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A BRIEF VIEW OF THE ADEQUACY AND INADEQUACY OF DISASTER PLANS
AND PREPARATIONS IN TEN COMMUNITY CRISES*

by

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Introduction

It is rare to find an American community today with a complete lack of disaster plans and preparations. However, when disaster strikes, many communities find that their plans and preparations are insufficient and in need of improvement. When community organizations have no practiced preparations which fit into an organized, overall disaster plan, response to the disaster tends to be too segmental, too limited in scope, and too much dominated by immediate tasks to provide efficiently for the more general, continuing human needs posed by a disaster.

It is the purpose of this brief paper to report findings about the adequacy and inadequacy of disaster plans and preparations in ten community crises in the United States. The ten cases have been selected from those studied by the Disaster Research Center (DRC) and include the following: (1) 1963 Indianapolis, Indiana Coliseum explosion, (2) 1964 Anchorage, Alaska earthquake, (3) 1964 Cincinnati, Ohio flood, (4) 1965 Wichita, Kansas plane crash, (5) 1966 Topeka, Kansas tornado, (6) 1967 Fairbanks, Alaska flood, (7) 1968 Jonesboro, Arkansas tornado, (8) 1969 Glendora, California flood and mudslides, (9) 1969 Sioux Falls, South Dakota flood, and (10) 1969 Minot, North Dakota flood. These disasters range from a progressive, diffused type, the Fairbanks flood, to an instantaneous, localized type, the Wichita plane crash. Our goal is to provide the disaster planner with findings that can be applied in formulating approaches to alleviate disaster disruptions. Given the high

degree of similarity between American and Canadian societies, it is anticipated that the findings from these ten American community crises will be of assistance and interest to Canadians involved in disaster planning.

The Findings

Our focus is upon the social-organizational rather than the physical or engineering aspects of disaster planning. We shall deal with disaster plans in terms of assessment of the crisis situation, communication possibility, community authority structure, interorganizational coordination, and general weaknesses of disaster plans.

Assessment of the Crisis Situation

In many communities the disaster plans do not assign an official or organization with the responsibility of assessing the situation to find out just what the overall emergency is and what it means. The typical response is for each organization to appraise the situation in terms of its own functions and needs, and then to retain the disaster information within the organization rather than sharing or pooling the knowledge on a community-wide basis. Disaster preparations seldom provide for systematic reconnaissance and other procedures for maintaining a central strategic overview of the crisis.

In Indianapolis, Anchorage, Fairbanks, Jonesboro, Glendora, and Minot the nature and extent of the damage to the community was not ascertained for a considerable period of time after disaster impact. However, this information was crucial and necessary in order to understand the overall dimensions of the

tasks now facing the community. In contrast, disaster planning was more extensive in Cincinnati, Wichita, Topeka, and Sioux Falls and in these disasters knowledge about the number of dead and injured, the areas that were damaged, and the nature of the damage was more readily available.

Communication Possibility

The disaster preparations of a community frequently do not make any arrangements for emergency communications, and regular communication facilities are often inadequate or inoperative during a crisis. A large part of the disorganization which follows a disaster stems from the fact that normal methods of communication are often disrupted while the necessity for communication is increased. In addition, few disaster plans make any arrangements for disseminating disaster information to the community organizations, mass media, and general public. As a result varying and conflicting reports of the disaster sometimes arise and receive wide coverage through mass communication. Thus, two major types of communication problems arise in crises: (1) a lack of alternative means of communication, and (2) inaccurate communication content.

In Anchorage, Fairbanks, and Minot damage to telephone facilities and a lack of sufficient radio communication facilities resulted in inadequate communication during the crises. In comparison, the fire and police department radio communication facilities in Topeka and Sioux Falls were capable of handling a large volume of emergency communication, and in these two disasters, communication problems were minimal.

