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The Least Developed Countries (LDC) Fund LDC-GEF Consultation in Dhaka: A step forward

During 4-6 April 2006, the Global Environment Facility (GEF) and the Ministry of Environment and Forests of the Government of the People's Republic of Bangladesh jointly organized the consultation on Programming Paper of the Least Developed Countries Fund (LDCF) and the results of the National Adaptation Programmes of Action (NAPAs) in Dhaka, Bangladesh.

The meeting aimed at consolidating the ongoing dialog among the LDCs and the GEF with respect to issues related to adaptation to climate change, and the role of the LDCF to support LDCs to meet their adaptation needs. The outcome of the meeting helped consolidate the LDCF programming paper to pave the way for NAPA implementation phase. Heads of NAPA Teams and LDC negotiators took part in the two and half day event.

The consultation was divided into two sessions. The first session focused on the outcome of the NAPAs and implications for their implementation. Presentations of completed NAPAs were followed by a technical analysis of their results carried out by the participants. The second session focused on how to translate UNFCCC guidance to the GEF on the implementation of the NAPAs. The session included a discussion of the LDCF programming paper, which outlines operational modalities and rules of procedure to access LDCF resources for NAPA implementation.

The results of the two sessions were presented during the third and final day when the LDC participants requested GEF to integrate their views and concerns into the LDCF programming paper.

The importance of the pledging meeting with donor countries as a follow up to the consultation was also underscored.

On behalf of the LDC Group, Mohammad Reazuddin, Director (Technical), Department of Environment and current LDC Chair made concluding remarks on the draft Programming Paper. He appreciated GEF efforts in preparing the Programming Paper for funding the implementation of NAPAs under the LDCF trust fund. In this respect, he also appreciated the arrangement of the consultation meeting in Dhaka which provided the opportunity for the LDCs to better understand the content of the draft programming paper as well as have the opportunity to provide some feedback.

The Climate Change Cell looks forward to the successful outcome and follow up on the LDC Fund toward enabling NAPA implementation.

- Editors



In Brief

Twenty-fourth Sessions of SBSTA/SBI

The twenty-fourth sessions of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) of the United Nations Framework Convention on Climate Change was held from 18-26 May 2006. The first session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG) also was held during 17-25 May, 2006.

Mirza Shawkat Ali, Deputy Director (Research), Department of Environment attended the 24th Sessions of the SBSTA & SBI. The Bangladesh delegation addressed the following agenda items under SBI; National communications from Parties not included in Annex I to the Convention, Financial mechanism (convention), Special Climate Change Fund and Financial Mechanism (Kyoto Protocol) and Adaptation Fund. Under SBSTA agenda the five-year program of work on impacts, vulnerability and adaptation to climate change was covered.

Climate Negotiations: Bangladesh prepares for COP12

The twelfth session of the Conference of the Parties (COP 12) to the UNFCCC and the Second Meeting of the Parties (COP/MOP 2) to the Kyoto Protocol is scheduled to take place in Nairobi, Kenya during 6 – 17 November, 2006. As a Party, Bangladesh has strategic positions in the intergovernmental negotiation process. Bangladesh currently holds positions in the following: LDC Chair, Alternate Member from non Annex-1 countries of the Compliance Committee (Enforcement), Member of LDC Experts Group (LEG), and Chair of the Consultative Group of Experts (CGE). Accordingly, the national delegation and working agenda need to be equipped to address the COP12 agenda. A brief for the national delegation addressing the current needs will be developed, as an integral part of effective preparation and ensure coordination within the members of the delegation as well as communicate our position to the fora. There is a need also to identify relevant DoE and MoEF nominated officials and develop necessary capacity of the same to represent Bangladesh at COP 12.

