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HUMAN RESOURCES AND ORGANIZATIONAL BEHAVIORS IN COMMUNITY DISASTERS AND THEIR RELATIONSHIP TO PLANNING*

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Introduction

This paper discusses certain aspects of those mass emergencies typically called community disasters. Which aspects? In general, we focus on the social and human aspects of disasters, ignoring physical, engineering, or technical matters. More specifically, we are interested in reporting what social science research tells us about disaster behavior. In particular, we want to describe the typical reactions of individual victims and the usual response patterns of organizational helpers. We also want to indicate what kind of planning will be most appropriate, given the way victims act and organizations behave in disasters.

Our discussion focuses on sudden community disasters. Thus, our remarks examine the emergency time responses to natural and technological disaster agents which appear relatively suddenly and have a definite geographical center, such as earthquakes, hurricanes, floods, tsunami, explosions, mass fires, toxic chemical spills, and nuclear plant radiation threats. We do not consider more slowly appearing and widely diffused collective stress situations which appear as the result of famines, droughts, some kinds of epidemics, chronic environmental poisonings, and the like. Even more distant from our consideration are conflict-generated collective stress situations such as those brought about by wars, invasions, and civil disturbances. These latter kinds of situations more closely resemble what prevails in large scale and persistent societal problems, than do the sudden and focalized emergencies and crises most usefully prototyped as community disasters. Studies indicate that origins, preparations for, responses to, and recoveries from the two classes of events are relatively different. Our observations are primarily about the acute or sudden disaster type of situation.

We have four possible courses of action available to us with respect to disasters. We can try to prevent them in the first place; if they occur anyway, we can attempt to mitigate their effects, respond to their impacts, or recover from their consequences. Prevention, mitigation, response, and recovery--these are the four possibilities.

It is generally assumed that prevention is the best course of action to pursue. But contrary to what is sometimes occasionally voiced, it should be recognized that prevention is an ideal but unattainable goal. We have not been, and will never be, able to prevent all disasters. This is insured in the short run by greater vulnerabilities of ever-larger populations in high-risk areas, and more risks to communities from technological developments. In the long run, disasters are assured by human error and group misjudgements. Whether we want to or not, we must therefore prepare to mitigate, respond to, and/or recover from disasters.

In this paper, we will primarily concentrate on preparedness for sudden disaster response--the emergency time period behavior. The rationale for our focus is that if there is any disaster preparedness at all, it will tend to concern itself with emergency time response. Mitigation and recovery can be, although they should <u>not</u> be, ignored in

preparedness efforts. In fact, studies show they are given lower priority in most disaster planning activities, both at local community and national levels. This position is unfortunate, as much can be done to limit the damaging effects of disasters. Similarly, much can be attempted to facilitate recovery from the harmful consequences of disasters. Nonetheless, it is possible to survive without planning for mitigation or for recovery. This history of the human race attests to this, since only in recent times have even a few societies made systematic and major attempts toward disaster mitigation and recovery.

However, while mitigation and recovery can be and are often downplayed in disaster preparedness, it is impossible to ignore disaster response. Victims not only expect attention to their plight, but it is assumed almost everywhere that governments have some kind of responsibility for the safety and welfare of their citizens. Internal and external criticisms are frequently directed at a society which appears to be making little effort to do something about the immediate problems of an impacted population. Thus, it is not surprising that even when minimal disaster planning is undertaken, it almost always focuses on the emergency time period response.

For most of human history, and in most places, such preparedness planning has often been undertaken on an ad hoc basis and/or been extrapolated from the most recent disaster experience of the affected locality. The planning, in other words, has not generally been based on any systematic knowledge of how people and groups react in disasters. This would pose no problem if the common sense notions and assumptions made about emergency time behavior were valid. Unfortunately, social science studies in the last several decades have seriously brought into question common expectations about disaster responses. In fact, stating it very bluntly, sociobehavioral studies of emergency time behavior have consistently shown that many popular views about impact-period individual and group behavior, are wrong. Obviously, any disaster preparedness planning which incorporates faulty views about disaster behavior cannot be good planning. Preparedness planning can be effective and efficient only when based on corect assumptions about human and group behavior under stress.

In this paper, we first point out some of the mythological beliefs about human responses in acute community disasters. We will note there is reason to assume that most victims will usually react in a relatively controlled fashion, will show a fair amount of self-initiative, and will collectively work with others. Rather than collapsing, people frequently rise to the personal challenges provided by the direct impacts of disasters. In fact, we will suggest that in some ways, the affected population ought to be thought of as potential helping resources in the situation. Victims are not just sources of problems or sites of difficulties in disasters; they can be made part of the organized efforts to help.

Conversely, helping organizations often are major sources of problems. Through their diverse efforts, agencies and formal groups frequently generate additional problems or compound difficulties beyond those created by the disaster agent itself. The organized helpers can in some cases

become the major producer of problems in community disasters. If they act inappropriately, helping organizations can unintentionally turn what should be a minor disaster into a major one, and transform a disaster into a catastrophe. The emergency, relief, welfare, and other agencies (whether public or private) which respond to a disaster often have serious difficulties with their own operations. There can be major intra- and inter-organizational problems in communication, authority, and coordination, which will result in poor resource mobilization. Not all the difficulties are correctly visualized or even recognized by planners or operational personnel, but research has started to uncover the actual organizational problems and their roots. We discuss these matters in the second part of the paper.

