Session No. 20

Course Title: Social Dimensions of Disaster, 2nd edition

Session 20: Organizational Responses to Disaster 1 hr.

Objectives:

20.1 Discuss at least four reasons why disasters are different from more routine emergencies

20.2 Describe two reasons why disasters precipitate expanded coordination requirements

20.3 Describe at least three organizational coordinating mechanisms

20.4 Discuss at least seven strategies for improving interagency communication

20.5 Describe three major constraints on organizational responses to disaster

20.6 Discuss at least three requirements for organizational effectiveness in disaster response.

Scope:

This session introduces students to the basic principles of organizational response to disaster, coordination requirements and difficulties, and strategies for improvement of both coordination and response effectiveness.

Readings:

Student Reading:


Professor Readings:


*Background References:*


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**General Requirements:**

Overheads (20-1 through 20-9 appended).

See individual requirements for each objective.

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**Objective 20.1 Discuss at least four reasons why disasters are different from more routine emergencies.**

**Requirements:**

Start this session with the student exercise and proceed with lecture material specified below.

Use Overheads 20-1 and 20-2.
Remarks:

I. Introduction.

A. Exercise.

1. Remind students of exercise procedures.

2. Divide class into four groups and assign roles.
   a. Chair.
   b. Reporter.
   c. Timer.

3. Announce time limit: 5 minutes.

B. Display Overhead 20-1; “Workshop Tasks”.

1. Group 1 – Summarize the major features of the event, research methods and the unit of analysis used by Denis (1995).

2. Group 2 – What were the major coordination problems experienced by the DMO described by Denis (1995).

3. Group 3 – Explain and illustrate what Denis (1995) meant by these two phrases: 1) “coordination as a strategy” and 2) coordination as an organizational design mechanism”.

4. Group 4 – According to Denis (1995), why was the response to the used-tire dump more effective?

C. Start discussion.

D. Stop discussion.

E. Explain that the workshop reports will be given later in the session.

II. Disasters versus routine emergencies.

A. Ask students: “Based on your reading for today’s session, plus items you have read prior, why do disasters pose different managerial problems than routine emergencies? What are some key characteristics or factors that differentiate the two in terms of managerial requirements?”
B. **Record**: List student generated factors on the chalkboard.

C. **Display** Overhead 20-2; “Disasters vs. Routine Emergencies.”

D. **Review** the factors listed on Overhead 20-2; **illustrate** as required and **integrate** with student generated list.

1. **Fragmented responses**.
   a. Commonly documented (e.g., Barton 1969; Dynes 1970; Drabek 1986).
   b. Awareness of prior documentation can encourage acceptance of fragmentation as a problem to be mitigated.

2. **Agency autonomy**.
   a. Day-to-day activities encourage high levels of autonomy.
   b. U.S.A. in comparison to many other nations has a **decentralized** intergovernmental system.
   c. First responses to disaster are local emergency agencies reflecting a pattern of decentralization.
   d. Terrorist attacks, especially those involving Weapons of Mass Destruction (WMD), require specialized expertise from state and/or federal resource centers.

3. **Internal shifts**.
   a. Drabek (1969) documented numerous internal shifts within the Dispatch Unit of the Columbus (Ohio) Police Department during a simulated disaster (pp. 112-121).
      1) Increased rate of task performance.
      2) Limiting actions and organizational resources to tasks of highest priority.
      3) Increased rate of decision making.
      4) Increased amount of total communication.
      5) Increased amount of inter-organizational communication.
b. Auf der Heide (1989) cited disaster case studies which documented such shifts as these (pp. 54-56).

1) Off-duty personnel mobilized.

2) Personnel reassigned to new duties.

3) Alteration of everyday procedures and policies.

4. **New tasks.**

   a. Disaster demands frequently present novel problems and require some agencies to take on new tasks.

   b. **Ask students:** “In Denis’s case study, what new tasks were described?” (**Answer:** establishing agency credibility in view of scientific uncertainty).

