



4.3. Public awareness

The development of increased public awareness about hazards and the understanding of disaster risks are vital elements in any comprehensive strategy for disaster reduction. Public awareness should be conducted through all possible means, including in schools, in particular through the media and other official, public, professional and commercial means, at all levels of society. There is a responsibility for government direction and civic commitment to lead and encourage the public awareness of natural hazards and risk on a continuous basis, but the ultimate accomplishment of creating a culture of prevention rests with the popular understanding and public participation in furthering those values.

The importance of public awareness to effective disaster risk reduction cannot be overstated and assumes many different forms. Some of these are presented in the following sections:

- Public awareness as a primary element of risk reduction
- National public awareness initiatives
- Special international events and major activities
- The important role of the media
- Local community experience promotes public awareness
- Local relevance, community experience and traditional knowledge

Public awareness as a primary element of risk reduction

The promotion of public awareness about hazards and the creation of widespread understanding about disaster reduction have always been recognised as a crucial function of disaster risk management strategies. The Yokohama Strategy and Plan of Action noted in the mid 1990s that future strategies needed to develop a global culture of prevention as an essential component of an integrated approach to disaster reduction. It specifically cited the improvement of awareness within vulnerable communities themselves as a primary future requirement.

For this reason, increasing public awareness about natural and related technological hazards and the risks they pose to societies and economies has become one of the four key objectives of the International Strategy for Disaster Reduction (ISDR). Even more relevant in practical terms, public awareness serves to convey knowledge about existing solutions that can reduce the vulnerability to hazards in order to build a global community dedicated to making risk and disaster reduction an accepted public value.

To ensure political commitment in the planning and implementation of risk reduction measures, it is essential for all stakeholders first to be aware of the hazards they are likely to face and the importance that risk reduction holds for their daily lives. Public awareness, in addition to education, is a process through which people living in hazard-prone areas can realise and understand that they live in areas of risk, know the specific dangers that they are exposed to, learn the meaning of warnings that are issued and participate in the policy and decision making processes to take appropriate action to reduce risk. It is even more important for them to be motivated to take appropriate prior actions to plan their development and protect their lives and minimise property damage.

There is a basic responsibility of government authorities to inform the public about the nature of prevalent hazards and the changing conditions of risk. However, the routine dissemination of information and the conduct of activities to sustain a current sense of awareness also must be undertaken by other sectors of the society. The inclusion of risk information in all forms of education and professional training is crucial and a successful program of pub-

lic information must necessarily include professional and civic groups and both national and local authorities. The media too fulfils the role of informing the public in increasingly information-driven societies. There is a widespread recognition that practical tools and guidelines to carry out such programs remain inadequate in part because of the limited exchange of information about what is being accomplished globally in the field.

Individual commemorative occasions or one off public displays that are not associated with daily livelihoods and social responsibilities of the public are unlikely to have much enduring effect. They only go so far in arousing public interest or motivating widespread popular participation, so more strategic approaches need to be conceived and supported. By contrast, even if extreme events may be considered extraordinary in themselves, they have a great potential for dramatically illustrating hazardous conditions elsewhere. In this respect, the prevalence of risks that display severe consequences nearby or in similar social settings can provide a powerful impetus for sustained public interest. The timely and widespread circulation of lessons learned from disasters and the follow through necessary to apply the practical procedures that can reduce risks, can contribute to others prior to similar losses being suffered elsewhere.

Having witnessed the damage to public infrastructure in California during the Loma Prieta earthquake in 1989, the authorities in Seattle, Washington used the occasion to create a wider public understanding and support for fixing their own roads, bridges and other public works early in the 1990s. Work continued throughout the decade at a cost of more than \$150 million. When a magnitude 6.0 earthquake shook Seattle in 2001, the Mayor of Seattle observed that the sustained public awareness and support for their program to reinforce public infrastructure was money well spent. There was only one fatality and the primary city infrastructure largely survived with only moderate damage.

Public discussion and official assessment of the consequences of major earthquakes in India in recent years have resulted in political demands that have totally revised outdated state-wide programs of hazard awareness and disaster risk

Disasters increase public awareness

Experiences demonstrate opportunities to mount programs of public awareness and education with practical results following major disasters.

The impact of the El Niño event in 1997-98, hurricanes Georges and Mitch (1998), followed by the losses from the earthquakes in El Salvador (2001), had such an enormous impact on public understanding that they far exceeded what any planned publicity program could have ever accomplished in Central America.

Before, routine public information disseminated by disaster management authorities typically focused on emergency preparedness and crisis response issues. Since these events, the complex issues of risk have become associated with problems of poverty, social exclusion, lack of access to resources and untenable use of land.

There is now the recognition that values associated with risk reduction must be conveyed through wider public exposure and achieved by making permanent changes in educational curricula. The successful efforts to teach environmental consciousness throughout the formal basic education system in Costa Rica shows what can be accomplished with a coherent and sustained strategy.

management. The unprecedented floods experienced in several Southern African countries in 2000 resulted in public demands and political expectations for a wider regional discussion of the risks associated with recurrent natural hazards. Each of these occasions has resulted in the circulation of more public information with a resulting widespread public expectation of improved early warning procedures both to inform the population and to guide more appropriate disaster management policies.