Inaccurate communication about the flood crisis did not occur in Sioux Falls as it did in Fairbanks, Glendora, and Minot. The disaster plans of Sioux Falls specified that a daily briefing should be held for all organizational officials and anyone else seeking disaster information. Such a briefing took place daily at the emergency operations center, and, in addition, all news releases were made by only two officials, the coordinator or assistant coordinator of flood activities. In contrast, the disaster plans in Fairbanks, Glendora, and Minot did not make provisions for such communication possibility.

Community Authority Structure

Authority procedures are not always apparent once a community has been struck by disaster. When authority is not operative, the response of community organizations frequently occurs outside a chain of command. In situations where overall control is lacking, the occurrence of disputes concerning authority, responsibilities, and jurisdictions is not uncommon.

Disaster plans sometimes fail to designate a legitimate source of overall control of emergency activities, and they thus contribute to a community authority vacuum or ambiguity concerning which official, agency, or organization has the authority to make crucial decisions during a crisis. This was the case in Indianapolis, Fairbanks, Jonesboro, and Minot. For example, the disaster plan in Indianapolis specified that civil defense should assume overall control when a state of emergency is declared, but it did not make explicit a source of authority in a situation such as the Coliseum explosion where no state of emergency was declared. The disaster plan in Sioux Falls, by way of contrast, indicated four alternative sources of authority: (1) mayor, (2) civil defense

coordinator, (3) flood-control project superintendent, and (4) a long-time employee of the city light department. With this explicit definition of the chain of command, there was no ambiguity or lack of authority at any time during the flood crisis.

Few disaster plans make arrangements for the establishing of command posts at the disaster scene. Consequently, members of organizations involved in the disaster response have no one person or no central location in the field to turn to for advice and direction. This was the situation that developed in Indianapolis, Fairbanks, Jonesboro, Glendora, and Minot. In these disasters, officials of high rank and authority in the predisaster stage failed to set up command posts and exercise authority and leadership in the disaster system. Rather, they became directly involved in such activities as search and rescue, transportation of casualties, and traffic direction. In contrast, in Wichita and Topeka high-ranking organizational officials immediately set up command posts at the disaster sites, and thus insured overall control and command of disaster operations.

Interorganizational Coordination

Most of the problems of disaster originate in the lack of coordination among the many groups and organizations, each of which is viewing and attempting to meet the needs of the disaster in terms of its own perspective and capabilities. The immediate problem in a disaster situation is neither uncontrolled behavior such as looting nor intense emotional reaction such as panic, but deficiencies of interorganizational coordination. It is often the case that allocation of resources is decentralized to a large number of

organizations, each under pressure to act quickly and directly, and little or no attention is given to the linking of these resources by spanning the boundaries of the organizations. Most organizations involved in large-scale disasters lack predisaster understanding as to the scope of their activities and the necessity of coordinating their activities with one another. Specific organizations show some hesitancy in seeking coordination with others or assuming the responsibility themselves since it is seldom seen as being an inherent or traditional function of any one community organization.

Some disaster plans facilitate interorganizational coordination by arranging for the activation of an emergency operations center during a time of crisis. The plans frequently call for a representative from each key emergency organization to function from the center or at least for organizational representatives to attend community-wide meetings at the center. At these meetings representatives from the various involved organizations usually present reports of their respective activities. Through these reports each organization becomes aware of what other organizations are accomplishing, and consequently omission or needless duplication of crucial tasks is minimized. Problems arising during daily operations are considered at the meetings and generally through discussion a consensus is reached resolving the problem. Plans of action are frequently discussed and formulated.

In Cincinnati, Topeka, and Sioux Falls preplanning for an emergency operations center had been undertaken, and in these communities, these centers became functional and there was overall coordination and direction of organizational efforts throughout the crisis. In a number of the other disasters, Anchorage, Fairbanks, Jonesboro, Glendora, and Minot, a centralized,

coordinating center did not exist at the beginning of the disaster primarily because of the lack of adequate and up-to-date preplanning. Thus, in the early stage of these crises, there was organizational atomization of the emergency response with community organizations carrying on their disaster activities independently of each other.

