

Mobilizing Local Communities in Reducing Disasters

Mobilizing Local Communities in Reducing Disasters

The emergence of community based approaches to disaster management

There has been an exponential increase in human and material losses from disasters the past few decades despite advanced human interventions, but there is no clear evidence that the frequency of extreme hazard events has increased. This has contributed to a re-thinking of disaster management theory and practice.

Not too long ago, disasters were viewed as isolated events and were responded to by governments and relief agencies without taking into account the social and economic causes and implications of these events. Disasters were considered as emergencies and they were the responsibility of the fire brigade, rescue workers and hospitals. However, if we take a different perspective and look at the range of factors and processes that led to the occurrence of disasters, the priority shifts to reducing people's vulnerability and managing the risks, which can lead to disasters. From this perspective, the rise in disasters and their consequences is a result of a rise in people's vulnerability, induced by human-determined paths of development.

Consequently, there has been a paradigm shift from a traditional relief and disaster preparedness focus where communities are considered "victims" and "beneficiaries" of assistance from outside experts, towards a more holistic and longer-term approach, which incorporates vulnerability reduction and risk management concerns as part of the development planning process. This comprehensive approach recognizes that the complex relationships and structures of society determine why certain groups of people are more vulnerable to disasters.

One of the central elements of this paradigm shift has been the growing realization that disaster reduction is most effective at the community level where specific local needs are met. Disaster reduction using top-down government and institutional interventions alone are often insufficient because they tend to pay little attention to addressing community dynamics, perceptions and needs, ignoring the potential of local resources and capacities, which may, in some cases, even increase people's vulnerability. Moreover, local communities are often either unaware of these formal disaster reduction interventions or they find them inappropriate due to a lack of recognition of their vulnerabilities and capacities.

A broad consensus is emerging in favor of community-based disaster approaches 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.

It is important to emphasize that communities alone cannot implement community-based disaster mitigation. It will take 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 to first 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. Finally, community based disaster reduction depends on a favorable political environment that promotes and supports this participation process.

The important role of communities in disaster management is strongly supported by the United Nations International Strategy for Disaster Reduction (ISDR) whose vision is to "enable all communities to become resilient to the effects of natural hazards, technological and environmental disasters." Experiences show that community based approaches seem to offer viable alternatives for managing and reducing risks and ensuring sustainable development. The description of the following case studies demonstrate that when disaster reduction focuses on reducing local vulnerabilities and increasing the capacities of vulnerable communities, risks can be managed and losses reduced. The methods and approaches to community-based disaster management (CBDM) and their impact on communities' livelihood are described. The list is by no means exhaustive. The examples are destined to be informative and inspirational for the benefit of disaster reduction worldwide.

Examples of Disaster Reduction Initiatives

Local Communities At Work in Cambodia

In Cambodia, a project under the Asian Disaster Preparedness Center's (ADPC) Asian Urban Disaster Mitigation Program has achieved positive results. The project, implemented by Pact Cambodia, the Cambodian Red Cross and the International Federation of Red Cross and Red Crescent Societies (IFRC) targets communities in flood-prone provinces along the Mekong River. Since September 1998, 159 Red Cross Volunteers (RCVs) have been trained to organize community involvement in carrying out risk assessments, developing preparedness plans and facilitating the implementation of small-scale mitigation solutions to minimize communities' risk to flooding.

The solutions proposed generally focused on water control structures necessary for livelihood, including repairing dams and dikes; cleaning out irrigation ditches, culverts and water gates; and improving access by raising road levels

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or constructing small bridges. In the proposals for these solutions, communities identified their contribution in labor, materials and cash. Pact Cambodia, on the communities' behalf, helped to carry out fund-raising activities and were able to generate funds through international donor agencies and NGOs including Ausaid, the American Red Cross, Oxfam, Save the Children Australia and World Vision International.

The different community activities demonstrate that communities have the resources to successfully undertake small-scale infrastructure projects designed to mitigate flooding. Community investment and ownership can be achieved.

