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**INSTITUTIONAL AND ORGANIZATIONAL
ASPECTS OF NATURAL DISASTER RECOVERY**

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I. Introduction

In this chapter we look at the institutional and organizational aspects of the World Bank's involvement in natural disaster recovery, particularly its program for reconstruction projects in developing countries. The concern here is mostly with the human and social factors that enter into the various stages of the process inherent in implementing the program, rather than the formal and legal procedures and policies which have been described earlier. Our primary intent is:

- (1) to provide a conceptual and analytical framework with which to look at the program and the process;
- (2) to set forth a series of major substantive observations about the process;
- (3) to suggest some criteria which could be used for assessing the program; and,
- (4) to make some recommendations for the program and the process in the future.

Descriptively, what occurs might seem to be relatively simple. There would appear to be just two primary social actors or organizations in the process: the World Bank and the developing nation receiving the aid. They seemingly interact to agree to carry out a specific reconstruction program following a natural disaster. When the program is completely implemented, the process is presumably completed. Thus, for the purposes of this chapter, what might appear to be crucial in any disaster reconstruction program is the process of interaction that goes on between the World Bank and the receiving country.

However, this simple picture while not incorrect at a surface level fails to capture the social complexity of the phenomena in reality, the other organizational actors in the situation (such as the non-governmental organizations or NGOs) and the many problematical aspects involved in the process. To bring this to the fore, we will provide a framework that will suggest a conceptual and analytical approach to the program and the process. This framework draws ideas and concepts from the social sciences, especially sociology with its focus on group structures and functions. Also, we shall take into account the extensive literature on development as well as that on disasters, using the theoretical models and research findings produced to clarify the institutional and organizational aspects of natural disaster recovery in developing societies.

Since our usage and presentation of the research will necessarily be selective, the sources which provided most of the bases of our discussion and more information can be found in the following: for summaries of the literature on development, see e.g., Hyden, 1983, Fruhling, 1986, LeComte, 1986, Evans and Stephans, 1988, Harrison, 1988; on disasters see e.g., Dynes, 1974, Quarantelli and Dynes, 1977, Kreps, 1983, Drabek, 1986, Quarantelli, 1988a, Kreps, 1989; and on links between development and disasters see e.g., Krimgold, 1976, Cuny, 1983, Anderson, 1985, Kent, 1987, Anderson and Woodrow, 1989, Kreimer and Zador, 1989.

Our discussion will be both general (in the first part of the chapter) and specific (in the last part of the chapter). As to the former we will examine

such matters as the implications of viewing disasters as social phenomena, some relevant disaster planning differences between developed and developing societies, problems in the use of the concept of development in the disaster area, criteria for good disaster planning, how all phases of disaster planning are interrelated, and possible links between developmental planning and disaster planning. More specifically, we will discuss other matters such as the characteristics of, the major conditions for, and the context of the interactions between the World Bank and nations that receive reconstruction aid as well as some basic dilemmas that the Bank faces in such situations; also various aspects about intra and interorganizational behavior will be examined.

Within our social science approach we are primarily using the perspective of the World Bank rather than other possible stances. This is partly dictated by two factors. (a) Our information or data comes mostly from World Bank sources (e.g., interviews with officials, documents, etc.). We do not directly have the perspectives of the countries that have received World Bank reconstruction aid or that of other national or international organizations or NGOs also involved in providing disaster related assistance of any kind; neither do we look at what occurred as this might be seen by the citizens of the assisted societies or that of social critics of the current institutions (e.g., specific critics of Bank policies such as LePrestre, 1989 or general ones of developmental aid such as Hancock, 1989).

(b) We are interested in seeing what the Bank has learned individually and collectively from its experiences, at least when they are explicitly and systematically analyzed as we have attempted to do so for purposes of this chapter. Thus, while we will at times allude to possible non-Bank views, our description and analysis is primarily based on one rather than multiple perspectives. It should be recognized that even when a social science approach is taken, what is the data base can be validly derived from different perspectives of various actors and/or observers of a situation.

II. The Conceptual and Analytical Framework

Central to our approach are the key concepts of disaster planning and of development and the valid application of findings from the research undertaken up to this time. In the first part of this chapter, we will selectively note what is involved in these matters and possible qualifications that might need to be made. First, we discuss the concept of disaster planning, then the concept of development, and conclude with some possible limitations in extrapolating disaster research findings from developed societies to developing countries.

The concept of disaster planning.

Any disaster reconstruction activity should be seen as part of overall disaster planning. This is less a normative declaration than it is a statement about the way planning is treated in the disaster research literature. In fact, it is commonplace for researchers to both distinguish and to link four phases/aspects of disaster planning, namely: preimpact mitigation or prevention, preimpact preparedness, emergency period response, and postimpact recovery (National Governor's Association, 1979). As some have said, it is not planning but good disaster planning which is necessary; that requires undertaking measures in all four phases. A focus only on one, such as recovery, will have only limited effects because of necessary linkages between the stages.

Let us first note what could be involved in each phase and then indicate their relationship to one another.

1. Mitigation or prevention. This has to do with long ahead of time preimpact activities that are one of three kinds: (a) those that attempt to actually eliminate or reduce the probability of the occurrence of a disaster; (b) those that are designed to reduce the effects of a disaster; and (c) those that help to distribute the costs of disaster planning and disasters impacts. Examples of (a) would be land use management such as prohibiting construction in flood plains or the passage of laws that bar transportation of hazardous chemicals on highways going through heavily populated areas; of (b) would be retrofitting buildings to better withstand earthquakes or using fire retardant materials in structures in which large number of people might congregate such as stadiums; of (c) would be development of insurance programs for a larger population only part of which might be disaster victims or passing federal legislation requiring all communities to have a certain level of disaster planning which would be partly subsidized by national level funds (see Tierney, 1989 for a discussion of various aspects of disaster mitigation).

2. Preparedness. This has to do with activities to prepare for immediately impending disasters. Preparedness measures are closer to the onset of impact than mitigation ones and tend to be aimed at improving the emergency time response if a disaster were to occur (see Waugh, 1988 for a detailed listing). They include activities which: (a) might minimize disaster damage (such as the issuance of predictions or warnings of the approach of threats, or training people ahead of time on how to safeguard themselves at times of impact), and also (b) which could enhance response operations at emergency times (such as the prior stockpiling of food stocks and medical supplies or the conducting of disaster exercises or drills).

3. Response. This has to do with those actions that most closely follow disaster impact. Some are generated by the disaster event itself, others are created in the response itself to the occasion (see Dynes, Quarantelli and Kreps, 1981). Generally they include activities which are designed: (a) to provide emergency assistance (like the undertaking of search and rescue or opening up temporary shelters); (b) to reduce the probability of secondary damages (like shutting down electric power to prevent people from getting electrocuted from downed power lines or setting up roadblocks to prevent traffic jams on roads through which emergency help will be sent), and (c) to help speed the initiation of recovery operations (like the undertaking of systematic damage assessments or the setting up of emergency operations centers where coordination of the multiple organizations that will converge on the disaster site can be attempted).

4. Recovery. This has to do with the disaster relevant activities that are undertaken after the emergency period is clearly over in efforts to return to relatively normal functioning (at all levels from the individual to the society). They range from the providing of financial assistance, crisis or psychological counseling, and technical information (e.g., how polluted farm lands can be restored to production), to the restoration of major community services and the rebuilding of damaged structures and destroyed facilities, and to the passage of new laws or legislation which will facilitate rehabilitation and

reconstruction, or the establishment of new disaster relevant social institutions or agencies (for an annotated bibliography on recovery, see Quarantelli, 1989b).

It is important to note that while these phases can be analytically separated in reality, they are related to one another. In fact, in some ways instead of visualizing them in a linear pattern, they should be seen as involving a circle. Thus,

NOT: mitigation/prevention, preparedness, response and recovery

BUT:

Mitigation

Preparedness

Recovery

Response

The circle implies that disaster related activities in one phase can have consequences for later phases. Thus, for example, decisions about tearing down or shoring up damaged buildings during the response time period has implications for later reconstruction during the recovery period, in one case supporting, in the other case, not supporting later relocation. Or, a failure to enact regulations to prevent living in flood plains or coastal areas particularly vulnerable to hurricanes during the mitigation phase will necessitate developing warning systems and evacuation plans for residents of those areas in any preparedness activities. If this linkage between phases exists, it follows that any conscious disaster planning at any point should consider consequences for later phases.

This four fold distinction provides a general framework for approaching disaster planning. It should be useable in all societies. But to some extent this is dependent on seeing a disaster as a social and not a "natural" happening.

Many disaster researchers take the view that there is no such thing as a natural disaster. In actual fact, it is argued, all disasters are primarily the results of human actions. A disaster is not a physical happening, it is a social event. Thus, it is a misnomer to talk about natural disasters as if they could exist outside of the actions and decisions of human beings and societies. For instance, floods, tornadoes, volcanic eruptions, earthquakes, tsunamis, and other so-called natural disaster agents have social consequences only as a result of the pre-, trans-, and post-impact activities of individuals and communities. Allowing high density population concentrations in flood plains, having poor or unenforced earthquake building codes for structures, delaying evacuation from volcanic slopes, providing inadequate information or warnings about tsunamis, for example, are far more important than the disaster agent itself in creating the casualties, property and economic losses, psychological stresses, and disruptions of everyday routines that are the essence of disasters.

In one sense there never is a natural disaster; there is at most a conjuncture of certain physical happenings and certain social happenings. Without the latter, the former, i.e., the so called "triggering events" have no social significance (Wijkman and Timberlake, 1984)). In fact, a physical triggering event can be totally absent and there can still be a disaster in the social sense as can be seen in the behavioral responses to threats or false alarms of tsunamis or flash floods. There can be evacuation and disruption of community life. The forests that burned in past eons were not disasters in that they had no social consequences; only those that have the latter today are disasters. This line of reasoning is that we should think of all disasters, natural agent based or otherwise, as social occasions (Quarantelli, 1990).

Now there are at least five major implications of rethinking of "natural" disasters as social and not natural phenomena.

For one, there is an implication that prevention and mitigation must stress social rather than physical solutions for the problem. If disasters are in one sense the manifestations of the social vulnerabilities of a social system, then prime attention should be given to doing something about such vulnerabilities. Thus, if a population lives near an active volcano or in unreinforced building structures--and these are always the consequences of human actions and social decisions--prevention and mitigation activities such as community relocation and building practices and codes become the measures which should be primarily considered. In other words, it is attitudes and behaviors which in the main have to be changed. Problems of a social nature require solutions of a social nature.

Also, an emphasis on disasters as social happenings highlights the narrowness and limits of thinking that many aspects of disaster planning are mostly matters of implementation of technology which primarily involves "technical" decisions. Recently one writer illustrated the point in the following way.

Many engineers claim that decisions about where to locate dams are purely technical. But the U.S. has sustained about a century of political fights on where dams are to be sited, attesting to the fact that a wide range of values held by diverse constituencies are affected by such "purely technical" decisions.

...Much of the water pollution in this country can be attributed to early twentieth century engineering beliefs, when engineers argued for clearing up cities by dumping wastes into rivers (dilution is the solution to pollution). The objections of public health physicians that this practice would contaminate the water supplies of communities living further downstream were dismissed with another engineering solutions--filtration and treatment of domestic water at the intake point! (Love, 1990: 8)

Although writing of the United States, her observations stress the notion that

many technological elements in disaster planning make not always easily recognized assumptions about the nature of human behavior.

Furthermore, emphasis on the social rather than the physical nature of "natural" disasters implies a proactive rather than just a reactive stance. That is, instead of waiting for the disaster to occur, encouragement is given to the idea of taking relevant actions before occurrence. If the phenomena is thought of as natural and physical, it is sometimes very difficult to see what could be done to the disaster agent such as an earthquake or tornado before impact. On the other hand, if the point of view is that the phenomena is primarily a social happening, encouragement is given to taking preimpact measures. It may not be possible to prevent the land from shaking, but it is possible through laws not to allow chemical or nuclear plants to be built on or very near to earthquake faults or soil that will easily liquify, or to discourage farming practices that will dilute the land and contribute to drought conditions. As the sharply differentiated consequences from the Armenian and Loma Prieta, California earthquakes recently showed, with far more negative effects in the Soviet Union than in the United States, the casualties and property damage incurred will be more a function of preimpact building codes, construction practices, legal requirements, and social expectations, rather than how much the land will shake at the time of impact.

Another value of thinking of disasters as social rather than physical happenings, is that emphasis comes to be on internal rather than external factors. A disaster in this view is not an outside force that impacts upon a social system, but a manifestation of internal flaws and weaknesses in the society. Thus, the threat is not vaguely "out there" as a hurricane, but resides specifically within the social system. To paraphrase a widespread slogan of many citizen participation movements of the 1970s, "we have met the enemy, and it is us." As such, in one sense, it becomes easier to visualize where to start to address the problem of coping with disasters. As Sapir and Lechat have written about drought and famine disasters:

Two of the largest famines since World War II have been in countries with a normal or more than normal food production during the famine year...Ethiopia was a net exporter of food in 1973, and both Bangladesh and Bengal produced more grain in 1974 and 1941 respectively than in the preceding years...Drought sometimes serves as a trigger mechanism for a famine, but the disaster remains a largely poverty-related catastrophe with a very weak causal relationship to food supply. Similarly, the impact of other disasters is a function of the physical and economic resistance of the population (1986: 124).

