a homeowner decides to take action to reduce the risk of damage to the structure from wind, water, fire, or earthquake; a community develops a pre-disaster plan for undertaking a broad range of mitigation activities; a city council votes to upgrade the professional qualifications required of its building inspectors; a county removes floodprone land from development potential and creates a recreation area; a State legislature adopts a building code that is binding on all the political subdivisions.

As noted in the Oregon 2000 Natural Hazards Mitigation Plan (p. 22), local governments and their representative associations play major roles in natural hazard mitigation. (*Figure 9.1 Context for State Hazard Mitigation Planning Assistance to Local Governments*) Typical responsibilities include assessing hazards, preparing and maintaining appropriate land use and emergency response plans, facilitating the work of post-disaster hazard mitigation teams, preparing project applications and supporting documentation, and if funded, acting as the “sub-grantee” (or sponsor) of approved projects.

Local governments are required to prepare hazard mitigation plans under the Disaster Management Act of 2000. Local jurisdictions must have approved plans to be eligible for Hazard Mitigation Grant Program funding for Presidentially declared disasters after November 1, 2003 (FEMA. DMA Plan Review Criteria. Part 3. Local Mitigation Plans).

A major task for statewide hazard mitigation planning is to ensure that all local governments in the state understand and follow the requirements of DMA 2000. Carrying out this task is challenging because it must be done in an *intergovernmental*

arena. Not only does the state hazard mitigation manager have to work with a wide range of local governments with widely varying hazard mitigation capacities and commitments, but also the state manager must attempt to encourage these various local governments to prepare and adopt hazard mitigation plans that meet professional standards of quality without actually having authority to mandate such actions.

The context for statewide hazard mitigation planning assistance to local governments is based on the typical intergovernmental program model. Congress passes an act (in this case the DMA of 2000), a federal agency (in this case FEMA) issues implementing guidelines, state agencies (Divisions of Emergency Management) provide technical assistance and pass-through funds to local governments who are supposed to make and adopt a plan that follows the guidelines. As Burby and May (1998) point out, the political and practical realities for multi-tiered governmental systems lead to “shared governance” of these functions.

9.2 Discuss the issues encountered in mandating local hazard mitigation plans

While there are some federal funds available to pass along to local governments for developing hazard mitigation plans, these funds typically are not sufficient to pay all planning costs. The requirement that all local governments develop hazard mitigation plans is thus not an unfunded mandate, but it is a “partially funded” mandate. (*Figure 9.2 Challenges in Mandating Local Government Hazard Mitigation Plans*) (It could be argued that such plans are not mandates because local governments may choose not to have a plan, but this is not a viable option for most.) In times of fiscal shortfalls, this may mean that local plans are inadequate because of a lack of resources to pay for the planning.

There is also an issue resulting from the desire of local governments for independence from higher levels of government. Researchers such as Burby and May (1998) have pointed out the techniques used by local governments to resist the imposition of state mandates. Sometimes state and federal requirements are perceived by local governments as being overly prescriptive and coercive. There have been complaints about the failure to fund the costs of implementation, the lack of flexibility in the required actions, and the political shifting of blame for infringement of property rights.

Local governments can be reluctant partners and, lacking commitment, can thwart program goals. This leads to a “commitment conundrum,” in which local governments lack the will to solve the problem (Burby and May 1998, p. 96). When forced to do so by coercive mandates, participation is half-hearted or political backlash results. When encouraged to do so by collaborative mandates, local governments may simply drag their feet. The conundrum is figuring out how to successfully build local commitment to program goals without encountering either resistance or apathy.

Understanding factors that influence mitigation behavior can help in building local commitment to hazard mitigation. Research has identified factors that explain the extent of mitigation behavior by individuals, organizations or businesses, and governments

(Miletti 1999, pp. 135-154). Individual decisions about hazards typically are made without adequate information about risks and alternative actions. Organizational decisions often are similarly based on inadequate information and awareness of alternatives. Governments are reluctant to adopt measures for managing land use and development in hazardous areas, and local elected officials typically do not place high priorities on hazard mitigation, unless there has been a recent disaster.

