

building Safer Communities in South Asia

a series of case studies on Community-Based Disaster Management (CBDM) in South Asia (Jan 2008 Vol 1 No. 4)

Empowering the Community to Adapt to Climate Change

BACKGROUND

Bangladesh, a low-lying country is known globally as one of the most vulnerable countries to climate change. Factors contributing to its vulnerability includes its biophysical resources, particularly water which is highly sensitive to climate variability and change, along with high population density, high incidence of poverty, inadequate infrastructure and limited financial resources. This makes water resources, coastal zones and its resources, agriculture and human health the most vulnerable sectors to climate change. Around 66 per cent of the country's labour force are engaged in agriculture and with their dependence on water, are likely to be hit the hardest by climate change¹.

The Government of Bangladesh (GoB) has recognized climate change as an important issue and attempts are being made to incorporate potential measures for reducing climate change impacts into overall development planning. Bangladesh has developed the National Adaptation Programme of Action (NAPA). It has also incorporated climate change into its Poverty Reduction Strategy Paper (PRSP). The GoB realizes that to reduce the impacts of climate change it is necessary to work across sectors and with active participation of local communities.

Thus, the Bangladesh Red Crescent Society (BDRCS) has been working since the 1970s with vulnerable communities, particularly women through the Cyclone Preparedness Programme (CPP), is in a unique position to pursue community-based disaster risk reduction initiatives leading to climate change adaptation.

Government of Bangladesh prioritizes Climate Change

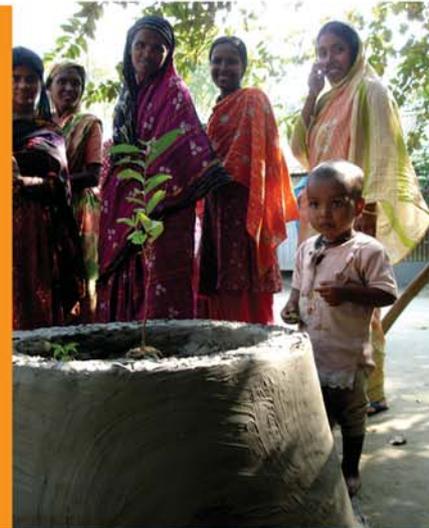
The National Adaptation Programme of Action (NAPA) of Bangladesh aims to involve the key sectoral Ministries, Departments and Agencies to increase ownership and help mainstream climate adaptation into sectoral development and gives preference to activities that promotes:

- Safe life and livelihood
- Active participation of local communities
- Risk Reduction from natural hazards

Accordingly, BDRCS has been implementing the Community-Based Disaster Management (CBDM) Programme since 2005 in 80 flood-prone communities under 10 districts of Lalmonirhat, Kurigram, Sirajganj, Tangail, Jamalpur, Faridpur, Madaripur, Sariatpur, Munshigonj and Chandpur. This programme is supported by Hong Kong Red Cross and Department For International Development (DFID) through the International Federation of Red Cross and Red Crescent Societies.

The programme aims to establish a strong community-led disaster risk reduction system and strategies to reduce flood risks. As rightly believed, steps taken to mitigate existing risks can help adapt to new or emerging ones that are posed by extreme weather conditions.

ABSTRACT



This case study focuses on the potential of community-based disaster management (CBDM) initiatives to reduce vulnerability in the context of climate change. The key outcomes and lessons learned in 10 flood-prone communities under four districts of Lalmonirhat, Kurigram, Sirajganj and Tangail illustrate that a good community-based disaster risk reduction strategy is the first step towards finding local practical solutions towards climate change adaptation.

¹Ministry of Environment and Forests, Government of Bangladesh, 2006



BACKGROUND

"We find the climate is changing, weather pattern is changing slowly and floods are becoming frequent and intense than in the past. But, due to this DRR programme and with the developed CDMC and CDRTs there has been a mega difference in 1988, 98, 2004 and in 2007 flood response. This year (2007), the flood response was systematic, CDRT members have a very good intention to guide and support community people before, during and after the floods. Red Crescent DRR programme has brought tremendous positive mind-set change in our community."

