adpc
Asian Disaster Preparedness Center

Community-based disaster management Nepal

Asian Urban Disaster Mitigation Program

Safer Cities 1

Case studies on mitigating disasters in Asia and the Pacific

Community-based initiatives in Kathmandu Valley

Pioneers in earthquake mitigation and preparedness

Is Nepal prepared for an earthquake? Probably not. Since the last major quake that devastated most of Nepal struck in 1934, many people have closed their eyes to its potential fury. "We have many other urgent matters to worry about" is the common response whenever earthquakes are discussed. But in fact, it is an urgent matter as geological experts show evidence that an earthquake is long overdue in Nepal. Roger Bilham of the University of Colorado, USA, confirmed that a big quake should have struck Nepal around 1984, fifty years from the last big one. Some non-governmental and community-based organizations have acted on this word and taken the lead in re-awakening the people of Kathmandu Valley to earthquake risks.

Introduction

The Himalayan region, covering almost the entire area of Nepal *(see map below)*, is tectonically active and has a long history of destructive earthquakes. Rapid population growth, unplanned development and constructions that do not meet the building code requirements make Kathmandu Valley increasingly vulnerable to earthquakes.

As a response, national and international organizations are taking a participatory approach in reducing earthquake vulnerability. Community participation in organizing, planning and implementing activities allows adequate assessment and management of risks as demonstrated by three main highlights found in Kathmandu communities. The first two of these have been carried out primarily through the Kathmandu Valley Earthquake Risk Management Project (KVERMP) (1997-2001) under the Asian Urban Disaster Mitigation Program of the Asian Disaster Preparedness Center (ADPC). The last highlight features a series of replications of KVERMP activities in communities outside the initial coverage of the project.

Source: http://www.theodora.com/maps/abc_world_maps.html

Abstract

This case study focuses on community-based initiatives under the Kathmandu Valley Earthquake Risk Management Project (KVERMP) (1997-2001). It highlights lessons learned from a pioneering community-based disaster management process developed in Ward 34 of Kathmandu Metropolitan City (KMC) and the implementation of a participatory approach in KVERMP's School Earthquake Safety Program.

Ways in which spin-offs have emerged from KVERMP's pilot efforts are included: the adoption of disaster management activities in other wards neighboring Ward 34; the escalation of earthquake awareness in Nagbahal community of Lalitpur; and the initiation by Ward 8 of Gorkha District to seek assistance in developing an earthquake-safe community.

The inside story

Issues to consider when implementing community-based initiatives — questions to ask ?

- How do we organize communities to implement activities?
- How do we ensure people's participation throughout the planning and implementation processes?
- How do we sustain community-based initiatives?
- How do we replicate similar community-based initiatives throughout the city and the country?

Highlight 1: Municipal Ward 34, Kathmandu Metropolitan City

A community initiates disaster management activities

The community pioneers disaster management

Through the community's own initiative, the first ever ward-level Disaster Management Committee (DMC) of Kathmandu Valley was set up in August 1998 in Ward 34 of Kathmandu Metropolitan City (KMC) under the leadership of the Municipal Ward Chairman. To date, Ward 34 DMC is largely funded by NSET through a fellowship from the World Seismic Safety Institute (WSSI). But more importantly, its sustainability has been due to the commitment and innovative minds of Ward 34 DMC members. Following a series of awareness-raising campaigns and community-based disaster management (CBDM) training workshops for school students and adults, Ward 34 DMC has received many requests to conduct further CBDM training and provide technical assistance in earthquake-safe construction and retrofitting.

