

Pilot Study of Community Based Disaster Management Strategy for Earthquakes

Location:	La Vega, Caracas
Date:	2004
Sector focus:	Earthquake and secondary hazard (landslide)
Spatial focus:	Metropolitan, municipal and community (neighborhood); these were, respectively, great Caracas, the Liberator municipality, and <i>parroquia</i> of La Vega

Bibliographical reference

F. Colina, J. Delgado, V. Jimenez, J. Lafaille, A. Linayo, J. L. Mosquera, *Pilot Study of Community Based Disaster Management Strategy for Earthquakes. Case of La Vega*, FUNDAPRIS – JICA, Caracas, Sept 2004.

Abstract

As part of a broader project to develop an earthquake master plan for the whole of greater Caracas, the question of social organization for collective self protection was addressed by a two stage participatory, neighborhood level study of vulnerability and capacity in two neighborhoods, La Vega (presented here) and San Bernardino (not presented here).

Review of secondary data allowed the choice of these two neighborhoods on the basis of strong and active civil society and local government and high earthquake hazard exposure (due to very steep slopes and self-construction houses in the case of la Vega; and due to site conditions and residential high rise buildings in the case of San Bernardino). An imaginative, table top exercise provided the basis for discussion of earthquake scenarios. In a second stage, selected leaders went beyond the scenarios to develop action plans for reducing earthquake risk.

This is a case of great probable interest to anyone working in a large urban context, and particular those who are attempting to develop more cooperation between civil society and local government. The comparison of two different types of community within the same city -- informal self built houses and a formal residential area – provides insight into community perception of risk and response.

Technical description

Hazard/risk type: Earthquake, landslide

Type of assessment: Vulnerability and capacity assessment (including institutional assessment)

CRA process

Review of secondary and background data. Choice of neighborhoods. First phase “disaster imagination game” meeting (see Methods below). Second phase meetings to calibrate community vs. local government perceptions and expectations.

Methods used: A two stage method was used. (1) The “disaster imagination game” (DIG). Sub-groups were chosen, and they separately walked, observing and discussing areas prone to earthquake hazard and landslide. They then separately worked on three table top earthquake scenario based loosely on modeling results from a JICA study of the impact of a repeat of the 1967 Caracas earthquake. Results of both “town observation” walks and scenarios were then discussed in plenary. Participants were chosen from among La Vega’s civil society leadership. (2) A selection of those who part in DIG were then invited to meet with local and metropolitan service providers to discuss needs and expectations for collaboration in reducing the earthquake vulnerability documented in the earlier DIG exercise. Besides civil society representatives, stakeholders included the metropolitan fire department and civil protection office.

Was livelihood analysis used? No.

Was external specialist knowledge introduced? Yes, in the form of the JICA modeling of earthquake impact scenarios.

Vulnerability analysis

Differentiation among households by socio-economic and other characteristics was not discussed although they were taken as criteria for the selection for the case studies. The emphasis was on neighborhood level hazard scenarios and possible actions since earthquake would likely trigger landslides affecting most of the three and four floor self built houses in a very high density area and also would have widespread impacts across socio-economic and other difference lines.

Capacity analysis

Resources available: *Financial resources:* JICA donor funding. *Human resources:* national and international experts from Japan, Colombia, and Peru. *Local resources:* considerable civil society organization, led in this case by the La Vega Neighborhood Association.

Limitations to capacity: Time for volunteer activities, money for structural mitigation.

Action planning and implementation

What actions were actually planned? No specific actions, but a series of priorities was generated by civil society stakeholders and government stakeholders. Where they overlapped, a series of actions could be defined.

What actions were actually carried out? The results of the study are in the Municipality Office with recommendations to be followed to reduce vulnerability in both cases studied. Political changes between the time in which the study was developed and the time in which the results were given, among other reasons, have been one of the causes of the delays for the continuation and application of the results.

Have these actions turned out to be sustainable? N/A

Were there any unanticipated additional benefits of the actions? Greater mutual respect and confidence between government and civil society; more inter-communication and coordination among neighborhood level civil society organizations.

Were there any unanticipated negative consequences of the actions? No

Limitations on action/ sustainability of actions: No concrete actions were settled on in this exercise; however, generally the municipality suffers from lack of financial resources although it has adequate technical ones.

Indicators

JICA modeling suggests that more than 500 buildings in La Vega would be destroyed and more than 20 people would die (in a population of 120,000) in the case of an earthquake like the 1967 one that affected Caracas. If and when another earthquake hits, an indication of the effectiveness of mitigation will be fewer building collapses and fewer deaths.

Contextual notes

Existence/ role of prior or contemporaneous conflict? There has been considerable political tension and conflict in Venezuela over the past few years and, in particular, during the period of this project.

Role of displacement/relocation? The inhabitants of La Vega came from rural areas during the 60's and the area had a rapid development during the 70's and the 80's.

Role of prior disaster & prior recovery attempts? The deadly 1967 earthquake was the technical basis for scenario building. However, more likely in people's minds were the catastrophic landslides and floods in the greater Caracas area in 1999, and, also in Caracas, a localized landslide triggered by rainfall that killed "dozens" of families in 1994 (Las Madres landslide in the Los Mangos neighborhood). The same area has been recently (2005) affected at the site of the earlier landslide, and in general La Vega is affected each year during the rainy season.

Significant historical, geographic, economic, political, or cultural issues that influenced this instance of CRA and its consequences? The history of urban growth in Caracas and its very hilly topography, with deep ravines, are essential features that structured the work of the CRA. In addition, the current national political ideology encourages local activism through so called Bolivarian Circles and other institutions.

Strategic notes

How has this practice of CRA influenced change in policy and practice at the national level? Yes, given national attention paid to landslides provoked by flooding in the greater Caracas area in December 1999 ¹ and the high profile of this Japanese funded planning exercise, national level policy makers will have noticed the use of participatory methods.

How has this practice of CRA influenced change in policy and practice at local level? N/A. Unlikely unless there was actually concrete follow up to the meetings between local civil society leaders and local government officials. This social component was embedded in – possibly buried or hidden in – a much larger Japanese funded technical planning exercise.

How has this practice of CRA influenced the level of organization and solidarity in the locality where it was carried out? Yes, the neighbors actually have had meetings regarding the subject, but the government institutions are not participating anymore in the meetings with the community.

Less divided along class, gender, age, ethnic lines? N/A

More divided along these lines? N/A

Are the people living in this area more able to speak out on issues that concern them? N/A

Have new civil society organizations been created directly or indirectly because of this practice of CRA? No.

Lessons learned

- ♦ Local civil society leaders are fully capable of joining with technical professionals in hazard impact simulations (“the disaster game”)
- ♦ Such CRA exercises may lead to better cooperation between civil society leaders and professionals
- ♦ There needs to be concrete follow up in order to harvest the full advantages of this improved mutual understanding.
- ♦ Through the process of community training, institutions realized that the needs and perceptions of the community are different from their professional proposals.

Keywords

Earthquake, landslide, steep hillside urban settlement, neighborhood organizations, scenarios for planning, civil society/ government cooperation, institution-community relationships.

Resource person(s)

Virginia Jimenez-Diaz, Caracas, Venezuela, email: virginiaj@cantv.net , virginiaj20@yahoo.com & Alejandro Liñayo, email: linayoa@icnet.com.ve.

¹ <http://news.bbc.co.uk/1/hi/world/americas/571928.stm> .