Social factors also influence mitigation behavior. Mitigation incentives are weakened by a belief that the government will deal with disasters, coupled with individualism and support for private property rights. Cultural influences include differences in racial, ethnic, and gender responses to hazards. Economic influences include a tendency to favor simpler and less expensive mitigation measures because they are easier to sell politically. Legal factors can have a positive impact on mitigation behavior, as shown by requirements to adopt building codes and prepare disaster plans.

9.3 Identify the problems of developing local hazard mitigation commitment and capacity

How can state hazard mitigation planners overcome the commitment conundrum at the local level? (*Figure 9.3 Overcoming the Commitment Conundrum*) As Burby and May (1998, p. 108) note:

The commitment of elected officials to the goals of the mandates we studied tended to be lower when plans had not been prepared or were of low quality, when various interest groups made few demands for governmental action, and when risks had not become self-evident through the occurrence of a natural disaster. These findings led us to conclude that two strategies have promise if higher level governments are to solve the commitment conundrum. One strategy is based on improving the quality of plans, for which our data suggest financial, technical and other forms of capacity building will be effective. The second is to create constituencies for the solution of environmental problems, for which our data suggest that both better plans and more public information about the problems will be effective.

For local hazard mitigation plans under DMA 2000, FEMA and the states have created guidelines and technical assistance manuals, as well as training courses and materials, to help local governments prepare higher quality plans. However, this type of assistance alone may not be sufficient to develop capacity and commitment in some types of local governments, particularly those with small staffs and limited planning resources. In such cases, it may be necessary to utilize regional agencies, hazard mitigation circuit riders, or consulting firms to prepare the local plans.

In terms of creating constituencies, state and federal guidelines can point out the tools and techniques for fostering effective citizen participation. But the work has to be carried out at the local level. As with efforts to improve plan quality, it may be necessary to provide citizen participation experts to assist local governments in building constituencies for hazard mitigation planning.

9.4 Understand the nature of local hazard mitigation plans

Under the DMA 2000 implementing criteria, local hazard mitigation plans must be formally adopted by the local governing body, must be developed through an open public involvement process, and must contain certain sections (*Figure 9.4 Local Hazard Mitigation Plan Elements*):

Planning Process provides a description of the open public involvement process used in formation of the plan. It includes documentation of how the plan was prepared, who was involved, and how the public was involved. It also includes a review of existing plans and studies and how they were incorporated. This section includes the following subsection:

- Documentation of the planning process.

Risk assessment must provide sufficient information to enable the jurisdiction to identify and prioritize mitigation actions to reduce losses from identified hazards. This includes descriptions of hazards that could affect the jurisdiction along with an analysis of the jurisdiction's vulnerability to those hazards, including numbers and types of structures, potential dollar losses, and land use trends. The section includes six subsections:

- Identifying hazards
- Profiling hazard events
- Assessing vulnerability: identifying assets
- Assessing vulnerability: estimating potential losses
- Assessing vulnerability: analyzing development trends
- Multi-jurisdictional risk assessment

Mitigation strategy provides a blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and the jurisdiction's ability to expand on and improve these existing tools. The sections includes the following subsections:

- Local hazard mitigation goals
- Identification and analysis of mitigation measures
- Implementation of mitigation measures
- Multi-jurisdictional mitigation strategy.

Plan maintenance procedures must ensure that the plan remains an active and pertinent document. The process includes a schedule for monitoring and evaluating the plan at least every five years, and continued public participation throughout the process. The section contains the following subsections:

- Monitoring, evaluating, and updating the plan
- Implementation through existing programs
- Continued public involvement

9.5 Discuss best practice criteria for evaluating local hazard mitigation plans

How can the quality of local hazard mitigation plans be judged? Best practice evaluation criteria should assess (*Figure 9.5 Best Practice Criteria for Evaluating Local Hazard Mitigation Plans*):

Requirement satisfaction. This criterion asks if the plan includes all the required sections and subsections. Is the content complete?

Context compatibility. This criterion assesses the fit between the mitigation strategy in the plan and the commitment and capacity of the local jurisdiction. It compares the staff and resources available to the local government with the level of ambition in the plan's objectives and proposals. How likely is the jurisdiction to be able to carry out the plan?