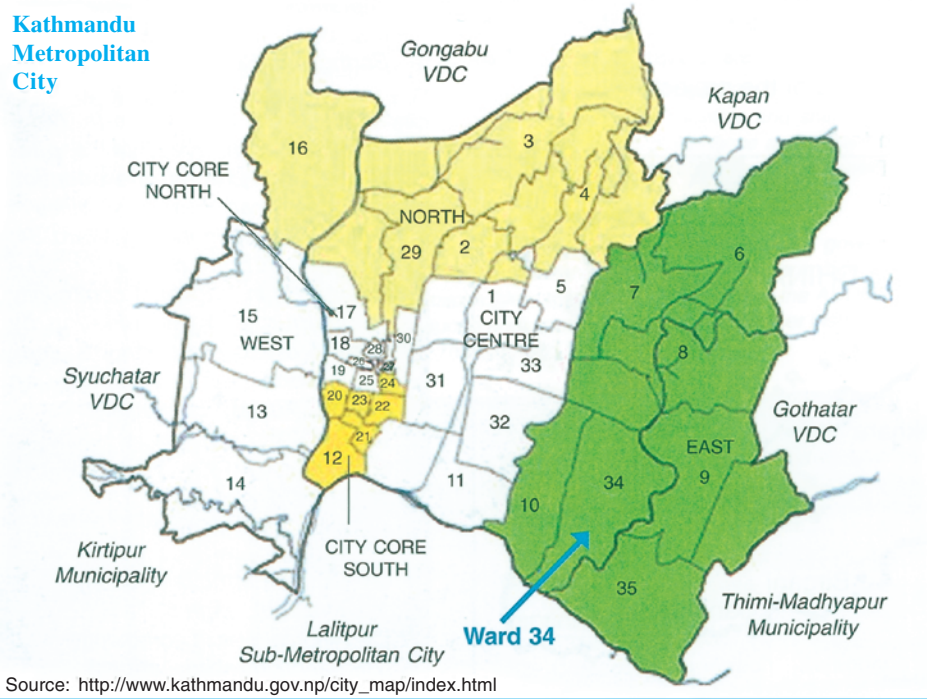
This increased awareness to disaster risks in Ward 34 community is what Mrs. Lama meant by being "psychologically prepared." If an earthquake hits Ward 34 today, residents in and outside the ward will probably see the benefits of earthquake mitigation and preparedness, and will request for Ward 34 DMC expertise and assistance. Raised awareness and demand for a safer community helps sustain DMC and its activities. Examples include requests to give advise on hazard assessment and establishment of DMCs from other wards, provide technical inputs on earthquake-resistant construction for King Come Sports Club's building and conduct community-based disaster management training workshops, most recently for members of the Lion's Club of Kathmandu Kingdom. This training workshop was held from 5 to 9 December 2001.

"After more than two years of awareness-raising efforts by the Disaster Management Committee, I believe the people of Ward 34 are now psychologically prepared," said Mrs. Devi Lama, a member of Ward 34 Disaster Management Committee and Director of Nepal Girl Care Center.

The community builds its capacity

Residents of Ward 34 took interest in disaster issues following increasing media coverage on the vulnerability of Kathmandu Valley to a big quake in the near future. A number of them decided to take action when they read a newspaper article on a community disaster management training workshop at Ward 10 of Lalitpur Sub-Metropolitan City organized jointly by two Christian charity organizations – United Mission to Nepal (UMN) and Lutheran World Federation (LWF) – and NSET. This interest led to a six-day community-based disaster management training workshop with 27 participants on 28 July to 2 August 1998. A local community-based organization (CBO) of Ward 34, the Janashakti Youth Club, in collaboration with the Ward Office, hosted the workshop with financial and training resources provided by NSET and UMN.

Participation came not only from local residents, CBOs, NGOs and committee members of Ward 34 but also from government officials at municipal, district and national levels. The Deputy Mayor of KMC and the former Prime Minister of Nepal, Mr. Man Mohan Adhikari, were present at the opening of the workshop. Their participation increased the workshop's



Source: http://www.kathmandu.gov.np/city_map/index.html

Ward 34 profile

The three major administrative districts of Kathmandu Valley include Bhaktapur Municipality, Kathmandu Metropolitan City and Lalitpur Sub-Metropolitan City. KMC comprises 35 wards, with Ward 34 situated in the southeast, bordered on the east by Bagmati River. When Ward 34 was established about 25 years ago, there were 54 houses but the population has grown rapidly, and today more than 23,000 people in 6,000 registered households inhabit the ward. However, it is estimated that about 60,000 people are living or working daily in this ward, 95 per cent of whom are in governmental or non-profit related organizations.