Climate Change Cell has decided that a Workshop will be organized in September 2006 to share and discuss a working document with relevant stakeholders, and drawing on members of KNoCC, to prepare the COP12 brief for the national delegation. The expectation from the event will be to draw inputs and develop ideas to include in the COP12 brief. A meeting of the TAG will be convened (mid September) where the working document will seek endorsement. The working document will then be used to draft and finalize the COP12 brief. The brief will be shared with the high segment group in a pre-COP Briefing at the Ministry in late October 2006. The brief will be finalized addressing this meetings' uptake with the final version endorsed by the relevant Government authority.

UNDP-GEF Community Based Adaptation (CBA) project

National Consultation Workshop on Bangladesh pilot project held

A National Consultation Workshop on the UNDP-GEF Community Based Adaptation (CBA) project was held on Monday, 15 May 2006, in Dhaka. Organized by the UNDP Bangladesh office, The workshop included a Presentation on UNDP-GEF Global Project on Community Based Adaptation to Climate Change Impacts by Md. Tarik-ul-Islam, Senior Programme Officer, UNDP Bangladesh.

Salient aspects of the Draft Country Proposal were shared next. The Chief Guest, Mr. Abdur Rashid Sarker, Secretary, Ministry of Food and Disaster Management and the National Programme Director, Comprehensive Disaster Management Programme (CDMP) also stressed on the importance of community based adaptation needs for the country. Mr. Larry Maramis, Deputy Resident Representative (Programme), UNDP Bangladesh provided viewpoints on the need and potential for Bangladesh on adaptation at community level. Field observations and findings were shared by Dr. Mizan R. Khan. UNDP Consultant to prepare the Draft Country Proposal. Experience and comments on the presentation and on field findings were shared by Mr. Abdul Khaleque, NGO Coordinator Patuakhali- Barguna Aquaculture Extension Project, Mr. S.M. Abdul Mannan, Superintendent Engineer Barind Multipurpose Development Authority, Rajshahi, and Mr. Abdul Baset, LGED Engineer Chokoria, Cox's Bazar

Dr. Mizan R. Khan finally presented the Project Selection Criteria & Institutional Framework of GEF-CBA. Open discussion drew a number of useful perspective and feedback from the participants.

The Information Bulletin will provide coverage on the follow up to the Country Proposal for piloting Community Based Adaptation
– editors

Ninth LDC Experts Group (LEG) Meeting takes place in Dhaka

Bangladesh, responding to a request from the United Nations Framework Convention of Climate Change (UNFCCC) Secretariat, also hosted the Ninth Meeting of the Least Developed Country Expert Group (LEG) in Dhaka, during 6,7, and 8 April back-to-back with the LDC-GEF Consultation Meeting. The LEG, under the mandate given by COP 11, benefited from the GEF-NAPA Consultation. The last day was used by the LEG to interact with Bangladesh's NAPA team.

Adaptation research update

On 8 June 2006, the Climate Change Cell - Research Proposal Evaluation Committee (CCC-RPEC) met to assess the research proposals that had been received in response to five Calls for Proposals. The Committee agreed to fund five research proposals in four priority research areas as follows:

1. Center for Natural Resource Studies (CNRS): Adaptive Crop Agriculture including Innovative Farming Practices in the Haor Basin.
2. Centre for Environmental and Geographic Information Services (CEGIS): Adaptive Crop Agriculture including Innovative Farming Practices in the Coastal Zone of Bangladesh.
3. Bangladesh Centre for Advanced Studies (BCAS) and National Institute of Preventive and Social Medicine: Climate Change and Health Impacts.
4. North-South University, Department of Environmental Science & Management: Crop Insurance as a Risk Management Strategy in Bangladesh.
5. BASTOB Initiative for People's Self-Development and Bangladesh Unnayan Parishad (BUP): Climate Change, Gender and Vulnerable Groups in Bangladesh.

The projects will be presented to stakeholders in a workshop planned for 13 August 2006.

No proposals had been received for the fifth research priority area: Measuring economic impacts of climate change. It was decided that the Climate Change Cell will further liaise with institutions qualified to undertake such research.

