

Disaster mitigation: Challenges to raise the capacity of at-risk populations in coping with natural, social and economic disasters

The role of the Red Cross and Red Crescent

In every culture and as far back as history records, the tragedy of natural and manmade disasters are embedded in our history. Humanitarian organisations share a similar goal at times of relative tranquility—to help the developing worlds' poor in their efforts to achieve social and economic well being. Many organisations subscribe to long-term assistance that support processes to create competence and become self-sustaining over time. Some organisations strive to reach new standards of excellence in offering disaster relief, technical assistance, training, food aid and material resources and management in combinations appropriate to local needs and priorities. And some organisations also advocate public policies and programs that support these needs.

The readiness to predict and, where possible, prevent disasters, reduce their impact as well as respond to and cope with their consequences at international, national and local levels, is central to the work of the International Federation of Red Cross and Red Crescent Societies and National Societies around the world. This task essentially involves:

- reducing the vulnerability of households and communities in disaster-prone areas and improving their ability to cope with the effects of disasters
- strengthening the capacities of National Societies in disaster preparedness and post-disaster response
- determining a National Society's role and mandate in national disaster plans and
- establishing regional networks of National Societies that will strengthen the Federation's collective impact in disaster preparedness and response at the international level.

The International Federation of the Red Cross and Red Crescent Societies has developed a Policy for Disaster Preparedness that was adopted by 176 National Societies at the XII Session of the General

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Assembly in Geneva in November 1999. This policy applies to all types of disaster preparedness activities at local, national, regional and international levels, whether carried out by a single branch of a National Society, by an individual National Society or by the International Federation acting together. The policy includes the following points:

- Recognise that disaster preparedness should be one of the primary activities of the International Federation and each National Society, regarding it as the most effective way of reducing the impact of small and localised as well as large-scale disasters. The National Society has a role to play at branch, national and international levels. These roles shall be complemented by the actions of the Federation at the international level.
- Recognise disaster preparedness as an effective link between emergency response, rehabilitation and development programs and strive to build disaster preparedness upon the competent programming that exists in other key areas of Red Cross/Red Crescent work such as in the health sector.
- Recognise the Red Cross/Red Crescent role in disaster preparedness as complementary to government and thus will not replace state responsibilities. In addition, the National Society should engage in debate with government on the focus and nature of the National Emergency Plan and encourage the assignment of a clear role and responsibilities to the National Society, supported by appropriate legislation.
- Advocate, where necessary, with government, donors, non-governmental organisations and the public, the need for and effectiveness of disaster

preparedness. National Societies should contribute to raising awareness of hazards, levels of risks and coping mechanisms adopted by society and mitigation programs, such as early warning systems, that may reduce the loss of lives and property when a disaster strikes.

- Strengthen the organisational structures at international, national and local levels required for effective disaster preparedness. In particular, prioritise the strengthening of branches, the mobilisation and training of Red Cross/Red Crescent volunteers in high-risk areas, and the responsibility of National Societies to prepare to be part of the Federation's international disaster response program. Integrate or harmonise such activities with institutional development and other relevant program areas.
- Improve coordination by promoting better cooperation and partnerships between National Societies, ICRC, governments, non-governmental organisations and other disaster response agencies at local, national, regional and international levels.
- Identify those persons, communities and households most at risk to disaster through assessment and analysis of risks, vulnerabilities and capacities (Vulnerability and Capacity Assessment) as a basis for prioritising location and focus of programming activities.
- Raise awareness of disaster hazards through public education—encouraging vulnerable people to take preventative and mitigating actions where possible before disaster strikes. Ensure that the knowledge gained from prediction and early warning systems can be accessed, understood and acted upon by local communities.
- Improve the ability of vulnerable communities to cope with disasters through community-based disaster preparedness strategies that build on existing structures, practices, skills and

coping mechanisms. Recognising that a community-based approach is the best guarantee that improvement in disaster preparedness will be realised and sustained, the assisted population must participate in planning and preparation for disasters. All activities and programs should be sensitive to issues of gender, generation and the needs of vulnerable groups, such as the disabled.

- Strive to provide the financial, material and human resources required to carry out appropriate and sustainable disaster preparedness activities. In particular, maximise the strategic advantage of the International Federation to mobilise all available resources and establish regional networks of National Societies that will strengthen the Federation's collective impact in disaster preparedness.

