

# Bridging the gap

## Integrating climate change and disaster risk reduction



International Federation

*People living on artificial islands in Malaita Province, Solomon Islands find that changing wind patterns are impacting traditional methods of weather prediction, endangering the young people who have to canoe to the mainland to collect fresh water.*

### Summary

The climate is changing and communities in some countries are already feeling the heat. Climate information in the form of trends and forecasts, combined with tried and tested disaster risk reduction measures, can help anticipate disasters before they happen and enable communities to prepare for and cope with them. Fundamental to this approach is strengthening partnerships between the humanitarian sector and those working in the field of climate change. National Societies in the Asia-Pacific region have been showing the way in this important area.

### Rising to the challenge of climate change

Meeting the humanitarian challenges posed by climate change requires not only strengthening capacities to respond to disasters when they occur but also investing in disaster risk reduction, that is, in making communities stronger and more resilient in the first place.

For the International Red Cross and Red Crescent Movement (the Movement), climate change means that there will be more natural disasters requiring a humanitarian response, even in places previously unaffected. In Papua New Guinea, for example, Red Cross health officers are encountering cases of malaria farther up the highlands as the temperatures rise and mosquitoes are able to survive at higher altitudes, and flooding has been reported in areas where it was hitherto unheard of. Communities unaccustomed to certain types of disasters and without the coping mechanisms to deal with the changing conditions are particularly vulnerable.

These challenges provide an opportunity for the Movement to ask itself the question: What can we do more of, differently or better? Climate change can serve as an early warning to prompt the Red Cross Red Crescent to be more proactive. This is already happening.

In 2007, at the 30th International Conference of the Red Cross and Red Crescent, the International



Committee of the Red Cross, the International Federation of Red Cross and Red Crescent Societies (the International Federation), National Red Cross and Red Crescent Societies and governments resolved to address the humanitarian impacts of climate change by:

- raising awareness;
- working with partners;
- decreasing vulnerability;
- assisting the most vulnerable, especially in affected developing countries;
- improving preparedness and response;
- integrating adaptation to climate change into disaster risk reduction and disaster management policies and plans;
- mobilizing resources and building capacity; and
- complementing and providing input to the United Nations Framework Convention on Climate Change (UNFCCC).<sup>1</sup>

*“On the atoll islands and the artificial islands of the Solomon Islands, coastal flooding is the most common hazard affecting the lives of coastal communities. Coastal flooding is becoming more frequent. For example, on atolls such as Ontong Java (Lord Howe) and artificial islands such as Walande, rising sea levels, king tides and coastal erosion have caused major flooding, which has had an impact on people’s livelihoods and property.”*

Loti Yates, Director, National Disaster Management Office, Solomon Islands

## Intersecting circles: climate change adaptation and disaster risk reduction

There is a strong interrelationship between climate change adaptation and disaster risk reduction. However, both agendas have separate policy frameworks and mechanisms for funding and implementation at global, regional, national and local level. Just as climate change adaptation finds its basis in the UNFCCC, the global disaster risk reduction agenda is guided by the Hyogo Framework for Action (HFA).<sup>2</sup>

One of the fundamental linkages between the two areas of activity is their shared objective to address vulnerability in communities affected by climate risk. The difference is that while disaster risk reduction has traditionally looked at risks that communities know and are familiar with, climate change adaptation focuses more on future scenarios as projected by climate science.

## Framework for Community Safety and Resilience

The International Federation has created a Framework for Community Safety and Resilience. The aim is to support National Societies in the promotion and implementation of a holistic, integrated approach developed with and for communities in response to the multiple hazards they face (including those worsened by climate change) and incorporating health, environmental risks, and economic and social issues. The framework consolidates work undertaken to date to reduce underlying vulnerabilities to disasters as part of the Red Cross Red Crescent’s commitments under the HFA.

However, this distinction is becoming less pertinent than it was in the past. Climate change is with us now.