5. **New faces.**

   a. Personnel are required from non-emergency organizations, e.g., private contractors with heavy equipment.

   b. Multiagency and extra community personnel may be required, e.g., military units.

6. **Jurisdiction boundaries.**

   a. Mutual aid agreements may be activated.

   b. Personnel from nearby emergency response units may arrive.

   c. Terrorist attack creates a disaster crime scene in which numerous agencies may seek control, e.g., local police, F.B.I., etc.

   d. Event, such as hazardous materials or chemical exposure by terror group, may cross political boundaries.

7. **Impacted resources.**

   a. Loss of personnel through death or injury.

   b. Loss of equipment through damage.
c. Contamination of offices, exposure of personnel.

8. **Expanded media presence.**
   a. Rapid coverage.
   b. Media competition.
   c. National and international versus local.

**Supplemental Considerations:**

This section may be *very brief* and serve mainly as an introduction to the topics that will be pursued in more depth. Depending on student background, and professorial interest, however, this section could be *expanded easily* through more discussion and examples. **Different disaster agents** could be introduced and used to illustrate similarities and differences among each of the eight key points.

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**Objective 20.2** Describe two reasons why disasters precipitate expanded coordination requirements.

**Requirements:**

Use Overheads 20-3 and 20-4.

**Remarks:**

I. Case study analysis (Denis 1995).

   A. **Group 1 report:** 2 minutes.

   B. **Supplement** as required with the following.

      1. Event, (p. 26).

         a. **Agent:** PCB fire.

         b. **Location:** St. Basile, Quebec, Canada.

         c. **Date:** August, 1988.

         d. **Consequence:** 18 day evacuation.

      2. Research methods.
a. **Interviews** (n = 84).
   1) First-responders.
   2) Elected representatives.
   3) Media personnel.

b. **Official records**, e.g., files of the Quebec Civil Security Department.

3. Unit of analysis (pp. 26-27).
   a. **Disaster Mega-Organization** (DMO)
   b. **Network of responding agencies**.
      1) Elected representatives (3 governmental levels).
      2) First responders (3 municipalities).
      3) Provincial level personnel (e.g., Agriculture, Communications, Environment, etc.).
      4) Federal level personnel (e.g., Civil Protection, Defense, Labour and Immigration, etc.).
      5) Other private and public organizations.

II. Major coordination problems (Denis 1995).
   A. **Group 2 report**: 2 minutes.
   B. **Supplement** as required with points like these.
      1. Official DMO structure was **new** (p. 29).
      2. DMO structure had **never** been **tested** (p. 29).
      3. **Authority vacuum**, i.e., “Nobody was in charge” (p. 31).
      4. **Scientific uncertainty**, i.e., dissensus regarding potential health effects (p. 33).
      5. **Convergence**, e.g., three municipal fire departments (p. 31).
6. Absence of an agreed on division of labor (p. 32).

III. Expanded coordination requirements.

A. Definition:

1. Coordination is the process of integrating different organizations and activities in a system to accomplish a common goal.  

2. “The opposite of coordination is anarchy, where each unit pursues its objectives irrespective of others.” (Gillespie 1991, p. 58).

3. “What the St. Basile PCB fire taught us was that coordination cannot be imposed.” (Denis 1995, p. 26).

4. There are many reasons why disasters precipitate expanded coordination requirements, but two are most significant.
   
a. New division of labor.

b. New resources.

B. Display Overhead 20-3; “Expanded Coordination Requirements: Examples of a New Division of Labor.”

C. Explain: Auf der heide (1989, p. 76) reviewed case studies of ten disasters such as these. Coordination difficulties were documented.