The challenge that remains after an immediate crisis is to maintain public interest and increase involvement in public awareness programs. It is during these periods of less immediate threat that the important work in public awareness needs to be accomplished if greater future losses are to be minimised or avoided. The aim of public awareness programs should not be limited to conveying an understanding about hazards and risks to the public but rather it should



motivate and enable people to become involved in activities that can reduce risks to which they are exposed. Public awareness programs should have the long-term objective of creating new attitudes and changing behaviour. Therefore, information needs to be consistent, with principle components repeated over a period of time.

Extended involvement with public awareness can take many forms. A long-term commitment to risk reduction is best achieved by incorporating the subject throughout society, where people live and work, and by including it as a part of their daily livelihood experience or professional interest.

The enhancement of the appropriate values require recognition and direction from official authorities best realised by encouragement and support for public information activities implemented at local levels. Rather than focussing on specific hazards alone, some communities are turning their attention to the broader concepts of risk, by identifying, assessing and evaluating the various risks that threaten them.

Formal education and professional training discussed in another section is the most feasible mechanism to increase additional understanding about risks and to change public attitudes among different generations. By reaching into the past and drawing on earlier examples of local experience and traditional knowledge,

communities can identify additional measures to promote a wider public appreciation of hazards or local capabilities to manage risks. Knowledge of the immediate local environment, and particularly traditional practices associated with the management and sustained use of natural resources provide additional types of information that can be employed to reduce risks.

National public awareness initiatives

Most countries that have an active and well-supported national disaster risk management authority express a commitment to increased public awareness about hazards, risk and disaster reduction practices. They usually proceed beyond occasional commemorative events or the provision of posters, public announcements or handbooks, and have national platforms or committees bringing together representatives from various stakeholder sectors.

The Government of Australia conceived and sustained an excellent public awareness program throughout the 1990s that encompassed all aspects of the country's efforts to increase the awareness of hazards and reduce the risk of disasters. Examples of many of the informative manuals, posters, pamphlets, community hazard maps, and descriptions of related activities are included in a comprehensive review, the Final Report of Australia's Co-ordination Committee for IDNDR - 1990-2000 (EMA, 1999).

The Government of South Africa made use of its Green Paper and community meetings to develop a greater familiarity about local hazards and community risk issues prior to the publication of a White Paper on national policy and the drafting of a new national disaster management bill.

The National Disaster Management Office of Botswana conducted a survey and policy review late in 2001 to help in the development of a national public awareness strategy intended to relate hazard and risk reduction and national development objectives.

In recent years, the United States Federal Emergency Management Agency (FEMA) (www.fema.gov) has provided extensive public

Basic principles of public awareness programs:"

- ☑ They should be designed and implemented with a clear understanding of local perspectives and requirements with all materials reflecting local conditions.
- ☑ They should target all sections of society, including decision-makers, educators, professionals, members of the public and individuals living in threatened communities.
- ☑ Different types of messages, locations and delivery systems are necessary to reach the various target audiences.
- ☑ Sustained efforts are crucial to success, although single activities such as commemorative disaster reduction events and special issue campaigns can be useful if they are part of a larger, consistent programme.

information including links to many organizations engaged in disaster reduction activities.

In Mozambique, the National Disaster Management Authority (INGC) uses disaster simulations as well as a variety of public forums to conduct awareness-raising programs under the theme Towards a Culture of Prevention. A different location is chosen each year, usually a potentially vulnerable area near a provincial capital, and national leaders are invited to participate. Televised panel discussions, public exhibitions, university seminars and presentations in schools are also conducted. At a more practical level and with a longer-term perspective, projects such as tree planting or the distribution of drought-resistant crops, have been initiated during the event. The timing of these activities also serve to highlight meteorological forecasts for the imminent rainy season and announcements are made about emergency contingency plans.

These outreach campaigns have put the issue of disaster management on the public agenda but the message has been directed largely to urban populations. While a principal objective in most of these activities has been to influence policy-makers and other significant stakeholders at the national level, a challenge remains to instil a culture of prevention among poorer rural communities, those most likely to suffer during a disaster.

China has made widespread use of publications, media and other forms of publicity to raise the public consciousness about the importance of disaster reduction. In the past decade, more than 300 books have been published about the subject, and more than 20 different newspapers and periodicals have been created to spread knowledge about disaster reduction throughout the many different sectors of Chinese society. In addition, numerous international publications and documents dealing with disaster risk issues have been translated into Chinese or adapted to Chinese conditions, and distributed widely. Future plans of the China National Committee for Natural Disaster Reduction (CNCIDR) to improve their public awareness program include greater use of television, broadcasting, video, and electronic means.

There are additional plans for CNCIDR to coordinate with educational departments to add

new content on hazards and disaster risk to curricula in schools, enabling youth to understand their own roles in reducing disasters. Similarly, professional organizations run disaster reduction training courses according to their own specific circumstances. The China Association for Science and Technology has mobilised scientific and technical personnel to contribute to the decision-making processes and has organized consulting services in disaster reduction for specific problems.