The future we now see through the eyes of projected climate change is very different from the future we may have expected based on past climate. Agencies working to address the impacts of climate, whether their primary focus is on health, water, agriculture, the environment or disasters, have an opportunity to deal with these multiple issues simultaneously through an integrated, participatory approach. Tools and training need to take into account the fact that the nature of risk is changing and be guided by the trends and projections used by climate science. There is much opportunity to work together to inform communities and take action.

*“February 2007 was the first time my community was hit by flooding. It never happened before. I think the weather is changing.”*

Suvina Nita Yohana,  
Indonesian Red Cross Society volunteer

A British Red Cross study on climate change in Bangladesh found that one of the biggest, most insidious impacts of climate change will be a decline in agricultural production. This will affect livelihoods and thus people’s ability to feed themselves.

## The role of climate information in reducing disaster risk

There are many ways to incorporate climate information into disaster planning and decision-making, be it at the



*Climate change is a problem inherited by young people however Red Cross and Red Crescent Societies have found young people can be equally part of the solution and bring a creative zeal to awareness campaigns.*

community, district, national, regional or global level. Such information needs to be used at different timescales, from early warning relating to extreme weather events such as floods and cyclones to seasonal forecasting of phenomena such as El Niño and La Niña and to the longer-term projections of climate change science.

The sources of climate information are also varied. People highly dependent on climate for their livelihoods are familiar with changing weather patterns. This kind of community knowledge can inform and be a catalyst for wider decision-making. At the opposite end of the spectrum, experts working in the field of climate change, including scientists, can provide valuable information to enhance understanding of climate variability and change. Whatever the source, the information needs to be provided in forms that are sector specific and can be translated into practical risk reduction measures.

Risk reduction and, for that matter, climate change adaptation, can be implemented at any stage of the disaster continuum. Even immediately after a disaster strikes, measures such as providing a protected and safe water supply can prevent the situation worsening.

During the recovery phase, infrastructure can be built back better and more able to withstand future climate-related events. In anticipation of climate change, drought-tolerant plants can be introduced to reduce the impact of declining rainfall.

### Traditional knowledge and climate change

The Solomon Islands has limited meteorological records because much of the data has been destroyed during times of unrest. To make up for this deficit, traditional knowledge, such as the knowledge of elders, is being used to assess the effects of climate change in the country. The Solomon Islands Red Cross has documented that tribes in the west of the country hold valuable knowledge of plants, planting seasons and their relationship with wind conditions. In the past, the arrival and duration of dangerous winds could be predicted according to when certain nuts grew

and dropped from the trees. The pagan priests who possess this knowledge are now having great difficulty predicting when these winds will come and how long they will last for (Solomon Islands Red Cross, 2008). This has implications for people's safety travelling at sea and their ability to know when to plant crops.

Traditional knowledge can help to answer questions such as: Is it getting hotter, drier or wetter? At what time of the year? Where are unusual weather patterns being reported? What impact is this having? While scientific information is important for measuring changes in rainfall, temperature and the frequency of extreme events, using it in conjunction with local knowledge on trends can enhance decision-making and the development of appropriate responses.

## Tackling climate change in Asia and the Pacific

Some National Societies in the Asia-Pacific region have taken up the challenge of climate change, recognizing that it is a part of their core mandate, which is to protect the lives of the most vulnerable. Among these, the Bangladesh Red Crescent Society, the Indonesian Red Cross Society and the Solomon Islands Red Cross have made particular headway in integrating climate change into their disaster risk reduction work. These efforts can be grouped under six broad headings:

### 1. Assessing and addressing current and future climate risks at national level

The National Societies of Bangladesh, Indonesia and Solomon Islands have all conducted awareness-raising activities to familiarize staff, board members and volunteers with the concepts of climate change and to initiate dialogue with various actors working on climate change, such as national meteorology and environment bodies.

In March 2008, the Indonesian Red Cross Society convened a national workshop to define a strategy to reduce the risks and impacts of disaster through climate change adaptation. It was decided that this would be achieved through: advocacy and awareness-raising; the development of tools for and approaches to climate change adaptation; and the integration of climate

change responses into community-based programmes such as disaster preparedness and health behaviour. The Indonesian Red Cross Society is also working to integrate climate change adaptation into its existing strategic plans, policies and training materials.