For many years disaster preparedness had been viewed by the International Federation as focusing on activities that improved the emergency response capacities of National Societies at the time of a natural or manmade disaster. The International Federation, along with many other non-governmental organisations, perceives that the challenge for the next decade is to create more effective mitigation programs that enable people at risk to gain mastery of their own lives and overcome the vulnerabilities that inhibit social development. This challenge is to be addressed through greater participation of vulnerable groups in the decision-making process of developmental and risk reduction programs, along with communication strategies that effect behavioral changes in the decision-makers in government, development agencies and the donor community.

For the International Federation, we foresee a period of growing rather than lessening instability. The destabilising forces stem from a complex interplay between population growth, accelerating gaps and disparities caused by globalisation, environmental stress and pollution with worsening competition for natural resources, a differential access to technology, reduction in and privatisation of government's social welfare responsibilities, an erosion of the value of community, and a further destabilising of sub-national groups and interests.

The need for a paradigm shift

Between 1995 and 2010, the number of people living in absolute poverty is expected to grow from 1.3 to 1.8 billion people. Between 1995 and the year 2000

the number of people living in this poverty category will grow from 24 to 33 percent. Instability and armed conflict will continue to rise in the world, generating even more human displacement (40 million people displaced in 1995). There is growing concern about the way in which poor people adapt coping strategies to address short-term shocks and longer-term changes in their lives.

In the 1980's and 1990's organisations began shifting their development thinking away from externally imposed blueprint solutions. Now, a more iterative approach is applied between the organisational prescriptions and the at-risk populations' developmental capacities. This shift indicates recognition, and some understanding, of the ways in which people at risk manage and change their own lives in response to stresses and opportunities. It implies an approach to development that builds upon raising capacities and enables people to avoid or find alternatives to some of the deleterious effects of human crisis.

This paradigm shift is reflected in the notion of contributing to longer-term environmental and economic sustainability and to creating stronger linkages between relief and development initiatives. An important factor in this paradigm shift is how to reinforce the capacity of at-risk groups to adapt in times of rapid or slow onset shocks to their lives. This adaptation process, by choice of the at-risk group, requires a dynamic that either enhances existing security and wealth or reduces vulnerability and poverty. And, requires more adherence by non-governmental agencies with the importance of gender, ethnicity, family and community structure along with the socio-economic references affecting adaptation strategies.

Mohan Munasinghe, (1998) Senior Advisor, World Bank suggests that proximity to an extreme natural event combines with low economic or social status to result in deadly consequences. By the year 2025, 80% of the world's population will reside in developing countries and estimates that up to 60% of residents are highly vulnerable to floods, severe storms and earthquakes (First International Earthquakes and Megacities Workshop, 1997). And, it is highly conceivable that more unsolved tensions will erupt into civil conflicts that force civilian populations to flee their homes and countries and swell the ever increasing population of displaced persons and refugees.

As affirmed in the Yokohama Strategy and Plan of Action for a Safer World, disaster prevention, mitigation,

preparedness and relief are four elements that contribute to, and gain from, the implementation of sustainable development policies. These elements, along with environmental protection and sustainable development are closely interrelated. Community involvement and active participation should be encouraged in order to gain greater insight into the individual and collective perception of development and risk, and to have a clear understanding of the cultural and organisational characteristics of each society as well as its behavior and interactions with the physical and natural environment. This knowledge is of the utmost importance to determine those factors, which favor and hinder prevention and mitigation or encourage or limit the preservation of the environment for future generations.

The International Federation has elected to address future disaster preparedness activities through striking a balance between mitigating negative, destabilising forces and building and reinforcing positive trends. Mary B. Anderson (1990) questions, which costs more: prevention or recovery? she states that the basic argument for integrating disaster awareness into development planning is that it is wasteful not to do so.

What choices do organisations working in disaster prone developing countries face as they adopt programs for economic and social development and prepare for the eventual losses and human suffering from natural and manmade disasters? How does an organisation factor into its planning process the human effects of conflict over resources, ethnic recognition and ideologues and suffering caused by natural disasters? One approach used by the International Federation is through greater attention to counter the effects of risk through disaster mitigation.

The following case study of the Palang Merah Indonesia (Indonesia Red Cross Society) describes its approach to mitigate the effects of a recent socio-economic and political crisis affecting its citizens.

Responding to socio-economic and political crises: a case study of the Palang Merah Indonesia

The socio-economic and political events that have affected communities throughout the Indonesian archipelago over the past two years have resulted in massive unemployment, a weakened currency and inflation rates that have destabilised local markets. These conditions have contributed to an overloading of public facilities for health care, education and other social services in addition to increasing the

number of vulnerable families due to a nutritionally inadequate diet.

