CHAPTER 5.

ORGANIZATIONAL RESPONSE IN THE EMERGENCY PERIOD

In this part of our volume, we shall focus on the activities of various governmental and private organizations as they attempted to respond to the demands created during the first two weeks after the disaster. For descriptive purposes, we will divide that time period into two segments: (1) The first three days after impact and (2) the remainder of the fortnight. In this chapter we will describe the organizational response in the first three days. In the following chapter, the later emergency time period organized activities will be depicted, as well as some specific task-related problems.

The first violent earthquake disrupted in a major way a normal, early Thursday morning in Mexico's capital city and launched a massive organizational and individual response to the emergency. In discussing the nature of this response during the first three days, we will make a rough chronological presentation of some major decisions, activities, and problems. The picture that will emerge is one of a very decentralized, but intense, pattern of organizational activity.

At one level, the response can be characterized as lacking coordination, involving duplicative efforts, and resulting in some organizational conflict. Interestingly, some of our Mexican informants stated that there also <u>appeared</u> to be a substantial amount of social "chaos". Certainly for some organizations and groups, particularly as seen by officials at middle and lower levels of organizational response, such a description of what was happening might seem manifestly true. But as we shall discuss later, while much of the response was certainly ad hoc in nature and was not based upon prior planning, it was not chaotic in any meaningful sense of the term.

In fact, at another level the response <u>did</u> involve extensive and effective activities by a number of federal and district agencies as well as those from delegaciones. Many of the actions were undertaken relatively autonomously and independently of what other groups were doing. However, within these involved organizations there was sometime the development of internal coordination through time. Furthermore, there were also pockets of interorganizational integration among some of the responding groups. Therefore, any depiction of difficulties of coordination must not obscure the extensiveness and intensiveness of organizational activity, as well

as the massive individual coping and helping behavior that will be discussed in Part III of this report.

The organizational response of the Mexican public and private agencies was not only massive, but also complex. Within the public sector, agencies and departments from the national, federal district, and delegaciones levels were involved. In addition, a great variety of private agencies, businesses, and voluntary organizations also launched major activities, and new citizen groups also appeared on the scene. Furthermore, millions of individual and group volunteers concurrently launched a mass assault on the problems of immediate search and rescue, casualty care, and providing aid to the victims. The Mexican government additionally had to respond to more than 250 offers of aid from foreign governments, international agencies, and nongovernment organizations (Quake Highlighted, 1986: 7). In order to better understand the nature of the response during the first three days, it is important to keep in mind the complexity of this multiple assault upon earthquake generated problems.

Initial Governmental Actions

Within a few hours after the initial earthquake of September 19, the President of Mexico along with the Mayor of Mexico City visited some of the more affected areas. He also received some reports, which though incomplete, indicated that there had been substantial damage in various neighborhoods, but especially in the downtown area. The President then ordered that the highest priority be given to search and rescue for victims, and the caring of casualties including the handling of the dead.

Also, within the first few hours, the national disaster plan, DN-3, started to be implemented. The Secretary of National Defense, under the authority of the plan, and responding to information from 25 out of 36 military zones about damages suffered in those areas, began to mobilize army, marine, and navy units to respond to the earthquake (although some elements, because of where they were situationally located, got immediately involved in informal search and rescue prior to the formal implementation of the plan). One unofficial report indicates that in this early stage in Mexico City about 4,100 soldiers were mobilized along with 25 ambulances, 500 trucks and 600 motorcycles as well as other equipment (Opera el Plan DN-3, 1985: 7). In addition, about 2,000 marines were sent by the Navy to several impacted sites (Perez, 1987: 5).

However, after at least three more Presidential helicopter and bus tours of affected areas and discussions among very high national governmental officials, it was soon decided that there might be limitations and problems to the implementation of the DN-3 plan in the capital city itself. Part of the reasoning appears to have been that giving full responsibility to the military for responding to the disaster was not feasible in the case of Mexico City; the

sheer magnitude of the problems, the volume of needed resources, and the complexity of coordinating a massive organizational response in a vast metropolitan area was rather different than if the earthquake had impacted a rural area or small city.