- Joinal Shardar, 73 year-old elderly, community member from Tangail district

Although all the target communities under the CBDM programme are annually affected by severe floods, the kind of flooding and its changing pattern is quite different in each of them. While the Modhuram and Madhyarajpur communities in Lalmonirhat district living by the Teesta river are greatly affected by sudden flash floods resulting in river erosion, the Gunergati and Choto Gunergati communities in Sirajganj district are mainly affected by the intensified flooding along the Jamuna River banks. The communities in Kurigram and Lalmonirhat districts are also severely affected by 'Monga'; the seasonal food insecurity which is closely dependent on the extent, frequency and timing of floods.

'Monga' is seasonal food insecurity usually occurring between mid-September and mid-November, caused by the lean season between the planting and harvest of *aman* (paddy grown in monsoon season). It primarily affects the ecologically vulnerable and economically less developed districts of north-western Bangladesh, affecting the marginal farmers and agricultural labourers who work in the field of others. The primary reason for this seasonal lack of access to food is the lack of agricultural diversification in the districts, which is mainly based on paddy while labour intensive high-value crops like vegetables are rarely cultivated. The intensity of the problem is largely dependent on the annual timing of the rain and the flood situation. The solution to find alternative employment for unskilled labour during this period is also remote, mainly because of climatic condition for example if it is still raining or flood water has not receded.

PROJECT

Following the approach that 'communities need to understand their own risk and lead the process to reduce it', the CBDM programme has successfully supported the formation of community structures namely Micro Groups (MG), Community Disaster Management Committees (CDMC) and Community Disaster Response Teams (CDRT). These structures with active membership of women and different age groups have been facilitated by the BDRCS to take the lead in identifying and acting on various flood risk reduction initiatives which would contribute towards long-term socio-economic development of the communities.

Under the programme, an important process to reach the most vulnerable in the communities has been the conduct of Vulnerability and Capacity Assessments (VCAs) led by CDMC members and facilitated by BDRCS staff and volunteers. This learning by doing methodology helps the communities identify the root causes of flood risks. As an outcome of the VCAs, the communities had better visualized the linkages between flood and poverty and prioritized immediate actions towards livelihood generation activities to reduce their economic vulnerability to annual floods.

One of the priorities has been planting of saplings, of which the fruits would not only have nutritional value but also contribute to the livelihoods of families within a few years. The choices of the fruit-bearing trees includes berry, guava, banana, lemon and mango and in some communities even neem, have been identified by the communities on the basis of their higher chance to survive flood waters. The communities also strongly felt that the number of trees in their surrounding environment is less and planting them would improve the living conditions of their neighbourhoods.

Because of change in climatic condition over the years, the community has shifted towards planting of hybrid variety of paddy. Though the productivity of this variety is high, it requires higher initial investment, and degrades the fertility of the soil in the long run. Moreover, due to repeated floods and escalating frequency of disasters, fodder crisis is also becoming severe that leads to less number of livestock and scarcity of natural fertilizers and fuel for poor households. Thus, livestock support is important in addition to household-level asset building. Crop preference is also shifting from paddy to other alternative vegetation to adapt with climate change impacts.

Moreover, alternative livelihoods such as fruit-bearing trees served as a great help to the vulnerable households. The community strongly believes that there are very few trees in the neighbourhood which leads to drought or excessive rain in the area.

- Focus Group Discussion in East Hathiya Community, Kurigram district

"Due to frequent flooding, my land has become less fertile and I am losing my main source of income. Now, I am trying to find some alternative crops and other livelihood options."