Special events and major activities

Every year since the early 1990s the UN has organized a World Disaster Reduction Campaign with the objective of raising awareness about disaster reduction through thematically related activities. This public awareness strategy calls on Governments and local communities to mobilise, for example, by developing risk maps and early warning systems. It urges Governments to develop and enforce building codes and to exploit scientific and technical knowledge for minimising the exposure to the risk of natural disasters. Other UN agencies and their program partners are also committed to carrying out this strategy by bringing people and expertise together in the search for solutions. The campaigns are based on a different theme every year. In 2001, the theme was Countering Disasters, Targeting Vulnerability. The 2002 campaign is mentioned below.

The theme of the 2002 World Disaster Reduction Campaign, is Disaster Reduction for Sustainable Mountain Development, chosen to parallel the world-wide celebration of the International Year of Mountains. Through a series of activities and special programs in many countries, the campaign will highlight increasing global awareness of mountain hazards and successful disaster reduction efforts undertaken in mountain areas. The primary message is that disaster reduction as an essential part of sustainable development planning can benefit mountain communities world-wide by avoiding the devastating set backs that natural disasters can cause. The annual campaign culminates on the International Day for Natural Disaster Reduction on the second Wednesday of October with activities to showcase examples of successful accomplishments in disaster reduction.



Case Bolivia

The lasting effects of these mechanisms can be illustrated by the experience of Bolivia. Since 1998, disaster reduction has been promoted in Bolivia through two programs. One program has focussed on supporting the national system for civil defence the other has emphasised measures that could prevent avoidable risks and increase the public awareness about disasters.

While several projects had been undertaken to involve more people in managing risks and using the information materials that had been developed, a new campaign, Risk Management: A new vision on disasters, was launched in 2001, to further the objectives of the ISDR. A workshop was organized in July 2001 by the Universidad Nacional Siglo XX de Llalagua to promote the campaign with financing provided by ACRA, an Italian NGO, with the technical support of a national specialist from UNDP.

Another workshop was held in August in the city of Santa Cruz on community-based disaster management, conducted within the framework of a pilot project of the Association of the Municipality of Santa Cruz and the German Agency for Technical Co-operation (GTZ).

Later in the year, one of the most important achievements was the approval of a new law directed towards improving risk reduction and disaster awareness. The law encourages the identification of key measures relating to disaster reduction that can be employed in the course of implementing projects that further sustainable development principles. To support this process, manuals have been prepared to guide people in local communities to assess risks, formulate practical policies, and then to apply risk management measures that can be incorporated in local development programs. These manuals will be tested in selected municipalities and then will be evaluated afterwards.

Case: Jamaica

A variety of local activities were conducted in Jamaica in June 2001, the country's official disaster preparedness month. A national church

service was held to launch the month, broadcast live on television and radio. The following day, a press conference was held to introduce the public to the themes of disaster preparedness month, which were then emphasised in public information campaigns the rest of the year. Specific issues were also presented concerning local planning.

- An evacuation sign was introduced, sponsored by Medigrace Jamaica, which could be used to guide people out of the Portmore area in the event of an emergency evacuation.
- The use and application of the Office of Disaster Preparedness and Emergency Management's (ODPEM) Geographic Information System was explained and highlighted. The use of computer technology in the National Emergency Operations Center was also highlighted.
- ODPEM highlighted their initiative to include elements of popular culture in conveying disaster preparedness messages effectively to the public. This included the participation of several popular music disc-jockeys and the promotion of commercial sponsorship to broadcast these messages.
- Two new brochures were launched for public information: ODPEM, who we are and what we do, and, Earthquake Awareness for Businesses.

One day during the month was disaster preparedness day in schools. The ministry of education called for an island-wide observance of the subject. Many schools participated in disaster related activities. A hurricane preparedness day for businesses was also held during the month with widespread support from the business community. Several companies organized exhibitions, conducted drills and invited speakers from safety-related organizations.

A major exhibition was held in the Portmore Shopping Mall in which about twenty organizations presented exhibits that displayed their products and services. ODPEM also displayed emergency supplies that people should use in the event of a hurricane. Finally, a seminar on contingency planning directed to business organizations was held at the conclusion of the month. With the objective to raise awareness about disaster planning and pre-

Sasakawa Award Winners - 2001

To promote additional public awareness about disaster risk reduction, every year the UN Sasakawa Award for Disaster Reduction is awarded during the International Day for Disaster Reduction. This international honour is given to an individual or organization for their outstanding contributions to the prevention of disasters and the reduction of vulnerability, consistent with the aims and objectives of the ISDR. The laureates and finalists of the award for the past two years are listed below. Further information about their activities and procedures for future nominations can be found on the ISDR website at www.unisdr.org

Laureate: Global Fire Monitoring Centre, Max Planck Institute for Chemistry at Freiburg University, Freiburg, Germany

For its long-term commitment to disaster reduction and continued research activities for the reduction of wildland fires world-wide, as well as for its multiple co-operation projects in developing countries, involving local communities.

Certificates of Distinction:

Philippines Institute of Volcanology, Manila Philippines

For its long-term commitment to disaster reduction and its leading role in disaster reduction activities in Central Asia, in particular with regard to earthquakes and volcanoes, with the involvement of local communities, and its impressive amount and high-quality supporting documentation on their many activities and projects.

Mr. Brian Ward, Asian Disaster Preparedness Center, Bangkok, Thailand

For being the initiator and founding father of the Asian Disaster Preparedness Center, now recognised as the leading institution for disaster reduction projects, training activities and educational projects in Southeast Asia.