Disaster victims may be resources, but only if disaster planning makes them so. Similarly, organizations will continue to be a major source of problems, unless disaster planning is systematically initiated or improved. This is another way of saying that scientifically-derived knowledge provides maximal results only when applied. Disaster planning needs to take better advantage of what is now known about human and organizational behavior in sudden community disasters. Equally, there must be recognition that adequate planning involves far more than written plans. Finally, there needs to be acceptance of the idea that there are principles of disaster planning. These points are the subject of the concluding part of our paper.

We must stress that our dual theme emerges from the work of many researchers looking at different kinds of natural and technological disasters in a variety of places. That theme is that individual victims can be helpers and that organized helpers can be the major problem in disasters. Nor is the idea derived from an isolated or unique incident, or even a limited range of experiences with certain kinds of disasters in certain parts of the world. What we are stressing are aspects of community disasters that trained social scientists have consistently been reporting, and have become more vocal about in recent times. While previous researchers made the same observations as those subsequent, they were more reluctant to openly state what was at variance, if not with common sense, at least with the traditional perspective brought to disasters by helping organizations: namely, that their groups are the sources of assistance and that the individual victims are the problem. It occurs to very few, unless they have studied the matter, that perhaps individual victims can be thought of as helpers and that organizational helpers might be a major part of the problem in disasters.

However, researchers have become so convinced of the validity of this basic observation that they have conceptualized a major distinction between what they call agent- and what they call response-generated disaster demands. There are demands for actions generated by the disaster agent itself, and demands created by the very response itself. There are the agent demands; the earthquake knocks buildings down and creates an immediate need to hunt for buried victims, the flood inundates an area and the residents are suddenly left without shelter, the explosion burns people and they have to be quickly transported for medical treatment, and so on. Conversely, there are the demands created by the very response

itself in preparing for and/or reacting to the disaster impact. These are more indirect, such as the need to evaluate secondary and continuing threats, the necessity to mobilize resources, the requirement to coordinate the multiple groups responding, and so on.

In essence, individual victims primarily face agent-generated disaster demands; organized helpers must additionally cope with response-generated demands. Our thesis, based on research findings, is that individuals deal relatively well with most agent demands; in contrast, disaster-relevant organizations often experience serious difficulties handling many response-generated demands.

In stating this, we do not mean to romanticize what individual victims can accomplish, or to downgrade the crucial role of disaster organizations. There is much victims cannot do. There are many things only organizations can do. Neighbors might find victims in a search and rescue effort, but they cannot give blood transfusions or perform surgery. Similarly, such activities as major debris clearance, building of temporary bridges, testing for water contamination, and restoring electric power are not tasks that individual victims or even small groups of neighbors can perform very well. Furthermore, many tasks, such as the assigning of priorities for emergency actions, the organizing of transport for massive post-impact evacuations, the integration of the convergence of outside relief help, or the making of surveys for policy decisions about recovery measures, etc., are of necessity organizational responsibilities involving collective group action. They cannot result from the initiative or by the acts, of lone individuals, clusters of isolated persons, or small groups of private citizens. Thus, in no way do we underestimate the vital part helping organizations play in disasters. However, this should not lead us to ignore, the fact, as is sometimes the case, that victims can help themselves and others considerably, and that the organized responses of helpers sometimes magnify and compound the agent-created difficulties.

Individual Victim Behavior: Myths and Realities

What human behavior can be expected in a major community disaster? What responses are commonly believed to occur? The general expectation is clear: many (including emergency organization officials--especially if they have had little or no disaster experience) expect a great amount of personal and social chaos and pandemonium. Thus, there is the belief that there will be panic flight, hysterics, and other irrational actions. Likewise assumed are disorder, looting, frenzied crowd behavior, and other antisocial actions. The dazed and stunned victims are also assumed to be unable to do anything for themselves, with local organizations unable to function because their own members will be mostly involved in saving themselves or their families.

The image is clear: panic, antisocial behavior, passive dependency on outsiders. The physical destruction in a disaster is supposedly also accompanied by psychological disintegration and social disorganization.

Just as the physical world collapses, so the social and psychological world of victims is also thought to collapse.

These kinds of expectations of human behavior under extreme community stress are widely diffused, are largely immune to the contradictions sometimes offered by direct personal experience, and are built into much unsystematic disaster planning. Studies have shown that both the general public and community officials anticipate much individual breakdown and social pathology in disasters. When a direct personal experience contradicts the expectation, it is often dismissed as an exceptional situation or attributed to the presumably unique qualities of the particular community or specific population involved. Much emergency planning and even response patterns implicitly (if not explicitly) assume that helping organizations will have to function in a situation characterized by panic, anti-social behavior, and dependency by the victims.

Let us look at these three common expectations and compare them with reality. We will find that in the typical disaster situation there is relatively controlled behavior, order, and personal initiative. The opposite but common expectations are simply mythological beliefs.