Currently the project is in the process of transferring the lessons learned to other communities along the Mekong River. The sustainability of the project has become its main priority area and efforts are being focused at integrating and institutionalizing project activities in the Cambodian Red Cross under their ongoing Community Based Disaster Preparedness Program.

Sharing Information in India on "Afat Nivaran"

ADPC is not the only institution developing an integrated approach to CBDM. The Disaster Mitigation Institute (DMI) based in Gujarat, India, organizes its programs around four major themes – food security, water security, habitat security and work or livelihood security. These are seen as interlinked aspects of vulnerability.

Linking national initiatives with local communities is one of the priority activities of DMI who believes that unless national initiatives in reducing vulnerability of communities are operationalized at the local level, disasters will continue to result in huge loss of lives and properties. A national workshop was co-organized by DMI and the Indira Gandhi National Open University on 28-29 April 2000 to raise awareness of CBDM. Representatives from government, non-government and community organizations in the state of Gujarat attended the workshop, bringing together community based organizations and national-regional agencies for the first time.

DMI also plays an advocacy role. Following the June 1998 cyclone in Gujarat, a network of NGOs was actively participating in relief and rehabilitation activities. During this period, DMI launched a newsletter called "Vavazodu" as a medium to share information and experiences, and coordinate efforts. Vavazodu, meaning 'cyclone' in Gujarati, funded by the Oxfam (India) Trust, was published fortnightly on a broadsheet of four pages. The objective of the newsletter was to share local news and information that was either not covered or bypassed by mainstream government and corporate media. It provided local organizations and cyclone-affected individuals with a forum to voice their concerns, struggles and aspirations. The newsletter also reported on planned and ongoing activities of the People's Coalition for Cyclone Relief and Rehabilitation (PCCRR), an informal advocacy group set up in the aftermath of the cyclone, thus, enhancing coordination between the 40 PCCRR members.

A total of 12 issues were published over the six month period after the cyclone and distributed to about 1,000 subscribers from cooperatives, community based organizations, NGOs, local and national government officials, private companies, academics, and media groups. The scope of Vavazodu was broadened to incorporate not only cyclone issues but also other disasters. The newsletter was renamed "Afat Nivaran" or disaster risk reduction. It covers a range of information from community coping mechanisms to the achievements of the International Decade for Natural Disaster Reduction. The readership has expanded to 1,200 and a Hindi version for other states of India has been produced since March 2000.

The development of a sustainable mechanism for sharing and disseminating disaster information is crucial. In the long-term, it can empower individuals and organizations to reduce risks in their communities as well as voice their concerns at the policy-making level.

Disaster Reduction Committees in the Community in the Philippines

In the Philippines, the Citizen's Disaster Response Network (CDRN), a national network of 14 grassroots and regional NGOs has undertaken community based disaster preparedness work. Since its inception in the early 1980s it has conducted campaigns and advocacy work to mitigate the impacts of disaster. Together with communities, it has developed strategies to enhance people's capacities. These include community organizing, forming village-level disaster response committees, developing early warning systems, organizing rescue teams and diversifying livelihood sources. With little support from donor agencies, it has reached hundreds of villages and initiated community based disaster mitigation initiatives.

The Center for Disaster Preparedness assists the CDRN in its capacity building program. Its training program assesses the needs of the network and develops courses that are relevant to network needs. The training is often used as an entry point to organize grassroots disaster response organizations.

Manibaug-Liputad was considered as one of the high risk areas of lava flow from Mount Pinatubo during the monsoon season. In July 1995, CONCERN, one of CDRN's members conducted a three day training course on disaster preparedness at the community level. Emerging from this course, community members formulated an evacuation plan, identified key people and agencies they could tap in case an evacuation is needed and designed a warning system. A Barangay (village) Disaster Response Organization (BDRO) was set up with five committees: the Evacuation Committee, Warning Committee, Health Committee, Information and Education Committee, and Relief and Rehabilitation Committee. It was the responsibility of the Warning Committee to monitor the lava situation and warn the people of impending disaster. Each committee immediately recruited volunteer members from the village resi-

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dents and oriented them on their responsibilities.

