

Participatory Disaster Risk Reduction Model Guatemala Pilot – Final Report

Location: Guatemala

Date: August 2005 – January 2007

Sector focus: Multi-hazard risk reduction

Spatial focus: Community, municipality, division

Bibliographical reference

Emergency Capacity Building Project (ECB) *Participatory Disaster Risk Reduction Model; Guatemala Project- Final Report*. ECB (2007).

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Abstract

This publication is the final report of a pilot project conducted in Guatemala from August 2005 through January 2007 by the Disaster Risk Reduction Initiative of the Emergency Capacity Building (ECB) Project. The ECB Project is a collaborative effort of the seven agencies of the Inter-Agency Working Group on Emergency Capacity (IWG): CARE International, Catholic Relief Services, the International Rescue Committee, Mercy Corps, Oxfam GB, Save the Children and World Vision.

The main goal of the ECB Project's Disaster Risk Reduction Initiative (ECB3) is to improve the capacity for disaster reduction among IWG agency staff, affected communities, and local and national authorities. ECB3 focuses on identifying and developing appropriate preventive models and promising practices for disaster risk reduction (DDR) and the strengthening of community mobilization efforts in the prevention, mitigation, and preparedness to disasters. It has supported the exploration of risk reduction models in three pilot countries – Ethiopia, Guatemala and Indonesia.

This report documents the experience of and the lessons learned from four DDR projects undertaken as part of the disaster risk reduction strategy. The implemented pilot projects were in four distinct geographic regions with different social contexts, and focused on:

- Strengthening Capacity for Risk Management and Emergency Response in Senahú, Alta Verapaz and Neighboring Communities (CARE and Mercy Corps)
- Strengthening Risk Management at Local and Municipal Government Levels, Chiquimulilla, Santa Rosa (CRS)
- Strengthening Capacity for Emergency Preparedness in the Nuevo Amanecer Slum (Oxfam)
- Integrated Risk Management as a Tool for Disaster Reduction and Mitigation in Four Municipalities of the Department of Sololá (Mercy Corps)

The report details the project's work on capacity building, which included the organization and facilitation of a number of trainings and workshops for agency staff and the broader community on emergency response planning, minimum standards, cooperative damage evaluation and needs analysis, earthquake resistant construction techniques, and shelter management. This capacity building was achieved through an external and internal collaborative process.

Project members worked closely with government actors (e.g. Ministry of Education, National Planning Office, the Executive Secretary of the National Coordinator for Disaster Reduction, the Executive Coordination Secretary of the President) as well as with the United Nations, communities, students, local authorities and other non-governmental organizations and institutions. This process led to the drafting of an interagency agreement that will ensure agency commitment, not only to act jointly in risk management and emergency response, but also to legally formalize the consortium and generate communication and coordination mechanisms to advocate for public policies oriented towards improving risk management in Guatemala.

Technical description

Hazard/risk type: soil erosion caused by overflow of gully and pluvial water drainage canals, sudden/ flash floods, landslides, mudflows, seismic activity, fire and land conflict.

Type of assessment: Participatory assessments to establish an integrated disaster risk management process

CRA process

This publication does not specifically look at assessment methods; instead it builds on the findings of participatory assessments to establish an integrated disaster risk management process. Four different implementation projects are explained such as strengthening the organizational capacity of the population and its local structures in Senahú, Alta Verapaz through consistent involvement of the local municipal organizations and local community. In Chiquimulilla, Santa Rosa, and Nuevo Amanecer Slum the project team respected the existing community dynamics and organizational structures. By doing so, they were able to achieve a high-level of impact on inter-institutional coordination and on strengthening emergency preparedness capacity.

Vulnerability analysis

The report outlines examples of vulnerabilities but does not present a comprehensive vulnerability analysis for any of the four sites.

Capacity analysis

Resources available: The report does not address resources in a comprehensive manner but refers to the commitment and participation of diverse stakeholders including government authorities, educational figures, youth associations, women's groups and community members.

Limitations to capacity: Limitations were indirectly discussed such as the importance of collaborative and participatory processes and the lack of public social assistance for slum mitigation projects in one zone of Guatemala City.

Action planning and implementation

What actions were actually planned? Each pilot project had its own set of activities:

- **Alta Verapaz pilot:** In order to strengthen the prevention, mitigation and response capacity of community organizations, the project sought to reduce the physical vulnerability of the community through structural and non-structural mitigation measures. In addition, they planned to strengthen the alert and alarm systems in the municipal capital.
- **Santa Rosa pilot:** Form, train and strengthen units and develop contingency plans; install and establish operation of four communication and rudimentary flood early alert systems; establish a signage program in four communities at high risk of floods; coordinate efforts with other organizations and educational institutions on risk management.
- **Guatemala City pilot:** Conduct five trainings with the community to teach them concepts, tools and skills for risk reduction and to develop a solid work strategy for disaster preparedness.
- **Department of Sololá pilot:** Identify risk levels to then develop a preparedness and risk reduction plans; establish criteria for local, municipal and departmental assistance; identify and implement alert and alarm procedures and systems to facilitate a fast and efficient response in emergency, contingency and disaster situations; and systematize work processes, lessons learned and best practices.