Things to consider in community organizing and resource mobilization

lessons learned

- **Create ownership as early as possible.**
  Community's ownership of an initiative better ensures that it meet the needs of the community and thus, captures the community's interest.
- **Make effective use of community events.**
  Take advantage of community events and meetings to raise awareness and mobilize people and resources.
- **Involve key people to gain credibility.**
  Take every opportunity to invite local authorities and respected individuals in the community. Their support and participation will ease the community organizing and resource mobilization processes.
- **Set up an advisory committee.**
  A formalized arrangement will increase transparency, credibility and outreach
- **Include awareness raising in every activity.**
  Take every opportunity to raise awareness. Look beyond the community. Invite representatives from other wards to raise their awareness creating a multiplier effect.

credibility, media coverage and support by government officials.

One needs to recognize that the possibility of a workshop conducted on the subject of disaster management is in itself an immense breakthrough, especially in a society where many people adopt a fatalistic viewpoint to disasters.

"People in our society never talked about disasters. Disasters are caused by the fury of god," said Mr. B.K. Shrestha, Chairman of Ward 20.

The training workshops sensitized people to the risks of earthquake and other disasters and provided suggestions for preparedness and mitigation.

"My wife and children have started looking for disaster management issues on television and in newspaper," said Mr. Murari Pokharel, Member Secretary of Ward 34 Disaster Management Committee and Coordinator of the Disaster Preparedness Program at United Mission to Napal

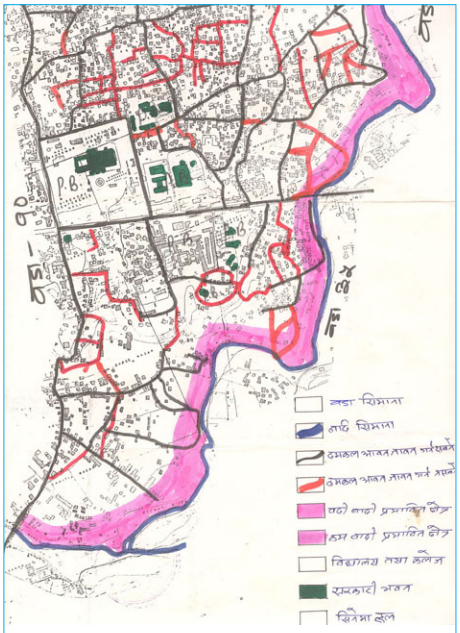
Activities emerge from the workshop

The training workshop led to the establishment of Ward 34 DMC. A Disaster Management Fund was also set up to receive voluntary donations from the local residents of Ward 34. It was agreed that this Fund will be used for relief should a disaster occur at Ward 34. Since then, the amount has grown to NRs.50,000 (USD653) as of January 2002.

Rapport building with residents of Ward 34 continued with a kick-off meeting on 10 June 2000, the conduct of a household survey on the vulnerability of the community and further training for ward residents and students. These activities helped identify community members' needs and concerns, and gained their support and trust on DMC strategies and activities.

Volunteers develop hazard maps

With technical guidance from NSET, Ward 34 DMC members and CBO volunteers prepared hazard maps for flood, fire and environmental degradation. These are simple maps that will require further technical improvement for designing any structural mitigation works, but they are useful for identifying problems and raising awareness. The community hazard map (*above*) shows streets that are too narrow for fire trucks to pass. These narrow streets marked in red compel the map viewer to think about the problems in the ward. This map is enlarged and posted on the wall of the Ward 34 DMC office. Copies are also made available for distribution.



Hazard map of Ward 34 KMC: Narrow streets are marked in red.

This pioneering initiative has integrated disaster management as part of development planning by focusing not only on earthquakes but also on flood and fire hazards and their impacts on the urban development planning process. Some of the community's concerns include bad road conditions that could impede a quick response to disaster, improper disposal of waste, poor sanitation and health systems that could increase residents' vulnerability, and poor drainage systems that could trigger flooding. Perhaps influenced by the hazard assessment of Ward 34 DMC, the Ward Office has removed an electric pole erected in the middle of a narrow street in December 2001 *(see next page)*.

Safer Cities

Safer Cities *is a series of case studies that illustrate how people, communities, cities, governments and businesses have been able to make cities safer before disasters strike. The series presents strategies and approaches to urban disaster mitigation derived from analyses of real-life experiences, good practices and lessons learned in Asia and the Pacific. This user-friendly resource is designed to provide decision-makers, planners, city and community leaders and trainers with an array of proven ideas, tools, policy options and strategies for urban disaster mitigation. The key principles emphasized throughout Safer Cities are broad-based participation, partnerships, sustainability and replication of success stories.*

This electric pole has been removed following the hazard assessment by Ward 34 DMC.