Three days after the training, a typhoon hit the area but the BDRO Warning Committee informed the community well in advance and no one was killed or hurt as the water reached 1 – 2 meters high in the villages. This initiative demonstrates the importance of building people's capacities to take upon themselves the responsibility of monitoring hazards and issuing warning to save lives.

Disaster Reduction in Bangladesh

Bangladesh is one of the most disaster-prone nations in the world, with an average annual death toll of 44,000 attributed to disasters from 1987 to 1996. In addition, Bangladesh is confronted by social unrest in neighbouring countries and, internally, has to address the alleviation of poverty as its first national development objective.

To reduce the vulnerability of flood prone communities in the Tongi and Gaibandha Municipalities of Bangladesh, CARE Bangladesh takes a community based approach in collaboration with a range of stakeholders, including partner NGOs in the municipalities and the Disaster Management Bureau of the Government of Bangladesh. This urban disaster mitigation project, funded by the Office of Foreign Disaster Assistance of the United States Agency for International Development and managed by ADPC's Asian Urban Disaster Mitigation Program (AUDMP), began by first building the capacity of community volunteers who then conducted baseline surveys and vulnerability assessments with community members. Through this process, community groups recognized the importance of community participation and disaster mitigation. The results from these assessments will form the basis for developing sustainable mitigation solutions at the community level.

This project has emphasized the importance of awareness raising among community groups and other sectors in placing community based disaster management on the political agenda. To promote community awareness on disaster risk reduction, the Government of Bangladesh designated the last working day of March as National Disaster Preparedness Day (NDPD) since 1998. This year's NDPD took place on 29 March 2001, jointly organized by the Gaibandha and Tongi Municipality Disaster Management Committees, CARE Bangladesh and its partner NGOs. There were rallies and discussion forums followed by a series of performances under the theme of community based flood mitigation by community groups, volunteers and BUDMP officials. In Gaibandha, an art competition to depict the flood situation of Bangladesh was organized for primary and secondary schools.

It is expected that the best practices and lessons learned from the two municipalities will be replicated to other parts of Bangladesh and shared with other countries in the region.

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A RADIO SOAP OPERA to Promote a Culture of Prevention!

In recent years, disasters such as Hurricane Mitch and the El Salvador and Peru earthquakes have shown that a large part of the Latin American population, particularly in rural areas, remains ignorant of disaster prevention, preparedness, and response measures. Reducing the impact of disasters requires that the population improve its knowledge of disaster reduction and replace passive and sometimes destructive behavior with active and constructive approaches. Bearing this in mind, the Pan-American Health Organization (PAHO), the International Organization for Migration (IOM), CEPREDENAC and the UN/ISDR have teamed up to produce and broadcast a RADIO SOAP OPERA dedicated to the theme of disaster prevention and risk management in Latin American Countries.

The story of the soap opera takes place in a rural farming environment. The experiences of the characters are used to instruct listeners on the measures they can take to prevent or reduce the impact of floods, earthquakes, hurricanes and other hazards. The dialogues focus on everyday issues close to the listeners' own experiences and are full of humor. Other audio resources to secure the attention of the audience include the ambient sounds they know so well, and music they can relate to. The show consists of 20 episodes of 20 minutes each, which are broadcast consecutively before and during the heavy rainfall and hurricane season—July to December. The pilot program is available in a CD-rom.

Strengthening Governmental Capacity in Disaster Mitigation and Preparedness in the Kyrgyz Republic

In response to the increasing negative human and economic consequences of disasters in recent times, disaster reduction has become an integral component of the United Nations Development Programme's (UNDP) overall planning framework. Following the UN Programme for Reform of 1997, functions of disaster prevention, mitigation and preparedness, as relating to national capabilities, were transferred to UNDP. In response to this decision, and to further focus its overall strategy and range of activities in the field of disaster reduction, UNDP established the Disaster Reduction and Recovery Programme (DRRP) as a component of its Emergency Response Division (ERD). During its first year of existence of the DRRP, new disaster management capacity building activities were initiated in almost 30 disaster prone countries. These activities cover areas such as assisting in the establishment of national disaster management systems and promoting disaster reduction approaches and their integration into national policies, planning and legislation. More information can be obtained from www.undp.org/erd