Finally, the view of disasters as social phenomena should allow them to be more readily seen as something which can be reacted to as part of ongoing policies and programs of national or social developments, which could reduce societal vulnerabilities in the first place. Activities of disaster prevention and mitigation then can be seen as an integral part of development. There is a tendency to treat the former as a separate sphere of action and

responsibility. But by stressing the social nature of disasters, it becomes much easier to plan simultaneously both for societal development and disasters. This link between the two activities is explicitly argued by those who say that disasters are indicators of the failure of development, and that development can be part of the process of reducing vulnerabilities to disasters (e.g. Cuny, 1983). Or as two disaster researchers have recently written:

...it is important to realize that the post-disaster "recovery process" is one in which an underdeveloped system is forced to achieve a readaptation to an environment using limited resources, a process not unlike the processes by which development or underdevelopment are produced to begin with.

In other words, we must recognize that "recovery," especially in an underdeveloped society, is a "development process" in and of itself. It amounts to the establishment of a set of patterns which reassert the adjustment of a human population to an environment. After all, development itself amounts to a process by which a population improves its level of adaptation to an environment and through such improvements raises the level at which it satisfies human needs and wants, and at the same time lowers its level of vulnerability to disruption.

For these reasons, the recovery process can be one which either increases or decreases the level of development of a human community (Bates and Peacock, 1989: 362-363).

The concept of development.

However, while few would challenge the necessity of having a link of some kind at some level between disaster and developmental planning, it is nonetheless necessary to recognize that the idea of "development" is also complex and can be viewed in different ways as can the concept of "disaster." The UN Director-General for Development and International Economics Cooperation recently wrote that there is not complete agreement on very many aspects of development and he went on to write that:

Different countries look at world economic developments from different perspectives and thus the core issues are not the same for everyone. I do not profess any theory of mon-causality in development...We do not have a single obstacle to growth, but many problems that interact in very complex and not always predictable ways (Blanca, 1990: 14).

At a more theoretical level, the literature on development seems to divide

into two somewhat different perspectives as to the most strategic point for attack on the problem. For instance, Harrison (1988) notes that there is a difference between the modernization school's stress on internal traditions and obstacles, and the dependency-world systems school's emphasis on external forces. Clearly these are rather different ideas with varying implications for any proposed link between disaster and developmental planning. Tierney, for example, using a dependency-world systems approach, sees disaster risk situations in developing countries as produced in part "by the operation of the capitalist world economic system and mitigation options as circumscribed by worldwide processes" (1989: 388). Implied in this view is a general strategy about how to make a link to disaster planning. Without our further addressing possible differences in theoretical perspectives, there is an implication that if a planning link is going to be made between development and disaster, there needs to be some agreement about the dynamics of the development process.

At this point, we particularly want to note some important aspects about the very concept of "development" itself. The social sciences originated and grew to maturity in a few countries of the Western world. Consequently they cannot help but reflect some aspects of that world. The very concepts of "developed" and "developing" countries comes from a Western perspective (these terms are not always recognized as having been formulated and refined by social scientists from an initial post World War II conceptualization of "modernization", see Binder, 1986). As such they involve several serious conceptual problems which have some implications for reconstruction aid programs.

First, there is a latent Western ethnocentrism in the ways the terms tend to be used. The criteria of economic and political complexity of certain kinds are used as the differentiating factor to dichotomize the notion of development. But if complexity in the religious or the family kinship spheres was used instead, it would almost certainly be necessary to recategorize some of the countries we presently put without much thought in one or the other category. In some so-called "developing" systems, the family-kinship structures are roughly the functional equivalents of certain Western governmental and economic bureaucracies; religious institutions are sometime the same for political activities. One consequence of a failing to note this is that in disaster planning, therefore, Western oriented officials tend to look for the structural or organizational equivalence of what they are familiar with, rather than looking for how the equivalent tasks, activities, or functions are being carried out in the developing country.

There are several unfortunate aspects of this kind of blanket labelling. Along one line it tends to obscure the tremendous variation that exist. For example, simply with respect to land size and population, to put India and China into the same category as island nations such as Tonga or Fiji is a somewhat dubious activity. This kind of categorization is additionally challenged by the fact that quantitative differences between social systems characterized as "developing" are more than matched by cultural disparities. Their values, beliefs and norms as well as their social organizational structures, class and intragroup relationships comprise most of the variation known to exist in human societies. Furthermore, along a number of dimensions,

some of the developing countries could be closer to some developed societies than they are to other developing nations. For example, a recent World Bank report on the Sudan notes that while generally that country had very limited financial and institutional capabilities:

Sudan is not seriously deficient in medical and para medical manpower. Trained midwives and health visitors, a corps of medical assistants and professional as well as technically trained sanitary officers provide a firm manpower base for a modern health service (Multi-Donor Mission, 1989: 25).

In more general terms, all organizational and institutional capabilities are not likely to be at the same level of development in most developing countries.

A consequence of using a blanket category of "developing" will often obscure to officials and disaster planners from the West that there can be very important inter-country differences and intra-society differences in the degree of development involved. A simple dualistic label of developed and developing does not encourage thinking and looking for such variation. This is less a plea to treat each society as different from every other, but more of an argument that stereotypic labeling needs to be avoided. There is a need to think beyond two labels primarily derived from a Western perspective.

Also there are many other ideas derived from Western social science research and linked to the concept of development which are sometimes unwittingly applied universally to all social systems. Illustrative would be evaluating formal organizations in terms of their effectiveness and efficiency, assuming the prime importance of economic rationality in financial matters, stressing the need to generate the initiative of individual leaders in contrast to obtaining group consensus, accepting an equalitarian rather than an elitist ideology as something widely shared, seeing nature as something to be overcome rather than adjusted to, and so on (all which seem to be accepted in World Bank thinking). These are empirical realities in most of the West. In such social systems, any planner for disasters or anything else would be foolish not to assume them in the planning process. However, they are not necessarily ideas that are equally acceptable in developing countries. Intellectuals and professionals from the West sometime take research findings or ideas that are relevant and existent in a developed society but which cannot be automatically generalized out to all other social systems. Some societies use other criteria than effectiveness and efficiency for organizational functioning, see nature as something to be adjusted to and not overcome, etc.

For example, a recent analysis noted that in Bangladesh the system's sociocultural values and structures leads to the following:

a person's authority over others depends on his ability, from his position in the hierarchy to 'collect and means to dispense material and subtle patronage' to those below him...this complex of

patron-dependent relationships retards the modern development process, because higher priority tends to be awarded to the seeking of patronage than to the creation of wealth, personal authority is substituted for objective goals in politics and institutions, and opportunistic individualism impedes the cooperative discipline required in modern economic enterprises (Brammer, 1989: 192).

Our overall point of course is that the very basic labels which are used to differentiate between societies, that is, developed and developing, implicitly carry with them a number of other ideas which cannot be taken for granted. The concepts used go beyond a simple categorization. They imply a number of other different things which can be important in planning of any kind, disaster or otherwise.

But leaving the conceptual problems aside, in ideal type terms we can note some of the disaster relevant organizational differences between developed and developing societies as these have been found in some research. As used in the social sciences, ideal has reference not to something desirable but to what a phenomena would look like if it existed in pure form. Let us note six contrasts by noting typical patterns in developing countries (see Quarantelli, 1987).

1. Developing societies do not have as complex social organizational structures as do developed systems. There is simply less of an infrastructure in such countries. This is true both in terms of numbers of different agencies and organizations as well as the totality of the work force in such groups.

It is easy to overlook the fact that, in contrast, developed countries tend to be "organizationally rich". Just as developing societies are economically poorer they are also organizationally poorer. Thus, purely in quantitative terms, there is usually much less for outside groups to interact with and build upon in those societies. (There is also a parallel problem of quality as well as of quantity, although in some developing countries the former can be relatively high).

2. Many of the very top organizational personnel have obtained their training and education outside of their own native systems. Such officials have been primarily socialized to Western professional ideas and standards rather than local situations. They often look at their own worlds with eyes different from the average other officials and citizens.

This background sometime will ease communication and understanding between, for example, Western or international organizational officials with governmental staff members of developing countries. But it may also mean that both parties will not be very attuned to local realities and expectations. It is easy to assume that if interaction proceeds smoothly, it is good; however, all that may signify is that both parties are equally insensitive to important local nuances that are the subject of the discussion. Sometimes seeming domestic insiders are as equally outsiders as foreigners. As an Indian editor

has recently noted:

The educated ruling elites, "looking westward", are getting increasingly alienated, cut off from the roots of native culture, pushed away from their own nationals. They become strangers at home. (Desai, 1982:5).

3. Such complex organizational structures as do exist tend to function from the top down. While almost all bureaucratic organizations anywhere are hierarchically reactive rather than proactive, this is especially true in developing countries. There is a strong tendency for initiatives to be taken only at the very top.

This kind of situation can be double edged. Along certain lines it may facilitate getting things done if top officials in a developing country agree to act (but see 6 below). But on the other hand it frequently means that initiative is left in the hands of only a very few and if this is the case they frequently have much to do and can give little time to any one particular problem. Furthermore, organizational decision makers are seldom those that have to do the actual work involved, so high level formal agreement may remain only that in top oriented organizations.

4. In many organizations, emphasis is on structures or forms rather than functions or tasks. For some officials, the means become ends, as seen in the proliferation of paperwork and an incessant paper flow. Again, while this is not peculiar to developing countries, it seems more prevalent in such societies.

One frequent consequence in such social systems is that in planning the end product tends to get emphasized. But as research in the disaster area and elsewhere has consistently noted, the production of a plan or a document is nowhere near as crucial as is often thought. As we shall discuss later, a far more useful perspective is to envision planning as "a process" rather than to perceive it as merely the production of a tangible product. That avoids confusing means with ends and keeps an emphasis on the dynamic nature of whatever is being planned.

5. There are few distinctively separate disaster planning organizations. This is true whether the planning be for mitigation, preparedness, response and/or recovery. While the situation has somewhat started to change in recent years with the creation of at least emergency oriented response groups, overall there are few disaster oriented groups and agencies of any kind in most developing countries (for the situation in Asia, see, Research on Socioeconomic Aspects, 1989).

This kind of situation means that if the need for any kind of disaster planning arises, it often has to be grafted on whatever non-disaster social groups exist, or even more difficult, that new organizations for that purpose have to be created. Apart from the lack of groups with relevant responsibilities for disaster planning, there is also the accompanying lack of a constituency that might otherwise provide some kind of political pressure

and support. The seeming lack of a "political will" to do anything about disasters in some developing countries is often rooted in this social void, although it is not the only factor involved.

6. Furthermore, the further away from the national level, the rarer the existence of disaster specific groups. To be sure there will usually be local agencies with police, fire, and medical functions, for instance. But these are mostly oriented at best to dealing with very localized and low scale emergencies and not with responses to community wide disasters, and certainly not with disaster mitigation, preparation and recovery.

The importance of this lies in the fact that in all societies, almost any kind of implementation of any planning of any kind, has to occur at the local community level. This is as true of disaster as it is of development planning generally. National level or supra-community disaster planning might have some effect at a macro level (e.g. through the building of a dam or levee which will reduce the probability of floods in a number of different communities in a region). But the absence of local groups will generally prevent the actual bringing into being of community and related disaster planning.

Now in almost all developing countries the local community usually is at the village level. This means that implementation of disaster planning has to occur in a rural context. Even when there are urban areas, and usually at least the capital city is of such a nature, a rural lifestyle may permeate the developing society.

Students of developing societies have stressed that rural people, for example, tend to be traditional, passive, fatalistic, etc., and that urban dwellers tend to be more accepting of behaviors that are not traditional, and that their place of work is separate from their place of residence, etc. Still other researchers of social life have noted that large impersonal bureaucracies, complex set of laws, and extreme specialization in work, are notable characteristics of urban life.

In a way, these formulations are somewhat stereotypic. For instance, critics have noted that within even metropolitan area in highly urbanized societies there are often many enclaves and neighborhoods (ethnic and otherwise in composition) where there is a strong sense of belonging, intimacy and caring--in short, there are urban dwellers that show many of the social characteristics of a rural way of life (e.g. Gans, 1962; Fischer, 1982). Conversely, the opposite can also be true. In Mauritius, for example, about 50 percent of the population of around 1,000,000 people live in five municipalities designated as urban, and most of the residents have access to urban and social services even though the economy is heavily dependent on agriculture (two-thirds of the land is given to sugar cultivation).

In addition, there is often considerable variation in a rural way of life although all may rest on an agricultural base. For instance, it has been noted that a manorial or hacienda system, family-size tenancy, family smallholding, plantation agriculture, and ranching systems are rather different social ways of organizing agricultural enterprise.

Each of these produces a distinctive pattern of class relations, determining the sharpness of differences of legal privileges and style of life, and shaping the distribution of technical culture and political activity (Stinchcombe, 1961: 165).

Clearly such differences in rural lifestyles will have profound implications for planning of any kind.

Nonetheless, it is clear that there are and continues to be some important general social differences between a rural and urban way of life. For our purposes they are important because they have implications for disaster planning. For example, an attitude of passivity or fatalism is not conducive to taking preparatory actions or recovering from disaster impacts; collocation or separation of place of residence and work creates different kinds of problems at times of emergency responses; dependence on laws and formal social control agencies such as the police and regulatory agencies to bring about adherence to community norms rather than informal social pressures and gossip do provide a different context for attempting to prevent or mitigate disasters. (See Green, 1984, for a discussion of how disaster planning for rural areas in the United States necessarily differs along some lines from that of urban areas).

Now it also has been stated that much of the urbanization that is occurring in developing countries are showing extreme and very negative manifestations of an urban way of life (e.g. Castells, 1977). Cited are the huge numbers and the very high population density that increasingly characterize the metropolises in developing countries (such as Mexico City, Dhaka, Lagos), the incessant flow of rural migrants into such areas, the very high rates of unemployment and poverty, the badly overloaded public works and infrastructures in such localities, etc. An implication of this is that urban disaster planning in developing countries that overall are still primarily rural, will be unusually difficult.