- Johurul Islam, land owner from Balarampur community, Sirajganj district

The communities were involved in the process of identifying the beneficiaries for receiving the saplings. The selection criteria included vulnerable households with a minimum plot of land surrounding their house to plant the saplings. The beneficiaries were also provided with free orientation from the horticulturalist from BRAC and Agricultural Extension Department, Government of Bangladesh on how to plant and take care of the trees. This establishment of linkage with the local Agricultural Extension Department and orientation imparted is expected to add to the programme's sustainability.



<< This visualization (prepared by the target community during the VCA process) illustrates the historical trends in a qualitative way. It shows how soil erosion is increasing but crop yields and livestock are decreasing due to changing climate conditions.

∇ Human activities are adding to disaster risks in Sirajganj district along the Jamuna River



- The VCA process conducted under the CBDM programme helped the communities to work collectively and to develop a coherent understanding of their immediate built environment with respect to the larger environment.
- Issues related to insufficient trees resulting to poor soil retention capacity and more frequent floods were highlighted and used to guide the process of minimizing these long-term impacts.
- Thus, the choice of planting trees though may be an inadvertent action towards climate change adaptation, yet the very fact the communities are able to establish the link between disaster risk reduction and long-term developmental concerns related to

“ The community must avoid unplanned tree cutting for economic purposes and put more emphasis on house and community-based tree plantation. And, if you cut one tree, you must plant four more trees.” - Hasina Banu, CDMC member from Khokshabari community

environmental sustainability, and accordingly prioritize solutions to act on it, definitely shows promises ahead.

- Moreover, provision of trees for income generation and reducing risk of flood, also is helping to raise awareness among the communities on the importance of environmental sustainability and climate change adaptation.



“In 2004, when I asked the communities the reason for flooding, they answered: it is God’s desire to punish us for our sins. Now in 2007, within this DRR programme intervention, community members’ perception towards flooding are as follows: as a consequence of climate change, high population density and cutting down of trees.” - Nazmul, CBDM In-Charge, BDRCS, National Headquarters



LESSONS LEARNED

The programme has helped the communities recognize the fact that today’s investment in disaster risk reduction would reduce the impacts of climate change in the future.

“Tree plantation would not only improve the economic condition of the vulnerable households in the communities but would contribute towards mitigating floods and the impacts of climate change.”

- Poly, CDRT member from Gunergati community, Sirajganj district

This awareness has helped the communities look at the various initiatives beyond the time frame of the CBDM programme and be committed to its sustainability.

“Flooding is increasing and its intensity has also increased due to rise in temperature which has changed the rainfall pattern and frequency. Due to poverty, people in the community are cutting trees for their settlement and also for their income by selling the woods, thereby contributing towards climate change. I believe, tree plantation is the only forward to reduce, mitigate and adapt with changing climate and its impacts.”

- Nasrul, community member from Sirajganj district

It needs to be realized that in order to take forward the agenda of climate change, BDRCS would need to facilitate the communities in building new networks and establish dialogues with all relevant stakeholders. Collaboration needs to be established with other programmes being implemented in various parts of the country on climate change and regular information shared between the programmes.

THE WAY FORWARD

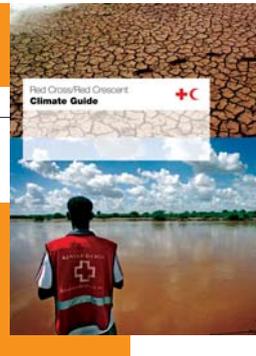
Climate change is a big challenge and interventions must be done at all levels in an integrated manner within the BDRCS and other stakeholders.

- The BDRCS mandated to work with the most vulnerable, would proactively incorporate measures to reduce impact of climate change in all their programmes be it livelihood, health or disaster risk reduction. However, in this regard the BDRCS would also need to establish a strong collaboration and work closely with other stakeholders both nationally and internationally in the areas of livelihood adaptation to climate change and climate forecasts applications. The Red Cross and Red Crescent Climate Centre in the Netherlands mandated to offer facilitation between National Societies, policy makers and scientists on climate change issues would act as a great resource for the BDRCS.
- The programmes of BDRCS would also review and re-align its interventions with the priorities identified by the country’s NAPA.