A sample of hazards identified in Ward 34 KMC

- ⚠ Naked electric lines
- ⚠ Hazardous garbage in dense area
- ⚠ Narrow lanes/ tall houses
- ⚠ Unsafe watertanks
- ⚠ Tilted transformer

⚠ Non-earthquake-safe constructions

⚠ Tilted electric poles

Through outreach and awareness promotion activities in Ward 34 and beyond, Ward 34 DMC has received requests from Ward 14 and 33 of KMC to develop such hazard maps as well as establish DMCs and act as resource persons for community based disaster management training.

Ward 34 DMC spreads success

It did not just end with training. Evident from this case, the initiation of a training workshop in August 1998 led to a series of community-based activities. Soon after the first training workshop, an Advisory Committee on Disaster Management for Ward 34 was set up by DMC to guide its strategies and activities. The Advisory Committee is composed of 22 respected professionals from Ward 34 including high-ranking government officials, some of whom are retired, professionals including doctors, engineers and teachers, and heads of NGOs and CBOs.

An Advisory Committee increases transparency and credibility as well as residents' trust. Outreach and replication of DMC activities beyond the boundaries of the ward was made possible by actively involving the Advisory Committee in all activities organized by Ward 34 DMC.

By involving residents outside Ward 34 DMC in training workshops and public awareness campaigns, word promoting disaster risk reduction spread quickly, leading to action on occasion. For example, following the training workshop that Ward 34 DMC conducted for Lion's Club of Kathmandu Kingdom, one of the training participants who is also a resident of Ward 33 convinced the Ward Chairman to establish and head the Ward 33 DMC. Ward 34 DMC has agreed to conduct a training workshop for Ward 33 DMC members in January 2002.

Ward 34 speaks of dreams and obstacles

Despite numerous requests pouring in, Ward 34 DMC has a well-planned strategy. One of the objectives of Ward 34 DMC is the establishment of a Community Disaster Management Resource Center for Nepal that will contain disaster management documents, database and equipment. It will also be a training and research center for different aspects of disaster management.

Another objective is to run awareness programs at schools throughout Kathmandu Valley. In fact, Ward 34 DMC has already written a proposal to promote the awareness of 4,000 school students on community-based disaster management over a period of 14 months with a budget of NRs.541,000 (USD7,144). I Ward 34 DMC has held six two-hour disaster awareness sessions in schools of Ward 34, but due to lack of funds this activity had to be terminated.

Other proposals Ward 34 DMC has developed include: incorporation of the construction of embankments along the Bagmati River with a hands-on training program demonstrating models and techniques for flood projection; and the construction, re-construction and retrofitting of earthquake-resistant buildings for Ward 34 DMC, the Ward Office, schools and hospitals in Kathmandu Valley.

Nonetheless, such big visions and demands need to be coupled with adequate resources as Mr. Murari Pokharel, Member Secretary of Ward 34 DMC, pointed out, "Ward 34 DMC members are working here on a voluntary basis. We have limited manpower, financial resources and equipment for more effective awareness raising and training. School children are not going to be convinced through mere story telling. Videos, slide shows and model simulations would be more convincing."

One way Ward 34 DMC has attempted to raise funds is to run the community-based disaster management training program. The training program will be conducted in collaboration with the School of Shelter and Environment (SSE) on a fee basis ranging from NRs.2,500 (USD33) for students to NRs.10,000 (USD131) for international NGOs.

Institutionalization needs political support

Institutionalization of disaster management at the municipal and national levels will take longer. Push from the bottom is crucial but this may not be sufficient. Furthermore, conflict could arise between ward and municipality due to differences in political alliances or as authority is being challenged.

Ward 34 was selected by a bilateral project between the Japanese and Nepalese Governments as a pilot site to test a risk assessment and action planning tool designed by the Japanese Government. This represents a good opportunity to increase government understanding of the community situation and advocate for policy change. To build on this process, Ward 34 DMC will continue to invite government officials at the ward, district and national levels to all their activities.