Also, according to some sources, perhaps the complications for civilian authority that might result from having the military assume control in the capital city played an important role in the decision (for a discussion of some Mexican perceptions about the unwillingness of the civil authorities to turn the emergency response over to the military, see Zinser, Morales and Pena, 1986: 105-112; see also, Robinson, Franco, Castrejon and Bernard, 1986: 113 which suggests that there was an intense dispute at the federal cabinet level between the military and civilian politicians over the full implementation of the DN-3 plan).

The role of the military was soon restricted in Mexico City to initially providing security and crowd control at rescue sites; later soldiers were also used to make damage assessments. But outside of the capital city, the DN-3 plan was implemented in impacted localities such as Jalisco where the military organized the relief effort, set up camps, provided medical facilities and distributed meals (Palacio, 1986: 32). As of September 20 the Secretaries of Defense and Navy announced that more than 50,000 personnel had participated in the response effort up to that time.

Whatever the prime or major reason, the general direction of the emergency response in Mexico City was not given to the military. Instead it was lodged within a new, ad hoc, emergent entity consisting of two multidepartmental commissions under civilian control. Eventually responsibility for overall coordination of emergency response within Mexico City was placed within the Mayor's Office in the DDF.

Two ad hoc coordinating committees were created by the President during the two days after the disaster. First, on September 20, he established the National Emergency Commission (CNE) and appointed the Secretary of Government (Gobernacion) to be its chair. The CNE was composed of representatives from the Secretariats of National Defense, the Navy, Foreign Relations, Health, Education, Communication and Transportation, Planning and the Budget, and Urban Development and Ecology. It also included a representative of the DDF. This commission was intended to coordinate the governmental response to the earthquake in areas outside of Mexico City.

Second, a Metropolitan Emergency Commission (CME) was also established. It was headed by the Mayor of Mexico City and centered within the DDF. This commission was authorized to coordinate emergency operations within the federal district. The commission was divided into a number of task related subgroups, such as those for inspection and evaluation of buildings, medical

and health services, public safety and rescue, heavy equipment for rescue and demolition, supply of basic products, shelters, feeding and donations for the public, legal matters concerning the dead and damages, hydraulic services, urban services, collective transportation, etc. Furthermore, representatives of a variety of federal level agencies, including the Secretariats of the Government, National Defense, Navy, Planning and the Budget, Agriculture and Water Resources, Education, and Communication and Transportation were also appointed to the CME. As formally delegated, the DDF was to be in charge of the emergency response, with the Mayor's office assuming overall direction.

A number of observations regarding this emergent disaster management system may be made. First, it was not until after about three days that both committees were actually operating, which limited the effectiveness of the CME in coordinating certain early response measures, for example, the initial organized search and rescue activities. Second, the complex relationships between the federal and metropolitan levels can be seen in the inclusion of representatives from both segments on both committees. Third, partly due to the lack of prior disaster planning by the Mayor's office, the response was inherently ad hoc in nature. It was also contingent upon responding to situational events, given the lack of prearranged strategies or established patterns of authority for interorganizational linkages.

Apart from the lack of any prior civilian disaster planning, the ability of both the federal government and the DDF to perform a major coordinative role during the initial emergency period was impeded by a number of factors.

First, many governmental buildings were destroyed or badly damaged. For example, the Secretariats of Budget, Communications and Transportation, Labor and Welfare, Agriculture and Water Resources, Commerce and Industrial Development, and the Navy as well as the attorneys for the DDF and Consumer Affairs all had buildings destroyed in which they had offices. Other units, such as the Secretariats of Government, Urban Development and Ecology, Health, the Mexican Institute for Social Security, and CONASUPO also suffered damage to their office structures (Perez, 1987). In fact, one estimate is that 120 government agencies lost all or part of their facilities including files used for everyday operations. Therefore, during the initial part of the emergency period, considerable attention had to be given by these agencies to simply assessing their own damages, aiding their employees who were victims, and procuring or salvaging resources.

Second, the critical tasks of damage assessment and early information collection were hindered by the diffuse nature of the event, the massive destruction of property, the difficulty of movement through debris strewn areas, and the disruption of the communication system. As a result, relevant information could only

be gathered with great difficulty and an overview of the level of destruction and critical areas for response was not obtainable in the initial period of the emergency. Such information, of course, is critical if efficient mobilization and integration of response activities is to occur.