The Information Bulletin will continue providing coverage on the follow up to the workshop as well as progress and findings from the research processes – editors

Climate Change Impact Modeling update

Climate Change Cell has drafted a report on "institutionalizing impact modeling." The Modeling Community (climate, water, agriculture, etc) has been organized to collaborate and deliver the necessary outputs toward this end. In this respect, MoU's between agencies who will team up to provide the consolidated service are in the draft stage. Ultimately, the modeling community and service providers will seek to address different stakeholders as user/clients, particularly government departments and agencies. Respective Focal Points would play a key role facilitating the process.

The immediate user of the modeling output is the Disaster Management Information Network (DMIN) in the CDMP Disaster Management Framework. DMIN addresses the information needs on hazards, hazard trends relevant for the CDMP pilot districts (7). This can be immediately addressed from on-going modeling activities. The data cleaning necessary to validate climate impact model output is underway. Once this is complete, a computer run should be considered using the refined database, both for PRECIS and REgCM and compare the output by relevant parameters and select "best fits" for application in the modeling activities. The output from this run may be shared through a workshop, hopefully early 2007.

The next step would be addressing the capacity building needs of climate modeling community to operate and deliver expected outputs timely and in the desired formats.

Climate Change Cell intends to carry forward the activities of the business plan from now through 2008 in accordance with the critical path in the institutionalizing modeling activities. However, policy advocacy to mainstream shall continue beyond.

A road map or business plan has been finalized addressing written comments, suggestions, sharing and discussing, incorporating all aspects with the modeling community in a meeting held on 18th June 2006 at DoE.

The Information Bulletin will continue providing updates on progress and findings from the modeling activities and process – editors

Preparing for Climate Change: Who is doing what in Bangladesh?



Ralf Ernst, Mohammad Reazuddin and Abu M Kamal Uddin from the Cell introduces the objective and expectation of the Knowledge Network



Participants at the Meeting represented government, NGO and grass-root organizations



A participant shares her organizations' work in preparing for climate change

On 2 May, 2006, the Knowledge Network on Climate Change (KNoCC) organized its first meeting, *Preparing for Climate Change: Who is doing what in Bangladesh?*, to bring actors, institutions and stakeholders from all corners on board as an effort to deliver its mandate, i.e. *help prepare for climate change*. The meeting aimed drawing on past and current activities from actors and institutions already engaged in climate change related activities to inform those who are likely to be affected by climate change or who can play responsible roles in helping address or minimize the adverse impacts and consequences.

The Climate Change Cell supports the development of this Knowledge Network on Climate Change (KnoCC) aiming to collect, analyze and disseminate climate change related information. Through this network the Climate Change Cell also needs to develop information on climate risks and adaptation options, disseminate the results and support the communication of information into a format useful to, for example, government line departments, local government and NGOs working with vulnerable communities.

Why Knowledge Network on Climate Change?

The meeting successfully launched the Knowledge Network on Climate Change (KNoCC). The Network facilitates sharing common interests, concerns, viewpoints, knowledge and resources that can enable others engage effectively in meeting the climate change related challenges.

Over 70 participants representing organizations from government, non-government actors and institutions shared what they were doing in different parts of Bangladesh to prepare for climate change. An exercise surfaced the needs and expectations of the participants from KNoCC.

The meeting initiates a process that will evolve over time, It also provides a platform to identify capacity that already exist as well as capacity development needs relevant to knowledge sharing and management.

For a report on the meeting send your request to us. - editors

The Knowledge Network on Climate Change (KNoCC) invites organizations to join the network in preparing for climate change.

Contact Climate Change Cell.

First meeting of the KNOWLEDGE NETWORK ON CLIMATE CHANGE (KNoCC)

Expectations from the Knowledge Network

Participants expressed how KNoCC can enhance cooperation, and address member needs.