The Disaster Mitigation and Preparedness Project in the Kyrgyz Republic has become the first capacity building project of UNDP in the area of disaster management. The project strategy was based on the institutional and operational strengthening of the Ministry of Emergencies, the consolidation of the resources of other governmental agencies and public institutions involved in disaster reduction, as well as strengthening the capacity of local authorities and communities for disaster preparedness in the most vulnerable areas of the Republic. The project's implementation took place through intensive collaboration with the Ministry of Emergencies and Civil Protection, all Civil Defence branches, the Institute of Geology of the Kyrgyz National Academy of Sciences and the Cabinet of Ministers of the Kyrgyz Republic.

The Kyrgyz Republic is a highly disaster prone country. The list of the most destructive natural disasters that have occurred in the country over the last five years includes: ice-snow avalanches in the Lenin Peak area; The Suusamy earthquake; heavy rain-falls, snow-falls and frosts; mass scale landslides in Osh and Jalal-Abad. These natural disasters pose considerable threats to human lives and ongoing social and economic reforms in the country.

One of the major successes of the project was the establishment of a Centre for Emergency Management and Co-ordination at the Ministry of Emergencies. The Centre serves as the core mechanism for day to day co-ordination and the management of various emergency situations including both natural and technological disasters. The Centre also collects, analyses, processes and disseminates data related to disaster management thereby serving as a tool for communication of disaster information and preparation of disaster forecasts which are used in government's decision making processes.

Furthermore, the project has provided the Ministry of Emergencies and Civil Defence with radio-modem communication equipment. The Central Office of the Ministry and the civil defence offices in all 6 regions have been linked into one radio-modem communication network, which will allow an effective response in emergency situation. The advantage of having such an equipment is that it provides cost-effective (free of charge) and reliable communication which will remain functional when all other infrastructure is destroyed.

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Apart from strengthening the institutional and operational capacity of the Ministry of Emergency and Civil Defence, the project also provided for the following outputs:

- Risk and vulnerability maps (11 maps) for various types of disasters were developed for the entire territory of the country.
- A State Indicative Disaster Reduction Plan was drafted, the first comprehensive national policy document in the field of disaster management.
- The key staff of the Ministry of Emergency and other line agencies were trained on various aspects of disaster management.
- Training manuals and programme outlines on disaster management, preparedness, response and medical aid were prepared and disseminated among school children, students and the general public.
- Technical support was provided in the establishment of the GIS laboratory.
- An inventory of rescue equipment and needs was completed to strengthen rescue operations.

Mobilising MANDISA*

*Monitoring, Mapping and Analysis of Disaster Incidents in South Africa

Cape Town... space of beauty... place of risk

During his travels, Francis Drake once referred to the place that we now call Cape Town, as the 'Fairest Cape of All'. It is also known as the 'Cape of Storms', due to the tumultuous weather driven in by the Southern Indian Ocean and South Atlantic.

Today Cape Town is home to around 3 million people over a sprawling 2 175 km². It has over 300 km of spectacular coastline enveloping Table Mountain and beyond. To the more than 700 000 tourists who visit the city annually, it is a place of spectacular natural beauty. Moreover, it is a place of great floristic and marine diversity, as well as cosmopolitan city with an exciting energy generated by its African, Asian and European heritage.

Yet, as is the case with many southern cities, Cape Town straddles a vast gulf between first world opportunity and third world poverty. The disparities between rich and poor communities are reflected in inequities with respect to employment, access to key municipal services and housing. The legacies of apartheid are further reflected in the reality that over a third of black Capetonians are unemployed compared with 20%, 9% and 7% for Coloured, Indian and White residents, respectively. Moreover, the poor live in marginal and overcrowded conditions in informally constructed dwellings, far from employment opportunities, and often in areas characterised by high crime levels.