### 2. Assessing and addressing current and future climate risks with communities

Current flood mitigation projects in Bangladesh go a long way towards preparing communities for the impacts of climate change. In Chanamula village, the critical problem of providing clean, safe drinking water to communities during floods has been solved by the Bangladesh Red Crescent Society. It installed hand pumps on platforms raised three feet off the ground so that when the villages are inundated with flood water, the community can still access safe water.

The impacts of environmental degradation and extreme events can be addressed simultaneously. For example, in Bali, Indonesia, community action teams have identified the need for coastal protection from the effects of intense cyclones and coastal erosion, exacerbated by climate change. Over 30,000 mangroves have been planted in these areas, and fishermen are already reporting improved incomes from the sale of shrimp and fish.

In an innovative approach to addressing both current and future climate risk, the Solomon Islands Red Cross road-tested a participatory assessment, called the Frontline Community Toolkit, which combined the Red Cross Red Crescent's Vulnerability and Capacity Assessment with WWF's Climate Witness Community Toolkit produced in the Pacific. The aim of the exercise was to identify communities' vulnerabilities to the impacts of climate change and disasters and to develop activities to address priority needs and strengthen coping mechanisms.

Local Red Cross branches were trained in the necessary processes and learned more about the causes and impacts of climate change and how to respond to them. This information was then shared with the community as part of the overall interaction. Village assessments included youth and women's focus groups to enable knowledge to be captured from different sources and all voices to be heard. The Red Cross health team followed up with a visit to promote hygiene and first aid, and the National Society is now seeking assistance from donors to install rainwater-harvesting equipment on the islands. The community itself will assemble the equipment once it is purchased and will be trained in how to operate and maintain it. Through this integrated participatory approach, the Solomon Islands has successfully



demonstrated how climate change impacts and associated disaster and health risks can be effectively addressed simultaneously.

The Indonesian Red Cross Society has also been collecting data, tools and methodologies developed by various stakeholders to address climate change, which can be integrated into community-based tools and activities. Making use of existing tools produced by others with the relevant knowledge and expertise can avoid duplication and inject fresh ideas.