What actions were actually carried out? The actions carried out are outlined differently for each project:

- **Alta Verapaz pilot:** The project delivered an Emergency Plan, a Risk Management Plan and an early alert system for mudflows. It also strengthened the organizational capacity of the local community and municipal organizations by involving them in all stages of project implementation. The report refers to the results of the “Las Gallinas” bridge reinforcement project, reforestation activities, the identification of various fruit and timber tree species, as well as grasses, that will diminish surface water run-off and support the soil and rock outcroppings. Most project activities intended to strengthen the early alert system for mudflows affirmed local organizational structures. The report also refers to the endorsement of local organizations of system maintenance, operation and activation.
- **Santa Rosa pilot:** A special team organized tasks and community trainings, establishing radio communication bases and preparing, discussing and validating the municipal and local emergency plans. The project also advocated for disaster preparedness in three municipal governments and 30 communities. The team identified institutions involved in disaster management and risk reduction and carried out joint activities to elaborate, discuss and validate the Municipal Emergency Plan. The team achieved a high-level of impact on inter-institutional coordination and on strengthening emergency preparedness capacity.
- **Guatemala City pilot:** The project strengthened community capacity to assume the role of Local Coordinator for Disaster Risk Reduction and take over activities related to local risk management at the end of the project. It worked with communities and families, further promoting their participation in community organization, training and strengthening. The project also formed a subgroup to allow other key community actors, such as teachers, to become involved in the risk management process. The project transferred new tools and methodologies of community development work.
- **Department of Sololá pilot:** The project established an integrated risk management process by disseminating information, sharing knowledge, contributing resources and coordinating activities. It carried out activities such as evacuation plans, shelter management, simulations and drills and emergency operations centers. Overall it developed an emergency plan and training for the volunteer firefighters of Santiago Atitlán; created an evacuation plan for the school Tzajiljá; extended greater geographic coverage of the radio system in the intervention zone; developed an emergency management plan; implemented trainings and analyses of needs for approximately 90 community members; and formulated and implemented three health plans. One of the project’s most important accomplishments was building the capacity of the health commission of the Municipal Coordinator. Another successful practice was the capacity building of the community members in the river basin.

Have these actions turned out to be sustainable?

- **Alta Verapaz pilot:** the publication reports that sustainability was achieved through the commitment, participation and endorsement of diverse groups and local organizations.
- **Santa Rosa pilot:** sustainability of the project is not addressed.
- **Guatemala City pilot:** one challenge the project team faced while trying to make slum mitigation projects sustainable was the lack of public social assistance. To keep projects running or to maintain small structures depends more on individuals than on an organizational effort and the neighborhood communities have limited abilities to summon their members to participate in the risk studies and assessments. However, Oxfam's policy promoting partnerships with national counterparts for project implementation will help national organizations to coordinate future projects.
- **Department of Sololá pilot:** sustainability is not specifically discussed. However indirectly it was addressed, for example by building the capacity of local communities, which in turn can become advocates for risk reduction activities in different regions.

Were there any unanticipated additional benefits of the actions?

- **Alta Verapaz pilot:** the tree species and grasses identified, which will reduce the physical vulnerability of the community to water run-off and unstable slopes, will also contribute to family income.
- **Guatemala City pilot:** Oxfam's policy promoting partnerships with national counterparts represented a double capacity building benefit for national organizations to coordinate future projects.

Limitations on action/sustainability of actions:

- **Guatemala City pilot:** the lack of public social assistance will make it difficult to achieve sustainable slum mitigation projects as neighborhood committees have limited abilities to summon members to participate in risk studies and assessments.
- **Department of Sololá pilot:** the report discusses limitations regarding land conflict transformation as a prevention and mitigation action. No model can offer a guaranteed, successful formula for land conflict resolution, as land conflict is extremely complicated and variable. It is important to select appropriate methods according to the history and socioeconomic factors of those affected by the conflict. Projects also cannot replace the responsibility of the government regarding systematic agrarian reforms and transformation of inequitable land possession regimes.

