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THE 1999 FLOODS IN VERACRUZ AND THE  
PARADIGM OF VULNERABILITY

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# **The 1999 Floods in Veracruz and the Paradigm of Vulnerability**

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## **The 1999 Floods in Veracruz and the Paradigm of Vulnerability**

### **Abstract**

This study examines the distribution of warnings and of services to victims of the 1999 floods in Veracruz, Mexico and offers a criticism of vulnerability as the dominant paradigm guiding national and international disaster-related programs. It has sections on the vulnerability paradigm, the 1999 flood, and the methods used in the analysis. The information comes from a survey of 385 head of households flood victims residing in three cities in the north of Veracruz, Poza Rica, Gutierrez Zamora, and Tecolutla. The results indicate that government services to the population threatened by the floods were almost nonexistent. Radio programming and personal relations with friends, neighbors, and kin, were the most important sources of warnings about the hazard. The respondents' integration in their communities and the social organizations of these communities were key determinants of their receipt of warnings and assistance such as vertical evacuation sheltering. Authorities should place much greater emphasis than they do now on facilitating the use of vertical evacuation and the service of radio stations providing information to communities at risk of extreme weather events, improving their weather and disaster-preparedness programming and making radios available to people in areas at risk of severe weather and other hazards. Disaster preparedness and mitigation need to be made part of their efforts in community development, encouraging the growth of social capital that can be used for disaster response and recovery. The implications of these findings for the continued use of the paradigm of vulnerability that provides guidelines to present-day international assistance at times of disasters are considered.

## **The 1999 Floods in Veracruz and the Paradigm of Vulnerability**

This is a study of the factors that impacted the distribution of warnings and of services to victims of the 1999 flood in Veracruz, Mexico and of the prevailing approach to disaster programs and studies in the region. The emergence of vulnerability as the dominant paradigm in national and international disaster-related programs has provided conceptual guidance to a very large corpus of scholarship on the topic of disaster. In the following pages we offer a criticism of this approach and document its failings in the case of the Veracruz floods of 1999.

In Latin America, the majority of empirical studies of disasters that have used the concept of vulnerability have not placed equal attention to the complementary dimension of resilience (Aguirre, 2004). Instead, the emphasis has been on equating vulnerability with poverty, on claims that the powerful and well to-do create risks that the common people then endure, that countries in the third world are more vulnerable than those in the developed world, and on assumptions about the web of international dependence in which Latin America participates. The popularity of the vulnerability approach to disasters coincides with the emergence in the United States during the 1980s and 1990s of what has been termed an “ideology of victimization” (Best, 1999, 103-117), the main points of which, paraphrasing Best, is that victimization is widespread; consequential; straightforward and unambiguous; often unrecognized; and meriting respect and attention. It is a perspective claiming that the “causes of social problems could be understood and therefore that risks could be known and should be prevented. Those who suffered were not merely unfortunate pawns of random fate; rather, they were victims, harmed by callous social arrangements (Best, 1999, 102)”. The vulnerability paradigm has many elements in common with this broader ideology of victimization. In summary fashion, it presents a complex, multidimensional characterization of vulnerability; it equates vulnerability with poverty; it assumes that the victims are not responsible for their vulnerabilities, but rather, that their vulnerabilities result from the operation of differential power in society; it emphasizes the identification of those responsible for the creation of risks and vulnerabilities of populations; it claims that developing societies are more vulnerable than developed ones, both dependent and victimized by them. From the vulnerability perspective disasters are understood as unresolved problems of social and

economic development, resulting from the interface of risk and vulnerability, as in the well known formula  $\text{disaster} = \text{risk} * \text{vulnerability}$ .

Side by side with this discourse is the weakening of the state and the inability or unwillingness of governments to discharge their responsibilities in disaster prevention and mitigation, either because of the lack of effective programs and technically qualified personnel, or because such programs are perceived as ineffective since “la gente no hace caso” (people are unconcerned). Governmental inactivity and cultural conceptions create disaster victims quite apart from the ideology of victimization identified by Best.