D. Review and illustrate points listed on Overhead 20-3.

   1. Interagency communication.

   2. Search and rescue.

   3. Triage and casualty distribution.
4. Creation of and maintenance of official casualty lists.

5. Victim inquiry information system.

6. Issuance of passes into the impact area.

7. Handling of the dead (transportation; storage; identification; notification).


10. Debris removal and landfill requirements.

E. **Display** Overhead 20-4; “Expanded Coordination Requirements: Examples of New Resources.”

F. **Review** and **illustrate** points listed on Overhead 20-4.

1. Non-emergency units within local government, e.g., tax office, parks and recreation.

2. Private sector organizations, e.g., local contractors.

3. Emergency agencies from nearby jurisdictions.

4. State and federal agencies.

**Supplemental Considerations:**

The **key message** of this section is that there are **many reasons** why disaster responses precipitate expanded coordination requirements. **Student understanding** of this concept and its importance will be **enhanced** through discussion of the **two factors** which are the focus of this section. Some professors may wish to **expand** this section through extended discussion and illustration. An additional **case study** could be incorporated into the section through linkages to the new divisions of labor and resources listed on the Overheads. Examples of such would be Cummins (2002) or Smith (2002). These comparisons could be **contrasted** to information specified in the St. Basile case study and/or student generated examples from their own case study analysis projects.

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**Objective 20.3** Describe at least three organizational coordinating mechanisms.

**Requirements:**
Use Overhead 20-5.

Remarks:

I. Introduction.

A. Group 3 report: 2 minutes.

B. Supplement as necessary with points like these.

C. Coordination as a strategy (see Denis 1995, pp. 34-36).

1. Military culture and practice emphasizes coordination through centralized control processes.

2. Loosely-coupled coordination is also an option. Each agency has high autonomy.

3. Efforts to impose centralized coordination may be resisted.

4. Legitimacy of coordination effort and units may be questioned.

5. “. . . logistical coordination was achieved by this police force without any problem, because the autonomy of government agencies was not called into question to the same extent.” (p. 36).

D. Coordination as an organizational design (see Denis 1995, pp. 30-34).

1. Seven coordination mechanisms were documented in the St. Basile PCB fire response (p. 31).

   a. Organizational culture.

   b. Professionalization.

   c. Planning.

   d. Mutual adjustments (feedback).

   e. Task force committees.

   f. Permanent teams.

   g. Cooptation.
2. Six coordination mechanisms were **not used** in the initial St. Basile PCB fire response; **three were developed** at a **later** point in time.

   a. Hierarchy (developed later).

   b. Impersonal rule (developed later).

   c. Disaster Culture.

   d. Technology.

   e. Coordinators in liaison roles (developed later).

   f. Matrix design.

II. Mintzberg (1989) analysis of coordination mechanisms.

   A. **Explain**.

      1. **Henry Mintzberg** analyzed organizational managers.

      2. **Example text**: *Mintzberg on Management: Inside Our Strange World of Organizations*.

      3. **Effective managers shift** from one mechanism to another depending on organizational cultures, mission and situational requirements.

      4. **Referenced by Denis**: “In fact, the DMO is an adhocracy that is both temporary and very large, which would appear to Mintzberg (1979) to be a contradiction in terms.” (p. 29).


   B. **Display** Overhead 20-5; “Six Coordinating Mechanisms.”

   C. **Review** and illustrate the six coordinating mechanisms listed on the overhead. Adapted from Mintzberg 1989, pp. 100-103.

      1. **Mutual adjustment**: informal communication is used.

      2. **Direct supervision**: one person directs several others.

      3. **Standardization of work processes**: work activities are detailed and specific instructions are given.
4. **Standardization of outputs**: the desired work product is described.

5. **Standardization of skills** (and knowledge): workers are trained to follow certain procedures in a uniform manner.

6. **Standardization of norms**: all workers are taught a general set of beliefs that provide guidance such as in a religious order.

D. **Ask students**: “Why do you think Denis believed that Mintzberg would have viewed the DMO as a contradiction in terms?” (**Answer**: Mintzberg was analyzing coordination mechanisms within **relatively permanent** organizations. The emergent DRO was both **large**, i.e., included many agency personnel from different sectors, and relatively **short lived**. Hence, the mechanisms of coordination are somewhat different in systems like the DMO than are found in organizations like Mintzberg analyzed).

