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PRINCIPLES OF PLANNING FOR  
INDUSTRIAL AND BUSINESS DISASTER\*

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## Introduction

My remarks will primarily deal with the principles of disaster planning as these can be derived from systematic social science studies. But before we can talk about principles, we need to clarify what is meant by disaster and by planning. Unless we agree on what we are talking about when we refer to disaster preparedness planning, there is little sense in talking of principles. In fact, as we shall note, social science research indicates that many problems in disaster preparedness stem from: 1) a failure to grasp what is basically involved in a disaster, and 2) a lack of understanding what constitutes good planning.

### Old and New Aspects about Disasters and Planning

Let me lead into my comments about these matters by first noting that there is something old and something new about both of these phenomena. That is, there are new as well as old features about both disasters and disaster planning. Something has been added in recent times to the disasters and disaster planning of the past.

Disasters, of course, predate any written records of the human race. The stories, legends, and myths of many societies are filled with accounts of catastrophes occasioned by earthquakes, floods, volcanic eruptions, and other mostly natural events. Even modern societies such as the United States have memorable historical disasters, easily recognized by school children, such as the San Francisco earthquake or the Johnstown flood.

However, there is something new about present day disasters. To the category of natural agents such as tornadoes and hurricanes, we have added the relatively new category of technological accidents and mishaps. These are the disasters brought about by human error and the collective mistakes of groups. To the so-called acts of God, we have added on a large scale the acts of men and women.

Thus, localities which in the past had few risks from natural disaster agents, if they have any roads, railways, or navigable waterways, are now vulnerable to toxic chemical spills, explosions, and fires. We now have the risks associated with nuclear power, so if the worst of scenarios had developed at Three Mile Island, it is conceivable precautionary steps would have been necessary in New York City. The big blackout of 1965 in the northeastern United States is an example of how in the modern world, whole areas of a country are vulnerable to electric grid system malfunctionings. And we are talking here only of relatively acute types of disasters, ignoring the more slowly developing and diffuse kinds such as we see in the Love Canal and other hazardous wastes types of situations.

We not only have the newer threats of a chemical, nuclear and power system nature, but the technological advances of our age bring additional complexities to old threats, new versions of past dangers, and interesting future perils.

Thus, we can now have fires in high rise buildings, which, in combination with the construction and furnishing materials we presently use, have added additional dimensions to the fire threat. We prevent people from being burned by raising the probability of their being asphyxiated. The MGM hotel fire in Las Vegas was merely a spectacular example of what is likely to occur more frequently in the future.

Droughts used to be thought of as a rural problem. Now we have the possibility of urban droughts. As you may recall, this kind of threat started to develop for New York City in 1981. If the situation had run its full course, it would have been catastrophic for the whole metropolitan area.

Along a different line, the recent attention paid to the deteriorating physical or public works infrastructure of life systems in most of the older American cities, that is, their decaying bridge and tunnel systems, crumbling highways, obsolete and overloaded waste water and sewerage treatment facilities, and worn out water and sewer mains, etc. all suggest a variety of new, potentially disastrous kinds of possibilities. The recent bursting of one of the major water mains in Jersey City not only indicates this kind of problem can occur, but suggests the situation this city would face if the talked-about collapse of one of the large tunnels or aqueducts bringing water into New York City were to occur.

(Parenthetically, we might note we have primarily mentioned the newer disaster agents which might be involved. We have said nothing of the greater vulnerability in the modern world of what might be impacted, e.g., the consequences for computer systems if they cannot function properly as a result of a variety of potentially destructive agents.)

At any rate, our general point here is to stress the certainty we will have more disasters in the future than in the past, and their effects are likely to be greater than before, at least insofar as social disruptions and economic or property losses are concerned. This is insured by the new technological disasters we have created for ourselves, along with the complications or variations we have added to new threats, in urbanized and industrialized societies. If all this is true, our disaster preparedness planning ought to look more towards the future than the past. Unfortunately, as we shall elaborate later, there is a tendency in planning to use past and limited experience as guidelines for the future.

