

When asked what he made of this writing, a young Khayyam Kobi replied, "I understand what these messages mean. I also know of the Red Crescent—we learn about disasters from them."



Local knowledge and traditional risk reduction measures:

Given the history of seasonal floods, communities in Bangladesh often employ local initiative and traditional knowledge to prepare for disaster. One example of this community initiative is a bamboo bridge built in the Satyantoli village of the Sirojganj Unit to provide access to healthcare and markets when village roads are inundated.

With funds collected from communities in four villages, this bridge was built at a cost of 60,000Taka (1064CHF). The bridge took about one month to complete, and 15 members from the BDRCS' community disaster response team actively participated in the construction.

Mr. Reazuddin, a village elder and BDRCS volunteer who supervised construction of this bamboo bridge says, "We worked day and night to build this bridge. The whole community participated, some gave money, some gave bamboo, and the rest worked to build it." This bridge provides access to the main highway for over 15,000 people in four villages.



Cyclone preparedness helps save lives for over 30 years:

The BDRCS has been engaged in disaster risk reduction through its renowned cyclone preparedness programme (CPP). Partially funded by the government, the CPP programme seeks to increase the effectiveness of its 33,000 BDRCS volunteers and their capacity to advocate for greater community awareness of cyclone preparedness. This includes the dissemination of warning signals to vulnerable communities along the coastal belt, assisting people to evacuate to shelters, and providing first aid and relief. The CPP also operates a large radio system which provides reliable communications for the entire coastal belt in both pre- and post-cyclone conditions. This system of relaying life saving information to volunteers with hand held radios helps protect 11 million vulnerable people in Bangladesh from cyclones that are exacerbated by climate change.



Climate Change

Awareness, Adaptation and Disaster Risk Reduction A Bangladesh case study

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.

International Federation of Red Cross and Red Crescent Societies

South Asia Regional Office
C-79 Anand Niketan
New Delhi - 110 021, India
Tel: +911124111122, +911124111127
Fax: +91 11 2411 1128

www.ifrc.org

© 2007 Content and photos / International Federation of Red Cross and Red Crescent Societies



The global climate is changing, and people worldwide are confronting new, more severe risks. Scientists warn of an unprecedented warming of the earth leading to an increase in extreme weather events like floods and droughts, more intense hurricanes, the spread of diseases like malaria and dengue, and sea level rise. In the last decade, the number of reported hydro-meteorological disasters has nearly doubled.

Climate change is no longer only an environmental issue, but a moral and humanitarian issue. Human activity at the global, regional, local and household level contributes to climate change. On this issue we are all inextricably linked and therefore have a collective responsibility to mitigate and adapt to the affects. In recent years, climate and disaster-related risks have increased significantly and developing countries have been disproportionately affected, causing death, injury and affecting livelihoods. This in turn is impeding development gains. In Asia, in the last decade, 546,206 people were killed and millions displaced as a result of hydro-meteorological disasters which caused billions of dollars of damage.

The Red Cross Red Crescent Climate Centre

In 2002, the Netherlands Red Cross and the International Federation of Red Cross and Red Crescent Societies established the Red Cross/Red Crescent Centre on Climate Change and Disaster Preparedness. The climate centre supports national RC/RC societies and others in understanding and addressing the risks of climate change, particularly in disaster risk reduction programmes. The overall aim is to reduce the loss of life and the damage done to the livelihoods of people affected by the impacts of climate change and extreme weather events.

A regional challenge

The Hyogo Framework for Action is the global blueprint for reducing the risk and impact of disasters. It calls for reducing the underlying risk factors, one of which is climate variability and climate change. The International Federation of the Red Cross and Red Crescent Societies is committed to work through member National Societies and in partnership with the UN, governments, non-governmental organizations, donors and civil society to meet the objectives of the Hyogo Framework for Action. In May 2007, the Red Cross Red Crescent South Asia Regional Disaster Management Working Group met in Bangladesh, this group is a Red Cross Red Crescent technical forum for disaster managers from seven countries and six national societies in South Asia. As part of the 2008/09 planning process, guided by the Hyogo Framework for Action, the group analysed the integration of current risk reduction programmes with climate adaptation. Much is being done by National Societies in the region to reduce the risk of disasters and climate change however, the working group identified a number of challenges:

- To raise greater awareness of the Hyogo Framework for Action and climate change within National Societies at all levels,
- For climate change to be widely recognised as a priority issue at all levels,
- Further integration of climate adaptation into regular disaster risk reduction programming is required,
- More learning and knowledge sharing with other National Societies and external organisations is needed to increase exposure around climate change and,
- More proactive advocacy (internally and externally) at all levels is required to promote attitudinal and behavioural changes.

South Asia is one of the most disaster-prone regions in the world. Every year millions of people are affected by natural disasters. From 1987 to 2006, 24% of people killed worldwide by disasters were in South Asia. The increase in frequency and magnitude of disasters in South Asia over recent years has demonstrated the need to reduce underlying risk factors and to integrate disaster risk reduction strategies with climate change adaptation.