Therefore, during the initial three days of the event, both the national government and the DDF were involved in the difficult processes of gathering information about damages and problems, and developing an emergent structure to pull together the overall emergency response. By the third day the structure was in place. The CME established an Emergency Operations Center (EOC) at the National Palace. Each evening, representatives of the various DDF and federal agencies would meet and present reports on actions taken and plan for future activity. These meetings were held throughout the emergency period.

However, it must be noted that this EOC was not similar to the type of arrangement found in the best prepared communities in the United States (see Wenger, Quarantelli and Dynes, 1986). In other words, it was not a facility that was staffed "around the clock" with representatives of various responding agencies and in which communication and decision-making were coordinated. A number of responding governmental groups, such as PEMEX, Public Works and the transportation agencies did have typical 24-hour EOC's for coordinating their own, internal response. But no such arrangement was established at the federal level to provide continuous supervision and integration of the ongoing activities.

Initial Response of Organizations

Although the DDF required two to three days to develop a structure to coordinate the response, it does not mean that no collective and individual responses to the disaster were taking place during that time period. They were occurring extensively. Millions of volunteers and hundreds of public and private organizations launched a mass assault on the human and social needs and demands created by the earthquake. The foremost issues and problems confronting the responding groups during the first three days included the more formal undertaking of search and rescue, the delivering of emergency medical care, the giving of emergency shelter, the providing of food and especially water to residents of the city, the carrying out of damage assessment, the maintaining of security of property, the controlling of traffic and crowds, and the handling of the dead.

With the damage spread across a wide area (even though there were certain points of extreme concentrated destruction) literally thousands of sites required attention. Necessarily therefore a great deal of the response was situationally specific. Given the lack of planning at the local level for an event of this nature, organizations and individuals initially set themselves to attending

to the immediate problems present in their own immediate areas, almost to what they could literally see before them. Furthermore, public agencies and departments with traditional domains and responsibilities also had to ascertain the condition and needs of their own operations, before they could concern themselves too much with what was happening outside of their own groups.

Because of the diffuse and response specific nature of the organizational activity, it is somewhat difficult to generalize about the experience of the various organizations. While the lack of overall coordination of the response affected all organizations to a degree, it was particularly pronounced for some, while other groups and agencies managed to engage independently and without serious difficulties in earthquake related tasks.

In order to provide a sampling of the varied response activities that were generated during the first three days, we will briefly depict the actions of a few organizations. These short descriptions are offered only as examples of the nature of the tasks and the types of problems that were occurring for the immense number of responding groups. Since we were primarily interested in the activities of the "Mayor's Office", and it involved multi group activities, we will first describe in most detail the response within one delegacion. Then we shall depict the response pattern within a major service sector, those involving the lifeline organizations. We then briefly describe the emergency time response pattern of one major organization with numerous subdivisions, PEMEX. We conclude with a very selective summarization of what a variety of other individual public and private groups did in the first 72 hours after the initial earthquake.

It should be noted that while our focus here is on group behavior, many activities by individual volunteers and actors were often intermingled with the organizational actions. In addition, all of the organizations we discuss undertook some new emergency time tasks and extended their work activities into nontraditional areas. Furthermore, as already noted, only limited intra and inter organizational coordination was ever achieved. Nevertheless, most of the important disaster generated emergency tasks were relatively effectively, if not efficiently, handled.

a. The response at the level of the delegaciones.

The one delegacion we will describe was located in one of the most severely damaged areas of the city. When the staff workers arrived at their offices on the morning of September 19, they had little comprehension of the magnitude of the destruction or the degree of activity that was necessary. One of the first tasks was the acquisition of information, primarily through damage assessment. As one staff member said in an interview:

> We organized ourselves and volunteers into brigades to go and bring back information about what had to be done. But when the brigades came back, the information we received was of duties that were impossible to carry out; there was simply too much to do. The sub-delegacion of Works went out with their trucks and shovels, but it was overwhelming.

This damage assessment task was made difficult because of the lack of interaction and information from other agencies and groups. At first, this delegacion was informed that the DN-3 plan would be implemented.