**Supplemental Considerations:**

The key message of this section is that there are a **variety of processes and mechanisms** used to accomplish coordination among personnel, agencies, and organizations. The St. Basile PCB fire case illustrates a **typical** multiagency response. Various coordination mechanisms were documented both during the initial phases of the response and later. It is essential that students understand the **complexities** reflective of coordination under these circumstances. Some professors may wish to **expand** this section through an additional case study and/or increased discussion time.

**Objective 20-4  Discuss at least seven strategies for improving interagency communication.**

**Requirements:**

Use Overheads 20-6 and 20-7.

**Remarks:**

I. **Introduction.**

   A. **Ask students**: “Based on the assigned reading for this session and other items you have read in this course, how can emergency managers improve interagency communication? What specific strategies could they use?”

   B. **Record**: list student responses on the chalkboard.

II. **Socially based strategies.**
A. **Display** Overhead 20-6; “Socially Based Strategies for Improving Interagency Communication.”

B. **Review** and **illustrate** the strategies listed on the overhead; **integrate** with student generated ideas listed on chalkboard. (Adapted from Auf der Heide 1989, pp. 80-100).

1. **Predisaster communications**: “Those who work together well on a daily basis tend to work together well in disasters.” (p. 83).

2. **Trust**:
   a. Trust must be **developed** among the personnel responding.
   b. Team building activities **within** agencies and organizations must be **extended** to provide cross-agency contacts.
   c. There is **hesitation** to coordinate with those whose trustworthiness is uncertain.

3. **Disputes**.
   a. Prior to a disaster, efforts should be made to **resolve** political, personal, and jurisdictional disputes.
   b. During response, **cleavages** may emerge along the lines of strain reflected in prior disputes.
   c. The degree of communication **effectiveness reflects** the level and types of unresolved disputes and conflicts.

4. **Knowledge**.
   a. Increased knowledge of **organizational functioning** and **culture** can enhance communication effectiveness.
   b. Increased knowledge of **resources** and **personnel practices** may expose conflict areas that can be resolved prior to disaster.
   c. Increased knowledge of **anticipated disaster responses** may reveal duplication or other types of interagency inconsistency.

5. **Joint activities**.
   a. Cross-agency **planning** can enhance trust, knowledge and conflict resolution.
b. Cross-agency training can enhance trust, knowledge and conflict resolution.

6. Informal contacts.
   a. Interpersonal linkages can provide the grease that enhances trust and conflict resolution.
   b. Encountering familiar faces during a disaster response enhances communication quality.

7. Plan to plan.
   a. Despite unique challenges, many disaster demands can be anticipated and interagency domains can be agreed upon.

   b. Implement the Incident Command System (ICS) planning steps.

   1) Survey disaster needs and available resources.
   2) Each agency specifies tasks it will handle and the constraints that limit required actions.
   3) Formulate overall multiagency plan using information from steps 1 and 2.
   4) Subdivide incident tasks by geographical areas and/or general functions to which agencies are assigned.
   5) Determine additional resource requirements and a plan to obtain them over a specified series of budget periods.

III. Equipment based strategies.

   A. Display Overhead 20-7; “Equipment Based Strategies for Improving Interagency Communication.”

   B. Review and illustrate the strategies listed on the overhead and integrate with student generated ideas listed on the chalkboard (adapted from Auf der Heide 1989, pp. 80-100).

       1. Backup power.
a. Temporary electrical power losses during disaster responses are common.

b. **Example**: Coalinga, California earthquake.

   1) **Date**: May 2, 1983.

   2) **Consequences**:

      a) Police department radio console fell on floor and broke.

      b) Hospital radio system lost power and backup power system failed.

2. **Frequency sharing**.

   a. Most local government agencies operate on separate radio frequencies; cross-agency frequency sharing is required.

   b. Extra-community agencies, e.g., National Guard units, do not operate on local government frequencies.