These underlying conditions provide a backdrop to patterns of vulnerability that drive disaster risk across the Cape Metropole. Certainly, by international standards, Cape Town is not viewed as a 'disaster-prone' city. Yet in the space of less than a year from August 1999 to June 2000, the city's rising disaster vulnerability was underlined by three major incidents. These included destruction triggered by a tornadic storm which left nearly 2 000 dwellings damaged/destroyed and 7 000 people homeless as well as intense and destructive wildfires that swept the South Peninsula – leaving over 9 000 hectares in ashes. And, in June 2000, a major oil spill, which catalysed a massive rescue operation for over 70 000 affected African Penguins.

But, despite these officially 'declared' disasters, every day the city's residents respond to repeated and recurrent 'small' and 'medium' size events...sometimes with the help of external support agencies, but in informal settlements, primarily with the assistance of family, friends and neighbours.

Identifying loss patterns: overcoming the obstacles of unconsolidated information

In a city like Cape Town, disaster reduction planning requires capacity to both reduce the losses borne by impoverished households, as well as averting high magnitude weather-triggered events. Unfortunately, Cape Town has not had a history of consolidating data for different patterns of disaster loss – by type of incident, by scale, by location or by time of year. As a result, the 'small' and 'medium' scale events have always remained invisible 'non-events' – although these make by far the greatest demands on emergency services, and have the most significant impacts on already marginalized communities. Moreover, given that information on different aspects of disaster loss have always been stored in different services, it has been impossible to create a consolidated profile on municipal disaster occurrence and loss – either by type, by geographic area or over time. Integrated disaster reduction planning under these conditions is virtually impossible.

Recognising the similarities between these factors and those revealed by LaRed's DesInventar in Latin America, a

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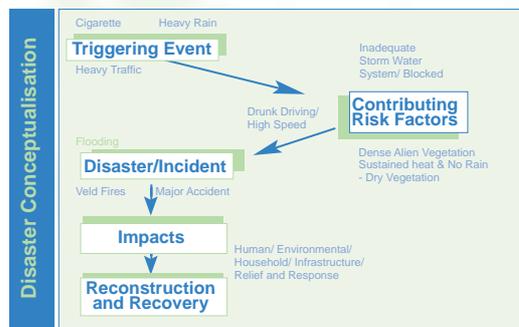
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research team¹, conceptualised and developed a disaster events data base called 'MANDISA'. It rests on the following assumptions:

- That disaster incidents can occur at different scales, ranging from household to provincial and national levels.
- That disaster risk is driven as a result of the interplay between triggering factors and underlying conditions of social, economic, environmental and infrastructural vulnerability.
- That disaster impacts can occur in different sectors, and may be recorded in a wide range of formats.
- That disaster risk can be reduced by minimising vulnerability – ideally through ongoing, practical initiatives that achieve multiple development objectives.
- That public access to information on local patterns of disaster risk is empowering, and facilitates community participation in decision-making, thus strengthening opportunities for responsive governance.

The first three assumptions are reflected in the conceptual framework underlying the data base shown below.



Sleuthing the disaster information sources ... developing the data base

From 1999-2000, a team of researchers painstakingly identified more than a dozen information sources on disaster loss in Cape Town. From fire control centers to the South African Red Cross Society, from Cape Peninsula National Parks to the Cape Argus, around 10 000 records of disaster occurrence were traced and photocopied. These findings contrast with the 20-30 'declared' disasters reported during the same period. One of the clear challenges of the data gathering process was that with the exception of two electronic sources, all other forms of information were paper-based.

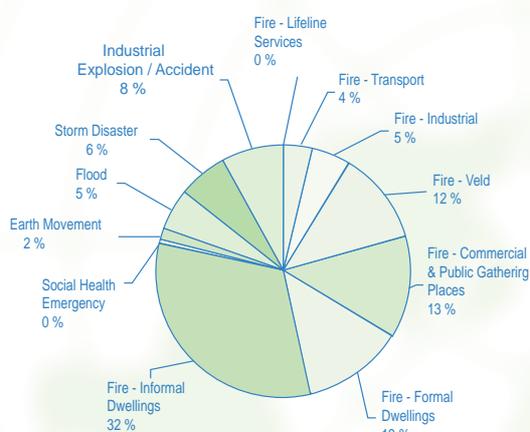
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This labour-intensive process also allowed the design of a data base that both interfaces with international disaster reduction terminology and conventions, as well as local realities. For instance, fires of all kind make the greatest non-medical and non-crime-related demands on local emergency services. A review of incidents reported in the Cape Argus showed more than 78% of all non-medical and non-crime-related incidents were indeed fire-related.