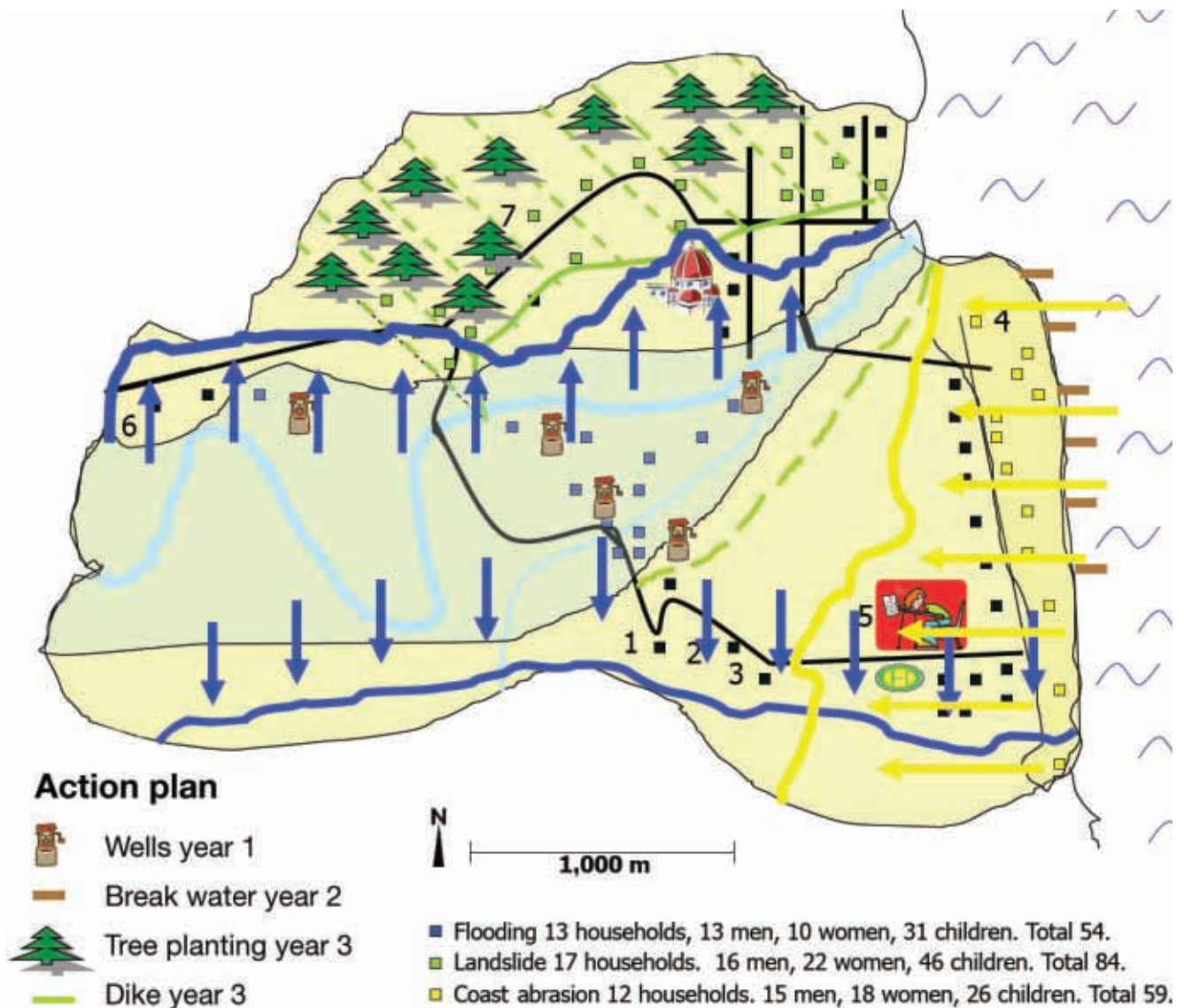
Also in Indonesia, more than 100,000 people living in the slum areas of Jakarta have been the focus of a unique disaster preparedness and risk reduction programme. These areas are subject to regular flooding, which is likely to worsen in the future owing to climate change and other factors such as environmental degradation.

Not only are current and future climate risks taken into account in the programme, but the beneficiaries are also offered microfinance opportunities to provide them with an improved “safety net” in the event of a disaster. Communities are made aware of the factors that contribute to increasing risk, such as poor waste management, and trained in emergency first aid, evacuation and early warning. Information on climate change is also integrated into training. Red Cross volunteers are trained in how to mobilize, support and motivate self-help groups in these areas.

### 3. Education and awareness-raising

A study by the British Red Cross in Bangladesh noted that “without raising the issue of changing weather patterns with the communities there is a danger that they will under-adapt to the risks they face.” Climate change can become a catalyst for action.

### Community mapping of present and future climate risks



The Indonesian Red Cross Society has produced materials such as brochures, films and banners to convey the impacts of climate change to staff, volunteers and the public. It has also organized information workshops for staff and volunteers to enhance their understanding of the issue. In the Solomon Islands, the National Society, the Environment Ministry, the Meteorological Office and the National Disaster Management Office have joined forces to produce a set of posters that highlight the impacts of climate change in the country and promote traditional methods of coping with these impacts. The same messages are being incorporated into a DVD for use with communities and schools.

Across the Asia-Pacific region, opportunities have been taken to raise awareness of climate change in activities developed for World Red Cross and Red Crescent, World Health, Disaster Reduction and Environment days.

Young people are one group of Red Cross Red Crescent volunteers who have been particularly creative in communication efforts on the subject of climate change. The Solomon Islands Red Cross promoted one of its young volunteers to the position of climate change and disaster risk reduction officer with the result that its related programmes have been reinvigorated by youth participation. The officer formed a youth group, and activities have included school visits, a poster competition, radio programmes and a national youth forum on climate change that focuses on the development of community action plans to raise awareness of and address climate risk. In Indonesia, International Youth Day 2008 presented the opportunity to promote the global theme “Youth and climate change: a time for action”. Indonesian Red Cross Society youth members encouraged young people’s involvement by getting schoolchildren to participate in drama, poetry, singing and music performances that expressed their roles in promoting risk reduction measures in the face of climate change. Young people will inherit a burgeoning problem and need to be part of the solutions and decision-making to address it.