*Subculture of Disasters.* One of the important albeit perplexing effects of this vulnerability view of disasters is that the so called “gestion de riesgo,” or measures akin to disaster community programs conducive to the mitigation of the effects of disasters, are often structured under the assumption that the so called victims are defenseless and do not have the resources to handle the problems of disasters. The “gestion de riesgo” programs have their origins in a technocratic vision of disasters, embodying the logic of rationality and administrative control, in what Dynes has called the military model of disaster programs (Dynes, 1994), for they impose on communities a vision of risk that assumes that people should make risks and disasters the central concerns of their lives, which they do not do, for they have a plethora of other daily concerns. In a curious spin to the original concept of disaster subculture, created to recognize local initiative and resilience in the face of disasters, the people at risk are perceived as needing the support, oversight and guidance from international and national programs and bureaucracies

It is in this context in which vulnerability is a catch phrase used to encapsulate a number of unexamined assumptions regarding what needs to be done to help people in the developing world faced with disasters, that the present study examines the experiences of victims of the massive 1999 flooding in Veracruz, Mexico. In what follows, we ascertain the functions of the official civil protectors during the period immediately prior and subsequent to the disaster and contrast their activities to those of indigenous resources and social relationships available to the victims as they adjusted to the floods.

*The October 1999 Floods.* The October 1999 floods impacted the states of Veracruz, Puebla, Hidalgo, and Tabasco in eastern Mexico. According to official

statistics, 384 people died and 368,000 suffered direct material losses (CENECAM, 1999). They occurred as a result of torrential rains associated with Tropical Depression NO. 11. The extensive rains caused the rivers flowing from the mountains to the Gulf of Mexico to overflow their banks. These rivers traverse different territories with small and medium size communities that near the coast become important urban centers. The present study is limited to the experience of residents of three communities in the state of Veracruz. In Veracruz, almost 40 percent of the municipalities were impacted by the floods, which caused 124 deaths and material damages to 209,000 residents (Segob, 1999), for a loss of roughly 2,800 millions pesos (Bitran, 2000)

### **Methods**

*Location.* People living in cities near the rivers in the coast of Veracruz are familiar with the problem of riverine flooding. Floods occur every 2 to 5 years, and during these events many of the homes in segments of these coastal cities are impacted. Floods thus constitute a “normal” part of life. Indeed, the extraordinary severity of the flooding of 1999 was produced not so much by inordinate amounts of rain but rather by the decision of the authorities to open the floodgates in many of the dams in the mountains that are used for electric generation and agriculture. This controversial decision, with extraordinary negative consequences for the region, was taken by federal authorities in charge of the administration and maintenance of the dams and use of water working for Comision Nacional del Agua (Federal Commission for Water). The 1999 flood was a 50- year recurrence event. However, most of the population in the north coast of Veracruz does not have a collective memory of such events, for the area began to experience significant population growth in the second half of the 20th Century in the aftermath of the growth of oil exploration in the zone.

We selected three communities in this area. They are near rivers in two different hydrological basins: the City of Poza Rica, near the Cazonas River, with 151,441 inhabitants, and the communities of Gutierrez Zamora with 14,422 inhabitants and Tecolutla, with 3,797 inhabitants, both near the River Tecolutla (INEGI, 2000). All three localities have diverse socioeconomic sectors and experienced similar levels of damage from the 1999 event (Bitran, 2000). However they differ in the length of their settlement

and in the extent that their populations can be assumed to have been familiar with the flood hazard.

The oldest community is Tecolutla. It existed prior to the Spanish Conquest and grew in population around its port during the first two decades of the 19th century. Subsequently it lost population and almost disappeared, only experiencing growth in the second half of the Twentieth Century as a result of tourism. The second oldest community is Gutierrez Zamora, which was formed as a small community during the second half of the 19th Century and in 1877 took its present name. Finally, the youngest and largest city included in the sample is Poza Rica, which was established in the 1930s, experiencing rapid growth as a result of the introduction and expansion of oil production. To this day, its main industry continues to be petroleum exploitation.

**Sample.** The sample is composed of 385 head of households in the three cities. The information was collected in respondents' homes by trained interviewers who were local high school and university students. The questionnaire is composed of eight sections covering the conditions before and after the flood of October 1999. The initial questions asked about perceived unmet social needs of the communities and the respondents' level of involvement in organizations in their communities prior to the floods. Other questions tap the residential history of the respondents, their receipt of warnings, how respondents became aware of the seriousness of the flood, the reactions to the flood by members of the community, the existence or emergence of community social networks providing assistance during the emergency period, evacuation procedures, the cost of the flood in human life and money, as well as the respondents' perception of the likelihood of future natural disasters.