The Palang Merah Indonesia (Indonesian Red Cross) was on hand to provide first aid and medical care during demonstrations and civil riots linked to the socio-economic and political events. The Surakarta Branch responded to immediate needs of the vulnerable by offering basic food commodities at affordable prices, providing clothing and making available blood and blood products from its Blood Transfusion Center free of cost to the poorest among the poor.

In response to this crisis, the PMI developed the Socio Economic Crisis Program involving 12 chapters and 52 branches and the PMI Hospital in Bogor, West Java to support three components:

- food assistance (rice) for a period of 12 months to 660,000 people comprising 120,000 female-headed households or 580,000 people, 65,000 elderly over the age of 60 years, 15,000 orphans and/or the handicapped
- 2. medical assistance to 400,000 beneficiaries to include free consultation and free local generic medicines to a maximum of Rupiahs 20,000 per individual
- 3. blood and blood products assistance to 25,000 patients

While the Indonesian Red Cross initiative was strictly relief oriented, it was successful in alleviating a slide into acute deprivation for program recipients, until their economic situation either returned to normal or other social safety nets could be offered by Government or other civil society organisations. The PMI demonstrated an effective decentralised strategy that worked with hundreds of enthusiastic staff and dedicated volunteers in addition to coordination with World Food Program and BULOG (the Governmental Logistics Agency) and the Kimia Farma (the Government's Drug Agency).

Working with local communities

The vulnerability of the people in the Caribbean increases every year as a result of high population growth and an ever increasing rural to urban migration pattern. The Caribbean faces other challenges to raise the capacity of vulnerable populations to respond effectively to local hazards, as 40% of its population is now under the age of 20 years and national economies have a limited capacity to support the recovery of its citizens after a national disaster. The Regional Delegation of the Federation in the Caribbean, covering 16 National Societies from Cuba in the north to



Above: Red Cross staff demonstrating new safety materials to staff of Hotel Pegasus, Jamaica

Surinam in the south and from Barbados in the east to Belize in the west, initiated a Disaster Preparedness Program in 1996 to assist vulnerable groups to develop stronger coping capacities to various natural and manmade hazards.

Hurricanes pose a permanent threat to the Caribbean and, when mixed with economic under development in the region, accentuate the extent of losses liable from natural disasters. Other hazards in the region include geological risks from volcano, earthquakes and landslides, hydrometeorological hazards from flooding and social and technological hazards such as HIV, chemical spills and industrial and road accidents.

The Red Cross in the Caribbean has begun to address the vulnerabilities of a growing number of their population in a two-prong approach as described below:

Community-based disaster preparedness training project—a case study of the Caribbean Red Cross Societies

The broad objective of this program launched by Red Cross Societies in the Caribbean was to improve community capacity to cope with disasters and to minimise their effects on the most vulnerable populations. This objective was initiated through a systematic intro-

duction of the Community Based Disaster Preparedness program into the headquarters and branch level of National Societies of the region and to other grassroots organisations. With trained staff and volunteers, National Societies and other grassroots organisations could address their attention to vulnerable communities that matched the description as, 'those of greatest risk from situations that threaten their survival or their capacity to live with a minimum of social and economic security and human dignity.'

The program has been successful in raising the capacity of National Societies in the region to prepare and manage disaster preparedness and response plans and develop a greater interaction between National Societies and communities in developing sustainable risk reduction interventions. The Red Cross has developed a comprehensive disaster management manual and training modules for the region in addition to developing a pool of trained resource persons to facilitate community-based disaster preparedness courses.

A variety of new Red Cross programs targeting at-risk populations have been developed in combination with local groups as a result of this regional strategy.



Above: Embankments are part of a pro-active flood preparedness strategy in Bangladesh.



Above: a cyclone shelter in Bangladesh that has protected the lives of hundreds of vulnerable rural people living along the coastal Bay of Bengal.

The International Federation in a joint initiative with the Jamaica Red Cross, Royal and Sun Alliance and the Jamaica Hotel and Tourist Association is developing a disaster and safety management program to address the unique needs of hotels in the region. This innovative program enables the National Society to raise awareness of disaster preparedness methods with hotel industry staff, and to generate resources from the provision of services to support the funding needs of the Red Cross.