They focused primarily on the following aspects: funds, knowledge sharing and management, capacity building and training, and technical services.

Knowledge Sharing and Management

Information on climate change, updated and accessible from relevant sources nationally and internationally, was found to be a major expectation. Particular areas of interest were research, modeling and data on Climate Change, scientific data, awareness material on climate risks, impact and management, information on Climate Change impacts on different geographical locations and sectors. Information and data sharing on Climate Change was also considered within the context of information support for district level networking (within NGOs). Respondents stressed on knowledge management skill and support for local implementation and better dissemination of knowledge, and adapting the information to match specific needs.

In relation to specific knowledge products and services, respondents said that, transferring climate change related scientific knowledge into simple language was most important. Respondents hoped the Cell would provide services by gathering climate change related information regularly, and provide a web based dictionary, sharing technical knowledge & information, wide dissemination of lessons learnt, exchange of knowledge on good practices, workshops on climate negotiation, raising awareness, advocacy, policy, adaptation, vulnerability and mitigation, organizing national level meeting and seminar, regular meetings, seminars (centrally & regionally), enabling support for workshop & seminar participation, etc.

Capacity building for knowledge management and sharing

Capacity building and training support was also of particular interest among respondents. They shared their need for support from government and development agencies to develop training modules and printed materials. Training on library and data management, and how to write proposals for funding were among the expectations specified.

Technical Services

There were numerous technical services or support expected from KNoCC. These include support for project development and implementation by NGOs, more coordination among the climate change related professionals, increased coordination among the development or government line agencies and research organizations, working more closely with CDMP core team, especially with the Advocacy & Disaster Management Information Center components to ensure the complementarity, information dissemination and efficiency increment, networking, access to all the resources of climate change in Bangladesh & globally.



Expressing concern on climate impacts and vulnerability



What is our expectation from this Network?



How can the Network enhance cooperation among actors and institutions?

CLIMATE RISK MANAGEMENT AND ADAPTATION



Mohammad Reazuddin explain the relationship between climate change impact and adaptation



Focal points on climate change take note during a session



A participant shares his perception on hazards, risks and vulnerability

A Training Workshop for designated focal points from Government agencies and departments was organized during 11 – 13 July 2006 in Dhaka. The three day workshop offered basic knowledge on the changing climate, what impacts are likely to happen in Bangladesh, and how to respond to the changes so that development is not compromised.

Mohammad Reazuddin, Director (Technical), DoE and Component Manager of the Climate Change Cell welcomed participants and summarized the objectives, roles and expectations. An overview of the sessions were described with a view to demonstrate the linkages between the sessions, participation needs, and interactive nature of the process.

The training workshop served to

- sensitize Focal Points on climate change, climate risks, risk management and adaptation to climate,
- share concern with regard to role and expectation from Focal Points,
- identify processes and areas to support mainstreaming in government departments, sector planning and programmes

The Focal Points from different government departments are major actors with defined roles to pursue mainstreaming climate risk management and adaptation (CRM&A) in the overall national development process and help prepare their respective agency/department toward this end. As a forum, the Focal Points will also be able to promote and influence policy and actions with regard to CRM&A within any single agency/department as well as collectively, at National and Sector levels.

There were twenty five participants from 17 government department, agency, training and research institutes. Session facilitators included eminent scientists, researchers, academicians, and practitioners.

Khandaker Rashedul Haque, PhD, Director General, DoE made closing remarks and awarded Certificates to participants.

Government offices, training and academic institutes are encouraged to contact us to how similar learning activities can be integrated in existing learning processes - editors

Capacity and Relationship Building Workshop with Government Focal Points

CLIMATE RISK MANAGEMENT AND ADAPTATION

TRAINING WORKSHOP STRUCTURE

The Workshop was divided into twelve sessions under three modules. The sessions and interactive exercises were designed to provide knowledge contextualized to match the participant's concerns, and guide them in shaping and managing their role as Focal Points, and foster integration and mainstreaming.