Professor Isaac Nyambok, Department of Geology, University of Nairobi, Nairobi, Kenya

For his personal commitment to disaster reduction, and for establishing a postgraduate disaster management course in disaster reduction in Africa at the University of Nairobi that is accessible to all professional interests, including those of high-level government officials.

Certificates of Merit:

National Society of Earthquake Technology, Katmandu, Nepal

For its noteworthy awareness-raising and educational programs in disaster reduction, particularly in the field of seismic risk reduction, for the benefit and with the involvement of the local communities and decision-makers in Nepal, with a strong potential for implementation and for replicability for other kinds of natural hazards.

Oficina Nacional de Emergencia, Ministerio de Interno, Santiago de Chile, Chile

For its significant educational activities and awareness-raising programs about disaster reduction, in particular by the inclusion of communication strategies related to school security within its mandate in civil protection, as well as its strong presence and impact among national decision-makers throughout the Latin American and Caribbean areas.

Comisión Permanente de Contingencias, Tegucigalpa, Honduras

For its significant initiatives in the field of promotion and awareness-raising about disaster reduction, especially related to forest fires, as well as by working in close co-operation with the population to implement initiatives that realise local communities' vulnerability and specific requirements, and by placing emphasis on the development of communication strategies accessible to all segments of the population.

Nyos-Monoun Degassing Program Advisory Committee, Yaoundé, Cameroon

For the innovative design and implementation of the lake degassing initiative, applied in a developing country and with the involvement of local communities, and by serving as an example to refining the project further and extending its replication to reduce similar risks elsewhere in the region.

Sasakawa Award Winners - 2000

Laureate: The Fondo para la Reconstrucción y el Desarrollo Social del Eje Cafetero,
Manizales, Colombia

In recognition of its major achievements in disaster prevention in the Coffee region following the severe earthquake of 1999, by integrating basic elements of prevention such as land-use planning, hazard mapping, respect for seismic-resistant building codes into long-term reconstruction and rehabilitation programs. FOREC has contributed significantly to the sustainable development of the coffee region by restoring communications links and economic infrastructure, by promoting civil society and the involvement of local communities in the decision-making process and implementing decision-making at the local level.



Certificates of Distinction:

Dr. Roberto Aguiar Falconi, Center of Scientific Research, Army Polytechnic School, Quito, Ecuador

For his high-level experience and expertise in the prevention of seismic hazards disaster prevention and his contribution to scientific research in this domain.

National Disaster Prevention and Preparedness Commission, Addis Ababa, Ethiopia

For efforts in addressing the root causes of disasters and communities' vulnerability to disasters, and the Commission's inclusion of disaster prevention activities in the development process.

The Central Committee for Flood and Storm Control, Hanoi, Vietnam

For its significant efforts in the field of disaster prevention, despite scarce national resources and limited capacities, in particular for its implementation of flood control programs and flood early-warning systems, awareness-raising initiatives and training activities carried out at the national level.

Certificates of Merit:

General Directorate of Civil Protection, Governorate of Grand Alger, Algiers, Algeria

For efforts in introducing elements of prevention in rescue programs, in particular the sustained efforts in carrying out training activities for disaster prevention including participation and organization of international forums on the subject.

National Directorate General for Disaster Management, Budapest, Hungary

For its significant experience in the field of disaster preparedness, in particular in information sharing, initiatives in the field of flood control and the prevention of water contamination as preventative measures contributing to sustainable development.

paredness, participants came from many different business sectors to learn about topics such as establishing a planning team for risk reduction and conducting vulnerability analysis.

Case: Costa Rica

On International Day for Disaster Reduction, Costa Rica's National Risk *Prevention and Emergency Response Commission (CNE)*, the country's focal point for disaster reduction, organized a community exercise in disaster preparedness. It involved an evacuation drill based on the likelihood of a local river flooding

and then causing mudslides affecting four communities near the old Costa Rican capital of Cartago.

A massive public awareness campaign about earthquakes was also launched with media support, supplemented by a poster designed by CNE to inform people about the importance of preventive measures that would reduce the impact of an earthquake. The Inter-institutional Emergency Commission of the University of Costa Rica organized a forum on the role of the media in disseminating information on disasters. In Uruguay, the Ministry of Education's Emergency and Disaster Commission organ-

ized a workshop with the support of the OFDA/USAID, the National Emergency System, and the local government. The National Red Cross Society of Uruguay attended the International Day for Disaster Reduction, as well as local representatives of civilian, political, and military organizations, school children, and the media. The objective was to strengthen local communities by creating awareness of social responsibility, identification of hazards, prevention and risk, especially directed at children. One focus of the workshop was for the participants to compose risk and vulnerability maps relevant to their surroundings. Another meeting was held three weeks later for the participants to share their information and experiences about the presentation and composition of their various risk maps.

Many countries use the occurrence of a major national disaster in the past to commemorate this day (or week) from year to year in a public awareness day for disaster preparedness and risk reduction. This is the case in Colombia, where the devastating volcanic eruption of Nevado de Ruiz on November 13, 1985, swept away whole villages and left more than 25,000 people dead. National exercises, school and media activities take place each year to maintain the awareness of such impacts. The same happens in Peru, where the earthquake and avalanche in Cajon de Huaylas on May 5, 1970, killed more than 67,000 persons.

