

University of Delaware
Disaster Research Center

PRELIMINARY PAPER
#184

THE IMPORTANCE OF
THINKING OF DISASTERS
AS SOCIAL PHENOMENA
E. L. Quarantelli

1992

DRC PRELIMINARY PAPER # 184

THE IMPORTANCE OF THINKING OF
DISASTERS AS SOCIAL PHENOMENA

E. L. Quarantelli
Disaster Research Center
University of Delaware
Newark, DE 19716 USA

The conception of disaster, especially the attributed source of the occasion, has changed over time. For most of history it has been traditional to view certain sudden and extraordinary physical disturbances with significant negative effects as "Acts of God" (even outside of Western culture, a religious framework of a similar nature has been used). Whether it is volcanic eruptions or hurricanes/cyclones, the source of the disaster agent was seen as in the supernatural domain.

In more recent time, and with the spread of a more secular and nonreligious ideologies, there was a shift to the term "natural" disaster, substituting nature for the supernatural. So earthquakes are the result of plate dynamics, or floods the consequences of rainfall and drainage capabilities. But in either case, the supernatural or nature, the imagery is that something external and beyond the realm of the human victims was responsible for whatever happened.

However, in more recent decades it has become progressively unacceptable to attribute all responsibility to God or nature, so the notion of human created disasters has more and more been advanced. This was first stated with respect to the realm of technological accidents, but has increasingly been applied to natural phenomena also. This has partly resulted from a logical recognition that, for example, the occurrence of an earthquake or a chemical explosion per se does not automatically result in a "disaster." Thus, a natural land movement of a certain kind is an earthquake and the transformation of a an inert liquid into an expansive gas is a chemical explosion. But unless there are significant social negative consequences of some kind, such happenings remain only a geophysical event or a chemical process (e.g., an earthquake in uninhabited land or a chemical explosion caught within a safety container). So, the Acts of God (or Nature) have increasingly been displaced by the notion of the Acts of Men and Women (or Society).

In fact and increasingly so, the great majority of disaster researchers have take the view that there is no such thing as a natural or even a technological disaster. In reality, it is argued, all disasters are, one way or another, 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.

From this point of view, 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).

So-called technological types of disasters of course have almost always been seen as involving crucial social components. No one would argue that a chemical disaster, a nuclear plant disaster, many transportation accidents as well as many fires and explosions, etc. are the result of some "natural" agents. Rather they are seen as resulting from human errors and mistakes. Along some lines in fact, technological disasters are differentiated from natural disasters in that the former are seen as preventable by human actions whereas the latter are not. Actually as we have just implied this separation of natural and technological is not a valid distinction, but for our more general purpose we are arguing that all disasters--whatever natural and/or technological agents might be involved--are essentially social happenings. They are manifestations of weaknesses or vulnerabilities of social systems.

Now there are at least five major implications of rethinking of disasters as basically social phenomena.

1. 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.

2. 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 what might seem to be purely technical decisions in planning actually make assumptions about the basic sources of problems and disasters..

3. Furthermore, emphasis on the social rather than the physical nature of 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 Ukraine 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.

4. 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).

5. 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).

Approached this way, disaster planning of necessity has to be seen as part of societal and community developmental planning.

Overall, our point is that when disasters are visualized as primarily social phenomena, those involved in planning for such possible happenings are necessarily moved into a more proactive rather than reactive stance and can more realistically prepare for mitigating, preparing, responding and recovering from such occasions.

References

- Bates, Frederick and Walter Peacock. "Long term recovery." International Journal of Mass Emergencies and Disasters 7 (1989): 349-365.
- Cuny, Frederick. Disaster and Development NY: Oxford. 1983.
- Love, Ruth. "Letter." Sociological Footnotes 18 (1990): 8.
- Quarantelli, E. L. Some aspects of disaster planning in developing countries. Preliminary Paper # 144. Newark, DE.: Disaster Research Center, University of Delaware. 1990.
- Sapir, Debarati and Michel Lechat. "Reducing the impact of natural disasters: Why aren't we better prepared?" Health Policy and Planning 1 (1986): 118-126.
- Wijkman, Anders and Lloyd Timberlake. Natural Disasters--Acts of God or Acts of Men? London: Earthscan. 1984.