

## GOVERNMENT'S ROLE IN DISASTER MANAGEMENT THROUGH CONTROL OF INFORMATION

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### ABSTRACT

*Disaster Management is a complex process which involves international, national, state, district and other local organizational and plays distinct role. To tackle with disaster co-ordinate response is needed. Effective planning requires information. The decision can be taken only when an accurate information of the circumstances surrounding an issue and knowledge of available alternative will be there. The better the information will be, more better will be helpful to manage the existing and incoming information. Govt. plays an important role in rehabilitation. This is a scheme according to which information is provided in right amount, right time and to the right person. Provision of information also depends on the person to whom information is to be provided and for which purpose it is given. Thus the information system supports the planning control and operational functions of an organization by providing information for use in decision-making. In this paper different classes of information, information flow, Source of Recovery Plan, e-disaster management cell and requirement for emergency information management is discussed.*

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**Keywords:** Disaster, Management, Control, Information System, e-Disaster Management Cell.

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### Introduction

#### Classes of Information

The types as well as sources of information will vary, but generally there are three classes of information: (1) planning; (2) control; and (3) operational.

- **Planning Information:** This type of information relates to the tasks of formulating objectives, determining the amounts and kinds of resources necessary to attain the objectives, and the policies that govern their use. Much of this information will come from external sources, and will relate to such factors as the present and predicted situation in the operational area, availability of resources (material, financial, and human), and the political environment. This information forms the input to the non-programmed types of decisions made at each level in the organization.
- **Control Information:** This information is used by managers in making decisions that are consistent with the achievement of organizational objectives and to assess how efficiently resources are being used. It enables managers to determine if "actual results" are meeting "planned- for results" (objectives). It relies heavily on internal sources of information, and involves such problems as developing budgets and measuring the performance of personnel. The nature of problems faced at this level may result in either programmed or non-programmed types of decisions.

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- **Operational Information:** This information to the day-to-day activities of the organization. Operational data usually are required in regard to the broad categories : (i) people; (ii) property; and (iii) the operation (or status) of emergency services. It includes routine and necessary types of information such as financial accounting, inventory control and scheduling. Most of the information is generated internally, and since it usually relates to specific tasks, it often comes from designated subordinates. Field-level managers are the primary users of this information.

#### **Information Flow: Source of Recovery Plan**

There are two type of information flow in management information system. An external information flow is information that either comes to or is sent from the organization. An intra-organizational flow is information flowing within the organization.

External information includes the inward flow of information, called intelligence, and the outward flow, called organization communications; and

Intelligence information includes data on the various elements of the organization's operating environment such as victims, other agencies, relief suppliers, and the local government. It also includes information on trends and patterns, as well as developments in the social and cultural environment in which the organization operates. This type of information has long-term significance to the organization and aids in the long-range, strategic planning.

The disaster manager receives four distinct types of disaster intelligence: (1) Early-Warning reports; (2) Situation reports; (3) Disaster Assessment reports; and (4) epidemiologic Surveillance.

- **Early-Warning Reports:** Early-warning reports provide data about pending events. Most Early-Warning reports are issued prior to cyclones, floods, and droughts, and are used to provide preparedness information and to issue alerts and evacuation information. Early-Warning reports also provide agencies with information concerning expected arrivals of refugees from a war zone, and provide data about the numbers of refugees and their condition;
- **Situation Reports:** Situation reports are periodic reports prepared by major relief operations. They describe the impact of the emergency as it occurs, and provide a rough summary of events. After the initiating event, they detail the responses by different relief agencies;
- **Disaster Assessment Reports:** Disaster Assessment reports are assessments of a post-event; disaster situation. They should provide a rough quantification of needs and damages as well as a picture of the magnitude of the overall situation. The assessment also should identify the geographic locations that should receive priority, and
- **Epidemiologic Surveillance:** The health and nutritional status of disaster victims or refugees is provided by data collected as part of epidemiologic surveillance. By monitoring data and trends, the manager can determine current needs and forecast future needs.

Organizational communications flow outward from the organization to the external operating environment. In the case of a relief agency, and public awareness or other promotional efforts are considered organizational communications, and are controlled by the organization. Although outward information is important, it will not be covered in this course.

Information must flow through as well as to and from the organization. Within every organization, there are vertical (both upward and downward) and horizontal information flows.