MODULE 1 Climate Change: An Introduction

Session 1 Climate Change: Basic Concepts (science, causes and consequences)

Session 2 Responses to Climate Change: International Processes

Session 3 Responses to Climate Change: Bangladesh

MODULE 2 Climate Change: Understanding Development Risks

Session 4 Understanding Hazard, Vulnerability and Risks: Bangladesh Context

Session 5 What if climate changes? Implications for Bangladesh

Session 6 Implications of climate change within a dynamic context

Session 7 Adaptation to Climate Change: Needs, Priorities and Opportunities

Session 8 Adaptation to Climate: Priority and opportunity for agriculture sector

MODULE 3 Managing Climate Risks

Session 9 From Risk Awareness to Management of Climate Risks

Session 10 A Framework to mainstream climate risk management and adaptation

Session 11 Participatory Climate Risk Reduction Action Plan Development Process – Bottom Up approach

Session 12 Preparing for Climate Change: Way Forward



Dr Ahsan Uddin Ahmed explain Bangladesh's vulnerability



A.K.M. Mamunur Rashid links the dynamic context of climate change impacts



A participant receives certificate from Khandaker Rashedul Haque, PhD, Director General, Department of Environment

Livelihood Adaptation to Climate Change in Drought Prone Areas



Mohammad Reazuddin highlights drought risks in the Seminar



Mr Abdur Rashid Sikder presents adaptation options for demonstration

To celebrate the World Environment Day 2006, a Seminar on *Livelihood Adaptation to Climate Change in Drought Prone Areas* was organized on 7 June, 2006 as a part of the events organized by the Department of Environment at the *Poribesh Mela* which took place in the Bangladesh China Friendship Center in Agargaon, Dhaka. The Climate Change Cell organized the Seminar to enable the sharing of experience of an initiative implemented by the Food and Agriculture Organization (FAO) with the Department of Agricultural Extension (DAE), Government of Bangladesh.

The initiative Livelihood Adaptation to Climate Change (LACC) implemented by UN Food and Agriculture Organization (FAO) and the Department of Agriculture Extension (DAE) was presented.

The project "Livelihood Adaptation to Climate Change (LACC)" is jointly implemented by the Food and Agriculture Organization (FAO) and the Department of Agricultural Extension (DAE), Government of Bangladesh, and is funded by the CDMP to address the needs of farmers and agricultural crops in drought prone and drought affected areas of Bangladesh with regard to risk management and adaptation in related livelihoods.

The seminar was attended by over 420 participants. *Mr. Mohammad Reazuddin*, Director, Department of Environment and Component Manager for the Climate Change Cell presented his opening remarks. He emphasized on the need to recognize the increase in drought conditions in Bangladesh due to climate change impacts and take necessary measures to respond to the challenges. In this respect, he shared his expectations from different actors and institutions to assess drought risks for Bangladesh and work toward helping different stakeholder groups, particularly vulnerable communities.

Dr. Selvaraju presented the LACC project objectives, implementation process, and outcomes. He summarized Future likely Climate Change impacts for the North Eastern districts of Bangladesh that are drought prone as well as drought affected as follows

- Increase in summer temperature will increase evapotranspiration, resulting in more water demand, overexploitation of groundwater;
- Scarcity of surface and groundwater resources;
- Increase in winter temperature could reduce cool winter, affecting areas now suitable for wheat and pulse production;
- Risk of spikelet sterility and reduced crop yield;
- Animal comfort may decline and milk yield reduced;
- Pest and disease in crops and animals;

| Adaptation options for demonstration under LACC project | |
|---|--|
| KHARIF – 2 DEMONSTRATION | Rain-fed villages |
| <i>Categories</i> | <i>Practices</i> |
| Agronomic Management | Dry T.Aman Seedbeds |
| Water Harvesting | Mini ponds at T.Aman |
| Crop Intensification | Block Demonstration on Drought tolerant T. Aman – Mustard/Chickpea |
| Alternative Enterprises | Zuzubi (ber) demonstration Homestead vegetable gardening |