There may be expectations of panic, but what almost always occurs is rather reasonable behavior. For many reasons, including mass media emphasis on the theme, many community and organizational officials believe that people will panic when faced with great threat or danger. This panic supposedly manifests itself as hysterical breakdowns, aimless running, or wild flight. Presumably people cannot be depended upon to react intelligently and unselfishly in situations of great personal danger.

This is simply not the case. People generally do not panic in community disasters (although they may flee in panic under some very unusual circumstances such as limited access to escape as may occur in a nightclub fire or a plant explosion). Actual instances of hysterical breakdowns and wild flights are extremely rare, and are of no practical or operational importance if they occur. In fact, instead of fleeing from the locale of the disaster, people are much more likely to converge upon the impacted area. Instead of collapsing into hysterics, people immediately undertake what they think has to be done in the crisis. Disaster victims are usually quite frightened, but that does not mean they will act selfishly or impulsively. They do not become unreasoning animals, but instead (one could argue) they tend to show <u>greater</u> rationality under stress than they do normally, if by rationality we mean conscious weighing of alternative courses of action in a situation. We do not undertake much conscious weighing of alternatives in performing most of our daily routine behaviors.

Similarly, there may be expectations of disorder, but what appears is a great deal of <u>prosocial</u> instead of antisocial behavior. To inexperienced officials and journalists, community disasters are apparently seen as offering opportunities for the surfacing of antisocial behavior. It is often speculated that deviant behavior will emerge, and that dazed victims in the disaster area become easy targets for looting and other

forms of criminal activity. The imagery is that as Mr. Hyde displaces Dr. Jekyll, crimes will increase and exploitative behavior will spread.

This is also an incorrect view, at least for communities where widespread stealing and other criminal behaviors are not normal everyday occurrences. Many stories of looting will circulate, but actual instances will be rare, and if they occur, will be done by outsiders rather than the impacted population itself. Except in societies where the everyday level of subsistence is marginal, far more material will be freely donated and given away than could conceivably be looted. In actuality, prosocial rather than antisocial behavior is a dominant characteristic of the emergency time period of a disaster. Crime rates usually drop. Exploitative behavior is most likely in relatively rare instances of profiteering after the immediate emergency period is over. If disasters unleash anything, it is not the criminal in us, but the altruistic.

There may be expectations of dependency, but what develops instead is considerable self and small-group initiative. There is a tendency to assume that community disasters leave large numbers of people dazed, shocked, and unable to cope with the new realities of the crisis. The assumption is that victims are so disoriented and demoralized that they will need outsiders to provide the most elementary services such as feeding, housing, and clothing the survivors. If the previously discussed expectation of disorder is based on a Dr. Jekyll and Mr. Hyde view of human beings, the expectation of dependency is based on a "Big Brother" image. If Big Brother does not intercede it is assumed nothing will happen.

This expectation is also quite false. Those who experience disasters are not immobilized by even the most catastrophic of events. They are neither devoid of initiative nor passively expectant that others, especially outsiders will take care of their needs. Usually before the full impact is over, search and rescue efforts are initiated by neighbors, and the injured are attended to in some way. Shelter is actively sought and offered by kin and friends. In fact, the evidence is substantial and consistent that far from even seeking, and much less depending upon, formal relief and welfare organizations, these are the last sources that the vast majority of victims will approach for immediate help. In a community disaster, the self-help, mutual aid, and assistance by kin, and other informal initiatives, stands out.

Social scientists are sometimes told that these general observations may be valid for the industrialized and urbanized societies in which the major portion of disaster research has taken place, but that the situation differs elsewhere, especially in developing countries. This is doubtful. There are some cross-cultural differences in individual disaster behavior, but they do not seem to be directly related to a society's degree of development. There are actually far more cross-cultural differences in organizational and other more macro-level behaviors. Also, it is significant that as studies have extended into the sudden disasters within developing countries, fewer behavioral differences in different societies are being claimed. There are many panhuman or universal characteristics

of disaster behavior, especially at the individual or small group level.

The strongly held conviction of some, from within and without, that there are negative behavioral responses by victims in developing countries stems from a variety of factors. In some rare cases, when outsiders are involved, it occasionally appears to be the residue of a colonial attitude or mentality that the natives cannot take care of themselves. (In some instances, helpers from societies which stress control over verbal expression mistakenly confuse victims' overt expressions of feelings as necessarily a sign of lack of control.) When officials within a country claim that victims are passive it sometimes is an expression of an elitist view that those in power know what is best for the masses. (This may be magnified in those disaster situations where the victims are mostly from the lower strata of a society, and the important policy and decision makers, of course, are from the upper strata or classes.)

In most cases, however, the negative perception of disaster victims probably stems from the inherent nature of bureaucratic structures, whether in developing or developed societies, or in public or private organizations. Bureaucracies are structured on an everyday basis to do things to or for people rather than with them, and this carries over into disaster situations. (This view is frequently compounded in many developing countries because the involved officials often attempt to impose a national point of view in preference to the tribal or ethnic group perspective of the victims.) Of course, in some cases, the expectations of passivity, for example, become a self-fulfilling prophecy, but this proceeds less from the realities of how human beings typically respond under community stress than from mistaken assumptions about such behaviors.