BANGLADESH NAPA PRIORITIES

The National Adaptation Programme of Action (NAPA) of Bangladesh has prioritized 15 projects with primary objective of intervention, capacity building, awareness raising and research on adaptation to climate change. For example, interventions prioritized for North East and Central Region of Bangladesh is “Adaptation to agriculture system in areas prone to enhance flash flooding through No-tillage potato cultivation under water hyacinth mulch in wet sown condition, and vegetable cultivation on floating bed” and “Adaptation to fisheries in areas prone to enhance flooding through adaptive and diversified fish culture practices”.

- This modest initiative started by the communities under the CBDM programme needs to be upscaled. Currently, the programme had only looked into planting of trees as a option for livelihood and a measure for flood risk reduction which would indirectly lead to minimize the impact of climate change. However, as part of its sustainability strategy, household-level interventions need to be supplemented by community-level intervention like community-based integrated farming, crop diversification and hazard-resilient supplementary income generation from off-farm and non-farm activities as well as early warning. The BDRCS would play an important role in capacity building of these strategic solutions to the communities.



RED CROSS AND RED CRESCENT CLIMATE GUIDE

The Red Cross and Red Crescent Climate Centre has published a Climate Guide for the Red Cross and Red Crescent Societies, that aims to share the experiences of more than 30 national societies who in the last five years, have started to address climate change in their work. The Guide aims to document meaningful experiences of the National Societies and also provide advice on how to find the solutions in the context of the country’s vulnerability. With six thematic modules: Getting started, Dialogues, Communications, Disaster management, Community-based disaster risk reduction and Health; it provides step-by-step guidance on “how to” which can be adapted to local circumstances.

“With the raised awareness in DRR, such as the importance of tree plantation will reduce risks and save our community. We must continue this DRR programme to have more trees, more livestock and livelihood options. We must be united and help each other in making our community safer and stronger . In the future, with my family’s support, I would like to help the needy people in my community.”

- Rajan Hussain, 12-year old from Sirajganj district

- The community structures formed under the CBDM programme would continue to play active roles in raising awareness among the communities on the impacts of climate change by integrating concepts related to climate change into existing health and disaster management trainings. In the whole process the BDRCS working with the CDMCs and CDRTs would play a pivotal role in formulating possible community-based strategies for emerging risks due to extreme climate events.



BANGLADESH RED CRESCENT SOCIETY (BDRCS)

The Bangladesh Red Crescent Society (BDRCS) offers a range of services to deal with both national and international emergencies. As a National Society within the International Movement of the Red Cross and Red Crescent, the BDRCS has access to the largest voluntary network in the world and is also among the oldest humanitarian organisations in the world. Throughout its history, the BDRCS has enjoyed tremendous public support and has played a pioneering role in many areas of health care, social work and education. The society has steadily grown stronger and is now the premier humanitarian agency in the country. For more information, please visit: www.bdracs.org.



DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID)

The Department for International Development (DFID) is the part of the UK Government that manages Britain's aid to poor countries and works to alleviate extreme poverty. It is headed by a Cabinet minister, one of the senior ministers in the Government. This reflects how important the Government sees reducing poverty around the world. It has two headquarters (in London and East Kilbride, near Glasgow) and 64 offices overseas.

DFID's values define the way in which they intend to live up to their strategic aim of halving world poverty by the year 2015 and also provide a framework for improved performance. The core values are: ambition and determination to eliminate poverty, diversity and the need to balance work and private life, ability to work effectively with others, desire to listen, learn and be creative, and professionalism and knowledge. Their policies and processes support and underpin these values.