In one sense, there also is nothing new about disaster planning. All of us have heard of the story in the Bible, in the Book of Genesis, about Noah and his ark. Mythical or real, the description of Noah's activities in anticipation of a great flood, is about the first recorded account in the Western World of preparedness planning for a disaster. To be sure, there were some unusual features involved; for example, the warning source might be considered as even more legitimate and reliable than the U.S. Weather Service. But otherwise, the account depicts many of the elements which might be involved in preparedness planning, namely, the advance warning of a population, the stockpiling of needed resources, the setting of priorities on what should be done, the evacuation of people

by family units to a place of safety, and so on.

However, while there is nothing new about planning for disasters, there is a major difference possible between present-day and past preparedness planning. For the last three or four decades, planning has been able to draw upon a body of social science research on human and group behavior in disasters. In the last 30 years, social scientists (in particular, sociologists) have undertaken hundreds of studies of how people, organizations, communities, and societies prepare for, respond to, and recover from natural and technological types of disaster agents. We now know quite a lot about social behavior in those extreme collective stress situations known as disasters. Given this knowledge, we have the opportunity to far better prepare for disasters than ever has been possible in the past. Presumably conferences such as this one are efforts to take advantage of such an opportunity, although in many areas of life, including most of the business and industrial world, little is being done so far by way of preparedness planning.

#### Four Themes about Disasters and Planning

The rest of my remarks are organized around four themes which are derived from the social science studies we have just mentioned.

First, we will observe that disasters have been found to be qualitatively different from smaller emergencies. A disaster is not simply a large scale accident or emergency. Ironically, to plan on the basis that there is only a difference of degree involved, is to increase the possibility that a minor emergency will be turned into a major disaster.

Second, again basing our remarks on the social science literature, we will emphasize that preparedness planning can be no better than the assumptions it makes about human and group behavior under extreme stress. We will particularly note that the planning can be no better than the knowledge base on which it rests. Regretably, much planning rests on misleading common sense notions or a very limited prior experience of a disaster.

Third, social science studies have shown that certain kinds of disaster planning are little if any better than no planning at all. This is particularly true if planning is solely equated with the production of written disaster plans. We will stress that at best, a written plan is a part and only a part of good disaster preparedness planning.

Fourth, and as a final theme, we will note that social science research indicates that there are identifiable principles of planning. To be sure, each disaster has unique aspects and there may be some different problems occasioned by different disaster agents in different types of communities. Nonetheless, it is possible, in fact, quite valid to approach disasters and disaster planning as generic phenomena, with similarities across different agents and situations being far more important than the differences.

## The Nature of Disasters

Much so-called disaster planning is undermined or weakened by a failure to correctly grasp what is involved in a disaster. It is often mistakenly assumed that a disaster differs only in degree from an accident. Thus, many see disasters as merely large-scale accidents.

Almost all organizations learn on an everyday basis to deal with minor emergencies. For some, such as the public utilities, fire and police departments, hospitals, railroads and airlines, some parts of the chemical industry--such responses to accidents are a normal part of their everyday activities. Often these organizations become quite good at dealing with such minor crises. Personnel become experienced at handling them. Unfortunately, this often leads to a belief, to paraphrase some police officers, that a disaster is merely a very large-scale traffic accident. In a recent nationwide study our Center conducted of acute chemical disasters, we frequently encountered the notion, voiced in particular by chemical industry personnel, that preparedness for acute toxic releases, chemical explosions, and other such mishaps is but an extension of everyday corporate health and safety measures. In another study of the delivery of emergency medical services (EMS) in large mass casualty situations, we were repeatedly told by EMS personnel that special preparedness planning was unnecessary because the provision of EMS in disasters was but an extension of the providing of EMS in daily operations, the only difference being one of degree.