Disasters obviously cannot make everyday social pathologies disappear. If a group in the preimpact period contains a high number of disoriented individuals, if it is permeated by much routine stealing and antisocial behavior, or if it is wracked by bitter cleavages and conflicts, the same picture will be seen during mass emergencies of a disasterous nature. Thus, if civil strife exists in a society, the differences will continue to manifest themselves at times of disasters although actually there may be a very temporary suspension or reduction of conflict. If it is usually not safe to leave goods unattended in a neighborhood or community, they will not suddenly become safe during a catastrophe, except perhaps at the very heights of the emergency. Past behavior is still the best predictor of future behavior. Our point, however, is that a disaster does not in itself markedly increase social disorder, pathology, or conflict.

What do increase however, are the relevant resources which victim populations can potentially provide. The reason for this is simple. Disasters free people from many everyday work, household, and school demands and routines. If properly planned for, victims could therefore be mobilized to help with emergency needs. In the aftermath of most community disasters there is a varying pool of unused and available physical labor. The personal skills and knowledge that victims have are not destroyed by disasters; they also could be utilized. Local people of course have vast amounts of information about their neighborhood areas which could be

relevant in an efficient and effective disaster response. In short, victims provide a large reservoir of human, material, and social resources.

This possibility is very seldom tapped in any kind of organizational or community disaster planning. Only in recent years, in certain kinds of preparedness planning in developing countries has there been a slight recognition of the possible opportunities. For example, in as widely differing societies as Barbados and India, the importance of interrelating the traditional folk warning systems for hurricanes and floods with the official warning system has been slightly recognized. Overall, however, organizations continue to define victims as the problem or the source of difficulties in disasters, and not as potential resources.

Emergency Organizational Behavior: Problem Areas

While individual victims frequently rise to the challenges presented by community disasters, helping organizations often stumble. In some ways, organizations are inherently less adaptive to mass emergencies than are individuals or small groups. The problem is compounded in community disasters because the response cannot be generated by just a single organization undertaking routine operations. Instead there is a mass assault, a convergence of many organizations who must improvise considerably as they operate. Appropriate planning can markedly improve the efficiency and the effectiveness of such a response, but it cannot eliminate the inherent problems.

We want to discuss three general organizational problems in community disasters, those generated by the response itself. These three problems do not exhaust the full range of difficulties, but if our research is valid, they are the major ones. These are organizational problems in the communication process, the exercise of authority, and the development of coordination.

The communication process

We use the term "communication process" deliberately to emphasize that the problem generally involves what is communicated rather than how the communication occurs. In most cases, although not all, communication problems do not arise from equipment scarcity, damaged facilities, or other destruction of the physical means of communication. There are occasional instances in community disasters where there are limited means of communication, although often in such instances in developing countries, this reflects a pre-disaster equipment scarcity rather than a loss as a result of the disaster. However, in the majority of cases, the problems are less in the means than in the process itself. That is, some physical mechanisms for communication will be present, but they will not be used in the most appropriate ways or will not be employed at all. Thus, difficulties in communication are more of the result of human or social malfunctioning rather than the consequences of physical losses or technical breakdowns. It is people rather than machinery which most often go awry.

It is possible to see difficulties in the communication process in at least five different categories of organizational behavior:

(1) within organizations
(2) between organizations
(3) from organizations to the public
(4) from the public to organizations, and
(5) in the systems of organizations which often become mobilized in community disasters.

First of all, organizations have to communicate internally; exchange of information has to go on among group members. Normally, the communication system is geared to processing and exchanging a certain amount of information. However, in a disaster the number of staff members usually increases. Double shifts may be employed or volunteers may be incorporated into the work force. The normal communication system often cannot accomodate the overload of users and information. In a sense, the extra demands upon the internal communication system will frequently exceed the capabilities available, with consequent retardation if not loss of information flow among staff members.

Naturally, too, communications are supposed to go through certain channels. In non-crisis situations, the lines of communication from the top to the bottom in the chain of command (and from the bottom to the top) are relatively clear-cut, so that it is fairly obvious who is supposed to get what kind of information as well as where and when the information is to be exchanged. However, during an emergency, several individuals might occupy a position normally held by one person. Officials may also assume tasks they do not routinely undertake, or they may work at temporary emergency positions in the organizational structure. Consequently, the normal channels of communication are usually not sufficient to insure that all relevant information will reach those group members who should be informed of organizational activities.

Difficulties may develop along a second dimension, that of communication between organizations. The reason for potential problems here appears to be twofold. In normal, routine contact between organizations, much of the interaction proceeds on an informal basis. Officials will often be talking with known persons, acquaintances, if not friends. When a disaster occurs, creating changes in the organizational structure, an informal basis for communication may not suffice. Contacts may have to be established and maintained with unfamiliar individuals occupying official positions in other organizations.

In addition, community emergencies typically precipitate relationships between organizations not normally in contact with one another. Staff members have to develop contacts they have not had before the disaster. This is difficult to do, particularly under the pressure of a disaster situation. Communications between organizations will frequently not proceed smoothly under such circumstances.