Seminar Commemorating the World Environment Day 2006

Mr. Abdur Rashid Sikder from the Department of Agriculture Extension (DAE) stressed on community involvement to make the demonstrations successful. This includes the Union Parishad, Farmers, Associations under BRDB and NGOs, Disaster Management Committees, well-to-do rural population, etc. Extension activities for the results from demonstration would include farmers' rally, field day, and field visits. The following table provides information on the adaptation options selected for field demonstration. Mr. Sikder drew attention to the field crop conditions to identify drought impacts on crop vulnerability. The periods March-April and September-October are considered the "difficult months". He described the locations for demonstration of the adaptation practices identified by LACC.

Two districts, Chapai Nababganj and Naogaon had been selected for piloting. In each district, two upazilas were selected, namely Nachole and Gomostapur in Chapai Nababganj and Sapahar and Porsha in Naogaon. Demonstration will take place in three villages in each of the four Upazilas.

The Chief Guest *Mr. Jafar Ahmed Chowdhury*, Secretary, Ministry of Environment and Forests reflected that the five Sessions in the three day open discussion could be useful to everyone who participated in the sessions. He welcomed all to contribute toward shared learning on climate risks for agriculture livelihood in drought prone areas and called on taking our commitment to practice.

Moderators shared their thoughts and reflections on the initiative.

Ralf Ernst, Technical Adviser, Climate Change Cell summarized the need from the LACC project as

- identification of current and traditional drought management practices,
- testing the viability of these practices under climate change conditions, and
- clear recommendations for drought management under climate change conditions.

In the end, the results of the LACC project need to be turned into recommendations for farmers, agricultural extension officers and decision-makers at all levels.

Commenting on the presentations, *Dr. Zahurul Karim* of Arannayak Foundation informed that many people were not aware that in Bangladesh, drought losses in terms of crop are much larger than what is suffered in a major flood. About 3.4 million hectare of one third of total arable land is affected by severe to very severe drought conditions in Bangladesh. He emphasized on the use of the available national agro-ecological database to assess and estimate crop losses.

He also warned that severe drought conditions in the February to March period could actually result in huge losses in wheat and potato. He shared that for wheat, deep tillage is twice more useful than irrigation. He called on scientists to customize models to fit local contexts and concerns. Dr. Karim also emphasized on building partnerships with farmers to validate results. He encouraged scientists and extension workers to focus on farming practices instead of targeting rice crops for piloting and demonstration.

The Chair, *Mr. Khandaker Rashedul Haque*, Ph.D, Director General of the Department of Environment gave the concluding remarks and thanked the Chief Guest, participants and presenters for their contribution and uptake.



Ralf Ernst summarizing needs from the LACC project



Dr Zahurul Karim stressed the need to focus on farming practices



A participant draw attention on health stress due to drought

Resources

Bangladesh Climate Change Impacts and Vulnerability A Synthesis

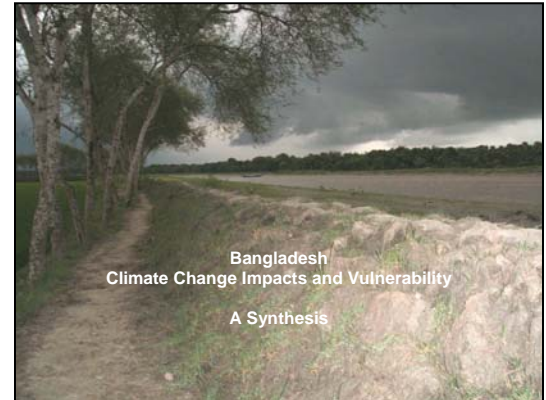
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Bangladesh
Climate Change Impacts and Vulnerability
A Synthesis