Since the late 1990s, the South Asia regional delegation of the International Federation of Red Cross Red Crescent has been working with six National Societies in the region to reduce risk and to strengthen organisational capacity to deliver services to vulnerable people. By mobilizing their volunteers, the national societies in South Asia are working hard to improve the lives of vulnerable people through various community based programmes disaster risk reduction programmes. Red Cross Red Crescent community based disaster risk reduction programmes are not new in South Asia, for example the Bangladesh Red Crescent Cyclone Preparedness Programme has been running for thirty years and helped approximately 2.5 million people safely evacuate from five cyclones during the 1990s alone.

A Bangladesh case study

Bangladesh is not only vulnerable to rising sea levels, but is also one of the most flood prone countries in the world with 25 percent of its geographical area vulnerable. The floods not only disrupt and take lives, but also isolate communities, severely affecting the livelihoods and education of the people across the country. Every year, seasonal floods inundate low lying areas, a devastating pattern that is exacerbated by climate change.

Studies by the Intergovernmental Panel on Climate Change (IPCC) suggest that a climate change of related sea level rise between 45 cm and 100 cm will result in land loss of nearly 11 percent and 21 percent respectively. This will have a catastrophic impact on coastal mangrove

Insights into community awareness

The objectives of the study were to analyse the perceptions of rural communities on climate change and to identify various autonomous and planned adaptation mechanisms in three flood prone areas of Bangladesh. According to this study:

- Communities believe that their vulnerability to climate related hazards is increasing mostly due to bio-physical changes such as river course transformation within their vicinity rather than global changes.
- Over 90 percent of those interviewed were interested to learn the reason for the increase in their vulnerability.
- Communities displayed a strong inclination to change their food habits and move to new locations. Over 70 percent of those interviewed were willing to migrate to higher ground (this tendency was higher among the landless labourers than the land owners).
- Autonomous coping strategies identified in response to recurring disasters were migrating to unaffected areas to earn daily wages, storing

ecosystems and human settlements in Bangladesh. Such low-lying developing countries where many are already overburdened by severe poverty and recurring natural disasters are likely to be the hardest hit and least able to adapt to the impacts of climate change.

Studying existing community based coping mechanisms to various climate related disasters is fundamental in order to design appropriate capacity building interventions that mitigate the effects of climate change. Through a study by Kyoto University, the BDRCS is looking at how its community based disaster risk reduction programmes can meet the current and future challenges of climate change.

- food at higher elevation and storing food in dried form such as dried papaya, popped rice, and constructing houses on elevated platforms.
- Community based disaster risk mitigation programs were the most notable planned adaptation strategies.
- Conducting evacuation drills, dissemination of early warning and public awareness generation programs have enhanced the preparedness among the communities and reduced their vulnerability significantly.
- The impact of planned adaptation strategies could be seen in the preference of communities to move to a cyclone shelter or a school, in the wake of a cyclone or a flood, rather than living on the embankment which is considered an age-old practice.



Mitigating risk through community participation

Tree planting:

In Niklagopal village, a community came together to adapt to and mitigate climate change through planting trees. With land donated by two community members, the community is able to cultivate over three hundred trees. This prevents soil erosion and contributes toward balancing the

effects of green house gases. Moreover, this project builds resilience in the community as the trees can provide a source of livelihood. A similar use of community ingenuity is seen in Sirahkunj village of the Sirojganj district.

Community forestry preserves the environment and profit derived from these trees will help fund more disaster preparedness activity at the community level. Amirul Islam, a Bangladesh Red Crescent volunteer explains, "We know that these trees will lead to an improvement in our environment and play a role in the overall development of our community."



Raised tube wells:

The critical problem of providing clean, safe drinking water to communities during floods has been solved by the BDRCS in Chanamula Village. Hand pumps have been installed 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. At another

tube well site in the neighbouring district, we learned that the number of people using the tube well increases ten fold when floods strike. Built with funding from DFID at a cost of 10,000 Taka (177CHF), using community participation and input, these wells provide fresh water approximately twenty times a day to each family.

Saleha Begum, mother of two, explains, "I use this tube well for washing, cleaning, cooking and bathing. Earlier I had to walk one kilometre to get drinking water and used the stale pond water for washing and bathing." Built with local skill, the location of these wells is ascertained by the communities.



Awareness on climate change adaptation:

An essential component of the BDRCS' Disaster Preparedness programme is communicating flood risk mitigation measures to communities. A message board located in a village under the Thangail Unit gives clear and basic instructions in Bangla. The message urges parents to teach their

children to swim and in case of floods move livestock to higher ground in rafts and boats, raise toilets and use portable stoves. A few yards away is a large wall painting on one side of the local Community Health Centre that includes a range of disaster preparedness and hygiene messages.