For the Federation and National Societies, the development of national capacities is an important process to better

serve the needs of the most vulnerable. With a long history of development in disaster response, National Societies are acutely aware that greater attention has to be paid to preventive strategies aimed at saving lives and protecting resources and assets before they are lost. In essence, this task will include the continuous collection and analysis of relevant information and activities such as:

- predictable hazards — identification and mapping of key hazards
- assessing the geographical distribution of threats — geographical areas vulnerable to seasonal threats
- who and what are the most vulnerable

to threats — households, groups and communities at greatest risk

- assessing the most vulnerable groups' capacity to respond to threats/disasters — strengths and coping mechanisms to local hazards
- determining the other players in disaster preparedness and response — development of a network to support a comprehensive program
- assessing the capacity of National Societies to mitigate and respond to disaster threats — on-going capacity assessment of both response at the time of national or local disasters and initiation of interventions to mitigate the consequences of such disasters for people at-risk
- define gaps in national/local preparedness plans — advocate to policy makers to ensure plans have been developed to reduce the impact of disaster episodes on vulnerable communities

National Societies in disaster-prone nations

The Bangladesh Red Crescent Society, with a long history of initiatives dating back to 1920, provides a clear example of a National Society that has begun to balance disaster preparedness activities between maintaining a strong response capacity and defining and initiating successful mitigation initiatives. With an average annual death toll of 44,000 attributed to disasters from 1987 to 1996, Bangladesh is one of the most disaster prone nations in the world. To add to its vulnerabilities, Bangladesh is confronted

by social unrest in its neighboring countries, while internally it has to address poverty alleviation as its first national development objective.

Focus on response preparedness—a case study of the Bangladesh Red Crescent Society

Given the predictable disasters likely to strike the 130 million people of Bangladesh and the fragile livelihood of its population, the Bangladesh Red Crescent Society (BDRCS) has focused its activities in disaster response on providing food, medical services and other aid to people affected by disaster episodes. Curative health care is offered through nine hospitals and health clinics, 62 maternal child health centers and two blood centers. The BDRCS development priorities are to:

- strengthen the overall organisation—the National Headquarters and the local Branch network, and its management, staff and volunteers—in order to achieve the characteristics of a well functioning National Society
- increase protection and assistance to the most vulnerable people through appropriate response and disaster preparedness measures
- improve health and blood services, promote socio-economic development in the weakest sections of society and improve tracing services

Within its latest five-year Plan of Action, the BDRCS is seeking to modernise its governance functions, decentralise decision-making processes, introduce a new financial management system, develop human resources, and strengthen the capacities of both departments and branches. Institutional development and disaster preparedness is essential, given the dimensions of the activities of its 68 branches that serve populations varying from three hundred thousand in the hill tracts to ten million in the capital of Dhaka.

In their Community Based Disaster Preparedness Program the BDRCS seeks to develop, within each branch, a District Emergency Plan that targets vulnerable communities affected by flooding, tornadoes, river erosion, drought and cyclone. Community activities in first aid, awareness raising on risk reduction and improved coping mechanisms, disaster early warning, and support to raise the level of health through construction of tube-wells and latrines, are some of the activities initiated by the branches.

The Cyclone Preparedness Program, partially funded by the Government of Bangladesh, seeks to increase the effec-

tiveness of its 33,000 volunteers and their capacity to advocate for greater community awareness of cyclone preparedness, improve the dissemination of warning signals to vulnerable communities along the coastal belt, assist communities in evacuating to shelters and provision of first aid and relief. The CPP also operates the largest radio communications systems offering a reliable means of communications for the entire coastal belt in both pre- and post-cyclone conditions.

Focus on coastal environmental preservation—a case study of the Vietnam Red Cross

The Environmental Preservation Project, undertaken by the Thai Binh Red Cross branch of the Vietnam Red Cross, elected to undertake this mitigation program to address two issues affecting people living along the sea coast in the Thai Thuy district of Thai Binh province. With eight to ten typhoon storms striking the coast of Vietnam annually, tidal flooding often breaches sea dykes causing economic losses to the local population engaged in aquaculture.

The planting of mangrove plantations served two important purposes:

- to act as a buffer zone in front of the sea dyke system to reduce the water velocity, wave strength and wind energy to protect coastal land, human life and assets invested in development, and
- to contribute to the production of valuable export products like shrimp and crabs, high value marine fish species in cages, mollusk farming and seaweed culture for agar and alginate extraction.

By contributing to environmental support to coastal fisheries and aqua-

culture through the development of 2,000 hectares of mangroves, The Thai Binh Red Cross also helped to provide a livelihood benefit to the vulnerable population through new employment opportunities for their labor.

An evaluation of the project in 1996 indicated that: 'By helping to protect the sea dykes, the mangroves are contributing to the economic stability of the communities. All members of the community stand to benefit as their homes, livestock and agricultural land are better protected from the risk of flooding. Poor families, with little money to repair or replace material losses from storm damage, are the greatest potential beneficiaries.' The project area was struck by the worst typhoon in a decade two months prior to the project evaluation. Lack of any significant damage to the sea dyke and aquaculture pond systems in Thai Thuy provided the best possible indicator of the effectiveness of the mangroves.

