

BUILDING SAFER COMMUNITIES

The term ‘natural disaster’ implies something unforeseen, unstoppable, and inevitable. However, this does not have to be the case. **Pip Robertson** talks to **Elizabeth McNaughton** about ways to build safer communities and reduce the risk of disasters.

ACCORDING TO THE United Nations, over 200 million people are affected by natural disasters every year. Lives and development gains are lost as infrastructure crumbles, crops are swept away, businesses close, production ceases, education is disrupted, and health is compromised. Economic losses are also rising fast, in some years amounting to over US \$1 billion.

Elizabeth McNaughton is a development programme officer in the Pacific Regional Social and Vulnerability Team at NZAID. She has previously worked for the International Federation of the Red Cross as a regional advocacy delegate in disaster management in South Asia, and has extensive experience in the field both in the aftermath of disasters and in helping communities to reduce their level of vulnerability.

Elizabeth explains that it is frustrating to those working in disaster risk management that disasters are treated as inevitable. “If a cyclone destroys an uninhabited island there is no disaster. It is only when a hazard meets vulnerability (communities’ unmanaged risks and unmet development needs) that a disaster occurs.”

Responding to disasters is essential but not enough. “The increasing number and magnitude of natural disasters demands a new way of doing things. We must look broadly at how to support communities to adapt and live more safely with increasing risk.”

There are simple cost effective measures that can be put in place to reduce this vulnerability, to prevent deaths, to protect livelihoods and reduce economic losses. This is what disaster risk reduction is all about.

Health is a useful analogy to understand the concept. Disaster risk reduction is like preventative medicine that keeps a person healthy and better able to fight injury and disease, whereas responding after a disaster is like an ambulance rushing to the scene. Disaster risk reduction helps to prepare communities so that they can identify potential threats sooner, and when an event occurs they will be better able to deal with it, potential harm will be minimised, and the community can recover more quickly. If people are aware and prepared, building codes are implemented and livelihoods



are diversified, then the scale of the disaster will be reduced.

Disasters are a development issue

Developing countries are particularly at risk from disasters. This is not necessarily because they are inherently more exposed to natural events but because they are less equipped to prepare for them. For example, New Zealand is prone to earthquakes, but it has programmes, processes and budgets in place (civil defence strategies, public awareness campaigns, insurance policies, building codes and so on) that are designed to minimise the effects and hasten recovery if a large earthquake were to occur. Many earthquake-prone developing countries simply do not have the same resources in place. This was tragically demonstrated in the 2005 Pakistan-Indian

earthquake where 16,000 children were killed when their schools collapsed.

Mr Encho Gospodinov, Permanent Observer to the United Nations, pointed out the value of disaster risk reduction in a speech to the UN General Assembly in 2006: "It is common knowledge that disasters wipe out years of development work at a single stroke.

The cost to communities in human and economic terms is enormous.

It is also well-known that good preparedness, including programmes based on sustainable development at the community level, does more to diminish the impact of disasters than any response work done after the event."

■ An aerial view of the Irrawaddy Delta in Myanmar, devastated by Cyclone Nargis in May 2008. UN Photo – Evan Schneider



1 IFRC regional disaster response team training and simulation exercise in Sri Lanka

2 A woman involved in a vulnerability and capacity assessment in Fiji. Photo – Rebecca McNaught

3 Woman with a water tank in the very dry areas of Savaii, Samoa. Photo – Rebecca McNaught



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Why reduce risk?

The most urgent reasons to reduce risk are the most obvious ones in any disaster – to avoid the loss of life and property. But there are other less visible, ongoing effects after the most immediate danger of a disaster has passed.

A community's recovery after a natural disaster can be a long process. Economically, years of work can be destroyed and infrastructure damage may have a serious ongoing effect on productivity, for example, impassable roads that cut off communities from markets. Damaged or destroyed facilities hamper education and health services; and food stores may be wiped out.

People's resistance to disease may be reduced, and more disease may exist as a result of damage to fresh water supplies and sanitation. If a government fails to protect people in times of disaster, this can contribute to political instability and unrest. And if a community does not recover properly, it risks being even more adversely affected if faced with the threat of disaster again.

There is also a moral obligation to reduce risk in vulnerable communities. "We know disaster risk reduction saves lives, livelihoods and infrastructure. We know how to do it and that it's needed, but so often not enough is done.

This has to change because we have a moral duty to prevent deaths and suffering," says Elizabeth.

What role does the environment play?

The way people use and interact with the environment has a direct relationship with disaster risk. Urban growth without sufficient urban planning, increasing population density around vulnerable low-lying coastal areas, deforestation, and poor land use all increase vulnerability.

But just as environments can become more at risk as the result of human activity, they can also be managed to reduce risk. For example, the depletion of mangroves from coastal areas increases susceptibility to storm surges and salt water seeping into fresh water supplies. In Viet Nam a number of successful programmes are underway to replant mangroves in coastal areas. Not only does this address an environmental risk, it also becomes a source of employment for local people, and as the mangroves get more established, there are further benefits. Crabs make homes in mangrove plantations, providing a valuable source of nutrition and a product that communities can sell for income.

Encouraging diverse livelihoods that can withstand disaster threats is important so that



people can maintain control over their lives and communities make quicker economic recovery following a disaster. For example, if a community's main source of income is low-lying crops, in a flood the whole community will be affected and both their food source and their livelihood may be destroyed. Diversifying food crops also offers more protection if drought or disease affects one crop, as others are available.

Environmental management in growing urban environments is just as important – particularly given the high concentrations of people. Sometimes simple things can make a significant difference. Elizabeth gives the example of women doing embroidery work in low-lying slums in Delhi. "The slums flood regularly, and when this happens the women are unable to work, and the clothes and materials they work on are spoiled. By raising the foundations of the slum houses, these women can continue working while floodwaters subside, and their work is protected." This continuity of income is particularly important for people earning so very little.

Climate change is having an impact on how environments and communities respond to weather events. Communities cannot wholly rely on traditional methods as environments are changing. Many of the measures that reduce vulnerability to climate change are the same as

those designed to reduce disaster risk, such as forestation, and the diversification of crops and livelihoods.

Accordingly, Elizabeth says we should not address climate change adaptation separately but recognise that climate change is bringing a range of new risks and hazards and that we need to revise and strengthen disaster risk assessments and disaster risk reduction measures in light of this. "Disaster risk reduction provides many tried and tested tools for addressing risk. National adaptation efforts can be enhanced when these tools are combined with knowledge of climate change."

The Tuvalu Red Cross Society for example, has a regular slot on national radio where messages on health, the environment, climate change, and disaster preparedness, are broadcast and promoted. During dry periods, the Red Cross reminds people to use water wisely, offers advice on boiling water and stresses the importance of hand washing. competitions are also run to raise awareness of how people can protect themselves from disaster risks.

Early warning systems

Forewarning that an event will occur is key to minimising its effects. In many developing countries communities may be isolated and there are significant communication difficulties.



I Elizabeth McNaughton asks women from a community in Nepal for feedback on a flood response and their interest in being involved in the Nepal Red Cross community-based disaster preparedness programme.

An essential part of any early warning system is therefore simple ways to spread information through communities and warn people of a disaster threat.

In Bangladesh a successful early warning system has been set up with the support of the Government, the International Federation of the Red Cross, the Bangladesh Red Crescent, the Meteorological Service, and volunteers. The initial stage of this system relies on the technology of the meteorological service, which monitors threatening weather. This information is then communicated through the Bangladesh Red Crescent to 32,000 village-based volunteers, organised into teams of 12. Volunteers are selected by the villagers themselves, using clear criteria, and each team includes two female volunteers.

The teams are equipped with basic warning equipment, including transistor radios to monitor weather bulletins, megaphones and hand-operated sirens.

Two members of each team are trained in first aid. All members have equipment including ropes, whistles, lifebuoys, first aid kits, and protective clothing such as boots and life-jackets.

An integrated approach

Disaster risk reduction strategies need to have support at all levels – individual, household, community, civil society and government – in order to be effective. It is vital to have financial, legal and political support for risk reduction strategies.

Disaster risk reduction should not be seen as a separate project or exercise, but should be incorporated into all aspects of development work, including urban planning, water and sanitation, infrastructure, housing, livelihoods and environmental projects. Disaster risk reduction initiatives include the identification, assessment and monitoring of disaster risks; enhancing early warning systems; and promoting awareness and education to build a culture of safety and better preparedness.

However, these initiatives can be difficult to achieve. Reducing risks focuses on long-term goals, and therefore is not always afforded the urgency that other more visible and immediate projects are given. This is especially true in developing countries, where a wide range of needs are competing for limited government and donor money.

The results can also be difficult to quantify. As former UN Secretary-General Kofi Annan describes it: "Building a culture of prevention is not easy. While the costs of prevention have to be paid in the present, its benefits lie in the distant future. Moreover, the benefits are not tangible; they are the disasters that did NOT happen."

Advocacy is required to make disaster risk reduction a priority at the national level. This can include representing and speaking on behalf of people, influencing policy, mediating different groups, empowering people with the tools and knowledge to speak for themselves, accompanying people, and harnessing knowledge.

While disaster risk reduction has benefits across societies, it is the poor and marginalised who are most affected by disasters, and these people are the least likely to be heard. Advocacy is particularly important to ensure that disaster risk reduction becomes a priority and the most vulnerable are heard and included. Elizabeth points out that Asia Pacific is home to a majority of the world's people living with disability. "We know through experience that many of these people are not included in disaster risk reduction activities and face additional barriers in emergency situations. We need to learn more about how to better meet the needs of people with disabilities and to involve them in all aspects of disaster risk reduction."

NZAID and risk reduction in the Pacific

Pacific island countries are among the most vulnerable in the world to natural disasters, particularly tropical cyclones, tsunamis, earthquakes and volcanic activity. Since 1950, the World Bank estimates that extreme events have directly affected more than 3.4 million people in the Pacific. With increasing numbers of people living in vulnerable low-lying coastal urban areas and evidence suggesting that disasters are becoming more frequent and more intense, the need for effective and appropriate risk reduction is growing.

NZAID provides funding to Pacific regional agencies with risk reduction programmes, such as the South Pacific Applied Geoscience Commission (SOPAC) and the Secretariat for the Pacific Regional Environment Programme, but is also supporting community-based risk reduction strategies that use local knowledge. As Elizabeth says, there is a lot to learn from indigenous populations. "People in the Pacific are resilient and adaptable, and have lived in cyclone-prone areas for countless generations. Capturing that knowledge is important, particularly as populations become more urban and other traditional aspects are lost."

An opportune time to support disaster risk reduction efforts is when rebuilding after a disaster. The concept of 'build back better' means that infrastructure, livelihoods, and policy are developed so that countries are better positioned to withstand future disasters.

In the Pacific, recovery efforts supported by NZAID are designed so that countries are stronger and more resilient. For example, to support communities recover from the recent Fiji floods NZAID is supporting the retrofitting of damaged houses to make them safe and secure, the installation of systems to collect/save rain water to provide a safe water supply for schools (which also serve as evacuation centres) in the next extreme weather event, and community based disaster awareness and preparedness activities.

"Well-coordinated, long-term disaster risk reduction is absolutely necessary if we are going to reduce poverty in the Pacific, enhance livelihoods and safeguard economic development gains" says Elizabeth. "We have to work to reduce the vulnerability of communities to natural events, especially where people living in poverty are affected. In doing this we might help to prevent these natural events from turning into disasters".

Currents is grateful for information in *A Practical Guide to Advocacy and Disaster Risk Reduction* by Elizabeth McNaughton, published by the International Federation for the Red Cross and Red Crescent in 2009, that was used in this story. 