Yet, nearly half of all these fires occur in informal settlements, often triggered by a toppling candle, but worsened by the contributing risk factor of absent/inadequate water supply, or the absence of a competent adult.

The MANDISA data base incorporates these local triggers and contributing risk factors, thus allowing interrogation of municipal disaster risk from both emergency management and developmental perspectives.



Next steps: public access website...

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With information now entered in MANDISA, the next step is to go public... to make information accessible, so that geography teachers, local councillors, municipal planners, the local media, the tourism industry and the city's residents can all view patterns of disaster in their neighbourhoods and constituencies.

By the end of 2001, www.MANDISA.org.za will both consolidate and make accessible in tables, maps, graphs and photos, data on disaster occurrence and loss from 1990-1999 in Cape Town. Users will be able to interrogate the data-base on-line, and generate information on trends and spatial patterns of disaster risk.

By harnessing the power of the internet, plus the latest technologies in geographic information systems (GIS), MANDISA aims to better mainstream disaster risk, the 'Cinderella' of the risk family. This should enable municipal planners and residents alike to engage strategically with disaster risk just as they view crime, health, traffic and other forms of risk ... that is, as a developmental priority underlying basic human security, and not as a rare occurrence 'caused' by God or Nature.

The MANDISA research project has been generously co-financed by the Office of Foreign Disaster Assistance of USAID and the Department for International Development of the British Government.

Endnotes

1. The research team comprised SALDRU (Southern Africa Labour and Development Research Unit), Department of Disaster Management, CapeTown Metropolitan Council, Provincial Development Council, DiMP (Disaster Mitigation for Sustainable Livelihoods Programme)

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The successful creation of a National System for Risk Reduction in Nicaragua

The effects of Hurricane Mitch, which isolated Central America in October 1998 dramatically brought forward structural problems intrinsic to the development process in the region. One of these problems was the weakness of the institutional arrangements on disaster reduction as an integrated part of the development process.

The previous institutional arrangements clearly reduced disasters to a mere physical threat. As a consequence, disaster policies represented a mix of scientific, technological and martial response measures. The scientific and technological measures were designed to forecast the threats while the response policies were destined to fight them. In the regional conceptualisation of the issue, the core tools for disaster management were a mix of courage, manliness and sophisticated technological systems. The threat of a disaster was comparable to a foreign national security threat.

Disasters were seen as natural and inevitable phenomena, isolated from the socio-economic context of the country and beyond the oversight of the authorities. The focus was on the reduction of the hazard impact.

Within this framework, Nicaragua had a slight comparative advantage in the regional context, in part thanks to the work of different organisations during the International Decade for Natural Disaster Reduction (IDNDR). Scientific and technical entities such as INETER were strengthened and operational entities gained in support. Inter-institutional efforts, through the CEPREDENAC National Committees for example, were enhanced.

However, natural disaster prevention was not a priority, neither for government nor for society at large.

Hurricane Mitch meant the collapse of this model which focused on forecasting, preparedness and response without inter-institutional co-ordination. Following the event, discussions on disaster management became more complex. Disasters started to be considered as the result of the articulation between threat and vulnerability (links were made between physical, socio-economic and institutional matters). This challenge of concept was linked to a shift from an interventionist approach, reducing the impact of the disaster, but more widely, to reduce disaster risks. It became necessary to improve inter-institutional co-ordination and to call on a longer number of development stakeholders to sustain disaster reduction as an integrated activity in the development process in the country.