#### 4. Non-traditional partnerships and networks

The Solomon Islands Red Cross recently released a background document on the humanitarian implications of climate change for the country. The document emphasizes the cross-sectoral nature of the issue and the need for cooperation and information sharing between all concerned.<sup>3</sup> The evolution of the document was an exercise in network expansion and capacity building for the National Society, which is now



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*Communities facing increasing flood height can look into waste and drain management to reduce compounding the impact.*

actively engaged in the development of a National Adaptation Programme of Action. An effort is being made in this process to include a range of stakeholders from various sectors in the Solomon Islands.

The Indonesian Red Cross Society is also a member of the national working group on climate change adaptation. Moreover, it has built partnerships and networks with others working on climate change adaptation in the country, which has given it greater access to information on the topic.

Climate change provides a compelling reason to cross boundaries and forge new relationships with non-traditional partners. This might include partnerships with government meteorology or environment departments and even environmental organizations in civil society. For example, the International Federation, in partnership with WWF and the United Nations Development Programme (UNDP), convened the Pacific Communities and Climate Forum, which brought together climate change experts and disaster risk reduction practitioners from the region. It aimed to expose people working with communities to the latest climate information and come up with fresh ideas for community-based activities in the Pacific Islands region. It also enabled representatives of the disaster management, health, climate change and environment sectors to identify opportunities for partnership and information sharing.

Being able to access the work of the environment sector can be hugely beneficial. In the Pacific, for instance, WWF had already produced a series of posters explaining the origins of climate change and the necessary adaptation measures. National Societies in the region were then able to use them for their own purposes. The environment sector has a good history of campaigning, with effective messages that can provide inspiration for the disaster risk reduction sector.

Regional workshops on climate change adaptation and disaster risk reduction have been held in the South-east Asia and Pacific region, with one planned for South Asia in the near future. These aim not only to foster the sharing of experiences within the Movement but also to promote the greater involvement of other organizations in tackling the issue and to explore opportunities for future collaboration.

## 5. Advocacy

Currently, the government of the Solomon Islands is devising a National Adaptation Programme of Action. The Solomon Islands Red Cross is an active member of the committee working on this process and is integrating into it the results of the participatory assessments it has conducted with communities to ensure that community priorities and concerns about climate change and disaster risk are being fed into the plan.

The Indonesian Red Cross Society was a driving force in and key contributor to the production of a document outlining the commitment of the National Societies in South-east Asia to work on the issue of climate change. The document has been used to highlight the role of the National Societies in contributing to national adaptation plans.

Climate change is a political issue because tough decisions have to be made in relation to emissions reductions. While the Red Cross Red Crescent does not enter into such debates because this is not its area of expertise, it does get involved in developing the adaptation agenda because it is closely linked to the work of the humanitarian sector. Knowing what the climate trends and projections are, as measured and reported on by scientists, is key to taking appropriate action and to making informed decisions. Moreover, climate change advocacy presents an opportunity to promote the fundamental principles and humanitarian values of the Movement among a much wider audience. Agreements can be concluded between organizations to ensure they each have a good understanding of the limitations of the other's advocacy efforts.

## 6. Integrating climate change into existing training, plans and strategies

Climate change and health are inextricably linked. Whether it be the implications of public health in emergencies, disasters enhanced by climate change such as flooding and cyclones or, more subtly, slow-onset disasters such as drought, people's health will be adversely impacted. For this reason, the Australian Red Cross and the Solomon Islands Red Cross are inserting a section on climate change in their health manual so that health practitioners are more aware of the linkages between climate change, increased disaster risk and the growing potential for public health emergencies as a result of shifting disease patterns.