Some General Weaknesses of Disaster Plans

Disaster frequently creates new tasks of undeniable immediacy which must be accomplished if the community is to continue to exist and function as a viable entity. These tasks are seldom anticipated and considered in disaster plans, and thus there is usually no prior assignment of organizational responsibility. For example, search-and-rescue activity is not often considered the major responsibility of any existing community organization. The task of information clearance is one which is usually not previously routinized within a community and often several organizations assume this task with conflict and confusion ensuing. Other disaster-generated tasks that are commonly unassigned include inventory of existing resources such as available food and fuel supplies after disaster impact, feeding and sheltering of refugees, issuing of access passes to the disaster area, control of vehicle and pedestrian convergence, effective use of volunteers in ongoing operations, and transportation and feeding of volunteers and disaster workers. In order to have an agreed upon, understood division of labor among different groups and organizations in disaster, disaster plans should take into account and assign the tasks that commonly occur in community crises.

Many communities prepare for a specific type of disaster such as a nuclear catastrophe when drawing up disaster plans, and preparations for natural disasters and other peacetime crises are often neglected. Consequently, when disaster strikes, the existing disaster plans may be inappropriate. This was the case in both Anchorage and Minot where the disaster plans and preparations were oriented toward a nuclear explosion, and could not be easily adapted to the earthquake and flood crises.

Disaster plans also frequently remain in the "paper" stage and are not rehearsed in simulation exercises. Through lack of practice, gaps in the plans and ineffective aspects in disaster preparations remain undetected. These quickly appear in the time of disaster and crucial time must be taken to make compensations for the inadequate "paper" arrangements. When there is a lack of rehearsals, there is also a general lack of familiarity with existing disaster plans and preparations, and yet effective plans must be understood and accepted by all those who have a part in them, including the general public. In Topeka, for example, yearly disaster simulations are held to coincide with the beginning of the tornado season, and in this community the disaster plans were very effective during the tornado crisis.

To be effective disaster plans must be subjected to regular review and revision. All plans have to be up-to-date to be of optimum use and value in coping with a crisis. It is not unusual for disaster plans to be of limited value during a crisis because they have not been given any attention since the time they were first formulated. This situation existed in Indianapolis and Jonesboro where disaster plans and preparations had been neglected for a

period of years, and as a result lists of available equipment and names and phone numbers were outdated.

Finally some disaster plans stress the physical aspects of disasters and pay insufficient attention to the social-organizational aspects of disaster response. For example, in Glendora, in preparation for flooding, sandbags had been stored in accessible locations and dykes and plywood barriers had been erected throughout the community. However, the plans and preparations were not adequate since no arrangements had been made for over-all coordination of these disaster activities and for interorganizational communications. The scope of disaster plans should be sufficiently broad to encompass the social-organizational as well as the physical contingencies of disasters.

Conclusion

We have through the consideration of ten disasters studied by the Disaster Research Center attempted to identify some of the recurrent problems in disaster planning. Our underlying assumption has been that knowledge of what actually happens during disaster response is requisite for effective planning for community disasters.

The findings bear testimony to the need for large-scale disaster planning, and at the same time they should contribute to a more satisfactory basis for such planning. In other words, we hope the findings by pointing out the adequacy and inadequacy of some existing plans suggest directions that community leaders may take in planning to meet disasters effectively.

It is further hoped that the findings will contribute information and offer guidance to increase the efficiency of efforts to minimize destruction and to restore necessary facilities in disaster areas, and thus make a contribution to national survival in the event of a nuclear war. We have not, however, endeavored to extrapolate our findings to thermonuclear situations. Perhaps after further study of peacetime disasters attempts can be undertaken to extrapolate findings from completed disaster studies to a kind of disaster that is difficult to envisage.