In the statistical analysis presented below, the following variables are used: Age (1=less than 16 years, to 5= more than 50 years of age); Education (1=Incomplete primary grade, to 7= University graduate); Gender (0 and 1, male); Residence in Zamora (0, 1=yes); Tecocutla (0, 1=yes); Poza Rica (contrast category); Membership in Community Organizations--civic and religious organizations, sport clubs, governmental boards, political parties, others (0, 1=yes); Extent that the Home Was Prepared Against Floods--elevated, had containing walls, had a second or higher floor, other preparations (0 and 1, yes); Perception of a Dangerous Environment, or the number of floods

experienced by the respondents and the extent to which they perceived area dangerous (0 to 5=area was perceived as very dangerous and the respondents had experienced more than two floods in the last 5 years); Number of Years Residing in Home Prior to the 1999 Flood, log transformed (0 to 1.86); Received no official recommendation as to what to do about the Flood (0, 1=no recommendation); Received Assistance from friends, neighbors, kin, Other Sources (0 to 2 or more sources of assistance); Collective efforts took place in the neighborhood to mitigate the impact of the flood (0, 1=yes).

**Statistical Modeling.** Logistic regression (LR) is used to model whether respondents lacked information that something serious was about to happen to them<sup>1</sup>. Tests on the assumptions of LR showed that there were no statistically significant second-order interaction terms in the models presented. Moreover, a number of mathematical transformations of the continuous predictors did not strengthen the overall fit of the model, with the exception of age, that was log transformed. There is also the absence of co-linearity in the model. Thus, the tolerances of all the predictors are above .80 with the exception of Gutierrez Zamora (.52), Tecocutla (.72), years of residence, logged (.74), and environmental perception and experience with floods (.64).<sup>2</sup>

Full and reduced versions of the LR model were used to explore the set of factors that were associated with respondents lacking information that something serious was about to happen to them. The first model includes all of the predictors: demographic information about the respondents (age, education, gender); the impact of residing in Gutierrez Zamora, Tecocutla, and Poza Rica; background variables tapping information about the extent of respondents' participation in community organizations; the extent to

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<sup>1</sup>For a review of BLR see Andy Field, *Discovering Statistics Using SPSS for Windows*. London, Sage Publications, 2000. Another excellent discussion is also found in

<http://www2.chass.ncsu.edu/garson/pa765/logistic.htm>. BLR is appropriate for the present case, for it is designed to model a dichotomous dependent variable with categorical and continuous predictors. We opted to use BLR in the analysis of the data rather than discriminant analysis because of the easily interpretable way in which probabilities can be computed from log odds in BLR, which is not true of the discriminant scores. Nevertheless, the results are substantively similar if discriminant analysis is used (not shown, available upon request).

<sup>2</sup> The collinearity diagnostics indicate that in the matrix of variance proportions, Zamora (.21), Tecocutla (.17) and receipt of assistance (.37) shared a model's dimension, while environmental perception (.17), gender (.43), and education (.20) shared another dimension.



which their homes were prepared to withstand floods; the number of years they had resided in the homes impacted by the flood; and their perception of the dangerousness of the area in which they lived, including the number of floods that affected them in the past; whether they received no recommendation as to what to do to minimize the impact of the flood, the extent of help they received and whether there had been collective action in their neighborhoods to prepare against the flood. The reduced model replicates the findings from the full model while presenting a more parsimonious set of results. It used a Backward Stepwise (Likelihood Ratio) method of regression to identify statistically significant predictors. The results are presented in Table 1.

## **Results**

*Preliminaries.* Once we try to ascertain the empirical basis for the ideology of the defenseless victim (De Ville de Goyet) that is used to justify international assistance and government programs attempting to alleviate and mitigate the effects of disasters, it becomes clear that people are not defenseless victims, and that in fact they survive disasters using whatever resources they have available in the near absence of government assistance. For example, they used vertical evacuation to find shelter (Ruch et al., 1991). Vertical evacuation was used very effectively; it was one of the only resources available to them to save their lives. In the typical case, they would go to houses of neighbors with second floors and to public buildings, where in most cases they had to stay for close to two days in the second floors and in the roofs waiting for assistance, mostly from their own neighbors. The relatively flat topographic features of the area, and the magnitude of the flood made it impossible for many to evacuate from their neighborhoods. Instead they had to find refuge in these buildings, which were not equipped to shelter them, so that it was common to experience hunger and privations as they waited for the waters to recede.