Ways to promote sustainability

lessons learned

- **Create ownership.** From the start, the Chariman and residents of Ward 34 owned the idea of establishing a Ward 34 DMC.
- **Create demand.** Ownership leads to commitment and if this commitment is complemented by demand from the community, sustainability can be ensured.
- **Build capacity.** Demand needs to be met by building the capacity of communities themselves to conduct risk assessments, implement mitigation options, raise funds and so forth.
- **Always involve the media.** Always inform and involve the media for greater outreach beyond the community level.

Highlight 2: School Earthquake Safety Program

Communities participate in activities to reduce quake vulnerability

A retrofit program expands

The School Earthquake Safety Program (SESP) began as a simple retrofit program after KVERMP conducted a detailed vulnerability assessment of 643 public schools in Kathmandu. Subsequently, selections were made to pilot structural interventions for earthquake-resistant school buildings at one site during 1999 and four sites during the years 2000 and 2001. This initial process to seismically strengthen school buildings developed into a comprehensive program resulting in a curriculum for mason training, and guidelines for community disaster preparedness and planning for teachers, students and parents.

From the start SESP has actively incorporated community participation as a fundamental element in the process, beginning from the assessment of schools when one-day seminars were held in 15 schools to raise awareness and endorse their support. The headmaster of each school was requested to assist in completing the assessment survey.

Further evidence of school participation could be seen in the criteria of school selection for the SESP. It emphasized that the community showed good solidarity and willingness to contribute in kind and in cash to the strengthening of the school building; the masons identified for school retrofitting and training were within the vicinity of the community; the mason training itself was a family affair held in the evenings; all labor was provided by the local community; and funds and acquisition of materials for SESP were generated by the communities themselves with some support from NSET.

Masons act as change agents

At first, the masons were not convinced. The teachers, students, parents, school committee members and others in the community were also not convinced of the possibilities of school retrofitting in having any benefits on their livelihood. Through mason training and the community's involvement in the actual retrofitting of the schools, their mindsets were altered gradually. In fact, masons later became significant change agents influencing homeowners within and outside the communities to construct their houses using seismic-resistant features. In Nangkhel and Alapot where schools have been retrofitted, two houses in each district have been constructed with seismic-resistant features.

The impact of SESP can now be seen beyond the communities themselves. Through participation of neighboring community groups in the observation sessions of the school retrofitting process, outreach of earthquake awareness has been achieved with almost no additional cost. Following the Gujarat earthquake of 26 January 2001 in India, trained masons from Kathmandu Valley were involved in a rehabilitation project for earthquake-resistant reconstruction in Patanka Village of Gujarat. This technological exchange is a result of NSET and Sustainable Environment and Eco-Development Society (SEEDS) collaboration, representing a real example of South-South cooperation.

"During the retrofit of my school, I helped carry bamboo and sticks," said Santosh Ghimire, a 15-year-old boy of Bhuwaneshwori School, Nangkhel District.

"Community involvement and transparency are key in any initiatives," said Mr. Raja Ram Suwal, the Headmaster of the same school

Disaster management improves livelihood

Community participation in the SESP process has subsequently empowered community groups to improve their safety and livelihood. Following training of masons they were able to increase their fee rate from NRs.200 (USD2.6) per day to NRs.300 (USD3.9) per day, thus a measure of their livelihood improvement. Another example can be found in Kavresthali where a school made of stone was to be reconstructed. The dismantled stones were broken into small pieces and filled into hollow concrete blocks that could be easily molded by villagers themselves. Following laboratory tests, it was found that these "stonecretes" were stronger than bricks. The community was able to reduce the cost of building materials and a new livelihood option was initiated - making stonecretes during periods of field fallow.

Community participation in retrofitting Bhuwaneshwori School, Nangkhel District

School headmasters' seminar

How do we get people to participate? lessons learned

- **Convince people.** Demonstrate the benefits and possibilities of minimizing the effects of disastrous natural hazard events through drills, awareness-raising seminars and others.
- **Use appropriate technology.** The knowledge, program, technology and training to be given to the community for disaster management should be compatible to what they accept and practice.