And, the perception of the local population is that the mangroves planted will:

- lesson storm, flood protection of sea dykes and ponds
- protect property and the coastal inhabitants
- improve aquatic production and the environment
- prevent saline intrusion into agricultural land
- expand the land area for the national benefit of Vietnam

Regional disaster preparedness programs

In addition to activities initiated by individual National Societies, the 13 Regional Delegations located around the world contribute to strategic programming undertaken by the National Societies



Above: In this Red Cross cyclone shelter in India, residents of the community use the shelters for multiple purposes during non-emergency periods.

in their respective regions. The International Federation Regional Delegation for Eastern Africa in Nairobi has been supporting disaster preparedness since 1993 when staff began to offer technical advice and support relief operations in Uganda and Kenya. The program continued to develop standardised procedures and preparedness initiatives in the Red Cross and Red Crescent Societies in Ethiopia, Eritrea, Kenya, Sudan, Somalia and Tanzania.

In 1999, the Regional Delegation described its role as: 'to assist National Societies develop disaster preparedness policies and plans for an effective disaster response. The emphasis will be on capacity building at the National Society level'. The Regional Delegation was requested by National Societies to undertake several initiatives related to capacity building, such as a training of trainers workshop on vulnerability and capacity analysis in Ethiopia, facilitation of a contingency planning workshop for government and the Red Cross in Uganda, and a request from Sudan to facilitate disaster preparedness and logistics training. In addition, the Regional Delegation has agreed to undertake a variety of other activities including:

- offering Kenya branch staff training in risk mapping analysis and other tools for vulnerability and capacity assessments
- preparation of a Disaster Profile, development of a National Society Disaster Response and Preparedness Policy and facilitation of the development of practical linkages between the National Society and the in-country Early Warning Systems at strategic branch level for the Tanzania Red Cross
- participation in contingency planning and standardisation of relief procedures in the Great Lakes region
- building/strengthening capacity in high-risk areas in the Francophone countries through the preparation of disaster preparedness for cyclones in the Indian Ocean Islands.

Conclusion

The International Federation of the Red Cross and Red Crescent has adopted policies to effect a pro-active disaster preparedness capacity in all of the current 176 National Societies. The dimensions of disaster preparedness now includes both the development of a response capacity and the creation of more effective mitigation programs that enable people at risk to gain mastery of their own lives while overcoming the vulnera-

bilities that inhibit social development.

This challenge has required the International Federation to develop new policies, frameworks and tools to support the capacity building required within National Societies to adopt new methods of outreach to vulnerable segments of their nations. National Societies have responded in a highly favorable manner—National Societies in economically affluent conditions providing financial and human resources to support the initiatives developed by National Societies with limited resources. Mitigation programs that are planned and initiated in coordination with vulnerable groups and which compliment national development strategies have begun to demonstrate a capacity to lessen the impact of local disasters while raising the capacities of at-risk groups.

The Palang Merah Indonesia has shown its capacity to develop a social safety net for vulnerable groups during socio-economic and political crises. The Red Cross Societies in the Caribbean have begun to develop their in-house capacities to 'serve those of greatest risk' and create an innovative program with the hotel industry. The Bangladesh Red Crescent Society is maintaining a constant disaster response aptitude to react rapidly to ever-frequent floods and cyclones, while also expanding the coverage of its Cyclone Preparedness Program. And, in the Eastern Africa region, the International Federation is supporting initiatives that will ultimately serve vulnerable groups from the strategically sound disaster preparedness aptitudes of National Societies.

In the July 1999 Forum (Strategy for a Safer World in the 21st Century: Disaster and Risk Reduction) organised by the International Decade for Natural Disaster Reduction (IDNDR), participants arrived at the following statement on disaster and risk reduction:

While hazards are inevitable, and the elimination of all risks is impossible, there are many technical measures, traditional practices, and public experiences that can reduce the extent or severity of economic and social disasters. Hazards and emergency requirements are a part of living with nature, but human behavior can be changed.

The International Federation is also conforming to the Geneva Mandate on Disaster Reduction, adopted on July 9, 1999, which declared:

'We shall adopt and implement policy measures at the international, regional, sub-regional, national and local levels

aimed at reducing the vulnerability of our societies to both natural and technological hazards through proactive rather than reactive approaches. These measures shall have as main objectives the establishment of hazard-resilient communities and the protection of people from the threat of disasters. They shall also contribute to safeguarding our natural and economic resources, and our social well being and livelihoods.'

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