> I wondered what had happened to the DN-3 plan. It was the second day, and still no one had come. We were told to relax, that the plan would go into effect, and that their people would come, but they did not. I don't think people even knew about the plan, or maybe they thought it was already in effect. Anyway, no one came.

The problem of a lack of any integration of a vertical nature (that is, up and down between organizations at different levels) with the DDF was fairly severe during the first two to three days. For instance, on the evening of the first day, a group of men with communication equipment did arrive to establish a link for the delegacion to the DDF. But this did not lead to any actions by the group that came as a result of policy making or directions from higher levels in the organization of which it was structurally a part. As one respondent in an interview noted:

> There was no coordination with the Department. On the first two or three days the delegacion was not able to carry out its duties, but the DDF did not take over, either. There was a complete absence of a line of authority or coordination. Supposedly by that time the DN-3 plan should have gone into effect, a desk established for sending out directives, a camp of action, a hierarchy, and there was none. So many of the efforts were in vain, because everyone---like a hundred institutions, education, universities---went out to the streets doing things without any direction.

But while this was the expressed perception, they were in fact doing very relevant things. Within this delegacion, for instance, the workers commenced a number of important activities. Public works personnel were involved in rescue and debris clearance. Those from the water department worked at inventory and repair of

the system. The building housing the delegacion was used as a temporary morgue. The staff began the collection and distribution of food and relief supplies. Shelters were established wherever victims gathered. A census of the affected population was started.

One task, that of developing a list of missing and dead persons, proved very difficult. It eventually took the delegacion a number of weeks to complete the list. It was also a task beset with problems and hindered by the lack of linkages across horizontal boundaries, that is from one organization to another organization. For example, workers from the delegacion were denied access into areas by army personnel who had cordoned the most severely damaged locations. Staff members even were not able to gain access to LOCATEL (the missing persons bureau). Somewhat imaginatively, they circumvented this problem by disguising themselves as stretcher bearers and gaining access to the restricted areas to carry out their census.

With regard to the other tasks, the problems experienced were similar to those found in most other disaster settings. The compounding influences in Mexico City were a lack of official information and an absence of formal integration of various activities.

> The information I had, I received from the radio. I got hold of a radio, because it was the only thing to do...We had an enormous difficulty with communication and the movement of vehicles. On one side, vehicles were not being permitted to pass. On the other side, vehicles could not pass because of fallen buildings. So there were many areas, houses, buildings, where help was truly needed. But there was no census really to say which were the requirements for salvage. Some areas went for many days without having a brick turned over.
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> Many shelters were established and it was difficult to maintain a census of just how many shelters there were because all kinds of church groups and organizations were offering their good will, offering their churches, schools, sanitariums, whatever, as shelters. One morning we woke up with 42 shelters, and in the afternoon there were 272!

In undertaking the task of shelter management, this delegacion assigned the duty to social workers who in turn attempted to integrate the activities at the spontaneously established shelters. Volunteers, who were not working on the census of missing persons, were placed in the shelters to live there and coordinate the

feeding, monitoring the sanitary conditions. etc. Through the first three days, the delegacion attempted to consolidate the many spontaneous shelter arrangements that had emerged into a few major centers located at community and sports centers.

A massive convergence of supplies and personal upon this delegacion also presented some problems. Unsolicited aid such as food, clothing and medicines poured quickly into their office. As one informant noted, within hours the goods were stacked three meters high in the auditorium. The medical services division of the delegacion was placed in charge of making an inventory and distributing the goods. They were assisted by many individual volunteers. But the effort was basically uncoordinated.

> One minute we would have no food, and the next it was piled so high that we couldn't store it. We would distribute it immediately to an area, and when we arrived to give out the food, other private agencies would be there. There was no coordination of this activity during the initial period.
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> We never really had a shortage of food. In fact, it was the opposite. Tons of food arrived from restaurants, institutions, whatever. The shelter people would come with a truck of food, and in an instant, there would come another truck. People just took what they needed.

The delegacion was also inundated with volunteers, a common problem in many disasters. In this case the major difficulty was in determining who might be useful, what skills they possessed, and how they might be utilized.

During the initial emergency period, this delegacion did receive aid from personnel from five other nearby delegaciones that had not been as severely damaged. However, even this needed assistance resulted in problems between previously autonomous units.