Climate Change Cell
Department Of Environment

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Government of the People's Republic of Bangladesh

According to the Third Assessment Report of IPCC, South Asia is the most vulnerable region of the world to climate change impacts (McCarthy *et al.*, 2001). The international community also recognizes that Bangladesh ranks high in the list of most vulnerable countries on earth. Bangladesh's high vulnerability to climate change is due to a number of hydro-geological and socio-economic factors that include: (a) its geographical location in South Asia; (b) its flat deltaic topography with very low elevation; (c) its extreme climate variability that is governed by monsoon and which results in acute water distribution over space and time; (d) its high population density and poverty incidence; and (e) its majority of population being dependent on crop agriculture which is highly influenced by climate variability and change. Despite the recent strides towards achieving sustainable development, Bangladesh's potential to sustain its development is faced with significant challenges posed by climate change (Ahmed and Haque, 2002). It is therefore of utmost importance to understand its vulnerability in terms of population and sectors at risk and its potential for adaptation to climate change.

With this document, the Climate Change Cell makes an effort to pull together the available knowledge on climate change impacts and vulnerability in Bangladesh, which is expected to help readers to understand the dynamics of the important concern. The task in hand was to review and synthesize the current knowledge base. An assignment was commissioned based on which the author designed a study to synthesize all the relevant findings available in the currently available literature so it helps in understanding the dynamics of climate change and define courses of action by various actors involved in the national development processes.

The synthesis targets general readership on climate change issues for Bangladesh. The modality of achieving this objective is to take note of all the important findings in published literature and put it in a form so that the product helps the readership to clearly understand the dynamics of climate change and relate it within the contexts of various relevant sectoral development. It is expected that the publication will help create awareness among the stakeholders and in near future, lead to an 'informed decision making' while considering development decisions in vulnerable areas and/or sectors. The synthesis is, therefore, envisaged as a tool to mainstream adaptation to climate change in Bangladesh, in order to achieve the goals and targets of Bangladesh's Initial National Communication (MOEF, 2002) and the National Adaptation Programme of Action (NAPA) process.

Resources

Climate Change and Bangladesh Annotated Bibliography

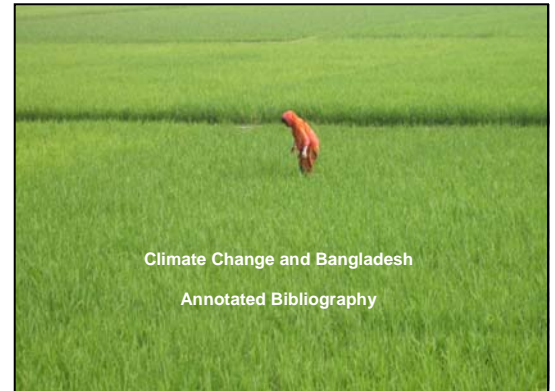
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Climate Change and Bangladesh
Annotated Bibliography



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Global climate is changing, impacting all spheres of the earth including physical, natural, social and economical domains, lives and livelihoods of people. Around the world countries are vulnerable to the impacts of climate change. However, the extent, intensities and magnitudes of impacts are not known exactly. To mitigate, cope and adapt with climate change, it is necessary to gather knowledge on the greenhouse gas (GHG) emissions, state of the climate system and trends, steps taken to reduce emissions on one hand and identify and locate, type, intensity and magnitudes of impacts on the other. It is vital we understand the Country setting (natural condition, human condition, social, financial and institutional setting, development process, etc.) together with the exposure (hazards, vulnerabilities, risks).

To enable preparing for climate risk management, knowledge based (community knowledge and scientific knowledge) decision making system has to be in place. Knowledge management should address existing knowledge, local knowledge and leverage, knowledge needs and gaps, gap analysis, gap filling through research and models of good practice in adaptation should be identified and promoted.