The important role of the media

In terms of media involvement, there is much that needs to be done. The prevailing media coverage about hazards and risk remains overwhelmingly related to disaster events and the immediate dramatic aftermath of surveying damage or the provision of emergency assistance to survivors. With a few noteworthy examples, widespread coverage about potential or recurrent hazards which affect a specific area or reporting about existing disaster risk management practices are much less in evidence.

● A professional's viewpoint: What the media says, and why.

The media tends to reflect the mood of the community it serves. If there is already debate about the exposure to natural hazards or concern about disaster awareness, then journalists are likely to amplify and focus this concern. If there is no local interest in the subject, then a local newspaper, television or radio program is unlikely to launch and sustain the discussion. There is, however, a moment to trigger such attention and to inspire media professionals to take an intelligent interest in wider disaster subjects. This moment is in the immediate aftermath of an earthquake, flood, forest fire, landslide, hurricane or tsunami.

Paradoxically, such moments also underscore huge cultural gaps that exist between journalists and the engineers, scientists, health teams and administrators who want to promote wider public understanding about risk. The issue is a simple one. News people want the story. In the first bewildering hours after a catastrophe, there is often no direct news at all. There is instead silence. Roads are cut, communications are severed, water and power supplies are interrupted and the civic authorities and hospitals that should be the source of information are themselves part of the disaster. At such moments, reporters phone frantically to find university or government-based specialists who might be prepared to speculate on what might have happened, or the possible reasons for the disaster. When approached urgently, by often previously unknown questioners, these experts tend to worry about reputations for scholarly accuracy, mature judgement and political soundness. They often shrink from comment, apologetically promising to offer thoughtful analysis when firm information becomes available.

This is a mistake. News people have no choice. They must report on a disaster that has just happened even if they have only the sketchiest details. If an informed and thoughtful expert is hesitant to comment based on limited information, media reporters will go in search of a less-informed and less-thoughtful commentator who will.

It is at such moments that disaster risk management professionals have a golden chance to describe the pattern of loss and destruction. They can drive home the lessons of risk awareness and known procedures that can reduce those risks. They should seize on the chance to do this, in vivid, clear and



even chilling language, at every moment for the next 24 hours. They should do this because - since the media reflects the community it serves - if the media is listening, then the people are listening.

Once television cameras get to the disaster zone, as images of crushed children and weeping relatives and toiling rescuers begin to flood the public, the imagery and the grim statistics of suffering will dominate the news. And then who will want to hear somebody talking in academic terms, about monitoring hazards or mitigating future risks ?

"Professional newspapermen love disaster - it is their business - but don't rely on them to be very different from the rest of the community. The independent commercial media survives and thrives by reflecting the community it serves. If a community is complacent, then there is a fair chance that its journalists too will take the placid line... If people don't die in thousands, it is not a disaster, and therefore not news. The preparedness message gets only a limited airing."
T. Radford, The Guardian, 1999

There are, however, some signs of change. Public reporting of disasters has begun to include references to human actions that have contributed to the severity of an event, particularly as they may relate to the loss of life and property. Increasingly, questions are being raised about the responsibility of public officials in either contributing to, or tolerating hazardous conditions. Media reporting was outspoken about the inadequate quality of construction and placement of many houses that were destroyed by the Turkish earthquake in Izmit, in 1999.

Reporting about the extensive losses suffered in the Venezuelan mudslides in 1999 queried why the informal settlements had been constructed in such potentially hazardous conditions and questioned whether extensive deforestation had contributed the disaster.

The extraordinary floods that raged through Algiers in 2001 were reported as having been caused, in part, by unserviceable drainage systems. So far, such inquiry happens after the consequence of an unmitigated hazard becomes a political or newsworthy event.

In a more far-sighted outlook, some national officials seek to relate distant events to their own more immediate conditions. The response to the ISDR questionnaire of Western Samoa noted that one of the most important issues to be addressed in Western Samoa was for the media to be committed to providing coverage of major world disasters and catastrophes. Journalists were encouraged to describe relief responses in both the short and long term, so that the full coverage and not just dramatic highlights would influence their audiences to act with greater attention to disaster preparedness. The National Red Cross Society in Western Samoa also made radio broadcasts on disaster preparedness with disaster-related discussions about such topics as public health, housing, warnings, food, community participation, and first aid.

Mozambique is a country where an important objective of public awareness campaigns has been to develop the media as a better source of public information about hazards. The National Disaster Management Authority (INGC) has made media relations a priority for improving public awareness as the need for more accurate reporting was a recurrent theme expressed by journalists, district administrators, and other local authorities. Now, disaster management officials are working together with technical specialists in the national weather service and professional journalists to involve the media more effectively as a means to issue early warning and hazard alerts.

The media has played an increasingly valuable role in disaster management from the time of the exceptional floods in 2000 when it served as an important catalyst for emergency action by the international community. Subsequently in October 2001, the National Meteorological Service provided an incentive by inaugurating their own new television studio supplied with professional media equipment provided through Finnish development assistance. In this way, the country was able to increase its own capacity to provide better public information and education about the routine weather as well as potential hazards that may threaten the country.