Without doubt there are noticeable differences between a rural and urban way of life. These can not be ignored. However, it is equally necessary to take into account two other aspects about this matter. One is that while there are differences there are also similarities (e.g. family and kin relationships are normally very important in both spheres). The other is that increasingly the line between the two ways of life is becoming blurred as urban values, beliefs and norms penetrate into the rural lifestyle (e.g., as can be seen in how certain kinds of music and other aspects of popular culture produced in cities become dominant in all lifestyles everywhere especially among adolescents and the young). As we shall note at the end of this chapter, developing societies are changing and the ways they do so have implications for disaster planning.

Nevertheless, at present we can say that some significant social differences do exist between urban and rural areas. They clearly can affect disaster planning of any kind. Therefore, there should be some caution in simply taking over research findings more applicable to an urban way of life.

The application of research findings.

Systematic and extensive social science research on various aspects of disasters has been undertaken since the late 1950s. But given the origins and larger history of the social sciences, it is also not surprising that disaster related research also has been primarily carried out by Western social scientists and only somewhat less so undertaken mostly in Western social settings; in fact, primarily in the larger industrialized and urbanized societies (see Dynes, 1988). Thus, there is a question of the applicability of findings from disaster research done mostly in certain developed countries with large urban populations to circumstances found in many developing countries with mostly rural populations.

Let us mention five points. They will first be stated in propositional terms, followed by a discussion and the noting of implications.

1. Universal patterns of social behavior are most likely at the individual or human behavior level. Behavior patterns characteristic of a particular society become increasingly more and more prevalent at the family or household, the organization, the community, and the societal levels.

Existing research seems supportive of this generalization. For example, panic flight behavior is rare among disaster victims in any society. Search and rescue activity is primarily carried out by survivors, neighbors and private citizens rather than formal groups. Thus, contrary to the imagery left by many press reports, even in developing countries most of the very immediate emergency needs are met by the victims and survivors themselves.

In contrast, organized mitigation measures and recovery activities are more likely to vary a great deal from society to society. This is because the existence of such groups concerned with such matters are dependent on overall societal values and beliefs about the value of trying to prevent disasters or recovering from them. Furthermore, while immediate emergency actions have to be obviously taken to avoid further negative consequences especially of a personal or family nature, it is not as obvious that planning can clearly mitigate and prevent disasters or make for better recovery.

2. The absence in developing societies of the kinds of organizations that exist in Western type countries does not mean a total absence of the disaster functions that such groups may have.

For example, many developing societies do not have the elaborate or specialized weather service organizations that can be found in Western Europe, Japan, and the United States and Canada. Likewise, many such countries do not have anywhere near the complex and multi-faceted mass media outlets that exist in much of the West. But the absence of a modern mass communication system linked to a modern monitoring and warning weather service system does not preclude institutionalized ways of alerting people and groups to sudden risks and hazards. In some developing societies, there are rather complex informal social networks which allow many warnings to reach populations relatively well apart from any mass communication system. For instance, Schwere (1984) has reported on the existence of a wide variety of early indicators of possible

flooding as well as long established warning message networks functioning in flood prone village communities in India that are apart from the official and mass media warning systems (see also Howes, 1979).

Similarly, most developing countries do not have the interrelated complexes of groups and agencies which in Western type societies are characterized as medical-health systems. Also, the elaborate and linked groups that have been created in many developed countries for the delivery of emergency medical services are even less likely to exist in developing societies. As such, it might be thought that certain highly disaster-relevant functions might be almost completely unmet in such countries.

This is not necessarily the case. As an Indian disaster student once wrote, while cases involving major surgical operations can only be done within a hospital context, "even in a country like India where proper medical hospital care may not be available in peace times for distances up to 10 to 15 kilometers, people over time have developed and devised their own techniques of dealing with medical emergencies, using herbal or other natural resources" (Jain, 1983:2).

In a more general context, there actually has been a move in this direction with regard to other kinds of developmental aid programs. Thus,

Herbal medicines and traditional healers are receiving increased attention from mainstream health officials and international medical research training institutions as governments confront the high cost and inefficiencies of official health programmes aimed at rural populations.

Several international programmes are drawing on the cultural acceptability and economic accessibility of safe and effective traditional medical practices. The traditional healers, who are well patronized by members of their communities, can extend the coverage of the official medical system.

In Africa, Latin American and Asia, a WHO-sponsored programme is drawing on the knowledge of the continent's widely respected traditional healers (Healthline, 1990: 16)

Overall, a general implication is that it should not be assumed that the organized ways that exist in the West for providing certain services or carrying out particular tasks, are the only relevant social arrangements possible. This is explicitly recognized in a recent volume produced by UNESCO to help in the providing of information about developmental programs such as family planning. It is suggested, through using examples from the Philippines, Haiti, Papua New Guinea, Indonesia, Mexico, and some Arab countries, that "folk media" in developing countries are not only a supplementary means but are as an important and relevant organizational form parallel to the mass media for reaching rural populations (Folk Media and Mass Media in Population Communication, 1982). At any rate, at the very least it

should be recognized that different kinds of social organizations might be able to carry out the same tasks, and that similar appearing social organizations do not necessarily have the same functions (as can be easily seen in developing countries which have, in form, Western style democratic political organizations and institutions, but which really do not function democratically).

3. The more experience a society and any of its major social subcomponents have with disasters, the more likely they are to be prepared for and to respond well to a new disaster.

It is known from research in developed countries that there is no direct connection between disaster experiences and good disaster planning. Nonetheless, studies do suggest that there likely to be a correlation, for reoccurrence of disasters raises the probability of the creation of what has been called a disaster subculture. Such a subculture involves an interrelated set of attitudes and practices among local people and groups that make them better prepared to respond to a new disaster (Wenger, 1978).

As a whole, developing nations are considerably more at risk to disasters than developed countries. We would therefore expect developing nations to have many disaster subcultures, although no solid data exists on this point. That being the case, such cultures ought to have improved capabilities, including those at all social levels, to cope with familiar types of disasters.

We can only state this in hypothetical form, given the absence of much social science research on disasters in developing countries. But we mention the point in part to question an implicit assumption that, in almost all respects, developing countries as a whole are worse off in disaster planning than developed societies, especially given that few or no organizations are specifically oriented to disaster problems be they mitigation, preparedness, response or recovery. But if disaster subcultures exist, this would not be the case. In addition, if in existence, they clearly provide a well rooted social base on which new disaster planning could be grafted.

In addition, some social scientists have raised an interesting point that below the formal organizational level there may be relative adaptability to environmental problems in developing countries. They essentially suggest that residents of rural villages in such systems, because they do not have the extreme specialization, formal agencies, and bureaucratic structures that are found in cities in developed societies, may be better able to cope not only with everyday emergencies but also disasters. One study of two rural villages which underwent flood disasters in Indonesia and in Peru concluded that:

Although marginalization may render many Third World populations more vulnerable to potential disasters, case study materials based on these two responses suggest that some victims in these types of villages may better be able to recover from such disasters than many within more developed countries (Holland and VanArsdale, 1986:51).

At the very least, such observations reinforce the idea that disaster planning should not always assume that developing countries are across-the-board worse off than developed societies, especially if indigenous coping mechanism at the local level are taken into account. As Quarantelli (1989b) once wrote, something must have been done right in the past; the general survival and growth of the human race is testimony to the fact that there must have been some merit in whatever local adaptations to disasters were used.

4. One of the general conclusions of disaster research is that there is much emergent group behavior in major disasters and that this usually makes for more efficient and effective responses. This phenomena seems well established for developed societies (Quarantelli, 1984; Drabek, 1987). To what extent would this be true also for developing social systems?

In the absence of systematic research data, the point could be argued both ways. It could be said that emergence occurs in developed countries because that is the only major way available to cope with the new demands of an emergency situation. The old organizational structures and infrastructures are too rigid and cannot be easily modified and changed in a very short time period. But a crisis demands action, and established groups and agencies cope by generating new structures and functions. This could also be true of developing countries.

On the other hand, it seems reasonable to suppose that most bureaucratic organizations in developing countries do not have the history of those in developed societies. They therefore would lack the structural rigidity frequently reinforced by a long history, the cumulative accretions of traditional ways of doing things which are not easily altered even in the face of a catastrophe. Put another way, such groups being younger are less ossified in structure and function for response.

A few studies imply that many organizations in developing countries would actually show relatively little adaptive capabilities, less because of their historical roots but more because, as said earlier, many organizations are top heavy and tend to emphasize structure more than tasks. If this hypothesis is correct, one consequence would be a lesser number of adaptive organizations for disasters in developing social systems. But that does not mean there are none, and as we shall discuss later, there is a great need for such emergence for the purpose of bringing about interorganizational coordination.

5. Not every structural feature is of equal importance in planning for disasters. Social science research in general, as well as studies on the functioning of organizations and communities in disasters, suggest what factors might be of importance. They have to do with such structural dimensions as centralization of decision making, patterns of communication flow, height or layers of hierarchies, complexities of the division of labor, etc. (Quarantelli, 1985a; for the more general organizational literature, see Scott, 1987). The matter, however, is far from simple and the application of research study findings to developing countries is even less certain.

For example, in developed societies there are differences between centralized and decentralized types of societies and groups which also vary depending on

the time phase of disaster planning being considered (McLuckie, 1975). Centralized social systems do not seem to be able to react as quickly to the problems of the emergency period as do decentralized ones. On the other hand, decentralized ones do not cope as well as centralized ones in handling reconstruction issues such as improving seismic safety (Dynes and Quarantelli, 1989). Some formal organizations have very long and complex channels for information flow, with much going down from the top layers of the hierarchy. Some studies of disaster planning indicate that such groups, as many hospitals, are inefficient in responding to emergency time needs unless they informally go to decentralized decision making and informal information exchange with, for example, lower level nurses communicating horizontally and making key decisions instead of the top hospital administrators vertically passing down formal orders. But in contrast, much disaster mitigation planning seems to be better when guided from a centralized office.

Now the degree to which the patterns in these examples would hold equally true for developing societies is an open question. But given what is known to exist within developed countries, it seems probable that a similar pattern might also be true within developing countries. There is some supportive research evidence, for example. A Disaster Research Center study of the emergency time organizational response to the Mexico City earthquake found that while Mexico and its capital city are formally very highly centralized, informally there is considerable everyday decentralization and this allowed a fairly effective organized governmental reaction in the immediate aftermath of the disaster (Dynes, Quarantelli and Wenger, forthcoming).

The general kinds of statements made in the last several pages may not seem to be saying much. However, in our view this is nonetheless a step forward from assuming, as is sometime done, that what applies in developed societies is fully applicable to developing societies, or asserting, as is also sometime done, that research lessons from Western-type societies have no major applicability in non-Western systems. We do not believe it is either/or. But what can and cannot be extrapolated from one kind of society to another has to be selectively determined. The research evidence is certainly supportive of that general position, but currently only are suggestive rather than definitive as to the comparative structural similarities and differences between developed and developing countries.

III. Substantive Observations About the Process.

In order to understand the interaction between any two or more social entities--be these human beings, organizations, nations, or any other social entities-- it is necessary to ask at least three basic questions:

- (1) Who are the social actors?
- (2) What is the social setting in which they interact? and,
- (3) Which background is brought to the interaction?

In terms of a shorthand model, there are three Cs involved. The first question about social actors, the "who", is primarily asking about the nature or the characteristics of the interacting entities. The question of "what" focuses on the immediate social circumstances or conditions affecting the

interaction. The "which" question calls attention to the background of the interactors or the larger context influencing the interaction.

As applied to the World Bank and the recipient nations of reconstruction project aid, what can be said using the three Cs model? Even under the best of circumstances, given the very politically sensitive issues often involved, the complex logistics necessary, and the high visible actions frequently undertaken, it is understandable there will be many difficulties. So our tendency to discuss difficulties is a reflection more of the realities of the situation rather than an effort to highlight more negative aspects.

a. The characteristics of the actors.

As implied earlier, while the World Bank and the country that is the recipient of reconstruction aid are the ostensibly primary social actors, they are never the sole or even only important social organizations in the process. Typically involved are subcomponents of the United Nations, bilateral and multilateral agencies, other international including non-governmental organizations (NGOs), and public and/or private sector groups within the receiving nations. Surface appearances to the contrary, there are never only two organizations in interaction with one another in almost any real world situation. All groups operate in a multiactor setting. The importance of this setting in affecting what occurs will be discussed later under the rubric of "context."

Although at this point we will primarily discuss the organizational characteristics of the two major social actors, the World Bank and the receiving government, our remarks are applicable to the great majority of most groups--domestic or foreign--involved in any reconstruction activity. In particular, we will point out certain implications of three major features that usually characterize these kinds of organizations, namely that they are complex, heterogeneous, and have multi interactional patterns.

Complexity. The notion of complexity is applicable to both internal dimensions and external relationships. In these terms, the World Bank is a very complex formal organization. Even more complex is the government of any developing nation which might be the recipient of reconstruction aid. In fact, any government at any level consists of a multitude of different bureaucratic groups that are formally and informally related to one another in a variety of diverse ways. This will inevitably affect their view about altering established or traditional ways of doing things.

For example, the great majority of complex organizations are averse to change, in part because any kind of structural or functional alteration will involve risk to the officials within the group. As Wilson in his examination of governmental bureaucracies has noted:

...all organizations by design (i.e., their structure) are the enemies of change... governmental organizations are especially risk averse because they are caught up in a web of constraints so complex that any change is likely to rouse the ire of some important constituency (Rudin, 1990 citing

Wilson).

