

Session No. 8

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

Session Title: Implementing Mitigation at the State Level; Sustainable Hazard Mitigation Criteria

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Time: 150 minutes + 15 minute break

Objectives:

- 8.1 Understand the context for state hazard mitigation plans and programs, including the importance of natural disasters as focussing events
 - 8.2 Review the performance of state hazard mitigation planning under the Stafford Act.
 - 8.3 Review lessons learned from assessments of state hazard mitigation plans, in terms of the potential for achieving sustainable communities.
 - 8.4 Identify the obstacles to achieving the balance sought by sustainable development.
 - 8.5 Participate in an exercise to develop sustainability criteria for evaluation of state hazard mitigation plans.
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Scope:

The first part of the session is a lecture on the public policy and political contexts in which state hazard mitigation plans are prepared and implemented. It draws on Birkland's concept of natural disasters as focusing events that place mitigation on the public agenda. It reviews the quality of state hazard mitigation plans prepared in the U.S. under the Stafford Act, in terms of "good" planning criteria and in terms of achieving long-term sustainability, including the challenges and obstacles faced by state hazard mitigation planners.

The second part of the session is an exercise in which teams of students develop and propose a checklist of sustainability criteria to assess state hazard mitigation plans. Each team discusses and presents its assessment criteria in a Power Point presentation to the class, including the rationale for each criterion and the way that it might be measured.

Reading:

Instructor and student reading:

Birkland, Thomas A. 1997. Ch. 2. A Theory of Focusing Events and Agenda Change, and Ch. 3. Natural Disasters as Focussing Events, pp. 21-73. *After Disaster: Agenda Setting, Public Policy, and Focusing Events*. Washington, D.C.: Georgetown University Press.

Godschalk, David R., et al. 1999. Ch. 9. State Hazard Mitigation Plans: Falling Short of Their Potential, pp. 327-369. *Natural Hazard Mitigation: Recasting Disaster Policy and Planning*.

Godschalk, David R., et al., 1999. Ch. 13. Natural Hazard Mitigation: Planning for Sustainable Communities, pp. 525-552. *Natural Hazard Mitigation: Recasting Disaster Policy and Planning*.

Mileti, Dennis S. 1999. Ch. 1, A Sustainability Framework for Natural and Technological Hazards, pp. 17-39. *Disasters by Design: A Reassessment of Natural Hazards in the United States..* Washington, D.C.: Joseph Henry Press.

Oregon Office of Emergency Management. 2000. *State of Oregon Natural Hazards Mitigation Plan*. Salem, Oregon. www.osp.state.or.us/oem/ (Note: This is the reading for the exercise. The instructor may substitute another state hazards mitigation plan, if desired.)

Additional instructor reading:

Berke, Philip R. 2002. "Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty First Century," *Journal of Planning Literature* 17(1), see pp. 29-34 on definitions of sustainable development.

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:

- 8.1 Context for State Hazard Mitigation Planning
- 8.2 Windows of Opportunity

- 8.3 Reasons for Ineffective State Hazard Mitigation Plans
 - 8.4 Sustainable Hazard Mitigation Principles
 - 8.5 Obstacles to Sustainable Development
 - 8.6 Prospects for Sustainable Development
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General Requirements:

The instructor presents a lecture during the first part of the session. In the second part, teams of students develop and present checklists of sustainability criteria to assess state hazard mitigation plans, including the rationale for each criterion and the way that it might be measured. They apply their criteria to an assessment of the 2000 Oregon *Natural Hazards Mitigation Plan*, or to another state hazards mitigation plan if desired for reasons of relevance.

Remarks:

During the previous class, students are formed into small (two to three person) teams whose assignment is to create sustainability criteria for guiding and evaluating state hazard mitigation plans. Their charge is to prepare, present, and defend a set of sustainability criteria for evaluating state hazard mitigation plans. To illustrate how their criteria could be used, they are to apply them to an assessment of the effectiveness of the 2000 Oregon Natural Hazards Mitigation Plan in promoting long-range sustainability in the face of future natural disasters.