Highlight 3: Replications of community-based initiatives

Spin-off activities of KVERMP

Replication of a community's success is a powerful factor in continuing local initiatives. Some examples of replications of these pilot projects have already been mentioned, in neighboring wards of Ward 34 and in the construction of earthquake-safe houses as a result of the School Earthquake Safety Program. Two other important replications outside the demonstration project site should be highlighted. First is the community-based activities in Nagbahal community of Ward 16 in Lalitpur Sub-Metropolitan City through JICA funds, facilitated by NSET. The other replication involves the emergence of a community's own initiative in disaster mitigation: committee members of Ward 8, Gorakha District, which is also outside Kathmandu Valley, have submitted a proposal to NSET for technical assistance in earthquake mitigation.

Nagbahal, Ward16: a high-risk area

Nagbahal of Ward 16, Lalitpur Sub-Municipality is a traditional, high-caste Newarai urban settlement. The Ward contains 776 households with a total population of 8,500 (Ward Office 2001). It is one of the historical sites belonging to the World Heritage category of UNESCO. The settlement is highly clustered. Each cluster of houses is built around a courtyard and accessible only by one or two narrow passages. In some cases, one needs to pass through a number of narrow passages before reaching a particular cluster of houses, making the community highly prone to earthquake risks.

A typical Nagbahal house, which was originally two- or three-storey. Additional stories have been constructed recently, increasing the community's vulnerability to earthquake risk.

Nagbahal sets up a disaster management committee

In the past, the indigenous umbrella organization known as the Nagbahal Tole Sudhar Samiti (NTSS) or the Nagbahal Neighborhood Improvement Committee resolved family disputes, maintained community harmony, facilitated group cohesion and maintained law and order. At present, the NTSS acts as a federation and under it are numerous Nagbahal CBOs focusing on continuing cultural tradition, religious activities, social services and community welfare. All of them have poor resource base and their activities are completely dependent on donations and voluntary contributions of individuals.

Neither CBOs nor local government units had focused their activities toward disaster-related problems in Nagbahal. To date, there is no institution responsible for disaster mitigation in Lalitpur Sub-Metropolitan City. However, after a series of interactions with community members, NSET encouraged the establishment of Nagbahal Community Disaster Management Committee (NCDMC). The Committee was formed under the leadership of Mr. Dilip Joshi, a social worker and former chairman of Ward 16. The four other members of the Committee are residents of Nagbahal. Its primary functions are to take up earthquake disaster management planning in Nagbahal area on behalf of the NTSS and to coordinate and create awareness among other local organizations in order to better equip them with necessary information for earthquake mitigation planning.

> When disasters occur it is our community that is affected first. We realize it is important to be prepared because there will be a gap between the disaster and the time external assistance arrives," said Mr. Bikash R. Dhakhwa, member of NCDMC and General Secretary of the Handicraft Association of Nepal.

Activities increase the community's awareness

As a start-up activity, a hazard and resource mapping exercise was conducted by the NCDMC with technical assistance from JICA and NSET. During the exercise an open space was identified as an evacuation and rehabilitation center. In order to continue this momentum of interest in earthquake safety among the residents of Nagbahal and demonstrate the effectiveness of community-based initiatives, NCDMC collaborated with JICA, NSET and Nepal Red Cross in organizing an event on 17 September 2001. This whole-day event comprised the Earthquake Preparedness Emergency Drill at a Nagbahal school close to the open space and the Seminar on Earthquake Safety and Earthquake Resistant Buildings.

The Earthquake Drill involved students in the school. A Disaster Management Team was set up to coordinate the evacuation process and the operation of a rescue team, also composed of students of the school. A number of students volunteered as victims trapped in the school. Once they were rescued and brought to the open space, the Nepal Red Cross staff demonstrated first aid treatment on them. Accounts of the victims' experiences of the earthquake were also acted out on stage, and messages to promote earthquake safety were included as part of the act.

More than 3,000 onlookers were present at the event, both from Nagbahal and

neighboring wards. In the evening, a public seminar was held in the open space to discuss the vulnerability of Kathmandu Valley and more specifically, Nagbahal, and ways in which their vulnerability could be reduced. There were no easy answers but this one-day event initiated such discussions.