During the flood, governmental services to the population threatened by the floods that eventually occurred in the region were almost nonexistent. For example, in answer to the question of how they knew that something serious could happen and that their homes were in danger of being flooded, 49 percent of the 385 respondents stated that they had never known that the flood was about to happen. Proteccion Civil warned nine of the respondents, and seven received the warning from employees of municipal governments and the police. The absence of these official organizations during the period

immediately prior to the floods was apparent not only as a source of the warnings that the population received but also as sources of assistance during the period immediately prior to the floods; only 13 respondents reported receiving help from the Sistema Nacional de Proteccion Civil, five from employees of the municipal governments, and another five from the local police. By way of contrast, the radio, and personal relations in the form of friends, neighbors, and kin, were the two most important sources of warnings about the hazard; 66 respondents heard the news of the incoming floods from the radio while another 46 heard it from friends, neighbors and kin.

The importance of radio and personal contacts as sources of warnings about the flood is underscored in cross-tabulations (available upon request), which show that respondents who never knew that something serious could happen to them (190) also did not hear the news through radio or through personal contacts. By way of contrast, all of the 66 respondents who heard the news about the hazard in the radio (or 34 percent of the 195 respondents) also knew that something serious was about to happen. Similarly, 74 respondents were told about the threat by their neighbors, friends, and kinfolk and all of them knew about the hazard that was about to impact them; 38 percent of the 195 respondents had such knowledge.

While neither radio nor personal contacts accounted for all of the sources of information that people had on this flooding event, these findings underscore two specific ways to strengthen mechanisms to communicate warning messages in this region. Authorities in charge of civil protection should pay much greater emphasis than they do now on strengthening disaster related programming of radio stations serving communities at risk of extreme weather events, improving their weather and other disaster-relevant programming. They should also make radios available to people in areas at risk of severe weather and other hazards. These results also show that efforts to develop the communities and the network of social relations available to residents in these communities, such as encouraging the creation of voluntary associations and community activities, which may seem at first glance to be unrelated to the matter of disaster preparedness and mitigation, will have the added benefit not only of creating livable

communities but also of facilitating the dissemination of disaster warnings and creating social capital for use at times of crises (Ranganath, 2000).<sup>3</sup>

**Multivariate Analysis.** These results are underscored by the findings from the multivariate binary logistic regression models in Table 1. As shown in the reduced model, knowledge about the impending flood increased with membership in community organizations and if respondents resided in Gutierrez Zamora and in neighborhoods in which neighbors actively participated in preparations immediately prior to the flood. It declined if they did not receive recommendations about what to do to prepare from anyone, and if they were older and with more years of residence in the communities.

Logistic Regression Models of Knowledge About the 1999 Flood

Variable	Full Model			Reduced Model		
	B	Wald	Exp(B)	B	Wald	Exp(B)
Age	.16	3.4*	1.17	.17	4.4*	1.2
Education	-.04	.24	.97			
Gender	-.19	.50	.83			
Zamora	-1.75	25.6*	.17	-1.6	35.8*	.20
Tecocultla	-.32	1.31	.77			

<sup>3</sup> The accumulating record from the developing world shows that the greatest success in disaster preparedness and mitigation has come from the work of NGOs involved in community development, as these organizations have developed sustained collaborative disaster programs in conjunction with community organizations and local governments. Mulwanda (1993) documents how NGOs have successfully worked with squatter communities in Zambia to improve their environment and their housing. In Nicaragua, Rocha and Christoplos (2000) indicate that NGOs have a national radio communication network that is used to broadcast warnings to localities. They also work with municipalities to develop maps of risks, and have helped develop community committees that during disasters become emergency committees and act as important operating centers to organize response to various hazards.

Membership	-.91	13.6*	.40	-.92	13.9*	.40
Home Prep.	-.35	1.3	.71			
Dangerous Env.	.01	.01	1.07			
Yrs. Residence	.64	6.5*	1.90	.61	6.6*	1.84
No recommend.	.77	10.3*	2.16	.73	9.6*	2.1
Received Assist.	-.02	.02	.98			
Collective Act.	-.80	5.2*	.45	-.79	5.2*	.46
Constant	-.09			-.57		
-2 Log Likelihood		435.8*			39.2*	
Homer and Lemes.		6.66			11.96	
Nagelkerke R Sq.		.29			.28	
.						
% Correct. Class.		69			68	
*p<.05						

The effect of these variables on the overall probability that the respondents knew that the flood was about to impact them can be illustrated by hypothetical cases constructed from the coefficients in the equations in Table 1. Assuming hypothetical respondents of average age (mean= 3.25) and years of residence in their communities (log mean=.93), residing in Gutierrez Zamora (1) and in neighborhoods in which people got together to try to protect themselves (1), who participated in community organizations (1), and who received recommendation about what to do during the emergency (1), the probability that they **did not know** that the flood was about to occur was .19. By way of contrast, for hypothetical respondents of average age and years of residence in their communities, not residing in Gutierrez Zamora (0) or in neighborhoods in which people got together to try to protect themselves (0), who did not participate in community organizations (1), and who did not receive recommendation about what to do (0) during the emergency, the probability that they **did not know** that the flood was about to occur was .76.