Disaster Risk Reduction Programme Phase II is a three-year programme (May 2005 to April 2008) in seven countries and in particular three countries in South Asia; Bangladesh, India and Nepal and is implemented together in collaboration with the International Federation of Red Cross and Red Crescent Societies, DFID and British Red Cross. The programme aims to develop community resilience, to strengthen national society and community preparedness for response and to establish networks and develop knowledge sharing. For more information, please visit: www.dfid.gov.uk.



EUROPEAN COMMISSION'S HUMANITARIAN AID DEPARTMENT (ECHO)

The European Commission's Humanitarian Aid department (ECHO) is one of the biggest sources of humanitarian aid in the world that has funded relief to millions of victims of natural and man-made disasters outside the European Union. Aid is channelled impartially to the affected populations, regardless of their race, ethnic group, religion, gender, age, nationality and political affiliation. Part of the department's mission is to raise public awareness of the issues at stake.

For humanitarian aid, the Commission works with about 200 operational partners, including specialised United Nations agencies, the Red Cross and Red Crescent movement and non-governmental organizations (NGOs)

The Commission under the DIPECHO programmes also funds disaster preparedness and mitigation projects in regions prone to natural catastrophes. It has recognized the vital importance of community preparedness to respond to disasters in the period before aid agencies arrive at the disaster site. Currently, DIPECHO programme is supporting the International Federation of Red Cross and Red Crescent Societies, South Asia Regional Delegation to implement Building Safer Communities in South Asia region programme.



ASIAN DISASTER PREPAREDNESS CENTRE (ADPC)

Established in 1986, ADPC is a leading regional, non-profit organization based in Thailand, mandated to promote safer communities and sustainable development through disaster risk reduction. ADPC's programs and projects demonstrate a wide diversity in applications, address all types of disasters, and covers all aspects of the disaster management spectrum-from prevention and mitigation through preparedness and response, to damage and needs assessment, rehabilitation and reconstruction endeavors. ADPC thematic focus areas are Climate Risk Management (CRM), Community-based Disaster Risk Management (CBDRM), Disaster Management Systems (DMS), Early Warning Systems (EWS), Public Health in Emergencies (PHE) and Urban Disaster Risk Management (UDRM). For more information, please visit www.adpc.net.

BDRCS COMMUNITY-BASED DISASTER MANAGEMENT PROGRAMME IN FLOOD-PRONE AREAS

The purpose of the programme is to prepare high-risk communities, particularly women at household level in flood-prone areas, to manage impacts of severe floods. It is working with 80 communities in 10 selected districts which are most prone to severe riverine flooding due to their location across the large rivers of the country namely Jamuna, Brahmaputra, Ganges/Padma, Teesta and Meghna. Based from the flood-prone area map prepared by the Government of Bangladesh in collaboration with World Food Programme in 2004, the target beneficiaries are the communities at riverbanks in the districts of Lalmonirhat, Kurigram, Jamalpur, Sirajganj, Tangail, Faridpur, Madaripur, Shariatpur, Munshiganj and Chandpur.

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Building Safer Communities in South Asia

is a series of case studies on Community-Based Disaster Management (CBDM) in South Asia, as part of the International Federation of Red Cross and Red Crescent Societies - South Asia Regional Delegation's (SARD) programme. The programme is guided by the International Federation's Disaster Management strategy and standards in line with the Hyogo Framework for Action (HFA). It aims to draw together regional experiences and knowledge to harmonize and standardize Red Cross Red Crescent risk reduction trainings, approaches, systems and tools.

The case studies illustrate processes adapted and lessons learned during the CBDM programme implementation to promote and facilitate a more coherent cooperation among partner national societies, volunteers, international NGOs and local community groups. This is essential to increase the quality and reach of risk reduction measures that create better prepared, more resilient and self-reliant communities. These are written and developed in partnership with the Asian Disaster Preparedness Centre (ADPC) based in Thailand.



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