An annotated bibliography of existing knowledge with regard to climate change for Bangladesh could serve as a starting point, enabling researchers and professionals to draw from existing knowledge as well as identify knowledge gaps to pursue research.

The annotated bibliography accommodates climate related scientific papers and publications, research results, working papers, books and others. However, it is not exhaustive and is intended to be a live document and appended over time.

About the Climate Change Cell

The Climate Change Cell has been established in the Department of Environment in 2004 under the Comprehensive Disaster Management Program (CDMP) of the Government. It responds to the recognition that Bangladesh is particularly vulnerable to the effects of climate change, and that the number and scale of climate-related disasters is likely to increase. . The Cell provides the central focus for the Government's climate change related work, operating as a unit of the Department of Environment (DoE) under the Ministry of Environment and Forests (MoEF). Its objective is to enable the management of long term climate risks and uncertainties as an integral part of national development planning. This will contribute to the primary objective of the wider Comprehensive Disaster Management Programme, which aims to strengthen the capacity of the Bangladesh disaster management system to reduce unacceptable risks and improve response and recovery activities.

Meeting these objectives will enable more effective and sustained poverty reduction through the reduction of disaster and climate risks within the overall development process.

The Climate Change Cell's work program focuses on four main areas:

Building the capacity of Government to coordinate and integrate climate change issues in mainstream development activities across government. It also acts as a secretariat to coordinate other national climate change activities such as National Communication preparation, the NAPA process, and the Clean Development Mechanism.

Strengthening existing knowledge and availability of information on impact prediction and adaptation to climate change. This includes compiling and synthesizing existing studies, and filling some of the gaps, as well as improving information exchange between science and policy-makers.

Awareness raising, advocacy and coordination with partners across government, NGOs, civil society, private sector and donor organizations. Using a variety of mechanisms and information products, the Cell is working to promote the integration of climate change adaptation and risk reduction in development activities, especially within climate sensitive sectors and the disaster risk reduction process.

Improving capacity to adapt livelihoods to climate change in the agriculture sector. Working with FAO, we are field-testing livelihood adaptation strategies with farmers to better respond to disasters and climate change risks. This includes translation of climate change modeling into agricultural response options and livelihood adaptation practices. The initial focus is on drought conditions, with a view to facilitating replication elsewhere.

The Knowledge Network on Climate Change

The Climate Change Cell is supporting the development of a climate change knowledge network aiming to collect, analyze and disseminate climate change related information. Through this network the Climate Change Cell hopes to build information on climate risks and adaptation options, disseminate the results and support the translation and communication of information into a format useful to government line departments, local government and NGOs working with vulnerable communities.

We invite you to participate in the Network to help service climate change related knowledge needs and services. Please share with us your interests, concerns, viewpoints, knowledge and resources that can enable others engage effectively in meeting the climate change related challenges.

The Network is organizing its meeting (see upcoming events) to engage with relevant actors, institutions and stakeholders with an effort to deliver its mandate. To participate, please write us expressing your interest.

Upcoming Events

| | |
|-----------|---|
| 31 July | <i>Discussion Meeting: Development and Transfer of Technologies</i> |
| 1 August | <i>Discussion Meeting: Article 6 of the Climate Convention</i> |
| 13 August | <i>Workshop: Adaptation Research Launch</i> |
| September | <i>Workshop on Preparation for COP12</i> |
| September | <i>2nd Meeting: Knowledge Network on Climate Change</i> |
| October | <i>Climate Change Cell Website Launch</i> |
| October | <i>Training Workshop for Focal Points (2nd Batch)</i> |
| November | <i>The twelfth Conference of the Parties (CoP 12) to the UN Framework Convention on Climate Change, and second Meeting of the Parties (COP MOP 2) of the Kyoto Protocol, Nairobi, Kenya</i> |

Contact us

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