These and similar views, often strongly voiced, are simply wrong. In a disaster there is a difference of kind, not just degree compared to what goes on in an accident or minor emergency. A disaster involves not just more, but something which is qualitatively different. This has to be kept in mind in planning for disasters, in training for them, in operating in them, and even afterwards in evaluating group or organizational activity during such crises. The accident cannot be taken as a little disaster, nor can the disaster be viewed as a big accident.

This is not only a distinction that has come out of research. Some organizations and some community sectors also recognize it in operational terms. For example, the public utility companies in this country in most localities carefully distinguish between accidents and emergencies; that is, everyday, localized breakdowns which can be handled by local resources and personnel they distinguish from disasters and catastrophes (statistically rarer events which require external aid because local resources cannot cope with the acute demands). Many utilities typically recognize a qualitative difference between emergencies and disasters; anyone involved with planning for or responding to such phenomena should also recognize and accept the difference.

The tendency to believe disasters are merely large-scale accidents is far more common among communities and organizations which have never experienced a serious disaster than among those which have. Familiarity with the functioning of groups in actual disasters can lead to an awareness of crucial qualitative differences between these situations and the ongoing, everyday activities of even organizations involved with emergencies.

Let me give four examples to illustrate some of the ways in which disaster and everyday and even minor emergency operations differ.

(1) In disaster situations, organizations are forced into more and different kinds of interactions than they have during normal times with other groups. The greater number of contacts is accompanied by new kinds of relationships. For example, business concerns may be dealing with social service agencies that probably did not know of one another's existences prior to the disaster. Local private groups may have to be coordinating their activities with distant and unfamiliar governmental bureaucracies.

In everyday times, new relationships between organizations develop slowly. There is seldom need to suddenly and concurrently establish links with multiple groups, often having local, state, regional, and/or national components. In a disaster, however, there is little time available to adjust, for example, to the blurring of interorganizational boundaries, or the informal sharing or pooling of personnel, tasks, and equipment--common features of major disasters, but not minor emergencies. Complicating such situations of greater interdependence is the sheer number of new groups with varying functions, capabilities and expectations that will be involved. Even a relatively moderate size disaster will force dozens, if not hundreds, of unfamiliar local and extra local organizations to work together on unfamiliar or new tasks that are part of the community response.

In short, disasters call for more and different organizational relationships.

(2) It is usual for organizations to lose some degree of their autonomy (direct control over their own functioning) in disasters. When a community's ability to function normally is seriously threatened in our society, responsibility for security and well-being usually becomes centered in certain civil authorities. The mayor, the police chief, the local civil defense or disaster agency head, or some other official can declare a state of "disaster" and assume control of disaster related activities in a given locality for a set period of time. (Parenthetically, however, we should note that martial law or rule, many stories to the contrary, has never been declared in American disasters and is extremely unlikely to ever be imposed. Civil control over the military is maintained even at times of disasters.)

As a result of this loss of organizational autonomy, things and activities which are taken for granted on a daily basis become problematical during a disaster. Even simple physical movements, such as entering or leaving one's own property, may be restricted by police lines or an evacuation order. In some disasters, such as chemical incidents, site control may actually be vested in some outside agency such as a state or regional hazardous materials response team, or the federal EPA or the U.S. Coast Guard. In other instances, even within the private sector, corporate or higher headquarters will intervene at times of disasters and assume responsibilities, make decisions, or set policies which normally would be the sole prerogative of the local plant, office, or operation.

In short, organizations can have their autonomy pre-empted in disasters in a way which will not occur during minor emergencies.

(3) Performance standards for organizations may have to change drastically in disasters. What is appropriate in normal times or even minor emergencies often becomes less relevant in the changed context of disasters.