A third category of problems is communication from organizations to the general public. One major source of difficulty is that what is meaningful information to organizational personnel often may not mean much to people in general. This stems from the fact that an official group will frequently gather detailed information about what is happening, and obtain a general picture of the overall situation. On the basis of that information, the organization will subsequently issue some advice: some instruction to the general public which, however, omits in the announcement the details and general picture known to group officials. For instance, they may announce that people should leave a danger area. That will be the sum total of the statement: "evacuate X street or Y neighborhood." The officials may very well know the limits of the endangered zones, and the likely degree of safety in different places, but none of this will appear in the announcement. Thus, the warned population is forced into the position of trying to ascertain the extent of the danger areas, and where it might be safe to evacuate. Too often, organizations which are well informed about emergency events and possibilities assume that their public statements will be as clear to everyone as to themselves. This is a dangerous assumption.

A fourth category of organizational behavior posing difficulties is communication from the public to the different organizations. There are several aspects to this, i.e., after a disaster, but occasionally even prior to its actual occurrence, people will bombard organizations with requests for aid and information. They will ask the more visible public groups what should be done, where to obtain certain things, and so forth. A frequent result is a malfunction of the organizational system for processing information. Typical is the effect of the flood of telephone calls to police departments when any untoward event occurs in a community. The police switchboard often becomes so overloaded with calls that all communication, in or out of the organization, is interminably delayed.

Organizations also find themselves often subject to new kinds of requests in addition to requests for normal aid and information. Groups will be asked things about which they previously were never or very infrequently asked. Few organizations can deal well with non-routine questions: persons who man switchboards or complaint desks thus often find themselves unable to adapt to the new kind of questions.

Last, but often overlooked, are the communication problems in the different systems of organizations which typically are mobilized in community disasters. We tend to think of an organization here and an organization there, somewhat in isolation from one another. But actually there are often sets or systems of interrelated specialized organizations oriented to particular disaster-relevant tasks, the more so in the more developed societies. Thus, we can talk of a medical system delivering emergency medical services, or a police and/or military system providing security. These involve far more than communications from one organization to another. Rather there are multiple two-way and chain communications between different kinds of multi-layered groups. Thus, in a medical system, there may be many first aid stations, ambulance or transporting units, and primary and secondary hospitals (some of whom may

be public or private) and segments of different authorities operating within diverse jurisdictions. Communication within an organizational system is difficult enough during ordinary times; it can become quite problematic during a community disaster, especially since there is an emergent quality in the behavior of many systems at such times.

Generally, problems in the area of organizational communication are the most serious ones. If difficulties in this area are not solved or at least partly mitigated, there is no great need to worry about other kinds of problems. Rapid and accurate communications are the core of any effective and efficient organizational response to mass emergencies; without such communications, other problems cannot be handled.

The exercise of authority

Disasters require that some agencies and officials take responsibilities, make decisions, and be seen as legitimate. Naturally, if the exercise of authority is weak in normal times, it will prove even weaker at a time of disaster. However, even if we assume normal authority operations within a community or society, there will be problems during the emergency time periods of disasters. But the difficulties which surface are often not those commonly anticipated.

Thus, lines of command do not break down in established organizations. Even if there are inadequate communications during a mass emergency, officials usually continue to exercise their formal authority and fulfill their normal responsibilities. If higher-echelon officials cannot be reached, personnel at middle and even lower level echelons will often make decisions they normally do not make. Even rigid bureaucracies will bend on this matter in the face of clear cut emergencies which necessitate a decision or at least a response.

It is sometimes believed that organizations may be unable to function well due to a conflict between the work role and the family role of officials. The fear is occasionally expressed that important officials or key personnel will stay away or leave their jobs at a time of disaster because of concern for or a need to take care of their victimized families. Research has shown that this so-called role conflict does not result in the abandonment of, or failure to carry out, occupational responsibilities. At least it is not a major problem especially in the higher echelons of organizations, those positions carrying the most authority. It is clear officials can be expected to do their jobs, although there is psychological strain for those caught in such a role conflict.

Neither are there many problems which arise from questions about which organizations have authority and responsibility for emergency but traditional tasks. Thus, there are very seldom disputes or questions over who fights fires, repairs telephones, performs major surgical operations, or other specialized tasks. Such matters are the traditional responsibility of certain local community groups, and a mass emergency is very unlikely to alter the normal pattern.

On the other hand, there are at least four problem areas involving organizational authority in community disasters: loss of top echelon personnel because of overwork; conflict over authority regarding new disaster tasks; clashes over organizational domains between established and emergent groups; and surfacing of organizational jurisdictional differences.

The first problem stems from the strong tendency (especially at higher levels of organizations) for officials to continue working too long. Staff personnel who stay on their job around the clock days on end--and it is remarkable how long human beings can go without sleep in an emergency--will eventually collapse from exhaustion or become very inefficient in their decision making and other activities. More important, when such officials are eventually succeeded by others, their replacements will lack certain information necessary for exercise of authority, because crucial data unrecorded anywhere will have accumulated in the heads of a few individuals. Decision-making requires relevant knowledge, but officials with the appropriate information will not always be physically capable of working beyond a certain point. If such officials occupy key positions of authority, the response of the organization can be seriously impaired.

A second problem area center around who has the organizational authority for new disaster tasks. For instance, who has responsibility or authority for large-scale search and rescue activities, or mass burial of the dead, normally not everyday tasks of even established emergency agencies? When there are new disaster-related tasks, questions almost inevitably arise about which organizations have the authority to assume them.