8.1 Describe the context for state hazard mitigation plans and programs, including the importance of natural disasters as focusing events

While hazard mitigation is highly important and relevant to emergency managers and other state-level public officials concerned with public health and safety, it must compete with many other public needs and issues for the attention of state policy makers. Most of the time, hazard mitigation is very low on the priority list of public issues addressed by policy makers. As Birkland (1997) points out, it often takes a disaster to move hazard mitigation to the top of the public agenda.

In the absence of a crisis, state hazard mitigation planning is not viewed by state elected officials as an important issue for the policy agenda. (*Figure 8.1 Context for State Hazard Mitigation Planning*) The subject is considered a technical matter, to be dealt with by emergency managers and other technical agencies. Thus, absent a disaster, hazard mitigation is a low salience issue for elected officials. Their lack of concern is bolstered by a similar lack of concern expressed by citizen pressure groups. Without strong legislative and interest group support, emergency management agencies often lack the necessary staff and organizational resources to be effective. State emergency management agencies must depend on federal support from FEMA by way of standards

and funding. In short, hazard mitigation has been termed a "policy without a public," lacking the focus needed to bring it to policy-makers' attention.

Birkland (1997, P. 22) views disasters as *potential focusing events*, defined in terms of the following characteristics (*Figure 8.2 Windows of Opportunity*):

- Sudden, relatively rare events that happen with little or no warning (though sometimes there can be a warning), and that can inflict harm on large number of people in an area or community, and
- Events that are known to policy makers and the public virtually simultaneously, thus affecting elite and mass knowledge about the same time.

Such potential focusing events are important because they are hard to keep off of the agenda and will be more difficult to contain as they gain broader attention. They present strategic opportunities by giving change-oriented groups opportunities to mobilize public opinion for policy change. They bring to the state an increase in federal disaster funding and technical assistance. The time following such an event is often termed a "window of opportunity."

As discussed previously in the course, the passage of new federal disaster laws has been closely related to such windows of opportunity following major disasters. For example, the adoption of the National Earthquake Hazards Reduction Act of 1977 followed the San Fernando Earthquake, and the Hazard Mitigation and Relocation Assistance Act and the National Flood Insurance Reform Act followed the 1993 Midwest Floods. State disaster policies and plans also tend to be strengthened following major disasters.

As Birkland (1997, p. 50) notes, the challenge for policy makers who wish to raise awareness of and mitigate natural hazards is to gain the attention of potential victims and local officials *before* the disaster strikes. This challenge is made more difficult by the absence of organized citizen or pressure groups concerned with hazard mitigation, who can lobby for stronger plans and policies. Thus pre-disaster hazard mitigation is seen as a low salience issue, or a "policy without a public."

8.2 Review the performance of state hazard mitigation planning under the Stafford Act

Due in part to the lack of interest and financial support from state legislatures and policy makers, state hazard mitigation planning has tended to be somewhat lackluster.

Godschalk (1999) and his colleagues conducted the first national assessment of state hazard mitigation plans. Using criteria from best practices, they carried out content analyses of U.S. state hazard mitigation plans. Godschalk et al. (1999, p. 327) note that: "In theory, state mitigation plans should be the linchpins of state mitigation actions. In practice, we found them falling far short of their potential."

Godschalk and his colleagues carried out content analyses of all existing state hazard mitigation plans and compared them with expenditures under the Hazard Mitigation Grant Program. They found that some plans did not even contain all the required elements, while the majority fell short in identifying projects, developing state and local

capability and programs, being prepared ahead of time and regularly updated, involving related agencies, and coordinating with other hazard planning efforts.

In terms of the quality of the plan content, the plans were weak in hazard and vulnerability assessment, capability analysis, setting goals and objectives, and proposing strategies, programs, and actions to mitigate hazards. Finally, they were inadequate in providing for implementation, monitoring, evaluation, and updating. In short, the quality of the plans was very low.

The analysis by Godschalk et al. (1999) ascribed the failings of state hazard mitigation plans to several factors (*Figure 8.3 Reasons for Ineffective State Hazard Mitigation Plans*):

A federal disaster policy based on post-disaster recovery, rather than pre-disaster hazard mitigation (*don't worry about it until it breaks*).

Federal requirements that stated that state hazard mitigation plans had to be submitted following a disaster in order to be eligible for federal disaster assistance funds (*no incentive for pre-disaster planning*).