Thus, what might be highly appropriate from a disaster mitigation point of view (e.g. raising and enforcing earthquake building codes, removing populations from flood plains or slopes of volcanoes) may be an unrealistic political position. What may appear rational action from one organizational perspective can be rather irrational from another.

The built in reluctance of organizations, especially governmental bureaucracies to change their disaster practices can clearly be seen even in developed countries such as Japan, Italy, the United States, Australia and Canada where the greatest amount of disaster planning has occurred. The effort to institutionalize this planning has been slow, difficult, against opposition, and uneven in results, to some extent because of the inherent conservatism of organizations regarding any change (Kartz, 1984). As an Australian researcher has suggested, in a choice between organizational mission and bureaucratic imperative, the latter will be generally favored even for disaster matters (Britton, 1989).

It is therefore understandable that governmental bureaucracies in developing countries will be as equally averse, if not more so, to initiating significant changes in disaster related practices. Overall, general commitment to helping or changing is often nominal and does not always translate into actual relevant organizational action even in crisis situations. This is not to say that organizations can not be change agents; even some very bureaucratic ones can have such a role if the internal structure is supportive and there is reward for the group for taking such a stance. However, in general, social scientists say it has to be assumed most formal organizations with complex bureaucracies are not inclined to many changes in either internal dimensions or external relationships. Additionally, they are not inclined to move to simplifying procedures; if anything they tend to become ever more complex.

Heterogeneity. Organizational research has shown that the larger the social entity, the more heterogenous in nature is it likely to be. A consequence of this is that different subcomponents often have little grasp of the activities and responsibilities of others. Not surprising as in most large and heterogeneous organizations, different World Bank operations--policy and research, evaluation, operations, etc.--necessarily have limited understanding and vague knowledge at best of other internal units.

The same is true on the side of the government receiving aid. The criticism is frequently made that in-country coordination of reconstruction assistance is usually not very good (the situation in the Columbian earthquake disaster is often noted as an exception). But even more so than in the World Bank, there is little reason to expect that in a very heterogeneous complex of government bureaucracies, that many of the various agencies would have much knowledge and understanding of one another. In fact, researchers have frequently noted that one of the ways in which disasters differ from everyday situations is that all the involved organizations are forced to interact with many more other groups than usual, many of whom were not even known to exist before the crisis. Intraorganizational heterogeneity does not make for ease of interaction and this is accentuated when the parties are unfamiliar to one

another and when groups from the public and private sectors have to have a closer interface as is frequently true in the reconstruction period of a disaster.

Multi Interactional Patterns.

Intra and inter organizational communication is very complicated. We will discuss just two major aspects: interaction occurs at different levels, and it differs in nature depending on the issues involved.

In one important sense the World Bank and a receiving country or even its government do not actually interact. The interaction is carried out by representatives of the two groups involved, human beings acting on behalf of an abstract entity. It is important to note this because officials are not robots automatically executing policies and procedures dictated by an impersonal entity or machine. They are not programmed computers.

Rather individuals involved bring to all the interactions a host of factors which affect any social process and which therefore allow for considerable variation in what may or may not occur. World Bank personnel, even at the same formal level or positions, like in any other large organization will vary somewhat in their knowledge, skills, imagination and personal styles of interacting. Furthermore, of necessity any sets of guidelines or policies, no matter how detailed they are written, must leave room for interpretation. This combined with similar factors on the side of counterpart government officials, insures some variation in what otherwise might appear to be identical interactive situations.

On the other hand, it is possible to overemphasize the personal elements involved in interaction. In fact, data from World Bank personnel who have participated in the providing of reconstruction aid, indicate that there is sometime a tendency to think mostly of the specific individual officials involved and their human characteristics. But structural features and functional operations of the organizations involved (e.g., whether they are centralized or not, whether they are well managed or not) will considerably outweigh the personal qualities of even the topmost policy and decision makers. Personal factors do exist and allow for variation in what will be actually done, but social factors will be far more determinative of the ultimate outcome of any interaction.

For example, a particular complicating factor is that the representatives from interacting organizations often are not at the same level of authority and decision making in their respective groups. If policy makers are dealing with even upper level operational personnel there can be a major imbalance in both the degree of official commitments which can be made and of the specific substantive knowledge the two parties will have (the advantage is not always to the more formally powerful since line personnel may have far more detailed knowledge of many substantive topics than do decision makers). The general point is that the more the discrepancies in status and position among interacting organizational officials, the more likely there will be problems in communication. Research has clearly identified this as a difficulty in organizational interactions during the emergency time periods of disasters

(thus, the who is in charge question although studies suggest that what needs to be coordinated is a far better question than who is in charge). But there is reason to think it can be a problem in other interorganizational efforts to coordinate any kind of disaster planning.

Furthermore, in organizational interaction a number of rather different processes may be involved. For instance, simply as illustrations, communication can be for the purposes of information exchange, decision making, coordination, goal setting, policy setting, resource allocation, etc. Problems can arise when the two interacting parties bring different conceptions to the process. In the disaster area, for example, studies have found that while the principle of "coordination" in disaster planning is widely accepted, there often is very little consensus on the referent of the term. For instance, some see coordination as primarily telling other groups what a particular organization will be doing, whereas others see coordination as working out together ahead of time mechanisms for conflict resolution, while still others see coordination as their organization making the decisions integrating the actions of other agencies (Quarantelli, 1985). The point is that common organizational usage of a word or label does not necessarily mean a common acceptance of the action referent. This is compounded by the fact that cross-societally there are values as to the implications of coordination (it being seen as a sign of weakness in some cultures), the values placed on it, how it is negotiated (making initial extreme demands as a bargaining ploy), and the reciprocity expected.

Finally, the social setting for organizational interaction is seldom a static one. Rather the situation is an ever changing one in many respects. Thus, the interaction between a World Bank disaster related mission and the developing country involved might best be seen as evolving and not just unfolding. That is, the process is not simply working through what was originally discussed and agreed upon, but continually changes. All interactions are dynamic and not static but is especially true with respect to reconstruction aid projects, because much of the organizational interaction on that matter really involves negotiations, whether or not that is consciously recognized. This is partly illustrated by the fact that World Bank teams, because of changes in personnel, have reported that they were not always certain if "suggestions" (whether by the World Bank or the government) had been discussed and agreed upon in a previous mission or not. Of course implicit in this is also the problem that stems from organizational interaction between an ad hoc group on one side and a permanent team on the other side.

b. The conditions affecting the interaction.

From the perspective of the World Bank there are usually a number of conditions which affects it initiation and assessment of the need for reconstruction projects.

The general formal policy of the Bank is that:

...the project is tailored to the circumstances...of
the country, the region, the sector, the environment,

and above all the objectives...Basically a project is designed by a member government, which then invites the Bank to appraise it...(Goodland, 1989: 1).

If this were true in totality, in many disasters there would be tremendous delays, if not inaction, in the initiation of many reconstruction projects. Thus, informally the actual procedure is somewhat different.

In practice, the government and the Bank are in constant dialogue well before specific projects are identified and prepared (Goodland, 1989: 1).

However, when all is said and done, the Bank is heavily dependent on the formal initiative and manifest cooperation of a government, a limitation which does not always apply to NGOs for instance. Thus, the Bank's ability to influence the initiation of projects varies widely.

Furthermore, some developing countries have the knowledge and personnel to set their own agenda; in other cases the sophistication about procedures and the resources needed are simply not present. This problem also exists within developed societies. In the United States, for example, certain of the states, communities and local organizations are much more knowledgeable than others about what the federal government and agencies can provide and how to go about getting help for disaster planning and/or obtaining assistance. A consequence is that there is considerable variation in the initiatives that are undertaken, and there will continue to be differences until information on what is available and how to go about getting it is much more widely disseminated. If this is problematical in developed societies, it clearly is and will continue to be so in developing countries also, until the roots of the problem are addressed.

The Bank, as does any organization that attempts to undertake any kind of post-disaster needs assessment, also has serious problems in obtaining relevant and valid data. Even in the best of circumstances, the assessment teams are essentially at the mercy of many uncontrollable factors. Let us note three problematical aspects in particular.

First, there is the matter of the quality of the statistics which can be obtained. Domestic and foreign observers after a disaster are always interested in quantifying losses and needs, both in terms of the short and long run. Unfortunately, disaster researchers who have looked at this matter (and they have examined mostly disasters in developed societies) have concluded that except in rare situations, post-impact statistics can not be taken at face value.

It is not that statistics can not be collected by interested parties; rather it is that the numbers obtained simply can not be taken in many cases as even good approximations. Research suggests that more likely than not they will be on the high or inflated side, will be less likely to be accurate for property damages and losses than for casualties (dead and injured), and are sometime basically meaningless because of the lack of a comparative preimpact data base.

Now for other political reasons there can be underestimation of the losses of minority of ethnic subgroups. As one comparative study of casualty and loss figures in 245 disasters in Africa and Latin America concluded:

...the notion of "victim" like that of persons "affected" is nebulous in the extreme. The low average victim counts in ethnic pluralist states may reflect ...that such states grossly underreport occurrences within their borders. They are unaware of, or indifferent to, the extent of the population discomfited by a disaster, just as they are less knowledgeable about property damaged and even the number killed (Seitz and Davis, 1985: 247).

What is basically involved is that official statistics, as organizational analysts have long pointed out, are socially produced and it is naive to suppose they will not reflect that fact; if anything disasters are situations where most quantification will be influenced by all kinds of social factors.

Almost all disaster researchers are reluctant to give much credence to very specific figures. Even official death figures are seldom exact and a systematic but unpublished Disaster Research Center study of a major tornado disaster found that the officially reported numbers were off by a magnitude of three or four from the actual injuries that were incurred by the victims. If there are these problems with disaster statistics from developed countries where record keeping is more likely, it is clear that post-impact statistical data from developing countries are even more likely to be suspect. The only saving grace is that for some purposes, including World Bank assessment teams, perhaps very rough approximate estimates may be useful enough.

Second, there are simply logistical problems in obtaining reliable data (apart from the matter of quantification) in the typically confused context of an aftermath of a disaster. Two or three weeks in the field is not much time for an overall damage assessment of a major disaster, especially in a disorganized social setting. Most relief groups, governmental agencies and research teams in the United States would find such a time frame as rather restrictive for obtaining totally reliable data, particular since some information and records can not be obtained until months after impact. The larger the stricken area, the more difficult it is to cover all impacted regions, although it is probably in such situations where the most reliable information is needed (satellite remote sensing procedures are probably more useful for analyzing mitigation potentials than for assessing disaster damages). Furthermore, when the disaster impacted country is concurrently racked by anti-government guerrilla groups, revolutionary movements or civil strife, it sometime is impossible to get neutral observers into the affected localities (as, for example, has occurred several times with respect to recent famines in Ethiopia and Eritrea). Also, especially in the relatively immediate post-impact period, there will be an influx of assistance from diverse domestic and foreign sources which may affect the relevant resources and facilities the country will have for recovery and reconstruction purposes, but for which there may be no organizational records at all.

Third, even when there are few logistic difficulties in gathering data and the maximum cooperation of the national and local authorities in making the assessment, there is always the danger of accepting "common sense" reasons for the losses and problems. For example, a World Bank mission to Ethiopia was told the absence of rain accounted for a drought and famine. While this is a standard, traditional common sense point of view, as already indicated earlier, many analysts think that social structural factors such as agricultural practices, land use patterns, and inadequate food distribution are the real factors in famines and droughts, not the absence of rain. As noted in one recent statement:

...a new famine looming in Ethiopia prove yet again that natural disasters have important man-made components to them. However bad the famine, well-off Ethiopians will not go hungry. Nor will relief distribution officials or visiting journalists. That is because famine is not about lack of food; it is about lack of access to food. In other words, it is about poverty. (Nelson, 1990: 15)

Acceptance of what may be presented at the governmental level as the "reality" of the situation and/or heavy dependence on common sense impressions of observers can lead to rather inadequate qualitative and quantitative assessments of what needs to be addressed in any reconstruction aid.

On the other side, from the perspective of a developing country, especially its government, there are also at least three major problematical aspects in initiating and undertaking disaster reconstruction projects. A link between development and disasters may not be perceived, the society may be conflict ridden, and there can be a poor infrastructure for implementing any intended changes.

In many although not all developing countries, efforts to link development and disaster planning often have to work against lack of understanding or different set of priorities regarding a linkage. Writing as recently as 1983, one major consultant on disaster planning said: "In the literature from the less developed countries...there has been almost no interest in the development-disaster link" (Cuny, 1983: 255). Part of this indifference stems from an understandable common tendency to see emergency relief and recovery help as unconnected to developmental aid. This is not surprising. That there is a link between development and disasters has been consciously recognized in Western based development agencies only in the last decade or so; in fact, according to some critics, many of these organizations and their staffs have yet to make the connection. For example, Cuny writes of the "common mistake agencies make when dealing with mitigation" is a "failure to relate vulnerability reduction to normal development plans and activities" (1983: 219). Thus, that developing countries and their governmental officials are even less likely to see a connection, should not be unexpected.

In many developing countries too, the perception that there might be a link is additionally discouraged by typical activities of outside helping agencies.

For example, NGOs may import food supplies which disrupt local agriculture. This kind of action tends to reinforce the tendency of governments everywhere to be reactive to immediate short run problems. The noting of a link between disasters and development requires a proactive and long run view. But when priorities are given to immediate actions for coping with obvious needs, there may never develop an interest in a longer look into the future.