Also, authority problems sometimes arise between established organizations and outside or emergent groups over traditional tasks. For example, area security is considered in most places a traditional local police function. There can be difficulties if state, regional, or provincial police or the military move in and also attempt to provide security. Both actions are often seen by the local police as a move to usurp authority. The issue is sometimes manifested in disputes over who has the right to issue passes allowing entry into a restricted impacted zone. The situations is even more complex when the competing organization is an extra-community group or an emergent group, such as when non-local relief or welfare agencies provide services during a community disaster. Even though they may be exercising their mandated or usual function of providing standard services, such agencies will frequently be viewed as intruders upon the domain of the local agencies. International disaster relief agencies often face this problem. If the outside or local relief group is a new organization, established local agencies undertaking the same disaster task, are almost certain to miss questions about its legitimacy and authority.

Finally, since community disaters frequently cut across jurisdictional boundaries of local organizations, there exists a great potential for conflicts. In ordinary times, vague, unclear or overlapping authority

responsibilities can often be ignored. During disasters this is frequently less possible. Mass emergencies sometimes require immediate actions and decision. Unresolved jurisdictional issues thus often surface at the height of an emergency period.

Problems of authority are especially difficult to solve. In part, this is because the question of organizational authority involves the whole fabric of formal and informal power within a community. This is a subtle and sensitive matter full of pitfalls for anyone not knowledgeable about the nuances of local history. Therefore, it is not surprising that such problems are difficult to plan for, and equally hard to handle when they arise.

The development of coordination

Organizations have a great number of coordination problems in a community disaster. Three kinds of problems in particular have been noted in social science research. There is the simple matter that coordination means different things to different organizations. Coordination is also difficult between organizations working on common but new disaster related tasks. Finally, overall coordination is extremely difficult to achieve in a community disaster of any magnitude.

It is extremely difficult to find any organization which does not agree, in principle, to coordination at times of disasters. The problem, however, is that "coordination" is neither self-explanatory nor a matter of much consensus. At one extreme, some organizations, view coordination at best as informing other groups what their own group will be doing in the disaster. At the other extreme, some organizational officials see coordination as the centralization of decision making in a particular agency or in a few key officials. Given such diverse views of what constitutes coordination, it is not surprising that even when there has been a formal pre-disaster agreement to coordinate the mass emergency response, there can occur mutual accusations that one or both parties have failed to honor the agreement. But prior agreement or not, in the absense of explicit understanding of what coordination means in operational terms, there will be organizational coordination problems. It is rare to find such an explicit understanding in community disaster planning.

Coordination (i.e., mutually agreed linking of activities of two or more groups) between organizations working on common but new tasks is also difficult. Even agencies accustomed to working together, such as many police and fire departments, may have difficulties when they try to suddenly integrate their activities to accomplish a novel disaster task, such as the handling of a great number of dead bodies. While police officers and fire officers may be used to recovering a few bodies in traffic accidents or fires, the large number or dead in a major disaster will pose a coordination problem. It is partly the newness of many disaster tasks which can create strain in relationships even between organizations which have worked together before. Also, in everyday operations there can often be a gradual development, frequently

on a trial and error basis, of the relationship between two groups concerned with a common goal. Such a leisurely development of a cooperative relationship is generally an impossibility given the immediate demands at the emergency time of a community disaster.

Finally, the larger the scope of the disaster and the greater the number of responders, the less the probability of any overall organizational coordination. In fact, efforts to attain such coordination underlie the imposition of martial law or the designation of national military forces as the decision makers in the emergency (historically, neither event has ever occurred in the United States, although both are relatively common measures in catastrophes in both developed and developing countries). But even these steps do not always produce overall coordination. This is understandable. A major community disaster will precipitate in almost any society a vast convergence upon the disaster site of non-local organizations. The numbers involved, the different levels of the social structure which they represent, the mixture of public and private organizations generated, etc., virtually insure the impossibility of achieving any overall coordination during the emergency period. As we shall note later, good disaster planning may effectively reduce the convergence and thus allow a relative degree of overall coordination. But such coordination remains relative at best, and frequently is never achieved during the emergency time period, either by prior planning or by ad hoc efforts. There are just too many sudden and new tasks, as well as the need to integrate too many established and emergent groups and organizations to allow much overall coordination. It is an illusion of some former military personnel involved in natural or technological disaster planning to think that the command and control system which exists for limited wartime military emergencies--at least in the abstract--can be imposed upon a major civilian disaster situation.

The impossibility of achieving total coordination, we should note, poses greater or lesser significance according to the evaluative criteria used to judge the consequences. If efficiency of response is rated high, lack of coordination can be deemed a serious problem. If, instead, effectiveness of response is judged more important, it is possible to tolerate a much lower degree of overall coordination. We mention this because coordination is sometimes discussed as if it were an absolute necessity and/or absolute good. That is not so; there can be relatively effective organizational responses in disasters without a high degree of coordination.

We have stressed the basic, and often inherent, nature of the problems which responding emergency organizations and helping groups typically encounter. As said earlier, the response-generated demands of disasters will force to the forefront the kinds of organizational problems we have been discussing. In a community disaster, there will be inescapable problems of organizational communication, authority, and coordination. Responding organizations will be both the source and the locus of difficulties. Their very efforts to help generate many problems, usually in excess of those attributed to the agent-created demands of disaster victims.