3. **Satellite-based communication**.

   a. Can be prearranged.

   b. **Example**: Wichita Falls, Texas tornado.

      1) **Date**: April, 1979.

      2) **Procedure**:

         a) Two communications vehicles were provided by contract with the U.S. Air Force.

         b) Established satellite based link between officials in Wichita Falls and the State Division of Disaster Emergency Services.

         c) First time system was used in a disaster response.

4. **Computer-based communication**.

b. E-mails among agencies.

c. Shared resource inventories.

d. Damage assessment information.

e. Event forecasting.

f. Location of specialized equipment and information.

g. Explain: will be explored in more depth during Session No. 33, “Implementing Emergency Management Information Technology.”

Supplemental Considerations:

This section may be rather brief depending on professorial interest and the course context. Some professors, especially those working within an emergency management program, may wish to expand some of the detail regarding communication equipment. Within the context of the session, however, the key message should be the focus, i.e., strategies for improving interagency communication. In turn, impaired communication systems should be related to the more general topic of fragmented organizational responses and the lack of coordination.

Objective 20.5 Describe three major constraints on organizational responses to disasters.

Requirements:

Use Overhead 20-8.

Remarks:

I. Constraints on response.

A. Ask students: “Based on the assigned reading and other items you have read throughout this course, what factors have you discovered that constrain organizational responses to a disaster? What factors make one response more effective than another?”

B. Record: list student responses on the chalkboard.

C. Display Overhead 20-8; “Constraints on Response.”
D. **Review** and **illustrate** the factors listed on the overhead; **integrate** with student generated responses.

1. **Legitimation.**

   a. **Definition:** recognition and acceptance by others of the right of an individual to make a decision by virtue of the position they hold.

   b. **Analyzed** by Max Weber (1947) in his descriptions of bureaucracies, especially “legitimate authority.”

   c. **Some** emergency management agencies have been documented as lacking legitimacy.

   d. **Example:**

      1) **Event:** flood (1964).
      2) **Location:** Montana.
      3) **Consequence:** local Civil Defense director encountered coordination difficulties.
      4) “While the Civil Defense director may be a part of this emergent group, he seldom plays a dominate role. In fact, coordination usually falls to groups such as the police whose legitimacy and competence is accepted by the community or to a political official such as the mayor, who is seen as constituting a source of legitimate authority over all community organizations.” (Dynes 1970, p. 198).

2. **Political influence.**

   a. Local emergency managers should recognize that **unanticipated needs** may precipitate agency competition.

   b. **Field research** has documented agency “take overs” of the disaster response (Drabek 1986, p. 164).

   c. **Policy versus operations decisions** should be differentiated and a consensus developed regarding appropriate agency responsibilities.

3. **Legal requirements.**
a. **Limits of authority** require definition, e.g., who makes evacuation decision.

b. **Ambiguity of authority** during disaster responses has been documented (Drabek 1986, p. 185).

4. **Uncertainty.**

a. Uncertainty may occur in many sectors as documented by Denis (1997) following the 1988 St. Basile PCB response.

b. Three typical areas are: (pp. 298-302).

   1) **Technical issues**, e.g., such agent-generated demands as disagreement regarding appropriate fire fighting strategies.

   2) **Sociopolitical issues**, e.g., such response-generated demands as disagreement about who was responsible for coordinating scientific expertise.

   3) **Scientific issues**, e.g., insufficient laboratory capability for timely analysis.

5. **Communication difficulties.**

a. Commonly reported in field research, e.g., Drabek 1986, pp. 175-178.

b. **Example**: (Coombs 1998).

   1) **Event**: Deranged gunman killed people and set fire to a hotel at the Port Arthur Historic site on the coast of Tasmania, Australia.

   2) **Date**: April 28, 1996.

   3) **Consequence**: 35 killed, 22 injured.

c. Among many **communications problems** documented were the **absence of a public address system** to communicate to public and only one pay phone in the area.

6. **Blame assignation.**

b. Coombs (1998) documented that **Port Authority was blamed** by workers (p. 17).