For example, swift response is an absolute necessity for fire services operating on an everyday basis when responding to structural fires. This is true whether the fire organizations are public or private. But dealing with unidentified chemical substances or materials whose properties are not thoroughly understood, requires a very different response on the part of the firefighters. Delaying the response until the situation is clarified is proper under the circumstances. Some fire departments using everyday performance criteria have turned minor chemical incidents into major chemical disasters. Similarly, EMS services handling large numbers of casualties must shift from their everyday emphasis on quick response time and swift delivery of patients to hospitals (everyday and emergency performance criteria) to attempting triage of victims and judicious distribution of injured persons to a number of area hospitals (disaster performance criteria) so as to avoid overcrowding at any one emergency room and the risk of long waits and substandard medical care. EMS systems operating by everyday standards under the pressure of increased disaster-related demands have badly botched responses to mass casualty incidents by emphasizing speed of response and using "snatch and run" procedures. In the same way, maintenance of production lines or continuation of office routines become less meaningful performance standards during disasters.

Disasters call for different types of organizational performance than do minor emergencies.

(4) The public and private sectors have to work much closer together in disasters than they normally do. An emergency is often something which can be handled within the confines of an organization, or coped with by the routine responses of the local emergency organizations such as police and fire departments. In such situations, there need not be much meeting or unusual crossing of the boundaries between the public and private sectors. A disaster, instead, involves the extraordinary mobilization of public community resources, and often the preempting of some private rights by public rights. For instance, unrestricted entry onto private property, normally very limited on an everyday basis, is quite allowable under disaster conditions--even the destruction of some of that private property for the larger community good is permissible without negative consequences. Similarly, the not altogether strictly legal requisitioning of private goods or equipment for the public good can become very acceptable behavior in a major disaster. Lest this kind of action be thought of as only involving the public intrusion upon the private, it should be noted that private personnel and resources are often freely given for public purposes at the height of a disaster. In fact, there may be private expectations and demands for goods and services from the public sector which would not even remotely be thought about in ordinary times.

In short, the line between the public and the private can get very blurred at times of disasters.

Thus, in a disaster situation, organizations are often faced with a whole new set of circumstances; they may have to relate suddenly to more and different kinds of groups; they may have to adjust to losing a part of their autonomy; they may have to apply different performance standards; they may have to operate in a closer public and private sector interface.

For these and other reasons, it is ill-advised for organizations to think of disaster-related demands as implying only "more of the same" in comparison with everyday or even minor emergency demands. To function efficiently and effectively, organizations must be in tune with their social environment. The environment changes quickly and drastically in a disaster, and organizations have to recognize this fact in their disaster preparedness planning and response.

#### Assumptions about Behavior under Stress

Preparedness planning can be no better than the assumptions that it makes about individual and group behavior in disasters. Unfortunately, most planning is usually undertaken on an ad hoc basis and/or extrapolated from the most recent limited disaster (or minor emergency) experience of the organization or community. The planning, in other words, is not based on any systematic knowledge about behavior in disasters.

This would pose no problem if, for example, the common sense notions and assumptions made about disaster time behavior were valid. However, social science studies in the last decade have seriously questioned common expectations about disasters. In fact, as we shall note, the systematic research has consistently shown that many popular views about disaster behavior are wrong. Obviously, any preparedness planning which assumes incorrect views about the anticipated behavior cannot be good planning.

Similarly, it is not possible to adequately prepare for disasters solely on the basis of one or two personal experiences in disasters (or even worse, in minor emergencies). There are dangerous limitations to such an approach. Officials are unlikely to have direct personal experience with very many disasters. Thus, the idiosyncratic features possessed by any particular disaster may be taken as universal characteristics. There is also a tendency to generalize from the experience of one or a few specific disaster agents to the full spectrum of community catastrophes, but the sample used is really too small to allow such extrapolations. Also, it is never easy for organizational personnel to make impartial evaluations 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. Finally, planners show a strong tendency to become fixated on the past rather than to imagine what might happen in the future. Just as it is said that generals learn well to fight the last war, so disaster planners too often learn well to deal with the last disaster they



encountered, making them very vulnerable to the newer or different kinds of threats we mentioned earlier in the paper. Most important of all, many personal disaster experiences simply become "war stories" and are not analyzed for learning purposes. Just as "war stories" contribute nothing to military strategy and tactics, typical emergency or disaster "war stories" will likewise add little to the strategy of community and organizational preparations for, and responses to, disaster situations. Preparedness planning can help generate effective and efficient responses only when based on systematic knowledge about human and group behavior under stress.