A general attitude that submission of a hazard mitigation plan was simply an item on a FEMA checklist, rather than a serious plan of action that had been discussed and approved by state officials or that would direct the expenditure of Hazard Mitigation Grant funds (*a paper plan*).

A lack of commitment by state and local government officials to pre-disaster hazard mitigation (*a low salience agenda item*).

A lack of capacity in terms of staff and resources to carry out hazard mitigation, stemming from the lack of state and local commitment (*a starvation budget until the disaster, then a surplus of funds and technical assistance*).

What will be the effect of the Disaster Management Act of 2000, which has brought in a pre-disaster mitigation planning requirement, along with some pre-disaster planning funds? This is a key question for the future of state hazard mitigation planning. Will the requirements and incentives of DMA 2000 be sufficient to turn around the mediocre performance of past state hazard mitigation planning? Time will tell.

8.3 Review lessons learned from assessments of state hazard mitigation plans, in terms of the potential for achieving sustainable communities.

How likely are state hazard mitigation plans to achieve sustainable communities that will be resilient in the face of natural hazards? As we have discussed, sustainable communities are those whose long-term development balances equity, environment, and economy.

According to Miletta (1999, pp. 31-35), sustainable hazards mitigation has six essential components: environmental quality, quality of life, disaster resiliency, economic vitality, inter- and intra-generational equity, and a participatory process. His principles include (*Figure 8.4 Sustainable Hazard Mitigation Principles*):

Maintain and enhance environmental quality. This principle states that human activities should not reduce the carrying capacity of the ecosystem. For example, preserving wetlands and vegetated areas helps to mitigate flooding.

Maintain and enhance people's quality of life. This principle is concerned with not imposing additional hazard risks on one's own or on neighboring communities. For example, building levees can move the flood risk to downstream communities, or allowing development in hazard areas exposes people to risk.

Foster local resiliency to, and responsibility for, disasters. Localities should be able to withstand extreme natural events without suffering devastating losses, damage, diminished productivity, or quality of life, and without receiving a large amount of assistance from outside the community. This requires developing public awareness and incorporating sustainable hazards mitigation criteria into all new development plans and projects.

Recognize that sustainable, vital local economies are essential. A sustainable local economy is diversified and thus less easily disrupted by disasters. Sustainable economies recognize their spillovers onto their neighbors and their impacts on the environment.

Identify and ensure inter- and intra-generational equity. This requires preserving resources and ecosystems so that today's costs are not shifted to future generations. It requires seeking a fair and equitable distribution of the burdens and benefits of hazard mitigation across regions, genders, ethnic groups, and cultures, so that poor people are not forced to occupy more hazardous locations.

Adopt a consensus-building approach, starting at the local level. Seek participation of all stakeholders in the decision-making process. Empower people to make wise decisions about hazard mitigation for their communities.

8.4 Identify the obstacles to achieving the balance sought by sustainable development.

In many ways, particularly at this stage in history, sustainable development is still a rather utopian, long-range goal. There are many efforts underway to include sustainable development in plans at the state, regional, and local level, and the idea of sustainability is built into the mission statements of many federal agencies (Miletta 1999, pp. 36-39). However, there has been no general agreement on how to translate the concept into practice (Berke, 2002, p. 30). Policy makers and planners have been accustomed to dealing with such things as the environment and the economy separately, rather than as linked and interdependent elements. And there are a number of significant obstacles to

carrying out sustainable development. (*Figure 8.5 Obstacles to Sustainable Development*)

Among the obstacles to sustainable development in practice are (Miletti 1999, pp. 32-35):

Private property rights groups oppose governmental regulations that affect the use of their land, including zoning and development ordinances that restrict development in hazard areas.

Local governments are used to thinking only about the impacts of their decisions on themselves, rather than on neighboring communities or the region.

Hazard mitigation is often viewed as a technical process, without recognizing the importance of including politicians and lay citizens in resiliency programs.

Specialization is viewed as the way to succeed in our economic system, while self-sufficiency is based on the synergism provided by broader and more general sets of economic activities.

Because the poor and future generations are not involved in public policy making, inter-generational and intra-generational interests are often not represented at the decision-making table.