The rationale of an information management system is that all information should move according to a formal scheme and direction. In order to accomplish this, there are three major requirements : (1) Determining needs; (2) Information gathering and processing; and (3) Information use.

- **Determining information Needs:** Information needs are identified by : (a) determining how much information is needed; (b) how, when, and by whom it will be used; and (c) in what form it is needed. The process begins with an examination of the output requirements. One way is to classify information based on the level in the organization at which it will be used. These current requirements would be based on :
  - Determining what informing is necessary for planning and controlling operations at different organizational levels.
  - What information is needed to allocate resources, and

- What information is needed to evaluate performance? These types of questions recognize the fact that different kinds of information are needed for formulating organizational objectives than are needed for scheduling operations.

It should be remembered that too much information actually may hinder a manager's performance. It is important to distinguish "need-to-know" types of information from nice-to-know information. More information does not necessarily mean better performance.

- **Information-Gathering and Processing:** The purpose of this step is to improve the overall quality of the information. It includes six component services.
  - **Collection:** Collection involves gathering and recording information. It is especially important to write down verbal communication.
  - **Evaluation:** Evaluation involves determining how much confidence can be placed in a particular piece of information. Such factors as the credibility of the source and the relevance, reliability, and validity of the incoming data must be determined.
  - **Abstracting:** Abstracting involves editing and reducing incoming information and data in order to provide the managers only with that information that is relevant to their particular task;
  - **Indexing:** Indexing provides classification for storage and retrieval purposes;
  - **Storage:** Storage consists of filing information so that it can be referred to as needed. It may be needed to defend a decision. Remember, information that is not "captured" is lost forever, and
  - **Dissemination:** Dissemination entails getting the right information to the right manager at the right time. This is the overriding purpose of an information management system.
- **Information Use:** How information is used depends greatly on its quality (accuracy), how it is presented (form), and its timeliness. These relate to the basic needs determined in the beginning. If the right questions are asked and the system is planned carefully, the user will be provided with relevant information. The goal is to provide the right information to the right decision maker at the right time. In some cases, timeliness may take precedence over accuracy. If information is not available when it is needed, then its accuracy loses importance. In most cases however, both are critical, and timeliness is determined by the nature of the decisions that must be made. For example, a manager in an earthquake relief operation may find accurate reports of the total number of victims to be only moderately useful, while an official working with civil war refugees needs accurate census information every day.

#### **Establishing a Focal Point: e-Disaster Management Cells**

It is important that a central focal point be established for the management of information in order to facilitate the flow of information both to and within the organization. In a large organization, the focal point may be an office; in a field operation, the focal point usually is an information officer or a person who is assigned information management responsibilities.

Information management in field operations can be improved significantly if facts and information are displayed visually. Displays can be made of tasks, resources available, resources committed, person status and location, and other routine information that is needed continually. The development of displays of such construction should be done as a team-building exercise. This will increase the commitment of all parties concerned to goals, and to making the "plan" work; it also increases the practicality of any plan of action by allowing input from the field staff. Displays can be made on chalkboards, graphs, plastic-covered wall boards, or other simple devices. Indeed, simplicity is desirable so that people will be encouraged to keep the information updated. Information-at-a-glance is one of the greatest assets for a disaster manager and for his/her team. Although each of these tasks seems ideal for computerization, undue dependence on computers may be dangerous, as adequate supplies of power may not be available. Alternate plans always should be made to prevent over dependence on computer systems.

#### **Requirements for Emergency Information Management**

Effective information management in emergencies requires:

- The capability of carrying out damage surveys, needs assessments, and reporting (or a reliable source);
- Facilities to receive, display, collate, and assess information;
- A systematic decision-making process into which the information is fed. (Major decisions seldom are made by the disaster manager alone; more often they are made by a small group or committee in consultation with appropriate specialists. Thus, some system of routing information and assigning it appropriate priority must be established); and
- Feedback on the reliability/quality/usefulness of the information.

Accurate but timely information is essential for all decision-making in disaster management. This requires an information system that has been established, tested, and refined prior to the onset of a disaster. Too much information may impair decision-making as may foster delays in data acquisition, particularly when the need for action is emergent or urgent. Field operations often require information-at-a-glance. Computerization of all aspects of data management is inappropriate, as there may not be adequate power to support such operations.

#### References

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