Many developing societies are also very conflict ridden. There may be endemic tensions and disputes between various ethnic or minority groups. Anti-governmental terrorist cells or guerrilla groups can be operative. Or there can be revolutionary, secessionist or independence movements in being. At the worst, there can be general civil strife with little central government control over anything, as currently is obvious in Lebanon. Given this, the social climate in many developing countries is rather different from the more consensus type climate that prevails in most developed countries such as West Germany, Japan and the United States. It is not that there is an absence of intragroup political conflicts in Western type societies; rather what surfaces is less pervasive than in developing societies and the clashes of different interests generally proceeds in a nonviolent manner within the existing governmental structure and not outside of it in extra legal ways. Governments can and do adjudicate internal conflicting claims in different ways.

A condition of internal social conflict can seriously affect how a developing country will react to a disaster. At the most extreme it may lead to a lack of concern with calamities that primarily befall "anti-government" entities or minorities. Just as some developing countries will not view emergency relief as a politically neutral act if the assistance goes to groups that are in open conflict with the established authorities, they can have a similar view of reconstruction aid. What to outsiders might be seen as political interference in either the short or long run response to a disaster, can have a rather different domestic meaning; it may in some cases be an action that is necessary to avoid possible loss of political power or to avoid strengthening one's enemies. Thus, in a conflict racked society the initiation of requests for help, who is designated as the recipient for assistance, and how the aid is distributed, will be strongly influenced by the internal political conditions.

Some of these points are illustrated in a study made of the reconstruction after the Guatemalan earthquake:

...conflicts developed between various interests in the country and perhaps contributed to the political upheaval which took shape in 1979 and 1980, when a war between the government and a growing "guerilla" movement became more and more severe. Several examples of disaster related conflict can be offered. First, there was conflict between the traditional bureaucracy of the country and the especially established reconstruction committee. The conflict was over who would control and profit from the reconstruction process.

In addition:

It was also over the question of local autonomy and the autonomy of foreign agencies. The more conservative elements of the society wanted to use a centralized paternalistic approach to reconstruction and eventually came to believe that the community level citizens committees established to oversee reconstruction were dangerously radical, and perhaps associated in some way with the guerilla movement. Certainly they were acting independently, were critical of the authorities and were also expecting that all of the aid which was pouring into the country would actually be delivered at the local level. The more liberal elements of the government, and especially members of the reconstruction committee, favored local management of the reconstruction process and strict accounting for disaster funds and victim participation in the actual work of reconstruction (Bates and Peacock, 1987: 319-320).

As the researchers go on to note, there were rather drastic consequences of the simmering intrasocietal conflict:

During the next several years many of the people who had been associated with the national reconstruction committee either disappeared or were murdered. Others...were forced to flee the country. At the local level, where each community had formed a citizens' reconstruction committee which was independent of local government, the same thing happened. Eventually many foreign agencies had to close down or curtail their operations because it was too dangerous to continue to operate and because bureaucratic problems became too great to solve. Ultimately, the formal reconstruction process in Guatemala came to an end in the midst of what must be regarded as a civil war (Bates and Peacock, 1987: 320).

Even in less extreme cases, any governmental weaknesses, vulnerabilities and instabilities stemming from internal conflicts can have consequences on the initiating and continuing of responses to disasters. As happened in at least one instance of a World Bank assessment mission, a change in government in the middle of the process slowed down the necessary information flow from governmental departments and agencies. Conversely, it is also not surprising that unstable political conditions are often marked by little legitimacy being accorded the central or national government and a high suspicion by subgroups in the population of any assistance it might seem to want to offer. In such a setting even if the government might be willing to try and provide reconstruction assistance, it may not be able to obtain reliable information from the affected population about actual post-disaster needs.

Finally, apart from anything else, the initiation of any kind of governmental program in many developing countries is severely handicapped by the absence or weakness of appropriate social and physical infrastructures. It is widely recognized, and frequently noted in World Bank documents, that there is often a dearth of trained managers, knowledgeable technical staffs, good administrative practices, and appropriate facilities, equipment and data banks in countries which are especially vulnerable to disasters. There may also be political and economic corruption, which also exists in developed societies, but usually not to the same degree and not as socially accepted. Overall, a poor supportive infrastructure can undermine the best of intentions and thus sometimes even when there may be a desire to design a disaster reconstruction program, there is not the wherewithal to even initiate much less implement anything of any magnitude.

This condition of course does not prevail in all developing societies; some have good infrastructures and others may have at least a core of professional personnel. Furthermore, as we have said earlier, there is also the need to recognize that the seeming absence of social organizations that are familiar to those with a Western perspective does not preclude a functional equivalence in a developing country. For example, certain rural cooperatives and village groups in developing countries have no close structural counterparts in the West, but nevertheless serve important political and governmental functions that could be important in implementing disaster reconstruction programs at the local level.

In more general terms, the process of providing reconstruction aid is plagued by a whole series of basic dilemmas. They are rooted in the social and not technical arena. Some rest in the World Bank's structures and functions, others are inherent in the interaction between the Bank and its recipients of disaster aid, some are part of the nature of the receiving societies.

To note dilemmas is to try to highlight several important matters that may arise in interactions leading to decision making regarding reconstruction programs. There seldom is only one option or choice possible. The solution used is always a matter of striking a balance between alternatives. There are almost certainly some disadvantages no matter what is done. It is better that the pluses and minuses of whatever course of action is advocated, be manifest and explicit rather than latent and implicit. In interaction with other parties it should be understandable why there can be substantial honest differences of opinions on choices.

Later we shall note specific dilemmas faced by the Bank, such as how different cost recovery procedures used in disaster reconstruction projects vary in their advantages and disadvantages. Here we shall try to illustrate the more general nature of the dilemmas that are almost always present.

1. The reconstruction aid is not to be for emergency relief nor for developmental programs, but a midway phase which has neither a clear beginning or end. Apart from the inherent ambiguity, there is an assumption of time phases in a sequential order--relief, reconstruction, development--which may be questionable. In addition, studies of disaster recovery, for instance,

have also noted that the process:

might not proceed at the same rate or in the same way at different levels of the social units involved, This is to say that while the recovery of individuals, households, organizations, the community, and the society are not totally independent of one another, neither is the linkage or correlation necessarily very tight (Quarantelli, 1989a: 4).

Finally, reconstruction aid frequently mixes recovery and mitigation/prevention activities. The two kinds of disaster planning are and should be linked as was indicated earlier, but they are nonetheless not identical phases or goals. Rather different activities and in-country groups can be involved in both phases.

2. In institution building, a choice frequently has to be made between creating a new organization for handling the reconstruction aid (as was partly done after the Mexican earthquake) or using preimpact ones (essentially strengthening or upgrading what exists). While the latter focus seems the more logical choice, the existing groups may be so structurally and/or functionally weak, that there is little of a meaningful base on which to build. But developing a new agency or committee, while it has the merit of involving a fresh start, has all the difficult problems of establishing and institutionalizing a new social entity.

3. Usually an organizational decision has to be made on how much to restore the past and how much to develop something different through the reconstruction aid. But it is not always clear which direction to go. A World Bank report on the Sudan which noted that there was a bad situation before the flood but that it was not "reasonable" to use the occasion of the flood for the renovation of the debilitated situation (Multi-Donor Mission, 1988). Obviously the question of what is "reasonable" can be interpreted in rather different ways.

4. The World Bank attempts to leave the initiative for and direct running of a reconstruction program in the hands of the country receiving the aid, but organizations in developing countries as indicated above are sometime too weak or incapable of adequately handling the process. There often is a limited infrastructural capability for assessing disaster occasioned needs, planning, implementing projects, and properly assessing them. So effort has to be directed towards strengthening the institutional base concurrently with creating a reconstruction program. Another consequence is that the Bank's ability to directly influence aid programs will vary widely.

5. The World Bank and disaster impacted developing countries are likely to have different priorities for action. The Bank, from the perspective, may be the last resort for reconstruction aid, but national governments are often treated as the first resort for emergency time assistance. This can create a different sense of organizational urgency and a different set of rationales for action or inaction in the short run. But in the long run, there is relatively low priority in most societies on the prevention or mitigation of

infrequent disasters compared to addressing ever present everyday problems.

6. The World Bank depends mostly on ad hoc groups or missions to carry out its reconstruction aid activities, requiring each new group to learn afresh on how to proceed; staff members who have become involved in the activity often have had little prior knowledge and understanding of much of the program and process. The personnel turnover leads to a lack of continuity, little learning from experiences, and not being able to see common elements from one case to another. The establishment of a more permanent group or cadre could be justified only if there is an expectation that the Bank is increasingly going to be involved in the future in disaster related issues.

7. There is a tendency on the part of the Bank to assume the desirability of speed in action whether this be in terms of a short time period for reconstruction aid, avoiding delays, meeting deadlines, etc. Thus, a mission on a Brazilian disaster eliminated certain proposed components because they could not be done within two years, with the duration seeming the major decision criteria used rather than possible payoffs from a longer work effort, or doing what needed to be done. A "towing" effect is also often implied; by stressing tight schedules at appraisal it is assumed that setting high standards helps to improve performance (something that the organizational research literature would question). Similarly, the literature indicates that if meeting deadlines is an organizational norm, pressure and evaluation from supervisors or higher echelons will be in those terms, leading to an operational focus on means rather than ends. More generally, not only is "speed" a Western rooted value, but it is negatively viewed as a desirable trait in many cultures in developing societies around the world (McGrath, 1988).

8. There is a top down perspective even when lower status persons are the intended beneficiaries. This necessarily stems from the very nature of organizational operations and the work personnel they have. Much of the information about disaster related needs is primarily obtained through bureaucratic organizations headed by upper middle class officials. It is not gotten from squatters living in the streets or victims residing in illegally taken over quarters. The agencies involved in reconstruction planning and the institutional mechanisms used to distribute aid are also in almost all cases, middle class in orientation at the least. Thus, what the lower strata are "seen" as needing by way of reconstruction aid goes through a social class filter. The view about organizational and institutional changes are necessary is therefore more likely to be mildly reformist rather than radically revolutionary. Given what research has well established about strata and class differences in beliefs and values (see Kerbo, 1983) and they are known to be more marked in developing societies, a top down perspective will not fully capture what a bottoms up view might convey as to desirable actions and goals in the aftermaths of a disaster.

9. There are a number of serious difficulties in trying to assess the effectiveness and efficiency of reconstruction aid, but unless assessment is made it remains unclear what has been achieved. However, in any activity that is part of a much larger context and is just one factor or input--however major--into a dynamic situation, it is all but impossible to isolate

systematically the specific effects of particular project activities or to trace the allocation of project benefits. There are problems especially in evaluating institutional related assistance because it often has immediate consequences (that is, project outputs such as so many houses built) as well as later or longer run effects (that is, results that may stem from the outputs of projects such as training which might make for better disaster preparedness on the part of some community emergency management agency). A strong emphasis also tends to be placed on economic criteria (perhaps in the Bank this reflects the disciplinary background of many of its staff) or tangible results, but there are other consequences that will be more intangible (e.g., instead of land tenure the cultural values associated with land ownership). To achieve precision at the cost of importance is a dubious gain.

The importance of the dilemmas is that by definition they present relatively unsolvable issues—to take one or the other possibility in any of the dualistic instances is both to obtain certain advantages and to incur certain disadvantages. For example, speed and deadlines for reconstruction projects are very desirable for certain purposes; but do they outweigh the advantages that sometime are obtained by going slower or taking more time to accomplish considerably more of intended goals?

c The context influencing the interaction.

We phrased one of the basic questions in terms of "which" to suggest that the background brought to bear in interaction may be multiple and different rather than just one and similar. We will note three of them: sociocultural differences, the multiactor setting, and larger social trends.

Sociocultural differences. In more technical terms, there are likely to be many sociocultural differences especially at organizational and more complex social levels. There are all kinds of different values, beliefs and norms which can affect the interaction. For example, when the World Bank makes itself available for reconstruction aid after a disaster, three linked group values, beliefs and norms are operative, namely that something should be done (an ought value), that something can be done (a possibility belief), and that something will be done (a probability norm). On the receiving country side there may be none, one, two or three of these operative. If there is not agreement on all three, there is no basis for meaningful organizational interaction. Of course as said earlier, it is probably true that at the highest agency levels there is likely to be a congruence of sociocultural aspects because of the Western "backgrounds" of those top level officials involved. But this is not always true, is less true for those at lower operational levels, and will probably become increasingly less true.

Of course the World Bank is a development institution and many of its staff are drawn from developing countries. There is therefore a widespread awareness of sociocultural differences. But perhaps there is less consciousness that as a social institution the Bank operates only within certain sociocultural patterns and that its personnel also have been socialized to those patterns which mostly reflect a limited range of even those prevalent in the Western world (e.g., some of those norms, values, and

beliefs mentioned earlier). An awareness and acknowledgement of differences does not automatically transform into an understanding and appreciation of these differences. It is after all a basic tenet of the social sciences that very few individuals consciously realize how much they are controlled in their perceptions and views of others by their own sociocultural backgrounds. In fact, a degree of ethnocentrism is a characteristic of all human beings, as even professional anthropologists acknowledge of themselves.

Interestingly, some social scientists from developing countries have criticized most of the developmental literature and thrust as concentrating on economic, material or physical dimensions of human existence to the neglect of "traditions, institutions, values and solidarities" (Gold, 1989:885 quoting an Indian editor, Sharma). Along some lines at least, it does appear that the World Bank like most international agencies does tend to use a rather secular Western world model of what is important to restore. For example, emphasis is placed on restoring after a disaster the educational/health but not religious/cultural or symbolic facilities and institutions. Of course a broadening of scope might involve any organization which did so in some of the earlier mentioned internal conflicts which are often linked to religious or cultural differences in many developing societies.