If we were to stop our remarks at this point, we would have made true but incomplete statements about the realities of disaster behavior of victims and helpers. Victims are potential helping resources in a disaster because they are generally not as psychologically and socially incapacitated as mythological beliefs imply. Organizations are probable sources of many major problems because of the intrinsic nature of what is required in an organized response to disasters.

However, victims can only become resources if appropriate planning is undertaken, and organizations will have major problems only if there is no planning at all. Planning can maximize resources and reduce problems.

There are, of course, limits to preparedness planning. Victims can be made resources only up to a point; organizational problems can be reduced, but again only to a point. Disaster planning is no panacea or ultimate solution for everything which occurs in a disaster. This statement runs counter to the expectations of some planners who implicitly seem to promise everything if extensive planning is undertaken. However, because disaster planning cannot achieve everything, does not mean that it cannot attain much. To be sure, much is not all, but it is far better than nothing. Let us be idealistic in a realistic fashion.

However, acceptance of the idea of planning is one thing; actual implementation of <u>good</u> disaster planning is another. There are many reasons for this difference. Among other things, there is a tendency for disaster planners not to use the best knowledge base available, a failure to recognize what planning essentially involves, and an unwillingness to acknowledge that there are principles of planning.

Planning for disasters can be no better than the knowledge base from which it is derived. Too many officials and personnel in emergency organizations accept planning in principle, but do not or cannot see that they do not ground it in the best knowledge base possible. Planning cannot be derived solely or primarily from common sense notions. As we discussed earlier, many popular views incorporate mythologies about human behavior under extreme stress. For example, social science research has found that because the image of victim's dependency is so widespread, considerable organizational effort is expanded on planning mass shelters which (except under exceptional circumstances) will not be used, since victims seek and are given sheltering assistance by friends and relatives.

It is also not possible to adequately prepare for disasters solely on the basis of past experiences in one's own community. There are dangerous limitations to such an approach. Organizational officials are unlikely to have direct personal experience with very many disasters. Thus, the idiosyncratic features of any particular disaster, may be interpreted as universal characteristics. There is also a tendency to generalize from the experience of a few specific to the full spectrum of community mass emergencies. But the sample used is really too small to

allow such extrapolations. In addition, planners show a strong tendency to become fixated on the past rather than to imagine what might happen in the future. It is said generals learn very well how to fight under the conditions presented by the last war, but not an upcoming one. The same can be said of some disaster planners. They learn well how to cope with past disasters but show little understanding of future ones. Additionally, due to lack of an overall perspective, it is not always possible to derive meaningful lessons from personal experiences. For example, a perceived absence of panic is attributed to one's own unique stable qualities or the sterling but exceptional characteristics of the impacted population, rather than recognizing it as a more general human tendency. Finally, it is never easy for organizational personnel to make an impartial evaluation of the actions of their own group. Too often, after-action reports turn out to be post hoc defenses or justifications of what the agency did rather than a candid assessment of the problems encountered or mistakes made.

In general terms, then, a direct personal or organizational experience in a disaster is less useful than is often recognized. An experience must be seriously analyzed and the limitations of the implications must be made explicit before such an experience can be made useful for disaster planning. This is why it is possible for some emergency organizational officials to be involved in several disasters and yet evidence very little learning from the experiences. The events remain "war stories" and never become lessons useful for deriving general prinicples. Just as military "war stories" contribute nothing to the strategy of military planning, disaster "war stories" also seldom are useful for the strategy of preparedness planning.

The most adequate knowledge base for planning purposes is grounded in as wide a range of as many disasters as possible, involves a systematic and objective examination of what occurs, and attempts to draw general principles and theoretical models from the information available. This of course is what scientific research in the disaster area attempts. Until the last few decades, disaster planners could justifiably say there were very few social scientific studies which could be used. This excuse is no longer legitimate. There now exists a body of social scientific knowledge applicable to disaster planning. This paper is a limited attempt to illustrate some of what is now known, ranging from specific findings to general perspectives.

A further impediment to developing good disaster planning is too narrow a view of what constitutes preparedness planning. To many the writing of a disaster plan is the essence of planning. This is not only incorrect, but actually can be a very dysfunctional position to take.

Disaster preparedness is not synonymous with the formulation of written disaster plans. A more useful perspective is to envision planning as a process rather than the production of a tangible product. Viewed this way, preparedness planning involves all those activities, practices, interactions, relationships, etc. which over the short term or long run are

intended to improve the response pattern at times of disaster impact.

In this conception, preparedness planning includes such matters as:

--convening meetings for the purpose of sharing information;
--holding disaster drills, rehearsals, and simulations;
--developing techniques for training, knowledge transfer, and assessments;
--formulating memoranda of understanding and mutual aid agreements;
--educating the public and others involved in the planning process;
--obtaining, positions, and maintaining relevant material resources;
--undertaking public educational activities;
--establishing informal links between involved groups;
--thinking and communicating about future dangers and hazards;
--drawing up organizational disaster plans and integrating them with overall community mass emergency plans; and
--updating continually that which becomes obsolete.

Thus, while formal disaster plans are an element in disaster preparedness, they are best viewed as only one of numerous activities devised to improve the efficiency and effectiveness of a community disaster response.