The assumptions have to be correct for valid planning. What assumptions are usually made? How valid are the assumptions?

Typically, community officials and organizational planners, especially if they have had limited or no disaster experience, expect a great amount of personal and social chaos and pandemonium in disasters. Thus, there is the belief that there will be panic flight, hysteria, and other actions viewed as "irrational." Likewise, it is believed that there will be social disorders, 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 disaster planning and even response patterns implicitly (if not explicitly) assume that helping organizations will have to function in a situation characterized by panic, antisocial 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. Rather than collapsing, people frequently rise well to the personal challenges provided by the direct impacts of disasters. The opposite but common expectations are simply mythological beliefs.

There may be expectations of panic, but what almost always occurs is rather reasonably oriented 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 greater 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 prosocial 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; if the looting occurs it will be done by outsiders rather than the impacted population itself. (In some very exceptional situations, where there is a general crisis rather than the impact of a disaster--as could be seen in the second major New York City blackout--the conditions can be ripe for the emergence of localized rioting, if no genuine threat to safety and survival is perceived.) In the typical disaster, however, 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 height 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 or coworkers, 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, assistance by kin, and other informal initiatives stand out.

Disasters obviously cannot make everyday personal or social pathologies disappear. If a population in the preimpact period contains a high number of disoriented individuals, if an organization exhibits much routine stealing, or if a community is wracked by bitter conflicts, the same picture will be seen during a disaster. Thus, if it is usually not safe to leave goods unattended in a neighborhood, they will not suddenly become safe during a catastrophe, except perhaps temporarily at the time of greatest danger. If there is open intergroup strife, the differences will continue to manifest themselves in a disaster, although at the height of the disaster, there may be a slight reduction or suspension of overt conflict.

Past behavior is still the best predictor of future behavior. Knowing how the population, neighborhood, organization, or community behaves in preimpact times allows considerable prediction of trans- and post-disaster behavior. Our point, however, is that a disaster in itself does not markedly increase social pathology, disorder, or conflict.

Good disaster planning must correctly assume how people and groups will behave under extreme community stress. We have indicated research shows that human beings react relatively well in disasters. Their behavior will be generally controlled, pro-social, and marked by initiative. Preparedness planning should assume this will be the case; if it does otherwise, it cannot be good planning.

In stating this, we do not intend 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 or coworkers might find victims in a search and rescue effort, but they cannot give blood transfusions or perform surgery. Similarly, such activities as preimpact storing of

supplies and equipment, clearing major debris, building of temporary bridges, testing for water contamination, and restoring electric power are not tasks that individual victims or even small groups of neighbors or coworkers can perform very well. Furthermore, many tasks such as the issuing of warnings, the assigning of action priorities, the mobilizing of needed resources, the integrating of the convergence of outside relief help, 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 role helping organizations play in disasters.

Of course, there are also misconceptions about group or organizational behaviors, as well as individual behavior at times of disasters. Many problems which are thought to be typical, such as the loss of internal organizational control, very rarely occur. But other problems which frequently surface in disasters are usually either not predicted or underestimated, such as the difficulty of assigning authority for new disaster tasks. But we cannot in this paper examine both the mythological beliefs and the real problems of organizations in community disasters. However, we hope we have indicated something of the false assumptions about individual human behavior which underlie, and thus invalidate much disaster preparedness planning.