Multiactor setting. Another contextual factor is that the World Bank of necessity operates in a multiactor or organizational setting. As said earlier, even when it is the lead or major agency in providing reconstruction assistance, it must do so concurrently and along side whatever other public and private groups will be doing by way of recovering from the disaster. And even in other disaster aftermaths where the Bank has only a minor role in reconstruction compared to other groups, it is typical that in such situations there is consultation with other international agencies as to the availability and use of non-Bank funds and assistance.

In either case, what is crucial is the organizational interaction which must occur. As researchers have consistently noted, unless there is meaningful interaction or communication in the first place, no other issues can be meaningfully addressed. But interorganizational interaction can be complicated. Let us note two problematical areas: The necessity of interorganizational coordination, and the need to have legitimacy of organizational domain.

The more different groups are collectively involved in an activity, the greater the need for coordination among them. Apart from the probable already discussed absence of agreement on what constitutes "coordination", there are other problematical aspects. There are many and varied groups whose cooperation has generally to be obtained and which usually requires a degree of emergent behavior.

Almost always when the activity is disaster reconstruction aid, this requires coordinating the actions of multitude of domestic and foreign agencies, and frequently also, public and private sector groups. In the case of the former, there are the usual difficulties of cross-societal interaction and communication. In the case of the latter there often is a variety of private entities ranging from humanitarian and religious groups to commercial

enterprises and industrial concerns.

Furthermore, coordination can not be ordered or imposed; cooperation has to be obtained. Normally for a variety of reasons there are varying degrees of distrust, suspicion and rivalry between organizations with even the same task (e.g., hospitals providing medical services). Also the public-private sector interface at times of disasters has consistently surfaced as a problem in developed countries (Quarantelli, 1985a), so there is every reason to think it will be even more problematical in developing countries. Almost always too there is no everyday macro level or overall coordinating entity in place to obtain the coordination necessary.

Whether it be a community or a country faced with such a situation, there are usually only two choices as we previously noted in our discussion about dilemmas. One is to create a new organization or committee to coordinate the relevant groups. This has all the difficulties involved in creating a new social entity.

The other choice is to have an existing organization take over the new responsibility for coordination. While disaster research strongly supports going in such a direction, it is not without possible flaws. If the organization was weak in the preimpact period it is very unlikely to grow suddenly robust. Existing bureaucratic groups also frequently find it difficult to add new and unfamiliar tasks and responsibilities, the coordination of and the obtaining of cooperation from a variety of other normally autonomous groups is not a standard operation of most organizations.

As stated earlier, emergent behavior often is a necessary feature of an efficient and effective disaster response both in the short and long run. So while many organizations in developing countries are not good possibilities for creating a coordinating function, it is necessary to find those that can do the job. Government groups that usually have to deal with a wide variety of other groups, those that have a reputation for being less bureaucratic than others, and those that have much experience in directly dealing with foreign organizations, could be a pool, however small, of potential candidates for assuming the emergent function of overall coordination.

Any multiorganizational setting also involves questions of domain and legitimacy. As organizational specialists see it, while all formal groups may assert that it is appropriate for them to do certain things, that claim to a particular domain or social territory does not always go unchallenged. Somewhat related to this is how accepted the organization is in doing whatever it is doing; in short, is it seen as a legitimate organization? Questions of domain and legitimacy can be and are raised in the disaster area, and have a specific focus with respect to the providing of and the obtaining of reconstruction aid.

The World Bank like practically any other organization operating on the international scene, is not universally liked. The matter however involves far more than personal attitudes that some people might hold. The issue has to do with the appropriateness of the domain of the World Bank or any other agency operating on the world scene. Thus there are those who advocate an end

of all aid programs to developing countries such as Hancock (1989) who has written: "aid is a waste of time and money, its results are fundamentally bad, and--far from being increased--it should be stopped forthwith before more damage is done" (Mayur, 1990 quoting Hancock). Critics who think Western oriented religious groups should not be undertaking proselytizing activities in non-Western countries, are making the same kind of challenge. Then, there are those who while not opposing development aid in principle think it is being handled by the "wrong" organization including the World Bank; this is similar to those who want the products of a particular business kept out of a specific developing country.

In a multiactor context such as is typically of disaster reconstruction and programs, unless there are mutually accepted perceptions about organizational domain and legitimacy, there can be considerable difficulties. Among the providers of the help, there has to be agreement about who can do what--a matter complicated by the fact that helping agencies be they the UN, international groups or NGOs often have rather different audiences or constituencies for their work. The point is that sometime problems in a coalition or set of organizations working together stem not from the immediate substantive task they are involved in, but what enters into the situation from the larger social context.

Among receivers of aid, the involved public and private organizations also have their pre-disaster conceptions of one another's domain and legitimacy, as well as their own constituencies. Both of these can be threatened by an aid program. This is indicated in a study of the long run assistance provided after an earthquake in Guatemala. The researchers noted the possible dualism that is involved in the help that can:

"affect the stratification system in a society...it is possible that ensuring aid will benefit primarily those in power, thus exacerbating existing inequalities...On the other hand, improved infrastructure and new leaders might provide a more equitable distribution of goods and less future disaster vulnerability. In short, it is reasonable to expect a disaster and the recovery efforts associated with it to promote changes as new and perhaps different inputs enter a social system and as new relationships are formed within that system (Hoover and Bates, 1985: 8).

An implication of the latter is that certain organizations and their clients and constituencies might be "worse" off in the long run, as others gain. Put another way, not everyone is in favor of more equity or even of better disaster preparedness if that will, as sometimes it can, weaken the preimpact power and influence of some organizations and their constituencies.

On the other hand, some researchers seem to think that everything else being equal, the advantage will be to those who are interested in bringing about change at least in a society with sharp socioeconomic differences.

A lack of correspondence between the equity principles utilized by external aid sources and the victim community will also be important for change. The greater the difference between the equity principles used in distributing aid and the principles underlying the normal distribution of scarce resources in a community, the greater the probability of change (Bates and Peacock: 1985:328).

Larger social trends. Finally, consistent with organizational research which increasingly has emphasized the social environment of any formal group (Aldrich and Marsden, 1988), it is necessary to note that any organization operating at the international level can also not help be affected by larger sociocultural trends and macro level historical happenings. These provide a context for what, for example, the World Bank and a disaster aid receiving country, can and will do. These factors cannot be ignored for they are a background to almost any aspect of disaster planning.

While it is not our purpose here to systematically list or analyze these trends and happenings, they should be noted.

For example, there is an increasing emphasis on saving the global environment, a matter which is linked in various ways to disasters and disaster planning. There is a noticeable drawing back from spending for the military and armaments, at least

among many of the world major powers, which to some observers would allow part of the "peace dividend" to be directed toward disaster planning (some national committees of the UN Decade for Natural Disaster Reduction, including the one from the United States, have explicitly taken this position). There is the continual evolution of regional communities or political entities such as the ECC and some of the limited arrangements that have been established in Asia, which among other things would better allow for disaster planning that should cut across national boundaries. There seems to be a change occurring in the relative roles of the public and private ("market") sectors, which if the experiences of most Western societies is relevant, will probably make integrated national level disaster planning more difficult as "privatization" increases.

Other trends also could be mentioned: the debt crisis and the financial disarray involved in the North-South relationship; the computer revolution and its increasing effects on information storage and distribution; the continuing internationalization of mass media organizations; the massive disillusionment with socialistic socioeconomic ideologies; the growing importance of transnational entities, etc. These as well as the ones mentioned earlier are all trends that will affect developing countries and their disaster planning, although in what directions and in what ways can only be dimly discerned at present. However, for our purposes, it introduces the notion which is stressed at the very end of this chapter, namely that the disaster planning and organization of the future will have to be somewhat different from that which existed in the past and is current. The larger contexts in which implementation of disaster planning must occur are changing dramatically, and the World Bank as well as all other international organizations will have to take this into account.

IV. Criteria for Assessment

In assessing any program or process there are a number of, if not problems, at least issues which need to be addressed. For instance, whose perspective on reconstruction aid should be used? As examples, should it be that of the World Bank, the government receiving the aid, the individual recipients of the aid in the developing country, development agencies within the nation, citizens generally of the society, in-country social critics and commentators, disaster planners, international agencies, NGOs, etc.? Implicit in our remarks is the notion--a valid one according to social scientists--that because the different groups or social categories have different perspectives, they will use different criteria, some of which will be sharply different but all of whom make sense given the starting assumptions.

Any particular organization, such as the World Bank, will usually say that it will use only its own internally derived and specific criteria (e.g., meeting of tight schedules). But on what grounds can it afford to ignore what might be distinctively contrasting criteria of others (e.g., those who emphasize quality and not quantity of results, not speed or meeting of deadlines but equity of help, etc.) At the very least, it is necessary to recognize that there will be different perspectives on aid and different criteria as to the positive and negative effects of reconstruction assistance.

In fact, if social scientists are correct, there is practically no social actions which will not have some dysfunctional consequences for some social actors or sectors along with functional effects for others. Appeals to so-called objective criteria reflect some Western derived socio-cultural values (e.g. economic costs) which may not be what others value. As one recent book on India argues, Western disciplines often do not recognize and therefore cannot deal with the cultural realities reflected in many Indian social institutions (Marriott, 1990), and may ignore the social costs that may be incurred in changes. Economic rationality may be social irrationality depending on what is being evaluated.

Furthermore, what may be a positive achievement for some organization undertaking some disaster reconstruction activities may be negative or insignificant for other groups or people involved. For example, research from developed countries show that international relief organizations sometime put a premium on immediate and newsworthy (i.e., visible) actions because such activity easily get publicity for the groups which is important to their domestic fund drives. But the measures undertaken (e.g., building a few houses) may not be at all significant by providing housing assistance to only a small fraction of all those displaced and contributing very little to preventing a similar disaster happening again.

Leaving aside whose perspective should be used in making an assessment of any program, we might ask what criteria might be used. Here too different approaches are possible. Not everyone thinks that an assessment in terms of the manifest goals of the organizations involved in providing assistance is the best tack to take.

Some researchers prefer to focus on the efficiency of the process used instead of goal achievement, a procedure Drabek (1989) used in his assessment of the different Red Cross organizations that responded after the Mexico City earthquake. Dynes and Quarantelli (1989) in their assessment of the housing reconstruction in Anchorage after the Alaskan earthquake of 1964 suggest that it should be assessed in terms what it contributed to social recovery, what was crucial was not the physical rebuilding but how it affected preimpact social strata differences (in this particular case equity was not served) and the influence of local elites (they became even more powerful). Bates (1982) in his examination of the reconstruction activities after the Guatemalan earthquake notes that to focus solely on the number of new housing units built obscured the differential effects there were for the minority group victims in that society.

Running through these three otherwise different evaluations of post-disaster recovery is the notion that simply to focus on what was materially done in terms of organizational goals or achievements (e.g., so many people given shelter, so many houses rebuilt, so much spent on rehousing), may be a poor way of assessing what was done. Instead it is suggested that the social effects and consequences for the victims involved might be a more meaningful criteria to use rather than whether certain material organizational goals were met. Overstated, it is not whether a new house was built but whether a victim household sees itself and is better off socially than before the disaster.

In part what seems to be involved in the use of different criteria are the use of different substantive points of attention and different time periods for evaluation. Thus, some evaluators of reconstruction activities argue that it is more important if the aid brings about new skills, new attitudes, new work habits, etc. than if new buildings, facilities or material things are brought into being. This is also partly related to the time frame which is used for assessment. For example, the World Bank's evaluation of project success at the time of its completion date has been criticized because it does not take into account consequences for the future, what the longer run effects will be.

For our purpose, we will take a major World Bank's goal in undertaking disaster reconstruction projects, namely that localities be better prepared, organizationally and otherwise, for future disasters. This implies that disaster planning (in the broad sense discussed in the first part of the chapter covering all four phases from mitigation to recovery) be better as a result of the Bank project. Of course disaster planning per se is not important. What is crucial is good planning. If this be the case, the research literature suggests a number of criteria which can be used in any assessment made.

There are some criteria which can be applied generally. That is, they cut across the four different phases or aspects of disaster planning. Then there are criteria which are more applicable to but several or only one of the stages such as mitigation or recovery.

We will indicate some of the more seeming relevant criteria as these have been discussed in the social science literature on the matter.

General criteria:

1. All good planning recognized that disasters are qualitatively as well as quantitatively different from accidents and everyday emergencies. It is also important to recognize a similar difference in kind between what might be called disasters and what should be designated catastrophes (that latter is where the disaster effects are directly society wide). To argue that disasters are different from everyday life does not deny that whatever planning measures are advocated should be as close as possible to everyday expectations and routines. The more the deviation from the usual the less likely is it likely to be accepted whether at the individual or societal level.
2. Disaster planning should primarily be generic rather than agent specific especially with respect to the more human, social, and group aspects of disasters; this is less true for more technical and engineering matters. Put another way, the process should first be aimed at dealing with problems which are common across all disasters (e.g., warning, search and rescue, evacuation, sheltering, etc.), before dealing with those that are agent specific (e.g., the different kinds of problems involved in reacting to fallouts from volcanic eruptions or in the restoration of burned out forests).
3. Good disaster planning is both vertically and horizontally integrated. That is, vertical planning at different governmental--and where relevant, non governmental--levels should be linked and integrated with one another. National level planning for disasters at the regional or provincial level and at the community level need to be consistent with and reinforcing of one another. Likewise, as indicated earlier, the planning in the different time phases can not be done independent of one another (e.g., if in a recovery period evacuees continue to be sheltered in a floor plain, this creates a disincentive for mitigation measures that bars occupancy of such areas).
4. Planning in contrast to implementation should focus on general principles rather than specific details. This is what interests and captures the attention of most social actors in the process be it policy setters, decision makers, legislatures, heads of organizations, the mass media, various sectors of the public, etc. Only relatively few need concern themselves in detail with the specific operational and instrumental activities required for the implementation and administration of disaster planning. That there are programs to prevent or reduce famines and droughts and generally how this will be attempted is what interests the majority; the specifics are less crucial (although as we have indicated elsewhere, programs that involve citizens generally will work only if they are involved in some way in the process of planning).
5. It is the planning process rather than any end product, such as a mitigation or recovery plan, which is vital in the long run. What needs to be created are not pieces of paper, but an accepted series of ways of approaching the problem, be it mitigation, preparedness, response, and/or recovery. Awareness and consciousness, legitimacy and expectation, institutionalization and implementation--this is what is important rather than the production of massive planning documents or laws per se. Even disaster specialized

bureaucrats or agencies are only of great use if they maintain an emphasis on the planning process.