The creation of human resources or the reduction of organizational problems, which we discussed earlier, cannot be achieved just by writing a plan. Coverting disaster victims into potential helping resources, for example, also should involve public education, training techniques, etc. Reducing the response-generated problems of organizations, for instance, requires having meetings, holding drills, securing agreements on memoranda of understanding, etc. A range of activities have to be undertaken if the indicated objectives are to be achieved.

The very writing or existence of a printed plan can be dysfunctional. It may lead organizations to think they are prepared for a disaster merely because they have a formal written plan. It leads them to ignore the other activities absolutely necessary for any good planning for community disasters.

Finally, good planning requires accepting the idea that there are principles of planning. Few would explicitly deny this idea. However, implicitly, even some emergency organization officials think that every situation is unique and that, in a real sense, general planning is impossible. This is not a valid view. Every human being is somewhat biologically different from any other. Nonetheless, the medical world, for example, has little difficulty in identifying general symptoms of illness, specifying uniform treatment procedures, etc. Similarly, each disaster is different, but a general approach is possible.

It can also be admitted that different disaster agents and differences between societies will result in some differences in disaster responses. However, such differences are less important than the similarities which research studies have found. The military recognizes the diversity of

combat situations and combatants. Nonetheless, they still argue that there are principles of military strategy. We should recognize the same is generally true of disasters. We need to accept that there can be a planning strategy for all disasters.

What some refer to as the unique aspects of disasters, they really mean matters of disaster management rather than disaster planning. There is a difference between the two. Planning involves preparations; management involves actually doing what plans call for, or what the situation demands. To continue our military analogy, the strategy suggests the general approach but different tactics have to be applied in specific situations. (Parenthetically, however, we should note that the military also argues for principles of military tactics; they do not believe the singularity of every situation precludes the development of tactical principles. We should keep this in mind in thinking about the disaster area.)

Studies have shown that disaster planning is better in some instances than other instances. The better planning appears to follow or be organized around certain general principles. Elsewhere we have systematically discussed ten major principles of such planning. In this paper we shall only illustrate a few.

Disaster planning ought to attempt to reduce the unknowns in a problematical situation. Planning should work at anticipating problems and possible solutions. The contingencies are too many to anticipate all possibilities. However, good planning can indicate some of the major parameters of the situation. Thus, for example, we can incorporate into the planning process, the perspective that disaster victims will take initiatives and will not be passive, or that helping organizations will have difficulty coordinating on new tasks. Such an approach reduces the unknowns which have to be considered. It not only narrows the range of problems which need to be anticipated, but also lessens the number of alternative or optional solutions which have to be examined. If disaster victims do not markedly engage in antisocial behavior, for instance, there is little need to plan for a variety of security measures or the mobilization of many law enforcing agencies.

Disaster planning ought to aim at evoking appropriate actions. At times, planning appears primarily as a mechanism for speeding up response to a crisis situation. It is true that good planning may allow a quicker response to certain disaster problems. But that is a byproduct rather than what ought to be a major objective. Appropriateness of responses rather than speed of response is far more crucial. Accordingly, it is far more important to obtain valid information as to what is happening than it is to take immediate actions. Reacting to the immediate situation may seem the most natural and humane thing to do, but it is rarely the most efficient and effective response. The immediate situation is seldom that important in terms of both short-run and long-run consequences. Planning, in fact, should help to discourage impulsive reactions in preference to appropriate action necessary in the

situation. Thus, for example, planning should be directed at slowing down the convergence of helping organizations at a disaster site, thus reducing coordination problems.

Finally, preparedness planning ought to be based on what is likely to happen. Some planners seem more oriented toward the most ideal response type situation which could be imagined rather than the realistic possibilities which will be present. This is unfortunate. It is far better to plan on the basis of what people and groups usually do in normal situations and what they will probably do in emergencies, than to expect them to change their behavior drastically in disasters. In this sense, planners must adjust their planning to people, rather than expecting people to change their behaviors in order to conform with the planning. This principle is equally applicable to organizations. The great majority should not be expected to act and react much differently during an emergency than they behave during everyday operations. There is no use to pretend that concerns, for example, over organizational domains or territories which prevail during ordinary times will suddenly disappear during mass emergencies. Disaster planning must adapt itself to expected organizational behaviors, rather than trying to force organizations to drastically alter their activities to be in accordance with the dictates of some planning.

In concluding, let us briefly restate some of our major themes. Victims respond to the stresses of disasters much better than mythological beliefs would lead us to believe. Victims should be seen as possible resources in the organized response pattern. Helping organizations have many problems, although not always the expected ones. Some difficulties are inherent in the nature of social organization and are immune to total elimination. Planning, however, can help transform victims into resources and reduce organizational problems so that the response pattern can be more effective and efficient. But if disaster planning is to have appropriate effects, it must be appropriate planning; that is, it must be based on social science knowledge, must be seen as a process, and must follow certain empirically-derived principles. Planning which does not incorporate these ideas is worse than no planning at all.

These have been our major themes. You may agree or disagree with them. You might accept or reject some of our specific statements. However, if your thinking about disasters, disaster behavior, and preparedness planning has been stimulated in some way, my objective has been achieved.