The Mayor of Lalitpur Sub-Metropolitan City, Mr. Buddhi Raj Bajracharya, was present at the seminar and delivered a closing speech. Having been mayor for 20 years, he is well respected by residents of Lalitpur. He plans to enforce stricter control on new building constructions to ensure a safe environment, and at the same time, maintain the traditional architecture and cultural heritage of Nagbahal and other wards in Lalitpur. The Mayor's presence imparted people acceptability, credibility and media coverage on the event and earthquake issues.

At the Symposium on Experiences in Disaster Risk Management jointly organized by Lalitpur Sub-Metropolitan City and NSET on 14 January 2002, the Mayor announced that Lalitpur would conduct disaster awareness programs at the community level for all 22 wards of the city and introduce a two-step building permit system with a mid-construction phase technical inspection to ensure safe construction techniques.

Students participate in rescue operations during the earthquake drill.


Nepal Red Cross demonstrates first aid in the open space as residents look on.

Gorkha reconstructs and rehabilitates

On the evening of 16 July 2001, an earthquake of magnitude 5.1 on the Richter scale shook western and central Nepal. Gorkha District (of Prithvinagar Municipality in western Nepal), where the epicenter was located, reported injuries of 15 local residents and considerable damage to houses and critical facilities. Committee members of Ward 8 approached NSET to provide technical support in (1) reconstructing the Gorakhali Primary School, which has been partially destroyed, forcing classes to be conducted in the open space outside the school for fear of the school collapsing; and (2) building a "Reconstruction Model Village" as a model for replication in other villages of Gorkha. Following the model of Ward 34, two Advisory Committees have already been set up – one for school reconstruction and the other for the reconstruction model village. Similar to the School Earthquake Safety Program, mason training, public awareness and community participation will be incorporated in this initiative. Community organizing and resources mobilization are underway.

Conclusions

Sustainable development includes community-based disaster management

Community-based disaster mitigation is important because it is at the community level that physical, social and economic risks can be adequately assessed and managed. This new approach emphasizes activities that strengthen communities' capacities to cope with hazards, and more broadly, to improve their livelihood security. In this way, disaster risk reduction is integrated with sustainable economic and social development. However, it must be emphasized that community-based disaster mitigation is complex, involving a wide range of stakeholders, particularly if it is to be participatory. It takes extra effort and time to make it work. Every step requires face-to-face interaction and continuous dialogue to generate trust and support.

NGOs catalyze community-based disaster management

NGOs, in this case NSET, can play an important role in facilitating the community-based disaster management process.

Community-based disaster management: a partnership approach

It is important to stress that community-based approaches alone are not sufficient. It takes concerted efforts at different levels and across different sectors to improve our understanding of the linkages and to devise effective mechanisms for disaster risk reduction. The communities themselves need first to be aware of the importance of disaster reduction. It is then necessary to go beyond awareness and impart skills, which can translate this awareness into concrete practice. Community-based initiatives also depend on a favorable political environment that promotes and supports this process.

The role of NGOs

lessons learned

- **Act as facilitator and catalyst.**
  Transfer ownership to the community as soon as possible.
- **Withdraw physical presence as soon as possible.**
  Let the communities help themselves. Suggest ideas, resources and persons outside one's own organization to broaden outreach and increase possibilities.
- **Facilitate community- based organizations and government relation ships.**
  Set the scene for positive change but do not impose change.
- **Provide technical assistance and support in fund- raising.**
  Encourage and facilitate links, cooperations and multi-stakeholder partner-ships.
- **Involve all current and potential stakeholders in organized activities.**
  Include an element of public awareness in every activity.

Further references

On KVERMP (case studies)

ADPC Safer Cities 4: School Earthquake Safety Program
ADPC Safer Cities: Public Awareness and Earthquake Safety Day

On community-based initiatives in Kathmandu Valley

Ward 34 Disaster Management Committee
Bhimsengola, Jagritinagar, Baneshwor
Kathmandu, Nepal
Contact: Mr. Murari Binod Pokharel
Member Secretary
Tel: (977-1) 499-239 (DMC)
Fax: (977-1) 496-908 (residence)
E-mail: murari.pokharel@umn.org.np

On community-based disaster management

ADPC Community- Based Disaster Management Course Curriculum (including Trainer's Guide, Coordinator's Guide, Participant's Workbook and Reading Materials).