The extent of respondents' integration in their communities and the social organizations of these communities were key determinants of their receipt of warnings (Clarke Guarnizo, 1992). Poza Rica residents, if compared to Gutierrez Zamora and Tecocultla respondents (see full model above) were less likely to have known about the flood. We do not know why this is the case, and it may be that these differences can be explained once the disaster subcultures of these communities are understood.

### **Conclusion**

In Veracruz there is a lack of scientific knowledge and monitoring of severe hydro-meteorological events. There is also the absence of a public warning system that would utilize radio stations effectively, as well as official plans for the evacuation of populations threatened by floods, to include the systematic facilitation of vertical evacuation as part of these official efforts. There are also resources. The area of the north of Veracruz is well known for its propensity to experience floods. Its population has developed familiarity with these events and a sense of confidence that they know how to respond to these floods. The floods of 1999 were different because their magnitude was unexpected and went beyond their knowledge and experiences with floods. They were surprised by these events, which surpassed their capacity to respond and thus revealed like few other disasters before them the lack of government programs of disaster preparedness and mitigation in the region.

The ideology of the defenseless victim which is used in many studies of vulnerability to justify international assistance and government programs attempting to alleviate and mitigate the effects of disasters is not supported by these findings (DeVille de Goyet): people survived the floods using personal and neighborhood resources in the near absence of government assistance. To the extent that these findings can be generalized, they call into question the paradigm of vulnerability that provides guidelines to present-day international assistance at times of disasters and to the link that is made nowadays between disaster and social and economic development, for despite their lofty claims, in practice the vulnerability paradigm at times function as a rhetorical device used by governments and their bureaucracies to justify their request for funds from international funding agencies and the distribution of disaster-related resources among

state bureaucracies rather than as an overarching conceptualization that provides effective means to benefit disaster victims and their communities.<sup>4</sup>

Years ago, the influential UNA-USA Policy Studies Panel on International Disaster Relief report (1977) on the global response to natural disasters argued that the three most serious political problems blocking effective foreign aid were: 1. The unwillingness of affected governments to acknowledge that disasters had occurred or recognize their full magnitude, 2. Governments' decisions regarding the distribution of disaster relief, which often was impacted by considerations other than the plight of

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<sup>4</sup> Other national experiences support this reasoning. Maskrey (1991), analyzing the institutional response to the Alto Mayo earthquake in Peru in May of 1990, wrote that "In Peru, the government's disaster mitigation as an institutionalized activity does not exist. Instead...a kitsch version of disaster relief is (used in which a)...a passive population is converted into a recipient of relief aid...and a spectator of a procession of evaluation missions...People's own organizations and their capacities to define needs and priorities are unfortunately invisible in the kitsch version. (p. 11). Rocha and Christoplos' (2000) analysis of disaster mitigation and preparedness in Nicaragua After Hurricane Mitch show that despite massive foreign assistance predicated on the requirement of the adoption of disaster mitigation measures, disaster prevention and mitigation has not taken place, for concern with disasters has been replaced with national debate over what model of economic development should be adopted: "Shockingly, many reports and recommendations...totally ignore the impact of natural disasters on these alternative development scenarios, and the impact of these development scenarios on the ability of vulnerable populations to withstand the impact and shocks to their livelihoods. The heated development debate has displaced concern for disasters" (p. 12). The perspective of the victims and their communities has been generally ignored in this new discourse because of the popularity of the cliché, part of the vulnerability discourse, that "the devastating effects of natural disasters are simply a sign of underdevelopment, and that only the poor suffer during disasters due to their levels of underdevelopment." According to these authors, in Nicaragua this cliché is used to justify the lack of specific disaster prevention activities, since presumably, "development" is the only solution to minimize disaster risks. It is not only a matter of national decision-making and policy, for international humanitarian agencies, international financial institutions, and governments' programs of international assistance also have their own working definitions of disaster victims reflecting political and other criteria. The result is that very often the suffering of human beings is ignored, in part out of a neo-liberal fear that humanitarian programs will create "dependency." More broadly, while there is consensus that the perspective of people and the communities that are victimized by disasters is very important for effective reconstruction (see for example Parasuraman and Unnikrishnan, 2000: 375-380; Albala-Bertrand, 1993), the reality is that governments and international agencies are not inclined to share power and resources with local entities (Middleton and O'keefe, 1998: 156).