Despite the expanded coverage in the country, the most important medium for social commu-

nication remains the local language radio network of Radio Mozambique. This service broadcasts information regularly about prevention and disaster risk reduction measures, as well as communicating warning alerts at the time of imminent hazards. INGC has also worked with the World Food Program to conduct training seminars for journalists in order to improve the quality of reporting, and an annual prize has been proposed for the best disaster reporting.

Local community experience promotes public awareness

Some of the most effective means of public awareness can take place at the local community level with the added advantage of involving the participation of a cross-section of the local population.

The Community Action Group for Floodwater in the Old Community of Rodenkirchen (Bürgerinitiative Hochwasser, Altgemeinde Rodenkirchen) is a non-profit association founded in a district of Cologne, Germany, after the severe flooding of the Rhine River in 1993 and 1995. This group advocates the interests of more than 4,000 residents in matters of local flood protection. In 2001, the community action group sailed the boat Pegellatte ("Water Depth Gauge") up the Rhine from Cologne to Basle, Switzerland staging events and conducting discussions in 18 towns and cities together with other community action groups and representatives of local authorities. In 2002 the group will take their floodwater campaign boat downstream from Cologne to the Rhine delta. The overall promotional efforts of the campaign for greater awareness about flood issues is not limited to Germany alone, as the Group's trips also go through parts of France, Switzerland and the Netherlands. As a Bürgerinitiative Hochwasser spokesman says emphatically, "The aim is to win over the solidarity of ALL Rhine River residents, because we can only combat flooding together". In fulfilling their own vow, the community action group cooperates closely with the German Committee for Disaster Reduction (Deutsches Komitee für Katastrophenvorsorge) and the Rhine Emergency Floodwater Organisation (Hochwassernotgemeinschaft Rhein).

A number of public awareness projects are currently underway in South Africa covering a variety of communities at risk. Ukuvuka: Operation Firestop aims to reduce the risk from wildfires in the Cape Peninsula. The campaign was launched in the Western Cape Province in February 2000 after fires that burned land along Table Mountain behind Cape Town. The Ukuvuka Campaign has a four-year mandate to achieve its goals of transferring lessons learned about effective conservation measures and biodiversity linked to social engagement, and how those methods can be passed on to other communities.

In Operation Firestop, the primary objective is to protect the land and vegetation by controlling alien plant species and by rehabilitating the fire-damaged areas they often inhabit. A related aim is to help people and their communities create employment through training and poverty relief for disadvantaged people by protecting the most vulnerable communities from fire and promoting co-operation and social cohesion among them. A third goal is to assist in the implementation of integrated fire management plans, particularly in areas close to urban centres.

Elsewhere in South Africa, other public awareness campaigns about disasters are also underway. The Tshwane Metropolitan Council embarked on a campaign within urban communities on a variety of local risks including informal settlement fires, the spread of diseases, floods, extreme weather conditions, pollution and HIV/AIDS.

The Western and Eastern Cape Provinces jointly implemented an innovative I-SPY awareness campaign. This program involved the distribution of information boxes, which were small cubes with circular magnifying lenses placed in two of the sides. Information about community hazards and means to reduce risks could be seen by peering through the glass that enlarged the information printed on the inside of the box. As the information was depicted in pictures, the messages were able to cross language barriers.

The disastrous events of recent years have shown that a large part of the Latin American and the Caribbean population, particularly people living in rural areas, remain largely

To know what to do- Tsunami in Papua New Guinea

Papua New Guinea (PNG) is highly susceptible to tsunamis because of its topographical conditions and the frequency of earthquakes and volcanic activity in the surrounding seas. In 1998, an earthquake measuring seven on the Richter Scale occurred with the epicentre only 30 kilometres from the coast of north-western PNG. The resulting massive tsunami struck coastal villages of the Aitape region almost immediately, claiming more than 2,200 lives. While the country had experienced many tsunamis, previous experience was not passed on to new generations, so people knew little about the imminent threat of tsunami hazards.

Many residents who felt the earthquake did not seek refuge from tsunamis immediately and this contributed to the many casualties. At the request of PNG authorities, the Asian Disaster Reduction Center (ADRC) in Kobe, Japan decided to transfer the benefits of Japanese experience to local communities in PNG. ADRC produced posters and pamphlets in both English and local languages, also including many pictures and illustrations, and distributed them to residents and school children living in coastal areas. The information was also used and distributed further by the PNG National Red Cross Society. So the lesson to beware of tsunamis when an earthquake occurs and to seek refuge on higher ground has spread to more people in the country.

A short time later, a submarine earthquake measuring eight on the Richter Scale affected a wide area north-east of PNG in November 2000. However, while it created a tsunami that destroyed thousands of houses, there were no deaths. The fact that this time nobody stood on the beach to watch the sea after the earthquake, as happened in the Aitape tsunami in 1998, can be attributed to the joint efforts of the PNG Government and ADRC in creating better tsunami disaster awareness. ADRC continues to work in this area following its commitment to provide guidance to neighbouring countries with similar problems.

Source: ADRC, 2001



unfamiliar with basic aspects of disaster preparedness and risk reduction practices. As reducing the impact of disasters requires that people improve their knowledge and replace passive and sometimes destructive behaviour

with active and constructive approaches, some organizations have sought an imaginative way to reach this widely dispersed audience.

"Before the 1993 tsunami occurred in the Sea of Japan, residents of the fishing village at Aonae had taken three steps. They had produced a tsunami hazard map to identify areas susceptible to tsunami flooding; implemented and maintained an awareness/education program on tsunami dangers; developed an early warning system to alert coastal residents that danger is imminent.

About 1,400 people were at risk of dying from the one-hour tsunami on 12 July 1993, that flooded the village within 15 minutes of the earthquake. Upon feeling the earthquake shaking, most villagers immediately evacuated to higher ground. This action saved the lives of 85 per cent of the 'at-risk' population."

Eddie Bernard, 1999

Nepal is one of the most disaster prone countries of the world with floods, landslides, fires, earthquakes, windstorm, hailstorm, lightning, glacial lake outburst floods or avalanches happening every year. As both access and communications are difficult in much of the country because of its extreme geographical features, information from the central government about hazards and disaster risks is often difficult to convey. People in remote areas are not easily provided with sufficient knowledge to reduce their immediate risks.

Under such conditions, the Government of Nepal has sought to disseminate disaster management information by training local leaders.

In 2001, government officials, ADRC and local NGOs conducted training courses for local village chiefs, teachers, scouts and women leaders from 30 villages in 10 of the most disaster-prone districts of the country. The courses dealt with the national disaster management system, knowledge about hazard-prone areas and possible countermeasures to reduce the

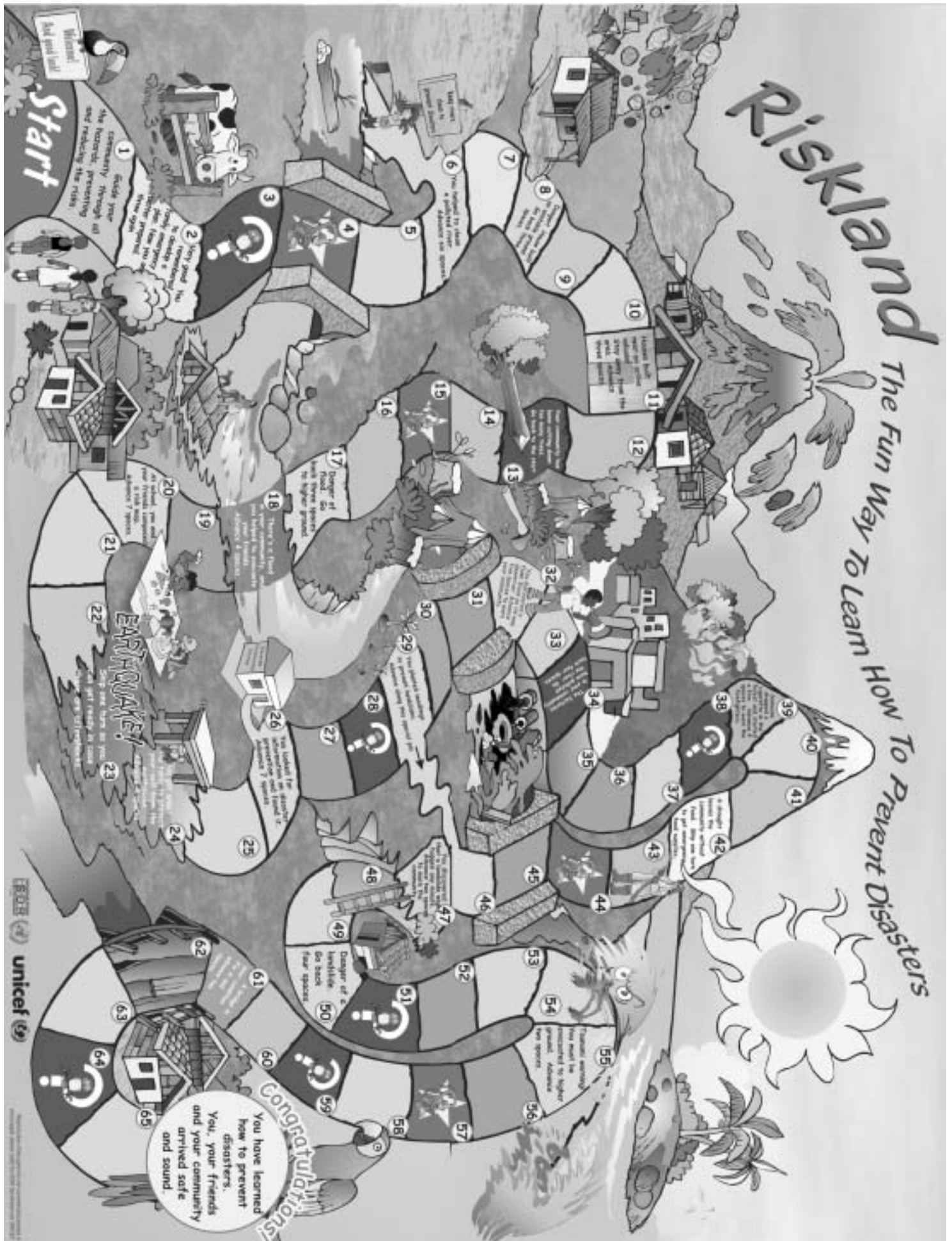
potential risks. The participants had an opportunity to learn about the causes, consequences and possible countermeasures of natural disasters, such as the relationships between increased deforestation and floods. A radio broadcast service was utilised for the first time to disseminate disaster preparedness information.