Capacity development. This criterion assesses the plan's proposals for building hazard mitigation capacity against the need identified in the plan's Mitigation Strategy. It asks about the current adequacy of hazard mitigation capacity and how any gaps or needs are to be filled.

Commitment development. This criterion assesses the plan's proposals for building hazard mitigation commitment in the jurisdiction. It asks about the adequacy of efforts to educate the public, to engage decision-makers, and to build constituencies for hazard mitigation policy and program initiatives.

Technical quality. This criterion addresses the technical content of the plan. It asks if the risk assessment and mitigation strategy are professionally prepared and if their content is linked in a logical fashion.

What other criteria might be useful in evaluation local hazard mitigation plans?

9.6 Participate in an exercise to assess a local hazard mitigation plan in terms of its ability to bring about effective hazard mitigation

Exercise:

Assume you are part of a team that has been asked to assess a local hazard mitigation plan in terms of its potential ability to create local hazard mitigation capacity and commitment. Each team will be assigned an actual local plan to evaluate. Teams will present their evaluations to the class, using Power Point slides, and will respond to class questions concerning the basis for their evaluations.

The plan suggested for assessment is the 2000 *Pitt County, North Carolina Hazard Mitigation Plan*, available for downloading from the North Carolina Division of Emergency Management web site. This plan has been prepared under DMA 2000 criteria.

Instructor questions:

Does the plan satisfy all FEMA criteria for a local hazard mitigation plan? If not, what is missing?

Are the plan scope and content compatible with the scale and resources of the jurisdiction? If not, what are the areas of incompatibility and how could they be corrected?

Do the plan proposals for developing mitigation capacity appear to be adequate? If not, what changes would you recommend?

Are the plan proposals for developing mitigation commitment adequate? If not, what changes would you recommend?

What is the technical quality of the plan? Is its risk assessment up to best practice standards? Is its mitigation strategy complete and consistent with the risk assessment findings? If not, how could it be improved?

Figure 9.1 Context for State Hazard Mitigation Planning Assistance to Local Governments

“All mitigation is local:”

Source: *National Mitigation Strategy* (FEMA 1995, p. 10),

Local governments work with state and federal agencies in the **intergovernmental arena** under a **shared governance** model to:

- assess hazards,
- prepare and maintain land use and emergency response plans,
- facilitate work of post-disaster hazard mitigation teams,
- prepare project applications and supporting documentation,
- if funded, act as “subgrantee” (or sponsor) of approved projects

Figure 9.2 Challenges in Mandating Local Government Hazard Mitigation Plans

- Partially funded mandates
- Desire for local independence
- “Commitment conundrum”
 - Coercive mandates inspire resistance
 - Collaborative mandates lack force

Figure 9.3 Overcoming the Commitment Conundrum

- Improve plan quality
- Build supporting constituencies
- Provide technical assistance

Figure 9.4 Local Hazard Mitigation Plan Elements

Planning Process

- Documentation of the planning process

Risk assessment

- Identifying hazards
- Profiling hazard events
- Assessing vulnerability: identifying assets
- Assessing vulnerability: estimating potential losses
- Assessing vulnerability: analyzing development trends
- Multi-jurisdictional risk assessment

Mitigation strategy

- Local hazard mitigation goals
- Identification and analysis of mitigation measures
- Implementation of mitigation measures
- Multi-jurisdictional mitigation strategy.

Plan maintenance procedures

- Monitoring, evaluating, and updating the plan
- Implementation through existing programs
- Continued public involvement

Figure 9.5 Best Practice Criteria for Evaluating Local Hazard Mitigation Plans

Requirement satisfaction

Is the content complete?

Context compatibility

How likely is jurisdiction to be able to carry out the plan?

Capacity development.

How adequate is hazard mitigation capacity and how are gaps to be filled?

Commitment development

How adequate are efforts to educate public, to engage decision-makers, and to build constituencies?

Technical quality

Are risk assessment and mitigation strategy professionally prepared and logically linked?