disaster victims, and 3. Withholding of aid to categories of victims and corruption in disaster relief operations. It argued that the most important problem faced by the international disaster relief system was the absence of appropriate counterpart government organizations capable of responding to the needs of disaster victims and channeling foreign relief aid. Since its issuance, much has changed in the intervening years and yet much remains the same. Instead of unwillingness to recognize disasters, nowadays the tendency of some governments is to use disaster events as triggers to access foreign aid that once obtained is often diverted from the original intention of donor countries and organizations. Most governments nowadays have emergency management institutions to handle foreign aid, but on average the effectiveness of such institutions is quite limited. Mulwanda's (1993) description of Zambia's lack of a national emergency and housing program and policy seems to correspond to the situation of most countries in Latin America; their reality is one of "disjointed incrementalism" in which "the countr(ies are) constantly involved in reacting to crisis situations with disjointed programmes whose methods and results are forgotten until the next crisis (p. 75)."

Corruption continues to be a constant, in part due to the absence of accountability (see for example Christie and Hanlon, 2001, 73-80). Hand in hand with the vulnerability-development discourse is the prevailing lack of transparency in public and private financing of international disaster assistance programs. Illustrative of this lack of transparency is Benson and Clay's (2002; see also Rogers, 1999) examination of the financing of disaster-related programs in Bangladesh in the aftermath of the ruinous 1998 floods. They complain (p. 83) about the lack of data and of specific information necessary to understand the public financing of disaster programs in the country, including revenue and expenditure streams not included in the national budget, and conclude that such accounting practices make it very difficult both to evaluate current economic and financial issues and achieve accountability: "The government's way of reporting budgetary information...unusual in several respects, also makes it less likely that the public accounts would reveal the full extent of the impact of disasters on public finance."

In the case of Mexico, the relation of its government to international aid organizations reflect the first problem identified in the UNA-USA Policy Studies Panel

on International Disaster Relief Report, i.e., the unwillingness of affected governments to recognize the full magnitude of disasters because such recognition implies the acknowledgment that they are incapable of preventing disasters, and even as important, that they accept the responsibility to assist the victims of disasters (Oxfam, 2003). For example, President De la Madrid did not accept international assistance during the first days of 1985 Mexico City earthquake. This decision brought widespread criticism of his government, for it was interpreted as another indication of the government incapacity to help the victims and facilitate the reconstruction of the urban settings (Zinser, Morales and Peña 1986). Likewise, in the immediate aftermath of the 1999 floods in Veracruz, the Mexican government again hesitated to accept international aid, arguing that it needed to reconstruct the infrastructure damaged by the floods before it could handle the distribution of such aid to the victims (Presidencia, 1999). Corruption has been a frequent problem (for a study of corruption in Latin America see Xin and Rudel, 2004). The case of Hurricane Paulina, in 1997, comes to mind, in which substantial international aid assistance could not be accounted for; a particularly unfortunate example involved the “loss” of the American Red Cross’ donation of approximately \$300 million dollars to the Mexican Red Cross, which humiliated the president of the institution and forced him to resign, causing a loss of public credibility to the organization (Macias y Fernández, 1999). More recently, the persistent complaints about the inappropriate distribution of international and national funds destined for disaster victims has forced the introduction of federal policies that prioritize the work of the military in the distribution of such aid, sidestepping the work of civilian organizations, on the argument that such assistance should not be used or directed to obtain politically motivated goals (Macias, 2001).

Aside from these problems related to the need to improve the programs and operations of the Mexican state to respond and mitigate disasters, much can be done to improve the disaster preparedness of the population in the north of Veracruz, for the floods revealed what is missing and what is needed as well as the resources that are present and can be used to develop disaster resilience, which should be understood as part of community development and encouraging the growth of social capital. People are not dependent but proactive, have resources, know best what they need and can afford, so



that the work of experts and government officials should be to listen, understand, and cooperate and work with the community as it attempts to improve its safety.

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