Indicators

Each pilot project had its own set of objectives. One could extrapolate indicators from these objectives:

- **Alta Verapaz pilot:** the objectives were to strengthen community organization for the prevention, mitigation and response to disaster risk; reduce physical vulnerability of the community through structural and non-structural mitigation measures; and strengthen alert and alarm systems in the municipal capital.
- **Santa Rosa pilot:** the objectives were to advocate for and strengthen risk management capacity in two municipal governments and four communities; install and establish operation of four communication systems and four rudimentary flood early alert systems and establish a signage program in four communities at high risk of floods; and establish social support networks and plans for information and public education campaigns on risk management.
- **Guatemala City pilot:** the objectives were to improve the organizational capacity of the residents of *Nuevo Amanecer* for disaster preparedness and response.

- **Department of Sololá pilot:** the objectives were to promote a culture of integrated risk management in the three municipalities with project interventions; identify risk levels and use them to make preparedness and risk reduction plans; establish criteria for local, municipal and departmental assistance;

Contextual notes

Existence/role of prior or contemporaneous conflict? For about 300 years, Guatemala was under Spanish colonial rule. The country proclaimed its independence in 1821 and experienced both military and civilian governments in the following centuries, as well as a 36 year-long guerrilla war. In 1996, the UN brokered a peace accord with the government which instilled peace. In this publication, the section regarding the Department of Sololá pilot mentions land conflict issues but does not enter into any specifics.

Role of displacement/relocation. During the civil war, hundreds of thousands of Guatemalans were killed, or disappeared, and over a million were internally displaced or refugees in neighbouring Mexico.

Role of prior disaster & prior recovery attempts? The country is vulnerable to seismic activity, including a 7.5 magnitude tremor in February 1976 which killed more than 25,000 people. Guatemala is also situated on the Caribbean Sea and Pacific Ocean, making it a target for hurricanes, such as Hurricane Mitch in 1998 and Hurricane Stan in October of 2005, which killed more than 1,500 people. The damage was not wind related, but rather due to significant flooding and resulting mudslides. The pilot project with the Department of Sololá discusses the value added to the project by the team's experience with responding to tropical storm Stan. Most of the project's concrete outputs (emergency plan for volunteer firefighters, school evacuation plan, etc) can be traced back to the response to the storm.

Strategic notes

How has this practice of CRA influenced change in policy and practice at local level? Although this is not specifically discussed in the report, the projects' capacity building work at community and municipal levels has likely influenced change in policy and practice at the local level.

How has this practice of CRA influenced the level of organization and solidarity in the locality where it was carried out? Although this is not specifically discussed, the work towards strengthening organizational structures has likely improved local organization and possibly solidarity.

Lessons learned

The publication dedicates an entire section to lesson learned. These are summarized below:

- a. Moving from emergency management to risk management in the areas of joint risk identification, linking disasters to development, and linking project participants from different levels proved difficult.
- b. Creating an association of agencies helped to coordinate efforts towards risk reduction management by optimizing resources. Particularly since the risk approach is a cross-cutting theme and development planning requires a holistic approach and cooperation between institutional, government and non-government actors.
- c. The topic of preparedness, particularly prevention and mitigation, is a good starting point for communities and their organizations and leaders. Having access to a peaceful land conflict resolution project allowed the project to identify specific critical threat areas and try to mitigate them.

- d. Involving local actors ensures local capacity building and project sustainability. Local actors who are mobile disseminate what they've learned to other communities. Creating potential strategic alliances and identifying counterparts with complementary policies, resources and technical abilities was invaluable. Creating a public space for the project can help bring in the future support and involvement of important actors, making the project more visible and generating a working dynamic that covers different levels.
- e. The work developed in the urban slum areas confirmed the dynamic elements of risk management due to continuous population migration and expansion of the slum areas. The project also needs periodic follow-up and the sustainability of the community's organization and actions is ensured through strategic alliances with organizations that permanently work in the area.
- f. It is possible to promote development processes that contain elements of risk management but it is important to work with multiple levels while trying to promote a risk management approach to a wider territory. It is also important to promote independent, though interrelated, processes in order to keep the collaborative effect. Alliances between public and private sectors on a local level make it more likely to achieve sustainability in community initiatives.
- g. Risk studies must be done for and according to the concerns of community and municipal project partners, not by and for technicians, in order to lead to agreements, joint negotiations and initiatives with a development focus.
- h. A good start towards emergency preparedness is by strengthening existing local structures, within the legal framework. To move to a risk management approach, it is necessary to extend the capacity building activities to other community organizations and community leaders in the at-risk region.

Keywords

Inter-agency working group, capacity building, integrated risk management, pilot project, early warning system, soil erosion, pluvial water drainage canals, sudden/flash floods, landslides and mudflows, and seismic activity, fire and land conflict.

Resource person(s)

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