Within this context, UNDP participated in a preparatory assistance programme whose goal was to facilitate the conditions establishing a national risk reduction system in Nicaragua. The preparatory assistance programme started in May 1999 and finished in November 2000. A set of elements brought success to the process, namely the support given by the United Nations' System Resident Co-ordinator, the monthly technical assistance with one of the most experienced persons in this matter and the full time assignment of UNDP. In less than a year and with scarce resources, the country had a new legal framework for disaster reduction and a new institutional structure to articulate risk reduction activities, in an integrated and co-ordinated way at all levels.

For the preparatory assistance programme, one of the first steps was to find support within the government with the capacity to engage the rest of the Nicaraguan society in this process. Endorsement was found in the Nicaraguan vice-presidency.

With the aim of "Building a culture of prevention", different sectors involved in development process (Ministries, municipalities, universities, civil society, international organizations, etc.) were called together for a workshop, in which around 300 persons participated, which resulted in a manifest called "Declaración de Managua" in which the principal elements for a national risk management proposal were spelled out.

The newly established disaster management unit in the vice-presidency and experienced persons and institutions (Civil Defence, INETER, CEPREDENAC National Committee and various non-governmental entities) were called on to work together. At the same time, representatives for disaster management were appointed in related ministries and government institutions and a series of workshops were held. Nicaragua's Vice-President presented a consolidated programme in June 1999.

In the legislative sphere, a set of studies were completed to analyse the Nicaraguan legal framework on disaster management and legal implications regarding the government, municipalities private sector and citizens. This was compared with disaster legislation throughout Latin America. Through the National Legislative Assembly, a proposal for a law project which creates a national system for disaster attention, mitigation and prevention emerged. It became government legislation in April 2000 (leg.337) by approval of the Nicaraguan Legislative National Assembly. This is considered the most advanced proposal for risk reduction in the region today.

Immediately after the law was approved, the President of Nicaragua established the "National System for Natural Disaster Attention, Mitigation and Prevention", ascribed to Government Presidency with the vice-presidency as the actual body in charge. Also established was an Executive Secretariat, responsible for the co-ordination and articulation of the National System. The preparatory assistance programme supported the negotiations at all times through donors which financed the proposal for the National Risk Reduction Programme. All of these factors allowed for constant support to the process, which ended in the establishment of an appropriate institutional model for disaster and risk reduction in Nicaragua.

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Reducing disaster vulnerability – the Importance of Preparedness Applying UNEP/APELL – Awareness and Preparedness for Emergencies at the Local Level

Vulnerability is not only a geographic issue – it is also caused by lack of individuals' preparedness to react when something happens. Communities that are aware of hazards, and who know how to respond, are less likely to suffer loss of life or property. A simple example suffices. In an earthquake we should remain in the open. In the case of a gas release or fireball explosion we should remain inside. So, all individuals must know beforehand how to act correctly to the hazards in their neighborhood. There is no time for giving instructions in the middle of a crisis.

Reducing vulnerability is also helped by a more effective coordination of response services (i.e. improving the preparedness of the specialists). Obvious enough, but often not a reality. The various arms of emergency response must have a single command, common procedures, and easy communication. Response actions have to be practiced from time to time to confirm that they will work in practice, not only on paper.

Preparing the communities and coordinating the specialists is a matter of information, dialogue and training. The APELL procedure does just this, through a series of steps guided by a local Coordinating Group. All relevant community stakeholders are represented on such a Group to ensure that all vulnerable parties are taken into account. The APELL process was developed out of chemical accident programmes and is now available more widely.

APELL guidance documents available from UNEP include:

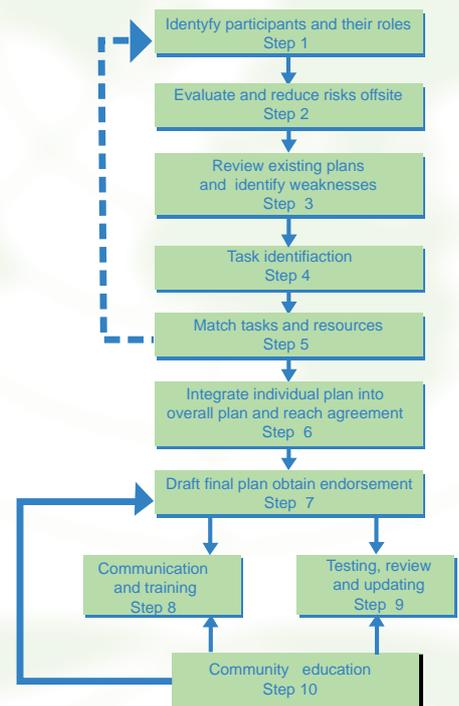
- APELL Handbook
- Technical Report No. 12 (see box)
- Health Aspects of Chemical Accidents
- APELL for Port Areas; APELL for Mining
- TransAPELL, Guidance for Dangerous Goods Transport Emergency Planning in a Local Community
- Management of Industrial Accident Prevention and Preparedness – a Training Manual

APELL works at two levels:

- self-established local APELL initiatives based on community need, and guided by UNEP handbooks. This is local application.
- APELL promotion, support, training and awareness raising at regional level by central agencies, authorities and institutions. This is the supporting framework.

Clearly everyone has a role to play.

ISDR has recently teamed up with UNEP's APELL programme to help promote and apply the practice of APELL to natural disasters. Useful synergies have been created through exchange of methodologies, vulnerability assessment tools (see below), and sharing of networks.



Hazard Identification and Evaluation in a Local Community - UNEP DTIE Technical Reports n°12

Even without sophisticated assessment tools, it is possible for local communities to collect hazard and vulnerability information. The steps suggested in UNEP's Technical Report N°12 provide basic checklists and suggestions for simple mapping that allow common major hazards in a neighbourhood to be identified. The table invite more detailed consideration of the impacts likely to target populations, and severity of consequences.

Further information and full publication list from www.uneptie.org/apell/home.html

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Mobilizing Local Communities in reducing Disasters

Examples of Disaster Reduction Initiatives

Neighbourhood (Mahalle) Involvement in Turkey

Disasters consume the resources of state and local administrations. In the first few hours after a disaster happens, centralized assistance is either beyond reach or insufficient. The August 1999 earthquake disaster in Turkey showed once more that as long as the human factor is removed from the urban environment, the only thing that remains after an earthquake is the debris of improperly planned buildings. There is a need to get the neighborhood equipped in its entirety. The MAY Project, or Neighbourhood Disaster Management, an emergency preparedness project, evolves from the earthquake safe neighbourhood to the adequately designed neighbourhood. Rather than a structure starting from the top, the goal is a movement growing from the base. In the first phase, only five elements are needed: a muhtar (head of the neighborhood, an elected officer) who possesses the awareness to respond; an executive architect that will join the muhtar; a handful of neighborhood volunteers to start with; a support organization like a non-governmental organization, and the enthusiasm to motivate all of the above! The MAY project is being implemented today in 6 mahalles of Istanbul, Gayrettepe, Yildiz, Göktürk, Kemerköy, Mithatpaşa and Mimarsinan. Besides these mahalles in Istanbul, the MAY Project has been implemented for 14 weeks in the 170 mahalles of three districts of Bursa, another important city southeast of Istanbul with more than two million population. The MAY Project can be implemented in twelve steps in any neighbourhood.

Learning to live with an earthquake does not mean having to die in it.

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The twelve steps are:

1. The call: the muhtar invites a representative of the MAY project
2. Subdivision of the neighbourhood
3. Identification of the MAY volunteers (half-time engineer, inventory officer, rescue coordination officer, infrastructure officer, dynamic factors coordinator)
4. MAY volunteers begin to work (fundraising, home and office surveys, infrastructure documentation, finding rescue operation volunteers)
5. Assessment of the MAY operation, evaluating building damage, organizing meetings with tenants and their representatives, presentations to neighbours.
6. Designing the master disaster plan
7. Designating the 500 people neighbourhood building groups
8. Training earthquake preparation and search teams
9. Completing the equipment and emergency supply boxes needed for the neighbourhood building groups
10. Earthquake drills
11. Receiving feedback for earthquake-safe neighbourhoods
12. Moving towards adequately equipped neighbourhoods.