Consensus-building must contend with the competitive, individualistic, and majority-rule approaches built into capitalism, Western thought, and democracy.

Given these obstacles, how would you expect state hazard mitigation plans to approach the concept of sustainable development? (*Figure 8.6 Prospects for Sustainable Development*) Are they liable to deal with it only in general terms, so as to avoid controversy with property rights groups or economic development advocates? Should the plans include educational materials to inform decision makers about the concept and its ramifications for natural hazard mitigation? Should the plans advocate sustainable development or limit their discussions to descriptions?

8.5 Participate in an exercise to develop sustainability criteria for evaluation of state hazard mitigation plans.

Some questions for the instructor to pursue with the students as they present their recommendations during the exercise include:

Did you find any mention of sustainable development or sustainable development principles or guidelines in the state hazard mitigation plan? If not, could you infer a connection to sustainable development from any sections of the plan?

Did the plan appear to seek balance among environment, economy, and equity? If not, which aspects did it seem to favor?

Specifically, did the plan recognize the need to remedy the potential inequity of poorer populations being exposed to more hazardous locations, as an outcome of their lower incomes rather than of conscious choice?

Did the plan recognize the importance of diversifying local economies in order to increase resiliency?

How did the action proposals in the plan affect the ability of stakeholders to participate in hazard mitigation planning and decision-making?

What evaluation criteria would you recommend in order to increase the sustainability content of the plan?

Sustainability Exercise Instructions Handout

Situation

You are a member of a team assignment is to create sustainability criteria for guiding and evaluating state hazard mitigation plans. Your charge is:

Prepare a set of sustainability criteria for evaluating state hazard mitigation plans. Explain the rationale for each criterion and describe how it could be measured. Limit the number of criteria to no more than fifteen. Design your criteria to be understandable to state elected and appointed officials, as well as to citizens. To illustrate how your criteria could be used, apply them to an assessment of the effectiveness of the 2000 Oregon *Natural Hazards Mitigation Plan* in promoting long-range sustainability in the face of future natural disasters.

Figure 8.1 Context for State Hazard Mitigation Planning

Absent a crisis, state hazard mitigation planning is:

- Viewed as a technical, rather than a policy, matter
- Low salience issue for elected officials
- Unsupported by citizen pressure groups
- Lacking in staff & organizational resources
- Forced to rely on federal (FEMA) standards & funding
- A "policy without a public"

Figure 8.2. Windows of Opportunity

Disasters can be seen as "focusing events" that elevate hazard mitigation to the top of the public policy agenda

Focusing events:

- Sudden, relatively rare events
- Happen with little or no warning
- Can harm large number of people in area or community
- Known to policy makers & public at same time
- Create strategic advantage for change-oriented groups
- Bring state new funding & technical resources
- Can lead to stronger hazard mitigation plans & policies

Figure 8.3 Reasons for Ineffective State Hazard Mitigation Plans

- Federal disaster policy based on post-disaster recovery
- Eligibility for federal disaster assistance funds based on post-disaster plans
- Checklist attitude toward hazard mitigation plans not related to expenditure of HMGP funds
- Lack of commitment by state and local government officials to pre-disaster hazard mitigation
- Lack of capacity in hazard mitigation staff and resources

Figure 8.4 Sustainable Hazard Mitigation Principles

- Maintain and enhance environmental quality.
- Maintain and enhance people's quality of life.
- Foster local resiliency to, and responsibility for, disasters.
- Recognize that sustainable, vital local economies are essential.
- Identify and ensure inter- and intra-generational equity.
- Adopt a consensus-building approach, starting at the local level.

Figure 8.5 Obstacles to Sustainable Development

- Private property rights groups oppose governmental regulations
- Local governments think only about impacts of their decisions on themselves
- Hazard mitigation is viewed as a technical process
- Specialization is viewed as road to success in our economic system
- Poor and future generations are not involved in public policy making
- Consensus-building must contend with competition, individualism, and majority-rule

Figure 8.6 Prospects for Sustainable Development

What is the likely future for sustainable development in state hazard mitigation plans?

- General concept only?
- Descriptive, educational approach?
- Advocacy approach?