Reflection on how climate change can be integrated into disaster risk reduction programmes of the Bangladesh Red Crescent Society concluded that much of the National Society's work already contributes much to addressing the impacts of climate change, now and into the future. However, there were a number of additional steps that could be taken, including: providing specific training for staff on climate change; integrating climate change knowledge into community-based activities; having communities reflect upon changes in their environment; developing networks with the climate change sector; and advocating that the government take further disaster risk reduction measures.

### The value of early warning

Bangladesh acted upon early warnings when Cyclone Sidr drew near the country in 2007. Red Crescent volunteers used megaphones to instruct people on what to do to prepare for the onslaught. Approximately 4,500 people died in this cyclone compared with 138,000 during one of similar intensity in 1991. Ultimately, no deaths are acceptable, but this example demonstrates that a decrease in fatalities is achievable through risk reduction measures. The response to Sidr shows the effectiveness of early warnings and the role these can play in disaster risk reduction. If more droughts, floods and storms are to come owing to climate change, it makes sense to improve communication channels and their interpretation where possible.



## Lessons learned

- National Societies have demonstrated that working on climate change is not only part of the Movement's mandate, it is possible to address it at all levels and successfully integrate it into traditional disaster risk reduction programmes.
- At the national level, there needs to be a recognition of the parallel planning processes and funding that drive the work of climate change adaptation and disaster risk reduction. Considerable effort is called for, not just from governments but also from civil society, to consolidate these processes and funding mechanisms to ensure that there is understanding of common goals and an incentive for these sectors to work closely together.
- Promoting understanding of climate change can be made easier if opportunities are taken to integrate the subject into existing forums, such as meetings on health or disaster management. Climate change is best addressed by those with the technical knowledge in the sectors most concerned. However, they in turn need the support of people with climate expertise to improve their understanding of the changing nature of the risks they are working to address.
- There are many opportunities for the Red Cross Red Crescent to enhance its work through collaboration with non-traditional partners and the enhancement of existing networks to reduce the impacts of climate change on the most vulnerable. A deeper understanding of how climate change and extreme weather events can affect communities will enable civil society and governments to develop stronger risk reduction programmes.
- No one organization can take on the challenge of climate change alone and "do it all". Different organizations bring different qualities and strengths to the table: for the Red Cross Red Crescent, this includes its strong community-based risk reduction approaches, while for others it will be things such as understanding of and communication on the issue.

## The way forward

Climate change is just one issue facing the developing world. Many other factors contribute to disaster risk, including environmental degradation, poverty, population growth and urbanization. Addressing the risks associated with climate change within the broader context of people's lives and the challenges they face is also important.

Climate change is here now and will continue to threaten the work being done to reduce people's vulnerability unless it is factored into that work. Temperature levels are continuing to rise, and the potential impacts in this century will be unprecedented in human history and will need to be addressed through a multisectoral approach. The Red Cross Red Crescent's strength lies in its links to communities and volunteer networks, which are well placed to be part of that solution.

This is not to say that the ordinary work of the Red Cross Red Crescent should be "relabelled" as climate change adaptation. Rather, it means that across the board there is a need to scale up efforts to address climate risk, and the Red Cross Red Crescent has many tried and tested methods to help achieve that.

*"The National Society should prepare to adapt to climate change. It is completely the Red Cross mandate. The sooner we act, the better. We are racing against time. Act now, for we should understand that we owe it to the next generation."*

Mar'ie Muhammad, Chairman,  
Indonesian Red Cross Society

- 1 30th International Conference of the Red Cross and Red Crescent, Resolutions and declarations, November 2007, [www.ifrc.org/meetings/statutory/intconf/30th/index.asp](http://www.ifrc.org/meetings/statutory/intconf/30th/index.asp).
- 2 Hyogo Framework for Action 2005–2015: Building the resilience of nations and communities to disasters, 2005, [www.unisdr.org/eng/hfa/hfa.htm](http://www.unisdr.org/eng/hfa/hfa.htm).
- 3 Solomon Islands Red Cross, Preparedness for Climate Change Background Document: Consequences of climate change for humanitarian work through the eyes of Solomon Islands Red Cross, 2008, [www.climatecentre.org](http://www.climatecentre.org).

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