> On the second day, people from other delegaciones, where nothing had happened came to support us. Apparently, they were ordered to come by the DDF, but it was difficult, because we did not know each other. The rest of us had been working together. They were asking what to do, where is this and that? The help was not very defined with regard to equipment or personnel. There was little order or chain of command.

There were some instances of linkages with other groups at the same horizontal organizational level. For example, in undertaking the census, the delegacion was assisted by representatives of a university. However, such kinds of contact was generally absent.

The only semblance of vertical integration (communication or interaction up and down within the same organizational structure) with the DDF was what we had described earlier: the arrival on the first evening of a team of communication personnel. However, they arrived without prior notification and simply proceeded informally to set up in the building. The workers of the local delegacion did not know who they were, or what their major purposes was, except that they did provide a linkage to the outside world.

The officials and staff members of the delegacion were not aware of a formal declaration of a state of emergency until they heard via mass media reports a statement of the President of Mexico. He asserted that control of the emergency response would reside with the DDF; only then did they clearly understand where the responsibility was being given. Of course this lack of knowledge had not hindered their prior undertaking a number of difficult and important disaster related tasks.

In summary, this delegacion engaged in an intense ad-hoc pattern of responding during the emergency. They also did so during the first two to three days without the aid of either prior planning or centralized coordination from the DDF. In terms of both their vertical and horizontal operations, they generally were autonomous from other organizations. The important matter of providing shelter, food, rescue, water supply, damage assessment and census taking was vital to the residents in their own delegacion. However, this group was not part of an integrated organizational response system, and its members were not able to coordinate its activities with those of related organizations.

b. Response of lifeline organizations.

The earthquake had a pronounced differential effect upon one sector, that involving the various lifeline organizations.

For some organizations, such as the telephone company, the damage and disruption were severe. The main building of the system partially collapsed. About fifty trunk networks were extensively damaged, and 750 multiplex equipment units were destroyed. Also, six operations centers for long distance operations, six buildings, and all manual operation centers were rendered unusable. In addition to losing all national and international long distance lines, 14,500 local lines were cut (Bohlen, 1986: 11).

Similarly, electricity was lost to nearly half of the city after the first earthquake. Over 800 transformers, 28 kilometers of high tension lines and 32 kilometers of low tension lines, were damaged.

For these lifeline organizations, their primary response was limited to a massive effort to restoring their own system. In some cases the response was notably effective. For example, electrical service was restored everywhere within 72 hours except to the most severely damaged areas of the city.

The water system also suffered significant damage. The Chalco-Xochimilco aqueduct which supplied about half of the water to the city was lost. Fifteen thousand of leaks were formed in the piping system, 80 in the primary water networks and 1,420 in the secondary network (Perez, 1987), and water distribution was lost in the most heavily damaged areas of the city. As we will note later, nearly 40 percent of our sample reported interruption of their water supply.

Other lifeline organizations fared much better. There was no significant damage to Mexico City's highways, railways, ports or airports. Bus service was disrupted in about 40 percent of all routes, due to debris clogged streets, and about 300 buses were destroyed or damaged, but generally full service was restored within a short time. The subway system suffered very minor damage and was operating at close to full capacity within six hours and was fully operative by the second day.

The activities of all lifeline organizations during the first three days had a number of common characteristics. First, there was a massive and complex response involving organizations from the federal, district, and local delegaciones levels. While there was some coordination of activities across similar lifeline agencies who normally interact during their day-to-day operations, during the initial period the agencies tended to act autonomously. For example, there were instances of workers from the federal, district, and local levels all appearing at the same site to repair the same damaged water pipes.

Second, the initial response of all the organizations involved damage assessment, information gathering, and an attempt to restore as much service as quickly as possible. For those lifeline groups that were the most severely disrupted, these tasks dominated their concerns.

Third, many of the other lifeline organizations---those less impacted---extended their emergency activities into areas that were not part of their traditional domain or usual functional responsibilities. They became involved in such tasks as undertaking search and rescue, providing emergency aid, distributing potable water, and assisting in debris clearance. Possessing large numbers of personnel and equipment, they rapidly became involved in nontraditional tasks. This extension of activities was particularly pronounced for such lifeline organizations as the subway system, the department of transportation, and the public works and streets departments. Also