### The Planning Process

We have already indicated that preparedness planning cannot be very good unless it correctly visualizes the nature of disasters. To plan as though a disaster were but a major emergency is to court trouble. Similarly, preparedness planning cannot be any better than the assumptions it makes about behavior under stress. If planning makes incorrect assumptions, it will of necessity be poor planning. However, there is a third source of difficulty for much of the disaster planning currently undertaken. This is the failure to recognize what is essentially involved in planning.

A major 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., whether short- or long-term, 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, positioning, 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 which should be undertaken to improve the efficiency and effectiveness of a community disaster response.

We have found in our studies around the country that some of the best preparedness planning exists in organizations and communities which do not have much by way of written plans. For example, the sponsor of this conference, the American Red Cross organization in Greater New York has excellent disaster planning, but it has very little by way of a formal, written plan. On the other hand, hospitals to obtain accreditation need to have written disaster plans. However, despite the existence of such documents in almost all American hospitals, disaster preparedness is seldom the strong point of many such institutions.

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

### Principles of Planning

Good planning requires accepting the idea that there are principles of planning. Few would explicitly deny this idea. Implicitly, however, 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 differs biologically from any other. Nonetheless, the medical world has little difficulty in identifying general symptoms of illnesses, 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 communities will result in some differences in disaster responses. However, such differences are less important than the pervasive

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, are often 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.

1. 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 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. On the other hand, if there is always a degree of tension between local and extra-local organizations, be they in the public or private sectors, this ought to be recognized and addressed in some way in preparedness planning.

2. Disaster planning ought to aim at evoking appropriate actions. At times, planning appears primarily as a mechanism for speeding up response to a crisis situations. 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 response 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.

3. 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 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 behavior 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 reflect the dictates of some planning.

4. Another important principle of good preparedness planning is that it should focus on general principles and not specific details. There is a tendency, whether in developing written plans, conducting exercises, thinking about possible hazards, etc. to elaborate considerably. In fact, there is a strong temptation to go into very specific details. This is the wrong way to proceed, and there are several reasons why this is a poor path to follow. It is really impossible to plan for everything. Situations are constantly changing and specifics quickly get out of date. Too many details leave the impression that everything is of equal importance when that is clearly not the case. Complex and detailed planning is generally forbidding to most potential users and will end up being ignored. Thus, good disaster planning, while it cannot totally ignore specifics especially at the organizational level, should focus on general principles, and in that sense ought to produce simple rather than complex disaster plans. But even apart from written plans, all disaster planning should aim at general principles rather than specific details. For example, in the light of what we said earlier, good preparedness planning will take into account that involved organizations will be working together with new and more groups than during normal times; but no effort should be made to specify in planning all the possibilities and combinations of interorganizational contact which might conceivably develop.

Other principles of good planning have already been implied, such as that planning must rest on valid knowledge and not myths or misconceptions, and that planning is a continuous process and not an action with a definite end such as the production of a written document. We shall not elaborate on these points any further but conclude with another principle that may be the most important of all.

This is the basic point that good planning always involves a degree of educational activity. It involves teaching not only oneself but others what is expected of them. A frequent error in organizational disaster planning is for planners to forget that they will have to inform, if not to educate, others (people and groups) about their respective roles under disaster circumstances. Knowing what oneself, a few key officials, or one's organization will do is not enough. The counterpart roles of others must be clear to facilitate coordination and an integrated response. Of necessity, this requires teaching others what will be expected of them.

In a more general sense, my remarks have been intended to be an informing and educating activity. On the basis of what research has shown, we have tried to indicate what you (and others) will face in an actual disaster, and how you are likely to behave in such a situation. We have attempted to suggest methods of preparing for disasters, and what principles of planning ought to be uppermost in such preparedness planning.

In fact, if thinking about disasters and disaster planning is itself a form of preparedness planning, what we have done this last hour, at the very least, is to initiate organizational and community disaster planning for all of us assembled here.