7. **Media.**

   a. Drabek (1986) has summarized numerous case examples of **conflicts between media personnel** and emergency responders (pp. 165-170).

   b. Coombs (1998) documented that **media personnel lacked respect for victim relatives** and staff; failure to establish a single point of contact with officials created a lack of control which in turn stimulated rumor and misinformation (p. 18).

**Supplemental Considerations:**

Throughout the presentation of the eight types of constraint, **student examples** could be requested. Some professors may wish to **expand** this section through a variety of student exercises. Analyses could be completed on student selected **case studies** with a focus on examples of these eight types of constraint. A **case example** could be distributed as an additional homework assignment which could serve as a discussion focus point at the start of the next session.

**Objective 20.6** **Discuss at least three requirements for organizational effectiveness in disaster response.**

**Requirements:**

Use Overhead 20-9.

**Remarks:**

I. **Introduction.**

   A. Group 4 report: 2 minutes.

   B. **Supplement** as necessary with points like these (see Denis 1995, pp. 37-38).

      1. **Management** at disaster site was coordinated with off-site resource providers.
2. **Political representatives** focused on victim needs and policy issues rather than attempting to micromanage site activities.

3. “... there was spontaneous informal collaboration and coordination among the scientific responders.” (p. 37).

4. **Situational differences**, e.g., lack of PCB myth, absence of scientific uncertainty.

5. **Recent response** to similar event.

6. **Definite political will** to avoid repeating problems in St. Basile response.

II. Requirements for organizational effectiveness.


1. **First study** focused on Red Cross chapters (Neal 1992-1993).

2. **Events:**
   a. Floods in Central Texas.
   b. Earthquake: Loma Prieta (San Francisco area).


B. **Display** Overhead 20-9; “Increasing Organizational Effectiveness.”

1. **Planning**.
   a. “Members of the Flood City ARC did not consider disaster planning a priority.” (p. 12).
   b. Personnel focused exclusively on “... blood drives, health and safety courses, and other similar health programs.” (p. 12).

2. **Previous disaster experience**.
   a. Flood City only had experienced two minor floods (p. 12).
   b. ARC Director in Flood City was only paid staff member and had been in this post for only nine months (p. 12).
3. **Interorganizational relationships.**

   a. ARC in Flood City had few formal ties to other disaster response agencies (p. 13).

   b. ARC in Flood City had poor relations with a well equipped amateur radio group (p. 13).

4. **Flexible management.**

   a. Salt Lake City manager put public works director in charge (Neal 1991, p. 53).

   b. Other emergency services managers, e.g., police, fire, etc. cooperatively took orders from Salt Lake City public works (Neal 1991, p. 53).

   c. Hundreds of volunteers were integrated into a sandbagging response so that selected Salt Lake City streets served as a temporary and artificial river to mitigate flooding (Neal 1991, p. 53).

   d. **Turner** (1995) has emphasized that when **routine situations** are identified, standardized responses can be best obtained through implementation of procedures that specify appropriate actions.

   e. **Turner** (1995) emphasized, however, that **not all situations are routine**. Thus “... in dealing with less routine kinds of primary tasks, emergency organizations need to preserve an ability to respond flexibly, and, where necessary, an ability to improvise appropriate countermeasures for the special needs of an unanticipated situation which threatens to become a crisis.” (p. 468).

**Supplemental Considerations:**

The key message of this brief section is that there are at least four factors that have been documented for increasing organizational effectiveness. It is recommended that professors: 1) point out that there are additional factors related to this complex issue; and 2) aspects of this issue will be reviewed in subsequent sessions, e.g., Sessions 22 (“Emergent Multiorganizational Networks”), 32 (“Strategic Planning by Emergency Managers”) and 33 (“Implementing Emergency Information Technology”). Students could be encouraged to begin making a list of factors associated with response
effectiveness both for the overall community and specific organizational types. These could serve as a discussion “start-up” in a subsequent session.

Course Developer References:


