

# Disaster: how the Red Cross Red Crescent reduces risk



# The International Federation's Global Agenda (2006–2010)

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Over the next two years, the collective focus of the Federation will be on achieving the following goals and priorities:

## Our goals

**Goal 1:** Reduce the number of deaths, injuries and impact from disasters.

**Goal 2:** Reduce the number of deaths, illnesses and impact from diseases and public health emergencies.

**Goal 3:** Increase local community, civil society and Red Cross Red Crescent capacity to address the most urgent situations of vulnerability.

**Goal 4:** Promote respect for diversity and human dignity, and reduce intolerance, discrimination and social exclusion.

## Our priorities

Improving our local, regional and international capacity to respond to disasters and public health emergencies.

Scaling up our actions with vulnerable communities in health promotion, disease prevention and disaster risk reduction.

Increasing significantly our HIV/AIDS programming and advocacy.

Renewing our advocacy on priority humanitarian issues, especially fighting intolerance, stigma and discrimination, and promoting disaster risk reduction.

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Cover photo: Schoolchildren crouch under their desks in an earthquake-training programme in Palawan, Philippines, early 2009. Rob Few/International Federation.

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A FEW countries around the world, more often than most but without too much injustice, are said to contain the best risk reduction success stories.

One is Bangladesh, where on 15 November 2007 Cyclone Sidr crashed ashore from the Bay of Bengal into the country's south-west coastal delta – possibly the world's most heavily populated low-lying area.

Sidr, a “Category 4” when it made landfall, triggered tidal waves up to five metres high and even higher sea-surges, breaching embanked defences and causing floods and major destruction.

The very significant death toll, officially just over 3,400 with at least 1,000 missing, inevitably cast a pall over any celebration of the far larger number of lives *saved* through the disaster risk reduction (DRR) activities for which the country is now all-but legendary.

Improved forecasting and warning, reforestation, shelters and embankments produced, in the measured language of the Bangladesh government's final report, “lower casualty rates than would have been expected, given the severity of the storm”.

The Bangladesh Red Crescent Society had mobilized thousands of volunteers along the stricken coast. Wearing their distinctive yellow waterproofs and equipped with only megaphones and drums, they evacuated hundreds of thousands just before Sidr struck.

Bangladesh's cyclone preparedness programme (CPP), run jointly by the government and the Red Crescent, now has 42,000 trained volunteers on its books, and there are well over 2,000 shelters available.

It is as low tech as it gets: the CPP centres on preparing people for disasters by using community-based volunteers who do everything from street theatre to classes in schools to lectures for women's groups. The only “high-tech” aspect is the radios on which headquarters in Dhaka pass warnings to field offices.

On the other side of the Indian Ocean from Bangladesh lies another of the world's most storm-wracked nations: Mozambique – for the best part of a decade also a textbook example of highly successful, community-based, “low-tech” DRR.

If nearly 100,000 people were successfully evacuated, without compulsion and virtually without loss of life, in a flood emergency that affected an entire region, it would be on the evening news if it happened in Europe or North America. Yet this is

**“In 2000 hundreds died. There was really a very big difference”**

exactly what happened in Mozambique at the beginning of 2008, the second year running the country suffered serious floods. And it went almost unnoticed and unreported in the outside world.

It was an extraordinary feat for a post-conflict government with few resources to draw on other than small boats, handheld VHF radios and Red Cross volunteers.

The advances in Mozambique were inspired by a determination that the experience of the devastating floods suffered in 2000, the worst in the country's history in terms of losses, should never be repeated.

That year saw one of the most intensively publicized climate related disasters ever, thanks to the ability of South African military helicopters to ferry western TV crews in and out of the flood zone from Maputo, from where they could satellite their pictures. But it was a very different story seven years later.

“Even though floods in 2007 were also very large (judged by water levels), there were no deaths or injuries caused directly,” according to Ana Cristina Joao Manuel of Mozambique's disaster-management institute. “There were no major outbreaks of disease. In 2000 hundreds of people died. There was really a very big difference.”



A Cuban man bids farewell to a baby returning home from a shelter in the aftermath of Hurricane Ike in Pinar del Rio in September 2008.

It shouldn't surprise anyone that the most widely talked-of examples of successful DRR involve rapid evacuations and (the media focuses on them to the exclusion of almost all other issues) dramatically reduced death-tolls.

The consistently low hurricane death-tolls in Cuba are, of course, a reflection of its unique circumstances, including a highly centralized government and well-developed civil defence, including a militia.

The way Cuba deploys its expertise at local level to help vulnerable communities, in particular, may have lessons for everyone. Cuba's example, it is argued, shows that protecting citizens from disaster is as much to do with political will and good organization as material wealth. (Not to mention a respected Red Cross Society well able to play to the full its role as government auxiliary.)

There are other examples, perhaps less spectacular and harder to measure: the stabilizing of river banks in Nepal; agricultural adaptation in drought periods in Lesotho; land and water management by the five countries that share Africa's Lake Victoria; and

### Prepare, warn, mitigate, recover, live

the cross-border preparedness system for the Nyiragongo volcano which is coordinated by the Rwandan Red Cross and the Red Cross of the Democratic Republic of the Congo.

But what exactly is "disaster risk reduction"? Is it just anything that is not disaster *response*?

DRR is now defined by the UN as "reducing disaster risks (losses) through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, correct management of land and the environment, and improved preparedness for adverse events".<sup>1</sup> And what does it mean in Red Cross Red Crescent practice?

Emergency evacuations are just one DRR activity the Red Cross Red Crescent carries out in the field-work to empower communities and make them resilient:

- *Preparedness.* A component of DRR, not a synonym for it.
- *Warning.* The Red Cross Red Crescent is working on getting "high resolution" warnings, including those originating in satellite images or computer models, down to remote communities that only volunteers have easy access to.
- *Mitigation.* Education on how to avoid danger; concrete physical measures to limit the impact of disasters like the Vietnamese mangrove plantations which protect against storm surges.
- *Recovery.* A good example of DRR-minded recovery would be to "build back safer" after an earthquake.
- *Livelihoods.* Strengthening livelihoods, like vegetable gardens that improve nutrition and increase reserves during droughts, helps households reduce risk.

Prepare, warn, mitigate, recover, live. DRR in the Red Cross Red Crescent world is "multi-sectoral" and part of a broad and long-standing drive for safer and more resilient communities. DRR is at the core of most National Societies' work to address the specific vulnerabilities to which communities are exposed.

To ensure a common understanding of DRR within the Red Cross Red Crescent family and for the local people we work with, the *Framework for Community Safety and Resilience* was developed in 2008 after extensive consultation. It's the foundation for all Red Cross Red Crescent action to build safer and more resilient communities.

Now the International Federation of Red Cross and Red Crescent Societies' (International Federation) Global Alliance for disaster risk reduction, launched in late 2007, is initially being implemented by 20 National Societies<sup>2</sup> worldwide, with a further 15 African societies<sup>3</sup> involved in the International Federation's long-term food-security initiative. The intention is to increase that number each year for five years.

This is all in response to the relatively new way of looking at traditional disaster management offered by DRR: the idea that the impact of disasters can



A Mongolian Red Cross volunteer in May 2009 distributes livestock to help reduce the vulnerability of rural families affected by severe winter storms.



Jean Bosco Rukirande Musana, Rwandan Red Cross coordinator for Western province, in May 2009 explaining the colour-coded alert system for the Nyiragongo volcano.

be reduced by steps taken *in advance*, increasingly followed by early action.

Even the last of the five pillars of DRR – recovery and livelihoods – can equally address the next likely event in a disaster-prone nation.

But in the straitened economic climate of 2008–9, international humanitarian donors are looking for evidence of *impact* – and it may be precisely the breadth of DRR that, unlike its constituent parts individually, makes its effectiveness difficult to evidence.

Several humanitarian funding streams with DRR end-users might flow into any one country, making a coherent “snapshot” of DRR impact difficult, requiring input from different specialisations like microeconomics and social anthropology, but not impossible.

Yet specific DRR-focused shelter programmes, for example, can generate a poverty-reduction dividend. A new Netherlands study of Red Cross storm-resistant housing in Vietnam’s Ha Tinh province

### **Over 60 per cent of National Societies have a preparedness role in their national emergency plan**

found it had “provided a crucial basis for further socio-economic development”, even if the impact on the economic independence of beneficiaries was less clear.

The greatest strength of the International Federation in DRR is its background in community-based pro-

grammes, implemented by branches and volunteers rooted in their communities. The rapid progress of DRR initiatives in South East Asia and the Americas, in particular, has been bolstered by long-standing community-based programming.

In 2005 a survey carried out by the International Federation estimated a total of 13.5 million National Society volunteers helped nearly 160 million people, although 43 per cent believed they were only able to reach fewer than 20 per cent of the *total* number of vulnerable people in their countries.

An average of nearly 70 per cent of National Societies are now implementing community-based DRR programmes, including education programmes in schools and hospitals, while just over 60 per cent have a preparedness or DRR role in their national emergency plan, according to another survey completed in 2008.

The bedrock is in place, but so is the need to scale-up.

And while there is a relative abundance of information about lives and assets lost in disasters, it is not always easy to collect information about the direct impact of mitigation measures and the pace of recovery afterwards.

Assessing the *indirect* impact of disasters, including ones that have been mitigated, on livelihoods is also difficult.

Programmes are increasingly designed to address the long-term underlying causes of vulnerability.

Like the Red Cross Red Crescent long-term food-security initiative in Africa. Or the International Federation's humanitarian pandemic-preparedness programme, "H2P", which looked extremely timely in 2009 as Influenza A (H1N1) went round the world at the speed of an airliner.

Unplanned urbanization, population growth and environmental degradation are exposing vulnerable populations to increased risk of disaster.

Most recently, the global economic crisis was having "major repercussions for infrastructure spending", according to a World Bank report prepared for a G20 finance ministers' meeting in London. As many as a quarter of "much needed" projects like roads, water supplies, sewerage systems, drainage and slum upgrading had been delayed, cancelled or were at risk, the bank said.

And to this must be added the demonstrable reality that the number of climate-related disasters is increasing sharply: floods, storms, heatwaves and

### **Demands on "first responders" will grow and grow again**

droughts together accounted for just under 60 per cent of grants by the International Federation's Disaster Relief Emergency Fund (DREF) in 2008.

DREF is increasingly used to prepare for *imminent* crises as well as disaster response – in 2007 in Guinea Conakry, for example, where amid civil unrest the Red Cross was helped to activate contingency plans for population movement.

It is often said, ironically, that there are no such things as "disasters" – just collisions between (ever larger) groups of people and naturally occurring hazards like storms and earthquakes and viruses that originate in the animal kingdom.

In Vietnam, for example, where the private sector grew by 14 per cent in 2008, discarded product-packaging is becoming a major problem, and the National Society there is now involved in DRR-based waste management to keep the drains clear and mitigate floods.

It is clear that climate change and rapid development in some countries or economic meltdown in others will combine to intensify disaster impacts in the near future. If nothing is done, the demands made on "first responders" will grow and grow again.

Risk reduction is the fightback.

## The Red Cross Red Crescent and 'disaster risk reduction'

1984: Publication of seminal Swedish Red Cross study *Prevention better than cure*.

1999: New policy adopted by the General Assembly recognizes disaster preparedness as link between emergency response, recovery and development.

2002: *World Disasters Report* focuses on reducing risk.

2003: "Agenda for Humanitarian Action" adopted at the 28th International Conference: it affirms action to reduce vulnerability to disaster impacts.

2005: International Federation participates in the development of the Hyogo Framework for Action and subscribes to its provisions, launches ten-year Global Water and Sanitation Initiative as contribution to the United Nations Millennium Development Goals.

2007: International Federation launches the Global Alliance for disaster risk reduction, to begin in 20 countries.

Partnership with the International Research Institute for Climate and Society (IRI) at Columbia University to improve disaster preparedness and response.

2008: International Federation's pre-emptive appeal for West African floods becomes first ever based on seasonal forecast.

2009: *World Disasters Report*, focusing on "early warning, early action", argues for an increased focus on DRR at the community level as the most effective way to save lives and safeguard development gains.

<sup>1</sup> UNISDR *Terminology on Disaster Risk Reduction* (2009)

<sup>2</sup> Bangladesh, Botswana, Cambodia, Cameroon, Colombia, Cook Islands, Costa Rica, Dominican Republic, Ecuador, Gambia, Kazakhstan, Madagascar, Morocco, Nepal, Panama, Swaziland, Syria, Tajikistan, Tanzania and Tonga.

<sup>3</sup> Burkina Faso, Democratic Republic of the Congo, Ethiopia, Kenya, Lesotho, Malawi, Mali, Mauritania, Namibia, Niger, Rwanda, Sudan, Swaziland, Uganda and Zambia.

# A Philippine shore “eaten by rising seas”

RAIN, rain and still more rain greets most visitors to Siargao Island.

On the extreme western Pacific rim, the island faces well over 200 days of heavy rainfall every year. It adds up to four metres and regularly triggers massive flooding.

“Siargao Island often bears the brunt of typhoons and storm surges and it’s also threatened by rising sea levels, literally eating its shores,” says Catherine Martin, who runs disaster-management services at the Philippine National Red Cross (PNRC).

One of the *barangays* (villages) affected is Santa Paz, which sits between green hills and the Pacific Ocean.

Annual rains in December and January have carved a creek in one of the hills, and during the rainy season it turns into a torrent that used to flow straight into one of the main roads through the village.

But in 2002, the water – as well as the life of the villagers – took a new course. That year saw the completion of a 60-metre canal to steer the water away from the houses.

“It used to take a week before the water subsided,” recalls Lelita Dumali, 61, holding her hand at shoulder level to indicate the height of the flooding inside her house.

During the worst periods Lelita, her husband, and five children were evacuated to a nearby school. Since the flood contaminated their drinking water sources, they had to “harvest” the rain to cope.

The canal was built by the PNRC and the local authority as part of the Integrated Community-Based Disaster Preparedness Programme (ICDPP). Red Cross volun-

## The wall stopped many surges caused by heavy rain and typhoons

teers and community members did most of the construction work, with technical support and partial funding from the Danish Red Cross.

But some disaster risks remain to be mitigated in Santa Paz. The canal is not long enough to steer the flood water away from Lelita’s fields, located next to the village. Her cassava, bananas and corn often rot away, or must be harvested prematurely ahead of the rains.



Maximino Virtudazo, a Red Cross volunteer since 1999, took part in building the sea wall behind him to protect Burgos on Siargao Island, Philippines.

In Burgos, a few kilometres to the north, residents are also mitigating the impact of climatic disasters.

Poblacion 1 and 2, two *barangays* on the coast, usually experience at least one major storm surge per year, and floods of up to about a metre used to follow, destroying houses and washing boats into the streets. But since 2001 another ICDPP project, a sea wall more than 200 metres long, has given substantial protection. It stopped many surges caused by heavy rain and typhoons.

A sense of urgency still hangs over Burgos. The wall is now being tested to its limits by rising seas levels and needs extending. In January 2009, rain and storm surges after Typhoon Auring flooded both *barangays* and Red

Cross volunteers from the local disaster action team (BDAT) helped people evacuate to higher ground.

Well aware of the link between climate change and rising sea levels, residents have implemented a waste-management system, separating out compost from trash that cannot be recycled, and BDAT volunteers help the local authority educate people about the importance of sorting household waste.

Says Maximino Virtudazo, 59, a veteran BDAT volunteer and one of those who took part in the construction of the wall: "If the Pacific continues to rise, the sea wall will be destroyed, and then only God knows if my children will still live here in the future."

## Rwandan Red Cross: an *'imihigo'* for risk reduction

CEOs the world over seeking ways to boost their organizations' productivity might take a look at the Rwandan concept of *imihigo*.

An essentially untranslatable Kinyarwanda word, it is usually rendered as "performance contract"; sometimes just "goal" or "target". But none begin to do the idea justice.

Signed *imihigos* carry far greater moral force and, increasingly prevalent in the public sector in Rwanda, they are meant to indicate an utterly unshakeable determination to succeed in your stated objective.

To judge by the extraordinary level of civic pride in the streets not just of Rwanda's capital, Kigali, but in other cities as well, they work.

The spirit of *imihigo* seems visible in every immaculately manicured public garden, every mown verge, every neatly painted kerbstone, every storm drain into which not so much as a cigarette butt has been dropped.

This all stems, Rwandans indicate, from a feeling that not much short of total perfection can atone for the country's terrible history and ensure it will be remembered for something other than the 1994 genocide.



Falida Mangazina brushes down her *inyambo* cow in eastern Rwanda. The animal, part of a DFID-funded food-security programme implemented by the Rwanda Red Cross, was one of the first to give birth.



The *imihigo* that underpins the principal Rwandan Red Cross (RRC) risk-reduction project, in the eastern Kayonza district, a relatively dry area where food security is a major issue, is no exception.

The branch has funding until the end of 2010 from the UK Department for International Development (DFID) and Federation support for what has turned out to be a successful cattle stocking and animal husbandry project in poor rural communities like Kabuya 1.

Out of a total of 123 cows given to villagers since 2007, 13 have calved, and the Red Cross hopes to increase the

### An utterly unshakeable determination to succeed

animals' reproduction rate as a way of extending the project's reach. Only five have died, one of them in labour.

"It's our third annual *imihigo*," says branch president Anita Mutesi, who is also deputy mayor of Kayonza town in charge of social affairs.

"This year we also plan to create a greenhouse on a hectare of land given to us by the district authorities. People will come and learn how to grow vegetables."

Asked directly how she interprets "risk reduction" in this part of Rwanda, Mutesi says simply that "we just train people to deal with what's happening in their area".

In Kayonza, that includes reforestation, renovation of water sources, wild animals straying from the Akagera national park just to the east on the Tanzanian border, and – one of the branch's proudest boasts – "eight zebra crossings", to add to seven already laid down.

It also very emphatically includes dealing with the legacy of genocide.

The RRC began working with what are called "OVC" – orphans and other vulnerable children – when Rwanda's new era began in 1994, assisting nearly 9,000 in a huge variety of ways in 2008, according to the society's annual report.

More than 600, for example, got RRC vocational training in tailoring, carpentry, cooking, mechanics and – in a poor country where broken electrics have to be fixed if possible – soldering.

Anita Mutesi says that "even if you weren't there during the genocide you still feel the trauma".

Young children, she explains, somehow inherit the trauma of their parents, including the children of people who took part in the killing.

The Red Cross message, delivered mainly in schools where they undertake psychosocial work, is simple: "We teach them how to live together," says Mutesi, "telling them 'we are all Rwandans now'."

## Yemen Red Crescent on climate-change front line

Abdul Azayn says he feels safer since the government, helped by local people using only shovels, recently completed an earthwork to protect his village alongside Wadi Murr from the kind of flash flood that last autumn claimed the lives of two neighbours.

"They were a man and wife and they lived just here," says Azayn, 60, gesturing with both hands at the empty patch of soil under his feet. "I rebuilt my own house from scratch, but we escaped."

The villagers believe their "dam" (it is probably big enough to qualify) would have held the flood water back.

It may not be as impressive as another, even more recent, one a short distance downstream – reinforced by caged rocks and financed by the World Bank. But local Red Crescent workers say the example of the former helped inspire the latter.

Now that the terrain is dry it is possible to drive about half a kilometre across the floor of the massive Wadi Murr, skirting the sandbanks, backed-up tree trunks and other debris.

But the idea of being in a small thatch hut next to a *wadi* like this in full flood is very scary.

It is exactly 20 years since Abdullah Ali Naji first noticed the flash-flood danger increasing in *wadis* here in the mountainous hinterland behind the Red Sea port of al-Hodeidah.

Ali Naji, the executive director of the local branch of the Yemen Red Crescent (YRC), recalls there were particularly bad flash floods in 1989, "and now they come almost every year".

The matter-of-fact dictionary definition of a *wadi* is simply a valley that is dry except in the rainy season. In this part



Abdullah Ali Naji, director of the al-Hodeidah branch of the Yemen Red Crescent Society, beside a storm drain that protects villages from the Wadi Murr in a flash flood.

of Yemen people could, they were once confident, safely build their homes just above the seasonal high-water mark. Not any more.

“Now we get flash floods in places we never had them before,” says Ali Naji.

A community on Wadi al-Rimah was caught especially badly, not having suffered a serious flood for at least 40

### “Climb, just climb”

years and “never imagining” they could get one now. A recent flood washed away many newly built homes.

“There is usually about 30 minutes’ warning, an hour at most, before the torrent arrives,” says Ali Naji.

Sometimes there is no warning at all, with water cascading down from the mountains like a tsunami into regions where the weather is fine. And sometimes at night.

Some community-based early-warning procedures do exist, though Ali Naji describes them charitably as “non-systematic”, involving hand-carried lamps.

In the Wadi Murr flood, villagers used lamps at night to alert drivers on the nearby main road to Saudi Arabia, stopping them running off the damaged bridge traversing the *wadi*, probably saving many lives.

“But for the people themselves,” he says, “there is only one thing they can do: climb, just climb as high as they can.”

Is it all truly “climate change”? Ali Naji points out the population has increased significantly in the last 50 years and some villages are at dangerously low elevations, even without the apparent new risk.

But asked directly whether he blames population pressure or climate change, Ali Naji does not pause to think: “climate change,” he says.

Evidence comes from elsewhere in Yemen too, including the October 2008 disaster which centred on the Hadramaut governorate but affected about a third of the country and triggered a major international response.

“I asked very elderly people if they could remember anything like it,” says Mohamed Yahya Sawlan, YRC disaster management coordinator in the capital, Sana’a. “And really they could not.”

# The Fundamental Principles of the International Red Cross and Red Crescent Movement

## **Humanity**

The International Red Cross and Red Crescent Movement, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours, in its international and national capacity, to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

## **Impartiality**

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

## **Neutrality**

In order to enjoy the confidence of all, the Movement may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

## **Independence**

The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

## **Voluntary service**

It is a voluntary relief movement not prompted in any manner by desire for gain.

## **Unity**

There can be only one Red Cross or Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

## **Universality**

The International Red Cross and Red Crescent Movement, in which all societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.

# Disaster: how the Red Cross Red Crescent reduces risk



The International Federation of Red Cross and Red Crescent Societies promotes the humanitarian activities of National Societies among vulnerable people.

By coordinating international disaster relief and encouraging development support it seeks to prevent and alleviate human suffering.

The International Federation, the National Societies and the International Committee of the Red Cross together constitute the International Red Cross and Red Crescent Movement.