Soap operas for disaster reduction - radio and TV

PAHO, the International Organization for Migration (IOM), UK/DFID, the NGO Voces Nuestras, CEPREDENAC and the ISDR secretariat have teamed up to produce and broadcast a radio soap opera, called "Tiempos de Huracanes" (Hurricane Season), about disaster management and risk reduction in Latin American and Caribbean countries. The story takes place in a rural farming community in which experiences of the characters are used to instruct listeners about measures that can reduce the impact of floods, earthquakes, hurricanes and other hazards that can affect their own livelihoods. The dialogue focuses on everyday issues close to listeners' own experiences.



The program consists of 20 episodes that are broadcast annually, before and during the heavy rainfall and hurricane season. The pilot program is also available on a CD-ROM from the sponsoring organizations and a Memorandum of Understanding is planned with Radio Netherlands for reproduction and widespread distribution of the soap opera.



Riskland- a fun way to learn how to prevent disasters is an educational board-game, developed by UNICEF and the ISDR Secretariat in Spanish and English. The game conveys messages that help children understand how some actions can reduce the impact of natural or human-induced disasters, while others can increase their vulnerability.

See: www.eird.org

Future challenges and priorities

Effective public awareness to increase the understanding about hazards and risks, and most importantly to motivate a collective commitment to establish a culture of prevention, requires sustained activities in several complimentary areas, even though the time immediately after a major disaster is ideal to strengthen these awareness activities. These include the following priorities for future attention:

- Official policies that promote the value of disaster risk reduction
- Public education and professional training as primary tools
- Developing an expanded role for the media
- Increasing the value of public events
- Using multiple interests to publicise risk issues

Official policies that promote the value of disaster risk reduction

Under all forms of government, official authorities and local leaders have a responsibility to provide information and the means to ensure public security. In this respect, there is considerable scope to inform and advise the public about natural and related hazards, and the risks they pose. The direction, encouragement and material support to establish the value of disaster risk reduction is most productive when they originate from the leadership within the community. The creation of broad and non-partisan political support is equally important if sustained financial and budgetary allocations are to be ensured for increased public awareness leading to the creation of a culture of prevention.

While the variety of activities which motivate public safety are essentially educational in nature, they are dependent upon the consistent use of information across different segments of a society. To become more effective, they should continue to take account of the specific needs and localised concerns of different groups of people. Conscientious programs of

public awareness need to be continuous, and part of the public discourse into the various sectors of Government policies. Public awareness and understanding cannot happen by chance, nor result from exposure to a single campaign, although devastating catastrophes have frequently provided opportunities for launching public awareness campaigns.

Professional training and formal education as primary tools

As there are few specialised courses currently devoted to disaster risk alone, there is a challenge for educational authorities as well as professional training institutions to develop these programs. As has become more evident in some areas, there are already efforts being made to introduce more risk issues into the training of professionals such as engineers, meteorologists, urban planners, and many types of physical scientists. There are many additional areas of instruction such as environmental management, public administration, geography, and most of the social sciences which have not typically regarded risk awareness as part of the syllabus. Creating familiarity about natural hazards needs to start in primary and secondary school. As important institutions in most local communities, schools and educators can serve an important role in motivating students to become involved in exercises, public discussions, and other activities that promote disaster reduction among family and community members outside the classroom. Schools can become the centres for development of community knowledge and skills for disaster risk reduction (see chapter 4.2 on education).

Developing an expanded role for the media

There is a need for more frequent and better-informed media coverage about risk reduction before a disaster occurs. However, if the community itself was more interested in this subject, the chances are that the media would reflect this interest. Risk reduction programs can all be improved by including media representatives that are well informed about the issues, themselves.



Increasing the value of public events

Special or periodic commemorative events have demonstrated that they serve a useful role in raising the public visibility of natural hazards or by reflecting on the consequences of earlier unmitigated disasters. But they are no substitute for longer term and more substantive commitments to foster continuous public exposure to the subject. Public or special events can be useful to illustrate that while there is no possibility to be safe from all risks, there are graduated steps that can be taken within a community to minimise existing hazards or to develop an improved state of resilience to manage future risks better. It is important that additional activities be conceived on an ongoing basis, so that public interest does not fade after the special event.

Using multiple interests to publicise risk issues

One of the biggest challenges for government officials and interested professionals in promoting risk awareness is to remove the subject from the sense of crisis or trauma that ordinarily accompanies it. Disaster risk reduction is not an emergency service awaiting the time of need. Rather, the subject can be placed in the midst of daily concerns of people where they live and work, among the people and property which they value. Hazards need not become disasters with the widespread suffering and loss which they suggest, if people are sufficiently conversant with the nature of the risks involved, and what they can do to reduce their own exposure beforehand. This involves the full participation of the people most exposed to risks. Public awareness strategies can motivate people to collaborate in different enterprises, supported by their various talents and multiple resources.