ADPC Information Resources on Community-Based Disaster Management (CD-ROM).

Other relevant Safer Cities case studies

ADPC Safer Cities 2: Coping with Flood in Cambodian Communities
ADPC Safer Cities 3: Mitigating Against Flood Risk in Cambodian Communities
ADPC Safer Cities 5: Community Based Initiatives in Sri Lanka

Acknowledgement

This case study would not have been possible without the contributions of Mr. Amod Dixit and the staff of NSET, Ward 34 Disaster Mangement Committee members, and colleagues at ADPC in particular, Col. Brian Ward, Mr. Kamal Kishore, Mr. Josh Moga, Dr. Buddhi Weerasinghe and Mr. Rajesh Sharma.

Author: Christine Apikul, ADPC
Editor and designer: Lichelle Carlos

KVERMP

The Kathmndu Valley Earthquake Risk Mangement Project (KVERMP) in Nepal was launched in September 1997 under the Asian Urban Disaster Mitigation Program (AUDMP) of the Asian Disaster Preparedness Center (ADPC). The objective of this national demonstration project is to reduce earthquake vulnerability of Kathmandu Valley through four main elements: (1) loss estimation, scenario development and action planning; (2) a program for school earthquake safety; (3) public awareness promotion; (4) and capacity building. Through these elements, KVERMP seeks to promote long-term sustainable seismic vulnerability reduction mechanisms in and beyond Kathmandu Valley.

Project Partners

Implementation:

National Society for Earthquake Technology (NSET)
G.P.O. Box no. 13775, Kha-2-731
Mahadevsthan, Baneshwor
Kathmandu , Nepal
Tel: (977-1) 474-192
Fax: (977-1) 490-943
URL: http://www.nset.org.np
Contact: Mr. Amod Dixit
Secretary General
E-mail: adixit@nset.org.np

GeoHazards International (GHI), USA
200 Town & Country Village, Palo Alto
CA 94301, USA
Tel: (1-650) 614-9050
Fax: (1-650) 614-9051
URL: http://www.geohaz.org
Contact: Dr. Brian E. Tucker
President
E-mail: tucker@geohaz.org

Funding:

Office of Foreign Disaster Assistance (OFDA), U.S. Agency for International Development (USAID)

AUDMP

The Asian Urban Disaster Mitigation Program (AUDMP) is the first of six regional programs implemented by ADPC. The AUDMP started in 1995 with core funding from USAID's Office of Foreign Disaster Assistance (OFDA) until 2003. The program was developed with the recognition of increased disaster vulnerability of urban populations, infrastructure, critical facilities and shelter in Asian cities. This coupled with growing opportunities to mitigate against disasters in an environment where good governance and decentralization are high in most countries' political agenda, AUDMP aims to demonstrate the importance of and strategic approaches to urban disaster mitigation as part of the urban development planning process in targeted cities of Asia.

AUDMP supports this demonstration by building the capacity of local authorities, national government, non-government organizations, business and others responsible for establishing public and private sector mechanisms for urban disaster mitigation as part of city management. AUDMP also facilitates knowledge sharing and dialogue between the key stakeholders to promote replication of the AUDMP approaches to other cities and countries worldwide. Currently, the AUDMP approaches have been introduced and sustained by national partner institutions in targeted cities of Bangladesh, Cambodia, India, Indonesia, Lao PDR, Nepal, Philippines, Sri Lanka, Thailand and Vietnam.

ADPC

The Asian Disaster Preparedness Center (ADPC) is a regional resource center dedicated to safer communities and sustainable development through disaster reduction in Asia and the Pacific. Established in 1986 in Bangkok, Thailand, ADPC is recognized as an important focal point for promoting disaster awareness and developing capabilities to foster institutionalized disaster management and mitigation policies.

For more information, please get in touch with us at:

Asian Disaster Preparedness Center
P.O. Box 4, Klong Luang,
Pathumthani
12120, THAILAND
Contact: Information Scientist
E-mail: ambika@ait.ac.th

Tel: (66-2) 524-5354
Fax: (66-2) 524-5350
E-mail: adpc@ait.ac.th
URL: http://www.adpc.ait.ac.th