6. Planning can be no better than the assumptions and understandings on which it is based. Thus the process needs to rest on valid scientific knowledge and not on popular beliefs, or worst, myths about social behaviors generally and disasters specifically. Even sophisticated bureaucrats and organizations with huge data bases of information are not necessarily very knowledgeable about disasters if that is not part of their own everyday operations.

Specific criteria for mitigation:

To be accepted mitigation measures: need to be close as possible to everyday practices, have to be politically realistic, and should be economically viable.

Specific criteria for preparedness:

There is good preparedness for disasters when there is: anticipation of possible problems, different solutions or options for dealing with them, and allowance for possible emergent behaviors.

Specific criteria for response:

Management of a disaster response is good if there is: efficient mobilization of personnel and resources, adequate processing of information, and an adequate development of coordination.

Specific criteria for recovery:

Recovery measures will be most accepted if they: preplanned into the development planning of a society, not too grandiose or ambitious, and involve as many sectors of the community possible in the decision making.

Possible links between disaster planning and general societal or community developmental planning has long been recognized. In principle few would seem to disagree with the desirability of having a link. Logically the two kinds of planning should be connected.

However, there are sharp differences of opinion on how well it can be done and in the ways it could be done. For instance, some argue that because different types or organizations and different kinds of specialists are involved in development planning than normally participate in preparedness and response planning (usually the latter are emergency oriented agencies such as police and fire departments, hospitals, the public utilities, etc.), the link between the two kinds of planning will necessarily be tenuous. Stated in terms of an extreme example, the typical police department has little interest, knowledge or involvement in community developmental planning in the parallel way that the typical community planner or housing official has little interest, knowledge or involvement in the emergency tasks and responsibilities of police and fire departments.

In terms of what is actually done, there are often gaps if not a separation of the two kinds of planning. A recent analysis looked at the disaster related actions of a number of bilateral and multilateral aid organizations including UN agencies, the international developmental groups, and the non-governmental organizations (NGOs) from Africa, Asia, Latin America, Europe and North America. In this volume it is written:

This latter group, the NGOs, play a special role in disaster response and development programming. Varied as they are, they work "on the ground" close to the local people, providing relief and development assistance. Most believe that this closeness increases the likelihood that their assistance will readily support local development. However, most also see a division between their relief principles and their development work. They have established certain principles for development work which they frequently abandon in the face of a perceived urgency of a disaster.

The result has been that opportunities for harnessing emergency work for development have been missed. Too often, disaster responses in the form of relief aid have not contributed to long-term development, and worse, actually subverted or undermined it (Anderson and Woodrow, 1989:2).

From another perspective, even international organizations that do explicitly see a link between their own developmental planning and the disaster assistance they provide, have sometime been criticized as failing to make the two efforts converge enough.

In many ways, if we separate out the four different phases or aspects of disaster planning, the picture might be clearer. The mitigation aspects of disaster planning, concerned as it is with such matters as land use, building codes, zoning regulations, etc. would seem to be quite consistent with matters that have to be addressed in developmental planning. Similarly, but perhaps to a lesser extent, there would also seem to be a close relationship between some of the activities necessary during the recovery period of a disaster and the developmental policies of the involved communities.

On the other hand, for reasons earlier indicated above, the different kinds of organizations and personnel involved, there seems to be less of a link between disaster preparedness/response planning and developmental planning. At least this is true in practice if not in logic. But if there are circular links as discussed in the first part of this paper all phases or stages of disaster planning, there is an obvious flaw in what occurs.

However, since decisions and policies often have to be made in the absence of solid social scientific evidence, perhaps the best strategy would be to concentrate on the mitigation phase as the point where the greatest convergence between disaster planning and developmental planning could be achieved. Obviously the most effective way of dealing with sudden disasters

would be to prevent them in the first place. Of course total elimination of all disasters, natural or otherwise, is an impossible achievement. Nonetheless, the mitigation if not the prevention (and the two are not the same) of disasters ought to be the ideal goal of all those concerned with these kinds of occasions. It should have the highest priority in our thinking and actions. There is a danger of being lured into the drama of the emergency period of a disaster. Too off that is like treating the symptoms of an headache without ascertaining and dealing with the conditions responsible for the pain. While we must continue to pay attention to emergency time disaster needs and undertake the necessary planning, we must also attend to how disaster effects might be mitigated if not prevented.

4. Recommendations

Besides trying to indicate some of the problems in the disaster reconstruction program and processes, and to present perspectives on the matter that otherwise might not be used, another intent in this chapter is to make recommendations for the future. This could be approached in two ways.

One way is to see what the World Bank and its personnel have learned as a result of undertaking nearly 100 projects in the last three decades. That there have been learning lessons seems indicated by the fact that a few changes have been instituted in some procedures since the start of the program. But it is not clear that all the changes have been worthwhile and they have not been of a fundamental nature. More important, one of the important findings from our analysis is that one of the problems is that the way the program and processes are presently constituted are not conducive to much learning and the institutionalization of lessons from the past. So while we take into account the consciously perceived lessons reported by the World Bank and its personnel, we will also use a second approach to draw recommendations, namely what our general analysis presented earlier in this chapter suggests.

A number of implicit and specific suggestions for possible improvement have been mentioned in the previous pages. At this point we want to make some more explicit recommendations of a general or broader nature. But the initial purpose in making the recommendations is the supposition that the ideas presented ought to be in the consciousness--if they already are not--of World Bank staff members or any other officials who are involved in any significant way in disaster reconstruction activities. The question of the implementation of the recommendations is not addressed here. Clearly some would be easier to implement in concrete terms than others.

1. There is a need to establish within the Bank structure a small continuing cadre who will have responsibility for reconstruction programs. Ad hoc teams put together for assessment and monitoring teams have built in weaknesses. There would be considerable value of having continuity of personnel from initial negotiations to a follow up study on any given project, as well as continuity from one project to another.

2. There is an existing body of highly relevant literature which ought to be used, so projects need not start as if everything needs to be learned in the

field. The literature ranges from a focus on very micro level and/or country and/or agent specific issues: (e.g. Social and economic constraints to modification and obstacles to technology transfer for making mud houses resistant to seismic forces, Mathur, 1981; Improvements of rural dwellings in the Dominican Republic to resist hurricanes and earthquakes, Office of Housing, 1982; Risk costs: Disaster avoidance and safety-first behaviour among peasant producers in Bangladesh, Shahabuddin, 1983; From drought relief to post-disaster recovery: the case of Botswana, Morgan, 1986) to more general discussions (e.g. Transferring mitigation techniques between developed and developing nations, Krimm, 1985; The impact of natural disasters on Third World agriculture: An exploratory survey of the need for some new dimensions in development planning, Long, 1978). The development of a computerized data bank would facilitate easy and quick access to relevant material.

3. There should be stronger links between the research and operational components in the World Bank, and former might look at some fundamental issues. For example, a typology of societies that goes far beyond a simple dichotomy of certain aspects of development is needed. There is a parallel here to some problems in conceptualizing the very phenomena of disasters. For example, the social scientific disaster literature gives little credence and value to a dichotomization of natural versus technological disaster agents. Instead efforts have been initiated to typologize disasters in terms of such multiple dimensions as duration, possibility of forewarning, speed of onset, magnitude of impact, and so on. Eventually a meaningful multi-typology of disasters will be worked out (see Britton, 1987; Quarantelli, 1985b). However, there is also need to develop a multi-typology of social systems that get involved in disasters. That system typology must and will go far beyond a simple-minded dichotomization of developed or developing societies. For example, it might include such multiple dimensions as the degree and kind of disaster mitigation planning in place, the presence of disaster relevant resources and organizations, the number and kinds of prior disaster experiences, etc.

4. Three perspectives in particular need to be more consciously recognized. One requires a greater awareness that if the sources of disaster related problems are social, they must primarily be dealt with socially. Physical or technical solutions are inherently limited for such matters. There needs to be more emphasis on people rather than things, and increasing their knowledge and skills, changing their attitudes and values, providing more information and training, and building on indigenous traditions and strengths. Whether it be disaster mitigation or recovery, more attention has to be given to the human resources and social infrastructures that should be put in place.

5. Another perspective that needs more stressing is that formal social organizations and the interactions that go on between them, are the setting within which disaster planning and responses and recovery measures occur. As such, there should be greater awareness of organizational structures and functions. In particular, there is a need to recognize how structural rather than personal factors affect crucial aspects such as organizational information flow, decision making, coordination, legitimacy and resource allocation.

6. The ways in which cross societal differences affect thinking and behaving is still another perspective which must be made even more explicit and taken into account. There is a need for a sensitive recognition about the Western biases that implicitly permeates the whole approach to disaster planning, disasters, recovery, and aid assistance that involves developing countries. The solution is not to substitute another set of biases. Rather there should be a raising of the consciousness of all involved officials and groups and the creation of an awareness that they are likely to approach problems and offer solutions from a particular cultural perspective. In this way it will become clearer that there are limits to the universality, and extrapolations possible from a Western perspective.

7. There should be greater acceptance of the built in limitations and organizational dilemmas involved in providing reconstruction aid. The frequent in-country conflicts, corruptions, low priority given to disaster planning, etc. are realities that set limits on what and how assistance can be provided. It would prevent too optimistic a tone on what goals can be achieved, an orientation that pervades almost all post-disaster organizational activities. A recognition of limitations also would allow a more realistic evaluation of project results, and probably use of more valid qualitative instead of unrealistic quantitative measures or indicators of what has or has not been accomplished.

8. There is a need to improve and standardize the Bank's post-project evaluations. They are presently very uneven in quality, not always done, and many are not readily available to future Bank mission teams. In fact, equally as important as institutionalizing the evaluation process is the need to develop mechanisms to insure that they will be used. A collective World Bank memory needs to be created; now at most there are merely individual recollections at the "war story" level. Explicit mechanisms are needed to learn systematically from an experience (as disaster researchers have frequently noted, experience per se is not always valid; sometimes the "wrong" lesson is learned (Quarantelli, 1985a)

9. There is a necessity of follow-up assessments, three to five years after the conclusion of reconstruction aid. Without the obtaining of such feedback, there is no real way of knowing both the negative and positive consequences of the process and what has been institutionalized. Even better would be a field examination of later situations where actual disasters have impacted localities to which reconstruction aid had been earlier given; did the assistance make a difference in the new disaster?

10. Whatever changes are instituted should be oriented to the future. Lessons can be learned from the past but the future in some ways will necessarily be dissimilar to the present. Because of the importance of having this time orientation we will discuss it separately below.

The Future

In conclusion, we can not ignore that the future will be different from the past in a variety of important ways. There are dynamic aspects in particular which need to be noted. Developing countries by definition are changing.

Furthermore, the nature of disasters is also somewhat changing. These dynamics in the situation can not be ignored for it means that the future is not the past repeated. It also means that the past or even the present can not be taken exclusively for purposes of disaster planning.

All developing societies are in the process of changing into something else. Changes in attitudes and actions occur in even the most tradition bound and isolated villages. If people currently have access to radios or to any kind of motor vehicles such as buses, for example, they are living differently than their grandparents. Disaster planning can not be just for tomorrow. It has to be for the decades to come. And in these years social changes will occur in any developing society which will affect the capabilities and resources that can be brought to bear on disaster planning. Some of these could be helpful such as more widespread literacy among the population; but some others will not such as more distant and complex bureaucracies.

There is also a need to project what future disasters will be like. Too often disaster planners merely look at what has happened in the past (Quarantelli, 1988b). This is unfortunate because changes are also occurring in the threats to what the human race will be exposed.

There are at least five possibilities:

- 1) Old kinds of disaster agents such as earthquakes that simply will have more to impact. This is especially relevant to developing countries since in most of them the population is growing rapidly and in many cases with higher density of dwellers in especially vulnerable locations, Mexico City being a classic example of the problem.

- 2) New and increasing kinds of technological accidents involving dangerous chemicals and nuclear radiation threats that were almost nonexistent several decades ago. Again, for a variety of reasons, developing countries are especially subject to certain of these disastrous risks the extent of which the gas poisoning in Bhopal, India or the radioactive contamination in Goiania, Brazil (Dancy, 1989) have made clear.

- 3) There are new versions of old threats. For example, there is the increasing vulnerability to disasters generated by the complex lifeline systems that characterize the kinds of industrialized and urbanized complexes that many developing countries are creating; in fact, in a number of subSarahan African metropolitan areas the public utilities have deteriorated from the safety levels they had achieved a decade or two ago.

- 4) The place of origins of threats and their possible points of impact are increasingly becoming separate. For example, some riverine flooding, such as in Bangladesh, can stem from origins and actions outside of the affected country. It has also been hypothesized that climate warming from the greenhouse effect that is being generated by developed countries may affect in the future the numbers, paths and severities of hurricanes, typhoons and cyclones in developing countries. This being the case, disaster prevention and mitigation measures will have to cut across national boundaries and be international in approach.

5) There are increasing threats generated by the biotech revolution ranging all the way from possible pesticide poisonings (a number of which have already happened) to the risk inherent in genetic engineering. Even if developing countries remain primarily agricultural, they will become increasingly vulnerable to such threats and potential disasters as they attempt to use the new biotechnology to improve their food and related production and protect themselves against locust or other insect infestations.

This last also suggests that the very sharp line drawn between so-called natural disasters and technological ones will become increasingly blurred. For the future, it might be best to think of all disasters as socially created occasions. As social happenings, the institutional and organizational aspects about disaster recovery discussed in this chapter, becomes even more relevant for attention.

Bibliography

Aldrich, Howard E. and Peter V. Marsden. "Environment and organizations." Pp. 361-392 in Neil J. Smelser (ed.) Handbook of Sociology. Newbury Park, CA.: Sage, 1988.

Anderson, Mary B. "A reconceptualization of the linkage between disasters and development." Disasters 9 (1985): 46-51.

Anderson, Mary B. and Peter J. Woodrow. Rising From the Ashes: Development Strategies in Times of Disasters. Boulder, CO.: Westview Press, 1989.

Bates, Frederick (ed.) Recovery, Change and Development: A Longitudinal Study of the Guatemalan Earthquake. Athens, GA.: Guatemalan Earthquake Study, University of Georgia, 1982.

Bates, Frederick and Walter Peacock. "Disasters and social change." Pp. 291-330 in R. Dynes, B. DeMarchi and C. Pelanda (eds.) Sociology of Disasters: Contributions of Sociology to Disaster Research. Milan, Italy: Franco Angeli, 1987.

Bates, Frederick and Walter Peacock. "Long term recovery." International Journal of Mass Emergencies and Disasters 7 (1989): 349-365.

Binder, Leonard. "The natural history of development theory." Comparative Studies in Society and History 28 (1986): 3-33.

Blanca, Antoine. "Recovering the lost decade." Development Forum 18 (1990): 1, 14.

Brammer, H. Review of Clarence Maloney's Behaviour and Poverty in Bangladesh. Disasters 13 (1989): 192.

Britton, Neil. "Toward a reconceptualization of disaster for the enhancement of social preparation." Pp. 31-55 in R. R. Dynes, B. DeMarchi and C. Pelanda

(eds.) Sociology of Disasters. Milan, Italy: Franco Angeli, 1987.

Britton, Neil. Constraint or effectiveness in disaster management: The bureaucratic imperative versus organizational mission. Unpublished paper, 1989.

Castells, Manuel. The Urban Question. London: Arnold, 1977.

Cuny, Frederick. Disasters and Development. New York: Oxford, 1983.

Dancy, D. "The Goiania accident." Atom 388 (1989): 15-16.

Desai, M. V. "Dynamics of folk media." Pp. 5-7 in Folk Media and Mass Media in Population Communication. Paris: UNESCO, 1982.

Drabek, Thomas. Human System Responses to Disaster: An Inventory of Sociological Findings. New York: Springer Verlag, 1986.

Drabek, Thomas. "Emergent structures." Pp. 259-290 in R. Dynes, B. DeMarchi and C. Pelanda (eds.) Sociology of Disasters: Contributions of Sociology to Disaster Research. Milan, Italy: Franco Angeli, 1987.

Drabek, Thomas. Some Lessons of Rehabilitation: Red Cross Responses to the 1985 Mexican Earthquake. Geneva, Switzerland: Disaster Relief Committee League of Red Cross and Red Crescent Societies, 1989.

Dynes, Russell. Organized Behavior in Disaster. Newark, De.: Disaster Research Center, University of Delaware, 1974.

Dynes, Russell. "Cross-cultural international research: Sociology and disaster." International Journal of Mass Emergencies and Disasters 6 (1988): 101-129.

Dynes, Russell and E. L. Quarantelli. Reconstruction in the Context of Recovery: Thoughts on the Alaskan Earthquake. Preliminary Paper #141. Newark, DE.: Disaster Research Center, University of Delaware, 1989.

Dynes, Russell, Bruna DeMarchi and Carlo Pelanda (eds.). Sociology of Disasters: Contributions of Sociology to Disaster Research. Milan: Franco Angeli, 1987.

Dynes, Russell, E. L. Quarantelli and Gary Kreps. A Perspective on Disaster Planning. Newark, DE.: Disaster Research Center, University of Delaware, 1981.

Dynes, Russell, E. L. Quarantelli and Dennis Wenger. Individual and Organizational Response to the 1985 Mexico City Earthquake. Newark, DE.: Disaster Research Center, University of Delaware, forthcoming.

Evans, Peter B. and John D. Stephens. "Development and the world economy." Pp. 739-773 in Neil Smelser (ed.) Handbook of Sociology. Newbury Park, CA.: Sage, 1988.

Fischer, Claude. To Dwell Among Friends: Personal Networks in Town and City. Chicago: University of Chicago Press, 1982.

Folk Media and Mass Media in Population Communication. Paris, France: UNESCO. 1982.

Fruhling, Pierre (ed.). Swedish Development Aid in Perspective: Policies, Problems and Results. Stockholm: Almqvist and Wiksell International, 1986.

Gans, Herbert. The Urban Villagers. New York: Free Press, 1962.

Gold, Thomas B. Book review of S. L. Sharma (ed) Development: Sociocultural Dimensions. Jaipur, India: Rawat Publications in Current Sociology 18 (1989): 886.

Goodland, R. J. Environment and Development: Progress of the World Bank (and Speculation Towards Sustainability). Washington, DC.: Policy and Research Division, The World Bank, 1989.

Green, Kenneth. Implications of Rural-Urban Differentiation: A Study of Local Grass Roots Organizations in Disaster Situations. Ph. D. Dissertation. Ohio State University. 1984.

Hancock, Graham. Lords of Poverty. New York: Atlantic Monthly Press, 1989.

Harrison, David. The Sociology of Modernization and Development. London: Unwin Hyman, 1988.

"Healthline: New focus on traditional healers." Development Forum 18 (1990): 16.

Holland, Connie J. and Peter W. VanArsdale. "Responses to disaster: A comparative study of indigenous coping mechanisms in two marginal Third World communities." International Journal of Mass Emergencies and Disasters 4 (1986): 51-70.

Hoover, Greg and Frederick Bates. "The impact of a natural disaster on the division of labor in twelve Guatemalan communities: A study of social change in a developing country." International Journal of Mass Emergencies and Disasters 3 (1985): 7-26.

Howes, M. "The uses of indigenous technical knowledge in development." IDS Bulletin 10 (1979): 12-23.

Hyden, Goran. No Shortcuts to Progress: African Development Management in Perspective. London: Heinemann, 1983.

Jain, N. "Letter." Disaster Preparedness of the Americas 2 (1983): 1.

Kartz, Jack D. "Crisis response planning: Toward a contingent analysis." Journal of the American Planning Association 50 (1984): 9-21.

Kent, Randolph. Anatomy of Disaster Relief: The International Network in Action. London: Pinter, 1987.

Kerbo, Harold. Social Stratification and Inequality. New York: McGraw Hill, 1983.

Kreps, Gary. "The organization of disaster response: Core concepts and processes." International Journal of Mass Emergencies and Disasters 1 (1983): 439-465.

Kreps, Gary (ed.) Social Structure and Disaster. Newark, DE.: University of Delaware Press, 1989.

Kreimer, Alcira and Michele Zador (eds.) Colloquium on Disasters, Sustainability and Development: A Look to the 1990s. Washington, D.C.: Policy Planning and Research Staff, World Bank, 1989.

Krimgold, Frederick. Overview of the Priority Area Natural Disasters. New York: United Nations, 1976.

Krimm, Richard. "Transferring mitigation techniques between developed and developing nations." Pp. 32-33 in Proceedings of an International Symposium on Housing and Urban Development After Natural Disasters. Washington, DC.: American Bar Association, 1985.

LeComte, Bernard. Project Aid: Limitations and Alternatives. Paris: Development Centre of the Organisation for Economic Cooperation and Development, 1986.

LePrestre, Philippe. The World Bank and the Environmental Challenge. Selinsgrove: Susquehanna University Press, 1989.

Long, F. "The impact of natural disasters on Third World agriculture: An exploratory survey of the need for some new dimension in development planning." American Journal of Economics and Sociology 37 (1978): 149-163.

Love, Ruth. "Letter." Sociological Footnotes 18 (1990): 8.

Marriott, McKim (ed.) India Through Hindu Categories. Beverly Hills, CA.: Sage, 1990.

Mathur, G. C. "Social and economic constraints to modification and obstacles to technology transfer for making mud houses resistant to seismic forces." Pp. 118-130 in Proceedings of International Workshop on Earthen Buildings in Seismic Areas. Albuquerque, New Mexico: University of New Mexico, 1981.

Mayur, Rashmi. "Dethroning the Lords of Poverty." Developmental Forum 18 (1990): 3-4.

McGrath, Joseph. The Social Psychology of Time. Beverly Hills, CA.: Sage, 1988.

McLuckie, Benjamin. "Centralization and natural disaster response: A preliminary hypothesis and interpretations." Mass Emergencies 1 (1975): 1-9.

Morgan, R. "From drought relief to post-disaster recovery: The case of Botswana." Disasters 10 (1986): 30-34.

Multi-Donor Mission. Emergency Flood Reconstruction Program. Government of Sudan, 1988.

National Governor's Association. Comprehensive Emergency Management: A Governor's Guide. Washington, DC.: US Government Printing Office, 1979.

Nelson, Daniel. "Mitigating disasters." Development Forum 18 (1990): 15.

Office of Housing. Improvement of rural dwellings in the Dominican Republic to resist hurricanes and earthquakes. Washington, DC.: Bureau of Science and Technology, Agency for International Development, 1982.

Quarantelli, E. L. Emergent Behavior at the Emergency Time Periods of Disasters. Final Report #31. Newark, DE.: Disaster Research Center, University of Delaware, 1984.

Quarantelli, E. L. Organizational Behavior in Disasters and Implications for Disaster Planning. Newark, DE.: Disaster Research Center, University of Delaware, 1985a.

Quarantelli, E. L. "What is a disaster? The need for clarification in definition and conceptualization in research." Pp. 41-73 in Barbara Sowder (ed.) Disasters and Mental Health: Selected Contemporary Perspectives. Washington, D.C.: U.S. Government Printing Office, 1985b.

Quarantelli, E. L. "Social 'development' and organizational behavior in disasters." Hazard Monthly 8 (1987): 11-12.

Quarantelli, E. L. "Disaster crisis management: A summary of research findings." Journal of Management Studies 25 (1988a): 373-385.

Quarantelli, E. L. Future disasters in the United States: More and Worse. Unpublished paper, 1988b.

Quarantelli, E. L. Disaster assistance and socioeconomic recovery: Some observations. Preliminary Paper #140. Newark, DE.: Disaster Research Center, University of Delaware, 1989a.

Quarantelli, E. L. Disaster Recovery: Comments on the Literature and a Mostly Annotated Bibliography. Miscellaneous Report # 44. Newark, DE.: Disaster Research Center, University of Delaware, 1989b.

Quarantelli, E. L. Some aspects of disaster planning in developing countries. Unpublished paper, 1990.

Quarantelli, E. L. and Russell Dynes. "Response to social crisis and

disaster." Annual Review of Sociology 2 (1977): 23-49.

Rudin, Beryl. Book review of James Q. Wilson Bureaucracy in New York Times, February 11, 1990.

Research on Socioeconomic Aspects of Disaster in the Asia-Pacific Region. Bangkok: Asian Disaster Preparedness Center, 1989.

Sapir, Debarati G. and Michel Lechat. "Reducing the impact of natural disasters: why aren't we better prepared." Health Policy and Planning 1 (1986): 118-126.

Schware, Robert. "Flood information systems: Needs and improvement in Eastern India." Environmental Management 8 (1984): 55-66.

Scott, W. Richard. Organizations: Rational, Natural, and Open Systems. Englewood Cliffs, NJ.: Prentice Hall, 1986.

Seitz, Steven T. and Morris Davis. "The political matrix of natural disasters: Africa and Latin American." International Journal of Mass Emergencies and Disasters 2 (1984): 231-250.

Shahabuddin, Q. Risk costs: Disaster-avoidance and safety-first behaviour among peasant producers in Bangladesh. Research Report. McMaster University, Canada, 1983.

Stinchcombe, Arthur. "Agricultural enterprise and rural class relations." American Journal of Sociology 67 (1961): 165-176.

Tierney, Kathleen. "Improving theory and research on hazard mitigation: Political economy and organizational perspectives." International Journal of Mass Emergencies and Disasters 7 (1989): 367-396.

Waugh, William. "Current policy and implementation in disaster preparedness." Pp. 111-125 in Louise K. Comfort (ed.) Managing Disaster: Strategies and Policy Perspectives. Durham NC.: Duke University Press, 1988.

Wenger, Dennis. "Community response to disaster: Functional and structural alterations." Pp. 17-47 in E. L. Quarantelli (ed.) Disasters: Theory and Research. Beverly Hills, CA.: Sage, 1978.

Wijkman, Anders and Lloyd Timberlake. Natural Disasters: Acts of God or Acts of Man? London: Earthscan, 1984.

Wilson, James Q. Bureaucracy: What Government Agencies Do and Why They Do It. New York: Basic Books. 1989.